Welcome to the Med eSupport Project

Your project package includes:

- **Further information** about this project.
- Your own personal access to Med eSupport Online, the trial website that provides you with your discharge and post discharge medication information plus further medication and general health information.
- A brochure containing information on *Where to find a computer*.
- Contact details of the **Project Team**
- A brochure containing information about how to manage your medicines safely called *10 tips for safer health care*.
- A brochure containing information about Home Medicines Reviews (HMR) called *Mixing up your medications can be a recipe for trouble*.
- A Med eSupport fridge magnet

Your Project Pharmacist will have arranged a time to call you approximately 30 days after you leave hospital to discuss any questions or concerns you may be having with either your medication or the above new services.

In the meantime, please do not hesitate to contact the **Project Team** if you have any queries or concerns regarding the project.

**Thank you**

for enrolling in the Med eSupport project.

Aiming to improve your health outcomes through better medication management.
Appendix II Where to find a computer (Tasmanian patients)

Where to find a computer

If you do not have access to a computer privately you can visit a Tasmanian Online Access Centre, or a Tasmanian State Library who provide public access to the Internet.

Check the listings below to find access to

Med eSupport Online, your medication information website.

Address: www.medesupport.com.au

*Don’t forget to take your Username and Password with you to login.

Tasmanian Online Access Centres:

<table>
<thead>
<tr>
<th>South</th>
<th>North</th>
<th>North-West</th>
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</thead>
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<td></td>
<td>Winnaleah</td>
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</table>
## Appendix II Where to find a computer (Tasmanian patients)

<table>
<thead>
<tr>
<th>Library</th>
<th>Address</th>
<th>Phone</th>
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</thead>
<tbody>
<tr>
<td>Beaconsfield Community</td>
<td>Grubb Street, Beaconsfield 7270</td>
<td>Ph: 03 6383 1333</td>
</tr>
<tr>
<td>Bicheno</td>
<td>Burgess Street, Bicheno 7215</td>
<td>Ph: 03 6375 1584</td>
</tr>
<tr>
<td>Bothwell</td>
<td>Alexander Street, Bothwell 7033</td>
<td>Ph: 03 6259 5642</td>
</tr>
<tr>
<td>Bridgewater</td>
<td>Green Point Road, Bridgewater 7030</td>
<td>Ph: 03 6263 6222</td>
</tr>
<tr>
<td>Bridport</td>
<td>Main Street, Bridport 7262</td>
<td>Ph: 03 6356 1406</td>
</tr>
<tr>
<td>Burnie</td>
<td>30 Alexander Street, Burnie 7320</td>
<td>Ph: 03 6434 6412</td>
</tr>
<tr>
<td>Campbell Town</td>
<td>High Street, Campbell Town 7210</td>
<td>Ph: 03 6381 1210</td>
</tr>
<tr>
<td>Cape Barren Island</td>
<td>c/- Cape Barren Island School, Cape Barren Island 7257</td>
<td>Ph: 03 6359 3564</td>
</tr>
<tr>
<td>Currie</td>
<td>Meech Street, PO Box 104, 7256</td>
<td>Ph: 03 6462 1202</td>
</tr>
<tr>
<td>Cygnet</td>
<td>Mary Street, Cygnet 7112</td>
<td>Ph: 03 6295 1800</td>
</tr>
<tr>
<td>Deloraine</td>
<td>Emu Bay Road, Deloraine 7304</td>
<td>Ph: 03 6362 2770</td>
</tr>
<tr>
<td>Devonport</td>
<td>21 Oldaker Street, Devonport 7310</td>
<td>Ph: 03 6424 4255</td>
</tr>
<tr>
<td>Exeter</td>
<td>Main Road, Exeter 7275</td>
<td>Ph: 03 6394 4116</td>
</tr>
<tr>
<td>Geeveston</td>
<td>Church Street, Geeveston 7116</td>
<td>Ph: 03 6297 1582</td>
</tr>
<tr>
<td>George Town</td>
<td>Regent Square, George Town 7253</td>
<td>Ph: 03 6382 1884</td>
</tr>
<tr>
<td>Glenorchy</td>
<td>Terry Street, Glenorchy, 7010</td>
<td>Ph: 03 6233 8666</td>
</tr>
<tr>
<td>Hobart Lending</td>
<td>1st Floor, 91 Murray Street, Hobart 7000</td>
<td>Ph: 03 6233 7462</td>
</tr>
<tr>
<td>Huonville</td>
<td>15A Main Road, Huonville 7109</td>
<td>Ph: 03 6264 1499</td>
</tr>
<tr>
<td>Kingston</td>
<td>11 Hutchins Street, Kingston 7050</td>
<td>Ph: 03 6211 8500</td>
</tr>
<tr>
<td>Latrobe</td>
<td>Gilbert Street, Latrobe 7307</td>
<td>Ph: 03 6426 1697</td>
</tr>
<tr>
<td>Launceston</td>
<td>Civic Square, Launceston 7250</td>
<td>Ph: 03 6336 2625</td>
</tr>
<tr>
<td>Lilydale</td>
<td>Main Street, Lilydale 7268</td>
<td>Ph: 03 6395 1110</td>
</tr>
<tr>
<td>Longford</td>
<td>Wellington Street, Longford 7301</td>
<td>Ph: 03 6391 1696</td>
</tr>
<tr>
<td>New Norfolk</td>
<td>Charles Street, New Norfolk 7140</td>
<td>Ph: 03 6261 1289</td>
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<tr>
<td>Oatlands</td>
<td>High Street, Oatlands 7120</td>
<td>Ph: 03 6254 1222</td>
</tr>
<tr>
<td>Orford</td>
<td>Charles Street, Orford 7190</td>
<td>Ph: 03 6257 1151</td>
</tr>
<tr>
<td>Penguin</td>
<td>Main Street, Penguin 7316</td>
<td>Ph: 03 6437 1992</td>
</tr>
<tr>
<td>Queenstown</td>
<td>Community College Driffield Street, Queenstown 7467</td>
<td>Ph: 03 6471 1946</td>
</tr>
<tr>
<td>Ravenswood</td>
<td>Eastside Village Shopping Centre, Ravenswood 7250</td>
<td>Ph: 03 6339 2656</td>
</tr>
<tr>
<td>Ringarooma</td>
<td>Main Street, Ringarooma 7263</td>
<td>Ph: 03 6353 2155</td>
</tr>
<tr>
<td>Rosebery Community</td>
<td>Morrisby St., Rosebery 7470</td>
<td>Ph: 03 6473 1426</td>
</tr>
<tr>
<td>Rosny</td>
<td>Bligh Street, Rosny 7018</td>
<td>Ph: 03 6233 8420</td>
</tr>
<tr>
<td>Scottsdale</td>
<td>51 King Street, Scottsdale 7260</td>
<td>Ph: 03 6352 2300</td>
</tr>
<tr>
<td>Sheffield Community</td>
<td>Sheffield District High School, Henry Street, Sheffield 7306</td>
<td>Ph: 03 6491 1533</td>
</tr>
<tr>
<td>Smithton</td>
<td>Nelson Street, Smithton 7330</td>
<td>Ph: 03 6452 1850</td>
</tr>
<tr>
<td>Sorell</td>
<td>Cole Street, Sorell 7172</td>
<td>Ph: 03 6265 1250</td>
</tr>
<tr>
<td>St Helens</td>
<td>Cecilia Street, St Helens 7216</td>
<td>Ph: 03 6376 1389</td>
</tr>
<tr>
<td>St Marys</td>
<td>31 Main Street, St Marys 7215</td>
<td>Ph: 03 6372 2114</td>
</tr>
<tr>
<td>Strahan</td>
<td>Customs House, The Esplanade, Strahan 7468</td>
<td>Ph: 03 6471 7261</td>
</tr>
<tr>
<td>Strathgordon</td>
<td>Recreation Centre, Strathgordon, 7139</td>
<td>Ph: 03 6280 1115</td>
</tr>
<tr>
<td>Swansea Community</td>
<td>Swansea School, Swansea 7190</td>
<td>Ph: 03 6257 8126</td>
</tr>
<tr>
<td>Tasman Community</td>
<td>Tasman District High School, Nubeena 7184</td>
<td>Ph: 03 6250 1017</td>
</tr>
<tr>
<td>Ulverstone</td>
<td>15 King Edward St, Ulverstone 7315</td>
<td>Ph: 03 6429 8701</td>
</tr>
<tr>
<td>Wayatinah</td>
<td>Community Centre, Wayatinah, 7140</td>
<td>Ph: 03 6289 3205</td>
</tr>
<tr>
<td>Westbury</td>
<td>William Street, Westbury 7303</td>
<td>Ph: 03 6393 1439</td>
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<tr>
<td>Whitemark</td>
<td>Davey Street, Whitemark 7255</td>
<td>Ph: 03 6359 2151</td>
</tr>
<tr>
<td>Wynyard</td>
<td>Saunders Street, Wynyard 7325</td>
<td>Ph: 03 6442 2769</td>
</tr>
<tr>
<td>Zeehan</td>
<td>Main Street, Zeehan 7469</td>
<td>Ph: 03 6471 6484</td>
</tr>
</tbody>
</table>
Med eSupport Online

This website will provide you with:

- Your discharge medication information and updates post-discharge.
- Ability to communicate with your healthcare providers online.
- Input from the GP and Pharmacist of your choice.
- Ability to access general medication and health information.

The website is a secure and reliable environment. Sensitive and private information regarding your medical records is accessible on this website. This information is stored on a secure server and cannot be accessed without a valid Username and Password.

Your own unique username and password are:

Username:
Password:

Your GP and community pharmacist (nominated by you throughout your recent hospital stay) will have their own unique username and password.

If you do choose to share your password with another person, you will be responsible for the security and privacy of your information thereafter. If you feel your password has become compromised for any reason, please contact the project team immediately.

Accessing Med eSupport Online

The web address of Med eSupport Online is:

www.medesupport.com.au

When you enter this address it will bring you to the home page. Here you can login, using your username and password to access your medication information.

Once logged in, please read the Privacy information and proceed to the Directory page.

If you require assistance, click on the HELP button provided on the website.

For any further queries or concerns, please do not hesitate to contact the project staff.
Royal Hobart Hospital and University of Tasmania

Program to improve medication management following discharge from hospital

Information sheet

The aim of this study is to assess the value of a program intended to improve information flow about patients’ medications between hospitals and community-based doctors and pharmacists. It is hoped that the program will improve the outcomes of drug therapy and lessen the risk of any adverse effects from drug therapy following discharge from hospital.

Consecutive hospital patients aged over 50 years and with several medical conditions and drug therapies are being randomly allocated to either an ‘intervention’ or ‘control group’. There is a 50:50 chance of being allocated to each group.

Patients in the ‘intervention’ group will receive a comprehensive service designed to improve the flow of communication between patients and health care providers within the hospital and in the community. This will include a pharmacist:

- obtaining an accurate medication history on admission from the patient.
- electronically obtaining the patient’s medication details from their regular community pharmacy history on admission to hospital and, similarly, electronically communicating the patient’s discharge medication details to their regular community pharmacy on discharge from hospital.
- supplying of a comprehensive medication information sheet to the patient/carer prior to discharge.
- faxing and emailing of the medication information sheet to the general practitioner and regular pharmacy (provided there is consent from the patient) at discharge.

There will also be construction and trialling of a medication support website for access by patients subsequent to their discharge from hospital. One aspect will be placement of the medication information sheet on the internet which is password protected. This can be accessed by the patient or the health care professional(s) nominated by the patient (e.g. general practitioner or pharmacist).
Also, we will take information (age, relevant medical and surgical history) from your hospital medical records. This information will be kept strictly confidential, and will be stored in a locked cabinet within the School of Pharmacy for a period of 15 years after which it will be destroyed. Only the researchers will have access to identifying data.

Further information can be obtained from Anna Tompson or Professor Gregory Peterson, from the University’s School of Pharmacy (phone 6226 2190). The project has received ethical approval from the Southern Tasmania Health & Medical Human Research Ethics Committee. If you have any concerns of an ethical nature or complaints about the manner in which the project is conducted you can contact the Chair or Secretary of the Ethics Committee.

Chair: Dr Helen Mc Ardle (6222 8430)
 Secretary: Ms Amanda McAully (6226 2763)
Royal Hobart Hospital and University of Tasmania

Program to improve medication management following discharge from hospital

Consent Form

1. I have read and understood the 'Information Sheet' for this study.
2. The nature and possible outcomes of the study have been explained to me.
3. I understand that the study involves the following procedures:
   Consecutive hospital patients aged over 50 years and with several medical conditions and drug therapies are being randomly allocated to either an ‘intervention’ or ‘control group’. There is a 50:50 chance of being allocated to each group. Patients in the ‘intervention’ group will receive a comprehensive service designed to improve the flow of communication between patients and health care providers within the hospital and in the community. This will include a project pharmacist:
   - obtaining an accurate medication history on admission from the patient.
   - electronically obtaining the patient’s medication details from their regular community pharmacy history on admission to hospital and, similarly, electronically communicating the patient’s discharge medication details to their regular community pharmacy on discharge from hospital.
   - supplying of a comprehensive medication information sheet to the patient/carer prior to discharge.
   - faxing and emailing of the medication information sheet to the general practitioner and regular pharmacy (provided there is consent from the patient) at discharge.

   There will also be construction and trialling of a medication support website for access by patients subsequent to their discharge from hospital. One aspect will be placement of the medication information sheet on the internet which is password protected. This can be accessed by the patient or the health care professional(s) nominated by the patient (e.g. general practitioner or pharmacist).

   Patients in the ‘control group’ will receive the usual hospital care.

4. I have been informed that the results of the study may not be of any direct benefit to my medical management.
5. Any questions that I have asked have been answered to my satisfaction.
6. I agree that research data gathered for the study may be published provided that I cannot be identified as a subject.
7. I agree to participate in this investigation and understand that I may withdraw at any time without affecting my medical care or relationship with the hospital, doctors, nursing staff and research investigators.

Name of Participant .................................................................
Signature ..................................................................................
Date .................................................................

Name of Witness .................................................................
Signature ..................................................................................
Address ..................................................................................
..........................................................................................
Date .................................................................

Statement by the researcher
I have explained this study and the implications of participation in it to this volunteer and I believe that the consent is informed and that he/she understands the implications of participation.

Name of researcher .................................................................
Signature of researcher .................................................................
Date .................................................................
Dear Doctor,

This patient has been enrolled in the Med eSupport Project, a multi-centred, randomised, controlled clinical trial that has been approved by the Royal Hobart Hospital Research Committee and the Human Research Ethics Committee. It aims to improve medication outcomes through improved transfer of information between community and hospital settings.

One of our project Pharmacists has collated their best estimate of the medications this patient was taking at the time of their admission by combining information obtained from their GP, Community Pharmacist and the patient’s own account of what they have been taking.

Below is the collated list plus a list of potential discrepancies that have been identified during this process between the project Pharmacist’s collated list and the patient’s current drug chart. Possible solutions to the potential discrepancies are also included. We hope this information is useful in helping to clarify your patient’s medications. Please do not hesitate to contact the project pharmacist if you have any questions.

Patient Name: ____________________________ URN: ________________________

Medications Prior to Admission:

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<thead>
<tr>
<th>Drug</th>
<th>Dosage</th>
<th>Indication</th>
<th>Comments</th>
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Potential discrepancies and recommendations:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Thank you for your consideration,

Med eSupport Project Team Member
Ph: 6226 7232

Chief Investigator: Professor Greg Peterson
School of Pharmacy
University of Tasmania

Please Note: This information is derived from several sources and is the project Pharmacist’s best estimate of this patient’s medication list prior to admission. Clinical judgement must always be considered when determining a patient’s medication therapy.
Appendices: Trial process documents

Appendix VII Patient data collection sheet

Appendix VII Patient data collection sheet

1. Study Information:

<table>
<thead>
<tr>
<th>Date of Recruitment (and time):</th>
<th>Consent Given</th>
<th>YES / NO</th>
<th>Study No:</th>
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<tr>
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<td>Ward:</td>
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</tr>
<tr>
<td>RMO:</td>
<td>Pager:</td>
<td>Unit:</td>
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</table>

**Study Group:**

- [ ] CONTROL - No HMR recommendation
- [ ] CONTROL - HMR recommendation
- [ ] INTERVENTION - Streamlined HMR Model
- [ ] INTERVENTION - PDMR Model

2. Patient Demographics:

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<thead>
<tr>
<th>Name:</th>
<th>URN:</th>
<th>Gender:</th>
<th>FEMALE / MALE</th>
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<tbody>
<tr>
<td>Address:</td>
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</tr>
<tr>
<td>DOB:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preferred Contact Ph:</td>
<td></td>
<td></td>
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<tr>
<td>Agreed time for call:</td>
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</table>

<table>
<thead>
<tr>
<th>Patient Username:</th>
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<tbody>
<tr>
<td>Nominated GP:</td>
<td>Nominated CP:</td>
</tr>
<tr>
<td>(Up to 3 may be nominated)</td>
<td>(Up to 3 may be nominated)</td>
</tr>
<tr>
<td>Ph:</td>
<td>Ph:</td>
</tr>
<tr>
<td>Fax:</td>
<td>Fax:</td>
</tr>
<tr>
<td>Username:</td>
<td>Username:</td>
</tr>
<tr>
<td>Password:</td>
<td>Password:</td>
</tr>
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</table>

**Specialist:**

(If applicable)

- Living Arrangements: PARTNER / OTHER FAMILY / ALONE / OTHER
- Further Aid Arrangements: NIL / NURSING / FAMILY AID / OTHER
- Help with medicines: YES / NO

Details
## 3. Relevant Medical Information:

| No. Chronic Conditions: □ Including:                                      | Cardiovascular Disease □ COAD □ DM □ |
| No. unplanned hospital admissions last 12 months: □                      |
| Smoking History:                                                         | Alcohol History:                     |
| □ Never Smoked                                                           | □ Nil/occasional (<1)                |
| □ Gave up...................ago - Smoked......./day                         | □ Moderate (1-3)                     |
| □ Current Smoker: Smokes......./day                                      | □ Heavy (>3)                         |

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<tr>
<th>Known Allergies:</th>
<th>Other issues that may hinder medication use:</th>
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**Past Medical History:**

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**Comments/Notes:**

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</tbody>
</table>
4. Admission:
   
a) General Information:
   
   Date of Admission to ward: ___________________________  Time of Admission: ______________
   
   Reason for current admission: ___________________________
   
   Planned?  YES / NO ___________________________
   
   b) Relevant Admission Notes:
   
   For example: History of presenting complaint, social history of interest, initial plan for treatment etc.
   
   __________________________________________________________________________
   
   __________________________________________________________________________
   
   __________________________________________________________________________
   
   __________________________________________________________________________
   
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   __________________________________________________________________________
   
   __________________________________________________________________________
   
   __________________________________________________________________________
   
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   __________________________________________________________________________

   c) Relevant Laboratory Data:
   
   Please record relevant tests taken at time of admission plus all others of interest during the admission.

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal</th>
<th>Date</th>
<th>Date</th>
<th>Date</th>
<th>Date</th>
<th>Date</th>
<th>Date</th>
</tr>
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<tbody>
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Other Comments/Notes


d) Patient Admission Interview Checklist:

<table>
<thead>
<tr>
<th>Item to be addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determine ability to give informed consent</td>
</tr>
<tr>
<td>Verbal explanation of trial and provided with trial information leaflet</td>
</tr>
<tr>
<td>Informed consent obtained</td>
</tr>
<tr>
<td>CP and GP nominated</td>
</tr>
<tr>
<td>Collect RMO’s initial drug chart for use as reference during interview</td>
</tr>
<tr>
<td>Full record of patient details finalised</td>
</tr>
<tr>
<td>Determine patient’s account of what they are taking, including:</td>
</tr>
<tr>
<td>Collection of data for Knowledge survey*</td>
</tr>
<tr>
<td>Collection of data for Compliance survey*</td>
</tr>
<tr>
<td>Collection of Self-reported drug-related issues*</td>
</tr>
</tbody>
</table>

* Collection sheets for surveys found in the following sections
### 1) Knowledge Survey of patient’s medications on admission:

<table>
<thead>
<tr>
<th>Medication Name, Dose, Frequency and Use</th>
<th>Dose Correct (Y/N)</th>
<th>Freq. Correct (Y/N)</th>
<th>Use Correct (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
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<tr>
<td>2</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
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<tr>
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<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
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</table>

Total Correct (No.): /4 /4 /4

Percent Correct (%): % % %

Final Score (%): %

### Comments/Notes


### m) Compliance Survey:

<table>
<thead>
<tr>
<th>Question</th>
<th>YES / NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Do you sometimes forget to take your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2 Do you think it’s not important to take your medicine regularly?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3 When you feel better, do you sometimes change the way you’re taking your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4 Sometimes if you feel worse when you take your medicine do you alter the way you take it?</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

Number of 'YES' answers
Appendices: Trial process documents
Appendix VII  Patient data collection sheet

Scoring

<table>
<thead>
<tr>
<th>No. Yes answers</th>
<th>Level of compliance</th>
</tr>
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<tbody>
<tr>
<td>0 items</td>
<td>High</td>
</tr>
<tr>
<td>1 item</td>
<td>Medium</td>
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<td>2 items</td>
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<td>3 items</td>
<td>Low</td>
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<tr>
<td>4 items</td>
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Comments/Notes

n) Self Reported Drug Related Problems at time of admission:

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If applicable, attach a copy of the Community Pharmacy’s 6-month dispensing history for data analysis purposes.
### Appendix VII  Patient data collection sheet

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<th>Date and time recorded list discussed with RMO</th>
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**p) Medications on Admission Discrepancies/DRPs data:**

Number of discrepancies found:

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<th>Discrepancy</th>
<th>Total</th>
<th>Comments</th>
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<tr>
<td>Community Pharmacist dispensing history vs final compiled list</td>
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<tr>
<td>OTC-related CP discrepancies (vs final compiled list)</td>
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<tr>
<td>RMOs initial drug chart vs Final compiled list</td>
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Admission Discrepancies/DRPs data:

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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Total number of discrepancies found</td>
<td></td>
</tr>
<tr>
<td>Total number of discrepancies reported to RMO</td>
<td></td>
</tr>
<tr>
<td>Total number of (reported) discrepancies acted on in first 48 hours of admission</td>
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</tr>
<tr>
<td>Total number of (reported) discrepancies acted on after 48 hours of admission</td>
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<tr>
<td>Number of discrepancies not acted on (excluding those with legitimate reasons for non-action)</td>
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<tr>
<td>Total number of DRPs found</td>
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<tr>
<td>Total number of significant or moderate (per Cognicare) DRPs found</td>
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<tr>
<td>Total number of level 1 or 2 drug interactions (per DIF) found</td>
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For those discrepancies not acted on, please detail where possible:

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<th>Discrepancy</th>
<th>Reason for non-action</th>
<th>Considered legitimate?</th>
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*NB: Please attach a copy of the RMOs form for data analysts purposes*

Comments/Notes

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### Patient data collection sheet

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<th>Description of Problem</th>
<th>Level 1/2</th>
<th>Signs/Symptoms</th>
<th>Treatment/Management</th>
<th>Other Information</th>
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<td>Operation performed</td>
<td>Problem detected</td>
<td>Description of problem</td>
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*Appendix VII: Patient data collection sheet*
Appendices: Trial process documents
Appendix VII Patient data collection sheet

q) Final Admission Process Checklist:

<table>
<thead>
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<th>Task</th>
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<tbody>
<tr>
<td>Interviewed patient (if not performed by HP) to collect medication</td>
</tr>
<tr>
<td>information and survey data</td>
</tr>
<tr>
<td>Collected (if required) GP’s medication list</td>
</tr>
<tr>
<td>Collected CPs dispensing history</td>
</tr>
<tr>
<td>Compared and collated list of discrepancies/issues</td>
</tr>
<tr>
<td>* Provided final list to RM0 (or HP)</td>
</tr>
<tr>
<td>* Uploaded Community Pharmacist dispensing history to website</td>
</tr>
<tr>
<td>Entered patient into Med eSupport Tracker</td>
</tr>
</tbody>
</table>

* = Intervention patients only

Other Admission Comments/Notes

____________________________________________________________________
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5. Inpatient Interview Information  

a) Inpatient Interview Checklist:  

<table>
<thead>
<tr>
<th>Item to be addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reintroduce patient/carer to Project</td>
</tr>
<tr>
<td>Inform them of group allocation</td>
</tr>
<tr>
<td>Perform Quality of Life survey</td>
</tr>
<tr>
<td>Provide Project Package*</td>
</tr>
<tr>
<td>Explain Discharge Counselling⁶</td>
</tr>
<tr>
<td>Explain faxing of discharge information to GP and CP⁹</td>
</tr>
<tr>
<td>Explain Website⁹</td>
</tr>
<tr>
<td>Explain home review process⁹</td>
</tr>
<tr>
<td>Organise next point of contact for home visit⁹</td>
</tr>
<tr>
<td>Confirm preferred phone number and time of call for follow-up post-discharge</td>
</tr>
</tbody>
</table>

* Not discussed with control group.  
⁶ Extent of explanation alters depending on group allocation – consult manual if unsure  
⁹ For example help with activities like washing, dressing, personal grooming or going to the toilet.

b) Quality of Life Survey:  

**Introductory Paragraph**  
This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

**Question 1.**  
In the last week, did you need medical treatment from a doctor or other health professional?  
Would you say:  
A. You did not need regular medical treatment.  
B. You had some regular medical treatment.  
C. You were dependent on having regular medical treatment.  
D. That your life was dependent on regular medical treatment.

**Question 2.**  
Did you need any help with personal care in the last week?  
[For example help with activities like washing, dressing, personal grooming or going to the toilet.]  
Would you say:  
A. You needed no help at all.  
B. Occasionally you needed some help.  
C. You needed help with the more difficult tasks.  
D. You needed daily help with most or all tasks.
Question 3.
When doing household tasks during the last week, did you need any help?
[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4.
Thinking about how easily you got around your home and community in the last week. 
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but got around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5.
Were your personal relationships in the last week affected by your health?
[For example, the relationship with your partner or parents.]
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6.
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7.
Thinking about your health and you relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.
Appendices: Trial process documents

Appendix VIIPatient data collection sheet

Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focussing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in
    conversations because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble
   understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding
   what others were saying.
D. You could not adequately communicate with others

Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep
   without difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without
   difficulty.
D. You slept in short bursts only. You were awake most of the night.
Appendices: Trial process documents

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Question 12.
Thinking about how you generally felt in the last week.
Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week.
Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.

### Scoring

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
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**Final Score:**

*NB: the higher the numerical score, the poorer the respondent’s Health Related Quality of Life.*

Comments/Notes

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6. Discharge Information

a) General Information:

Date of Discharge: ___________________________ Length of Stay: __________/nights
Discharge Diagnosis: ___________________________
Date 30 days post Discharge: _______________ Agreed time for phone call: __________
Received Discharge Counselling? VERBAL / SHEET / BOTH / NONE

b) Discharge Process Checklist:

✓
- Received verbal discharge counselling*
- Received discharge counselling sheet*
- Created discharge history on website*
- Provide patient with HMR referral**
- Telephoned GPa
- Faxed information to GPa
- Telephoned CPa
- Faxed information to CPa

* = Please record if received or not for both Intervention & Control Group patients
** = For Intervention Patients only
*** = For Intervention - Streamlined HMR Model patients only

c) Statistical medication data:

<table>
<thead>
<tr>
<th>Total number of prescribed medications on admission</th>
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<tbody>
<tr>
<td>Number of chronic prescribed medications on admission</td>
</tr>
<tr>
<td>Total number of prescribed medications on discharge</td>
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<tr>
<td>Number of chronic prescribed medications on discharge</td>
</tr>
</tbody>
</table>


d) Therapeutic classes of medications taken at discharge:

<table>
<thead>
<tr>
<th>Alimentary System</th>
<th>Endocrine and Metabolic System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular System</td>
<td>Infections and Infestations</td>
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<tr>
<td>Central Nervous System</td>
<td>Respiratory System</td>
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<tr>
<td>Analgesia</td>
<td>Alternative Therapy</td>
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<tr>
<td>Musculoskeletal System</td>
<td>Other</td>
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</table>

**Prescribed Medication List at Discharge**

- **Drug**
- **Dose**
- **Frequency**
- **PN**
- **Use**
- **Comments**

The table is for recording prescribed medications during the patient's hospital stay. Each row corresponds to a different date, and the columns are for drug information and other relevant details.
### Appendix VII: Patient Data Collection Sheet

<table>
<thead>
<tr>
<th>Problem Description</th>
<th>Type of Problem Identified</th>
<th>Level of Problem</th>
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**If found or reported, significant or moderate drug-related problems on discharge:**

**If found or reported, significant or moderate drug-related problems on discharge:**

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### Appendices: Trial Process Documents

-
-
<table>
<thead>
<tr>
<th>Cycles Complete (Y/N)</th>
<th>Cycles Processed (Y/N)</th>
<th>Problem Prevention</th>
<th>Problem Detection</th>
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<td>Good</td>
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**Patient Data Collection Sheet**

**Appendix VII**

<table>
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<tr>
<th>Patient Name</th>
<th>Age</th>
<th>Gender</th>
<th>Diagnosis</th>
<th>Treatment</th>
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<tbody>
<tr>
<td>John Smith</td>
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<td>Male</td>
<td>Diabetes</td>
<td>Insulin</td>
</tr>
<tr>
<td>Jane Doe</td>
<td>30</td>
<td>Female</td>
<td>Hypertension</td>
<td>Medication</td>
</tr>
</tbody>
</table>
Appendices: Trial process documents
 Appendix VII Patient data collection sheet

**g) Discharge Discrepancies/DRP data:**

<table>
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<tr>
<th>Discrepancy</th>
<th>Reason for non-action</th>
<th>Considered legitimate?</th>
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For those discrepancies not acted on, please detail where possible:

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<th>Discrepancy</th>
<th>Reason for non-action</th>
<th>Considered legitimate?</th>
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Comments/Notes

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### Appendix VII  Patient data collection sheet

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<tr>
<th>Date</th>
<th>Drug</th>
<th>Dose</th>
<th>Frequency</th>
<th>Use</th>
<th>Comments</th>
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7. Community Pharmacist's account of Patient's medications at 3-days post-discharge:
8. 30-days post-discharge follow-up phone call

Date of phone call: ___________________  Number of days post discharge: ____________

a) Readmission:

Have you been back to hospital since your initial admission?  YES / NO

Details:

b) Home Medication Review:

Received a Review?  NO / HMR / PDMR / UNKNOWN

Date of Review: ___________________  No. days Post-Discharge: _______________

GP visit before Review?  YES / NO / UNKNOWN

GP visit after Review to discuss findings?  YES / NO / UNKNOWN / PLANNED

CP visit after Review to discuss findings?  YES / NO / UNKNOWN / PLANNED

c) GP & Specialist visits since discharge:

Visited GP since discharge?  YES / NO / UNCLEAR  If yes, how many times?  __________

Visited Specialist since discharge?  YES / NO / UNCLEAR  If yes, how many times?  __________

Total visits to doctors since discharge  __________

d) Reported changes in medications since discharge:

Changes?  YES / NO

Changes arisen from review?  YES / NO / UNKNOWN / NO REVIEW

Types of changes:

- Number of drugs added  __________
- Number of drugs ceased  __________
- Number of doses changed  __________

Total Number Of Changes made:  __________

Details/Summary of Changes:

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<th></th>
<th>Common</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Patient / Carer / Patient with Help</th>
<th>Patient's account of their medications at 28 days</th>
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### Prescribed medication list at 30 days post discharge

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### e) Website Utilisation:

<table>
<thead>
<tr>
<th>Question</th>
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<tbody>
<tr>
<td>Did you access the Website?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>- Did you need help to access it?</td>
<td>ALONE / FAMILY HELP / OTHER HELP</td>
</tr>
</tbody>
</table>

**Details:**

**If not, why not?**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td>Has your CP or GP used the website to view your medications?</td>
<td>GP / CP / BOTH / UNKNOWN</td>
</tr>
<tr>
<td>- Did they view it with you?</td>
<td>CP / GP / BOTH / NEITHER / UNKNOWN</td>
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</table>

**Comments:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td>Did your CP or GP...</td>
<td>CP / GP / BOTH / NEITHER</td>
</tr>
<tr>
<td>- Add medications for you</td>
<td>CP / GP / BOTH / NEITHER</td>
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<tr>
<td>- Make notes for you to view</td>
<td>CP / GP / BOTH / NEITHER</td>
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<tr>
<td>- Produce an updated counselling sheet for you</td>
<td>CP / GP / BOTH / NEITHER</td>
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<tr>
<td>- Produce an updated weekly checklist for you</td>
<td>CP / GP / BOTH / NEITHER</td>
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**Comments:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td>Did you and/or your carer...</td>
<td>DISCHARGE / POST-DISCHARGE / BOTH / NEITHER</td>
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<tr>
<td>- View your medication information</td>
<td>COUNSELLING SHEET / WEEKLY CHECKLIST / OTHER</td>
</tr>
<tr>
<td>- Print information</td>
<td>YES / NO</td>
</tr>
<tr>
<td>- Add notes</td>
<td>YES / NO</td>
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<tr>
<td>- Search for further information</td>
<td>YES / NO</td>
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**Comments:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tr>
<td>Did you find it Useful?</td>
<td>YES / NO</td>
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_Please provide detail on why or why not useful._
### f) Knowledge and Comprehension Survey of medications at 30 days post discharge:

<table>
<thead>
<tr>
<th>Medication Name, Dose, Frequency and Use</th>
<th>Dose Correct (Y/N)</th>
<th>Dose Correct (Y/N)</th>
<th>Dose Correct (Y/N)</th>
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<tbody>
<tr>
<td>1</td>
<td>YES / NO</td>
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<td>YES / NO</td>
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Total Correct (No.): /4 /4 /4

Percent Correct (%): % % %

Final Score (%): %

Comments/Notes

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### g) Compliance Survey:

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<tr>
<th>Question</th>
<th>YES / NO</th>
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<tr>
<td>1  Do you sometimes forget to take your medicine?</td>
<td>YES / NO</td>
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<tr>
<td>2  Do you think it’s not important to take your medicine regularly?</td>
<td>YES / NO</td>
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<tr>
<td>3  When you feel better, do you sometimes change the way you’re taking your medicine?</td>
<td>YES / NO</td>
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<tr>
<td>4  Sometimes if you feel worse when you take your medicine do you alter the way you take it?</td>
<td>YES / NO</td>
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Number of 'YES' answers
Scoring

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<th>No. Yes answers</th>
<th>Level of compliance</th>
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<td>3 items</td>
<td>Low</td>
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<td>4 items</td>
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Comments/Notes


h) Self Reported Drug Related Problems at time of admission:


32
Appendices: Trial process documents
Appendix VII Patient data collection sheet

1) Quality of Life Survey:

Introductory Paragraph
This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Question 1.
In the last week, did you need medical treatment from a doctor or other health professional?
Would you say:

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.

Question 2.
Did you need any help with personal care in the last week?
[For example help with activities like washing, dressing, personal grooming or going to the toilet.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

Question 3.
When doing household tasks during the last week, did you need any help?
[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4.
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but got around your home with some difficulty.
D. You could not get around either the community or your home by yourself.
Appendices: Trial process documents

Appendix VII  Patient data collection sheet

Question 5.
Were your personal relationships in the last week affected by your health?
[For example, the relationship with your partner or parents.]
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6.
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7.
Thinking about your health and you relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.

Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
[For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
[For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
[For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
[For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
[For example: often you did not understand what was said. You did not take part in conversations because you could not hear what was said.]
D. You heard very little indeed.
[For example: you could not fully understand loud voices speaking directly to you.]
Appendices: Trial process documents

Appendix VII Patient data collection sheet

Question 10.
When you communicated with others in the last week. 
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what others were saying.
D. You could not adequately communicate with others

Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without difficulty.
D. You slept in short bursts only. You were awake most of the night.

Question 12.
Thinking about how you generally felt in the last week.
Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week.
Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.

<table>
<thead>
<tr>
<th>Scoring</th>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Final Score:

*Note: the higher the numerical score, the poorer the respondent’s Health Related Quality of Life.*
### Appendix VII: Patient data collection sheet

<table>
<thead>
<tr>
<th>Date of Patient</th>
<th>Registration No.</th>
<th>Diagnosis</th>
<th>Nature of Disease</th>
<th>Specific Treatment</th>
<th>Frequency</th>
<th>Dosage</th>
<th>Duration of Treatment</th>
<th>Side Effects</th>
<th>Complications</th>
<th>Any Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/12/2023</td>
<td>P12345</td>
<td>Hypertension</td>
<td>Essential Hypertension</td>
<td>Diuretic</td>
<td>Daily</td>
<td>10 mg</td>
<td>1 month</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>06/12/2023</td>
<td>P12345</td>
<td>Diabetes</td>
<td>Type 2 Diabetes</td>
<td>Insulin</td>
<td>Twice a Day</td>
<td>10 units</td>
<td>3 months</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>07/12/2023</td>
<td>P12345</td>
<td>Asthma</td>
<td>Asthma</td>
<td>Bronchodilator</td>
<td>Every 8 hours</td>
<td>400 mcg</td>
<td>6 weeks</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Footnotes:**
- Level 1: Initial level of care.
- Level 2: Advanced level of care.
- Level 3: Expert level of care.
## Appendix VII: Patient Data Collection Sheet

<table>
<thead>
<tr>
<th>Date</th>
<th>Patient ID</th>
<th>Gender</th>
<th>Age</th>
<th>Diagnosis</th>
<th>Treatment</th>
<th>Laboratory Results</th>
<th>Imaging Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/01/2023</td>
<td>P001</td>
<td>M</td>
<td>50</td>
<td>Chronic Kidney Disease</td>
<td>Dialysis</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>02/02/2023</td>
<td>P002</td>
<td>F</td>
<td>60</td>
<td>Diabetes Type 2</td>
<td>Insulin Therapy</td>
<td>Borderline</td>
<td>Normal</td>
</tr>
</tbody>
</table>

### Description of Patient Data

- **Date**: Date of the patient's visit.
- **Patient ID**: Unique identifier for each patient.
- **Gender**: Male (M) or Female (F).
- **Age**: Age of the patient at the time of visit.
- **Diagnosis**: Current medical diagnosis.
- **Treatment**: Current treatment regimen.
- **Laboratory Results**: Normal or Borderline.
- **Imaging Results**: Normal.
Appendices: Trial process documents  
Appendix VII  
Patient data collection sheet

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>h) 30 day DRP data:</strong></td>
<td></td>
</tr>
<tr>
<td>Total number of DRPs found at 30 days</td>
<td></td>
</tr>
<tr>
<td>Total number of significant or moderate (per Cognicare) DRPs found at 30 days</td>
<td></td>
</tr>
<tr>
<td>Total number of level 1 or 2 drug interactions (per DIF) found at 30 days</td>
<td></td>
</tr>
</tbody>
</table>

Comments/Notes

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

**l) Follow-up Process Checklist:**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
</tr>
<tr>
<td>Checked on readmissions</td>
</tr>
<tr>
<td>Checked on HMR/PDMR status</td>
</tr>
<tr>
<td>Discussed Website usage⁹</td>
</tr>
<tr>
<td>Performed Knowledge Survey</td>
</tr>
<tr>
<td>Performed Compliance Survey</td>
</tr>
<tr>
<td>Performed Quality of Life Survey</td>
</tr>
<tr>
<td>Obtained self-reported DRPs</td>
</tr>
<tr>
<td>Discussed completion of Satisfaction Survey</td>
</tr>
<tr>
<td>Posted Satisfaction Survey</td>
</tr>
</tbody>
</table>

⁹ Intervention Group patients only
Dear Pharmacist,

On behalf of the project team at Med eSupport I would like to thank you for providing us with 6 months dispensing history for <Patient Name>.

The aim of the project, which is funded through the 3rd Community Pharmacy Guild-Government agreement, is to better inform patients about their medication and improve the communication of current medication-related information between patients/carers, community pharmacies, general practitioners and hospitals. The project focuses on when patients are admitted and discharged from hospital, as miscommunication often occurs under the current system.

A key objective of this project is to demonstrate the important role that community Pharmacists can play in improving medication management during these transition periods. We hope that problems and confusion about medication will be reduced and patient health will be improved as a result.

We have recorded all medication information relevant to <Patient Name>’s stay in hospital on our website, www.medesupport.com.au including this discharge medication summary. Using your previously allocated username and password you will also be able to make changes to this patient’s medication profile. This function will only be available to you and the patient’s nominated G.P. This patient can view their medication profile, but is unable to make medication changes.

Our trial has 4 arms. After spending time in hospital <Patient name> has now been discharged and was randomly allocated to the 3rd arm. In this instance, we will be writing to their GP to encourage them to refer this patient to you for a Home Medicines Review (HMR or DMMR).

We would like this review to be performed as soon as possible after <Patient Name> is discharged from hospital. This is because it has been shown that the first 14 days post discharge is a time when the patient is at great risk of unplanned re-admission.

If the GP does send you a referral and you do not have ready access to an accredited Pharmacist at short notice, please contact us. We will be able to arrange one for you.

Thankyou for you assistance with the trial,

Anna Tompson
Clinical Research Project Manager
Med eSupport Project
www.medesupport.com.au
Tasmanian School of Pharmacy
University of Tasmania
Appendices: Trial process documents

Appendix IX Cover letter faxed to the nominated GP at discharge for patients in the Intervention – Streamlined HMR Recommendation Group

Dear Dr. <General Practitioner Name>,

By now you should have been contacted by one of the pharmacists from the Med eSupport project team. The aim of the study, which is funded through the Commonwealth Department of Health and Ageing, is to better inform patients about their medication and improve the flow of information between hospital and the community setting. Your patient, <Patients Name>, has given informed consent to be part of the study. The study has been approved by the local Research and Ethics Committee and has the support of your local Division of General Practice.

<Patient Name> has consented to be part of this project because they have recently been discharged from hospital and fulfil all of the following criteria:

- Take more than 3 regular medications
- Have two or more chronic conditions (including at least one of Cardiovascular Disease, COAD or Diabetes)
- Are over the age of 50

We have recorded medication information relevant to <Patient Name>’s stay in hospital on our secure website, www.medesupport.com.au including this discharge medication summary. Using the username and password allocated to you earlier, you will also be able to make changes to active documents (including the current medication chart), a function available only to the patient’s nominated G.P and community Pharmacist, 24 hours a day. This patient has also been provided with a username and password however, they will not have the ability to alter their medication profile.

To improve <Patient name>’s understanding of their medication, including any changes made during their recent stay in hospital, we ask you to consider referring them for a Home Medicines Review (HMR or DMMR).

Under Item 900 of the MBS, General Practitioners are entitled to an HMR payment of $109.45 for referring a patient for a review, making themselves available to liaise with the accredited pharmacist to discuss their findings, and then developing a medication management plan following discussions with the patient. A recent hospital visit (in the last four weeks) is one of the recognised criteria for performing an HMR. Attached is a referral form which will assist you in completing the paper work required to refer <Patient name> to their nominated Community Pharmacy. All patients enrolled in the study have given their consent to an HMR upon discharge. You will need to complete Section B of the attached form.

We believe that it is important that the Review is completed within 10 days post discharge, because previous research has shown that patients are at greater risk of medication misadventure during this time. If the nominated Community Pharmacy cannot access an accredited Pharmacist in a timely manner, we will be happy to arrange one on their behalf.

We hope this project will help you in the management of your patients.

Thankyou for your assistance with the study,

Anna Tompson
Clinical Research Project Manager
Med eSupport Project
Tasmanian School of Pharmacy
University of Tasmania
Private Bag 26
HOBART TASMANIA 7001
Appendices: Trial process documents

Appendix X Discharge Summary to be sent to nominated GP and Community Pharmacist for patients in the Intervention - Streamlined HMR Recommendation Group

DISCHARGE SUMMARY
(HMR referral form)

Patient Details:
Name: ____________________________  GP: ____________________________
DOB: ____________________________  Community Pharmacist: ____________________________
Contact details: ____________________________  Hospital Medical Team Consultant: ____________________________
Allergies: ____________________________  Hospital Pharmacist: ____________________________
Medicare Number: ____________________________  Pension/Concession number: ____________________________
DVA Number: ____________________________

Information relating to Hospital stay:
Date of Admission: ____________________________  Date of Discharge: ____________________________
Reason for admission: ____________________________  Discharge Diagnosis: ____________________________

Relevant Medical History:
- Hypertension
- Diabetes Mellitus
- GORD
- Chronic Pain

Medications on Discharge:

<table>
<thead>
<tr>
<th>Medication</th>
<th>Directions</th>
<th>Indication</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perindopril 2mg tablets</td>
<td>Take ONE tablet daily – regular dose essential</td>
<td>High Blood Pressure</td>
<td>Continued</td>
</tr>
<tr>
<td>Aspirin 100mg tablets</td>
<td>Take ONE tablet in the morning with food</td>
<td>Antiplatelet</td>
<td>Commenced in hospital</td>
</tr>
<tr>
<td>Metformin 500mg tablets</td>
<td>Take ONE tablet THREE times a day</td>
<td>Diabetes Mellitus</td>
<td>Dose increased</td>
</tr>
<tr>
<td>Paracetamol 500mg tablets</td>
<td>Take ONE to TWO tablets FOUR times a day when required</td>
<td>Mild Pain</td>
<td>Commenced in hospital</td>
</tr>
<tr>
<td>Paracetamol/Codeine 500mg/30mg tablet</td>
<td>Take ONE to TWO tablets FOUR times a day when required</td>
<td>Severe Pain</td>
<td>Commenced in hospital</td>
</tr>
</tbody>
</table>

Medications ceased in Hospital:

<table>
<thead>
<tr>
<th>Medication</th>
<th>Directions</th>
<th>Indication</th>
<th>Reason for Cessation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celecoxib 200mg capsule</td>
<td>Take ONE capsule in the morning with food</td>
<td>Anti-inflammatory</td>
<td>Stomach upset and concern about drug interaction</td>
</tr>
</tbody>
</table>
SECTION B

(Please tick)

ISSUES THAT MAY INFLUENCE MEDICATION USE OR EFFECTIVENESS:
- Vision
- Hearing
- Speech
- Swallowing
- Cognition (eg memory & comprehension)
- Mobility (eg walking stick, wheelchair, amputee)
- Other (eg manual dexterity)

DOSE ADMINISTRATION:
- Self
- Partner/Carer

AIDS OR OTHER EQUIPMENT:
- Multi/unit dose DAA eg dosette
- Peakflow meter
- Spacer
- Nebuliser
- Blood Glucose Monitor
- Other

(Issue tick)

I HAVE EXPLAINED TO THE PATIENT:
- The process in having a HMR; and

THE PATIENT HAS CONSENTED:
- To me releasing to the pharmacist information about their medical history and medications; and

THE PATIENT UNDERSTANDS THAT:
- The location of the HMR is at their choice, but preferably in their own home; and
- The pharmacist who will conduct the HMR will communicate with me information arising from the HMR; and

THE PATIENT HAS CONSENTED:
- To me releasing their Medicare Number or DVA number to the pharmacist for the pharmacist’s payment purposes.

I CONSIDER THIS HMR SHOULD BE PERFORMED: (Please circle)
- Within 2 days
- Within 5 days
- Within 10 days

Yours Faithfully,

<General Practitioner Name>
Appendices: Trial process documents

Appendix XI  Cover letter to faxed to the nominated Community Pharmacist at discharge for patients in the Intervention – PDMR Group

Dear Pharmacist,

On behalf of the project team at Med eSupport I would like to thank you for providing us with 6 months dispensing history for <Patient Name>.

The aim of the project, which is funded through the 3rd Community Pharmacy Guild-Government agreement, is to better inform patients about their medication and improve the communication of current medication-related information between patients/carers, community pharmacies, general practitioners and hospitals. The project focuses on when patients are admitted and discharged from hospital, as miscommunication often occurs under the current system.

A key objective of this project is to demonstrate the important role that community Pharmacists can play in improving medication management during these transition periods. We hope that problems and confusion about medication will be reduced and patient health will be improved as a result.

We have recorded all medication information relevant to <Patient Name>’s stay in hospital on our website, www.medesupport.com.au including this discharge medication summary. Using your previously allocated username and password you will also be able to make changes to this patient’s medication profile. This function will only be available to you and the patient’s nominated G.P. This patient can view their medication profile, but is unable to make medication changes.

Our study has 4 arms. After spending time in hospital <Patient name> has now been discharged and was randomly allocated to the 4th arm. As part of the study a project pharmacist will visit <Patient Name> and conduct a study-funded Post Discharge Medication Review (PDMR) in the home. A copy of this review will be forwarded to you immediately after that visit.

Thank you for your assistance with the study,

Anna Tompson
Clinical Research Project Manager
Med eSupport Project
www.medesupport.com.au
Tasmanian School of Pharmacy
University of Tasmania
Private Bag 26
HOBART TASMANIA 7001
Phone 03) 6226 7232
Appendix XII  
Cover letter to faxed to the nominated GP at discharge for patients in the Intervention – PDMR Group

Dear Dr <General Practitioner Name> ,

By now you should have been contacted by one of the Pharmacists from the Med eSupport project team. The aim of this project, which is funded through the Commonwealth Department of Health and Ageing, is to better inform patients about their medication and improve the flow of information between hospital and the community setting. Your patient, <Patients Name> , has given informed consent to be part of the trial. The project has been approved by the local Research and Ethics Committee and has the support of your local Division of General Practice.

<Patient Name> has consented to be part of this trial because they have recently been discharged from hospital and fulfil all of the following criteria:

- Take more than 3 regular medications.
- Have two or more chronic conditions (including at least one of Cardiovascular disease, COAD or Diabetes)
- Are over the age of 50.

We have recorded medication information relevant to <Patient Name> ‘s stay in hospital on our secure website, www.medesupport.com.au including this discharge medication summary. Using the username and password allocated to you earlier, you will also be able to make changes to active documents (including the current medication chart), a function available only to the patient’s nominated G.P and community Pharmacist, 24 hours a day. This patient has also been provided with a username and password however, they will not have the ability to alter their medication profile.

Our study has 4 arms. Patients randomly allocated to the 4th arm will automatically receive a trial funded medication review within 10 days of hospital discharge. <Patients Name> has been randomly allocated to the 4th arm. Our team has gained the consent of <Patient Name> and we will provide a project Pharmacist to make the home visit. A copy of this review will be forwarded to you immediately after that visit.

For this patient, the project team has acquired separate funding equal to that provided by Item 900 of the MBS which provides payment for Home Medication Reviews (HMR or DMMR) to GPs. As per Item 900, we will pay you $109.45 if you make yourself available to speak to the project Pharmacist about the review findings and consult with <Patient Name> to develop and implement a written medication management plan. The attached hospital discharge form will assist you with this process.

We hope that this project will help you in the management of your patients.

Thankyou for your assistance with the study,

Anna Tompson  
Clinical Research Project Manager  
Med eSupport Project  
www.medesupport.com.au  
Tasmanian School of Pharmacy  
University of Tasmania  
Private Bag 26  
HOBART TASMANIA  7001  
Phone 03) 6226 7232
Appendices: Trial process documents

Appendix XIII Discharge Summary to be faxed to the nominated GP and Community Pharmacist at discharge for patients in the Intervention – PDMR Group

Appendix XIII Discharge Summary to be faxed to the nominated GP and Community Pharmacist at discharge for patients in the Intervention – PDMR Group

DISCHARGE SUMMARY

Patient Details:
Name: 
GP: 
DOB: Community Pharmacist: 
Contact details: Hospital Medical Team Consultant: 
Allergies: Hospital Pharmacist: 
Medicare Number: Pension/Concession number: 
DVA Number: 

Information relating to Hospital stay:
Date of Admission: Date of Discharge: 
Reason for admission: 
Discharge Diagnosis: 

Relevant Medical History:
- Hypertension 
- Diabetes Mellitus 
- GORD 
- Chronic Pain 

Medications on Discharge:

<table>
<thead>
<tr>
<th>Medication</th>
<th>Directions</th>
<th>Indication</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perindopril 2mg tablets</td>
<td>Take ONE tablet daily – regular</td>
<td>High Blood Pressure</td>
<td>Continued</td>
</tr>
<tr>
<td></td>
<td>dose essential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspirin 100mg tablets</td>
<td>Take ONE tablet in the morning with</td>
<td>Antiplatelet</td>
<td>Commenced in hospital</td>
</tr>
<tr>
<td></td>
<td>food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metformin 500mg tablets</td>
<td>Take ONE tablet THREE times a day</td>
<td>Diabetes Mellitus</td>
<td>Dose increased</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paracetamol 500mg tablets</td>
<td>Take ONE to TWO tablets FOUR times a</td>
<td>Mild Pain</td>
<td>Commenced in hospital</td>
</tr>
<tr>
<td></td>
<td>day when required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paracetamol/Codeine 500mg/30</td>
<td>Take ONE to TWO tablets FOUR times</td>
<td>Severe Pain</td>
<td>Commenced in hospital</td>
</tr>
<tr>
<td>mg tablets</td>
<td>a day when required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Medications ceased in Hospital:

<table>
<thead>
<tr>
<th>Medication</th>
<th>Directions</th>
<th>Indication</th>
<th>Reason for Cessation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celecoxib 200mg capsule</td>
<td>Take ONE capsule in the morning with</td>
<td>Anti-inflammatory</td>
<td>Stomach upset and concern about drug interaction</td>
</tr>
<tr>
<td></td>
<td>food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tramadol 100mg SR tablets</td>
<td>Take ONE tablet TWICE a day</td>
<td>Severe Pain</td>
<td>Dizziness</td>
</tr>
</tbody>
</table>
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Appendix XIV  Med eSupport Trial protocol

Appendix XIV  Med eSupport Trial protocol

TRIAL PROTOCOL

Version 3.0
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2.3.1 Baseline Data Collection
Summary Box

Section 4: Follow-up Process

Outline

2.4 Flow Chart: Control Group (No HMR) Follow-up Process
2.4.1 First 5-7 days post discharge
2.4.2 30 days post-discharge follow-up telephone call
2.4.3 Satisfaction Survey
Summary Box

CHAPTER THREE - Control Group (HMR Recommendation)

Section 1: Admission Process

Outline

3.1 Flow Chart: Control Group (HMR Recommendation) Admission Process
3.1.1 Collect CP’s medication list on admission
3.1.2 Collect CP’s medication list on admission
3.1.3 Compilation of Reconciled List
3.1.4 Creation of Report
Summary Box

Section 2: Inpatient Interview

Outline

3.2 Flow Chart: Control Group (HMR Recommendation) Inpatient Interview Process
3.2.1 Reintroduction for the Patient to their Enrolment in the Project
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3.4.2 30 days post-discharge follow-up telephone call
3.4.3 Satisfaction Survey
Summary Box

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Appendix XIV  Med eSupport Trial protocol

Introduction

Welcome to the Med eSupport Project Team. This trial manual is designed to explain the process of the trial in detail to facilitate your workflow. The manual is split into 5 chapters. Chapter 1 describes the identification, enrolment and randomisation of trial patients. Once a patient is randomised, follow the process in the chapter correlating to their group allocation as follows:

- Chapter 2: Control – No HMR recommendation
- Chapter 3: Control – HMR recommendation
- Chapter 4: Intervention – Streamlined HMR model
- Chapter 5: Intervention – PDNR model

If, through the course of enrolling patients, concerns or questions arise please do not hesitate to contact one of the Project Team in Hobart for further clarification.

If any of the processes outlined do not follow the workflow of your site, or you have any other feedback about the manual, again, please contact the Project Team in Hobart.
Abbreviations

- Accredited Pharmacist = AP
- Bendigo Health Care Group Hospital = Bendigo
- Community Pharmacist = CP
- General Practitioner = GP
- Hollywood Private Hospital = Hollywood
- Hospital Pharmacist = HP
- Launceston General Hospital = LGH
- Over the Counter Medication = OTC
- Prescribing Hospital Doctor = RMO
- Research Assistant = RA
- Royal Hobart Hospital = RHH
- Sir Charles Gairdner Hospital = Charles'
Med eSupport Project Overview Flowcharts

Admission Process Flowchart

Patient admitted to hospital

Identified as suitable by HP or RA

Yes

Collect RMO’s initial Drug Chart

Trial explained and informed consent obtained

No

Excluded

Yes

Excluded

Patient interviewed to obtain their account of the medications they were taking at time of admission

Randomised

Control Group

RA calls the patient’s nominated GP(s) within 24 hrs of arrival on the ward & confirms patient is there & they are happy to transfer the dispensing information

RA fixes consent form and a cover sheet requesting 6 months dispensing history and any other relevant information, for example: dose administration aids, known OTCs

RA collects GP’s medication history if no evidence of previous collection (eg Medical Director Printout)

RA generates a standard trial form containing a collated list of medications on admission, an outline of discrepancies found & suggested solutions

RA’s form filed as a reference to passively observe & record progress of discrepancies/issues found during the patient’s hospital stay

Intervention Group

RA calls the patient’s nominated GP(s) within 24 hrs of arrival on the ward & confirms patient is there & they are happy to transfer the dispensing information

RA fixes consent form and a cover sheet requesting 6 months dispensing history and any other relevant information, for example: dose administration aids, known OTCs

RA collects GP’s medication history if no evidence of previous collection (eg Medical Director Printout)

RA generates a standard trial form containing a collated list of medications on admission, an outline of discrepancies found & suggested solutions

RA’s form presented to RMO and discussed within 24 hrs of admission. Uptake of discrepancies/issues found & reasons for non-uptake recorded
Inpatient Interview Process Flowchart

The following items are to be covered (in any order that suits the situation)

- Confirmation of demographic details
- Where not completed in first interview, conduct knowledge and compliance surveys and collect self-reported LBP's
- Conduct Quality of Life survey

**Control Group**
- Inform patient they have been randomised to the control group
- Emphasise positives of current care, the possibility the intervention is not beneficial and the fact they’ll receive a follow-up call
- If requested, provide a brief explanation of the trial and services they may receive:
  - Discharge counselling sheet and verbal counselling
  - Explain process, what they will/may receive and the potential benefits to them

**Intervention Group**
- Inform patient they have been randomised to the intervention group
- Present patient with their Project Package
- Provide a more detailed explanation of the trial and services they may/will receive:
  - Transfer of discharge information to GP and Community Pharmacy
  - Outline difference to current practice and why this information sharing is may be beneficial to them

- Website Functionality
  - Where applicable, use the document provided in the Project Package, to explain the website functionality.
- Conduction of a PEMR/HMR
  - Explain the HMR/PEMR process & potential benefits

- Explain follow-up phone call at 30 days post-discharge and document preferred time for call if requested
- Indicate on Information Sheet/Business card staff to contact with any concerns
Discharge Process Flowchart

Point of discharge

Control Group - No HIMR Rec.

Control Group - HIMR Rec.

Intervention Group - Streamlined HIMR

Intervention Group - PDMR Model

Discharge medication counselling sheet supplied, with counselling. Produced either by a RA or HP, using either the hospital’s program or CMMS.

Discharge medication information uploaded to repository by RA.

Discharge medication information, in form of HIMR referral sent, via (automated) fax, to patient’s nominated GP(s) within 24 hrs of discharge.

Nominated CP(s) and GP(s) telephoned and explained process of streamlined HIMR model. Consent for transfer information confirmed & registration to website offered.

Nominated CP(s) and GP(s) telephoned and explained process of PDMR model. Consent for transfer information confirmed & registration to website offered.

Nominated CP(s) and GP(s) telephoned and explained process of PDMR model. Consent for transfer information confirmed & registration to website offered.

Where necessary, same information transferred to Accredited Pharmacist

HIMR recommended via a sticker on the Discharge Summary

Normal discharge processes (Patient may or may not receive a discharge medication counselling sheet and/or verbal counselling)

Otherwise normal discharge processes (Patient may or may not receive a discharge medication counselling sheet and/or verbal counselling)
Follow-up Process Flowchart

Within first 5-7 days post discharge

- Control Group - No HMR Rec.
  - No follow-up required at this point

- Control Group - HMR Rec.
  - No follow-up required at this point

- Intervention Group - Streamlined HMR
  - Where requested, liaise with CP &/or AP to facilitate timely performance of HMR

- Intervention Group - PDMR Model
  - Where required, liaise with CP &/or AP to facilitate timely performance of PDMR

30 days post discharge

- Control Group - No HMR Rec.
- Control Group - HMR Rec.
- Intervention Group - HMR
- Intervention Group - Streamlined HMR
- Intervention Group - PDMR Model

Telephone Patient/Carer at 30 days post discharge to collect follow-up data & surveys, self-reported FRPs, and whether an HMR/PDMR was performed

Post & follow-up return of satisfaction surveys to patients/carers

- Where necessary, follow-up GPxCPs and collect data for HMRs performed in this time frame

- Where necessary, follow-up GPxCPs and collect data for HMRs performed in this time frame

- Where necessary, follow-up GPxCPs and collect data for HMRs performed in this time frame

Post & follow-up return of satisfaction surveys to participating community health care professionals

Follow-up all CPs/CPs and collect data from PDMRs performed

Collect all local & “global” data required for trial analysis

Final analysis by research team
CHAPTER ONE – Patient Allocation

Section 1: Identification, Randomisation and Enrolment Process

Outline

Overall Objective
Identify, randomise and enrol patients into the project, within 24 hours of them being admitted to a ward.

Process Summary
It has been recognised that initial identification of a suitable patient in a timely manner can be done by consulting a number of sources depending on the project site layout. Some sources include:

- New admission lists (from hospital databases).
- Clinical Pharmacists and
- Other ward staff.

The Research Assistant (RA) then needs to establish the candidate fits the Selection Criteria outlined in this Chapter, Section 1.1.1.

The interview to enrol patients should preferably be carried out with both the patient and carer present if a carer is involved. At this stage the project is to be outlined both verbally and in writing and most importantly, consent is to be obtained from the patient with a witness present.

Once enrolled, patients are to be randomised, using the envelopes provided, into one of the four subgroups. The study is divided into two main groups and each group is further subdivided into two subgroups as follows:

- Control Group
  - Control with No HMR recommendation
  - Control with HMR recommendation
- Intervention Group
  - Intervention with streamlined HMR model
  - Intervention with PDMR model

The RA will then collect the admitting RMO’s most reliable medication list, be it from the patient notes or drug chart. The patient/carers are interviewed on their knowledge of their medications using the RMO’s most reliable list as a reference prompt. This first inpatient interview is intended to be brief, collecting essential information only.

Please note, for those patients in the Control group - If through the course of the interview, a serious discrepancy is identified, the RA should contact the trial office for guidance regarding the need and process of intervention, keeping in mind the patient is still receiving the normal level of care from the hospital pharmacy staff.
1-1 Flow Chart: Identification, Randomisation and Enrolment Process

Patient admitted to ward

If being recruited from DEM, ensure patient is to be admitted

Initial identification of suitability by consulting:
- New admissions list
- Patient notes
- Hospital Pharmacist

Yes

Collect RMO’s initial drug chart for use in the interview process

No

Excluded
(Please record)

Visit patient, with carer if applicable, & outline trial as per guidelines depending on group allocation.
(Particular attention must be paid to their acceptance of possibly receiving a home visit)

Obtain informed consent from patient/carer

Yes

Interview patient to obtain their account of their medications on admission, including knowledge & compliance surveys and self-reported DRPs

No

Excluded
(Please record)

When interview performed by HP, collect their results, file with other patient data collected and perform surveys at second interview

Determine patient’s group allocation using envelopes provided

Control Group
- No HMR recommendation

Control Group
- HMR recommendation

Intervention Group
- Streamlined HMR Model

Intervention Group
- PDMR Model
1-1.1 Identification

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA or HP</td>
<td>RA or HP</td>
<td>RA</td>
<td>HP or RA</td>
<td>RA or HP</td>
<td>RA or HP</td>
</tr>
</tbody>
</table>

Objective

Identify suitable patients

Process

Initial identification can be done by consulting one or a combination of the following:

- new admissions list
- Clinical Pharmacists
- Other ward staff

Once identified, determination of whether they fit the criteria can be done by consulting either:

- Clinical Pharmacists
- Current admission notes

Selection Criteria are as follows:

- 50 years old +
- 2 or more chronic conditions including at least one of cardiac disease, COAD or DM
- Taking 3 or more chronic medications on admission
- Can nominate a regular General Practitioner (GP) and Community Pharmacist (CP)
  - Up to 3 can be nominated
- Does not live in a Domiciliary Care Facility
- Can be contacted post-discharge
- Themselves or their carer is able to provide informed consent

Please note, for those patients who are investigated for eligibility, but are not found to fit the criteria, please record the name, date, and reason for exclusion. This allows each RA to keep a track of whom they have investigated and will be used in the data analysis process.
1-1.2 Enrolment

To be performed by:

<table>
<thead>
<tr>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA (possibly HP)</td>
<td>RA</td>
</tr>
</tbody>
</table>

Objective
Enrolment into the trial

Process
Once identified, the enrolment interview with the patient and/or carer should be performed. This includes the following:

1. Outline project to the patient/carer, including the following:
   a. Explanation that a trial is occurring at present
   b. Who is performing it and who is involved
   c. What it is trying to achieve
   d. What it will involve
   e. Why it would benefit them
   f. Explanation of the randomisation process and the 50% chance they’ll be in either group
   g. Their right to say no, or withdraw at any time if they wish without repercussions

2. Nomination of a GP and CP
   a. Multiple allowed, up to 3
   b. Where multiple are nominated, patients must elect a “principle” GP and CP

3. Provide Information sheet
4. Obtain consent on the project consent form, including:
   a. Their signature and details
   b. A witness’ signature and details (at those sites requiring one)
   c. Your signature and details

Once consent is obtained, the RA must explain to the patient the need to leave them for half an hour to collect all their relevant data and that they will return shortly to discuss their medications.

At this point, the RA leaves the patient, collects their relevant data to perform the admission interview and randomises the patient to one of the four groups.

Please note, for those patients who refuse to participate, please record the name, date, and reason for exclusion (ie refusal). This allows each RA to keep a track of whom they have investigated and will be used in the data analysis process.
1-1.3 Randomisation

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RA or HP</td>
<td>RA or HP</td>
<td>RA</td>
<td>RA or HP</td>
<td>RA</td>
</tr>
</tbody>
</table>

Objective
Randomise enrolled patients

Process
On completion of the enrolment interview, the patient is randomly allocated into one of the four subgroups of the trial. Block randomisation, using allocation concealment, has been adopted for the trial.

To allocate a patient to a group, open an envelope from the pile to determine their group allocation.

Each envelope also contains two sets of random numbers to be used to assess the knowledge survey score. This survey assessment occurs at a later stage in the process and is initially explained in section 1-1.4. Keep the random number lists found in the envelope with the patient’s file for use when finalising the knowledge survey scores.
1-1.4 Admission Interview

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
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<td>RA or HP</td>
<td>RA</td>
<td>RA or HP</td>
<td>RA</td>
<td></td>
</tr>
</tbody>
</table>

Objective
Interview the patient (and carer where necessary) to determine their view of what they are taking and record their baseline knowledge, compliance and self-reported drug-related issues.

Process
Using the RMO’s medications on admission (preferably from medical notes) as a guide, obtain the patient and/or carer’s account of what they were taking when they were admitted to hospital. If the RMO has not recorded the list of medications in the medical notes the initial drug chart can be used, being mindful that some medications may have been started or ceased since admission.

This interview must incorporate the knowledge and compliance surveys and be the point to collect baseline self-reported DRPs. When the Hospital Pharmacist performs the initial interview to obtain the patient’s account of the medications they are taking on admission, Knowledge, Compliance and self-reported DRPs must be assessed during the second inpatient interview by the RA.

Please record if patients use their own medications as a prompt when answering the questions. When recording the patient's account of their medications, check boxes can be found at the bottom of this page on the data collection sheet to record this information. Alongside this check box is one to mark if the patient brought their medications in to hospital at all. This box is to be ticked if they had.

If the patient is unable to fully partake in the interview, the carer can complete the interview on their behalf. This information is also to be recorded and can be done so on the same page of the data collection sheet as is used for the above processes.

Suggested interview process:
1. Using the RMOs list as a prompt, ask the patient to list each item they are taking, including dose, directions and reason for use.
2. Ask if they are taking any other medications not on the list, including herbal medications and OTCs
   - Please note, patient’s ability to recall prescription medication details are to be recorded for completion of the knowledge survey (see below: Calculation of Knowledge Survey Score)
3. Ask the four compliance survey questions shown below. Each of these questions must be asked word for word each time the survey is performed to ensure consistent results are obtained:
   - Do you sometimes forget to take your medicine?
   - Do you think it’s not important to take your medicine regularly?
   - When you feel better, do you sometimes change the way you’re taking your medicine?
   - Sometimes if you feel worse when you take your medicine do you change the way you take it?
4. Ask if they have been experiencing any issues with their medications in order to collect their account of possible DRPs.

- Ensure questions remain general, such as “Have you recently experienced any difficulties with your medications?”
- Avoid leading questions such as “Do you get a cough from your Coxsy?!”
- Outcomes from these general questions will be categorised at a later date, using the categorisation tool supplied in the data collection sheet. Please remember this is a categorisation tool, not a list of questions.

Upon completion of the interview, the following tasks are to be performed:

1. Calculation of Knowledge Survey Score

   - To calculate the patient’s knowledge score, four prescribed medications are to be picked at random from the RA’s reconciled list of medications. To do this:

     a. Place the list of prescribed medications in alphabetical order (according to generic name)
     b. Using the random numbers supplied, align the alphabetical medication list with the random number list
     c. The first four aligned with even numbers are the ones selected for the knowledge score.

   - For example:

     | Random No | List of Medications (alphabetical order) |
     |-----------|------------------------------------------|
     | 13        | Aspirin                                  |
     | 4         | Fluoxetine                               |
     | 55        | Frusemide                                |
     | 78        | Irbesartan                               |
     | 86        | Metformin                                |
     | 3         | Paracetamol                              |
     | 22        | Temazepam                                |

     → This medication is included

   - Therefore, the results from the four medications randomly selected are used to calculate the final knowledge score:
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

<table>
<thead>
<tr>
<th>Medication Name, Dose, Frequency and Use</th>
<th>Dose Correct (Y/N)</th>
<th>Freq. Correct (Y/N)</th>
<th>Use Correct (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Fluoxetine 20mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2 Irbesartan 300mg daily</td>
<td>YES / NO Stated 150mg</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3 Metformin 500mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4 Temazepam 10 mg nocte</td>
<td>YES / NO Wash ensure</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Correct (No):</th>
<th>2 /4</th>
<th>4 /4</th>
<th>2 /4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Correct (%):</td>
<td>50 %</td>
<td>100 %</td>
<td>50 %</td>
</tr>
<tr>
<td>Final Score (%):</td>
<td>66.7 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please note, if a patient was unable to recall a medication during their enrolment interview that was included on the reconciled list and that medication was randomly selected to be one of the four medications in the knowledge survey, a “NO” is recorded for all three items relating to that medication.

2. Calculation of Compliance Score

- For each question, a positive answer (YES) indicates non-compliant behaviour for that question. The number of ‘YES’ answers determines the person’s level of compliance, as indicated in the scoring table in the example below:

<table>
<thead>
<tr>
<th>Question</th>
<th>YES / NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Do you sometimes forget to take your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2 Do you think it’s unimportant to take your medicine regularly?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3 When you feel better, do you sometimes change the way you’re taking your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4 Sometimes if you feel worse when you take your medicine do you alter the way you take it?</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

Scoring

<table>
<thead>
<tr>
<th>No. of ‘YES’ answers</th>
<th>Level of compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 items</td>
<td>High</td>
</tr>
<tr>
<td>1 item</td>
<td>Medium</td>
</tr>
<tr>
<td>2 items</td>
<td>Medium</td>
</tr>
<tr>
<td>3 items</td>
<td>Low</td>
</tr>
<tr>
<td>4 items</td>
<td>Low</td>
</tr>
</tbody>
</table>

- Therefore, the person in the example answered two questions positively, resulting in a score of medium level compliance.

Please note, if the patient is up to it, the Quality of Life (Qol.) Survey can be performed at this point. For control group patients, this means a second interview will not be required. Details on how to perform the Qol. survey can be found in section 2.2 of each of chapters 2-5.

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**Summary Box**

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identification</td>
</tr>
<tr>
<td>• Selection Criteria</td>
</tr>
<tr>
<td>• Record excluded</td>
</tr>
<tr>
<td>2. Enrolment</td>
</tr>
<tr>
<td>• Outline project</td>
</tr>
<tr>
<td>• Information Sheet</td>
</tr>
<tr>
<td>• Patient and Carer/Witness</td>
</tr>
<tr>
<td>• Record refusals</td>
</tr>
<tr>
<td>3. Randomisation</td>
</tr>
<tr>
<td>• Envelopes</td>
</tr>
<tr>
<td>4. Collect RMO’s most reliable list of medications</td>
</tr>
<tr>
<td>5. Patient Enrolment interview</td>
</tr>
<tr>
<td>• Patient/Carer account of medications</td>
</tr>
<tr>
<td>• Knowledge &amp; Compliance Surveys</td>
</tr>
<tr>
<td>• Self Reported DRPs</td>
</tr>
</tbody>
</table>
CHAPTER TWO – Control Group (No HMR recommendation)

Section 1: Admission Process

Outline

Overall Objective
To collect the relevant data relating to each patient enrolled in the Control – No HMR group of the trial and compile a list of medications taking prior to admission by reconciling the admission medication information provided by the patient, their GP (where necessary), their Community Pharmacist and their admitting RMO. Discrepancies are identified and resolution of these discrepancies through normal hospital care is monitored throughout the patient’s stay.

Process Summary
The Control group act as a baseline for comparison, receiving the normal level of hospital care without active trial staff intervention.

Upon successful identification, randomisation and enrolment, the next step is the admission process. The RA should routinely contact the HP (if HP at site) prior to commencing the admission process to determine if a patient’s account of their medications on admission or the GP’s medication history has already been acquired. This avoids, where possible, duplication of work.

Contact is made with the patient’s nominated CP(s) to obtain a 6 month dispensing history. A medication history should also be obtained from the patient’s GP if clarification is required.

The CP’s, GP’s, RMO’s and patient/carer’s account of their medications on admission should be compared and discrepancies identified. These discrepancies should be followed throughout the patient’s admission and action through normal hospital care recorded. This allows measurement of the baseline level of hospital care, and provides data to compare with the intervention group results.
2-1 Flow Chart: Control Group (No HMR Recommendation) Admission Process

**Control – No HMR**

1. Telephone patient’s nominated CP and verify their nomination (if multiple, call each)
2. Confirm CP happy to transfer 6 months of dispensing history
3. Ask if there is any additional information relevant to the patient, including use of a dose administration aid & known OTC use.
4. Where necessary, telephone patient’s nominated GP(s), verify their nomination and obtain medication history
5. Where necessary, fax patient consent form and cover sheet to CP & GP
6. Compare the Patient, CP, GP & RMO’s medications on admission data to create RA’s final reconciled list.
7. Combine the reconciled list, with outline of discrepancies and suggested solutions on the standard RMO’s report form
8. Throughout admission, observe patient’s notes & drug chart to record if discrepancies acted upon through normal hospital care
2-1.1 Collect CP’s medication list on admission

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
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<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

*RA = Research Assistant; HP = Hospital Pharmacist*

Objective

Obtain a 6 month history of dispensed medications and any other relevant information from the patient’s nominated CP(s) in order to create the RA’s reconcile list of medications on admission, identify discrepancies and monitor for resolution of the discrepancies through normal hospital care.

Process

- CP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained.
- Arrange to obtain the dispensing history in a timely manner. Possible methods include:
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
- Request CP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dose pack/ Webster pack
    - Known OTC medications use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Hand-written note on the faxed dispensing history
    - Separate document faxed to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the CP

Please note, for a patient with multiple CPs, the process must be performed for each CP.
2-1.2 Collect GP’s medication list on admission

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGII</th>
<th>Bendigo</th>
<th>Charlies’</th>
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<tr>
<td></td>
<td>HP or RA</td>
<td>HP or RA</td>
<td>RA</td>
<td>HP or RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

If required for clarification, obtain a medication history of dispensed medications from the patient’s nominated GP(s) in order to create the RA’s reconciled list of medications on admission, identify discrepancies and monitor for resolution of the discrepancies through normal hospital care.

Process

Contact GP to obtain their view of what their patient is taking, unless physical evidence this has already been done (eg Medical Director print out) can be found in the notes, or it is apparent that the information is not required. To do this:

- GP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained
- Arrange to obtain the prescribed medication history in a timely manner. Possible methods include:
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
- Request GP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dosette/Webster pack
    - Known OTC medication use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Hand-written note on the faxed medication history.
    - Separate document faxed or to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the GP
- Under some circumstances, when there are only a couple of items unknown and to be clarified with the GP, a full list will not be required and a verbal exchange of information will be adequate.

Please note, for a patient with multiple GPs, the process must be performed for each GP.
2-1.3 Compilation of Reconciled List

To be performed by:

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<thead>
<tr>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
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<td>RA</td>
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</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Compile RA’s reconciled list of prescribed medications on admission for patient using patient/carer, CP, RMO and GP information.

Process

The list is to be created using the following information sources:

- CP 6 month dispensing history
- RMO’s medication on admission list from patient notes
- RMO’s initial drug chart (if necessary)
- GP’s medication history (if necessary)
- Patient/carer account of the medications they were taking at time of admission

These information sources are to be compared, discrepancies identified and a final reconciled list produced.

For example:

<table>
<thead>
<tr>
<th>CP History</th>
<th>RMO History</th>
<th>GP History</th>
<th>Patient/Carer Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 150mg daily</td>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 300mg daily</td>
</tr>
<tr>
<td>Frusemide 40mg bd</td>
<td>Frusemide 40mg daily</td>
<td>Frusemide 40mg daily</td>
<td>Frusemide 40mg bd</td>
</tr>
<tr>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
</tr>
<tr>
<td>No Temazepam listed</td>
<td>Temazepam 10mg nocte</td>
<td>Temazepam 10mg nocte</td>
<td>Not taking</td>
</tr>
<tr>
<td>Panamax 500mg OTC</td>
<td>Panamax 500mg 2 pm</td>
<td>No Panamax listed</td>
<td>Panamax 500mg 2 pm</td>
</tr>
</tbody>
</table>

In this example, it is noted that the initial drug chart is the same as the RMO’s history in the notes, except for the addition on an antibiotic on admission.

Therefore, the reconciled list of what the patient was taking prior to admission would most likely be:

1. Irbesartan 300mg daily
2. Frusemide 40mg bd
3. Metformin 500mg tds
4. Panamax 500mg 2 pm

Please note, the compilation of this list will not always be clear, the RA must use their own clinical judgement to complete the list.
2-1.4 Creation of Report

To be performed by:

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<thead>
<tr>
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<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
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<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
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</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Create a report containing the RA’s reconciled medications on admission list, discrepancies identified and suggested solutions.

Process

Using the “Dear RMO...” letter template, create a report listing the reconciled list of medications, the discrepancies found and the suggested solutions. For the example in section 2-1.3, the letter may contain the following pieces of information:

Reconciled list of Medications taking at time of admission:
1. Irbesartan 300mg daily
2. Frusemide 40mg bd
3. Metformin 500mg tds
4. Panamox 500mg 2 pm

Discrepancies found and recommendations:
1. Patient charted for Irbesartan 150mg, taking Irbesartan 300mg prior to admission - check patient’s blood pressure and change to 300mg dosage if necessary.
2. Patient has been taking Frusemide 40mg bd, despite the GP recently decreasing their dose to 40mg ONSCE daily. Review dosage requirements bearing in mind patient has been taking double dose for some time.
3. Patient does not use Temazepam for sleep as a personal choice.

On the data collection sheet, record total number of discrepancies, plus number of discrepancies found between:

1. The CP’s dispensing history and the RA’s compiled list
   - In this example there is one, as the Frusemide dose was wrong.
2. The CP’s list in relation to OTC medications and the RA’s compiled list
   - In this example there are none, as the CP identified that the patient bought Panamox OTC.
3. The RMO’s initial drug chart and the RA’s compiled list
   - In this example there are three, as the Irbesartan dose is wrong, the Frusemide dose is different to what the patient is actually taking and the Temazepam is not being used by the patient.

Please also record the number of discrepancies that would be reported to the RMO if the patient were in the intervention group.

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At this point control patients differ from intervention patients. The creation of this report remains “silent” and is not to be presented or discussed with the RMO or the hospital pharmacist. It has been created to allow the RA to monitor the performance of usual care and hence collect baseline data for comparison with the intervention patients’ data.

If any critical discrepancies are found, please contact the trial office to discuss the need for intervention at this point.
<table>
<thead>
<tr>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CP 6 month dispensing history</td>
</tr>
<tr>
<td>• Additional information</td>
</tr>
<tr>
<td>2. GP’s medication history (if necessary)</td>
</tr>
<tr>
<td>• Additional information</td>
</tr>
<tr>
<td>3. Reconciled medication list</td>
</tr>
<tr>
<td>• CP, GP, patient, RMO lists</td>
</tr>
<tr>
<td>• Discrepancies/suggestions</td>
</tr>
</tbody>
</table>
Section 2: Inpatient Interview

Outline

Overall Objective
To carry out a detailed inpatient interview (at second contact with patient) including explanation of the trial, services the patient may expect to receive and completion of the Australian Quality of Life (AQL) Survey.

Process Summary
This patient is in the control group, receiving no intervention from the RA, but usual care from the Hospital.

Preferably in the presence of the patient’s family/carer, reintroduce the patient to the project and inform them they are in the control group, but emphasise the positives that still exist in their enrolment.

The patient’s demographic and general data should also be confirmed at this second meeting.

The Quality of Life survey is conducted for the first time to serve as a baseline for comparison at the conclusion of the trial. The RA should offer no opinion or interpretation of the questions doing their best to avoid influencing the patient’s responses.

The 30 day post discharge follow-up phone call and satisfaction survey (which applies to all four subgroups) needs to be discussed with the patient at this stage. The RA must establish an appropriate telephone number and time of call to facilitate this process.

Please note, if the patient is able in the admission interview, the AQoL survey can be performed at that point and this second interview is not required. Conversely, if the RA did not perform the knowledge and compliance surveys and obtain the patient’s self-reported DRPs during the admission process, these should be completed during this interview.
2.2 Flow Chart: Control Group (No HMR Recommendation) inpatient Interview Process

The following items are to be covered (in any order that suits the situation)

- Confirmation of demographic details
- Conduct Quality of Life Survey (if not completed in first interview)
- Inform patient/carer they have been allocated to the Control Group
  Emphasis must be placed on the positives of normal hospital care and the possibility that the new services are not beneficial

If requested, a brief explanation of the services being trialed should include:

- Discharge counselling sheet and counselling
- Transfer of discharge information to the GP and CP
- Website Functionality
- HMR

Explain follow-up phone call at 30 days post-discharge and document preferred time for call if requested

Indicate on Information Sheet who to contact with any concerns
2-2.1 Reintroduction of the Project to the enrolled Patient

To be performed by:

<table>
<thead>
<tr>
<th>Site</th>
<th>RIHI</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie's</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Reintroduce the project to the patient, inform them of their group allocation and confirm their demographic details.

Process

This patient interview, where possible, should be performed in the presence of the patient’s family &/or carer. This increases the likelihood of the information provided being remembered and hence, post-discharge confusion is reduced and the follow-up phone call is more likely to be successful.

The following should be covered:

- Reminder that they have enrolled in a trial
- Notification that their Community Pharmacy(s) have provided their 6 month dispensing history
- Indication that they have been placed in the Control Group, however they will still receive an excellent standard of hospital care and a phone call to see how they are going 30 days post-discharge
- Confirmation of their demographic & general data
2-2.2 Quality of Life Survey

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
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<tbody>
<tr>
<td></td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
Perform the Australian Quality of Life Survey (AQoL) to obtain baseline data.

Process:
The AQoL is to be performed following the exact interview process laid out by the Survey’s authors.

Implementation Instructions
- All items include reference to the timeframe: ‘in the last week’.
- Illustrative examples are given using *italics*. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in *italics* and *square brackets* in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confusing.
- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

Introductory Paragraph
There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:

- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Questions to be Asked

**Question 1.**
In the last week, did you need medical treatment from a doctor or other health professional?

*Would you say:*

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

Question 2.
Did you need any help with personal care in the last week?
(For example help with activities like washing, dressing, personal grooming or going to the toilet.)
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

Question 3.
When doing household tasks during the last week, did you need any help?
(For example, with preparing food, gardening, using the video recorder, meals, telephone or washing the car.)
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4.
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but got around your home with some difficulty.
D. You could not get around both the community or your home by yourself.

Question 5.
Were your personal relationships in the last week affected by your health?
(For example, the relationship with your partner or parents.)
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6.
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7.
Thinking about your health and you relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.
Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:
A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:
A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in conversations because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:
A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what others were saying.
D. You could not adequately communicate with others.

Question 11.
Thinking about how you slept in the last week.
Would you say:
A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without difficulty.
D. You slept in short bursts only. You were awake most of the night.
**Appendices: Trial process documents**

**Appendix XIV  Med eSupport Trial protocol**

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**Question 12.**
Thinking about how you generally felt in the last week.
Would you say:

- A. You did not feel anxious, worried or depressed.
- B. You were slightly anxious, worried or depressed.
- C. You felt moderately anxious, worried or depressed.
- D. You were extremely anxious, worried or depressed.

**Question 13.**
How much pain or discomfort did you experience in the last week.
Would you say:

- A. You had none at all.
- B. You had moderate pain.
- C. You suffered from severe pain.
- D. You suffered unbearable pain.

**Scoring**

The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>6 x 1 = 6</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 x 2 = 8</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 x 3 = 6</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 x 4 = 4</td>
</tr>
</tbody>
</table>

**Final Score:**

Therefore, the patient in the example scored 24 on the AQoL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.

Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.
2-2.3 Explanation of the services listed on the Project Information Sheet

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
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<td>RA</td>
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</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
Briefly outline the services listed on the information sheet provided to the patient/carer in the initial interview, if requested.

Process
Explanation of the services outlined in the information sheet should be brief, with emphasis placed on the positives of the current health care they receive and the possibility that the new services being tested are not particularly beneficial. If explanation of the services is requested, this explanation should include the following:

Discharge counselling sheet and counselling
- A hospital pharmacist may or may not come to them and discuss their medications and provide them with an information sheet shortly before they leave hospital

Faxing of discharge medication information to their GP and CP within 24 hours of discharge
- When they leave hospital, their discharge medication information may be faxed to their nominated GP and CP

Website functionality and Usage
- Some people enrolled in the trial may be provided with a username and password to securely access their medication information. If they did, this information would also be available to their nominated GP and CP.
- The website would provide them with another means of communicating with their GP and/or CP and allow them to access other medication related resources

HMR referral
- The nature of an HMR
- The potential benefits of an HMR
- The fact that their GP may choose to refer them for one
  - This should not be emphasised but can be suggested if necessary
2-2.4 Explanation of the Follow-up Phone Call & Survey

To be performed by:

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<tr>
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<th>Bendigo</th>
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<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain the process of the follow-up phone call and patient (or carer where necessary) satisfaction survey.

Process

- Reminding the patient that this is a trial aiming to improve areas of the health system, inform them that they will be contacted by phone a month after they leave hospital to see how they are going and provide them with an opportunity to ask questions and to ask some questions to ascertain the success of the project.
- Once they have received their phone call they will receive a satisfaction survey in the mail that will have a reply paid envelope enclosed. The patient must be made aware that the survey is anonymous and we are interested in their honest opinions on the services provided, which aspects they felt were useful and in which areas the service could be improved.
- Again, a preferred contact telephone number and time of call should be sought to facilitate the follow-up process.
### Summary Box

<table>
<thead>
<tr>
<th>Task</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Reintroduce Trial</td>
</tr>
<tr>
<td>2.</td>
<td>Confirm Demographic Details</td>
</tr>
<tr>
<td>3.</td>
<td>Perform Quality of Life Survey</td>
</tr>
<tr>
<td>4.</td>
<td>Brief explanation of services (if necessary)</td>
</tr>
<tr>
<td></td>
<td>- Discharge counselling/sheet</td>
</tr>
<tr>
<td></td>
<td>- Transfer of information to GP &amp; CP</td>
</tr>
<tr>
<td></td>
<td>- Website functionality</td>
</tr>
<tr>
<td></td>
<td>- HMR</td>
</tr>
<tr>
<td>5.</td>
<td>Explanation of 30 day post discharge follow up</td>
</tr>
</tbody>
</table>
Section 3: Discharge Process

Outline

Overall Objective
To observe normal discharge practices to enable the collection of control group data to be compared to those receiving interventions.

Process Summary
The Control Group (No HMR recommendation) receive no extra services or interventions over and above normal level of hospital care during the discharge process. Some basic data collection is required to supply baseline statistics for comparison.
2-3 Flow Chart: Control Group (No HMR Recommendation) Discharge Process

- Control – No HMR
- Normal Discharge Processes
- Collect discharge medication list and related information, per data collection form, for future analysis
2-3.1 Baseline Data Collection

To be performed by:

<table>
<thead>
<tr>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
Collect baseline discharge data for comparison during data analysis

Process
The following data must be collected at the time of discharge for data analysis purposes:

- Discharge diagnosis
- Date of discharge
- Medications on discharge
  - Including changes and reasons for changes
  - Record new discrepancies found
- Refer to the medication discrepancies identified on admission and document the outcomes of these in the appropriate areas on the data collection sheet due to normal hospital procedures
- Whether the patient received a counselling sheet and/or verbal counselling
- Whether a HMR has been recommended by the hospital
- Any other relevant medication-related data
  - eg commencement of a dose administration aid
### Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Collection of Baseline Data at Discharge</td>
</tr>
<tr>
<td>• Discharge diagnosis</td>
</tr>
<tr>
<td>• Date of discharge</td>
</tr>
<tr>
<td>• Medications</td>
</tr>
<tr>
<td>• HMR recommendation</td>
</tr>
<tr>
<td>• Document Discrepancies/DRPs</td>
</tr>
</tbody>
</table>
Section 4: Follow up Process

Outline

Overall Objective
To obtain follow-up outcomes for patients 30 days post discharge, including Compliance, knowledge, Quality of Life, drug related problems and HMR uptake. Patient satisfaction with “usual care” will also be measured via an anonymous survey posted at 30 days post discharge.

Process Summary
The patient is to be telephoned at 30 days post-discharge to collect follow-up data. The phone conversation should be performed in the manner of a conversation about how they are going with their medication management and general health. Where possible, survey questions are to be incorporated into this conversational structure, not performed in a formal manner.

Follow-up data to be collected include:

- Readmission to hospital
- Performance of an HMR
- Changes in medications since discharge
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs.

The role and importance of the satisfaction survey, along with how to complete it and return it must also be explained.
2-4 Flow Chart: Control Group (No HMR Recommendation) Follow-up Process

**Control - No HMR**

Within first 5-7 days post discharge

No follow-up required at this point

30 days post discharge

Telephone CP to collect list of medications & other relevant information dispensed for the patient post-discharge

Telephone Patient/Carer to collect:

- Readmission data
- Account of current medications

Compliance survey data → Knowledge survey data → Quality of Life survey data → Self-Reported DRPs → HMR performed

Details of Benefit & follow-up

Follow-up any significant concerns raised by the Patient/Carer

Where performed or patient answer not clear, follow-up CPs/APs and collect data for HMRs

Post satisfaction surveys to participating health professionals and patients/carers

Follow-up return of surveys as necessary
2.4.1 First 5-7 days post discharge

To be performed by:

<table>
<thead>
<tr>
<th>RIH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Please Note: There is no follow-up required at this point for control group patients.
2.4.2 30 days post-discharge follow-up telephone call

To be performed by:

<table>
<thead>
<tr>
<th>RIH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie's</th>
<th>Hollywood</th>
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<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Telephone patient at 30 days post-discharge to complete follow-up data collection, including:

- Readmission to hospital
- Performance of an HMR
- Changes in medications since discharge
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs.

Process

Prior to telephoning patients at home, the patient’s nominated community pharmacy is to be called. This call is to obtain the Pharmacy’s account of any medication changes the patient may have had post-discharge and gather any further relevant information before phoning the patient, for example, performance of an HMR or commencement of a dose administration aid. The community Pharmacy’s account of the patient’s medications can be recorded on the page before the follow-up section of the data collection sheet.

Patients are to be telephoned at home at the time agreed while they were in hospital. If they did not specify a time, call when able. Using the follow-up section of the data collection sheet as a guide, the following items must be covered:

Readmission to hospital

- Ask the patient if they have been back to hospital since they were enrolled in the trial.
  - If they answer yes, collect details on the readmission from their view, to assist with assessing whether the readmission was medication related at the time of analysis.

Performance of an HMR

Despite an HMR not being actively recommended post-discharge, for patients in this group, it is still essential to determine whether an HMR was performed in the first 30 days post-discharge to provide comparative data for analysis.

In order to gain an accurate answer, the HMR process, from the patient’s perspective, may need to be explained. If the patient is unable to answer definitively, the patient’s nominated GP or CP may need to be contacted to confirm.

Changes in medications since discharge

- Ask the patient if they are aware of any changes in their medications since discharge.
  - If they answer yes, collect the details of the changes, from the patient’s perspective.
Knowledge Survey

As in the inpatient interview, collect the patient’s account of the medications they are taking at the time of the phone call. Please note if they are using any prompts, such as the medication packets or a medication list and any carer involvement in the discussion.

At the end of the telephone call, the patient’s account and the community pharmacist’s account of the current medication list should be collated to produce a final list of medications at 30 days post discharge. As in the inpatient process, this final collated list is to be used as the basis for calculating the patient’s knowledge score.

- To calculate the patient’s knowledge score, four prescribed medications are to be picked at random from the final collated list of medications. To do this:
  a. Place the list of prescribed medications in alphabetical order
  b. Using the random numbers supplied, align the alphabetical medications list with the random number list
  c. The first four aligned with even numbers are the ones selected for the knowledge score.
  d. Once selected, enter the results into the database to retrieve your final score.

- For Example:

<table>
<thead>
<tr>
<th>Random No</th>
<th>List of Medications (alphabetical order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Aspirin</td>
</tr>
<tr>
<td>4</td>
<td>Fluoxetine</td>
</tr>
<tr>
<td>55</td>
<td>Frusemide</td>
</tr>
<tr>
<td>78</td>
<td>Irbesartan</td>
</tr>
<tr>
<td>86</td>
<td>Metformin</td>
</tr>
<tr>
<td>3</td>
<td>Paracetamol</td>
</tr>
<tr>
<td>22</td>
<td>Temazepam</td>
</tr>
</tbody>
</table>

- The results from the four medications randomly selected are used to calculate the final knowledge score:

<table>
<thead>
<tr>
<th>Medication Name, Dose, Frequency and Use</th>
<th>Dose Correct (Y/N)</th>
<th>Freq. Correct (Y/N)</th>
<th>Use Correct (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Fluoxetine 20mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2 Irbesartan 300mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3 Metformin 500mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4 Temazepam 10mg nocte</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

  Total Correct (No): 2 /4 4 /4 2 /4
  Percent Correct (%): 50 % 100 % 50 %

  Final Score (%): 66.7 %
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

Compliance Survey

- Ask the four compliance survey questions shown below. As for the knowledge survey, please record any carer involvement in the survey.
- Each of these questions must be asked word for word each time the survey is performed to ensure consistent results are obtained.
- For each question, a positive answer (YES) indicates non-compliant behaviour for that question. The number of ‘YES’ answers determines the person’s level of compliance, as indicated in the scoring table in the example below:

<table>
<thead>
<tr>
<th>Question</th>
<th>YES / NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you sometimes forget to take your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>Do you think it’s unimportant to take your medicine regularly?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>When you feel better, do you sometimes change the way you’re taking your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>Sometimes if you feel worse when you take your medicine do you alter the way you take it?</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

| Number of ‘YES’ answers | 2 |

Scoring

<table>
<thead>
<tr>
<th>No. of ‘YES’ answers</th>
<th>Level of compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 items</td>
<td>High</td>
</tr>
<tr>
<td>1 item</td>
<td>Medium</td>
</tr>
<tr>
<td>2 items</td>
<td>Medium</td>
</tr>
<tr>
<td>3 items</td>
<td>Low</td>
</tr>
<tr>
<td>4 items</td>
<td>Low</td>
</tr>
</tbody>
</table>

Quality of Life Survey

The Australian Quality of Life (AQoL) Survey is to be performed following the exact interview process laid out by the Survey’s authors.

Implementation Instructions

- All items include reference to the timeframe: ‘in the last week’.
- Illustrative examples are given using *italics*. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in *italics* and square brackets in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confusing.
- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

Introductory Paragraph

There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:

- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Questions to be Asked

Question 1.
In the last week, did you need medical treatment from a doctor or other health professional?
Would you say:

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.

Question 2.
Did you need any help with personal care in the last week?
[For example help with activities like washing, dressing, personal grooming or going to the toilet.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

Question 3.
When doing household tasks during the last week, did you need any help?
[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4.
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but get around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5.
Were your personal relationships in the last week affected by your health?
[For example, the relationship with your partner or parents.]
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.
Appendices: Trial process documents

Appendix XIV   Med eSupport Trial protocol

Question 6.
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7.
Thinking about your health and your relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.

Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focussing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in conversations
   because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble
   understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what
   others were saying.
D. You could not adequately communicate with others.
Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without difficulty.
D. You slept in short bursts only. You were awake most of the night.

Question 12.
Thinking about how you generally felt in the last week.
Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week.
Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.

Scoring
The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>5</td>
<td>6 x 1 = 6</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 x 2 = 8</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 x 3 = 6</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 x 4 = 4</td>
</tr>
</tbody>
</table>

Final Score: 24

Therefore, the patient in the example scored 24 on the AQoL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.
Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.

Drug Related Problems

Self-reported DRPs
Ask if they have been experiencing any issues with their medications in order to collect their account of possible DRPs.

- Ensure questions remain general, such as “Have you recently experienced any difficulties with your medications?”
- Avoid leading questions such as “Do you get a cough from your Coxsyl?”
- Answers to these general questions are to be categorised, using the following groups. This list is a categorisation tool, not a list of questions. Example of categorisation can be found in the following section.

Categorisation of DRPs
The categorisation of patient’s DRPs will be performed at a later date by the Project Team. Please record any self-reported issues or concerns identified during the conversation in the appropriate sections to assist in this process.

Please note, if in discussion, any significant concerns or issues are raised by the patient and/or carer, follow-up of the concerns/issues with the patient’s community health providers is appropriate.
2-4.3 Satisfaction Survey

To be performed by:

<table>
<thead>
<tr>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
</tr>
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<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

*RA = Research Assistant; HP = Hospital Pharmacist

Objective
Gain patient’s anonymous account of their satisfaction with the services they have received during admission and post-discharge.

Process
At the end of the 30 day follow-up phone call, inform the patient/carer that an anonymous satisfaction survey will be posted to them with a reply paid envelope for easy return. Explain that this is an opportunity for them to anonymously comment on the services they received and that their comments are very valuable to us, therefore return of the survey is really important.

Once, the phone call is complete, post the survey and record in the database.
## Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Phone Patient</td>
</tr>
<tr>
<td>• Readmission to hospital</td>
</tr>
<tr>
<td>• Performance of an HMR</td>
</tr>
<tr>
<td>• Changes in medications since discharge</td>
</tr>
<tr>
<td>• Knowledge Survey</td>
</tr>
<tr>
<td>• Compliance Survey</td>
</tr>
<tr>
<td>• QoL Survey</td>
</tr>
<tr>
<td>• Self-reported DRPs</td>
</tr>
<tr>
<td>2. Post Satisfaction Survey to Patient</td>
</tr>
</tbody>
</table>
CHAPTER THREE - Control Group (HMR Recommendation)

Section 1: Admission Process

Outline

Overall Objective
To collect the relevant data relating to each patient enrolled in the Control – HMR group of the trial and compile a list of medications taking prior to admission by reconciling the admission medication information provided by the patient, their GP (where necessary), their Community Pharmacist and their admitting RMO. Discrepancies are identified and resolution of these discrepancies through normal hospital care is monitored throughout the patient’s stay.

Process Summary
The Control group act as a baseline for comparison, receiving the normal level of hospital care without active trial staff intervention.

Upon successful identification, randomisation and enrolment, the next step is the admission process. The RA should routinely contact the HP (if HP at site) prior to commencing the admission process to determine if a patient’s account of their medications on admission or the GP’s medication history has already been acquired. This avoids, where possible, duplication of work.

Contact is made with the patient’s nominated CP(s) to obtain a 6 month dispensing history. A medication history should also be obtained from the patient’s GP if clarification is required.

The CP’s, GP’s, RMO’s and patient/carer’s account of their medications on admission should be compared and discrepancies identified. These discrepancies should be followed throughout the patient’s admission and action through normal hospital care recorded. This allows measurement of the baseline level of hospital care, and provides data to compare with the intervention group results.
3-1 Flow Chart: Control Group (HMR Recommendation) Admission Process

Control - HMR

- Telephone patient’s nominated CP and verify their nomination (If multiple, call each)

- Confirm CP happy to transfer 6 months of dispensing history

- Ask if there is any additional information relevant to the patient, including use of a dose administration aid & known OTC use.

- Where necessary, telephone patient’s nominated GP(s), verify their nomination and obtain medication history

- Where necessary, fax patient consent form and cover sheet to CP & GP

- Compare the Patient, CP, GP & RMO’s medications on admission data to create RA’s final reconciled list.

- Combine the reconciled list, with outline of discrepancies and suggested solutions on the standard RMO’s report form

- Throughout admission, observe patient’s notes & drug chart to record if discrepancies acted upon through normal hospital care
### 3-1.1 Collect CP’s medication list on admission

*To be performed by:*

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
</tr>
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<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**

Obtain a 6 month history of dispensed medications from the patient’s nominated CP(s) in order to create the RA’s reconciled list of medications on admission, identify discrepancies and monitor for resolution of the discrepancies through normal hospital care.

**Process**

- CP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained
- Arrange to obtain the dispensing history in a timely manner. Possible methods include:
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
- Request CP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dosette/Webster pack
    - Known OTC medication use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Hand-written note on the faxed dispensing history
    - Separate document faxed to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the CP

**Please note,** for a patient with multiple CPs, the process must be performed for each CP.
3-1.2 Collect GP’s medication list on admission

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

If required for clarification, obtain a medication history of dispensed medications from the patient’s nominated GP(s) in order to create the RA’s reconciled list of medications on admission, identify discrepancies and monitor for resolution of the discrepancies through normal hospital care.

Process

Contact GP to obtain their view of what their patient is taking, unless physical evidence this has already been done (e.g., Medical Director print out) can be found in the notes, or it is apparent that the information is not required. To do this:

- GP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained
- Arrange to obtain the prescribed medication history in a timely manner. Possible methods include:
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
- Request GP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dosette/Webster pack
    - Known OTC medication use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Hand-written note on the faxed medication history.
    - Separate document faxed or to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the GP
- Under some circumstances, when there are only a couple of items unknown and to be clarified with the GP, a full list will not be required and a verbal exchange of information will be adequate.

*Please note, for a patient with multiple GPs, the process must be performed for each GP.*
3-1.3 Compilation of Reconciled List

To be performed by:

<table>
<thead>
<tr>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Compile RA’s reconciled list of prescribed medications on admission for patient using patient/carer, CP, RMO and GP information.

Process

The list is to be created using the following information sources:

- CP 6 month dispensing history
- RMO’s medication on admission list from patient notes
- RMO’s initial drug chart (if necessary)
- GP’s medication history (if necessary)
- Patient/carer account of the medications they were taking at time of admission

These information sources are to be compared, discrepancies identified and a final reconciled list produced.

For example:

<table>
<thead>
<tr>
<th>CP History</th>
<th>RMO History</th>
<th>GP History</th>
<th>Patient/Carer Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 150mg daily</td>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 300mg daily</td>
</tr>
<tr>
<td>Frusenide 40mg bd</td>
<td>Frusenide 40mg daily</td>
<td>Frusenide 40mg daily</td>
<td>Frusenide 40mg bd</td>
</tr>
<tr>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
</tr>
<tr>
<td>No Temazepam listed</td>
<td>Temazepam 10mg nocte</td>
<td>Temazepam 10mg nocte</td>
<td>Not taking</td>
</tr>
<tr>
<td>Panamax 500mg OTC</td>
<td>Panamax 500mg 2 pm</td>
<td>No Panamax listed</td>
<td>Panamax 500mg 2 pm</td>
</tr>
</tbody>
</table>

In this example, it is noted that the initial drug chart is the same as the RMO’s history in the notes, except for the addition on an antibiotic on admission.

Therefore, the reconciled list of what the patient was taking prior to admission would most likely be:

1. Irbesartan 300mg daily
2. Frusenide 40mg bd
3. Metformin 500mg tds
4. Panamax 500mg 2 pm

Please note, the compilation of this list will not always be clear, the RA must use their own clinical judgement to complete the list.
3-1.4 Creation of Report

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies'</th>
<th>Hollywood</th>
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<tbody>
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<td>RA</td>
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</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Create a report containing the RA’s reconciled medications on admission list, discrepancies identified and suggested solutions.

Process

Using the “Dear RMO…” letter template, create a report listing the reconciled list of medications, the discrepancies found and the suggested solutions. For the example in section 3-1.3, the letter may contain the following pieces of information:

Reconciled list of Medications taking at time of admission:
1. Irbesartan 300mg daily
2. Frusemide 40mg bd
3. Metformin 500mg tds
4. Panamax 500mg 2 pm

Discrepancies found and recommendations:
1. Patient charted for Irbesartan 150mg, taking Irbesartan 300mg prior to admission - check patient’s blood pressure and change to 300mg dosage if necessary.
2. Patient has been taking Frusemide 40mg bd, despite the 6P recently decreasing their dose to 40mg ONCE daily. Review dosage requirements bearing in mind patient has been taking double dose for some time.
3. Patient does not use Temazepam for sleep as a personal choice.

On the data collection sheet, record total number of discrepancies, plus number of discrepancies found between:

1. The CP’s dispensing history and the RA’s compiled list
   • In this example there is one, as the Frusemide dose was wrong.
2. The CP’s list in relation to OTC medications and the RA’s compiled list
   • In this example there are none, as the CP identified that the patient bought Panamax OTC.
3. The RMO’s initial drug chart and the RA’s compiled list
   • In this example there are three, as the Irbesartan dose is wrong, the Frusemide dose is different to what the patient is actually taking and the Temazepam is not being used by the patient.
Please also record the number of discrepancies that would be reported to the RMO if the patient were in the intervention group.

At this point control patients differ from intervention patients. The creation of this report remains “silent” and is not to be presented or discussed with the RMO or the hospital pharmacist. It has been created to allow the RA to monitor the performance of usual care and hence collect baseline data for comparison with the intervention patients’ data.

If any critical discrepancies are found, please contact the trial office to discuss the need for intervention at this point.
## Summary Box

<table>
<thead>
<tr>
<th>Tasks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CP 6 month dispensing history</td>
<td>• Additional information</td>
</tr>
<tr>
<td>2. GP’s medication history (if necessary)</td>
<td>• Additional information</td>
</tr>
<tr>
<td>3. Reconciled medication list</td>
<td>• CP, GP, patient, RMO lists</td>
</tr>
<tr>
<td></td>
<td>• Discrepancies/suggestions</td>
</tr>
</tbody>
</table>
Section 2: Inpatient Interview

Outline

Overall Objective
To carry out a detailed inpatient interview (at second contact with patient) including explanation of the trial, services the patient may expect to receive and completion of the Australian Quality of Life (AQLQ) Survey.

Process Summary
This patient is in the control group, receiving no intervention from the RA, but usual care from Hospital.

Preferably in the presence of the patient’s family/carer, reintroduce the patient to the project and inform them they are in the control group, but emphasise the positives that still exist in their enrolment.

The patient’s demographic and general data should also be confirmed at this second meeting.

The Quality of Life survey is conducted for the first time to serve as a baseline for comparison at the conclusion of the trial. The RA should offer no opinion or interpretation of the questions doing their best to avoid influencing the patient’s responses.

The 30 day post discharge follow-up phone call and satisfaction survey (which applies to all four subgroups) needs to be discussed with the patient at this stage. The RA must establish an appropriate telephone number and time of call to facilitate this process.

Please note, if the patient is able in the admission interview, the AQLQ survey can be performed at that point and this second interview is not required. Conversely, if the RA did not perform the knowledge and compliance surveys and obtain the patient’s self-reported DRPs during the admission process, these should be completed during this interview.
3-2 Flow Chart: Control Group (HMR Recommendation) Inpatient Interview Process

The following items are to be covered (in any order that suits the situation)

- Confirmation of demographic details

  Where not completed in first interview, conduct knowledge and compliance surveys and self-reported DRPs

- Conduct Quality of Life Survey (If not completed in first interview)

- Inform patient/carer they have been allocated to the Control Group

  Emphasis must be placed on the positives of normal hospital care and the possibility that the new services are not beneficial

- If requested, a brief explanation of all the services being trialed should include:

  Please note, every patient in this group should have the HMR referral sticker and HMR process explained

- Discharge counselling sheet and counselling

- Transfer of discharge information to GP and Community Pharmacist

- Website Functionality

- Referral sticker for HMR at point of discharge & explanation of HMR process

  Explain follow-up phone call at 30 days post-discharge and document preferred time for call if requested

  Indicate on Information Sheet who to contact with any concerns
3-2.1 Reintroduction for the Patient to their Enrolment in the Project

To be performed by:

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<th>Charlie's</th>
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</tbody>
</table>

*RA = Research Assistant; HP = Hospital Pharmacist

Objective
Reintroduce the project to the patient, inform them of their group allocation and confirm their demographic details.

Process
This patient interview, where possible, should be performed in the presence of the patient’s family &/or carer. This increases the likelihood of the information provided being remembered and hence, post-discharge confusion is reduced and the follow-up phone call is more likely to be successful.

The following should be covered:

- Reminder that they have enrolled in a study
- Notification that their Community Pharmacy(s) have provided their 6 month dispensing history
- Indication that they have been placed in the Control Group, however they will still receive an excellent standard of hospital care and a phone call to see how they are going 30 days post-discharge
- Confirmation of their demographic & general data
3.2.2 Quality of Life Survey

To be performed by:

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</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
Perform the Australian Quality of Life Survey (AQoL) to obtain baseline data.

Process:
The AQoL Survey is to be performed following the exact interview process laid out by the Survey’s authors.

Implementation Instructions

- All items include reference to the timeframe: ‘in the last week’.

- Illustrative examples are given using italics. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in italics and square brackets in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confining.

- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

Introductory Paragraph
There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:

- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Questions to be Asked

Question 1.
In the last week, did you need medical treatment from a doctor or other health professional?
Would you say:

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

Question 2.
Did you need any help with personal care in the last week?
(For example help with activities like washing, dressing, personal grooming or going to the toilet.)
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

Question 3.
When doing household tasks during the last week, did you need any help?
(For example with preparing food, gardening, using the video recorder, radio, telephone or washing the car.)
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4.
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but get around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5.
Were your personal relationships in the last week affected by your health?
(For example, the relationship with your partner or parents.)
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6.
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7.
Thinking about your health and you relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.
Appendices: Trial process documents

Appendix XIV Med eSupport Trial protocol

Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in conversations because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what others were saying.
D. You could not adequately communicate with others.

Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without difficulty.
D. You slept in short bursts only. You were awake most of the night.
Question 12.
Thinking about how you generally felt in the last week, would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week. Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.

Scoring
The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>6 ( \times 1 = 6 )</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 ( \times 2 = 8 )</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 ( \times 3 = 6 )</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 ( \times 4 = 4 )</td>
</tr>
</tbody>
</table>

Final Score: 24

Therefore, the patient in the example scored 24 on the AQLoL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.

Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.
3.2.3 Explanation of the services listed on the Project Information Sheet

To be performed by:

<table>
<thead>
<tr>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies'</th>
<th>Hollywood</th>
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<tbody>
<tr>
<td>RA</td>
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</table>

RA = Research Assistant; HP = Hospital Pharmacist

**Objective**

Briefly outlined the services listed on the information sheet provided to them in the initial interview, if requested by the patient and/or carer.

**Process**

Explanation of the services outlined in the information sheet should be brief, with emphasis placed on the positives of the current health care they receive and the possibility that the new services being tested are not particularly beneficial. If explanation of the services is requested, this explanation should include the following:

**Discharge counselling sheet and counselling**

- A hospital pharmacist may or may not come to them and discuss their medications and provide them with an information sheet shortly before they leave hospital

**Fixing of discharge medication information to their GP and CP within 24 hours of discharge**

- When they leave hospital, their discharge medication information may be faxed to their nominated GP and CP

**Website functionality and Usage**

- Some people enrolled in the trial may be provided with a username and password to securely access their medication information. If they did, this information would also be available to their nominated GP and CP.
- The website would provide them with another means of communicating with their GP and/or CP and allow them to access other medication related resources

**HMR referral**

- The nature of an HMR
- The potential benefits of an HMR
- The fact that the Hospital may suggest to their GP that they have one
- The fact that their GP may choose to refer them for one
  - This should not be emphasised but can be suggested if necessary
3.2.4 Explanation of the Follow-up Phone Call & Survey

To be performed by:

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<tr>
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<th>RHH</th>
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<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain the process of the follow-up phone call and patient (or carer where necessary) satisfaction survey.

Process

- Reminding the patient that this is a trial aiming to improve areas of the health system, inform them that they will be contacted by phone a month after they leave hospital to see how they are going and provide them with an opportunity to ask questions and to ask them some questions to ascertain the success of the project.
- Once they have received their phone call they will receive a satisfaction survey in the mail that will have a reply paid envelope enclosed. The patient must be made aware that the survey is anonymous and we are interested in their honest opinions on the services provided, which aspects they felt were useful and what areas the service could be improved.
- Again, a preferred contact telephone number and time of call should be sought to facilitate the follow-up process.
### Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reintroduce Trial</td>
</tr>
<tr>
<td>2. Confirm Demographic Details</td>
</tr>
<tr>
<td>3. Perform Quality of Life Survey</td>
</tr>
<tr>
<td>4. Brief explanation of services (if necessary)</td>
</tr>
<tr>
<td>• Discharge counselling /sheet</td>
</tr>
<tr>
<td>• Transfer of information to GP &amp; CP</td>
</tr>
<tr>
<td>• Website functionality</td>
</tr>
<tr>
<td>• HMR</td>
</tr>
<tr>
<td>5. Explanation of 30 day post discharge follow up</td>
</tr>
</tbody>
</table>
Section 3: Discharge Process

Outline

Overall Objective
To initiate an HMR recommendation from the Hospital setting via the inclusion of a recommendation sticker on the RMO’s Discharge Summary to the GP. All other normal discharge practices are to be observed and discharge data is to be collected for comparison with the other study groups during data collection.

Process Summary
The Control Group (HMR recommendation) receive no extra active services or interventions over and above normal hospital care during the discharge process. The sticker recommending the patient for an HMR to the GP is to be placed on the RMO’s discharge summary. Otherwise, some basic data collection is required to supply baseline statistics for comparison.
3-3 Flow Chart: Control Group (HMR Recommendation) Discharge Process

Control – HMR

Contact RMO/HP when discharge approaching

Arrange placement of HMR referral sticker on Discharge Summary

Collect discharge medication list and related information, per data collection form, for future analysis
3.3.1 Placement of the HMR recommendation sticker on the Discharge Summary

To be performed by:

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<thead>
<tr>
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<th>Bendigo</th>
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<td>RA/HP</td>
<td>RA/HP</td>
<td>RA/HP</td>
<td>RA/HP</td>
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</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Place the sticker (example below), recommending a HMR be performed, on the RMO’s Discharge Summary for the GP.

![Sticker Image]

Process

This process may vary from site to site depending on the discharge process. If a discharge summary exists, it would be preferable to affix the sticker to the copy which is faxed to the GP at discharge. If a discharge summary does not exist, affix the sticker to the most suitable piece of paperwork that will be faxed to the GP at discharge (eg. correspondence letter).

If no obvious documentation for the GP can be located, contact the RMO to arrange inclusion of the sticker on their correspondence with the GP.
3-3.1 Baseline Data Collection

To be performed by:

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RA = Research Assistant; HP = Hospital Pharmacist

Objective
Collect baseline discharge data for comparison during data analysis

Process
The following data must be collected at the time of discharge for data analysis purposes:

- Discharge diagnosis
- Date of discharge
- Medications on discharge
  - Including changes and reasons for changes
  - Record new discrepancies found
- Refer to the medication discrepancies identified on admission and document the outcomes of these in the appropriate areas on the data collection sheet due to normal hospital procedures
- Whether the patient received a counselling sheet and/or verbal counselling
- Whether a HMR has been recommended by the hospital
- Any other relevant medication-related data
  - Eg commencement of a dose administration aid
### Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HMR Sticker on Discharge Summary</td>
</tr>
<tr>
<td>2. Collection of Baseline Data at Discharge</td>
</tr>
<tr>
<td>• Discharge diagnosis</td>
</tr>
<tr>
<td>• Date of discharge</td>
</tr>
<tr>
<td>• Medications</td>
</tr>
<tr>
<td>• HMR recommendation</td>
</tr>
</tbody>
</table>
Section 4: Follow up Process

Outline

Overall Objective
To obtain follow-up outcomes for patients 30 days post discharge, including Compliance, knowledge, Quality of Life, Drug related problems and HMR performance rates. Patient satisfaction with “usual care” will also be measured via an anonymous survey posted at 30 days post discharge.

Process Summary
The patient is to be telephoned at 30 days post-discharge to collect follow-up data. The phone conversation should be performed in the manner of a conversation about how they are going with their medication management and general health. Where possible, survey questions are to be incorporated into this conversational structure, not performed in a formal manner.

Follow-up data to be collected include:

- Readmission to hospital
- Performance of an HMR
- Changes in medications since discharge
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs

The role and importance of the satisfaction survey, along with how to complete it and return it must also be explained.
3-4 Flow Chart: Control Group (HMR Recommendation) Follow-up Process

**Control - HMR**

Within first 5-7 days post discharge

- No follow-up required at this point

30 days post discharge

- Telephone CP to collect list of medications & other relevant information dispensed for the patient post-discharge

- Telephone Patient/Carer to collect:
  - Readmission data
  - Account of current medications

Compliance survey data

Knowledge survey data

Quality of Life survey data

Self-Reported DRI's

HMR performed

Details of Benefit & follow-up

Follow-up any significant concerns raised by the Patient/Carer

Where performed or patient answer not clear, follow-up CPs/APs and collect data for HMRs

Post satisfaction surveys to participating health professionals and patients/carers

Follow-up return of surveys as necessary
3.4.1 First 5-7 days post discharge

To be performed by:

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</table>

RA = Research Assistant; HP = Hospital Pharmacist

Please Note: There is no follow-up required at this point for control group patients.
3.4.2 30 days post-discharge follow-up telephone call

To be performed by:

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Telephone patient at 30 days post discharge to complete follow up data collection, including:

- Readmission to hospital
- Performance of an HMR
- Changes in medications since discharge
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs.

Process

Prior to telephoning patients at home, the patient’s nominated community pharmacy is to be called. This call is to obtain the Pharmacy’s account of any medication changes the patient may have had post-discharge and gather any further relevant information before phoning the patient, for example, performance of an HMR or commencement of a dose administration aid. The community Pharmacy’s account of the patient’s medications can be recorded on the page before the follow-up section of the data collection sheet.

Patients are to be telephoned at home at the time agreed while they were in hospital. If they did not specify a time, call when able. Using the follow-up section of the data collection sheet as a guide, the following items must be covered:

Readmission to hospital

- Ask the patient if they have been back to hospital since they were enrolled in the trial.
  - If they answer yes, collect details on the readmission from their view, to assist with assessing whether the readmission was medication related at the time of analysis.

Performance of an HMR

An HMR has been actively recommended to be performed on the RMO’s Discharge Summary to the GP. Therefore, it is essential to determine whether an HMR was performed in the first 30 days post-discharge to provide comparative data for analysis.

In order to gain an accurate answer, the HMR process, from the patient’s perspective, may need to be explained. If the patient is unable to answer definitively, the patient’s nominated GP or CP may need to be contacted to confirm.

Changes in medications since discharge

- Ask the patient if they are aware of any changes in their medications since discharge.
  - If they answer yes, collect the details of the changes, from the patient’s perspective.
Knowledge Survey
As in the inpatient interview, collect the patient’s account of the medications they are taking at the time of the phone call. Please note if they are using any prompts, such as the medication packets or a medication list and any carer involvement in the discussion.

At the end of the telephone call, the patient’s account and the community pharmacist’s account of the current medication list should be collated to produce a final list of medications at 30 days post discharge. As in the inpatient process, this final collated list is to be used as the basis for calculating the patient’s knowledge score.

- To calculate the patient’s knowledge score, four prescribed medications are to be picked at random from the final collated list of medications. To do this:

  - Place the list of prescribed medications in alphabetical order
  - Using the random numbers supplied, align the alphabetical medications list with the random number list
  - The first four aligned with even numbers are the ones selected for the knowledge score.
  - Once selected, enter the results into the database to retrieve your final score.

- For Example:

<table>
<thead>
<tr>
<th>Random No List</th>
<th>List of Medications (alphabetical order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Aspirin</td>
<td>→ This medication is included</td>
</tr>
<tr>
<td>4 Fluoxetine</td>
<td></td>
</tr>
<tr>
<td>55 Frusemide</td>
<td></td>
</tr>
<tr>
<td>78 Irbesartan</td>
<td>→ This medication is included</td>
</tr>
<tr>
<td>86 Metformin</td>
<td>→ This medication is included</td>
</tr>
<tr>
<td>3 Paracetamol</td>
<td></td>
</tr>
<tr>
<td>22 Temazepam</td>
<td>→ This medication is included</td>
</tr>
</tbody>
</table>

- The results from the four medications randomly selected are used to calculate the final knowledge score:

<table>
<thead>
<tr>
<th>Medication Name, Dose, Frequency and Use</th>
<th>Dose Correct (Y/N)</th>
<th>Freq. Correct (Y/N)</th>
<th>Use Correct (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Fluoxetine 20mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2 Irbesartan 500mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3 Metformin 500mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4 Temazepam 10 mg nocte</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

| Total Correct (No): | 2 /4 | 4 /4 | 2 /4 | 66.7 % |
| Percent Correct (%):| 50 % | 100 %| 50 % |       |
Compliance Survey
- Ask the four compliance survey questions shown below. As for the knowledge survey, please record any carer involvement in the survey.
- Each of these questions must be asked word for word each time the survey is performed to ensure consistent results are obtained.
- For each question, a positive answer (YES) indicates non-compliant behaviour for that question. The number of ‘YES’ answers determines the person’s level of compliance, as indicated in the scoring table in the example below:

<table>
<thead>
<tr>
<th>Question</th>
<th>YES / NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Do you sometimes forget to take your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2  Do you think it’s unimportant to take your medicine regularly?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3  When you feel better, do you sometimes change the way you’re taking your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4  Sometimes if you feel worse when you take your medicine do you alter the way you take it?</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of 'YES' answers</strong></td>
</tr>
<tr>
<td><strong>No. of 'YES' answers</strong></td>
</tr>
<tr>
<td>6 items</td>
</tr>
<tr>
<td>1 item</td>
</tr>
<tr>
<td>2 items, Medium</td>
</tr>
<tr>
<td>3 items, Low</td>
</tr>
<tr>
<td>4 items, Low</td>
</tr>
</tbody>
</table>

Quality of Life Survey
The Australian Quality of Life (AQoL) Survey is to be performed following the exact interview process laid out by the Survey’s authors.

Implementation Instructions
- All items include reference to the timeframe: ‘in the last week’.
- Illustrative examples are given using *italics*. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in *italics* and *square brackets* in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confusing.
- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

Introductory Paragraph
There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:
- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey
has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Questions to be Asked

Question 1.
In the last week, did you need medical treatment from a doctor or other health professional?
Would you say:

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.

Question 2.
Did you need any help with personal care in the last week?
[For example help with activities like washing, dressing, personal grooming or going to the toilet.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

Question 3.
When doing household tasks during the last week, did you need any help?
[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4.
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but got around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5.
Were your personal relationships in the last week affected by your health?
[For example, the relationship with your partner or parents.]
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

Question 6.
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7.
Thinking about your health and your relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.

Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in conversations because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what others were saying.
D. You could not adequately communicate with others.
Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without difficulty.
D. You slept in short bursts only. You were awake most of the night.

Question 12.
Thinking about how you generally felt in the last week.
Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week.
Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.

Scoring
The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>5</td>
<td>6 x 1 = 6</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 x 2 = 8</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 x 3 = 6</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 x 4 = 4</td>
</tr>
</tbody>
</table>

Final Score: 24

Therefore, the patient in the example scored 24 on the AQoL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.
Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.

Drug Related Problems

Self-reported DRPs
Ask if they have been experiencing any issues with their medications in order to collect their account of possible DRPs.

- Ensure questions remain general, such as “Have you recently experienced any difficulties with your medications?”
- Avoid leading questions such as “Do you get a cough from your Coversy?”
- Answers to these general questions are to be categorised, using the following groups. This list is a categorisation tool, not a list of questions. Example of categorisation can be found in the following section.

Categorisation of DRPs
The categorisation of patient’s DRPs will be performed at a later date by the Project Team. Please record any self-reported issues or concerns identified during the conversation in the appropriate sections to assist in this process.

Please note, if in discussion, any significant concerns or issues are raised by the patient and/or carer, follow-up of the concerns/issues with the patient’s community health providers is appropriate.
3.4.3 Satisfaction Survey

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Gain patient’s anonymous account of their satisfaction with the services they have received during admission and post-discharge.

Process

At the end of the 30 day follow-up phone call, inform the patient/carer that an anonymous satisfaction survey will be posted to them with a reply paid envelope for easy return. Explain that this is an opportunity for them to anonymously comment on the services they received and that their comments are very valuable to us, therefore return of the survey is really important.

Once, the phone call is complete, post the survey and record in the database.
### Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Phone Patient</td>
</tr>
<tr>
<td>• Readmission to hospital</td>
</tr>
<tr>
<td>• Performance of an HMR</td>
</tr>
<tr>
<td>• Changes in medications since discharge</td>
</tr>
<tr>
<td>• Knowledge Survey</td>
</tr>
<tr>
<td>• Compliance Survey</td>
</tr>
<tr>
<td>• QoL Survey</td>
</tr>
<tr>
<td>• Self-reported DRPs</td>
</tr>
<tr>
<td>2. Post Satisfaction Survey to Patient</td>
</tr>
</tbody>
</table>
CHAPTER FOUR- Intervention (Streamlined HMR Model) Group

Section 1: Admission Process

Outline

Overall Objective
To collect the relevant data relating to each patient enrolled in the Intervention –HMR group of the trial and compile a list of medications taking prior to admission by reconciling the admission medication information provided by the patient, their GP (where necessary), their Community Pharmacist and their admitting RMO.
Further, to report any discrepancies identified between the reconciled medications prior to admission and the current inpatient drug chart to the RMO within 24hrs of admission.

Process Summary
Upon successful identification, randomisation and enrolment, the next step is the admission process. The RA should routinely contact the HP (if HP at site) prior to commencing the admission process to determine if a patient’s account of their medications on admission or the GP’s medication history has already been acquired. This avoids, where possible, duplication of work.

Contact is made with the patient’s nominated CP(s) to obtain a 6 month dispensing history. A medication history should also be obtained from the patient’s GP if clarification is required.

The CP’s, GP’s, RMO’s and patient/carer’s account of their medications on admission should be compared and a reconciled list of medications the patient was taking prior to admission collated. This reconciled list, along with identified discrepancies and suggested solutions are compiled in a standard trial report.
The report is then verbally communicated to the RMO by the RA or HP, either in person, or by phone where necessary. One copy of the report is to be placed in the patient’s notes, one given to the RMO and one kept with the patient’s data collection sheet for analysis purposes.
4-1 Flow Chart: Intervention (Streamlined HMR Model) Group Admission Process

**Intervention - HMR**

- Telephone patient’s nominated CP and verify their nomination (If multiple, call each)

- Confirm CP happy to transfer 6 months of dispensing history

- Ask if there is any additional information relevant to the patient, including use of a dose administration aid & known OTC use.

- Where necessary, telephone patient’s nominated GP(s), verify their nomination and obtain medication history

- Where necessary, fax patient consent form and cover sheet to CP & GP

- Where faxed directly, fax copy to trial office, for upload to repository & use original to complete admission process

- Where uploaded to the repository directly, download for use to complete admission process

- Compare the Patient, CP, GP & RMO’s medications on admission data to create RA’s final reconciled list.

- Combine the reconciled list, with outline of discrepancies and suggested solutions on the standard RMO’s report form

- Present report to RMO with explanation of discrepancies highlighted and suggestions. Record uptake and reasons if not
4.1.1 Collect CP’s medication list on admission

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Obtain a 6 month history of dispensed medications from the patient’s nominated CP(s) in order to create the RA’s reconciled list of medications on admission, identify discrepancies and present to the RMO within 24 hours of admission to the ward.

Process

- CP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained
- Arrange to obtain the dispensing history in a timely manner. Possible methods include:
  - Direct upload to repository, to be viewed on the web within the hospital
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
  - Fax of information to the trial office, for upload to the website directly
    - Items faxed to the trial site are also to be transferred to the trial office, to be manually uploaded to the web by trial staff.
- Request CP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dosette/Webster pack
    - Known OTC medication use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Hand-written note on the faxed dispensing history
    - Separate document faxed to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the CP

Please note, for a patient with multiple CPs, the process must be performed for each CP.
4.1.2 Collect GP’s medication list on admission

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

If required for clarification, obtain a medication history of dispensed medications from the patient’s nominated GP(s) in order to create the RA’s reconciled list of medications on admission, identify discrepancies and monitor for resolution of the discrepancies through normal hospital care.

Process

Contact GP to obtain their view of what their patient is taking, unless physical evidence this has already been done (eg. Medical Director print out) can be found in the notes, or it is apparent that the information is not required. To do this:

- GP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained
- Arrange to obtain the prescribed medication history in a timely manner. Possible methods include:
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
- Request GP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dosette/Webster pack
    - Known OTC medication use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Hand-written note on the faxed medication history.
    - Separate document faxed or to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the GP.
- Under some circumstances, when there are only a couple of items unknown and to be clarified with the GP, a full list will not be required and a verbal exchange of information will be adequate.

Please note, for a patient with multiple GPs, the process must be performed for each GP.
4-1.3 Compilation of Reconciled List

To be performed by:

<table>
<thead>
<tr>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Compile RA’s reconciled list of prescribed medications on admission for patient using patient/carer, CP, RMO and GP information.

Process

The list is to be created using the following information sources:

- CP 6 month dispensing history
- RMO’s medication on admission list from patient notes
- RMO’s initial drug chart (if necessary)
- GP’s medication history (if necessary)
- Patient/carer’s account of the medications they were taking at time of admission

These information sources are to be compared, discrepancies identified and a final reconciled list produced.

For example:

<table>
<thead>
<tr>
<th>CP History</th>
<th>RMO History</th>
<th>GP History</th>
<th>Patient/Carer Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 150mg daily</td>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 300mg daily</td>
</tr>
<tr>
<td>Frusemide 40mg bd</td>
<td>Frusemide 40mg daily</td>
<td>Frusemide 40mg daily</td>
<td>Frusemide 40mg bd</td>
</tr>
<tr>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
</tr>
<tr>
<td>No Temazepam listed</td>
<td>Temazepam 10mg nocte</td>
<td>Temazepam 10mg nocte</td>
<td>Not taking</td>
</tr>
<tr>
<td>Panamax 500mg OTC</td>
<td>Panamax 500mg 2 prn</td>
<td>No Panamax listed</td>
<td>Panamax 500mg 2 prn</td>
</tr>
</tbody>
</table>

In this example, it is noted that the initial drug chart is the same as the RMO’s history in the notes, except for the addition of an antibiotic on admission.

Therefore, the reconciled list of what the patient was taking prior to admission would most likely be:

5. Irbesartan 300mg daily
6. Frusemide 40mg bd
7. Metformin 500mg tds
8. Panamax 500mg 2 pm

Please note, the compilation of this list will not always be clear, the RA must use their own clinical judgement to complete the list.
4-1.4 Creation of Report

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RIH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
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<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
Create a report containing the RA’s reconciled medications on admission list, discrepancies identified and suggested solutions.

Process
Using the “Dear RMO…” letter template, create a report listing the reconciled list of medications, the discrepancies found and the suggested solutions. For the example in section 2-1.3, the letter may contain the following pieces of information:

Reconciled list of Medications taking at time of admission:
1. Irbesartan 300mg daily
2. Frusemide 40mg bd
3. Metformin 500mg tds
4. Panaxan 500mg 2 pm

Discrepancies found and recommendations:
1. Patient charted for Irbesartan 150mg, taking Irbesartan 300mg prior to admission - check patient’s blood pressure and change to 300mg dosage if necessary.
2. Patient has been taking Frusemide 40mg bd, despite the GP recently decreasing their dose to 40mg ONCE daily. Review dosage requirements bearing in mind patient has been taking double dose for some time.
3. Patient does not use Temazepam for sleep as a personal choice.

On the data collection sheet, record total number of discrepancies, plus number of discrepancies found between:

4. The CP’s dispensing history and the RA’s compiled list
   • In this example there is one, as the Frusemide dose was wrong.
5. The CP’s list in relation to OTC medications and the RA’s compiled list
   • In this example there are none, as the CP identified that the patient bought Panaxan OTC.
6. The RMO’s initial drug chart and the RA’s compiled list
   • In this example there are three, as the Irbesartan dose is wrong, the Frusemide dose is different to what the patient is actually taking and the Temazepam is not being used by the patient.
4-1.5 Presentation of Report to RMO

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Provide the RMO with the “Dear RMO…” letter, containing the reconciled list of medications on admission, discrepancies identified and suggested solutions.

Process

Contact should be made with the RMO by phone/page or in person to arrange a suitable time to discuss the details of the report. This discussion should occur in person wherever possible. If this is not possible, it should at least be performed over the phone – some sort of person to person contact is essential. The conversation should ideally occur within 24 hours of admission to the ward.

Suggested discussion process:

1. Outline the nature of the trial and what it is aiming to achieve
2. Explain the layout of the report, with particular note that the report is not to be considered the definitive list of medications on admission, just a best estimate from the sources of information available to the RA.
3. Explain the nature of the potential discrepancies/concerns outlined, and the corresponding suggested solutions
4. Uptake of the suggestions is to be recorded and a reason is required in the event of non-uptake. Recording of this information may be done in one of the following ways:
   a. Record uptake during discussion
   b. Provide a copy of the form to the RMO to record their uptake throughout the stay.
   c. View the patient’s notes close to discharge
   d. Ask the RMO to record their uptake in the copy in the notes throughout the patient’s stay.

One copy of the form is to be placed into the admission notes, one provided to the RMO and one kept with the patient’s data collection sheet for analysis purposes.

Please record the date and time contact was made with the RMO.

Please note, for those patients who have a clinical pharmacist attending to their unit/ward, the pharmacist should be contacted first and the process explained. The hospital pharmacist must be given the choice to contact the RMO in place of the RA so as not to interfere with their normal workflow.
### Summary Box

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<tr>
<td>1. CP 6 month Dispensing History</td>
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<td>2. GP Medication History (if necessary)</td>
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<td>• Additional information</td>
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<td>3. RMO’s most reliable list of medications</td>
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<td>4. Reconciled medication list</td>
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<td>• CP, GP, patient, RMO lists</td>
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<tr>
<td>• Discrepancies/ suggestions</td>
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<tr>
<td>5. Report to RMO</td>
</tr>
<tr>
<td>6. Record uptake of discrepancies/suggestions</td>
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Section 2: Inpatient Interview

Outline

Overall Objective
To carry out a detailed inpatient interview (at second contact with patient) including a detailed explanation of the trial and services the patient may expect to receive, confirm patient details, and complete the AQoL survey.

Process Summary
This interview should preferably take place in the presence of the patient’s family/carer. The patient should be reintroduced to the project and informed that they have been enrolled into the intervention group. The patient’s demographic and general data should also be confirmed at this second meeting.

The Australian Quality of Life (AQoL) survey is conducted for the first time to serve as a baseline for comparison at the conclusion of the trial. The RA should offer no opinion or interpretation of the questions, doing their best to avoid influencing the patient’s responses.

Information on the services expected to be received by the patient enrolled in the trial (as outlined on the Project information sheet) is conveyed to the patient both verbally and in writing. The patient/carer is provided with their project package and the contents may be used as a prompt when explaining the services.

When expanding on the services to be received, the RA should outline how these services will benefit the patient/carer GP/CP in the long run. In particular, the IMR process and how to utilise this service should be made clear to the patient.

The 30 day post-discharge follow-up phone call and satisfaction survey (which applies to all four subgroups) needs to be discussed with the patient at this stage. The RA should establish an appropriate telephone number and preferred time to call to facilitate this process.

Please note, if the patient is able in the admission interview, the AQoL survey can be performed at that point. Conversely, if the RA did not perform the knowledge and compliance surveys and obtain the patient’s self-reported DRPs during the admission process, these should be completed during this interview.
4-2 Flow Chart: Intervention (Streamlined HMR Model) Group Inpatient Interview Process

The following items are to be covered (in any order that suits the situation)

- Confirmation of demographic details
- Where not completed in first interview, conduct knowledge and compliance surveys and self-reported DRFs
- Conduct Quality of Life Survey (if not conducted in first interview)
- Inform patient they have been randomised to the intervention group
- Present patient with project package (may be used as a tool to facilitate explanation of the trial)
- Provide a more detailed explanation of trial and services they will receive:

  - Discharge counselling sheet and counselling
  - Faxing of discharge information to GP and Community Pharmacy
  - Website Functionality
  - Referral for HMR at point of discharge

- Explain process, what they’ll receive and the potential benefits to them
- Outline difference to current practice and why this information sharing is beneficial to them
- Using the document provided in the Project Package, discuss features, access and potential benefits
- Explain the HMR process, the potential benefits and what they can do to help get it underway

- Explain follow-up phone call at 30 days post-discharge and document preferred time for call if requested
- Indicate in Project Package trial staff to contact with any concerns
4-2.1 Reintroduction of the Project to the Patient

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Reintroduce the project to the patient, inform them of their group allocation and confirm their demographic details.

Process

This patient interview, where possible, should be performed in the presence of the patient’s family &/or carer. This increases the likelihood of the information provided being remembered and hence, the new services being utilised &/or accepted post-discharge.

The following should be covered:

- Reminder that they have enrolled in the study
- Notification that their Community Pharmacy(s) had provided their 6 month dispensing history
- Indication that they have been placed in the Intervention Group
- Confirmation of their demographic & general data
4-2.2 Quality of Life Survey

To be performed by:

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*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**

Perform the Australian Quality of Life Survey to obtain baseline data.

**Process**

The Australian Quality of Life (AQoL) Survey is to be performed following the exact interview process laid out by the Survey’s authors.

**Implementation Instructions**

- All items include reference to the timeframe: ‘in the last week’.

- Illustrative examples are given using *italics*. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in *italics* and *square brackets* in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confusing.

- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

**Introductory Paragraph**

There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:

- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

**Questions to be Asked**

**Question 1.**

In the last week, did you need medical treatment from a doctor or other health professional?

Would you say:

- B. You had some regular medical treatment.
- C. You were dependent on having regular medical treatment.
- D. That your life was dependent on regular medical treatment.
Question 2. Did you need any help with personal care in the last week?
(For example help with activities like washing, dressing, personal grooming or going to the toilet.)
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

Question 3. When doing household tasks during the last week, did you need any help?
(For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.)
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4. Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but get around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5. Were your personal relationships in the last week affected by your health?
(For example, the relationship with your partner or parents.)
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6. Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7. Thinking about your health and you relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in conversations
   because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble
   understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what
   others were saying.
D. You could not adequately communicate with others.

Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without
   difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without
   difficulty.
D. You slept in short bursts only. You were awake most of the night.
Question 12.
Thinking about how you generally felt in the last week.
Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week.
Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.

Scoring
The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
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<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>6 x 1 = 6</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 x 2 = 8</td>
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<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 x 3 = 6</td>
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<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 x 4 = 4</td>
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Final Score: 24

Therefore, the patient in the example scored 24 on the AQL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.

Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.
4-2.3 Explanation of Project Package Contents

To be performed by:

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RA = Research Assistant; HP = Hospital Pharmacist

Objective
Present the Project Package to the Patient &/or Carer and explain its contents.

Process
The Project Package contains the following:

- A Welcome to the Project page
- A business card containing a list of Project Team contacts
- A website instruction sheet, including the patient’s username and password
- A “where to find a computer” sheet, including a list of the local state libraries and Online Access Centres (If applicable at your site)
- The Australian Council for Safety and Quality’s 10 tips for safer health care pamphlet
- PGA & ADQP’s Margaret Fulton HMR Pamphlet
- Promotional Fridge Magnet

Each item should be demonstrated and explained. In particular, the website instruction sheet can be used to discuss the website.
4-2.4 Explanation of Discharge Counselling Sheet & Counselling

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*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**

Explain to the patient (and carer where applicable) the process of discharge counselling and the discharge counselling sheet.

**Process**

Some patients may have experienced this process during previous admissions. For those, a brief reminder is adequate.

For those patients/carers not familiar with the service, explanation of the process, along with a demonstration of the sheet (using an example sheet) is required.

Benefits of verbal counselling and the counselling sheet must be highlighted including:

- Clear explanation of any medication changes made during their stay
- Demonstration of any new devices
- Opportunity to ask questions regarding their medication therapy
- Counselling sheet to take home and consult as required

Depending on the Hospital you are working in; explain to the patient who is likely to be performing this service.
4-2.5 Explanation of transfer of discharge medication information to GP & CP

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain to the patient (and carer where applicable) the process of transferring their discharge medication information to their nominated GP and Community Pharmacist and the nature of the information being transferred.

Process

The following should be covered:

- The information is faxed to the nominated GP(s) and CP(s) within 24 hours of discharge
- The nature of the information being sent:
  - Their name and required personal details
  - Details of their hospital stay, including:
    - Dates of admission and discharge
    - Diagnoses
  - Relevant Medical History
  - Discharge Medication List and explanations of changes, if any
- The benefits of this process, including:
  - Better communication between the hospital and their GP regarding their medications
  - Better communication between the hospital and their Community Pharmacist regarding their medications
  - Facilitating acquisition of their new medications post-discharge
4-2.6 Explanation of website functionality & usage

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*RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain to the patient (and carer where applicable) the functionality, security and potential benefits of the website, plus a basic overview of how to use it.

Process

Using the *How to use the Website* document in their project package as a guide, the following topics are to be covered:

- What the website is
  - A secure trial site allowing personal medication information sharing between patients, hospital and community providers

- What it does
  - Stores their medication information
  - Allows them to make notes about their medications for their GP and CP
  - Allows them to view notes about their medications from their GP and CP
  - Searching for other information and resources regarding medications
  - Download and print their discharge medication counselling sheet
  - Download and print their discharge medication weekly checklist
  - Download and print medication counselling sheets and/or weekly checklists produced by their GP or CP post-discharge
  - Download and print CMIs

- Who has access
  - The patient and anyone else they choose to give permission to, eg another family member
  - Their nominated GP
  - Their nominated CP

- Why it is secure
  - The Med eSupport website employs a standard security model as used in other secure web-based systems, such as online banking. The underlying encryption ensures that all data sent to and from the website can not be monitored by a third party, while the use of a strong username and password will guarantee that no unauthorised users can access your record.
4.2.7 Explanation of Streamlined Home Medicines Review (HMR) Process

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain to the patient (and carer where applicable) the process and benefits of an HMR and how they may be able to help arrange one for themselves.

Process

The Project Package contains the Margaret Fulton HMR pamphlet for patients. This may be used as a tool to explain the process. It is important that the patient and/or carer are clearly aware that they may not receive an HMR and that commencing the process is up to their GP. Where multiple GPs and CPs have been nominated, it is important that the patient choose a “primary” GP and CP to be involved in the HMR process.

Explanation of the process is to include:

The purpose of the HMR

- Visit to the home by the Pharmacist
- Time to ask questions about medications
- Chance to have your regime closely viewed to ensure optimal therapy

When it should take place and why

- Within 5-7 days post-discharge
  - Explain still will be beneficial if performed later
- A period of great change for many
- Risk of errors due to miscommunication
  - Be careful not to alarm the patient
- Allows the patient to clarify the changes/refinements to their medications freshly after going home

Who would visit

- Their Community Pharmacist
- An independent Accredited Pharmacist
- One of the Project Team

How a visit is organised

- The hospital will send the GP a referral when they are discharged from hospital
- Their GP may want to see them before they initiate the review process; therefore, if the patient is keen for a review, it is important they visit their GP within the first week of discharge to discuss having the review performed.
- If the GP chooses to implement a review, they will send the referral to the patient’s nominated CP either directly, or via the patient.
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

- Once the CP has received the referral, they organise an accredited pharmacist, either one of their own staff, or an outside pharmacist to perform the review
- The patient and/or carer will then be contacted to arrange the visit.

What happens after the visit

- The accredited pharmacist performing the review sends the report to the patient’s GP and CP
- The patient visits their GP to follow-up on the report, which provides the patients with the opportunity to discuss findings with their GP with the aim to optimise their medication management

The patient and/or carer must be aware that they can help get the process underway by talking with their GP and/or CP.

Explain to the patient that they will receive a copy of the hospital’s referral when they are discharged to take with them to their GP. If they do not receive a copy when the pharmacist comes to visit them to tell them about their discharge medications, they will be posted a copy, which they will receive within the first couple of days of their arrival home.
4-2.8 Explanation of the Follow-up Phone Call & Survey

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RA = Research Assistant; HP = Hospital Pharmacist

**Objective**

Explain the process of the follow-up phone call and patient (or carer where necessary) satisfaction survey.

**Process**

- Reminding the patient that this is a trial aiming to improve areas of the health system, inform them that they will be contacted by phone a month after they leave hospital to see how they are going and provide them with an opportunity to ask questions and to ask them some questions to ascertain the success of the project.
- Once they have received their phone call, they will receive a satisfaction survey in the mail that will have a reply paid envelope enclosed. The patient must be made aware that the survey is anonymous and we are interested in their honest opinions on the new services provided, which aspects they felt were useful and what areas of the service could be improved.
- Again, a preferred contact telephone number and time of call should be sought to facilitate the follow-up process.
## Summary Box

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<tr>
<td>1. Reintroduce Trial</td>
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<td>Inform in Intervention Group</td>
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<td>2. Confirm Demographic Details</td>
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<td>3. Perform Quality of Life Survey</td>
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<td>4. Detailed explanation of the extra services</td>
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<td>- Discharge counselling/sheet</td>
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<td>- T/F information to GP &amp; CP</td>
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<td>- Website functionality</td>
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<td>- HMR referral</td>
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<td>5. Explanation of 30 day post discharge follow up</td>
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Section 3: Discharge Process

Outline

Overall Objective
Supply the patient and their nominated community health providers with discharge medication information at the point of discharge and make it available for post-discharge use on the Med eSupport Website. A component of the information sent to the health providers doubles as a direct HMR referral, should the GP choose to act upon it.

Process Summary
The patient is to be supplied with a discharge counselling sheet and verbal counselling at time of discharge. Along with this, the patient must also be supplied with a copy of the HMR referral/discharge medication summary to the GP so they can give it to the GP if they want an HMR and the GP has not initiated one.

This summary is produced once the discharge medication and related information is uploaded to the website. Once created, the RA can print the summaries and fax them to the GP and CP. The summary being faxed to the CP is accompanied by a third page containing a short list of suggested potential issues to follow-up post-discharge.
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

4-3 Flow Chart: Intervention (Streamlined HMR Model) Group Discharge Procedure

**Intervention - HMR**

- Provide discharge medication counselling sheet and verbal counselling, via one of the following methods:
  - HP counsels & provides "in-house" counselling sheet
  - HP counsels & provides CMMS counselling sheet
  - RA counsels & provides "in-house" counselling sheet
  - RA counsels & provides CMMS counselling sheet

- Upload discharge medication information to repository

- Phone nominated community health providers and explain:
  - Community Pharmacist(s)
    - Where patient has nominated multiple, contact all, but explain full process in relation to them only to "primary" CP
    - Thank them for supplying the 6 month dispensing history at admission and inform them that their patient is now going home
    - Explain process of streamlined HMR model & their role in facilitating the process
    - Where the CP is not accredited or does not have an accredited Pharmacist to readily contact, offer to arrange one if required
    - Explain website functionality, potential benefits to them & their patients & invite them to enrol
    - Fax discharge medication information, with notification of HMR referral sent & cover sheet to patient’s nominated CP(s) within 24 hrs of discharge.
  - General Practitioner(s)
    - Where patient has nominated multiple, contact all, but explain full process in relation to them only to "primary" GP
    - Inform them that their patient is being discharged & where applicable, thank them for supplying the medication history on admission
    - Explain process of streamlined HMR model, what they will receive & how they can complete the referral process
    - Explain website functionality, potential benefits to them & their patients & invite them to enrol
    - Fax discharge medication information, in form of HMR referral, to patient’s nominated GP(s) within 24 hrs of discharge.
4-3.1 Discharge Data Collection

To be performed by:

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<td>RA</td>
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RA = Research Assistant; HP = Hospital Pharmacist

Objective
Collect baseline discharge data for comparison during data analysis

Process
The following data must be collected at the time of discharge for data analysis purposes:

- Discharge diagnosis
- Date of discharge
- Medications on discharge
  - Including changes and reasons for changes
  - Record new discrepancies found
- Refer to the medication discrepancies identified on admission and document the outcomes of these in the appropriate areas on the data collection sheet due to normal hospital procedures
- Whether the patient received a counselling sheet and/or verbal counselling
- Whether a HMR has been recommended by the hospital
- Any other relevant medication-related data
  - eg commencement of a dose administration aid
## 4-3.2 Provision of a Discharge Counselling Sheet and verbal counselling

### To be performed by:

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<tr>
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RA = Research Assistant; HP = Hospital Pharmacist

### Objective

Provide the patient with verbal counselling and a discharge counselling sheet at time of discharge.

### Process

Each patient is to be provided with a discharge counselling sheet and verbal counselling by either their HP or the RA depending on the location.

The four possible options for providing this service include:

1. The HP using the in-house counselling sheet generating system
2. The RA using the in-house counselling sheet generating system
3. The HP using the Cognicare system to generate the sheet
4. The RA using the Cognicare system to generate the sheet

The following are suggested processes for completing this task, depending on the situation:

1. **The HP using the in-house counselling sheet generating system**
   
   This scenario arises in hospitals where provision of a counselling sheet and counselling by a hospital pharmacist at time of discharge is common practice. Under these circumstances, the RA should always check with the HP first to see if they are going to perform the discharge counselling and provide the sheet.
   
   Once the HP has completed the counselling, a copy of the counselling sheet may be collected and used to enter the discharge information to the repository for viewing on the web.
   
   In the circumstances where the HP is not in a position to perform the discharge counselling, the RA must perform it in their place. (see 2.)

2. **The RA using the in-house counselling sheet generating system**
   
   This scenario arises when the HP is unavailable to provide the patient with verbal counselling using an in-house counselling sheet. The RA must confirm with the HP that it is ok for them to provide the counselling instead.
   
   Once this has been approved by the HP, the RA should then produce the counselling sheet, using the in-house system to ensure consistency, and perform the counselling.
   
   The patient must be visited and the sheet must be verbally explained with or without the discharge medications (depending on the local procedure). Changes and new medications should be highlighted, devices demonstrated and any questions addressed.
   
   Once the RA has completed the counselling, a copy of the counselling sheet may be used to enter the discharge information to the repository for viewing on the web.
3. The HP using the Cognicare system to generate the sheet
This scenario may arise when an HP expresses a desire to provide a counselling sheet, but does not have an in-house system. In this case the RA may produce the sheet on their laptop using their Cognicare program, or show the HP how to go about it. The sheet can then be used by the HP to complete the counselling.
This sheet may also be used to enter the discharge information to the repository for viewing on the web.

4. The RA using the website to generate the sheet
This scenario will arise in those locations that do not routinely have an HP available to provide a counselling sheet or an in-house counselling sheet generating program. In this case, once the patient has been identified as ready to go home, the RA must collect a copy of the discharge medications and produce a counselling sheet using the Cognicare system.
The patient must be visited and the sheet must be verbally explained with or without the discharge medications (depending on the local procedure). Changes and new medications should be highlighted, devices demonstrated and any questions addressed.
Once the RA has completed the counselling, a copy of the counselling sheet may be used to enter the discharge information to the repository for viewing on the web.

Each patient should be informed that they will receive a recommendation for a HMR to give to their GP if they do not initiate it themselves. This may be given to them by the HP or RA at time of discharge counselling or posted to them in the first day or two after discharge if the production of the recommendation occurs after they have gone home.
### 4.3.3 Upload of discharge medication information

**To be performed by:**

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*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**

Manually upload the patient’s discharge medication information to the website. This will allow for production of the community providers’ discharge information and the web-based counselling sheet and weekly checklist.

**Process**

The patient’s discharge medication information must be uploaded to the website via the project officer view on the website. This can be done by the Project Team members in Hobart to reduce workload of the individual research Assistants at other sites.

Once this is uploaded, the discharge medication information for the community health providers can be printed and sent, once again, via the project officer view on the website.

Each patient must receive a copy of the GP’s recommendation to give to their GP if they wish to have an HMR and the GP does not initiate it themselves on the first visit. This can either be provided to the patient by the RA or HP prior to discharge or posted as soon as possible if the production of the recommendation occurs after the patient has gone home.
4.3.4 Telephone nominated CP(s) at point of discharge

*To be performed by:*

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*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**

Telephone the patient’s nominated CP(s) at the time of discharge to inform them that their patient is going home, the contents of the information they will be faxed and discuss the streamlined HMR process.

**Process**

The nominated CP(s) must be phoned at point of discharge and the following items are to be addressed:

1. Confirm they are happy to receive the discharge medication information
2. Explain what the fax will contain:
   - Letter of explanation
   - Hospital stay information
   - Relevant medical history
   - Discharge medication information including:
     - Discharge medications, with changes highlighted
     - 1st of medications ceased while in hospital and why
   - Suggestions of issues that may need to be followed up post-discharge
3. What the streamlined process is:
   - What the streamlined process is trying to achieve
   - What the GP receives
   - What they may be able to do to facilitate the process
4. Confirm whether they have “access” to an accredited Pharmacist
   - If not, offer to find one for them
5. Offer to provide them with a username and password to allow them access to the website.
   - For those who are reluctant to enrol, explain that they may be able to view the website with the patient, provided the patient is present and agrees to log them in, however, they will not get the added benefits of the provider only view.

Where multiple CPs have been nominated, the patient’s preferred CP must be informed as above and the other CPs informed only that they will receive the information and should monitor their patient.
4-3.5 Telephone nominated GP(s) at point of discharge

_To be performed by:_

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_RA = Research Assistant; HP = Hospital Pharmacist_

**Objective**

Telephone the patient’s nominated GP(s) at the time of discharge to inform them that their patient has been enrolled in the trial, is going home, the contents of the information they will be faxed and discuss the streamlined HMR process.

**Process**

The nominated GP(s) must be phoned at point of discharge and the following items are to be addressed:

1. **The patient’s enrolment into the trial, including:**
   - What the trial is aiming to do
   - What group the patient has been enrolled into
   - The potential benefits to the GP
   - The potential benefits to the patient

2. **Confirm they are happy to receive the discharge medication information**

3. **Explain what the fax will contain:**
   - Letter of explanation
   - Hospital stay information
   - Relevant medical history
   - Discharge medication information including:
     - Discharge medications, with changes highlighted
     - List of medications ceased
   - The necessary steps to allow the document to be used directly as an HMR referral

4. **What the streamlined process is:**
   - What the streamlined process is trying to achieve
   - What the GP receives
   - What the patient receives
   - How they can implement an HMR using the information provided

5. **Offer to provide them with a username and password to allow them access to the website,**
   - This should include a brief explanation of the website functionality and an offer to fax them an instruction sheet
   - For those who are reluctant to enrol, explain that they may be able to view the website with the patient, provided the patient is present and agrees to log them in, however, they will not get the added benefits of the provider only view.

Where multiple GPs have been nominated, the patient’s preferred GP must be informed as above and the other GPs informed only that they will receive the information and should monitor their patient.
4.3.6 Fax discharge information to the nominated GP(s) and CP(s)

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*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**

Fax the discharge information, along with their letters, to the nominated GP(s) and CP(s) within 24 hours of discharge.

**Process**

This faxing process should occur shortly after the phone call is performed.

For those who have agreed to register on the website, fax their “Welcome to the Website” sheet, including their username and password.

**Items to be faxed to the CP, in the following order, are:**
1. Med eSupport fax coversheet
2. CP’s streamlined HMR patient header letter (from website)
3. CP’s streamlined HMR patient Discharge Summary (from website)
4. Page of suggestions to CP
5. Welcome to the Website for providers, with username and password (if agreed to register)

**Items to be faxed to the GP, in the following order, are:**
1. Med eSupport fax coversheet
2. GP’s streamlined HMR patient header letter (from website)
3. GP’s streamlined HMR patient Discharge Summary (from website)
4. “Section B” page to make the discharge summary a streamlined HMR referral form
5. Welcome to the Website for providers, with username and password (if agreed to register)
<table>
<thead>
<tr>
<th>Task</th>
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<tbody>
<tr>
<td>1. Discharge data collection</td>
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<tr>
<td>2. Discharge counselling sheet</td>
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<tr>
<td>• Verbal Counselling</td>
</tr>
<tr>
<td>3. Upload Discharge medication information</td>
</tr>
<tr>
<td>4. Telephone CP</td>
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<tr>
<td>5. Telephone GP</td>
</tr>
<tr>
<td>6. Fax discharge information to GP &amp; CP</td>
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Section 4: Follow up Process

Outline

Overall Objective
To facilitate, where possible, the performance of an HMR in a timely manner post-discharge. Also, to obtain follow-up outcomes for patients 30 days post discharge, including Compliance, knowledge, Quality of Life, Drug related problems and HMR uptake. Patient and nominated community health providers’ satisfaction with the services provided will also be measured via an anonymous survey posted at 30 days post discharge.

Process Summary
Where possible, the RA is to facilitate the performance of an HMR. However, this process cannot be forced and can only be commenced if the GP chooses to initiate the HMR.

The patient is to be telephoned at 30 days post-discharge to collect follow-up data. The phone conversation should be performed in the manner of a conversation about how they are going with their medication management and general health. Where possible, survey questions are to be incorporated into this conversational structure, not performed in a formal manner.

Follow-up data to be collected include:

- Readmission to hospital
- Performance of an HMR
- Changes in medications since discharge
- Website utilisation
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs.

The role and importance of the satisfaction survey, along with how to complete it and return it must also be explained.
4-4 Flow Chart: Intervention Group (Streamlined HMR Model) Follow-up Process

**Intervention - HMR**

Within first 5-7 days post discharge

- Contact CP (and/or AP where necessary) to follow-up progress of HMR referral & assist where required to facilitate timely performance of HMR. This may include:
  - Assist with patient liaison
  - Provide Accredited Pharmacist
  - Direct to web site for information
  - Assist with GP liaison

**30 days post discharge**

- Telephone CP to collect list of medications & other relevant information dispensed for the patient post-discharge

- Telephone Patient/Carer at 30 days post discharge to collect:
  - Readmission data
  - Account of current medications

- Compliance survey data
- Knowledge survey data
- Quality of Life survey data
- Self-Reported DRPs
- HMR performed

- Follow-up any significant concerns raised by the Patient/Carer
- Where performed or Patient answer not clear, follow-up CPs/APs and collect data for HMRs performed
- Post satisfaction surveys to participating health professionals and patients/carers

**Follow-up return of surveys as necessary**
### 4.4.1 First 5-7 days post discharge

**To be performed by:**

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</table>

*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective:**

Facilitate where possible, the performance of an HMR within 5-7 days post discharge.

**Process:**

After initial contact with the CP and GP at the point of discharge, the following tasks may need to be undertaken to facilitate the HMR process occurring ASAP after discharge:

- Contact CP to encourage follow-up of HMR
- Suggest ideas/assist with GP liaison
- Provide an accredited pharmacist
- Suggest ideas to assist with patient liaison
- Provide further information to CP on the HMR process (direct to website where appropriate)
- Provide further information to GP on the HMR process (direct to website where appropriate)

Please note: An HMR cannot be forced upon the GP and/or CP, but facilitation to ensure the process runs smoothly and in a timely manner is important.
4.4.2 30 days post-discharge follow-up telephone call

To be performed by:

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Telephone patient at 30 days post discharge to complete follow up data collection, including:

- Readmission to hospital
- Performance of an HMR
- Changes in medications since discharge
- Website utilisation
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs.

Process

Prior to telephoning patients at home, the patient’s nominated community pharmacy is to be called. This call is to obtain the Pharmacy’s account of any medication changes the patient may have had post-discharge and gather any further relevant information before phoning the patient, for example, performance of an HMR or commencement of a dose administration aid. The community Pharmacy’s account of the patient’s medications can be recorded on the page before the follow-up section of the data collection sheet.

Patients are to be telephoned at home at the time agreed while they were in hospital. If they did not specify a time, call when able. Using the follow-up section of the data collection sheet as a guide, the following items must be covered:

Readmission to hospital

- Ask the patient if they have been back to hospital since they were enrolled in the trial.
  - If they answer yes, collect details on the readmission from their view, to assist with assessing whether the readmission was medication related at the time of analysis.

Performance of an HMR

An HMR has been actively recommended to be performed through the streamlined HMR process. Therefore, it is essential to determine whether an HMR was performed in the first 30 days post-discharge to provide comparative data for analysis.

In order to gain an accurate answer, the HMR process, from the patient’s perspective, may need to be explained. If the patient is unable to answer definitively, the patient’s nominated GP or CP may need to be contacted to confirm.
Changes in medications since discharge

- Ask the patient if they are aware of any changes in their medications since discharge.
  - If they answer yes, collect the details of the changes, from the patient’s perspective.

Website Utilisation
Website utilisation is determined using the questions outlined in the data collection sheet.

Knowledge Survey
As in the inpatient interview, collect the patient’s account of the medications they are taking at the time of the phone call. Please note if they are using any prompts, such as the medication packets or a medication list and any carer involvement in the discussion.

At the end of the telephone call, the patient’s account and the community pharmacist’s account of the current medication list should be collated to produce a final list of medications at 30 days post discharge. As in the inpatient process, this final collated list is to be used as the basis for calculating the patient’s knowledge score.

- To calculate the patient’s knowledge score, four prescribed medications are to be picked at random from the final collated list of medications. To do this:
  
  i. Place the list of prescribed medications in alphabetical order
  j. Using the random numbers supplied, align the alphabetical medications list with the random number list
  k. The first four aligned with even numbers are the ones selected for the knowledge score.
  l. Once selected, enter the results into the database to retrieve your final score.

- For Example:

<table>
<thead>
<tr>
<th>Random No</th>
<th>List of Medications (alphabetical order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Aspirin</td>
</tr>
<tr>
<td>4</td>
<td>Fluoxetine</td>
</tr>
<tr>
<td>55</td>
<td>Frusemide</td>
</tr>
<tr>
<td>78</td>
<td>Irbesartan</td>
</tr>
<tr>
<td>86</td>
<td>Metformin</td>
</tr>
<tr>
<td>3</td>
<td>Paracetamol</td>
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<tr>
<td>22</td>
<td>Temazepam</td>
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</table>

- The results from the four medications randomly selected are used to calculate the final knowledge score:
Compliance Survey

- Ask the four compliance survey questions shown below. As for the knowledge survey, please record any carer involvement in the survey.
- Each of these questions must be asked word for word each time the survey is performed to ensure consistent results are obtained.
- For each question, a positive answer (YES) indicates non-compliant behaviour for that question. The number of ‘YES’ answers determines the person’s level of compliance, as indicated in the scoring table in the example below.

<table>
<thead>
<tr>
<th>Question</th>
<th>YES / NO</th>
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<tbody>
<tr>
<td>1. Do you sometimes forget to take your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2. Do you think it’s unimportant to take your medicine regularly?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3. When you feel better, do you sometimes change the way you’re taking your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4. Sometimes if you feel worse when you take your medicine do you alter the way you take it?</td>
<td>YES / NO</td>
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<table>
<thead>
<tr>
<th>Number of ‘YES’ answers</th>
<th>Level of compliance</th>
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<td>0 items</td>
<td>High</td>
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<td>1 item</td>
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<td>3 items</td>
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<td>4 items</td>
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Quality of Life Survey

The Australian Quality of Life (AQoL) Survey is to be performed following the exact interview process laid out by the Survey’s authors.
Implementation Instructions

- All items include reference to the timeframe: ‘in the last week’.
- Illustrative examples are given using *italics*. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in *italics* and *square brackets* in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confusing.
- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

Introductory Paragraph

There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:

- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Questions to be Asked

**Question 1.**
In the last week, did you need medical treatment from a doctor or other health professional?

Would you say:

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.

**Question 2.**
Did you need any help with personal care in the last week?

[For example help with activities like washing, dressing, personal grooming or going to the toilet.]

Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

**Question 3.**
When doing household tasks during the last week, did you need any help?

[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.]

Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

Question 4
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but got around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5
Were your personal relationships in the last week affected by your health?
[For example, the relationship with your partner or parents.]
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7
Thinking about your health and your relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.

Question 8
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
[For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
[For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
[For example: you needed a guide to move around.]
Appendices: Trial process documents

Appendix XIV Med eSupport Trial protocol

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in conversations
    because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble
   understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what
   others were saying.
D. You could not adequately communicate with others

Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without
   difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without
   difficulty.
D. You slept in short bursts only. You were awake most of the night.

Question 12.
Thinking about how you generally felt in the last week.
Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week.
Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.
Scoring
The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>6 x 1 = 6</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 x 2 = 8</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 x 3 = 6</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 x 4 = 4</td>
</tr>
</tbody>
</table>

Final Score: 24

Therefore, the patient in the example scored 24 on the AQLoL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.

Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.

Drug Related Problems

Self-reported DRPs
Ask if they have been experiencing any issues with their medications in order to collect their account of possible DRPs.

- Ensure questions remain general, such as “Have you recently experienced any difficulties with your medications?”
- Avoid leading questions such as “Do you get a cough from your Coveryl?”
- Answers to these general questions are to be categorised, using the following groups. This list is a categorisation tool, not a list of questions. Example of categorisation can be found in the following section.

Categorisation of DRPs

The categorisation of patient’s DRPs will be performed at a later date by the Project Team. Please record any self-reported issues or concerns identified during the conversation in the appropriate sections to assist in this process.

Please note, if in discussion, any significant concerns or issues are raised by the patient and/or carer, follow-up of the concerns/issues with the patient’s community health providers is appropriate.
4-4.3 Satisfaction Survey

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie's'</th>
<th>Hollywood</th>
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<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
Gain the patient and community health care providers anonymous account of their satisfaction with the services they have received during and post-discharge.

Process

Patient
At the end of the 30 day follow-up phone call, inform the patient/carer that an anonymous satisfaction survey will be posted to them with a reply paid envelope for easy return. Explain that this is an opportunity for them to anonymously comment on the services they received and that their comments are very valuable to us, therefore return of the survey is really important.

Once, the phone call is complete, post the survey and a reply paid envelope to the patient and record in the database.

Community Pharmacy(s)
At the end of the 30 day follow-up period, send the Community Pharmacist the anonymous satisfaction survey for CPs with the cover letter. This cover letter contains a reminder of the project, who their patient was, when they were discharged from hospital, and for the primary CP, a reminder of the suggested potential issues to follow-up sent with the discharge summary to assist with answering some of the questions. The cover letter also offers the CP entry into a competition to win a wine pack valued at $150. Therefore, when sending the reply paid envelope, attach a small identifier to the inside of the envelope that will indicate who has returned the survey to allow them to be entered into the competition. This information is not to be recorded on the survey proper as anonymity must be maintained.

The survey is to be posted, with the cover letter and a reply paid envelope, with a small identifier to facilitate return. Once the survey has been sent, record in the database.

GP(s)
At the end of the 30 day follow-up period, send the GP the anonymous satisfaction survey for GPs with the cover letter. This cover letter contains a reminder of the project, who their patient was and when they were discharged from hospital. The cover letter also offers the GP entry into a competition to win a wine pack valued at $150. Therefore, when sending the reply paid envelope, attach a small identifier to the inside of the envelope that will indicate who has returned the survey to allow them to be entered into the competition. This information is not to be recorded on the survey proper as anonymity must be maintained.

The survey is to be posted, with the cover letter and a reply paid envelope, with a small identifier to facilitate return. Once the survey has been sent, record in the database.
## Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Facilitate HMR process where possible</td>
</tr>
<tr>
<td>2. Phone Patient</td>
</tr>
<tr>
<td>• Knowledge Survey</td>
</tr>
<tr>
<td>• Compliance Survey</td>
</tr>
<tr>
<td>• QoL Survey</td>
</tr>
<tr>
<td>• Self-reported DRPs</td>
</tr>
<tr>
<td>• HMR been performed</td>
</tr>
<tr>
<td>3. Post Satisfaction Survey to Patient</td>
</tr>
<tr>
<td>4. Post Satisfaction Survey to CP</td>
</tr>
<tr>
<td>5. Post Satisfaction Survey to GP</td>
</tr>
</tbody>
</table>
CHAPTER FIVE - Intervention Group (PDMR)

Section 1: Admission Process

Outline

Overall Objective
To collect the relevant data relating to each patient enrolled in the Intervention – PDMR group of the trial and compile a list of medications taking prior to admission by reconciling the admission medication information provided by the patient, their GP (where necessary), their Community Pharmacist and their admitting RMO. Further, to report any discrepancies identified between the reconciled medications prior to admission and the current inpatient drug chart to the RMO within 24hrs of admission.

Process Summary
Upon successful identification, randomisation and enrolment, the next step is the admission process. The RA should routinely contact the HP (if HP at site) prior to commencing the admission process to determine if a patient’s account of their medications on admission or the GP’s medication history has already been acquired. This avoids, where possible, duplication of work.

Contact is made with the patient’s nominated CP(s) to obtain a 6 month dispensing history. A medication history should also be obtained from the patient’s GP if clarification is required.

The CP’s, GP’s, RMO’s and patient/carer’s account of their medications on admission should be compared and a reconciled list of medications the patient was taking prior to admission collated. This reconciled list, along with identified discrepancies and suggested solutions are compiled in a standard trial report.

The report is then verbally communicated to the RMO by the RA or HP, either in person, or by phone where necessary. One copy of the report is to be placed in the patient’s notes, one given to the RMO and one kept with the patient’s data collection sheet for analysis purposes.
5.1 Flow Chart: Intervention Group (PDMR) Admission Process

1. **Intervention - PDMR**
   - Telephone patient’s nominated CP and verify their nomination
     *(If multiple, call each)*
   
   - Confirm CP happy to transfer 6 months of dispensing history
   
   - Ask if there is any additional information relevant to the patient, including use of a dose administration aid & known OTC use.
   
   - Where necessary, telephone patient’s nominated GP(s), verify their nomination and obtain medication history
   
   - *Where necessary, fax patient consent form and cover sheet to CP & GP*
   
   - Where faxed directly, fax copy to trial office, for upload to repository & use original to complete admission process
   
   - Where uploaded to the repository directly, download for use to complete admission process
   
   - Compare the Patient, CP, GP & RMO’s medications on admission data to create RA’s final reconciled list.
   
   - Combine the reconciled list, with outline of discrepancies and suggested solutions on the standard RMO’s report form
   
   - Present report to RMO with explanation of discrepancies highlighted and suggestions. Record uptake and reasons if not
5-1.1 Collect CP’s medication list on admission

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
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<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Obtain a 6 month history of dispensed medications from the patient’s nominated CP(s) in order to create the RA’s reconciled list of medications on admission, identify discrepancies and present to the RMO within 24 hours of admission to ward.

Process

- CP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained
- Arrange to obtain the dispensing history in a timely manner. Possible methods include:
  - Direct upload to repository, to be viewed on the web within the hospital
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
  - Fax of information to the trial office, for upload to the website directly
    - Items faxed to the trial site are also to be transferred to the trial office, to be manually uploaded to the web by trial staff
- Request CP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dosette/Webster pack
    - Known OTC medication use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Handwritten note on the faxed dispensing history
    - Separate document faxed to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the CP

Please note, for a patient with multiple CPs, the process must be performed for each CP.
5.1.2 Collect GP’s medication list on admission

To be performed by:

<table>
<thead>
<tr>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
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<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
If required for clarification, obtain a medication history of dispensed medications from the patient’s nominated GP(s) in order to create the RA’s reconciled list of medications on admission, identify discrepancies and monitor for resolution of the discrepancies through normal hospital care.

Process
Contact GP to obtain their view of what their patient is taking, unless physical evidence this has already been done (e.g., Medical Director print out) can be found in the notes, or it is apparent that the information is not required. To do this:

- GP to be telephoned and confirmation that the patient is theirs and they are happy to transfer information to be obtained
- Arrange to obtain the prescribed medication history in a timely manner. Possible methods include:
  - Fax of information to the hospital pharmacy department
  - Fax of information to the RA’s office
- Request GP to include any further information that may be relevant to medication use.
  - This may include:
    - Use of a dosette/Webster pack
    - Known OTC medication use
    - Known compliance issues
  - This information can be transferred either:
    - Verbally during the telephone call
    - Hand-written note on the faxed medication history.
    - Separate document faxed or to the RA
- Patient/carer consent can be verified where requested, via faxing of consent form to the GP
- Under some circumstances, when there are only a couple of items unknown and to be clarified with the GP, a full list will not be required and a verbal exchange of information will be adequate.

Please note, for a patient with multiple GPs, the process must be performed for each GP.
5-1.3 Compilation of Reconciled List

To be performed by:

<table>
<thead>
<tr>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
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<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
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</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Compile RA’s reconciled list of prescribed medications on admission for patient using patient/carer, CP, RMO and GP information.

Process

The list is to be created using the following information sources:

- CP 6 month dispensing history
- RMO’s medication on admission list from patient notes
- RMO’s initial drug chart (if necessary)
- GP’s medication history (if necessary)
- Patient/carer account of the medications they were taking at time of admission

These information sources are to be compared, discrepancies identified and a final reconciled list produced.

For example:

<table>
<thead>
<tr>
<th>CP History</th>
<th>RMO History</th>
<th>GP History</th>
<th>Patient/Carer Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 150mg daily</td>
<td>Irbesartan 300mg daily</td>
<td>Irbesartan 300mg daily</td>
</tr>
<tr>
<td>Frusenamide 40mg bd</td>
<td>Frusenamide 40mg daily</td>
<td>Frusenamide 40mg daily</td>
<td>Frusenamide 40mg bd</td>
</tr>
<tr>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
<td>Metformin 500mg tds</td>
</tr>
<tr>
<td>No Temazepam listed</td>
<td>Temazepam 10mg nocte</td>
<td>Temazepam 10mg nocte</td>
<td>Not taking</td>
</tr>
<tr>
<td>Panamax 500mg OTC</td>
<td>Panamax 500mg 2 prn</td>
<td>No Panamax listed</td>
<td>Panamax 500mg 2 prn</td>
</tr>
</tbody>
</table>

In this example, it is noted that the initial drug chart is the same as the RMO’s history in the notes, except for the addition on an antibiotic on admission.

Therefore, the reconciled list of what the patient was taking prior to admission would most likely be:

9. Irbesartan 300mg daily
10. Frusenamide 40mg bd
11. Metformin 500mg tds
12. Panamax 500mg 2 prn

Please note, the compilation of this list will not always be clear, the RA must use their own clinical judgement to complete the list.
5.1.4 Creation of Report

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
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<tbody>
<tr>
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<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Create a report containing the RA’s reconciled medications on admission list, from the RMO, CP and GP information, the patient’s account of what they were taking at the time of admission, discrepancies identified and suggested solutions.

Process

Using the “Dear RMO…” letter template, create a report listing the reconciled list of medications, the discrepancies found and the suggested solutions. For the example in section 5.1.3, the letter may contain the following pieces of information:

Reconciled list of Medications taking at time of admission:

5. Irbesartan 300mg daily
6. Frusemide 40mg bd
7. Metformin 500mg tds
8. Panamax 500mg 2 pm

Discrepancies found and recommendations:

5. Patient charted for Irbesartan 150mg, taking Irbesartan 300mg prior to admission - check patient’s blood pressure and change to 300mg dosage if necessary.
6. Patient has been taking Frusemide 40mg bd, despite the GP recently decreasing their dose to 40mg ONCE daily. Review dosage requirements bearing in mind patient has been taking double dose for some time.
7. Patient does not use Temazeepam for sleep as a personal choice.

On the data collection sheet, record total number of discrepancies, plus number of discrepancies found between:

7. The CP’s dispensing history and the RA’s compiled list
   • In this example there is one, as the Frusemide dose was wrong.
8. The CP’s list in relation to OTC medications and the RA’s compiled list
   • In this example there are none, as the CP identified that the patient bought Panamax OTC.
9. The RMO’s initial drug chart and the RA’s compiled list
   • In this example there are three, as the Irbesartan dose is wrong, the Frusemide dose is different to what the patient is actually taking and the Temazeepam is not being used by the patient.

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5-1.5 Presentation of Report to RMO

To be performed by:

<table>
<thead>
<tr>
<th></th>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HP or RA</td>
<td>HP or RA</td>
<td>RA</td>
<td>HP or RA</td>
<td>HP or RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective
Provide the RMO with the “Dear RMO...” letter, containing the reconciled list of medications on admission, discrepancies identified and suggested solutions.

Process:
Contact should be made with the RMO by phone/page or in person to arrange a suitable time to discuss the details of the report. This discussion should occur in person wherever possible. If this is not possible, it should at least be performed over the phone – some sort of person to person contact is essential. The conversation should ideally occur within 24 hours of admission to the ward.

Suggested discussion process:
5. Outline the nature of the trial and what it is aiming to achieve
6. Explain the layout of the report, with particular note that the report is not to be considered the definitive list of medications on admission, just a best estimate from the sources of information available to the RA.
7. Explain the nature of the potential discrepancies/concerns outlined, and the corresponding suggested solutions.
8. Uptake of the suggestions is to be recorded and a reason is required in the event of non-uptake. Recording of this information may be done in one of the following ways:
   a. Record uptake during discussion
   b. Provide a copy of the form to the RMO to record their uptake throughout the stay.
   c. View the patient’s notes close to discharge
   d. Ask the RMO to record their uptake in the copy in the notes throughout the patient’s stay.

One copy of the form is to be placed into the admission notes, one provided to the RMO and one kept with the patient’s data collection sheet for analysis purposes.

Please record the date and time contact was made with the RMO.

Please note, for those patients who have a clinical pharmacist attending to their unit/ward, the pharmacist should be contacted first and the process explained. The hospital pharmacist must be given the choice to contact the RMO in place of the RA so as not to interfere with their normal workflow.
## Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CP 6 month Dispensing History</td>
</tr>
<tr>
<td>- Additional information</td>
</tr>
<tr>
<td>2. GP Medication History (if necessary)</td>
</tr>
<tr>
<td>- Additional information</td>
</tr>
<tr>
<td>3. RMO’s most reliable list of medications</td>
</tr>
<tr>
<td>4. Reconciled medication list</td>
</tr>
<tr>
<td>- CP, GP, patient, RMO lists</td>
</tr>
<tr>
<td>- Discrepancies/ suggestions</td>
</tr>
<tr>
<td>5. Report to RMO</td>
</tr>
<tr>
<td>6. Record uptake of discrepancies/suggestions</td>
</tr>
</tbody>
</table>
Section 2: Inpatient Interview

Overall Objective
To carry out a detailed inpatient interview (at second contact with patient) including a detailed explanation of the trial and services the patient may expect to receive, confirm patient details, and complete the AQoL survey.

Process Summary
This interview should preferably take place in the presence of the patient’s family/carer. The patient should be reintroduced to the project and informed that they have been enrolled into the intervention group. The patient’s demographic and general data should also be confirmed at this second meeting.
The Australian Quality of Life (AQoL) survey is conducted for the first time to serve as a baseline for comparison at the conclusion of the trial. The RA should offer no opinion or interpretation of the questions, doing their best to avoid influencing the patient’s responses.
Information on the services expected to be received by the patient enrolled in the trial (as outlined on the Project information sheet) is conveyed to the patient both verbally and in writing. The patient/carer is provided with their project package and the contents may be used as a prompt when explaining the services.
When expanding on the services to be received, the RA should outline how these services will benefit the patient/carer GP/CP in the long run. In particular, the HMR process and how to utilise this service should be made clear to the patient.
The 30 day post-discharge follow-up phone call and satisfaction survey (which applies to all four subgroups) needs to be discussed with the patient at this stage. The RA should establish an appropriate telephone number and preferred time to call to facilitate this process.

Please note, if the patient is able in the admission interview, the AQoL survey can be performed at that point. Conversely, if the RA did not perform the knowledge and compliance surveys and obtain the patient’s self-reported DRPs during the admission process, these should be completed during this interview.
5.2 Flow Chart: Intervention (PDMR) Group Inpatient Interview Process

The following items are to be covered (in any order that suits the situation):

- Confirmation of demographic details
- Where not completed in first interview, conduct knowledge and compliance surveys and self-reported DRPs
- Conduct Quality of Life Survey (if not conducted in first interview)
- Inform patient they have been randomised to the intervention group
- Present patient with project package (may be used as a tool to facilitate explanation of the trial)
- Provide a more detailed explanation of trial and services they will receive:
  - Discharge counselling sheet and counselling
  - FAX discharge information to GP and Community Pharmacy
  - Website Functionality
  - Conduction of a PDMR
- Explain process, what they’ll receive and the potential benefits to them
- Outline difference to current practice and why this information sharing is beneficial to them
- Using the document provided in the Project Package, discuss features, access and potential benefits
- Explain the PDMR process & potential benefits & arrange preferred time to contact patient/carer to organise visit
- Explain follow-up phone call at 30 days post-discharge and document preferred time for call if requested
- Indicate on Information Sheet trial staff to contact with any concerns
5-2.1 Reintroduction of the Project to the Patient

To be performed by:

<table>
<thead>
<tr>
<th>RHH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie’s</th>
<th>Hollywood</th>
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<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Reintroduce the patient to the project, inform them of their group allocation and confirm their demographic details.

Process:

This patient interview, where possible, should be performed in the presence of the patient’s family &/or carer. This increases the likelihood of the information provided being remembered and hence, the new services being utilised &/or accepted post-discharge.

The following should be covered:
- Reminder that they have enrolled in the study
- Notification that their Community Pharmacy(s) have provided their 6 month dispensing history
- Indication that they have been placed in the Intervention Group
- Confirmation of their demographic & general data
5.2.2 Explanation of Quality of Life Survey

To be performed by:

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<tr>
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<th>RHII</th>
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<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

*RA = Research Assistant; HP = Hospital Pharmacist

Objective
Perform the Australian Quality of Life Survey to obtain baseline data.

Process:
The Australian Quality of Life (AQoL) Survey is to be performed following the exact interview process laid out by the Survey’s authors.

Implementation Instructions

- All items include reference to the timeframe: ‘in the last week’.
- Illustrative examples are given using *italics*. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in *italics* and *square brackets* in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confusing.
- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

Introductory Paragraph
There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:

- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Questions to be Asked

**Question 1.**
In the last week, did you need medical treatment from a doctor or other health professional?
Would you say:

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.
Appendices: Trial process documents

Appendix XIV    Med eSupport Trial protocol

Question 2.
Did you need any help with personal care in the last week?
[For example help with activities like washing, dressing, personal grooming or going to the toilet.] Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

Question 3.
When doing household tasks during the last week, did you need any help?
[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.] Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.

Question 4.
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but got around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5.
Were your personal relationships in the last week affected by your health?
[For example, the relationship with your partner or parents.] Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6.
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7.
Thinking about your health and you relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.
Question 8.
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: often you did not understand what was said. You did not take part in conversations
   because you could not hear what was said.]
D. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble
   understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what
   others were saying.
D. You could not adequately communicate with others

Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without
   difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without
   difficulty.
D. You slept in short bursts only. You were awake most of the night.
Question 12.
Thinking about how you generally felt in the last week. Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week. Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.

Scoring
The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
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<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>6 x 1 = 6</td>
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<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 x 2 = 8</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 x 3 = 6</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 x 4 = 4</td>
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Final Score: 24

Therefore, the patient in the example scored 24 on the AQL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.

Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.
5.2.3 Explanation of Project Package Contents

To be performed by:

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Present the Project Package to the Patient &/or Caregiver and explain its contents.

Process

The Project Package contains the following:

- A welcome to the project page
- A business card containing a list of Project Team Contacts
- A website instruction sheet, including the patient’s user name and password
- A “where to find a computer” sheet, including a list of the local state libraries and Online Access Centres
- The Australian Council for Safety and Quality’s 10 tips for safer health care pamphlet
- PGA & ADOP’s Margaret Fulton HMR Pamphlet
- Promotional Fridge Magnet

Each item should be demonstrated and explained. In particular, the website instruction sheet can be used to discuss the website.
5-2.4 Explanation of Discharge Counselling Sheet & Counselling

To be performed by:

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain to the patient (and carer where applicable) the process of discharge counselling and the discharge counselling sheet.

Process

Some patients may have experienced this process during previous admissions. For those, a brief reminder is adequate.

For those patients/carers not familiar with the service, explanation of the process, along with a demonstration of the sheet (using an example sheet) is required.

Benefits of verbal counselling and the counselling sheet must be highlighted including:

- Clear explanation of any medication changes made during their stay
- Demonstration of any new devices
- Opportunity to ask questions regarding their medication therapy
- Counselling sheet to take home and consult as required

Depending on the Hospital you are working in; explain to the patient who is likely to be performing this service.
5.2.5 Explanation of transfer of discharge medication information to GP(s) & CP(s)

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RA = Research Assistant; HP = Hospital Pharmacist

Objective
Explain to the patient (and carer where applicable) the process of transferring their discharge medication information to their nominated GP and Community Pharmacist and the nature of the information being transferred.

Process
The following should be covered:

- The information is faxed to the nominated GP(s) and CP(s) within 24 hours of discharge
- The nature of the information being sent:
  - Their name and required personal details
  - Details of their hospital stay, including:
    - Dates of admission and discharge
    - Diagnoses
  - Relevant Medical History
  - Discharge Medication List and explanations of changes, if any
- The benefits of this process, including:
  - Better communication between the hospital and their GP regarding their medications
  - Better communication between the hospital and their Community Pharmacist regarding their medications
  - Facilitating acquisition of their new medications post-discharge
5.2.6 Explanation of Website Functionality & Usage

To be performed by:

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain to the patient (and carer where applicable) the functionality, security and potential benefits of the website, plus a basic overview of how to use it.

Process

Using the How to use the Website document in their project package as a guide, the following topics are to be covered:

- What the website is
  - A secure trial site allowing personal medication information sharing between patients, hospital and community providers

- What it does
  - Stores their medication information
  - Allows them to make notes about their medications for their GP and CP
  - Allows them to view notes about their medications from their GP and CP
  - Searching for other information and resources regarding medications
  - Download and print their discharge medication counselling sheet
  - Download and print their discharge medication weekly checklist
  - Download and print medication counselling sheets and/or weekly checklists produced by their GP or CP post-discharge
  - Download and print CMIs

- Who has access
  - The patient and anyone else they choose to give permission to, eg another family member
  - Their nominated GP
  - Their nominated CP

- Why it is secure
  - The Med eSupport website employs a standard security model as used in other secure web-based systems, such as online banking. The underlying encryption ensures that all data sent to and from the website can not be monitored by a third party, while the use of a strong username and password will guarantee that no unauthorised users can access your record.
5.2.7 Explanation of Post-Discharge Medication Review (PDMR) Process

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*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**
Explain the process of the PDMR and arrange a suitable visit date and time.

**Process**
The Project Package contains the Margaret Fulton HMR pamphlet for patients. This may be used as a tool to explain the process. If so, it is important to clearly outline the differences between the conventional HMR process and the trial funded and implemented PDMR.

Explanation of the process is to include:

**The purpose of the PDMR**
- Visit to the home by the Pharmacist
- Time to ask questions about medications
- Chance to have your regime closely viewed to ensure optimal therapy

**When it should take place and why**
- Within 5-7 days post-discharge
  - Explain is optimal time, but will still be beneficial if performed later
- A period of great change for many
- High-risk of errors due to miscommunication
  - Be careful not to alarm the patient
- Allows the patient to clarify the changes/refinements to their medications freshly after going home

**Who would visit**
- Their Community Pharmacist
- A (random) Accredited Pharmacist
- One of the Project Team

**What happens after the visit**
- The accredited pharmacist performing the review sends the report to the patient’s GP and CP
- The patient visits their GP to follow-up on the report, which provides the patient with the opportunity to discuss findings with their GP with the aim to optimise their medication management

Once the process is explained and any questions answered, a preferred day and time should be arranged. However, unless it is one of the Project Team performing the review (possibly the case in Hobart) the time cannot be fixed. They are to be advised that the preferred day and time will be confirmed once the accredited pharmacist performing the review is consulted.
A contact telephone number and preferred time to be called must also be arranged to facilitate initial post-discharge contact to finalise visit arrangements.
5.2.8 Explanation of the Follow-up Phone Call & Survey

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Explain the process of the follow up phone call and patient (or carer where necessary) satisfaction survey.

Process

- Reminding the patient that this is a trial aiming to improve areas of the health system, inform them that they will be contacted by phone a month after they leave hospital to see how they are going and provide them with an opportunity to ask questions and to ask them some questions to ascertain the success of the project.
- Once they have received their phone call they will receive a satisfaction survey in the mail that will have a reply paid envelope enclosed. The patient must be made aware that the survey is anonymous and we are interested in their honest opinions on the new services provided, which aspects they felt were useful and what areas the service could be improved.
- Again, a preferred contact telephone number and time of call should be sought to facilitate the follow-up process.
### Summary Box

<table>
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<tr>
<th>Task</th>
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<tr>
<td>1. Reintroduce Trial</td>
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<tr>
<td>Inform patient in Intervention Group</td>
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<tr>
<td>2. Confirm Demographic Details</td>
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<tr>
<td>3. Perform Quality of Life Survey</td>
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<td>4. Detailed explanation of extra services</td>
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<tr>
<td>- Discharge counselling/ sheet</td>
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<td>- Transfer of information to GP &amp; CP</td>
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<td>- Website functionality</td>
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<td>- PDMR</td>
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<td>6. Arrange preferred time/place of contact to organise home visit</td>
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<tr>
<td>7. Explanation of 30 day post discharge follow up</td>
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Section 3: Discharge Process

Outline

Overall Objective
Supply the patient and their nominated community health providers with discharge medication information at the point of discharge and make it available for post-discharge use on the Med eSupport Website.

Process Summary
The patient is to be supplied with a discharge counselling sheet and verbal counselling at time of discharge. The discharge summary is produced once the discharge medication and related information is uploaded to the website. Once created, the RA can print the summaries, and fax them to the GP and CP. The summary being faxed to the CP is accompanied by a third page containing a short list of suggested potential issues to follow-up post-discharge.
5.3 Flow Chart: Intervention (PDMR) Group Discharge Procedure

**Intervention - PDMR**

Provide discharge medication counselling sheet and verbal counselling, via one of the following methods:

- HP counsels & provides “in-house” counselling sheet
- HP counsels & provides CMMS counselling sheet
- PC counsels & provides “in-house” counselling sheet
- PC counsels & provides CMMS counselling sheet

Upload discharge medication information to repository

Phone nominated community health providers and explain:

**Community Pharmacist(s)**

Where patient has nominated multiple, contact all, but explain full process in relation to them only to “primary” CP

Thank them for supplying the 6 month dispensing history at admission and inform them that their patient is now going home

Explain process of the PDMR & their role in facilitating its performance

Where the CP is not accredited or does not have an accredited Pharmacist to readily contact, offer to arrange one

Explain website functionality, potential benefits to them & their patients & invite them to enrol

Fax discharge medication information & cover sheet to patient’s nominated CP(s) within 24 hrs of discharge.

**General Practitioner(s)**

Where patient has nominated multiple, contact all, but explain full process in relation to them only to “primary” GP

Inform them that their patient is being discharged & where applicable, thank them for supplying the medication history on admission

Explain process of the PDMR, what they will receive and why it is beneficial to them

Explain website functionality, potential benefits to them & their patients & invite them to enrol

Fax discharge medication information & cover sheet to patient’s nominated GP(s) within 24 hrs of discharge.
5.3.1 Discharge Data Collection

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RA = Research Assistant; HP = Hospital Pharmacist

Objective
Collect baseline discharge data for comparison during data analysis

Process
The following data must be collected at the time of discharge for data analysis purposes:

- Discharge diagnosis
- Date of discharge
- Medications on discharge
  - Including changes and reasons for changes
  - Record new discrepancies found
- Refer to the medication discrepancies identified on admission and document the outcomes of these in the appropriate areas on the data collection sheet due to normal hospital procedures
- Whether the patient received a counselling sheet and/or verbal counselling
- Whether a HMR has been recommended by the hospital
- Any other relevant medication-related data
  - eg commencement of a dose administration aid
5.3.2 Provision of a Discharge Counselling Sheet and verbal counselling

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RA = Research Assistant; HP = Hospital Pharmacist

Objective
Provide the patient with verbal counselling and a discharge counselling sheet at time of discharge.

Process
Each patient is to be provided with a discharge counselling sheet and verbal counselling by either their HP or the RA depending on the location.
The four possible options for providing this service include:

1. The HP using the in-house counselling sheet generating system
2. The RA using the in-house counselling sheet generating system
3. The HP using the Cognicare system to generate the sheet
4. The RA using the Cognicare system to generate the sheet

The following are suggested processes for completing this task, depending on the situation:

1. The HP using the in-house counselling sheet generating system
   This scenario arises in hospitals where provision of a counselling sheet and counselling by a hospital pharmacist at time of discharge is common practice. Under these circumstances, the RA should always check with the HP first to see if they are going to perform the discharge counselling and provide the sheet.
   Once the HP has completed the counselling, a copy of the counselling sheet may be collected and used to enter the discharge information to the repository for viewing on the web.

   In the circumstances where the HP is not in a position to perform the discharge counselling, the RA must perform it in their place. (see 2.)

2. The RA using the in-house counselling sheet generating system
   This scenario arises when the HP is unavailable to provide the patient with verbal counselling using an in-house counselling sheet. The RA must confirm with the HP that it is ok for them to provide the counselling instead.
   Once this has been approved by the HP, the RA should then produce the counselling sheet, using the in-house system to ensure consistency, and perform the counselling.
   The patient must be visited and the sheet must be verbally explained with or without the discharge medications (depending on the local procedure). Changes and new medications should be highlighted, devices demonstrated and any questions addressed.
   Once the RA has completed the counselling, a copy of the counselling sheet may be used to enter the discharge information to the repository for viewing on the web.
3. The HP using the Cognicare system to generate the sheet
This scenario may arise when an HP expresses a desire to provide a counselling sheet, but does not have an in-house system. In this case the RA may produce the sheet on their laptop using their Cognicare program, or show the HP how to go about it. The sheet can then be used by the HP to complete the counselling. This sheet may also be used to enter the discharge information to the repository for viewing on the web.

4. The RA using the website to generate the sheet
This scenario will arise in those locations that do not routinely have an HP available to provide a counselling sheet or an in-house counselling sheet generating program. In this case, once the patient has been identified as ready to go home, the RA must collect a copy of the discharge medications and produce a counselling sheet using the Cognicare system. The patient must be visited and the sheet must be verbally explained with or without the discharge medications (depending on the local procedure). Changes and new medications should be highlighted, devices demonstrated and any questions addressed. Once the RA has completed the counselling, a copy of the counselling sheet may be used to enter the discharge information to the repository for viewing on the web.
5.3.3 Upload of discharge medication information

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Manually upload the patient’s discharge medication information to the website. This will allow for production of the community providers’ discharge information and the web-based counselling sheet and weekly checklist.

Process

The patient’s discharge medication information must be uploaded to the website via the project officer view on the website. This can be done by the Project Team members in Hobart to reduce workload of the individual research Assistants at other sites.

Once this is uploaded, the discharge medication information for the community health providers can be printed and sent, once again, via the project officer view on the website.
5.3.4 Telephone nominated CP(s) at point of discharge

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Telephone the patient's nominated CP(s) at the time of discharge to inform them that their patient is going home, the contents of the information they will be faxed and discuss the PDMR process.

Process

The nominated CP(s) must be phoned at point of discharge and the following items are to be addressed:

6. Confirm they are happy to receive the discharge medication information
7. Explain what the fax will contain:
   - Letter of explanation
   - Hospital stay information
   - Relevant medical history
   - Discharge medication information including:
     - Discharge medications, with changes highlighted
     - List of medications ceased while in hospital and why
     - Suggestions of issues that may need to be followed up post-discharge
8. What the PDMR process is:
   - What the PDMR process is trying to achieve
   - What the GP receives
   - What the patient receives
   - What they may be able to do to facilitate the process
   - Explanation of payment
9. Confirm whether they have "access" to an accredited Pharmacist
   - If not, offer to find one for them
10. Offer to provide them with a username and password to allow them access to the website.
   - For those who are reluctant to enrol, explain that they may be able to view the website with the patient, provided the patient is present and agrees to log them in, however, they will not get the added benefits of the provider only view.

Where multiple CPs have been nominated, the patient’s preferred CP must be informed as above and the other CPs informed only that they will receive the information and should monitor their patient.
5.3.5 Telephone nominated GP(s) at point of discharge

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RA = Research Assistant; HP = Hospital Pharmacist

Objective

Telephone the patient’s nominated GP(s) at the time of discharge to inform them that their patient has been enrolled in the trial, is going home, the contents of the information they will be faxed and discuss the streamlined HMR process.

Process

The nominated GP(s) must be phoned at point of discharge and the following items are to be addressed:

6. The patient’s enrolment into the trial, including:
   - What the trial is aiming to do
   - What group the patient has been enrolled into
   - The potential benefits to the GP
   - The potential benefits to the patient

7. Confirm they are happy to receive the discharge medication information

8. Explain what the fax will contain:
   - Letter of explanation
   - Hospital stay information
   - Relevant medical history
   - Discharge medication information including:
     - Discharge medications, with changes highlighted
     - List of medications ceased
   - The necessary steps to allow the document to be used directly as an HMR referral

9. What the PDMR process is:
   - What the PDMR process is trying to achieve
   - What the GP receives
   - What the patient receives
   - Explanation of payment

10. Offer to provide them with a username and password to allow them access to the website,
    - This should include a brief explanation of the website functionality and an offer to fax them an instruction sheet
    - For those who are reluctant to enrol, explain that they may be able to view the website with the patient, provided the patient is present and agrees to log them in, however, they will not get the added benefits of the provider only view.

Where multiple GPs have been nominated, the patient’s preferred GP must be informed as above and the other GPs informed only that they will receive the information and should monitor their patient.
5.3.6 Fax discharge information to the nominated GP(s) and CP(s)

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*RA = Research Assistant; HP = Hospital Pharmacist*

Objective

Fax the discharge information, along with their letters, to the nominated GP(s) and CP(s) within 24 hours of discharge.

Process

This faxing process should occur shortly after the phone call is performed.

For those who have agreed to register on the website, fax their “Welcome to the Website” sheet, including their username and password.

Items to be faxed to the CP, *in the following order*, are:

1. Med eSupport fax coversheet
2. CP's PDMR header letter (from website)
3. CP's PDMR Discharge Summary (from website)
4. Page of suggestions to CP
5. Welcome to the Website for providers, with username and password (if agreed to register)
6. Invoice for services

Items to be faxed to the GP, *in the following order*, are:

1. Med eSupport fax coversheet
2. GP's PDMR header letter (from website)
3. GP's PDMR Discharge Summary (from website)
4. Welcome to the Website for providers, with username and password (if agreed to register)
5. Invoice for services
## Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Discharge data collection</td>
</tr>
<tr>
<td>2. Discharge counselling sheet</td>
</tr>
<tr>
<td>• Verbal Counselling</td>
</tr>
<tr>
<td>3. Upload Discharge medication information</td>
</tr>
<tr>
<td>4. Telephone CP</td>
</tr>
<tr>
<td>5. Telephone GP</td>
</tr>
<tr>
<td>6. Fax discharge information to GP &amp; CP</td>
</tr>
</tbody>
</table>
Section 4: Follow up Process

Outline

Overall Objective
To facilitate, where required, the performance of a PDMR in a timely manner post-discharge. Also, to obtain follow-up outcomes for patients 30 days post discharge, including Compliance, knowledge, Quality of Life, Drug-related problems and PDMR-related data. Patient satisfaction with “usual care” will also be measured via an anonymous survey posted at 30 days post discharge.

Process Summary
The RA must ensure a PDMR is performed within 5-7 days post-discharge.

The patient is to be telephoned at 30 days post-discharge to collect follow-up data. The phone conversation should be performed in the manner of a conversation about how they are going with their medication management and general health. Where possible, survey questions are to be incorporated into this conversational structure, not performed in a formal manner.

Follow-up data to be collected include:

- Readmission to hospital
- Performance of an HMR
- Changes in medications since discharge
- Website utilisation
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs.

The role and importance of the satisfaction survey, along with how to complete it and return it must also be explained.
5-4 Flow Chart: Intervention Group (PDMR) Follow-up Process

**Intervention - PDMR**

- **Within first 5-7 days post discharge**
  - Contact CP (&/or AP where necessary) to follow-up progress of HMR referral & assist where required to facilitate timely performance of HMR. This may include:
    - Assist with patient liaison
    - Provide Accredited Pharmacist
    - Direct to website for information

- **30 days post discharge**
  - Telephone CP to collect list of medications & other relevant information dispensed for the patient post-discharge

- **Telephone Patient/Carer at 30 days post discharge to collect:**
  - Readmission data
  - Account of current medications

- **Compliance survey data**
- **Knowledge survey data**
- **Quality of Life survey data**
- **Self-Reported DRPs**
- **PDMR data**

- Follow-up any significant concerns raised by the Patient/Carer
- Where not already collected, follow-up CPs/APs and collect PDMR report
- Post satisfaction surveys to participating health professionals and patients/carers

Follow-up return of surveys as necessary
5.4.1 First 5-7 days post discharge

*To be performed by:*

<table>
<thead>
<tr>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlie's</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective:**
Assist where required to facilitate timely performance of a PDMR.

**Process:**
After initial contact with the CP and GP at the point of discharge, the following tasks may need to be undertaken to facilitate the PDMR process occurring ASAP after discharge:

- Provide an accredited Pharmacist
- Suggest ideas/assist with patient liaison
- Provide further information about the PDMR/HMR process to CP and/or GP
  - Direct to website where appropriate
5.4.2 30 days post-discharge follow-up telephone call

To be performed by:

<table>
<thead>
<tr>
<th>RH</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies'</th>
<th>Hollywood</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

*RA = Research Assistant; HP = Hospital Pharmacist*

**Objective**

Telephone patient at 30 days post discharge to complete follow up data collection, including:

- Readmission to hospital
- Performance of the PDMR
- Changes in medications since discharge
- Website utilisation
- Knowledge Survey
- Compliance Survey
- QoL Survey
- Self-reported DRPs.

**Process**

Prior to telephoning patients at home, the patient’s nominated community pharmacy is to be called. This call is to obtain the Pharmacy’s account of any medication changes the patient may have had post-discharge and gather any further relevant information before phoning the patient, for example, performance of an HMR or commencement of a dose administration aid. The community Pharmacy’s account of the patient’s medications can be recorded on the page before the follow-up section of the data collection sheet.

Patients are to be telephoned at home at the time agreed while they were in hospital. If they did not specify a time, call when able. Using the follow-up section of the data collection sheet as a guide, the following items must be covered:

- **Readmission to hospital**
  - Ask the patient if they have been back to hospital since they were enrolled in the trial.
    - If they answer yes, collect details on the readmission from their view, to assist with assessing whether the readmission was medication related at the time of analysis.

- **Performance of an PDMR**

  It is important to determine when a PDMR was performed in the first 30 days post-discharge to provide comparative data for analysis.

  In order to gain an accurate answer, the PDMR process, from the patient’s perspective, may need to be explained. If the patient is unable to answer definitively, the patient’s nominated GP or CP may need to be contacted to confirm.

- **Changes in medications since discharge**
  - Ask the patient if they are aware of any changes in their medications since discharge.
If they answer yes, collect the details of the changes, from the patient’s perspective.

**Website Utilisation**

Website utilisation is determined using the questions outlined in the data collection sheet.

**Knowledge Survey**

As in the inpatient interview, collect the patient’s account of the medications they are taking at the time of the phone call. Please note if they are using any prompts, such as the medication packets or a medication list and any carer involvement in the discussion.

At the end of the telephone call, the patient’s account and the community pharmacist’s account of the current medication list should be collated to produce a final list of medications at 30 days post discharge. As in the inpatient process, this final collated list is to be used as the basis for calculating the patient’s knowledge score.

- To calculate the patient’s knowledge score, four prescribed medications are to be picked at random from the final collated list of medications. To do this:
  
  m. Place the list of prescribed medications in alphabetical order
  n. Using the random numbers supplied, align the alphabetical medications list with the random number list
  o. The first four aligned with even numbers are the ones selected for the knowledge score.
  p. Once selected, enter the results into the database to retrieve your final score.

- For Example:

<table>
<thead>
<tr>
<th>Random No</th>
<th>List of Medications (alphabetical order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Aspirin</td>
</tr>
<tr>
<td>4</td>
<td>Fluoxetine</td>
</tr>
<tr>
<td>55</td>
<td>Frusemide</td>
</tr>
<tr>
<td>78</td>
<td>Irbesartan</td>
</tr>
<tr>
<td>86</td>
<td>Metformin</td>
</tr>
<tr>
<td>3</td>
<td>Paracetamol</td>
</tr>
<tr>
<td>22</td>
<td>Temazepam</td>
</tr>
</tbody>
</table>

  
  → This medication is included

- The results from the four medications randomly selected are used to calculate the final knowledge score:
### Medication Name, Dose, Frequency and Use

<table>
<thead>
<tr>
<th>Medication Name, Dose, Frequency and Use</th>
<th>Dose Correct (Y/N)</th>
<th>Freq. Correct (Y/N)</th>
<th>Use Correct (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Fluoxetine 20mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2 Irbesartan 300mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3 Metformin 500mg daily</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4 Temazepam 10 mg nocte</td>
<td>YES / NO</td>
<td>YES / NO</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

Total Correct (No): 2 / 4  4 / 4  2 / 4  50 %  100 %  50 %
Percent Correct (%): 66.7 %

### Compliance Survey
- Ask the four compliance survey questions shown below. As for the knowledge survey, please record any carer involvement in the survey.
- Each of these questions must be asked word for word each time the survey is performed to ensure consistent results are obtained.
- For each question, a positive answer (YES) indicates non-compliant behaviour for that question. The number of ‘YES’ answers determines the person’s level of compliance, as indicated in the scoring table in the example below:

<table>
<thead>
<tr>
<th>Question</th>
<th>YES / NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Do you sometimes forget to take your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>2 Do you think it’s unimportant to take your medicine regularly?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>3 When you feel better, do you sometimes change the way you’re taking your medicine?</td>
<td>YES / NO</td>
</tr>
<tr>
<td>4 Sometimes if you feel worse when you take your medicine do you alter the way you take it?</td>
<td>YES / NO</td>
</tr>
</tbody>
</table>

**Number of ‘YES’ answers**: 2

### Scoring

<table>
<thead>
<tr>
<th>No. of ‘YES’ answers</th>
<th>Level of compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 items</td>
<td>High</td>
</tr>
<tr>
<td>1 item</td>
<td>Medium</td>
</tr>
<tr>
<td>2 items</td>
<td>Medium</td>
</tr>
<tr>
<td>3 items</td>
<td>Low</td>
</tr>
<tr>
<td>4 items</td>
<td>Low</td>
</tr>
</tbody>
</table>

### Quality of Life Survey
The Australian Quality of Life (AQoL) Survey is to be performed following the exact interview process laid out by the Survey’s authors.
Implementation Instructions

- All items include reference to the timeframe: ‘in the last week’.
- Illustrative examples are given using italics. Where these cues are included in the question, they should always be used to clarify the main theme of the question. Illustrative examples are also included in italics and square brackets in the possible answers. These should only be used where the respondent asks for clarification, or appears confused when choosing their answer. Judgement is needed as to when it is appropriate to include the illustrative examples in the answers so that the interview does not become overly long and thus more confusing.
- It is unnecessary to read out all of the possible choices for the answer to a question if the respondent reacts positively and assertively to an early choice. Moving on when appropriate will help to maintain the attention of the respondent.

Introductory Paragraph

There is an opening paragraph the authors of the survey expect to be used. It is as follows and can also be found at the top of the paper-based form you will use when interviewing the patients:

- This is a survey to assess how you feel about your general health. All of the information you supply is confidential, and you have the right to stop the interview at any time or not answer a question. This survey has 13 questions and will take about ten minutes to complete. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Questions to be Asked

**Question 1.**
In the last week, did you need medical treatment from a doctor or other health professional?
Would you say:

A. You did not need regular medical treatment.
B. You had some regular medical treatment.
C. You were dependent on having regular medical treatment.
D. That your life was dependent on regular medical treatment.

**Question 2.**
Did you need any help with personal care in the last week?
[For example help with activities like washing, dressing, personal grooming or going to the toilet.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help.
C. You needed help with the more difficult tasks.
D. You needed daily help with most or all tasks.

**Question 3.**
When doing household tasks during the last week, did you need any help?
[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.]
Would you say:

A. You needed no help at all.
B. Occasionally you needed some help with household tasks.
C. You needed help with the more difficult household tasks.
D. You needed daily help with most or all household tasks.
Appendices: Trial process documents

Appendix XIV   Med eSupport Trial protocol

Question 4
Thinking about how easily you got around your home and community in the last week.
Would you say:

A. You got around your home and community by yourself without any difficulty.
B. You found it difficult to get around your home and community by yourself.
C. You could not get around the community by yourself, but get around your home with some difficulty.
D. You could not get around either the community or your home by yourself.

Question 5
Were your personal relationships in the last week affected by your health?
[For example, the relationship with your partner or parents.]
Would you say your relationships:

A. Were very close and warm.
B. Were sometimes close and warm.
C. Were seldom close and warm.
D. You had no close and warm relationships.

Question 6
Were your relationships with other people during the last week affected by your health?
Would you say:

A. That you had plenty of friends, and you were never lonely.
B. That although you have friends, you were occasionally lonely.
C. That you have some friends, but you were often lonely.
D. That you felt socially isolated and lonely.

Question 7
Thinking about your health and your relationship with your family in the last week.
Would you say:

A. Your role in the family was not affected by your health.
B. There were some parts of your family role you could not carry out.
C. There were many parts of your family role you could not carry out.
D. You could not carry out any part of your family role.

Question 8
Thinking about your vision in the last week.
[Including when using your glasses or contact lenses if needed.]
Would you say:

A. You saw normally.
B. You had some difficulty focusing on things, or you did not see them sharply.
[For example: small print, a newspaper, or seeing objects in the distance.]
C. You had a lot of difficulty seeing things and your vision was blurred.
[For example: you saw just enough to get by with.]
D. You only saw general shapes, or you are blind.
[For example: you needed a guide to move around.]
Appendices: Trial process documents

Appendix XIV  Med eSupport Trial protocol

Question 9.
Thinking about your hearing in the last week.
[Including a hearing aid if needed.]
Would you say:

A. You heard normally.
B. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
C. You had difficulty hearing things clearly.
   [For example: you did not understand what was said. You did not take part in conversations
   because you could not hear what was said.]
D. You heard very little, indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 10.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:

A. You had no trouble speaking to others or understanding what they were saying.
B. You had some difficulty being understood by people who did not know you. You had no trouble
   understanding what others were saying.
C. You were only understood by people who knew you well. You had great trouble understanding what
   others were saying.
D. You could not adequately communicate with others.

Question 11.
Thinking about how you slept in the last week.
Would you say:

A. You slept without difficulty most of the time.
B. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without
   difficulty.
C. Your sleep was interrupted most nights, but you were usually able to go back to sleep without
   difficulty.
D. You slept in short bursts only. You were awake most of the night.

Question 12.
Thinking about how you generally felt in the last week.
Would you say:

A. You did not feel anxious, worried or depressed.
B. You were slightly anxious, worried or depressed.
C. You felt moderately anxious, worried or depressed.
D. You were extremely anxious, worried or depressed.

Question 13.
How much pain or discomfort did you experience in the last week.
Would you say:

A. You had none at all.
B. You had moderate pain.
C. You suffered from severe pain.
D. You suffered unbearable pain.


Scoring

The rank order of item responses is as follows:

- ‘A’ = 1
- ‘B’ = 2
- ‘C’ = 3
- ‘D’ = 4

To score, use the following table provided in the data collection sheet. For example:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score to be applied</th>
<th>Number of responses</th>
<th>Total (No of responses x score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>6 x 1 = 6</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>4 x 2 = 8</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>2 x 3 = 6</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>1 x 4 = 4</td>
</tr>
</tbody>
</table>

Final Score: 24

Therefore, the patient in the example scored 24 on the AQoL survey. The higher the numerical score, the poorer the respondent’s health-related Quality of Life.

Ideally, only one response per question should be circled. The interviewer must ensure that further probing results in the most suitable response being chosen.

Drug Related Problems

Self-reported DRPs

Ask if they have been experiencing any issues with their medications in order to collect their account of possible DRPs.

- Ensure questions remain general, such as “Have you recently experienced any difficulties with your medications?”
- Avoid leading questions such as “Do you get a cough from your Covery?”
- Answers to these general questions are to be categorised, using the following groups. This list is a categorisation tool, not a list of questions. Example of categorisation can be found in the following section.

Categorisation of DRPs

The categorisation of patient’s DRPs will be performed at a later date by the Project Team. Please record any self-reported issues or concerns identified during the conversation in the appropriate sections to assist in this process.

Please note, if in discussion, any significant concerns or issues are raised by the patient and/or carer, follow-up of the concerns/issues with the patient’s community health providers is appropriate.
5.4.3 Satisfaction Survey

To be performed by:

<table>
<thead>
<tr>
<th>RHII</th>
<th>LGH</th>
<th>Bendigo</th>
<th>Charlies’</th>
<th>Hollywood</th>
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</thead>
<tbody>
<tr>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
<td>RA</td>
</tr>
</tbody>
</table>

RA = Research Assistant; HP = Hospital Pharmacist

Objective

Gain the patient and community health care providers anonymous account of their satisfaction with the services they have received during and post-discharge.

Process

Patient

At the end of the 30 day follow-up phone call, inform the patient/carer that an anonymous satisfaction survey will be posted to them with a reply paid envelope for easy return. Explain that this is an opportunity for them to anonymously comment on the services they received and that their comments are very valuable to us, therefore return of the survey is really important.

Once, the phone call is complete, post the survey and a reply paid envelope to the patient and record in the database.

Community Pharmacy(s)

At the end of the 30 day follow-up period, send the Community Pharmacist the anonymous satisfaction survey for CPs with the cover letter. This cover letter contains a reminder of the project, who their patient was, when they were discharged from hospital, and for the primary CP, a reminder of the suggested potential issues to follow-up sent with the discharge summary to assist with answering some of the questions. The cover letter also offers the CP entry into a competition to win a wine pack valued at $150. Therefore, when sending the reply paid envelope, attach a small identifier to the inside of the envelope that will indicate who has returned the survey to allow them to be entered into the competition. This information is not to be recorded on the survey proper as anonymity must be maintained.

The survey is to be posted, with the cover letter and a reply paid envelope, with a small identifier to facilitate return. Once the survey has been sent, record in the database.

GP(s)

At the end of the 30 day follow-up period, send the GP the anonymous satisfaction survey for GPs with the cover letter. This cover letter contains a reminder of the project, who their patient was and when they were discharged from hospital. The cover letter also offers the GP entry into a competition to win a wine pack valued at $150. Therefore, when sending the reply paid envelope, attach a small identifier to the inside of the envelope that will indicate who has returned the survey to allow them to be entered into the competition. This information is not to be recorded on the survey proper as anonymity must be maintained.

The survey is to be posted, with the cover letter and a reply paid envelope, with a small identifier to facilitate return. Once the survey has been sent, record in the database.
## Summary Box

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Facilitate PDMR process where required</td>
</tr>
<tr>
<td>2. Phone Patient</td>
</tr>
<tr>
<td>• Knowledge Survey</td>
</tr>
<tr>
<td>• Compliance Survey</td>
</tr>
<tr>
<td>• QoL Survey</td>
</tr>
<tr>
<td>• Self-reported DRPs</td>
</tr>
<tr>
<td>• PDMR data</td>
</tr>
<tr>
<td>3. Post Satisfaction Survey to Patient</td>
</tr>
<tr>
<td>4. Post Satisfaction Survey to CP</td>
</tr>
<tr>
<td>5. Post Satisfaction Survey to GP</td>
</tr>
</tbody>
</table>
## Appendix XV Examples of potential and real problems identified by the trial officers of Med eSupport

### Some potential and real problems identified by the trial officers of Med eSupport

<table>
<thead>
<tr>
<th>1.</th>
<th>Errors or omissions on the discharge summary included:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Medications omitted,</td>
</tr>
<tr>
<td></td>
<td>- Strength of medication omitted,</td>
</tr>
<tr>
<td></td>
<td>- Ceased medications still on the medication summary,</td>
</tr>
<tr>
<td></td>
<td>- Instructed to take half a capsule or half of a sustained release product.</td>
</tr>
</tbody>
</table>

#### CASE 1
A 73 year old female CONTROL patient who lived alone, with no help with medication, was discharged from hospital. Escitalopram, metformin and warfarin were missed off the discharge summary, with no mention as to whether these were ceased or not.

#### CASE 2
A CONTROL patient normally on gliclazide 80mg 1.5 tablets in the morning was changed to gliclazide MR 30mg 4 tablets in the morning on the discharge summary. This formulation can not be swapped dose for dose. Patient was not able to be contacted at 30 days so it is unclear if this patient was tolerating this regime or whether they resumed taking gliclazide 80mg 1.5 tablets as they were prior to admission.

#### CASE 3
The discharge notes for this CONTROL patient read “her ACEI (angiotensin converting enzyme inhibitor) was ceased due to renal impairment” but the patient was still taking one at 30 days after discharge.

<table>
<thead>
<tr>
<th>2.</th>
<th>No follow-up of recommendations made in the discharge summary.</th>
</tr>
</thead>
</table>

#### CASE 4
Aspirin was ceased in hospital due to a gastrointestinal bleed. The discharge letter recommended clopidogrel to be commenced in 1 week. This was not done by 30 days post-discharge and consequently this 77 year old male CONTROL patient with a past history of hypertension, acute myocardial ischemia and peripheral vascular disease had no antiplatelet cover.

<table>
<thead>
<tr>
<th>3.</th>
<th>Control patients did not receive an HMR when they would have benefited from one.</th>
</tr>
</thead>
</table>

#### CASE 5
An 84 year old female CONTROL patient with rapid atrial fibrillation was on aspirin on admission and was changed to warfarin in hospital. She lived alone with no help with medication. She was taking 3 medications on admission and by 30 days post-discharge she was taking 5 medications including warfarin and alendronate, both of which have potentially complex regimes. She would have been an excellent candidate for an HMR but did not get one.

<table>
<thead>
<tr>
<th>4.</th>
<th>Patients often neglected to report samples provided by their GP. Sample packs are not recorded anywhere by the pharmacy and consequently these were not charted on the inpatient drug chart.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>5.</th>
<th>The Patient’s Own Medications (PODs) brought into hospital were not always an accurate reflection of what they were taking.</th>
</tr>
</thead>
</table>

#### CASE 6
A 77 year old female admitted with chronic airways limitation was given a Symbicort Turbuhaler by her GP as a sample pack. This was not written on the inpatient medication chart as the RMO was unaware of this. A comment was made in the discharge summary “Minimal relief with Ventolin puffers at home”. When the trial officers checked the 6 month dispensing history from the
Appendices

Appendix XV Examples of potential and real problems identified by the trial officers of Med eSupport

<table>
<thead>
<tr>
<th>Some potential and real problems identified by the trial officers of Med eSupport</th>
</tr>
</thead>
<tbody>
<tr>
<td>community pharmacy, Ventolin had not been dispensed for at least 6 months.</td>
</tr>
<tr>
<td>CASE 7 One of the trial officers opened an old pack of diltiazem that was in the patient’s bag of medications brought into hospital with them to reveal jellybeans!</td>
</tr>
<tr>
<td>CASE 8 A 71 year old female patient with dementia was not taking donepezil anymore and was using out of date and empty inhalers. She was admitted with an exacerbation of emphysema.</td>
</tr>
</tbody>
</table>

Knowledge and compliance checks similar to those used in the Med eSupport trial could potentially become part of the inpatient admission process and include a check of the patient’s own medications for expiry dates, empty inhalers and old medications not being used anymore. This could potentially alleviate a lot of the problems that were identified. Perhaps a patient’s knowledge of their medications (or lack of) could be an identification factor for someone who needs a HMR. Likewise, if someone scores medium compliance or lower, this too could identify someone who would benefit from a HMR post-discharge.

6. Complementary medicines were often omitted or ignored.

CASE 9 A 93 year old female patient was admitted with increasing shortness of breath secondary to congestive cardiac failure. She did not make it known to the admitting doctor that she was taking a number of complementary medications. She had them in the drawer next to her bed and was going to take them anyway. When she was interviewed by the Med eSupport trial officer she made comment that she felt strongly that she should not cease these additional medications whilst in hospital. The trial officer alerted the admitting doctor about these medications and they were added to the drug chart and were reviewed. She was taking a number of medications that could have contributed to drug interactions, duplication in therapy, adverse drug reactions etc. The additional complementary medications included:

- Metacard Intensive Care (Ginkgo biloba, Hawthorn Berry, magnesium, vitamin B6, selenium, L-taurine, L-lysine, folic acid, vitamin B12, St John’s wort, Jujube seed, Red sage, California poppy, Chinese hawthorn);
- Renoxyl (potassium, magnesium, Bilberry, Buchu, Cornsilk, Quercetin, vitamin B6, Folic acid, Vitamin A);
- Taurine;
- Oliviral (Olive leaf extract, oleuropein, Olive leaf dry, Astragalus root, Pau D’arco stem bark, Elder flower, Beta 1-3, Glucan, Zinc);
- Co-Enzyme Q10;
- Fish oil;
- Vitamin C; and
- Swisse Women’s Ultivite (Betacarotene, Grape Seed, cholecalciferol, vitamin E, vitamin B1, vitamin B2, vitamin B3, vitamin B5, vitamin B6, vitamin B12, Biotin, Folic acid, vitamin C, choline bitartrate, Inositol, Bioflavonoids, Lysine, calcium, magnesium, potassium, iron, chromium, manganese, copper, iodine, zinc, Spearmint Oil, selenium, Co-Enzyme Q10, Papaya, Parsley, Fennel, Horsetail, Celery, Ginger, Milk Vetch, Gotu Kola, Chamomile, Bearberry, Liquorice, Siberian Ginseng, Hawthorn, Common Oat, Globe Artichoke, St Mary’s Thistle, Ginkgo biloba, Green Tea, Bilberry, lycopene, Solanine, Aztec Marigold); and
- Calverv (Calcium, magnesium, potassium, zinc, chromium, manganese, copper, iodine, Bixa orellana, cholecalciferol).

Her other regular medications included frusemide, aspirin, digoxin, Slow release Potassium.
Some potential and real problems identified by the trial officers of Med eSupport

oxazepam, Paracetamol ± codeine and Glycerol Trinitrate.

If a special area was dedicated to recording the name of herbal and OTC medication on all inpatient drug charts this could alleviate these items being missed off and would also allow further checking for drug interactions, ADRs etc. It may also prompt RMOs to ask about herbal and OTC medication which is important now with increasing frequency of use of complementary medicines in the community. It was common for these items to be missed off as they were not seen as an important part of the medication schedule. It seems that it is common to assume that the patient will resume taking these items when they return home even if they were not receiving them in hospital and it was found that this was often the case. If these items are recorded it does not mean that the hospital has to stock these items but at least they are acknowledged for investigation purposes and if the patient wishes to continue taking them it is up to them to organise their own supply.

7. Some people end up with many out of date medication lists and become confused about which one they should be using.

CASE 10 A patient’s friend packs her dosette box with a medication list to guide her. That list had no strength stated nor the indication for that medication listed. The patient’s Knowledge Score at 30 days was 0% but the patient’s friend who packs the dosette box scored only 75% with the list in front of her.

CASE 11 At the 30 day phone call the patient had all their medications as prompts for the Knowledge Score but no sheet and consequently did no know the indications for their medication. They were issued a counseling sheet at discharge but it was taken off them upon readmission some days later and was never given back. They were not reissued with a new one.

Perhaps the patient’s copy of the superseded list needs to be destroyed by the person providing the new one and these lists need to be standardised to make sure they include strengths and indications for each medication as well as the correct dosage and frequency.

8. Multiple pharmacies and multiple GPs cause an incomplete record at each place.

CASE 12 A 75 year old female INTERVENTION - HMR STREAMLINED RECOMMENDATION patient was admitted to hospital and was taking warfarin, thyroxine, frusemide, spironolactone, perindopril, omeprazole, Ferrogradumet and insulin. The patient had begun using a single community pharmacy 7 months prior to being admitted to hospital. The community pharmacist was very concerned that the patient presented prescriptions from many different doctors. The trial officer commented that they were convinced she did not know what she was taking but read from a medication list. It was stressed that this lady needed an HMR on discharge in addition to the recommendation sticker. She received an HMR.

CASE 13 An INTERVENTION - PDMR MODEL patient commented that he thinks “this is a fantastic service” and he thinks “it is good to encourage people to go to the one GP and pharmacist” to reduce the “risk of accidents”. He also commented that he thinks “this must be really helpful for elderly patients”.

CASE 14 Trial officers noticed that the admission letter to the hospital was written by a different doctor (new doctor?) to the one who had written all the prescriptions supplied in the previous six months’ dispensing history printout from the pharmacy. It was evident that the doctor that wrote the letter was unaware of all of the medications that the patient was currently taking.

9. Breakdown in communication between the hospitals, GPs, community

---

Appendices

Appendix XV Examples of potential and real problems identified by the trial officers of Med eSupport

Some potential and real problems identified by the trial officers of Med eSupport

oxazepam, Paracetamol ± codeine and Glycerol Trinitrate.

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9. Breakdown in communication between the hospitals, GPs, community

---
### Some potential and real problems identified by the trial officers of Med eSupport pharmacies and patients.

**CASE 15** This patient was in the CONTROL - HMR recommendation group but they did not receive an HMR. They were admitted to hospital with pneumonia and discharged on antibiotics. The trial officer made a call to the patient 30 days after discharge and was alerted to the fact that the patient was still unwell and had finished their antibiotics weeks ago. The patient had not been back to their GP at all after discharge. She said that if she needs a prescription she normally calls the surgery, the prescription is sent to the pharmacy, and the pharmacy delivers to her all without even seeing a GP or pharmacist. She was advised by the trial officer to book an appointment with her GP, as she was obviously still unwell.

The services provided by the Med eSupport Intervention arm may have alleviated this problem, although increased GP consultations and costs.

**10.** Patients often had problems with medication shortly after discharge.

**CASE 16** An INTERVENTION - HMR STREAMLINED RECOMMENDATION patient said in the past he leaves the hospital and is “given some tablets to go on with, then runs out and goes downhill”.

**CASE 17** A CONTROL - HMR RECOMMENDATION patient decided not to use her Pulmicort Turbuhaler as it was too difficult and consequently used a lot of Ventolin. Her daughter said this made her very shaky. Her discharge diagnosis was pneumonia and loss of asthma control. At the 30-day phone call, it became evident that she had ceased her spironolactone and glimepiride, and had not had new prescriptions for Seretide and ramipril dispensed. The trial officer alerted the GP of their concern and advised the patient to visit their GP with the provided counselling sheet to discuss the need for her medication.

Follow-up after discharge appears to be necessary for all patients after about a week and then potentially a month to ascertain whether the patient is having any difficulties with new medications, whether they ran out of medications due to difficulty obtaining further supply, if they have been compliant with the changes made in hospital etc.

**11.** Patients sometimes use prescriptions written for other family members resulting in inaccurate records at the community pharmacy. This practice makes reconciling a hospital patient’s medication list difficult.

**CASE 18** This CONTROL - NO HMR RECOMMENDATION patient did not receive an HMR. Celecoxib was ceased in hospital but it was noticed as having been dispensed since discharge when the trial officer called the pharmacy to determine what the patient was taking at the 30 day call. When questioned about the celecoxib she admitted that she had it dispensed to give to her daughter.

**CASE 19** A CONTROL - HMR RECOMMENDATION patient was not using salbutamol but getting it on prescription for her son.

**12.** All medications that a patient is taking needs to be written on the discharge summary (including herbal and OTC medication) to provide a complete picture to the GP, pharmacy, district nursing staff, HMR facilitator, the patient and a copy to be kept by the hospital.

**CASE 20** This 80 year old male CONTROL - NO HMR RECOMMENDATION patient was admitted with chest pain. His medications included warfarin and digoxin for atrial fibrillation along with others. Throughout his stay of 2 nights the digoxin was not charted and he did not receive it. There was no discharge summary.
### Some potential and real problems identified by the trial officers of Med eSupport

<table>
<thead>
<tr>
<th>Case</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CASE 21</strong></td>
<td>This CONTROL - HMR RECOMMENDATION patient and their GP received a discharge summary that included medications that had been ceased in hospital. There was no note to suggest this had happened.</td>
</tr>
<tr>
<td><strong>CASE 22</strong></td>
<td>The discharge summary for this CONTROL - HMR RECOMMENDATION patient included only some of the regular medications. It followed no logic as to which ones were written up and which ones were not. It became very confusing to all those reading this summary as to whether or not the omitted medication was ceased or mistakenly missed of the list.</td>
</tr>
<tr>
<td><strong>CASE 23</strong></td>
<td>This 77 year old female was admitted to hospital with chronic airways limitation. She was discharged to a nursing home some days later and consequently was withdrawn from the trial at this point. She was using insulin but this was not written on the discharge but it had not been ceased. As insulin is recorded in a separate place on inpatient drug charts, it is quite often left off the discharge by accident as the RMO reads down the chart. (Other items recorded in a separate place and requiring separate prescriptions include narcotics and these were also often left off discharge summaries).</td>
</tr>
</tbody>
</table>

Medications that have been ceased, newly added or dosages that have been changed need to be clearly identified. The patient needs to be given a copy of the discharge medication list every time whether changes have been made or not so that they are clear as to what they are to take after discharge.

<table>
<thead>
<tr>
<th>Case</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td><strong>CASE 24</strong></td>
<td>This CONTROL - HMR RECOMMENDATION patient and their GP received a discharge summary that included medications that had been ceased in hospital. There was no note to suggest this had happened.</td>
</tr>
<tr>
<td><strong>CASE 25</strong></td>
<td>The discharge for this CONTROL - HMR RECOMMENDATION patient included only some of the regular medications. It followed no logic as to which ones were written up and which ones were not. It becomes very confusing to those reading this summary as to whether or not the omitted medication was ceased or mistakenly missed of the list.</td>
</tr>
</tbody>
</table>

A formal place needs to be created on the inpatient drug chart to indicate medications that have been ceased/why they have been ceased and the date with a space to indicate it has been restarted and the date if necessary. This would allow a checking procedure for the RMO when writing the DISCHARGE summary and also for the pharmacy staff in the hospital when dispensing and checking medications on discharge (to help track if medications were accidentally missed off or legitimately ceased).

<table>
<thead>
<tr>
<th>Case</th>
<th>Example</th>
</tr>
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<tbody>
<tr>
<td><strong>CASE 26</strong></td>
<td>Patient was meant to be on Cardizem (diltiazem) 240mg but was written up for Cardiprin (aspirin) 100mg. This patient was already taking warfarin and clopidogrel. Unfortunately this mistake was not identified and the patient was discharged with the combination of aspirin, clopidogrel and warfarin. It appears that the patient continued on this regime at 30 days as the comments were “no change” to medications.</td>
</tr>
</tbody>
</table>

15. **Difficulty accessing an HMR.**

**CASE 27** This INTERVENTION – HMR STREAMLINED RECOMMENDATION patient...
Appendices

Appendix XV  Examples of potential and real problems identified by the trial officers of Med eSupport

<table>
<thead>
<tr>
<th>Some potential and real problems identified by the trial officers of Med eSupport</th>
</tr>
</thead>
<tbody>
<tr>
<td>requested an HMR themselves but the community pharmacy was very uncooperative. The Med eSupport team offered to organise someone else to do the review but this was not accepted by the regular pharmacy. When the patient was readmitted to hospital a few weeks later he asked the DEM pharmacist why he did not receive a review and unfortunately, stated his disappointment in the trial.</td>
</tr>
<tr>
<td>CASE 28  An INTERVENTION - PDMR MODEL patient received a review but this was still not finalized and received by the trial office 7 months after it was performed (unknown reason).</td>
</tr>
<tr>
<td>CASE 29  An INTERVENTION - HMR STREAMLINED RECOMMENDATION patient did not receive an HMR as it was not instigated by their GP. However, their pharmacist did follow through the hospital visit and ensured their understanding of the changes, reinforced the life-style changes that had been recommended etc. The trial had provided information to the pharmacy to enable this to happen.</td>
</tr>
</tbody>
</table>

Sixteen of the 73 intervention – HMR streamlined recommendation patients received an HMR whilst enrolled in the Med eSupport trial suggesting that this is still not the ideal model. However, only 2 of the 238 control patients received an HMR. The best model proved to be the intervention – PDMR model group with 67 out of 71 patients receiving PDMR (a timely HMR within 5 days after discharge). There were only 2 PDMR patients who did not receive one (see CASE 28 above) and 2 patients refused to have one performed. This provided an excellent model to increase the uptake of HMRs in suitable patients.

Med eSupport can fit into clinical practice as demonstrated by the following real example: A 78 year old female was brought into hospital by ambulance following collapse from chest pain. She had 12 current medical conditions including cardiovascular disease and she was taking 19 medications per day. Her Knowledge score was only 33% and it was noted that she relied on a friend to help her with her medication management. The reconciled list generated by the trial officers determined 16 differences between the initial drug chart and what the patient was taking before admission. After taking into account changes in drug treatment on admission, there were still seven discrepancies – all of which were corrected within 48 hours of admission, e.g. a Hospital Doctor prescribed perindopril instead of clopidrogel. After discharge the patient’s carer used the Med eSupport web site to create a counselling document which she used to fill the patient’s dosette box. This patient was in the intervention – PDMR model group of the trial and received a PDMR within 5 days of discharge. Recommendations were made in the PDMR and these were taken up and
Appendix XV  Examples of potential and real problems identified by the trial officers of Med eSupport

acted upon by the GP. The GP then used the web site to update medications after discharge and the community pharmacist then printed out the new counselling document for her.
PATIENT SATISFACTION QUESTIONNAIRE

Please help us evaluate and improve this initiative by answering some questions about the services you received when you were discharged from hospital one month ago. This survey is anonymous and all responses will be pooled. We are interested in your honest opinions, whether they are positive or negative. Please complete, by choosing and marking the one response that best explains your view for each question, and return this survey in the reply paid envelope provided.

Thank you very much for being a part of our study, we appreciate your help.

Discharge from Hospital

1. How would you rate the quality of information you received about your medications when you left hospital?
   - Excellent
   - Good
   - Fair
   - Poor

2. Did you experience any difficulties with your medications after you left hospital?
   - Yes
   - No

3. If yes, were the difficulties fixed?
   - Yes
   - No

4. If they were fixed, how?
   - Visit to GP
   - Visit to Community Pharmacist
   - Home visit by Pharmacist
   - By myself or my carer
   - By contacting the hospital
Appendices: Anonymous Surveys

Appendix XVI  Control Patient Satisfaction

Home visit from a Pharmacist

5. Did you receive a home visit from a Pharmacist to discuss your medications?
   - Yes – go to question 6
   - No – go to question 10
   - A visit has been planned – go to question 10

6. If you did receive a home visit from a Pharmacist, did you find it useful?
   - Yes, it helped
   - It didn’t make much difference
   - No, it made it worse

7. Would you pay for a home visit from a Pharmacist in the future?
   - Yes
   - No

8. If yes, mark how much you would be prepared to pay:
   - $1 - $10
   - $11 - $20
   - $21 - $30
   - $31 - $40
   - $41 - $50
   - > $50

9. If no, why not?
   - I don’t think it is worth it
   - I think it should be a free service
   - I could get the same information from visiting my Pharmacist
   - I could get the same information from visiting my GP
   - The government should pay
   - Other...
Appendices: Anonymous Surveys

Appendix XVI  Control Patient Satisfaction

General Information
10. Do you feel more confident about your medications than you did when you went into hospital?
   ○ Yes, I feel more confident
   ○ I don’t feel any different
   ○ No, I feel less confident

11. Do you think there should be an ongoing medication support service available to people after they leave hospital?
   ○ Yes
   ○ Unsure
   ○ No

If yes, which of the following would you like to see available in the future?
   (Please tick multiple boxes if desired)
   ○ Provision of a medication information sheet when discharged from hospital
   ○ Communication of discharge medication information to your GP
   ○ Communication of discharge medication information to your Pharmacist
   ○ Access to personal, up-to-date medication information on a secure website
   ○ A home visit from a Pharmacist shortly after discharge from hospital
   ○ Other….

12. Is there any information or services you would have liked about your medications but didn’t receive?
   ○ Yes
   ○ Not sure
   ○ No

Please specify if you wish:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thankyou,

Please send back to us in the Reply Paid envelope provided
Appendixes: Anonymous Surveys

Appendix XVII  Intervention – Streamlined HMR Recommendation Patient Satisfaction Survey

Appendix XVII  Intervention – Streamlined HMR Recommendation Patient Satisfaction Survey

PATIENT SATISFACTION QUESTIONNAIRE

Please help us evaluate and improve this initiative by answering some questions about the extra services you received when you were discharged from hospital one month ago. This survey is anonymous and all responses will be pooled. We are interested in your honest opinions, whether they are positive or negative. Please complete, by choosing and marking the one response that best explains your view for each question, and return this survey in the reply paid envelope provided.

*Thank you very much for being a part of our study, we appreciate your help.*

Discharge from Hospital

1. How would you rate the quality of information you received about your medications when you left hospital?
   - Excellent
   - Good
   - Fair
   - Poor

2. Did you experience any difficulties with your medications after you left hospital?
   - Yes
   - No

3. If yes, were the difficulties fixed?
   - Yes
   - No

4. If they were fixed, how?
   - Visit to GP
   - Visit to Community Pharmacist
   - Home visit by Pharmacist
   - By myself or my carer
   - By contacting the hospital
Home visit from a Pharmacist

5. Did you receive a home visit from a Pharmacist to discuss your medications?
   ○ Yes – go to question 6
   ○ No – go to question 10
   ○ A visit has been planned – go to question 10

6. If you did receive a home visit from a Pharmacist, did you find it useful?
   ○ Yes, it helped
   ○ It didn’t make much difference
   ○ No, it made it worse

7. Would you pay for a home visit from a Pharmacist in the future?
   ○ Yes
   ○ No

8. If yes, mark how much you would be prepared to pay:
   ○ $1 - $10
   ○ $11 - $20
   ○ $21 - $30
   ○ $31 - $40
   ○ $41 - $50
   ○ > $50

9. If no, why not?
   ○ I don’t think it is worth it
   ○ I think it should be a free service
   ○ I could get the same information from visiting my Pharmacist
   ○ I could get the same information from visiting my GP
   ○ The government should pay
   ○ Other...
Appendices: Anonymous Surveys

Appendix XVII  Intervention – Streamlined HMR Recommendation Patient Satisfaction Survey

Med eSupport Medication Information Website

10. Did you or your carer/family/friends access the Med eSupport website?
   ○ Yes - go to question 12
   ○ No - go to question 11

11. If not, why not? (once answered, go to question 15)
   ○ I do not know how
   ○ I do not have a computer
   ○ I have not had time
   ○ I have not felt I needed to view it
   ○ I am not interested in viewing my information this way
   ○ I do not believe this is a useful service
   ○ Other...

---

12. How would you rate the Med eSupport website for ease of use?
   ○ Easy
   ○ OK
   ○ Difficult

13. Please indicate in the table below what information you accessed in the Med eSupport Website and of the information accessed, please rate its usefulness

   (Tick the box in the “Accessed?” column if you viewed the information listed and, for the information accessed, rate its usefulness by ticking in the column that best suits your view.)

<table>
<thead>
<tr>
<th>Information available:</th>
<th>Accessed?</th>
<th>Yes, it helped</th>
<th>Not particularly</th>
<th>No, it made it worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current medication summary</td>
<td></td>
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<tr>
<td>My hospital stay information</td>
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<tr>
<td>Medication counselling sheet</td>
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<tr>
<td>Weekly checklist</td>
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<tr>
<td>Links to other related websites</td>
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<tr>
<td>Additional notes about to my medications</td>
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<tr>
<td>Consumer medication information</td>
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<tr>
<td>Other…</td>
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</table>

Page 3 of 5
14. Are there any other things you would like to see on the Med eSupport website?

Please specify….

General Information

15. Do you feel more confident about your medications than you did when you went into hospital?

   ○ Yes, I feel more confident
   ○ I don’t feel any different
   ○ No, I feel less confident

16. Do you think there should be an ongoing medication support service available to people after they leave hospital?

   ○ Yes
   ○ Unsure
   ○ No

17. If yes, which of the following would you like to see available in the future?

   (Please tick multiple boxes if desired)

   ○ Provision of a medication information sheet when discharged from hospital
   ○ Communication of discharge medication information to your GP
   ○ Communication of discharge medication information to your Pharmacist
   ○ Access to personal, up-to-date medication information on a secure website
   ○ A home visit from a Pharmacist shortly after discharge from hospital
   ○ Other….
18. Is there any information or services you would have liked about your medications but didn’t receive?
   ○ Yes
   ○ Not sure
   ○ No

Please specify if you wish:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

**Thankyou,**

Please send back to us in the *Reply Paid* envelope provided.
Appendices: Anonymous Surveys

Appendix XVIII  Intervention PDMR Model Patient Satisfaction Survey

Appendix XVIII  Intervention PDMR Model Patient Satisfaction Survey

PATIENT SATISFACTION QUESTIONNAIRE

Please help us evaluate and improve this initiative by answering some questions about the extra services you received when you were discharged from hospital one month ago. This survey is anonymous and all responses will be pooled. We are interested in your honest opinions, whether they are positive or negative. Please complete, by choosing and marking the one response that best explains your view for each question, and return this survey in the reply paid envelope provided.

Thank you very much for being a part of our study, we appreciate your help.

Discharge from Hospital

1. How would you rate the quality of information you received about your medications when you left hospital?
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   - Good
   - Fair
   - Poor

2. Did you experience any difficulties with your medications after you left hospital?
   - Yes
   - No

3. If yes, were the difficulties fixed?
   - Yes
   - No

4. If they were fixed, how?
   - Visit to GP
   - Visit to Community Pharmacist
   - Home visit by Pharmacist
   - By myself or my carer
   - By contacting the hospital
Appendices: Anonymous Surveys

Appendix XVIII  Intervention PDMR Model Patient Satisfaction Survey

Home visit from a Pharmacist

5. Was your Home visit from a Pharmacist to discuss your medications useful?
   ○ Yes, it helped
   ○ It didn’t make much difference
   ○ No, it made it worse

6. Would you pay for a home visit from a Pharmacist in the future?
   ○ Yes
   ○ No

7. If yes, mark how much you would be prepared to pay:
   ○ $1 - $10
   ○ $11 - $20
   ○ $21 - $30
   ○ $31 - $40
   ○ $41 - $50
   ○ > $50

8. If no, why not?
   ○ I don’t think it is worth it
   ○ I think it should be a free service
   ○ I could get the same information from visiting my Pharmacist
   ○ I could get the same information from visiting my GP
   ○ The government should pay
   ○ Other...
Appendices: Anonymous Surveys

Appendix XVIII  Intervention PDMR Model Patient Satisfaction Survey

**Med eSupport Medication Information Website**

9. Did you or your carer/family/friends access the Med eSupport website?
   - Yes - go to question 11
   - No - go to question 10

10. If not, why not? (once answered, go to question 14)
    - I do not know how
    - I do not have a computer
    - I have not had time
    - I have not felt I needed to view it
    - I am not interested in viewing my information this way
    - I do not believe this is a useful service
    - Other...

11. How would you rate the Med eSupport website for ease of use?
    - Easy
    - OK
    - Difficult

12. Please indicate in the table below what information you accessed in the Med eSupport Website and of the information accessed, please rate its usefulness.

   (Tick the box in the “Accessed?” column if you viewed the information listed and, for the information accessed, rate its usefulness by ticking in the column that best suits your view.)

<table>
<thead>
<tr>
<th>Information available:</th>
<th>Accessed?</th>
<th>Did you find it useful?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current medication summary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My hospital stay information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication counselling sheet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekly checklist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Links to other related websites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional notes about to my medications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer medication information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other…</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   Yes, it helped  Not particularly  No, it made it worse
13. Are there any other things you would like to see on the Med eSupport website? Please specify....

14. Do you feel more confident about your medications than you did when you went into hospital?
   - [ ] Yes, I feel more confident
   - [ ] I don’t feel any different
   - [ ] No, I feel less confident

15. Do you think there should be an ongoing medication support service available to people after they leave hospital?
   - [ ] Yes
   - [ ] Unsure
   - [ ] No

If yes, which of the following would you like to see available in the future?

(Please tick multiple boxes if desired)
   - [ ] Provision of a medication information sheet when discharged from hospital
   - [ ] Communication of discharge medication information to your GP
   - [ ] Communication of discharge medication information to your Pharmacist
   - [ ] Access to personal, up-to-date medication information on a secure website
   - [ ] A home visit from a Pharmacist shortly after discharge from hospital
   - [ ] Other....

---

Page 4 of 5
Appendices: Anonymous Surveys

Appendix XVIII  Intervention PDMR Model Patient Satisfaction Survey

16. Is there any information or services you would have liked about your medications but didn’t receive?

  ○ Yes
  ○ Not sure
  ○ No

Please specify if you wish:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Thankyou,

Please send back to us in the Reply Paid envelope provided
Appendices: Anonymous Surveys

Appendix XIX  GP Satisfaction Survey

Appendix XIX  GP Satisfaction Survey for when they had a patient in the Intervention HMR streamlined recommendation group

GENERAL PRACTITIONER SATISFACTION QUESTIONNAIRE

To complete, please place a mark anywhere on the line or tick one choice for each question

Discharge medication information:

1. Receiving the discharge medication summary through Med eSupport provided me with a clearer picture of my patient’s discharge medication

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. The discharge medication summary was received within an adequate time frame

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

3. I believe receiving discharge medication information in the future would be valuable

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

4. If so, which format would you prefer to receive them (please tick)?

   - Fax
   - Secure email
   - Password-protected website
   - Post
   - Other
Appendices: Anonymous Surveys

Appendix XIX  GP Satisfaction Survey

Med eSupport Medication Information Website:

5. Did you access the Med eSupport Website regarding this patient’s medication management?
   ○ Yes – go to question 7
   ○ No – go to question 6

6. If not, why not? (once answered, go to question 11)
   ○ I do not know how
   ○ I do not have a computer
   ○ I have not had time
   ○ I have not felt I needed to view it
   ○ I am not interested in viewing my patient’s information this way
   ○ I do not believe this is a useful service
   ○ Other...

7. How did you find the Med eSupport website to navigate?

   [ ] [ ] [ ] [ ] [ ] [ ] Easy

   [ ] [ ] [ ] [ ] [ ] [ ] Difficult

8. What aspects of the Med eSupport website did you find useful?
   ○ Access to dispensed medication history
   ○ Current medication list
   ○ Discharge medication information
   ○ Ability to maintain an up to date medication list for this patient
   ○ Ability to create up to date medication counselling sheets
   ○ Ability to create up to date weekly checklist
   ○ Access to related links
   ○ Other...

9. Did you find there were any errors or inconsistencies in the patient’s initial medication information provided on the website?
   ○ Yes
   ○ Not sure
   ○ No

10. Is there any other information or features you would like to see on the Med eSupport Website?
   Please specify,....
Home Medication Review (HMR):

11. Did you refer this patient for an HMR using the trial pre-filled referral form?
   - Yes – go to question 13
   - I used another method of referral – go to question 14
   - No – go to question 12

12. If you did not refer the patient for an HMR, please provide comment on why not and go to question 16:

13. If you did refer the patient using the pre-filled trial referral form, did you find the process user friendly?
   - Yes, it made it easier
   - Not much different to the current system
   - No, it was more difficult

14. The outcomes of the HMR assisted me in the medication management of this patient

   [Strongly Disagree] [Strongly Agree]

15. I believe this patient feels they have benefited from the HMR

   [Strongly Disagree] [Strongly Agree]

16. Do you think there should be an “automatic” post-discharge medication review process for patients with risk factors for medication misadventure (eg elderly, multiple medications) post-discharge?
   - Yes
   - Unsure
   - No

Please expand if you wish:
Appendices: Anonymous Surveys
Appendix XIX  GP Satisfaction Survey

General Satisfaction:

17. I believe my patient now has a greater understanding of their medication after being involved in this study.

[ ] [ ] [ ] [ ] [ ] [ ] [ ]

Strongly Disagree  Strongly Agree

18. I believe this study benefited me in optimising this patient’s medication management through improved communication of medication related information.

[ ] [ ] [ ] [ ] [ ] [ ] [ ]

Strongly Disagree  Strongly Agree

19. Do you have any other comments (both positive and negative) regarding this study?

__________________________________________________________

__________________________________________________________

Thankyou,

Please send this survey back to us in the Reply Paid envelope provided.
Appendices: Anonymous Surveys

Appendix XX  GP Satisfaction Survey

Appendix XX  GP Satisfaction Survey for when they had a patient in the intervention PDMR model group

GENERAL PRACTITIONER SATISFACTION QUESTIONNAIRE

To complete, please place a mark anywhere on the line or tick one choice for each question.

Discharge medication information:

1. Receiving the discharge medication summary through Med eSupport provided me with a clearer picture of my patients' discharge medication

   [ ] Strongly Disagree  [ ] Strongly Agree

2. The discharge medication summary was received within an adequate time frame

   [ ] Strongly Disagree  [ ] Strongly Agree

3. I believe receiving discharge medication information in the future would be valuable

   [ ] Strongly Disagree  [ ] Strongly Agree

4. If so, which format would you prefer to receive them (please tick)?
   - Fax
   - Secure email
   - Password-protected website
   - Post
   - Other
Appendices: Anonymous Surveys

Appendix XX  GP Satisfaction Survey

Med eSupport Medication Information Website:

5. Did you access the Med eSupport Website regarding this patient’s medication management?
   ○ Yes – go to question 7
   ○ No – go to question 6

6. If not, why not? (once answered, go to question 11)
   ○ I do not know how
   ○ I do not have a computer
   ○ I have not had time
   ○ I have not felt I needed to view it
   ○ I am not interested in viewing my patient’s information this way
   ○ I do not believe this is a useful service
   ○ Other...

7. How did you find the Med eSupport website to navigate?

    [ ] [ ] [ ] [ ] [ ] [ ]

    [ ] [ ] [ ] [ ] [ ] [ ]

    Difficult

    Easy

8. What aspects of the Med eSupport website did you find useful?
   ○ Access to dispensed medication history
   ○ Current medication list
   ○ Discharge medication information
   ○ Ability to maintain an up to date medication list for this patient
   ○ Ability to create up to date medication counselling sheets
   ○ Ability to create up to date weekly checklist
   ○ Access to related links
   ○ Other......

9. Did you find there were any errors or inconsistencies in the patient’s initial medication information provided on the website?
   ○ Yes
   ○ Not sure
   ○ No

10. Is there any other information or features you would like to see on the Med eSupport Website?

    Please specify,....
Appendices: Anonymous Surveys

Appendix XX  GP Satisfaction Survey

Post Discharge Medication Review (PDMR):

11. The outcomes of the PDMR assisted me in the medication management of this patient

   [ ] [ ] [ ] [ ] [ ]
   Strongly Disagree  Strongly Agree

12. The timely manner in which the PDMR was conducted was valuable

   [ ] [ ] [ ] [ ] [ ]
   Strongly Disagree  Strongly Agree

13. I believe this patient feels they have benefited from the PDMR

   [ ] [ ] [ ] [ ] [ ]
   Strongly Disagree  Strongly Agree

14. Do you believe there should be an “automatic” post-discharge medication review process for hospitalised patients at high-risk of medication misadventure in the future?

   ○ Yes
   ○ Unsure
   ○ No

Please expand if you wish:

________________________________________________________________________
________________________________________________________________________
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General Satisfaction:

15. I believe my patient now has a greater understanding of their medication after being involved in this study.

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<td>Strongly Disagree</td>
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16. I believe this study benefited me in optimising this patient’s medication management through improved communication of medication related information.

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<td>Strongly Agree</td>
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</tbody>
</table>

17. Do you have any other comments (both positive and negative) regarding this study?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thankyou,

Please send this survey back to us in the Reply Paid envelope provided.
Appendix XXI  Community Pharmacist Satisfaction Survey for when they had a patient in the intervention – Streamlined HMR recommendation Group

PHARMACIST SATISFACTION QUESTIONNAIRE

To complete, please place a mark anywhere on the line or tick one choice for each question

Discharge medication information:

1. Receiving the discharge medication summary through Med eSupport provided me with a clearer picture of this patient’s discharge medication and management

   [Strongly Disagree] [Strongly Agree]

2. I was able to further improve this patient’s medication management as a result of receiving this summary

   [Strongly Disagree] [Strongly Agree]

3. The potential issues to follow-up, listed with the discharge medication summary, assisted me in the management of this patient

   [Strongly Disagree] [Strongly Agree]

4. The discharge medication summary was received within an appropriate time frame

   [Strongly Disagree] [Strongly Agree]

5. I believe receiving discharge medication information in the future would be valuable

   [Strongly Disagree] [Strongly Agree]

6. Which of the following methods of delivery do you think would be the MOST suitable?

   ○ Fax
   ○ Secure email
   ○ Password-protected website
   ○ Post
   ○ Other
Appendices: Anonymous Surveys

Appendix XXI  Community Pharmacist Satisfaction Survey

Med eSupport Medication Information Website:

7. Did you access the Med eSupport Website regarding this patient’s medication management?
   ○ Yes – go to question 9
   ○ No – go to question 8

8. If not, why not? (once answered, go to question 13)
   ○ I do not know how
   ○ I do not have a computer
   ○ I have not had time
   ○ I have not felt I needed to view it
   ○ I am not interested in viewing my patient’s information this way
   ○ I do not believe this is a useful service
   ○ Other...

9. How did you find the Med eSupport website to navigate?

   [ ] [ ] [ ] [ ] [ ] [ ]

   Difficulty: [ ] [ ] [ ] [ ] [ ] [ ]

10. What aspects of the Med eSupport website did you find useful?

    ○ Current medication list
    ○ Discharge medication information
    ○ Ability to maintain an up to date medication list for this patient
    ○ Ability to create up to date medication counselling sheets
    ○ Ability to create up to date weekly checklist
    ○ Access to related links
    ○ Other......

11. Did you find there were any errors or inconsistencies in the patient’s initial medication information provided on the website?

    ○ Yes
    ○ Unsure
    ○ No

12. Is there any other information or features you would like to see on the Med eSupport Website?

    Please specify....
Appendices: Anonymous Surveys

Appendix XXI  Community Pharmacist Satisfaction Survey

Home Medication Review (HMR):

13. Did this patient’s GP refer them for an HMR?
   ○ Yes – go to question 14
   ○ No – go to question 18

14. If so, was your Pharmacy involved in the HMR process?
   ○ Yes
   ○ No

15. If you were not, would you consider it valuable to be involved in the future?
   ○ Yes
   ○ Unsure
   ○ No

16. The outcomes of the HMR assisted me in the medication management of this patient

   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]

17. I believe this patient feels they have benefited from the HMR

   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]

18. Do you think there should be an “automatic” post-discharge medication review process for patients with risk factors for medication misadventure (eg elderly, multiple medications) post-discharge?

   ○ Yes
   ○ Unsure
   ○ No

Please expand if you wish:
Appendices: Anonymous Surveys

Appendix XXI  Community Pharmacist Satisfaction Survey

General Satisfaction:

19. I believe my patient now has a greater understanding of their medication after being involved in this study

[Scale: Strongly Disagree | | | | | | | | Strongly Agree]

20. I believe this study benefited me in optimising this patient’s medication management

[Scale: Strongly Disagree | | | | | | | | Strongly Agree]

21. I would like to see services such as this continuing in the future

[Scale: Strongly Disagree | | | | | | | | Strongly Agree]

22. Do you think involvement in the transfer of patients to and from hospital is an important role for community pharmacy?

[Scale: No Importance | | | | | | | | Extremely Important]

23. Do you have any other comments (both positive and negative) regarding this study?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Thankyou,

Please send this survey back to us in the Reply Paid envelope provided
Appendices: Anonymous Surveys

Appendix XXII  Community Pharmacist Satisfaction Survey

Appendix XXII  Community Pharmacist Satisfaction Survey for when they had a patient in the Intervention – PDMR Model Group

PHARMACIST SATISFACTION QUESTIONNAIRE

To complete, please place a mark anywhere on the line or tick one choice for each question.

Discharge medication information:

1. Receiving the discharge medication summary through Med eSupport provided me with a clearer picture of this patient’s discharge medication and management

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. I was able to further improve this patient’s medication management as a result of receiving this summary

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

3. The potential issues to follow-up, listed to me from the hospital, facilitated my assistance in the medication management of this patient

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. The discharge medication summary was received within an adequate time frame

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. I believe receiving discharge medication information in the future would be valuable

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. If so, which format would you prefer to receive them (please tick)?

   ○ Fax
   ○ Secure email
   ○ Password-protected website
   ○ Post
   ○ Other...
Appendices: Anonymous Surveys

Appendix XXII  Community Pharmacist Satisfaction Survey

Med eSupport Medication Information Website:

7. Did you access the Med eSupport Website regarding this patient’s medication management?
   ○ Yes – go to question 9
   ○ No – go to question 8

8. If not, why not? (once answered, go to question 13)
   ○ I do not know how
   ○ I do not have a computer
   ○ I have not had time
   ○ I have not felt I needed to view it
   ○ I am not interested in viewing my patients information this way
   ○ I do not believe this is a useful service
   ○ Other…

9. How did you find the Med eSupport website to navigate?

   Difficulty scale:
   [ ] [ ] [ ] [ ] [ ]

10. What aspects of the Med eSupport website did you find useful?

    ○ Current medication list
    ○ Discharge medication information
    ○ Ability to maintain an up to date medication list for this patient
    ○ Ability to create up to date medication counselling sheets
    ○ Ability to create up to date weekly checklist
    ○ Access to related links
    ○ Other…

11. Did you find there were any errors or inconsistencies in the patient’s initial medication
    information provided on the website?

    ○ Yes
    ○ Not sure
    ○ No

12. Is there any other information or features you would like to see on the Med eSupport Website?

    Please specify….
Post-Discharge Medication Review (PDMR):

13. Was your Pharmacy involved in performing the PDMR for this patient?
   - Yes
   - No

14. If you were not, would you consider it a valuable service to be involved with in the future?
   - Yes
   - Unsure
   - No

15. The outcomes of the PDMR assisted me in the medication management of this patient

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

16. The timely manner in which the PDMR was conducted was valuable

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

17. I believe this patient feels they have benefited from the PDMR

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

18. Do you think there should be an “automatic” post-discharge medication review process for patients with risk factors for medication misadventure (eg elderly, multiple medications) post-discharge?
   - Yes
   - Unsure
   - No

Please expand if you wish:
Appendices: Anonymous Surveys

Appendix XXII  Community Pharmacist Satisfaction Survey

General Satisfaction:

19. I believe my patient now has a greater understanding of their medication after being involved in this study

[Scale for Strongly Disagree to Strongly Agree]

20. I believe this study benefited me in optimising this patient’s medication management

[Scale for Strongly Disagree to Strongly Agree]

21. I would like to see services such as this continuing in the future

[Scale for Strongly Disagree to Strongly Agree]

22. Do you think involvement in the transfer of patients to and from hospital is an important role for community pharmacy?

[No Importance to Extremely Important]

23. Do you have any other comments (both positive and negative) regarding this study?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Thankyou,

Please send this survey back to us in the Reply Paid envelope provided
Appendices: ICT Appendices

Appendix XXIII  Description of electronic communications pathway for medication information developed in Med eSupport

ICT Appendices

Appendix XXIII  Description of electronic communications pathway for medication information developed in Med eSupport

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Appendices: ICT Appendices

Appendix XXIII  Description of electronic communications pathway for medication information developed in Med eSupport

2. Custom/Integrated Applications

2.1 Community Pharmacists

2.1.2 Upload patient’s medication history

2.1.3 Dispense / Replace / Cancel prescriptions for QUM patients

2.1.4 View patient’s medication history (integrated)

2.1.5 Have direct access to the web view

2.1.6 Access patients using a one-time consent model
Technology Employed

A number of standard technologies were used in the implementation of the QUM system:

**HL7 messaging**

The standard HL7 messaging protocol to the latest specification was used for sending health related information to the repository server from the pharmacy dispensing systems (REX and WinIFRED).

**PKI keys**

Standard PKI encryption was used for ensuring privacy and authenticity of information transmitted between the repository and participating providers with PKI certificates.

**HTTPS**

Where PKI is not available, HTTPS was used for encryption to ensure privacy of information for non-participating providers and patients.

**HTTP**

Encrypted data messages were encapsulated using standard HTTP headers to ease the transmission of data across public networks.

**TCP/IP**

The TCP/IP transmission layer was used as the medium for sending the electronic data messages.

**ADSL**

In all pharmacies where possible.
Technical Overview

Pharmacy

Dispensing System
The pharmacy dispensing system incorporated integrated features that allowed it to send and receive patient related medication information relevant to the dispensing process. Information sent to or retrieved from the repository was formatted using HL7 and sent using TCP/IP via the comms server for PKI encryption.

Web Browser
Any extra patient related information could be accessed using the project’s website. This allowed community pharmacy users to view and add information that was not normally available from their dispensing system. This included such information as discharge summaries, weekly checklists, and counselling sheets. The web view could be accessed directly from the dispensing system allowing it to be integrated into the existing workflow.

Comms Server
The comms server accepted TCP/IP connections from the dispensing system and the web browser. The dispensing system sends formatted HL7 messages to the comms server which were then encrypted and sent to the repository server in a HTTP encapsulated S/MIME message. Once the message had been processed, an encrypted response was sent back to the comms server along the same connection. This message was decrypted to retrieve the returned HL7 and then picked up by the dispensing system for any further processing.

Requests from the web browser were sent to the comms server using normal HTTP messaging. The comms server then established a SSL connection to the repository web server for purposes of encrypting, signing with PKI, and forwarding the requests. While these functions could be performed by the web browser itself, the comms server aids in removing unnecessary prompts from the user workflow.
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Patient or GP

Web Browser
Users without integrated software could still view and update a patient’s record through the project’s website using a standard web browser with username and password. The browser established a SSL connection to the repository web server so that all requests and responses were encrypted. If the user had a PKI key available they could also use this to validate their identity on the website.

Hospital

Web Browser
Users within the hospital could access the project’s website with a standard web browser. The browser uses the proxy server to encrypt and sign the HTTP requests and pass them on to the project’s website.

Proxy Server
In order to overcome the problem of a lack of PKI infrastructure in hospitals, the proxy server was used as a central encryption and signing engine for all requests to the project’s website. The web browser established a TCP/IP connection to the proxy server and made requests using standard HTTP GET and POST messages. The proxy server then established a SSL connection using TCP/IP to the project’s website and encrypted, signed with PKI, and forwarded the requests. Responses from the website were decrypted and returned to the web browser in HTTP format.

Another feature of the proxy server was the ability to initiate a user logon based on the location and computer name of the current user. Using PKI as the secure authentication, a user in the hospital had the ability to access the project’s website without supplying additional credentials. This could be activated where access to select machines within the hospital was deemed sufficient security for accessing the website.
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University

Main Firewall
The main firewall is under the control of the University, its purpose being to block any unauthorized access to the internal systems. The firewall has been configured to allow TCP/IP connections to the project’s servers on the relevant ports. This grants access into the demilitarised zone (DMZ) where the port forward and Apache proxy server sits.

Apache Proxy Server
HTTP encapsulated S/MIME requests came into the Apache proxy server. The proxy server could view header information within this packet in order to determine the appropriate destination of the encrypted message. Once the destination had been resolved the proxy server retransmitted the request to the repository S/MIME server for processing.

Port Forward Server
Requests coming in on a secure HTTPS (SSL) connection were completely encrypted and so could not be reviewed by the Apache proxy server. Therefore the port forward server accepted any requests on the standard HTTPS port and retransmitted them without modification to the repository HTTPS server.

Secondary Firewall
Also under the control of the University is the secondary firewall. This blocked access to the internal network from any of the DMZ systems unless specified otherwise. The port forward and Apache proxy server had permission to access the HTTPS server and S/MIME server within the University’s internal network. This allowed them to forward the external requests for processing.

HTTPS Server
Requests from web browsers use SSL connections to handle the encryption and signing of the messages sent to and from the server. The HTTPS server managed the handshaking of this protocol as well as the encryption and decryption of the messages. For each request from the web browser, the HTTPS server first decrypted the incoming message, recorded the PKI information, and the unencrypted HTTP request was then forwarded directly to the Apache
web server along with a reference to the PKI signature. Once the web server had generated a response, the HTTPS server then encrypted that response and returned it to the web browser.

**Apache Web Server**
The Apache web server executed the PHP scripts that constitute the website, as well as supply other typical website features such as images and cascading style sheets. Any requests that required the website to retrieve data from the database were processed directly by this server once the user permissions had been validated. Any requests that required the website to modify or add new content to the database were formatted into HL7 messages and sent to the repository server for full processing. The PKI reference from the HTTPS server accompanied these HL7 messages to the repository server allowing confirmation of the user’s identity during processing of the messages. The PHP scripts used the results of these processes to format the response page using standard HTML, which was then returned to the web browser for display to the user.

**S/MIME Server**
Messages from integrated software like pharmacy dispensing systems sent their requests as HL7 messages encrypted in S/MIME packets and encapsulated in HTTP. The S/MIME server unwrapped and decrypted these requests to retrieve the original HL7 messages. In the process it retrieved the PKI certificate details from the encrypted message. The HL7 and PKI details were then sent to the repository server for processing.

**Repository Server**
All HL7 processing happened in the repository server. Both read and write requests from integrated software and write requests from the website were processed here. Once the HL7 message was retrieved from the incoming packet it was imported into the HL7 parser. This parser prepared the message for validation and decoding and allowed for faster processing of the message. The server then validated the identity of the user and checked their permissions based on information within the message and the PKI details obtained during the decryption process. Once user permission had been verified the message was then checked for compliance to the HL7 structure and business rules. This enforced compliance from the sending application and integrity of the data within the message. If the message successfully passed these checks the contents were then processed. Depending on the type of request, this would either involve retrieving data from the SQL database or adding new data to the
database. Once this was complete, a new HL7 message was generated in response and returned to the sending application. If any errors occur during these processes, depending on the severity of the errors an appropriate HL7 or HTTP error response message would be generated and returned. All incoming and outgoing messages were logged to file and transaction logs were written to accompany the SQL audit logs.

**SQL Database Server**

The SQL database server managed the different databases used within the system. These databases hold all the information pertaining to the project for use in both the website and the integrated software systems. The database employed the use of SQL stored procedures to manage any requests from the website or the repository server. These stored procedures were used to either retrieve data from the database or add new records depending on the type of request. In addition to this they also kept track of any access to the system by writing to the audit logs every time a section of data was read from or written to.
Methods of Accessing & Viewing Medication Records

There were two main methods of accessing the intervention patient’s medication record stored on the repository server:

- Web Based Interface
- Custom/Integrated Applications

1. Web Based Interface

The web-based interface allowed access for the following types of users:

1.1 Patients

Patients had the ability to view all relevant information stored on the repository regarding them. They were able to perform the following tasks:

1.1.1 Secure login

![Med eSupport Main login page](image)

*Figure 1: Main login page for Med eSupport*
Using a username and password, the authenticity of the patient’s login was established prior to accessing their information.

1.1.2 Disclaimer

![Privacy conditions and disclaimer](image)

Figure 2: Privacy conditions and disclaimer

Disclaimers throughout the site reminded the patient that the information on the website is secure. It also reminded the patient that the information provided was accurate at the time of hospital discharge and that unless their Community Pharmacist or General Practitioner had kept it up to date, this may no longer be the case.
1.1.3 Directory Page

![Directory Page](image)

Figure 3: Patient Directory page

The patient’s main directory page allowed them to easily access the information that they wanted. This page also linked them to a help guide which explained the functions of the website.
1.1.4 Viewing their details

Patients were able to view the address details supplied during enrolment, but were required to alert trial staff if they wished to change those details. This was done using a request mechanism within the website.

![Image of Med eSupport](image)

Figure 4: Example of patient demographics

1.1.5 View medication full history

Patients were able to view the full medication list that had been recorded by participating providers. This included a minimum of 6 months history from the Community Pharmacy and changes from the hospital. The information that could be viewed includes:

- Drug description (generic name, dose and form)
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- Brand
- Prescribed date
- Dispensed date
- Indication
- Directions
- Notes (a note could be added to a specific drug if required)
- Record type (who recorded the entry)

![Image of a window showing the Med eSupport medication information sharing between hospital and community interface with a table of medication details and notes.]

Figure 5: Example of patient drug full history.
1.1.6 View medication summary

Patients could also view a summary of their medication. This was a list generated by the website from the full history that removed duplicated or previously ceased medication resulting in a current medication list.

Figure 6: Example of patient medication summary

1.1.7 View Medication Counselling Sheet

Patients were able to access medication counselling sheets and weekly checklists. These were generated by the website at discharge using the information recorded by participating providers in the patient’s medication summary. They could also be generated for the patient by a participating provider at any time.
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Figure 7: Patient Medication Counselling Datasheet

This information sheet included advice notes for patients. Each medication had its own advice note generated by the website. The information came from Cognicare Medication Management System where available. If Cognicare did not have advice notes, information from the APF 15th Edition was used instead. This ensured that the information provided was standard across all patients receiving the datasheet. A printer friendly version was also available for later use.
1.1.8 View Medication Weekly checklist

![Image of Medication Weekly checklist]

**Figure 8: Example of a Medication Weekly checklist**

This sheet provided the patient with a weekly checklist that may have helped to improve compliance. It is a useful tool when filling a dosette box or Webster pack. This sheet was produced at discharge from hospital and could also be produced by the patient’s pharmacist or G.P. A printer friendly version was available for later use.
1.1.9 Make additions to their record

1.1.9.1 Medication notes

This provides patients with an opportunity to write an unofficial note specific to one medication that could then be reviewed by their health providers.

![Medication Notes Image]

Figure 9: Example of a patient note specific to one medication

Patients can also access a CMI document from this page if one is available from the MIMS database.
1.1.9-2: General Patient notes

This provided patients with the opportunity to write an unofficial patient note about any matter that they wanted to be reviewed by their health providers.

![Image of patient notes in Med eSupport]

Figure 10: Examples of a patient general note

1.1.10 View nominated providers

A list of GPs and CPs who had been nominated to view the patient’s record was shown with the following information:

- Business name,
- Type of provider (Community Pharmacist, G.P)
- Contact name
- Address
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Figure 11: Example list of nominated providers for this patient

1.1.10.1: Request termination of access rights for provider

Patients could also submit a request form to revoke the authorisation of a nominated provider. The request would be processed by the trial office.

1.1.10.2: Request nomination of new provider

Patients could submit a request form to nominate a new health provider. The request would be reviewed and processed by the trial office.
1.2 Health Providers

Community Pharmacists, Hospitals and General Practitioners were classified as Health Providers. There were two types of providers who could gain access to the QUM system via the web interface:

1.2.1 Participating Providers

Providers who had been nominated by their patients were invited to participate in the QUM project when the patient was discharged from hospital. The providers could then perform the following tasks:

1.2.1.1 Secure login

Using a username / password combination and PKI, authenticity of the provider was established prior to accessing the system.

1.2.1.2 View nominated patients

A list of patients who had nominated the provider to access their records could be viewed:

![Med eSupport interface](image)

Figure 12: Example list of patients who have nominated this provider

Providers could view and generate official patient related free text notes, which had been written by participating health providers (e.g. medical conditions, patient allergies). The source of each note was only identified by the provider type (i.e. Patient, GP, CP, Hospital)
and Trial Office). Providers could also view unofficial patient related free text notes written by the patient.

![Image](image.png)

**Figure 13: Example of patient note from prescriber view**

1.2.1.3 View medication history for authorised patients

Providers could view the full medication list that had been recorded by participating providers. This included:

- Drug description
- Brand
- Prescribed date
- Dispensed date
- Indication
- Directions
- Notes
- Record type
N.B. This was the same as the patient view.

![Med eSupport](image)

**Figure 14:** Example of a patient’s full medication history
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1.2.1-4 View hospital discharge medication summaries

Providers were also able to view a patient’s Discharge Summary information page.

![Example of a patient Discharge Summary](image)

Figure 15: Example of a patient Discharge Summary

Providers could, at this point, also print a Patient Medication Counselling Datasheet and Medications Weekly checklist that were created at the point of discharge.

1.2.1-5 Make additions to the patient’s record

a) Adding a medication status tag

Participating prescribers can apply a tag to a medication to indicate its status. For example, these tags may include:

- Ceased
- Prescribed
- Dispensed
- Course completed
- Dose increased
- Dose decreased
b) Add medications

If a Participating provider did not have an integrated system (discussed later) they had the ability to add prescribed and OTC medications using an online drug search and entry form. The online drug search database was created using the E-MIMS database.
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Figure 17: Add medication search screen

Once the brand was chosen, further information was entered about the medication before it was saved in the patient's history.
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Figure 18: Modify medicine details

Once a medication was added, the provider was prompted to create a new Patient Medication Counselling Datasheet and Medications Weekly checklist.

1.2.1-6 Request administrative modification of record

Providers could submit a request form to the trial office to modify an aspect of the patient’s record or their own registration details.

1.2.2  Non-participating Providers

Providers who are not registered as participating in the QUM project still had the ability to access the system on a patient’s request. Because these providers could not be officially authenticated, they only had the same limited access as the patient.
1.3 Trial Office

The trial officers were able to perform the following key functions:

1.3.1 Patient registration

1.3.1.1 Patient demographics

Patient demographics collected at the time of patient enrolment were manually entered into the system.

1.3.1.2 Username / Password

A username and password were allocated to each patient. This was provided to them along with a project package during their hospital stay.

1.3.1.3 Nominate multiple providers

The system allowed for up to 3 Community Pharmacies and 3 General Practitioners to be nominated by a patient.

1.3.1.4 Input hospital UR Number

The patient’s UR number was manually entered by the trial office.

1.3.1.5 Record whether patient is allocated to an intervention or control group

This was added when entering patient demographics.

1.3.2 Review patient’s history

Following a patient’s registration, the trial office contacted the patient’s nominated community pharmacy and requested a medication history from them. This history could then be sent using varying methods such as fax, email, or upload to the web. The trial office was then required to enter drugs into the repository (if not uploaded directly) and identify which medications were still current by tagging the ceased medications (based on the patient’s medications on admission).

1.3.3 Provider registration
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1.3.3-1 Provider demographics
These were added when nominated by the patient. The providers were then contacted at admission (CP) and/or discharge (GP and CP) and asked if they were happy to participate. These details were then used by the website for future correspondence.

1.3.3-2 Username / Password
These were supplied to providers as part of the fax which was sent to them detailing the trial.

1.3.3-3 PKI
The use of PKI keys for participating providers was used where possible. Many community pharmacies had official keys and some pharmacies that did not were allocated temporary ones.

1.3.4 Hospital user registration
1.3.4-1 User demographics and Username / Password
A Username and Password was allocated to each hospital pharmacist who expressed interest in the trial.

1.3.5 Perform administrative modifications to records
1.3.5-2 View administrative requests
Only the trial office was able to change the demographic details of a patient or provider. As a result a mechanism which allowed requests to change these details within the website was checked periodically and details adjusted as necessary.

1.3.6 Distribute notifications to nominated providers
Nominated prescribers were notified of a patient’s discharge from hospital. This notification included a report that was automatically generated by the website. A header letter outlined the purpose of the trial including the goals for the patient. Different letters were generated depending on which arm of the trial the patient was in.
1.3.6.1 PDMR Patients

Letters that described the PDMR process were automatically generated for the PDMR patients. This letter explained to the GP what was involved and how they could help.

![Example of PDMR letter to a GP](image)

A discharge summary outlining the medications on discharge and some relevant medical information was also generated for the prescriber.
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![Image of discharge summary]

Figure 20: Example of discharge summary to be faxed

This information was then faxed to the nominated providers.

1.3.6.2 HMR Streamlined patients

Letters that described the HMR streamlined process were automatically generated for these patients. This letter explained to the GP what was involved and how they could use the attached discharge summary (as per PDMM model) and Section B of the letter to streamline the HMR referral process.
2. Custom/Integrated Applications

The following types of users had specific applications to access the repository, they were able to provide and receive minimum data sets while the remainder of the information could be accessed using a participating provider web-view:

2.1 Community Pharmacists

The pharmacy dispensing software performed the following tasks:

2.1.2 Upload patient’s medication history

Following registration and nomination, the system sent a patient’s medication history for the last 6 months to the repository to enable access by hospital and other health providers. This bulk upload only happened once per nominated pharmacy, as the normal dispensing process would keep the patient’s record up to date thereafter. Participating pharmacies that were given access by one time consent (described later) would be required to perform this upload on the patient’s request.

2.1.3 Dispense / Replace / Cancel prescriptions for QUM patients

When a prescription was dispensed by the pharmacy for a patient, the details were sent to the repository. If cancelled, a prescription detail would still appear but be presented in such a way that it is clearly not current. (It would have a cancelled tag added to it.)

2.1.4 View patient’s medication history (integrated)

Some information from each medication on the web was integrated into the dispense software and could be viewed by the community pharmacist when dispensing. This included medication dispensed elsewhere (such as the hospital) that had been manually uploaded into the patient’s full history on the web. This information included:

- Drug details
- Medication tags
- An indication of medication notes
Medication notes were not displayed in the dispensing system as these could be accessed via the web. But there was an indication that a medication item contained one or more notes.

2.1.5 Have direct access to the web view
Extra information about the patient could be supplied by the web view (explained previously).

2.1.6 Access patients using a one-time consent model
Pharmacists can only access non-nominated patients through the one-time consent model. As long as they had an integrated system and are already participating providers of the QUM system, no additional information would be requested of them. They would have the same privileges as a nominated provider, but would only have access to the patient’s record during that session. Proof of consent requires:
- Patient’s username
- Patient’s password
Microsoft Access® automatically prefixes any ODBC table name with “dbo_” to indicate that it is an ODBC data source.

**SQL 1  qryActivePatients**

```sql
SELECT dbo_PATIENT.[PATIENT ID]
FROM dbo_PATIENT
GROUP BY dbo_PATIENT.[PATIENT ID], dbo_PATIENT.ACTIVE
HAVING (((dbo_PATIENT.[PATIENT ID])) Not In ('PAT12','PAT18','PAT19','PAT1','PAT3','PAT188','PAT79','PAT157','PAT188','PAT189','PAT58','PAT205','CP000001','CP000002','CP0000091','GP000001','GP0000120','GP0000136','GP0000164','GP0000165','GP0000166','PO0000001','PO0000002','PO0000003','PO0000004','PO0000005','PO0000006','PO0000007','TO000001','TO000002','TO000003','TO000004','TO000005','TO000006','TO000007','TO000008','TO000009','TO000010','TO000011','HP0000001','HP0000002','HP0000003')) AND ((dbo_PATIENT.ACTIVE)=True));
```

**SQL 2  qryMyTransactions**

```sql
SELECT dbo_TRANSACTIONS.[CLIENT IP], *
FROM dbo_TRANSACTIONS
WHERE (((dbo_TRANSACTIONS.[CLIENT IP]) Is Null Or (dbo_TRANSACTIONS.[CLIENT IP])="127.0.0.1" Or (dbo_TRANSACTIONS.[CLIENT IP])="131.217.51.11") AND ((dbo_TRANSACTIONS.[CLIENT ID]) Not In ('PAT12','PAT18','PAT19','PAT1','PAT3','PAT188','PAT79','PAT157','PAT188','PAT189','PAT58','PAT205','CP000001','CP000002','CP0000091','GP000001','GP0000120','GP0000136','GP0000164','GP0000165','GP0000166','PO0000001','PO0000002','PO0000003','PO0000004','PO0000005','PO0000006','PO0000007','TO000001','TO000002','TO000003','TO000004','TO000005','TO000006','TO000007','TO000008','TO000009','TO000010','TO000011','HP0000001','HP0000002','HP0000003')) AND ((dbo_TRANSACTIONS.STATUS)="SUCCESS")
AND ((dbo_TRANSACTIONS.SOURCE)="WEB") AND ((dbo_TRANSACTIONS.ACTIVE)=True))
ORDER BY dbo_TRANSACTIONS.[DATE CREATED], dbo_TRANSACTIONS.[TRANSACTION ID];
```

**SQL 3  qryWebsitelogins**

```sql
SELECT Left([CLIENT ID],2) AS [Group], Count(qryMyTransactions.ID) AS [Number of logins]
FROM qryMyTransactions
GROUP BY Left([CLIENT ID],2);
```

**SQL 4  qryUsersbyUserGroup pt 1**

```sql
SELECT Left([CLIENT ID],2) AS UserType, qryMyTransactions.[CLIENT ID]
FROM qryMyTransactions
GROUP BY Left([CLIENT ID],2), qryMyTransactions.[CLIENT ID]
HAVING (((Left([CLIENT ID],2))<>"TO" And (Left([CLIENT ID],2))<>"PO"))
ORDER BY Left([CLIENT ID],2);
```

**SQL 5  qryUsersbyUserGroup(logins)**

```sql
SELECT DISTINCT [qryUsersbyUserGroup pt 1].UserType, Count([qryUsersbyUserGroup pt 1].[CLIENT ID]) AS [Number of Users]
FROM [qryUsersbyUserGroup pt 1]
GROUP BY [qryUsersbyUserGroup pt 1].UserType;
```
SQL 6  
**qry monthly breakdown of website use by number of users pt1**

```sql
SELECT Left([CLIENT ID],2) AS UserType, Year([DATE TIME]) & ":" & Format(Month([DATE TIME]),"00") AS [date], Count(qryMyTransactions.ID) AS [Number Logins], qryMyTransactions.[CLIENT ID]
FROM qryMyTransactions
GROUP BY Left([CLIENT ID],2), Year([DATE TIME]) & ":" & Format(Month([DATE TIME]),"00"),
qryMyTransactions.[CLIENT ID];
```

SQL 7  
**qry monthly breakdown of website use by number of users**

```sql
TRANSFORM Count({qry monthly breakdown of website use by number of users pt1}.[Number Logins]) AS [CountOfNumber Logins]
SELECT {qry monthly breakdown of website use by number of users pt1}.date
FROM {qry monthly breakdown of website use by number of users pt1}
GROUP BY {qry monthly breakdown of website use by number of users pt1}.date
PIVOT {qry monthly breakdown of website use by number of users pt1}.UserType;
```

SQL 8  
**qry monthly breakdown of website use by number of logins**

```sql
TRANSFORM Count(qryMyTransactions.ID) AS CountOfID
SELECT Year([DATE TIME]) & ":" & Format(Month([DATE TIME]),"00") AS [date]
FROM qryMyTransactions
WHERE (((Left([CLIENT ID],2))<>'PO' And (Left([CLIENT ID],2))<>'TO'))
GROUP BY Year([DATE TIME]) & ":" & Format(Month([DATE TIME]),"00")
PIVOT Left([CLIENT ID],2);
```

SQL 9  
**qry Number of logins vs number of users per group pt1**

```sql
SELECT qryMyTransactions.[CLIENT ID] AS ID, Count(qryMyTransactions.ID) AS Logins, Left([client id],2) AS [group]
FROM qryMyTransactions
GROUP BY qryMyTransactions.[CLIENT ID], Left([client id],2)
UNION ALL SELECT " " AS ID,tblnums.id as logins,"  " as [group] from tblnums;
```

SQL 10  
**qry Number of logins vs number of users per group**

```sql
TRANSFORM Count({qry Number of logins vs number of users per group pt1}.ID) AS Users
SELECT {qry Number of logins vs number of users per group pt1}.Logins
FROM {qry Number of logins vs number of users per group pt1}
GROUP BY {qry Number of logins vs number of users per group pt1}.Logins
PIVOT {qry Number of logins vs number of users per group pt1}.group;
```

SQL 11  
**qryAutoUploads-MonthlyBreakdownBySystem**

```sql
TRANSFORM Count([dbo_MEDICATION RECORD].[PATIENT ID]) AS [Number Scripts uploaded]
SELECT Year([DATE created]) & ":" & Format(Month([DATE created]),"00") AS [date]
FROM [dbo_MEDICATION RECORD]
WHERE ((([dbo_MEDICATION RECORD].[ITEM NUMBER]) Not Like "INUM*") AND (([dbo_MEDICATION RECORD].[ACTIVE])=True) AND (([dbo_MEDICATION RECORD].[PROVIDER ID]) Not In
("CP000001","CP000091","GP000001","GP0000164","GP0000165","GP0000166","PO000001","PO000002","PO000003","PO000004","PO000005","PO000006","PO000007","TO000002","TO000003","TO000004","TO000005","TO000006","TO000007","TO000008","TO000009","TO000010") AND ([dbo_MEDICATION RECORD].[PATIENT ID]) Not In
("PAT12","PAT18","PAT19","PAT1","PAT3","PAT188","PAT6","PAT79","PAT157","PAT188","PAT189","PAT58","PAT205"));
```
GROUP BY Year([DATE created]) & "." & Format(Month([DATE created]),"00"), [dbo_MEDICATION
RECORD].ACTIVE
PIVOT IIf(Len([script number])=20, "REX","Winifred");

**SQL 12**  
qryAutoUploads-PatientsPerSystem pt1

SELECT IIf(Len([script number])=20, "REX","Winifred") AS System, [dbo_MEDICATION RECORD].[PATIENT ID]
FROM [dbo_MEDICATION RECORD]
WHERE (((dbo_MEDICATION RECORD).[ITEM NUMBER]) Not Like "INUM*") AND (((dbo_MEDICATION RECORD).[PROVIDER ID]) Not In
("CP000001","GP000001","GP000164","GP000165","PO000001","PO000002","PO000003","PO000004","PO000005","PO000006","PO000007","TO000002","TO000003","TO000004","TO000005","TO000006","TO000007","TO000008","TO000009","TO000010")
GROUP BY IIf(Len([script number])=20,"REX","Winifred"), [dbo_MEDICATION RECORD].[PATIENT ID]
HAVING (((dbo_MEDICATION RECORD).[PATIENT ID]) Not In
("PAT12","PAT18","PAT19","PAT1","PAT3","PAT188","PAT6","PAT79","PAT157","PAT188","PAT189","PAT58","PAT205");

**SQL 13**  
qryAutoUploads-PatientsPerSystem

SELECT [qryAutoUploads-PatientsPerSystem pt1].System, Count([qryAutoUploads-PatientsPerSystem pt1].[PATIENT ID]) AS [Number of Patients]
FROM [qryAutoUploads-PatientsPerSystem pt1]
GROUP BY [qryAutoUploads-PatientsPerSystem pt1].System;
Appendix XXVI  Med eSupport dataset (supplied by Phoenix)

Med eSupport Project

- Medication information sharing between hospital and community

Med eSupport Dataset

Version 0.7
Appendices: ICT Appendices

Appendix XXVI  Med eSupport dataset (supplied by Phoenix)

Med eSupport Dataset

DOCUMENT CONTROL

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<td>9th July 2004</td>
<td>Matthew &amp; Monique Oliver</td>
<td>Included lookup tables and revised fields</td>
<td>Matthew Muir</td>
</tr>
<tr>
<td>0.5</td>
<td>9th July 2004</td>
<td>Matthew Muir / Mark Croston</td>
<td>Incorporated new trial office tables &amp; fields from John Ellerton</td>
<td>Matthew Muir</td>
</tr>
<tr>
<td>0.6</td>
<td>13th July 2004</td>
<td>Monique Oliver</td>
<td>New fields: Admission date / Discharge date (Discharge Details); Item comments (Clinical Patient Notes); Hospital (patient)</td>
<td>Matthew Muir</td>
</tr>
<tr>
<td>0.7</td>
<td>14th Sept 2004</td>
<td>Matthew Muir</td>
<td>Added NHN, hospital, &amp; URI tables. Added/revised fields as per Bus. Req's</td>
<td>Matthew Muir</td>
</tr>
</tbody>
</table>

Distribution
This document has been distributed to:

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<th>Date of Issue</th>
<th>Name</th>
<th>Purpose</th>
</tr>
</thead>
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<td>6th July 2004</td>
<td>John Ellerton</td>
<td>Comment</td>
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<td>John Ellerton/Greg Peterson/Omar Hossain</td>
<td>Comment</td>
</tr>
<tr>
<td>0.7</td>
<td>14th Sept 2004</td>
<td>Med eSupport Forum</td>
<td>Development / Comment</td>
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Final Approvals
This document requires the following approvals for release to client.

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<td>-D-</td>
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<td></td>
</tr>
</tbody>
</table>
Med eSupport Dataset

| Matthew Muir | Business Development Manager |

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1. Overview of Databases

![Diagram of databases]

Figure 1-1: QUM Project Databases

1.1. List of Database Tables (inc Lookup Tables)

<table>
<thead>
<tr>
<th>Databases and Tables</th>
<th>Trial Office</th>
<th>Repository</th>
<th>Consent</th>
<th>Drugs</th>
<th>Audit/Logging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>Medication Record</td>
<td>Access &amp; Consent Status</td>
<td>Drug Details</td>
<td>Transactions</td>
<td></td>
</tr>
<tr>
<td>Provider</td>
<td>Discharge Details</td>
<td>Permissions List</td>
<td></td>
<td>Data Audit</td>
<td></td>
</tr>
<tr>
<td>PKI</td>
<td>Medication Notes</td>
<td>PKI</td>
<td></td>
<td>Exceptions</td>
<td></td>
</tr>
<tr>
<td>Carer Details</td>
<td>Clinical Patient Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-up</td>
<td>INN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolment Details</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>URN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lookup Tables</th>
<th></th>
<th>Alert Conditions</th>
<th>Drug Link</th>
<th>Pointers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pointers</td>
<td>Prescription Message Type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Comment Type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Item Type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Postcode</td>
<td></td>
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</tr>
<tr>
<td>Division</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speciality</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Alert Medium</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Carer Link</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Carer Relation</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

*DRAFT* - 1 -
Appendices: ICT Appendices

Appendix XXVI  Med eSupport dataset (supplied by Phoenix)

Med eSupport Dataset
<table>
<thead>
<tr>
<th>ID</th>
<th>Patient ID</th>
<th>Location</th>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Subject</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P1234</td>
<td>Hospital</td>
<td>12/31/2022</td>
<td>10:00</td>
<td>Admission</td>
<td>Diagnosis</td>
<td>10045</td>
<td>Cancer diagnosis</td>
</tr>
<tr>
<td>2</td>
<td>P5678</td>
<td>Clinic</td>
<td>01/01/2023</td>
<td>09:00</td>
<td>Discharge</td>
<td>Treatment</td>
<td>11234</td>
<td>Surgery performed</td>
</tr>
</tbody>
</table>

This is a sample of data from the Med eSupport dataset (supplied by Phoenix).
### Med eSupport Dataset

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Length</th>
<th>Data Type</th>
<th>Field Name</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UID</td>
<td>ID</td>
<td>10</td>
<td>Integer</td>
<td>HospitalID</td>
<td>Integer</td>
<td>Hospital ID</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Date/Time</td>
<td>Date Created</td>
<td>Date/Time</td>
<td>Date Created</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bit</td>
<td>Active</td>
<td>Bit</td>
<td>Active</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Length</th>
<th>Data Type</th>
<th>Field Name</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Description</td>
<td>Length</td>
<td>Data Type</td>
<td>Field Name</td>
<td>Data Type</td>
<td>Description</td>
</tr>
</tbody>
</table>

### Example

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Date Created</th>
<th>Last Modified</th>
<th>Last Name</th>
<th>DrName</th>
<th>PhoneNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Hospital</td>
<td>07/09/20 2:45 PM</td>
<td>07/09/20 2:45 PM</td>
<td>Johnson</td>
<td>Smith</td>
<td>123-456-7890</td>
</tr>
<tr>
<td>Procedure ID</td>
<td>Provider</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>----------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>00000000</td>
<td>00000000</td>
<td>0000000</td>
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<td>00000000</td>
<td>00000000</td>
<td>0000000</td>
<td>0000000</td>
<td>0000000</td>
<td></td>
</tr>
</tbody>
</table>

**Example:**

- Procedure ID: 00000000
- Provider: 00000000
- Value 1: 00000000
- Value 2: 00000000
- Value 3: 00000000
<table>
<thead>
<tr>
<th>ID</th>
<th>Field Name</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Case ID</td>
<td>Integer</td>
<td>Unique ID for Auditing</td>
</tr>
<tr>
<td>2</td>
<td>Name</td>
<td>Text</td>
<td>First Name</td>
</tr>
<tr>
<td>3</td>
<td>Surname</td>
<td>Text</td>
<td>Last Name</td>
</tr>
<tr>
<td>4</td>
<td>Date</td>
<td>Date</td>
<td>Date of Birth</td>
</tr>
<tr>
<td>5</td>
<td>Gender</td>
<td>Text</td>
<td>Male/Female</td>
</tr>
<tr>
<td>6</td>
<td>Address</td>
<td>Text</td>
<td>Residential Address</td>
</tr>
<tr>
<td>7</td>
<td>City</td>
<td>Text</td>
<td>City Name</td>
</tr>
<tr>
<td>8</td>
<td>State</td>
<td>Text</td>
<td>State Name</td>
</tr>
<tr>
<td>9</td>
<td>Country</td>
<td>Text</td>
<td>Country Name</td>
</tr>
<tr>
<td>10</td>
<td>Phone</td>
<td>Telephone</td>
<td>Home Phone</td>
</tr>
<tr>
<td>11</td>
<td>Email</td>
<td>Text</td>
<td>Email Address</td>
</tr>
</tbody>
</table>

Example:
- **ID**: 1
- **Name**: Matthew
- **Surname**: Smith
- **Date**: 01/01/1980
- **Gender**: Male
- **Address**: 39 cases St
- **City**: Sydney
- **State**: NSW
- **Country**: Australia
- **Phone**: 0404250122
- **Email**: matthew.smith@example.com
- **Notes**: Information collected on 01/04/2001 PM
<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
<th>Data Type</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient ID</td>
<td>String</td>
<td>10</td>
<td>Patient ID</td>
</tr>
<tr>
<td>2</td>
<td>Patient Name</td>
<td>String</td>
<td>20</td>
<td>Patient Name</td>
</tr>
<tr>
<td>3</td>
<td>Date of Birth</td>
<td>Date</td>
<td>8</td>
<td>Date of Birth</td>
</tr>
<tr>
<td>4</td>
<td>Gender</td>
<td>String</td>
<td>1</td>
<td>Gender</td>
</tr>
<tr>
<td>5</td>
<td>Contact Number</td>
<td>String</td>
<td>20</td>
<td>Contact Number</td>
</tr>
<tr>
<td>6</td>
<td>Email</td>
<td>String</td>
<td>50</td>
<td>Email</td>
</tr>
<tr>
<td>7</td>
<td>Phone Number</td>
<td>String</td>
<td>20</td>
<td>Phone Number</td>
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<tr>
<td>8</td>
<td>Address</td>
<td>String</td>
<td>50</td>
<td>Address</td>
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<td>9</td>
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<td>String</td>
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<td>City</td>
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<td>20</td>
<td>State</td>
</tr>
<tr>
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<td>Zip Code</td>
<td>String</td>
<td>10</td>
<td>Zip Code</td>
</tr>
<tr>
<td>12</td>
<td>Medical Condition</td>
<td>String</td>
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<td>Medical Condition</td>
</tr>
<tr>
<td>13</td>
<td>Other Medical Conditions Description</td>
<td>String</td>
<td>100</td>
<td>Other Medical Conditions Description</td>
</tr>
<tr>
<td>14</td>
<td>Diagnosis</td>
<td>String</td>
<td>50</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>15</td>
<td>Procedure</td>
<td>String</td>
<td>50</td>
<td>Procedure</td>
</tr>
</tbody>
</table>

**Example:**

<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
<th>Data Type</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient ID</td>
<td>String</td>
<td>10</td>
<td>Patient ID</td>
</tr>
<tr>
<td>2</td>
<td>Patient Name</td>
<td>String</td>
<td>20</td>
<td>Patient Name</td>
</tr>
<tr>
<td>3</td>
<td>Date of Birth</td>
<td>Date</td>
<td>8</td>
<td>Date of Birth</td>
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<tr>
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<td>Gender</td>
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<td>1</td>
<td>Gender</td>
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<tr>
<td>5</td>
<td>Contact Number</td>
<td>String</td>
<td>20</td>
<td>Contact Number</td>
</tr>
<tr>
<td>6</td>
<td>Email</td>
<td>String</td>
<td>50</td>
<td>Email</td>
</tr>
<tr>
<td>7</td>
<td>Phone Number</td>
<td>String</td>
<td>20</td>
<td>Phone Number</td>
</tr>
<tr>
<td>8</td>
<td>Address</td>
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<td>Address</td>
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<tr>
<td>9</td>
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<td>City</td>
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<tr>
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<td>State</td>
</tr>
<tr>
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<td>Zip Code</td>
<td>String</td>
<td>10</td>
<td>Zip Code</td>
</tr>
<tr>
<td>12</td>
<td>Medical Condition</td>
<td>String</td>
<td>50</td>
<td>Medical Condition</td>
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<td>Other Medical Conditions Description</td>
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<td>50</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>15</td>
<td>Procedure</td>
<td>String</td>
<td>50</td>
<td>Procedure</td>
</tr>
<tr>
<td>GP Name</td>
<td>CQI Name</td>
<td>Contact Person</td>
<td>Contact Phone</td>
<td>Contact Email</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>---------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>12345678</td>
<td>123456</td>
<td>James Smith</td>
<td>123-456-7890</td>
<td><a href="mailto:james.smith@company.com">james.smith@company.com</a></td>
</tr>
<tr>
<td>87654321</td>
<td>234567</td>
<td>John Doe</td>
<td>987-654-3210</td>
<td><a href="mailto:john.doe@company.com">john.doe@company.com</a></td>
</tr>
</tbody>
</table>

**Example**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Data Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient ID</td>
<td>Integer</td>
<td>10</td>
<td>Patient ID</td>
</tr>
<tr>
<td>Name</td>
<td>String</td>
<td>100</td>
<td>Patient Name</td>
</tr>
<tr>
<td>Age</td>
<td>Integer</td>
<td>3</td>
<td>Patient Age</td>
</tr>
</tbody>
</table>

*Note: This table is an example of how data might be structured for a Med eSupport dataset.*
<table>
<thead>
<tr>
<th>Patient No.</th>
<th>Patient Name</th>
<th>Condition</th>
<th>Treatment</th>
<th>Dosage</th>
<th>Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>12301</td>
<td>John Smith</td>
<td>Asthma</td>
<td>Inhaler</td>
<td>10mg</td>
<td>30 capsules</td>
</tr>
<tr>
<td>45678</td>
<td>Jane Doe</td>
<td>Diabetes</td>
<td>Insulin</td>
<td>50mg</td>
<td>100 tablets</td>
</tr>
</tbody>
</table>

Note: Please provide the necessary details for each patient as per the guidelines provided by the medical board.
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Length</th>
<th>Data Type</th>
<th>Field Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>Text</td>
<td>1000</td>
<td>Text</td>
<td>Example</td>
</tr>
<tr>
<td>Relation Type Code</td>
<td>Text</td>
<td>10</td>
<td>Text</td>
<td>Relation Type Code</td>
</tr>
<tr>
<td>ID</td>
<td>Integer</td>
<td>4</td>
<td>Text</td>
<td>ID</td>
</tr>
<tr>
<td>Table</td>
<td>Text</td>
<td>Example</td>
<td>Text</td>
<td>Table Name</td>
</tr>
</tbody>
</table>
### 3. Repository Database

Medication record is a table for each drug and is generated for every hospital or pharmacy data input.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Column Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Name</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>Dose</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Route</td>
<td>Text</td>
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</tr>
<tr>
<td>Frequency</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td>Text</td>
<td></td>
</tr>
</tbody>
</table>

This record contains details of medication prescribed by doctors to patients (drugs prescribed to hospitals).
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Format</th>
<th>Length</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Record ID</td>
<td>Integer</td>
<td>4</td>
<td>12345</td>
</tr>
<tr>
<td>Date</td>
<td>Record Date</td>
<td>String</td>
<td>10</td>
<td>2023-01-01</td>
</tr>
<tr>
<td>Age</td>
<td>Age</td>
<td>Integer</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>Gender</td>
<td>Gender</td>
<td>String</td>
<td>2</td>
<td>Male</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Diagnosis</td>
<td>String</td>
<td>50</td>
<td>Cancer</td>
</tr>
<tr>
<td>Treatment</td>
<td>Treatment</td>
<td>String</td>
<td>50</td>
<td>Chemotherapy</td>
</tr>
<tr>
<td>Notes</td>
<td>Notes</td>
<td>String</td>
<td>50</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: This table represents a sample from the Med eSupport dataset supplied by Phoenix.
<table>
<thead>
<tr>
<th>Entry ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Column A</td>
</tr>
<tr>
<td>2</td>
<td>Column B</td>
</tr>
</tbody>
</table>

### Notes
- This table represents a dataset provided by Phoenix for the Med eSupport project.
### Med eSupport Dataset

<table>
<thead>
<tr>
<th>Operation</th>
<th>Description</th>
<th>Date/Time</th>
<th>Duration</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation 1</td>
<td>Load record (from patient portal)</td>
<td>2020/10/12 10:00</td>
<td>12:00</td>
<td>Notes 1</td>
</tr>
<tr>
<td>Operation 2</td>
<td>Analyze data</td>
<td>2020/10/12 10:00</td>
<td>12:00</td>
<td>Notes 2</td>
</tr>
</tbody>
</table>

### Example

<table>
<thead>
<tr>
<th>Patient Notes</th>
<th>Admission Date</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456</td>
<td>2020/10/12</td>
<td>Cancer</td>
</tr>
</tbody>
</table>

---

Appendices: ICT Appendices

Appendix XXVI: Med eSupport dataset (supplied by Phoenix)
### Med eSupport dataset (supplied by Phoenix)

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key</th>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Date</td>
<td>String</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>String</td>
<td>250</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key</th>
<th>Type</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permission</td>
<td>Description</td>
<td>Value</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Read health data</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Write health data</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Delete health data</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Update health data</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- Security level: 4
- Encryption: Yes
- Format: XML
- Length: 12
- Examples:

**4. Custom Database**

Med eSupport database (supplied by Phoenix)
<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
</tbody>
</table>

**Example:**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
</tbody>
</table>

**Example:**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
</tbody>
</table>

**Example:**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
</tbody>
</table>

**Example:**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
</tbody>
</table>

**Example:**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>Date Time</td>
<td>8</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Client time in UTC format)</td>
</tr>
<tr>
<td>Last Viewed</td>
<td>varchar</td>
<td>20</td>
<td>Last time the details for a patient were viewed (Server time in UTC format)</td>
</tr>
<tr>
<td>Drug Name</td>
<td>Form Name</td>
<td>Length</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Drug A</td>
<td>Form A</td>
<td>Length A</td>
<td>Description A</td>
</tr>
<tr>
<td>Drug B</td>
<td>Form B</td>
<td>Length B</td>
<td>Description B</td>
</tr>
</tbody>
</table>

6. Drugs Database
### 6. Audit / Logging Database

<table>
<thead>
<tr>
<th>Transaction ID</th>
<th>Verdict</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456</td>
<td>True</td>
<td></td>
</tr>
<tr>
<td>789012</td>
<td>False</td>
<td></td>
</tr>
<tr>
<td>345678</td>
<td>True</td>
<td></td>
</tr>
</tbody>
</table>

**Definition:**
- **Transaction ID:** Unique identifier for each transaction.
- **Verdict:** Whether the transaction was successful or not.
- **Example:** Sample data entry for a successful transaction.
### Table: Med eSupport Dataset

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Format</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Integer</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Date Time</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Last Time</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Row ID</td>
<td>Integer</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Last Time</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Message</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Exception</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Error Code</td>
<td>Integer</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Date Created</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Date Modified</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Last Time</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Row ID</td>
<td>Integer</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Last Time</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Message</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Exception</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Error Code</td>
<td>Integer</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Text</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Date Created</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Date Modified</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Last Time</td>
<td>Date</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

**Example: Med eSupport Record**

- **ID**: 6002
- **Date Time**: 07/06/04 2:45:06 PM
- **Last Time**: 07/06/04 2:45:06 PM
- **Row ID**: 07/06/04 2:45:06 PM
- **Last Time**: 07/06/04 2:45:06 PM
- **Data**: Confidential
- **Message**: Unauthorized access detected
- **Exception**: User not authorized
- **Error Code**: 200
- **Description**: Access attempt on a record is denied
- **Date Created**: 07/06/04 2:45:06 PM
- **Last Time Modified**: 07/06/04 2:45:06 PM
Appendices: ICT Appendices
Appendix XXVII  QUM repository lookup tables (supplied by Phoenix)

Appendix XXVII  QUM repository lookup tables (supplied by Phoenix)

Quality Use of Medicines Project (QUM)

QUM Repository Lookup Tables

Version 0.2
DOCUMENT CONTROL

Document Details

This document is only valid on the day it was printed.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>QUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>File Location</td>
<td>[Projects/QUM/Project Documentation/QUM Repository Lookup Tables v2.2.doc]</td>
</tr>
<tr>
<td>Printed Date</td>
<td>Wednesday, 7 December 2005</td>
</tr>
</tbody>
</table>

Revision History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author</th>
<th>Summary of Changes</th>
<th>Cleared by</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>9th July 2004</td>
<td>Monique Oliver</td>
<td>Initial Draft</td>
<td>Matthew Muir</td>
</tr>
<tr>
<td>0.2</td>
<td>14th July 2004</td>
<td>Monique Oliver</td>
<td>Updated table content, inc. Mark's feedback.</td>
<td>Matthew Muir</td>
</tr>
</tbody>
</table>

Distribution

This document has been distributed to:

<table>
<thead>
<tr>
<th>Version</th>
<th>Date of Issue</th>
<th>Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>14th July 2004</td>
<td>Mark Casten</td>
<td>Comment</td>
</tr>
<tr>
<td>0.2</td>
<td>14th July 2004</td>
<td>John, Greg Peterson &amp; Omar Hanon</td>
<td>Comment</td>
</tr>
</tbody>
</table>

Final Approvals

This document requires the following approvals for release to client.

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Title</th>
<th>Date of Issue</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matthew Muir</td>
<td></td>
<td>Business Development Manager</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendices: ICT Appendices

Appendix XXVII  QUM repository lookup tables (supplied by Phoenix)

QUM Repository Lookup Tables

1. QUM Repository – Lookup Tables

The following tables listed consecutively below (Table 1-12) display the lookup tables used in the QUM Repository:

2. Trial Office Database

2.1 Title

Database: Trial Office  Table: Patient
Standards Australia has published a standard for the definition of name prefixes. The table below (Table 2-1) shows examples of this published standard. Refer to HL7 Prescription and Dispensing Formats Specification - Communication to and from HIC (HL7 Version 2.4 Compliant).

Table 2-1: Title codes

<table>
<thead>
<tr>
<th>Title Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MISS</td>
<td>Miss</td>
</tr>
<tr>
<td>MR</td>
<td>Mister</td>
</tr>
<tr>
<td>MON</td>
<td>Monsignor</td>
</tr>
<tr>
<td>MOST REV</td>
<td>Most Reverend</td>
</tr>
<tr>
<td>M H K</td>
<td>Mother</td>
</tr>
<tr>
<td>MRS</td>
<td>Mrs</td>
</tr>
<tr>
<td>MS</td>
<td>Ms</td>
</tr>
<tr>
<td>DR</td>
<td>Doctor</td>
</tr>
<tr>
<td>NURSE</td>
<td>Nurse Is this a title?</td>
</tr>
</tbody>
</table>

Also about are Sister and Professor

-DRAFT-  - 1 -
Appendices: ICT Appendices
Appendix XXVII  QUM repository lookup tables (supplied by Phoenix)

QUM Repository Lookup Tables

2.2 Sex

Database: Trial Office  Table: Patient
The table below (Table 2-2) shows the valid options for gender - code and description.

<table>
<thead>
<tr>
<th>Sex Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Male</td>
</tr>
<tr>
<td>F</td>
<td>Female</td>
</tr>
</tbody>
</table>

2.3 State

Database: Trial Office  Table: Patient
The table below (Table 2-3) shows the valid options for state - code and description.

<table>
<thead>
<tr>
<th>State Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAS</td>
<td>Tasmania</td>
</tr>
<tr>
<td>ACT</td>
<td>Australian Capital Territory</td>
</tr>
<tr>
<td>NT</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>NSW</td>
<td>New South Wales</td>
</tr>
<tr>
<td>QLD</td>
<td>Queensland</td>
</tr>
<tr>
<td>VIC</td>
<td>Victoria</td>
</tr>
<tr>
<td>SA</td>
<td>South Australia</td>
</tr>
<tr>
<td>WA</td>
<td>Western Australia</td>
</tr>
</tbody>
</table>

-DRAFT-
Appendices: ICT Appendices

Appendix XXVII  QUM repository lookup tables (supplied by Phoenix)

QUM Repository Lookup Tables

2.4 Division

Database: Trial Office  Table: Provider
The table below (Table 2.4) shows the valid options for Division - code and description.

Table 2.4: GP Division codes

<table>
<thead>
<tr>
<th>Division Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>GP North</td>
</tr>
<tr>
<td>D2</td>
<td>Southern Tasmanian Division of General Practice</td>
</tr>
<tr>
<td>D3</td>
<td>North West Tasmania Division of General Practice</td>
</tr>
<tr>
<td>D4</td>
<td>Tasmanian GP Division</td>
</tr>
<tr>
<td>D5</td>
<td>Is this all the other ones in the other states?</td>
</tr>
</tbody>
</table>
2.5 Speciality??do we need this – Could it just be an option to free text if really needed?

Database: Trial Office Table: Provider
The table below (Table 2-5) shows the valid options for provider speciality - code and description.

Table 2-5: Speciality codes

<table>
<thead>
<tr>
<th>Speciality Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Allergy &amp; Immunology</td>
</tr>
<tr>
<td>S2</td>
<td>Anatomic/Pathology</td>
</tr>
<tr>
<td>S3</td>
<td>Anesthesiology</td>
</tr>
<tr>
<td>S4</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>S5</td>
<td>Clinical</td>
</tr>
<tr>
<td>S6</td>
<td>Critical Care</td>
</tr>
<tr>
<td>S7</td>
<td>Dermatology</td>
</tr>
<tr>
<td>S8</td>
<td>Emergency Medicine</td>
</tr>
<tr>
<td>S9</td>
<td>Endocrinology</td>
</tr>
<tr>
<td>S10</td>
<td>Gastroenterology</td>
</tr>
<tr>
<td>S11</td>
<td>General/Family Physicians</td>
</tr>
<tr>
<td>S12</td>
<td>Geriatric</td>
</tr>
<tr>
<td>S13</td>
<td>Hematology</td>
</tr>
<tr>
<td>S14</td>
<td>Internists</td>
</tr>
<tr>
<td>S15</td>
<td>Nephrology</td>
</tr>
<tr>
<td>S16</td>
<td>Neurology</td>
</tr>
<tr>
<td>S17</td>
<td>Obstetrics &amp; Gynecology</td>
</tr>
<tr>
<td>S18</td>
<td>Oncology</td>
</tr>
<tr>
<td>S19</td>
<td>Ophthalmology</td>
</tr>
</tbody>
</table>

-DRAFT-
Appendices: ICT Appendices

Appendix XXVII  QUM repository lookup tables (supplied by Phoenix)

QUM Repository Lookup Tables

<table>
<thead>
<tr>
<th>Speciality Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S20</td>
<td>Optometry</td>
</tr>
<tr>
<td>S21</td>
<td>Orthopedic</td>
</tr>
<tr>
<td>S22</td>
<td>Osteopathy</td>
</tr>
<tr>
<td>S23</td>
<td>Otolaryngology</td>
</tr>
<tr>
<td>S24</td>
<td>Pathology</td>
</tr>
<tr>
<td>S25</td>
<td>Pediatrics</td>
</tr>
<tr>
<td>S26</td>
<td>Physical Medicine &amp; Rehab</td>
</tr>
<tr>
<td>S27</td>
<td>Plastic Surgery</td>
</tr>
<tr>
<td>S28</td>
<td>Podiatry</td>
</tr>
<tr>
<td>S29</td>
<td>Preventive Medicine</td>
</tr>
<tr>
<td>S30</td>
<td>Psychiatry</td>
</tr>
<tr>
<td>S31</td>
<td>Psychologists</td>
</tr>
<tr>
<td>S32</td>
<td>Pulmonary Disease</td>
</tr>
<tr>
<td>S33</td>
<td>Radiology</td>
</tr>
<tr>
<td>S34</td>
<td>Surgery-General</td>
</tr>
<tr>
<td>S35</td>
<td>Urology</td>
</tr>
</tbody>
</table>
Appendices: ICT Appendices

Appendix XXVII  QUM repository lookup tables (supplied by Phoenix)

QUM Repository Lookup Tables

2.6  Alert Medium

Database: Trial Office  Table: Provider
The table below (Table 2-6) shows the valid options for alert medium - code and description.

Table 2-6: Alert Medium Codes

<table>
<thead>
<tr>
<th>Alert Medium Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Fax</td>
</tr>
<tr>
<td>A2</td>
<td>Email</td>
</tr>
<tr>
<td>A3</td>
<td>SMS</td>
</tr>
<tr>
<td>A4</td>
<td>Web</td>
</tr>
</tbody>
</table>

-DRAFT-
2.7 Carer Relation

Database: Trial Office Table: Carer Details

The table below (Table 2-6) shows the valid options for carer relation - code and description.

<table>
<thead>
<tr>
<th>Carer Type Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMUNITY CARER</td>
<td>Community Carer</td>
</tr>
<tr>
<td>COMMUNITY NURSE</td>
<td>Community Nurse</td>
</tr>
<tr>
<td>NURSING HOME STAFF</td>
<td>Nursing home</td>
</tr>
<tr>
<td>FATHER</td>
<td>Father</td>
</tr>
<tr>
<td>MOTHER</td>
<td>Mother</td>
</tr>
<tr>
<td>DAUGHTER</td>
<td>Daughter</td>
</tr>
<tr>
<td>SON</td>
<td>Son</td>
</tr>
<tr>
<td>SISTER</td>
<td>Sister</td>
</tr>
<tr>
<td>BROTHER</td>
<td>Brother</td>
</tr>
<tr>
<td>HUSBAND</td>
<td>Husband</td>
</tr>
<tr>
<td>WIFE</td>
<td>Wife</td>
</tr>
<tr>
<td>PARTNER</td>
<td>Partner</td>
</tr>
<tr>
<td>DE FACTO</td>
<td>De facto</td>
</tr>
<tr>
<td>UNCLE</td>
<td>Uncle</td>
</tr>
<tr>
<td>AUNT</td>
<td>Aunt</td>
</tr>
<tr>
<td>NEPHEW</td>
<td>Nephew</td>
</tr>
<tr>
<td>NIECE</td>
<td>Niece</td>
</tr>
<tr>
<td>GDFAther</td>
<td>Grandfather</td>
</tr>
<tr>
<td>GDmother</td>
<td>Grandmother</td>
</tr>
<tr>
<td>GDson</td>
<td>Grandson</td>
</tr>
</tbody>
</table>

Table 2-7: Carer Relation Codes
### QUM Repository Lookup Tables

<table>
<thead>
<tr>
<th>GODDAUGHTER</th>
<th>Granddaughter</th>
</tr>
</thead>
</table>

Can a “friend” be a Carer under any circumstances?
QUM Repository Lookup Tables

3. Repository Database

3.1 Prescription Message Type

Database: Repository  Table: Medication Record

The table below (Table 3.1) shows the valid options for prescription message type - code and description.

Table 3.1: Prescription Message Type

<table>
<thead>
<tr>
<th>Prescription Message Type Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM1</td>
<td>History</td>
</tr>
<tr>
<td>PM2</td>
<td>Hospital</td>
</tr>
<tr>
<td>PM3</td>
<td>Community Pharmacy</td>
</tr>
<tr>
<td>PM4</td>
<td>Web Based</td>
</tr>
<tr>
<td>PM5</td>
<td>Patient/carer Recorded</td>
</tr>
</tbody>
</table>

Sorry – don’t get what this is??
QUM Repository Lookup Tables

3.2 Comment Type

**Database:** Repository  
**Table:** Medication Notes / Clinical Patient Notes

The table below (Table 3-2) shows the valid options for comment type - code and description.

**Table 3-2: Comment Type Codes**

<table>
<thead>
<tr>
<th>Comment Type Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEASEDRUG</td>
<td>Cease Drug</td>
</tr>
<tr>
<td>DOSE</td>
<td>Change Dose</td>
</tr>
<tr>
<td>SCMED</td>
<td>Short Course Medication</td>
</tr>
<tr>
<td>NOT</td>
<td>Notes</td>
</tr>
<tr>
<td>ALG</td>
<td>Allergies</td>
</tr>
<tr>
<td>CON</td>
<td>Medical Conditions</td>
</tr>
<tr>
<td>ADR</td>
<td>Adverse Drug Reaction</td>
</tr>
</tbody>
</table>

New drug
Replacement drug?
Can dose change be split into increased and decreased doses for better definition?

-DRAFT-
4. Consent Database

4.1 Alert Conditions

The table below (Table 4-1) shows the valid options for alert conditions - code and description.

Table 4-1: Alert Condition Codes

<table>
<thead>
<tr>
<th>Alert Condition Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC1</td>
<td>Hospital discharge</td>
</tr>
<tr>
<td>AC2</td>
<td>Hospital admission</td>
</tr>
<tr>
<td>AC3</td>
<td>Script been dispensed</td>
</tr>
<tr>
<td>AC4</td>
<td></td>
</tr>
</tbody>
</table>

-DRAFT-
5. Drugs Database

5.1 Drug Link

Table: Drug Details
The table below (Table 5-1) shows the QUM Drug ID matched with vendor Drug ID’s. Note that this drug links table supports PBS, EAN, REX, FRED and Pharmcare drug sets.

Table 5-1: Drug Link Codes

<table>
<thead>
<tr>
<th>QUM Drug ID</th>
<th>Vendor Drug ID</th>
<th>Vendor Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(PBS, EAN, REX, Pharmcare, FRED)</td>
</tr>
</tbody>
</table>

TO BE COMPLETED...
Clinical Expertise Opportunity

14/9/2005

Dear [Name],

The Medesupport Project, a multi-centred, randomised, controlled clinical trial, has been conducted through the University of Tasmania in conjunction with Royal Hobart Hospital, along with Launceston General Hospital and several interstate hospitals. It aims to improve medication outcomes through the transfer of information between community and hospital settings. This project is funded by the Commonwealth Department of Health and Ageing as part of the Third Community Pharmacy Agreement.

The Medesupport team has recently concluded its data collection phase.

One of the trial outcomes will be to assess the significance and probability of medication history discrepancies or omissions, at admission and discharge from hospital, resulting in potential medication misadventure. In addition, we will also look to assign significance to a sample of the home medication review recommendations made throughout the trial.

A popular technique used to assess this type of outcome is collaboration of an expert clinical Panel. The Panel members are asked to individually rank the significance of the sample cases provided.

I write to you to request your participation in the Panel.

There will be 40 short cases provided in a paper-based format and you will be asked to rank the probability of the suggested consequences occurring. There will be 20 random discrepancy cases, and 20 random HMR cases to review. It is expected they will take approx. 5 hours to complete. Please refer to the example case studies attached.

In appreciation for your time and recognition of your clinical services you will receive a payment of $1000 once the cases have been received. Although they should only take approx. 5 hours to complete we have allocated two weeks for submission so that you can work on the cases around your busy schedule. We aim to have the cases available so you can begin assessment on 16/9/2005.

Please email or ring to confirm involvement by 14/9/2005.

Please feel free to contact me if you have any questions or concerns. We are available either in person or on the phone, to walk you through the first couple of case studies if you are unsure of the process.

Looking forward to hearing from you. Thank you for your assistance.

Kind regards,

Rose McShane

Clinical Research Pharmacist

Medesupport Project

Unit for Medication Outcomes Research and Education

School of Pharmacy

University of Tasmania

Locked Bag 26

Hobart TAS 7001 Australia

Phone: 01-3-6267332

Email: mcshane@utas.edu
Example Discrepancy Case study

Intervention Summary

**Problem:** Warfarin left off discharge script- no directions given to patient, no plan for GP follow up. 74 year old male patient admitted with unstable diabetes. His medical history includes stroke, Meniere’s syndrome, gout, H1D, peripheral vascular disease and hypercholesterolemia. He has a past history of nose and GI bleeds and is currently taking Warfarin 7mg daily. Patient remained in hospital for 6 days in which time Warfarin dose and diet were altered. He usually sees GP every 2-3 weeks. At the time of discharge the Clinical Pharmacist contacted the hospital medical staff to request the Warfarin dose and plan for follow up post discharge.

**Outcome after Pharmacist intervention:** Patient was clear on Warfarin dose intended post discharge, GP appointment 3 days after discharge for INR.

**Dispensing Summary**

<table>
<thead>
<tr>
<th>Gliclazide MR 60mg once</th>
<th>Allopurinol 300mg once</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramipril 2.5mg once</td>
<td>Simvastatin 20mg once</td>
</tr>
<tr>
<td>Betalastine 10mg tid</td>
<td>Insulin (Novolin 50/50) 2units once &amp; nocte</td>
</tr>
<tr>
<td>Warfarin 7mg /8mg alternate days</td>
<td>Panacetamol 1g QID pm</td>
</tr>
</tbody>
</table>

Step one: estimate the probability of the consequences of the discrepancy.
1. Select from the most likely consequences that you consider may have been caused by the discrepancy (there is a list to choose from provided). If you cannot find a suitable consequence, substitute an appropriate one in the space provided and write a comment to outline your reasoning.
2. For the situation before the pharmacist’s intervention to correct the discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity (defined below). By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.
3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
4. This process can be repeated for other consequences.

List of Possible Consequences:

1. Incorrect dose, no INR for 2 weeks - bleed
2. Sub therapeutic dose, no INR- blood clot/stroke

For example, Consequence 1: Incorrect dose, no INR for 2 weeks - bleed

<table>
<thead>
<tr>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect (derived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without intervention</td>
<td>10%</td>
<td>50%</td>
<td>20% 20%</td>
</tr>
<tr>
<td>With intervention</td>
<td></td>
<td>6%</td>
<td>10% 84%</td>
</tr>
</tbody>
</table>

Comment:

Consequence 2: Subtherapeutic dose, no INR for 2 weeks - blood clot/stroke

<table>
<thead>
<tr>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect (derived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without intervention</td>
<td>7%</td>
<td>30%</td>
<td>20% 43%</td>
</tr>
<tr>
<td>With intervention</td>
<td></td>
<td>3%</td>
<td>9% 88%</td>
</tr>
</tbody>
</table>

Comment:

Severe: May be readmitted into hospital (eg.) serious drug interaction with warfarin - major haemorrhage.
Moderate: May end up at GP / Refer to OP (eg) minor bleed
Mild: Minor symptoms could occur (eg) bruising.
Example HMR recommendation Case study

**Intervention Summary**

**Problem:** Patient suffering from myalgia associated with statin therapy.

61 year old female, Mrs ME was admitted to hospital with fever for investigation. Her medical history included GORD, transient ischaemic attacks, depression, hypercholesterolaemia. During her hospital stay the patient complained of muscle aches and pains which she believed were due to her Simvastatin.

Simvastatin was continued at discharge from hospital.

At time of home medication review (following discharge from hospital) she suggested she only needed to climb a small set of stairs before her muscles ached. Mrs ME reported on a recent 3 week holiday, she did not take her simvastatin and suffered no aches and pains, despite some long walks. Mrs ME understood her cholesterol is high and requires treatment. 

HMR Report sent to GP with suggestion to have the patient trial another statin less likely to cause myalgia, or alternatively try a lipid lowering medication in another class altogether (ezetimibe). There was also suggestion made to use a Co Enzyme Q10 supplement as this can be reduced in the body by statins and may contribute to myalgia.

**Outcome after Pharmacist intervention:**

GP replied to the suggestion

“Seems Zocor does cause some grief back on it again and aching but uncertain if this relates to her current illness or Zocor. Cease Zocor 6/52- diary of symptoms prior to and after recommencing. R/V in 2 months to consider continuation or switch to Pravachol or Ezetrol.”

**Dispensing Summary**

<table>
<thead>
<tr>
<th>Analgesin 200mg bd</th>
<th>Perindopril 1.25mg twice daily</th>
<th>No significant laboratory results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omeprazole 20mg bd</td>
<td>Flaxetine 40mg once daily</td>
<td>U/E/C Normal</td>
</tr>
<tr>
<td>Paracetamol 1g tid</td>
<td>Simvastatin 20mg once daily</td>
<td>CK/CK/M normal</td>
</tr>
<tr>
<td>Meloxicam 15mg d pm</td>
<td>Temazepam 10mg nocte pm</td>
<td></td>
</tr>
</tbody>
</table>

Step one: estimate the probability of the consequences of the potential medication issue.

1. Select from the most likely consequences that you consider may have been caused if the issue hadn’t been addressed (there is a list to choose from provided). If you cannot find a suitable consequence, substitute an appropriate one in the space provided and write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication issue, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This process can be repeated for other consequences.

List of Possible Consequences:

1. Patient continued on statin and developed rhabdomyolysis
2. Patient non compliant with cholesterol lowering therapy (GP unaware) - Stroke

For example, for consequence 1: Patient continued on statin and developed rhabdomyolysis

<table>
<thead>
<tr>
<th>Consequence 1: Patient continued on statin and developed rhabdomyolysis</th>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect (derived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without intervention</td>
<td>6%</td>
<td>50%</td>
<td>40%</td>
<td>4%</td>
</tr>
<tr>
<td>With intervention</td>
<td>1%</td>
<td>2%</td>
<td>20%</td>
<td>77%</td>
</tr>
</tbody>
</table>

**Comment:**

Consequence 2: **Patient non compliant with cholesterol lowering therapy (GP unaware) - Stroke**

<table>
<thead>
<tr>
<th></th>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect (derived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without intervention</td>
<td>6  %</td>
<td>15 %</td>
<td>20 %</td>
<td>59%</td>
</tr>
<tr>
<td>With intervention</td>
<td></td>
<td>2 %</td>
<td>6 %</td>
<td>92%</td>
</tr>
</tbody>
</table>

Comment:
- **Severe**: May be readmitted into hospital (eg.) stroke
- **Moderate**: May end up at GP/Refer to GP (eg) muscle aches continue to prevent ADL
- **Mild**: Minor symptoms could occur (eg) minor muscle aches
Appendices: Economic Analysis

Appendix XXIX  Template for case studies

Appendix XXIX  Template for case studies

Template  HMR recommendation Case study

Intervention Summary
Problem: describe issue in short sentence

Admitted into hospital for:
Medical history:
Explanation of issue:

Suggestion made by accredited pharmacist:
Outcome after Pharmacist intervention:

GP response (if one):
Patients account at 30 days – outlining changes if any

Dispensing Summary:
Relevant Laboratory results (if any)

Step one: estimate the probability of the consequences of the potential medication issue.
1. Select from the most likely consequences that you consider may have been caused if the issue hadn’t been
   addressed (there is a list to choose from provided). If you cannot find a suitable consequence, substitute
   an appropriate one in the space provided and write a comment to outline your reasoning.
2. For the situation before the pharmacist’s intervention to correct the potential medication issue, enter
   the probability that the consequence would have occurred at each three different levels of severity. By entering
   these three probabilities, the remaining probability of there being no consequence is automatically
   calculated.
3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
4. This process can be repeated for other consequences.

List of Possible Consequences:
1. (we give at least two suggested consequences)
2. 

For example, 1: Write in suggested consequence

<table>
<thead>
<tr>
<th>Consequence 2: Write in suggested consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without intervention</td>
</tr>
<tr>
<td>With intervention</td>
</tr>
<tr>
<td>Comment:</td>
</tr>
</tbody>
</table>

| Without intervention | Moderate | Mild | No effect |%
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>With intervention</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

| Comment:             |          |

| Without intervention | Moderate | Mild | No effect |%
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>With intervention</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

| Comment:             |          |
Template Discrepancy Case study

**Intervention Summary**

**Problem:** describe issue in short sentence

___ year old

Admitted into hospital for:

Medical history:

Explanation of issue:

Action on part of Pharmacist to correct discrepancy

**Outcome after Pharmacist intervention:**

**Dispensing Summary**

Relevant Laboratory results (if any)

Step one: estimate the probability of the consequences of the potential discrepancy.

5. Select from the most likely consequences that you consider may have been caused if the discrepancy hadn’t been addressed (there is a list to choose from provided). If you cannot find a suitable consequence, substitute an appropriate one in the space provided and write a comment to outline your reasoning.

6. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

7. Repeat the probability estimates for the situation after the pharmacist’s intervention.

8. This process can be repeated for other consequences.

List of Possible Consequences:

1. (we give at least two suggested consequences)

2.

For example,

**Consequence 1:** Write in suggested consequence

<table>
<thead>
<tr>
<th></th>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect (derived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>intervention</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
</tbody>
</table>

**Comment:**

**Consequence 2:** Write in suggested consequence

<table>
<thead>
<tr>
<th></th>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect (derived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>intervention</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
</tbody>
</table>

**Comment:**
Welcome to the Medesupport Panel.

The following cases are a random sample, as a result some of the cases may seem more or less significant than others.

Please print your 20 case studies out and enter your scores with a blue or black pen. I will be available to discuss the case studies and answer any questions you may have.

I can be contacted in office hours on 62267232, or out of hours on 6436281678.

The completed cases will be collected from your surgery/ RHE pharmacy department on 4th October at approximately 1pm, if convenient. I will make payment arrangements before this time.

Please email to advise if you have an ABN number.

There are two main categories of intervention:
Discrepancies seen at admission and discharge from hospital
Home medication review recommendations.

Panel member should decide if they feel the possible consequence provided is considered mild, moderate or severe in nature, by assigning a percentage likelihood of occurrence to the consequence before and after intervention. We understand that much of the information provided is limited, so that it is not always easy to estimate these probabilities.

Discrepancies seen in the hospital, either at admission or discharge may place the patient in the hospital or community setting depending on when the issue occurred and if the ramifications are likely to be seen immediately or delayed. The panel needs to interpret this based on the information provided in the case study.

Significance of discrepancies at admission and discharge (Community setting/Hospital setting)

Mild  Minor Symptoms could occur / specialist unit required for review in hospital
Mod  May end up at Dr/Refer to Dr / short addition of hospital bed days (2-5 days)
Severe  May be readmitted into hospital/ admitted to higher care unit (ICU/HDU)/prolonged extra hospital stay

Thank you.
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 1

Intervention Summary

Problem: Incorrect dose of thyroxine charted on admission.
71 year old female admitted into hospital with vertigo. Medical history includes hypertension, thyroideectomy, hypercholesterolemia and asthma.

Explanation of issue: Mrs RC usually takes thyroxine 50mcg on day ONE and alternates with 100mcg on day TWO. At time of admission, Mrs RC was incorrectly charted for thyroxine 50mcg daily.
Action on part of pharmacist to correct discrepancy: Pharmacist contacted Medical team responsible for Mrs RC and requested they review dose of thyroxine. Complete and correct medication list provided to prescriber (in medical notes).
Outcome after pharmacist intervention: Dose corrected within 48 hours of admission.

Dispensing Summary (Admission)  Nil relevant laboratory results
beclomethasone 100mcg 2 puffs BD  salbutamol 100mcg 2 puffs BD
paracetamol 1g QID prn  candesartan 16mg mane
simvastatin 20mg nocte  pantoprazole 40mg daily
thyroxine 50mcg mane (day ONE) alt with 100mcg mane (day TWO)

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is a more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Possible Consequences:
1. Hypothyroidism leading to mild, moderate or severe symptoms.

Consequence 1. Hypothyroidism leading to mild, moderate or severe symptoms.

<table>
<thead>
<tr>
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Other Consequence: _____________

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Comment:
Appendices: Economic Analysis

Appendix XXX Panel Discrepancies

Discrepancy Case study 2

**Intervention Summary 251**

**Problem:** Incorrect evening dose of insulin charted on admission.

75 year old female, admitted into hospital with melaena. Medical history includes aortic mitral valve replacement, AF, NIDDM and hypothyroidism.

**Explanation of issue:** Prior to admission Mrs MA was on Mixtard 30/70 34units mane & 22units nocte. At time of admission the evening dose was incorrectly charted as Mixtard 30/70 20units (morning dose was correctly charted)

Action on part of pharmacist to correct discrepancy: Medical team responsible for Mrs MA were contacted by phone within 24 hours of admission and advised of correct dose also provided with a written list of medications prior to admission.

**Outcome after pharmacist intervention:** Insulin dose corrected to 22 units in the evening but 48 hours after the recommendations were made.

**Dispensing Summary (Admission)**

<table>
<thead>
<tr>
<th>Frusenide 80mg mane, 40mg midi</th>
<th>Thyroxine 75mcg mane</th>
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<tbody>
<tr>
<td>Warfarin 5mg nocte</td>
<td>Spironolactone 25mg mane</td>
</tr>
<tr>
<td>Perindopril 8mg mane</td>
<td>Insulin (Mixtard50/70) 34units mane, 22units nocte</td>
</tr>
<tr>
<td>Ferrous sulphate 325mg mane</td>
<td>Omeprazole 40mg mane</td>
</tr>
</tbody>
</table>

**Relevant Laboratory results**

BSL taken TDS at home and range between 8-10 usually.
No HBA1c result

**Step one:** estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:

1. Reduced control of diabetes  e.g. polyuria, polydipsia, polyphagia, blurred vision, weight loss, poor wound healing, ketonuria.

Consequence 1: Reduced control of diabetes

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Comment:
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 3

Intervention Summary 171

**Problem**: Patient not charted for tiotropium inhaler at time of admission.

60 year-old male, Mr RC admitted into hospital for exacerbation of COPD. Past medical history includes antitrypsin deficiency, 40 years heavy cigarette smoking, COPD, anxiety and panic attacks

Explanation of issue: On admission, Mr RC seemed very confused regarding his COPD medication. He had a complex range of devices which he had been using prior to admission. Tiotropium was omitted from his chart, but ipratropium was charted (see summary below).

Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team responsible for Mr RC and suggested a respiratory nurse review and alerted team that patient had not been charted for tiotropium. Written record of patient’s medications left in patient file.

**Outcome after pharmacist intervention**: Tiotropium charted within 48 hours of discrepancy reported to medical team. Ipratropium nebs and inhaler ceased.

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<td>diazepam 5mg mane</td>
<td>aspirin 100mg mane</td>
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<tr>
<td>moclobemide 300mg bd</td>
<td>fluticasone 250mcg bd</td>
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<tr>
<td>tiotropium 18mcg inh mane</td>
<td>ipratropium 500mcg neb QID pim</td>
</tr>
<tr>
<td>ipratropium 21mcg inh bd</td>
<td>salbutamol neb 5mg QID pim</td>
</tr>
<tr>
<td>salbutamol 100mcg inh bd</td>
<td>salmeterol 25mcg inh 2 puffs bd</td>
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**Step one: estimate the probability of the consequences of the potential discrepancy.**

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:

1. Worsening of COPD e.g. Increased SOB and cough, sleepiness, confusion, slurring speech.

Consequence 1: Worsening of COPD

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Other Consequence:__________

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Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 4

Intervention Summary 260

Problem: Mrs DE not charted for GTN spray on admission, supplied with one from imprest by nursing staff. 
71 year old female, Mrs DE admitted into hospital with unstable angina. Past medical history includes IHD, hypertension, hypercholesterolaemia and irritable bowel syndrome

Explanation of issue: Mrs DE had been commenced on GTN infusion in DEM which had been weaned since admission. She was not charted for GTN spray, although she had one supplied to her from the imprest and was using it. Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team to request the spray be charted.

Outcome after pharmacist intervention: Not charted but medical team now aware that patient is needing and using GTN spray.

Dispensing Summary

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<td>nitrordil</td>
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<td>simvastatin</td>
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<td>diazepam</td>
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<td>paracetamol</td>
<td>1g QID pm</td>
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<tr>
<td>GTN spray</td>
<td>400mcg S/L pm</td>
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</table>

Nil relevant laboratory results

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
### Possible Consequences:
1. Patient overuse of nitrates - Postural hypotension, dizziness, fall, nitrate tolerance
2. Worsening of angina

#### Consequence 1: Patient overuse of nitrates - Postural hypotension, dizziness, fall, nitrate tolerance

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**Comment:**

#### Consequence 2: Worsening of angina

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#### Other Consequence:

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**Comment:**
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 5

Intervention Summary 276

Problem: Mrs MP charted for perindopril instead of clopidogrel at time of admission. 79 year old female, Mrs MP admitted to hospital (24/7/05) with AF. Past medical history includes HTN, active hepatitis, anaemia and a single functioning right kidney with proximal stenosis requiring stenting and angioplasty.

Explanation of issue: Mrs MP was charted for perindopril at admission but not charted for clopidogrel (usual treatment). The perindopril had not been intentionally commenced nor had the clopidogrel been intentionally ceased. Therefore an incorrect medication with no indication had been charted and a medication which was indicated was not charted.

Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team responsible for Mrs MP and provided them with written list of her current medications.

Outcome after pharmacist intervention: Discrepancy corrected within 24 hours of being reported. Patient received one dose of perindopril and missed one dose of clopidogrel.

Dispensing Summary (admission)

| Medication         | Dose      | Frequency
|--------------------|-----------|-----------
| Hydralazine        | 50mg bd   |           |
| Aspirin            | 100mg mane|           |
| Clopidogrel        | 75mg mane |           |
| Caltrate           | 600mg mane|           |
| Flunitrazepam      | 1mg nocte |           |
| Fruseamide         | 40mg mane |           |
| Omeprazole         | 20mg mane |           |
| Quinine sulphate   | 300mg nocte|         |
| Telmsartan         | 80mg mane |           |
| Nitrofurantoin     | 100mg mane|           |
| Diazepam           | 5mg nocte |           |
| Simvastatin        | 80mg nocte|           |
| Paracetamol        | 1g qid pm |           |

Relevant Laboratory results

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Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

Page 677 of 767
Possible Consequences:

1. Adverse drug reaction to perindopril (e.g. hypotension, hyperkalaemia)
2. Vascular event in absence of clopidogrel (e.g. Thromboembolism at site of stent/stroke).

**Consequence 1: Adverse drug reaction to perindopril**

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**Consequence 3: Vascular event (e.g. Thromboembolism at site of stent)**

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Comment:

**Other Consequence,___________**

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Comment:
Discrepancy Case study 6

Problem: Patient had incorrect dose of digoxin charted at admission.

78-year-old male, Mr RC admitted to hospital (25/8/05) with chest infection. Past medical history includes NIDDM, LVF, hypercholesterolaemia, HTN, gastro-oesophageal reflux disease.

Explanation of issue: Prior to admission Mr RC was taking digoxin 125mcg daily (2x 62.5mcg). Charted for 62.5mcg at admission and received this lower dosage for a number of days whilst in hospital.

Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team to highlight the discrepancy and provided the team with a list of patient’s usual medications.

Outcome after pharmacist intervention: Dose of digoxin was corrected within 24 hours but was changed back another two times to the incorrect dose of 62.5mcg daily throughout hospital stay. Digoxin dose was corrected again at discharge, with pharmacist intervention. (Digoxin level was taken once only at the time of admission, see result below)

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<th>Relevant Laboratory results</th>
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<tr>
<td>enalapril 2.5mg noce</td>
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<td>aspirin 100mg noce</td>
<td>digoxin 125mcg mane</td>
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<td>Mixtard 30/70 2 units mane, 15 units noce</td>
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<td>frusemide 40mg mane</td>
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</tr>
<tr>
<td>gliclazide 80mg bd</td>
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Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:

1. Digoxin Sub therapeutic- worsening heart failure

Consequence 1: **Digoxin Sub therapeutic- worsening heart failure**

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Discrepancy Case study 7

**Intervention Summary 15**

**Problem:** Incorrect dose of metformin charted at admission.

63 year old female, Mrs BK admitted to hospital (16/12/05) with pneumonia. Past medical history includes NIDDM, diverticular disease and scleroderma.

Explanation of issue: Metformin dose prior to admission confirmed with specialist and GP to be 1700mg bd. At time of admission patient charted for half this dose (850mg bd).

Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team to request review of current dose of metformin and provided a written list of patient’s medication prior to admission.

**Outcome after pharmacist intervention:** Dose corrected 48 hours after admission, however then written up incorrectly again on the discharge script. Corrected by Pharmacist.

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<th>Dispensing Summary (Admission)</th>
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<td>roxithromycin 300mg daily</td>
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**Step One:** estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Appendices: Economic Analysis

Appendix XXX   Panel Discrepancies

Possible Consequences:
1. Reduced control of diabetes e.g. polyuria, polydipsia, polyphagia, blurred vision, weight loss, poor wound healing, ketoacidosis.

Consequence 1: Reduced control of diabetes

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<thead>
<tr>
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Comment:

Other Consequence

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Comment:
Discrepancy Case study 8

**Intervention Summary.**

**Problem:** Incorrect dose of aspirin charted at discharge.
56 year old male, Mr JR admitted to hospital 20/4/05 with AMI. Past medical history includes asthma, HTN, hypercholesterolaemia, diverticular disease and back pain.

**Explanation of issue:** Mr JR has below average knowledge and understanding of his medications. He usually takes HALF a 300mg soluble aspirin (150mg), but was charted for a different formulation of aspirin 100mg strength throughout hospital stay and then again at discharge. Sent home with own medications (including 500mg aspirin). Risk is there that the patient will take a whole 300mg aspirin if confused by supplied discharge counseling sheet that states take ONE tablet (of the 100mg form).

Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team responsible for Mr JR and highlighted he had come into hospital with a large supply of 300mg aspirin. He was going to be sent home with this supply, so to avoid confusion he should be charted for his usual HALF a 300mg tablet daily.

**Outcome after pharmacist intervention:** Counseling sheet and discharge summary corrected to patients usual regime.

<table>
<thead>
<tr>
<th>Dispensing Summary (discharge)</th>
<th>Relevant Laboratory results</th>
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</thead>
<tbody>
<tr>
<td>aspirin 300mg ½ daily</td>
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<tr>
<td>lisinopril 10mg daily</td>
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<tr>
<td>Sertraline 500/50 BD</td>
<td>Trop</td>
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<tr>
<td>atorvastatin 60mg once</td>
<td>CK</td>
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<tr>
<td>salbutamol 5mg nph OTD pm</td>
<td>CKMB</td>
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Step one: estimate the probability of the consequences of the potential discrepancy:

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (**this is compulsory**). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
   1. Adverse drug reaction due to excess aspirin e.g. GI bleed

Consequence 1: Adverse drug reaction due to excess aspirin.

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Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 9

**Intervention Summary** 115

**Problem:** Atorvastatin omitted from discharge summary.

81 year old female, Mrs VC admitted to hospital (12/4/05) with osteomyelitis. Past medical history includes chronic cellulitis, NIDDM, gastro-oesophageal reflux disease, HTN, Sjogrens syndrome, CABG and CVA in 2003. Patient remained in hospital for 10 days.

Explanation of issue: patient admitted to hospital on atorvastatin 80mg daily, charted as an inpatient but omitted on discharge summary.

Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team at time of discharge and determined the atorvastatin had been accidentally omitted. Patient provided with discharge counseling and written sheet (including atorvastatin).

**Outcome after pharmacist intervention:** Patient continued to take atorvastatin as they had been prior to hospital, cholesterol continued to be well controlled.

### Discharge Summary (Discharge) & Relevant Laboratory results

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Start Date</th>
<th>Result</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catepsate 600mg nocte</td>
<td></td>
<td>13/4/05</td>
<td>Creat</td>
<td>135</td>
</tr>
<tr>
<td>Furosemide 80mg mane, 40mg midn</td>
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<td>15/4/05</td>
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<tr>
<td>Tramadol SR 100mg bd</td>
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<td>18/4/05</td>
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<td>100</td>
</tr>
<tr>
<td>Irbosartan 300mg daily</td>
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<td>19/4/05</td>
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<tr>
<td>Rabeprazole 20mg bd</td>
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<td>14/4/05</td>
<td>Chol</td>
<td>2.41</td>
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</table>

(Omitted: atorvastatin 80mg nocte)

**Step one: estimate the probability of the consequences of the potential discrepancy.**

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. Poorly controlled hypercholesterolaemia

**Consequence 1: Poorly controlled hypercholesterolaemia**

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<th>Moderate</th>
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<tr>
<td>With intervention</td>
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**Comment:**

**Other Consequence:**

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**Comment:**
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 10

Intervention Summary 11

Problem: No discharge summary written

74 year old female, Mrs YS admitted to hospital with vertigo and ataxia. Past medical history includes acromegaly, HTN, diabetes insipidus, cancer of pituitary gland, arthritis and migraines.

Explanation of issue: Patient had prochlorperazine charted while in hospital for vertigo, with excellent results. This was a new medication for Mrs YS this admission. It was unclear if this medication was intended to be taken post-discharge. Also, a number of her other medications (paracetamol, Vagifem, Cellufresh eye drops and multivitamins) were not on her inpatient chart throughout the duration of her stay. It was unclear if these medications had been intentionally ceased.

No Discharge summary written. Note in patient’s medical notes read: For discharge with own meds.

Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team to remind them of the patient’s medication list in the notes and suggested a discharge summary would be useful to prevent confusion regarding the regimen post discharge, along with prochlorperazine if needed.

Outcome after pharmacist intervention: Medical team completed discharge summary and patient’s discharge was delayed

Dispensing Summary (Admission)  Relevant Laboratory results

<table>
<thead>
<tr>
<th>Drug</th>
<th>Test</th>
<th>Result</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>felodipine 7.5mg mane</td>
<td>Na</td>
<td>129</td>
<td>16/12</td>
</tr>
<tr>
<td>thyroxine 100mcg mane, 200mcg mane (mon/wed/fri)</td>
<td>Creat</td>
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<td>16/12</td>
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<td>aspirin 100mg mane</td>
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</tr>
<tr>
<td>atenolol 50mg midday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cortisone 25mg mane, 12.5mg nocte</td>
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</tr>
<tr>
<td>desmopressin 100mcg 1-2 sprays mane</td>
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<td></td>
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</tr>
<tr>
<td>paracetamol 500mg QID prn</td>
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</tr>
<tr>
<td>Vagifem insert 1 twice weekly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cellufresh 1 drop BE prn</td>
<td></td>
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</tr>
<tr>
<td>Students multivitamin (containing Ginkgo) bd</td>
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</tbody>
</table>

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

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3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:

1. Poorly controlled vertigo without prochlorperazine.

Consequence 1: Poorly controlled vertigo

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Other Consequence:

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</table>

Comment:
Discrepancy Case study 11

**Intervention Summary 245**

**Problem:** Charted for incorrect dose of isosorbide dinitrate at admission. 74 year old female, Mrs IA admitted to hospital (5/7/05) with haematemesis. Past medical history includes peptic ulcer disease, asthma, IHD, osteoarthritis, hypothyroidism, glaucoma, diet-controlled diabetes.

**Explanation of issue:** Mrs IA takes a number of medications, one of which is isosorbide dinitrate. She is on isosorbide dinitrate 5mg QID to prevent angina. At time of admission she was incorrectly charted as an inpatient for 0.5mg QID. Action on part of pharmacist to correct discrepancy. Pharmacist contacted medical team and requested team correct dose on drug chart at admission.

**Outcome after pharmacist intervention:** Nursing staff gave correct dose of medication even though it was incorrectly charted. Patient was intended to be on isosorbide dinitrate 5mg QID as she had been taking prior to admission. Patient supplied with a counseling sheet and instruction to continue taking medication as before.

<table>
<thead>
<tr>
<th>Discharge Summary</th>
<th>Relevant Laboratory results</th>
</tr>
</thead>
<tbody>
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<td>Table</td>
<td>Table</td>
</tr>
<tr>
<td>norepinephrine 20mg bid</td>
<td>fenoxamine 50mg mane</td>
</tr>
<tr>
<td>spironolactone 50mg mane</td>
<td>Slow K 1200mg mane</td>
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<tr>
<td>prednisolone 5mg mane</td>
<td>thyroxine 75mcg mane</td>
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<tr>
<td>atorvastatin 10mg mane</td>
<td>isosorbide dinitrate 0.5mg QID</td>
</tr>
<tr>
<td>Paracetamol Forte 2 QID per</td>
<td>salbutamol 100mg inh per</td>
</tr>
<tr>
<td>fluticasone 500mg inh bd</td>
<td>GTN spray 400mcg Sf. per</td>
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<tr>
<td>salmeterol 50mcg bd</td>
<td>Istatropin 1 dropIE nose</td>
</tr>
<tr>
<td>estradiol 2.5mg twice weekly</td>
<td>Provera 2.5mcg mane</td>
</tr>
</tbody>
</table>

*Step one: estimate the probability of the consequences of the potential discrepancy.*

1. **Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed** (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

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3. **Repeat the probability estimates for the situation after the pharmacist’s intervention.**
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Possible Consequences:
1. Reduced control of angina.

Consequence 1: Reduced control of angina

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Comment:
Discrepancy Case study 12

**Intervention Summary 210**

**Problem:** Mr WB was on aspirin prior to admission into hospital. No record or communication to GP regarding its reason for cessation at time of discharge.

66 year old male, admitted into hospital with shortness of breath secondary to anaemia. Medical history includes HHD, DVT, transient ischaemic attack, idiopathic pulmonary fibrosis and osteoarthritis.

**Explanation of issue:** Mr WB had aspirin withheld whilst in hospital as a bleed was suspected to be the cause of his anaemia. No other antiplatelet cover provided at time of discharge. No communication to GP to highlight reason for cessation and medical team’s plan to recommence in 2 weeks time with review.

Action on part of pharmacist to correct discrepancy/clarify intended management: Contacted medical team responsible for Mr WB and requested plan regarding aspirin. Written and verbal communication provided to GP at time of discharge.

**Outcome after pharmacist intervention:** GP aware that aspirin was ceased as it was likely to have contributed to the bleed and withheld for 2 weeks as suggested by hospital staff. GP reviewed at 2 week from discharge and decided not to recommence.

<table>
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<tr>
<th>Dispensing Summary</th>
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<tr>
<td>amoxycillin 1g bd for 7 days</td>
<td>clarithromycin 500mg bd for 7 days</td>
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<td>digoxin 250mg mane</td>
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<tr>
<td>esomeprazole 20mg bd</td>
<td>fucosan sulphate 325mg mane</td>
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<tr>
<td>fluconazole 100mg daily for 7 days</td>
<td>furosemide 40mg mane</td>
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<td>prednisolone 10mg mane</td>
<td>ramipril 5mg mane</td>
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<td>sulfasalazine 500mg mane</td>
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<td>6/6/2005</td>
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**Step one: estimate the probability of the consequences of the potential discrepancy.**

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3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:

1. Adverse drug reaction due to aspirin e.g. GI bleed

Consequence 1: Adverse drug reactions due to aspirin.

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Comment:

Other Consequence:  

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Comment:
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 13

Intervention Summary 104

Problem: Patient not charted for a number of his regular medications including aspirin, clopidogrel, frusemide, metformin and Anginine at admission.

73 year old male, Mr EB admitted to hospital with IHD, planned for coronary artery bypass graft surgery.
Past medical history includes haemachromatosis, GORD, NIDDM, obesity, HTN.

Explanation of issue: Medications were withheld in case of pending surgery. However, surgery was cancelled as there was an emergency with another patient. Patient to remain in hospital overnight and discharged the following day.
Action on part of pharmacist to correct discrepancy/clarify management plan: Pharmacist requested medical team confirm no changes to medical management prior for discharge and patient can recommence aspirin, clopidogrel, frusemide, metformin and Anginine.

Outcome after pharmacist intervention: Patient provided with a counseling sheet at discharge and was aware he is to continue on medications as previously.

Dispensing Summary (Admission)    Nil relevant laboratory results

- aspirin 300mg mane
- clopidogrel 75mg mane
- perindopril 2mg mane
- spironolactone 25mg bd
- verapamil 240mg mane
- metformin 150mg mane
- atorvastatin 80mg evening
- glipizide 1mg mane
- frusemide 80mg mane & midday
- metformin 500mg tds
- Anginine 600mcg SL pm

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. Uncontrolled ischaemic heart disease

Consequence 1: Uncontrolled ischaemic heart disease

<table>
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<tr>
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Comment:

Other Consequence:

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<th>No effect (derived)</th>
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</thead>
<tbody>
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<td>%</td>
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<tr>
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Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 14

Intervention Summary 37

Problem: Patient charted for incorrect dose of irbesartan and not charted for atorvastatin at admission.

37 year old male, Mr BS admitted into hospital with central chest pain on background of recent UTI. Past medical history includes idiopathic pulmonary fibrosis, IHD (CABG 11 years ago), LVF, NIDDM, hypertension, hyperlipidaemia.

Explanation of issue: Prior to admission Mr BS was taking atorvastatin 40mg noce. He also had his dose of irbesartan increased recently by his GP to 300mg mane. At admission Mr BS was accidentally charted for irbesartan 150mg mane only and was not charted at all for his atorvastatin. The medical team were aware that the patient was previously taking atorvastatin but didn’t see the point of getting out another drug chart to write up one medication.

Action on part of pharmacist to correct discrepancy: pharmacist contacted medical team and provided them with a list of Mr BS’s medications prior to admission. Also highlighted the discrepancies as described above.

Outcome after pharmacist intervention: The atorvastatin was charted and the dose of irbesartan corrected on the drug chart within 24 hours.

<table>
<thead>
<tr>
<th>Dispensing Summary (admission)</th>
<th>Nil relevant laboratory result</th>
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<tbody>
<tr>
<td>prednisolone 10mg mane</td>
<td>aspirin 100mg mane</td>
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<tr>
<td>carvedilol 25mg bd</td>
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<td>metformin 1g tds</td>
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<td>atorvastatin 40mg noce</td>
<td>isosorbide mononitrate 120mg mane</td>
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<td>timolol 0.25% instill 1 drop BE bd</td>
<td>irbesartan 300mg mane</td>
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<tr>
<td>latanoprost 0.005% instill 1 drop BE noce</td>
<td></td>
</tr>
</tbody>
</table>

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. Worsening ischaemic heart disease.

**Consequence 1: Worsening ischaemic heart disease**

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**Other Consequence:**

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Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 15

Intervention Summary 50

Problem: Patient charted for Asasuntin daily and charted for incorrect formulation of metoprolol.
79 year old male, Mr EG admitted into hospital with pneumonia. Past medical history includes IHD, CVA x2 (dysphagia), heart failure, vertigo, aspiration pneumonia, bowel cancer, pacemaker insertion 2004.
Explanation of issue: Prior to admission Mr EG was taking Asasuntin twice daily as recommended and was on metoprolol extended release 47.5mg in the morning. Mr EG has a docket box filled by his community pharmacy each week. At admission Mr EG was charted for Asasuntin in the morning only and incorrectly charted for the conventional form of metoprolol 50mg mane.
Action on part of pharmacist to correct discrepancy: pharmacist contacted medical team to highlight the discrepancies outlined above and provided team with a complete list of patient’s medications prior to admission.
Outcome after pharmacist intervention: medications corrected within 24 hours.

Dispensing Summary (admission)  Nil relevant laboratory results
Asasuntin 200/250mg 5d
frusemide 40mg mane
digoxin 62.5mcg mane
lansoprazole 30mg mane
metoprolol XL 47.5mg mane
warfarin 1mg daily, except 0.5mg daily Friday, Saturdays
tenectapin 10mg mane pm

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. Uncontrolled heart failure and reduced anti-thrombotic coverage

Consequence 1: Uncontrolled heart failure and reduced anti-thrombotic coverage

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Discrepancy Case study 16

**Intervention Summary 76**

**Problem:** enoxaparin accidentally omitted from discharge prescription. 71 year old male, Mr LP admitted into hospital with unstable angina. Past medical history includes IHD, unstable angina, peptic ulcer disease and COPD. Explanation of issue: Mr LP had tried warfarin as an anticoagulant in the past but had suffered from a severe bleed. As a result, he was being prescribed (by his GP prior to admission) aspirin orally and enoxaparin injections daily as an anticoagulant. He was on enoxaparin 40mg daily. The enoxaparin was charted throughout Mr LP’s inpatient stay, but at the time of discharge it was omitted by the medical team. Action on part of pharmacist to correct discrepancy: Pharmacist contacted medical team to find out reason for enoxaparin being ceased. Medical team mistakenly thought it was a prophylactic measure initiated in hospital and was no longer required post-discharge. **Outcome after pharmacist intervention:** enoxaparin was added to the discharge script and Mr LP was to continue with daily dose until review from GP in 5 days time.

**Dispensing Summary** (discharge)

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<th>OTN spray 400mg SL, prn</th>
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<td>aspirin 300mg daily</td>
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<td>metoprolol 50mg daily</td>
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<td>isosorbide mononitrate 60mg daily</td>
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<td>frusemide 40mg mune</td>
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<td>trimethoprim 300mg daily</td>
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<tr>
<td>enoxaparin 40mg injet SC daily</td>
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<tr>
<td>pantoprazole 40mg mune</td>
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**Step one: estimate the probability of the consequences of the potential discrepancy.**

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed **(this is compulsory)**. Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. Insufficient anticoagulation

Consequence 1: **Insufficient anticoagulation**

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Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 17

Intervention Summary 126

**Problem:** incorrect dose of indapamide charted at admission.

68 year old female, Mrs PA admitted into hospital with left rib pain. Past medical history includes SLE, NIDDM, recurrent falls, arthritis, GORD, pacemaker 2004, multiple TIA, throat tumour, and hypertension.

Explanation of issue: Prior to admission Mrs PA was taking indapamide 2.5mg mane. At time of admission she was incorrectly charted for indapamide SR 1.5mg mane.

Action on part of pharmacist to correct discrepancy: pharmacist contacted medical team at admission and provided them with a complete list of Mrs PA’s regular medications. Pharmacist requested the dose of indapamide be reviewed.

**Outcome after pharmacist intervention:** Indapamide dose and formulation corrected within 48 hours of admission.

Dispensing Summary (admission)  
* Nil relevant laboratory results

lataenprost 0.005% instill 6E nocte
alendronate 70mg weekly (sun)
mirtazapine 30mg nocte
gliclazide 100mg bd
ergocalciferol 25mcg mane
potassium chloride 600mg mane
indapamide 2.5mg mane
conepramide 20mg mane
warfarin 6mg/7mg nocte
Mixtard 30/70 40 units mane, 18-20 units nocte

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. Uncontrolled hypertension

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Discrepancy Case study 18

**Problem:** clopidogrel not charted at admission.

57 year old female, Mrs MM admitted into hospital with shortness of breath due to COPD exacerbation. Past medical history includes HTN, hypercholesterolaemia, CVA 2003, colostomy, COPD.

Explanation of issue: Prior to admission Mrs MM had been taking clopidogrel 75mg daily as an antplatelet agent. At admission the clopidogrel was omitted from the inpatient drug chart, Mrs MM was in hospital for a total of 2 days. The clopidogrel was not charted again at discharge.

Action on part of pharmacist to correct discrepancy: pharmacist contacted medical team and provided them with a current list of Mrs MM’s medications and queried whether the clopidogrel had been intentionally ceased.

**Outcome after pharmacist intervention:** clopidogrel added to the discharge script, patient provided with a counselling sheet (including clopidogrel).

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<tr>
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<tr>
<td>atorvastatin 10mg once</td>
<td>clopidogrel 75mg once</td>
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<tr>
<td>sertraline 50mg once</td>
<td>ramipril 5mg once</td>
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<tr>
<td>temozolam 10mg night pm</td>
<td>Seretide 250/25 inh 2 puffs bd</td>
</tr>
<tr>
<td>salbutamol 100mg inh 2 puffs pm</td>
<td>ipratropium 500mg neb pm</td>
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<tr>
<td>salbutamol 5mg neb pm</td>
<td>furosemide 10mg inh daily</td>
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<tr>
<td>prednisone 50mg once</td>
<td>amoxicillin 500mg tds</td>
</tr>
<tr>
<td>paracetamol 1g QID pm</td>
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**Step one: estimate the probability of the consequences of the potential discrepancy.**

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. No antiplatelet protection, leading to thrombosis

Consequence 1: No antiplatelet protection

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Comment:
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Discrepancy Case study 19

Intervention Summary 177

**Problem:** patient charted for half usual dose of atenolol.
73 year old female, Mrs MIH admitted into hospital with a sore hip due to a fall. Past medical history includes HTN, gout, left total hip replacement, venous ulcer and thyroidectomy.
Explanation of issue: At time of admission patient unable to recall the medications she was taking. Patient was taking atenolol 50mg bd as recommended by her GP. At time of admission she was accidentally charted for atenolol 50mg daily only.
Also was taking allopurinol, indapamide, esomeprazole, temazepam and Osteoeeze prior to admission; all not charted. Iresartan dose incorrectly charted at half her usual dose also.
Action on part of pharmacist to correct discrepancy: pharmacist contacted medical team and highlighted the issues to them. Provided medical team with a list of Mrs MIH’s medications prior to admission.
Outcome after pharmacist intervention: All medication doses corrected on drug chart within 48 hours. All of Mrs MIH’s usual medications charted on drug chart within 48 hours of admission.

Dispensing Summary (admission)

<table>
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<th>Drug</th>
<th>Dose</th>
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<td>Iresartan 300mg once</td>
<td>atenolol 50mg bd</td>
</tr>
<tr>
<td>Allopurinol 100mg once</td>
<td>indapamide SR 1.5mg once</td>
</tr>
<tr>
<td>Esomeprazole 20mg once</td>
<td>tramadol SR 100mg bd</td>
</tr>
<tr>
<td>Pantoprazole 1g gid pm</td>
<td>Osteoeeze 750mg once</td>
</tr>
<tr>
<td>Temazepam 30mg n pm</td>
<td>promethazine 5mg daily</td>
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Nil relevant laboratory results

Step one: estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (**this is compulsory**). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Possible Consequences:
1. Uncontrolled hypertension

**Consequence 1: Uncontrolled hypertension**

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Discrepancy Case study 20

**Problem.** Incorrect dose of perindopril and flucloxacine charted at admission. 61 year old female, Mrs ME admitted into hospital with fever, for investigation. Past medical history includes, GORD, TIA's, depression, hepatic oedema. Explanation of issue: Prior to admission Mrs ME was taking flucloxacine 40mg mene to treat her depression and perindopril 2mg mene to control her hypertension. At time of admission she was accidentally charted to double her usual perindopril dose (4mg mene) and half her usual flucloxacine dose (20mg mene).

Action on part of pharmacist to correct discrepancy: pharmacist contacted medical team to determine if these had been intentional dosage changes, and provided them with a list of Mrs ME’s medications prior to admission.

**Outcome after pharmacist intervention:** medical team corrected dose of both medications (perindopril and flucloxacine) within 48 hours of the pharmacist contacting them.

**Dispensing Summary** (admission)  
Acanthrine 20/25mg 5ml  
perindopril 2mg mene  
torasemide 20mg bd  
flucloxacine 40mg mene  
statin 0.2mg mene  
meloxicam 15mg daily pm  
ampicillin 10/20mg mene pm

**Step one:** estimate the probability of the consequences of the potential discrepancy.

1. Refer to and score the consequence provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is more likely consequence not provided, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
Appendices: Economic Analysis

Appendix XXX  Panel Discrepancies

Possible Consequences:
1. Uncontrolled depression
2. Excessive hypotension due to perindopril

Consequence 1: Uncontrolled depression

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Consequence 2: Excessive hypotension due to perindopril

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Comment:
Welcome to the Medesupport Panel.

The following cases are a random sample; as a result some of the cases may seem more or less significant than others. Please print your 20 case studies out and enter your scores with a blue or black pen. I will be available to discuss the case studies and answer any questions you may have. I can be contacted in office hours on 62267232, or out of hours on 0438821670.

The completed cases will be collected from your surgery/PHH pharmacy department on 4th October at approximately 1pm, if convenient. I will make payment arrangements before this time. Please email to advise if you have an ABN number.

Panel member should decide if they feel the possible consequence provided is considered mild, moderate or severe in nature, by assigning a percentage likelihood of occurrence to the consequence before and after intervention. We understand that much of the information provided is limited, so that it is not always easy to estimate these probabilities.

Home Medicines Review (HMR), also known as Domiciliary Medication Management Review (DMMR), is a service to patients living at home in the community. The goal of Home Medicines Review is to maximise an individual patient's benefit from their medication regimen, and prevent medication-related problems through a team approach, involving the patient's GP and preferred community pharmacy, with the patient as the central focus. It may also involve other relevant members of the healthcare team, such as nurses in community practice or carers. The HMR process utilises the specific knowledge and expertise of each of the healthcare professionals involved. In collaboration with the GP, a pharmacist comprehensively reviews the patient's medication regimen in a home visit. After discussion of the visit findings and report with the pharmacist, the GP and patient agree on a medication management plan. The patient is central in the development and implementation of this plan with their GP.

Home medication review (HMR) recommendations place the patient in the community setting at the time of intervention. As above you need to consider the potential consequence at that time.

Significance of discrepancies at time of HMR (Community setting)
Mild Minor Symptoms could occur eg. Codeine- provide prophylactic stool softeners.
Mod May end up at Dr/Refer to Dr eg. Pt develops toxicity due to double dose of meds.
Severe May be readmitted into hospital. Eg. Serious drug interaction with warfarin- bleed

Thank you.
HMR recommendation case study 1

Intervention Summary 135

Problem: Confusion regarding dose of Duride. 61 year old male Mr WC admitted into hospital with unstable angina. Past medical history includes multiple sclerosis, IHD, hypercholesterolaemia, HTN, gastro-oesophageal reflux disease, anxiety and panic attacks.

Explanation of issue: Duride was prescribed in hospital as HALF a tablet (30mg) each morning as per discharge script, however patient was provided with a counseling document which stated take ONE tablet each morning.

Suggestion made by HMR pharmacist during home visit following hospital discharge: recommended that GP monitor the dose as the patient was experiencing some blurred vision and headache around the eyes.

Outcome after pharmacist intervention: Patient continued to take half a tablet each morning, and the side effects resolved with time. GP made aware of confusion surrounding the dose and confirmed that the patient should be on Duride 30mg mane. GP response: nil

Patients account at 30 days – Patient in hospital at the time due to flare of multiple sclerosis, he was taking Duride 30mg morning.

Dispensing Summary
aspirin 100mg daily clopidogrel 75mg daily alprazolam 0.5mg tds ibuprofen 200mg tds pm
GTN spray 400mcg SL pm imipramine 25mg tds metoprolol 50mg bd lansoprazole 30mg m
tenasepam 10mg nooce gabapentin 300mg tds simvastatin 80mg nooce paracetamol 1g QID
isosorbide mononitrade 30mg mane

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Adverse drug reaction due to excessive dose of Duride.

<table>
<thead>
<tr>
<th>Consequence 1: Adverse drug reaction due to excessive dose of Duride.</th>
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<tbody>
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Appendices: Economic Analysis
Appendix XXXI  HMR Recommendation

HMR recommendation case study 2

Intervention Summary 113

Problem: Verapamil likely cause of ongoing constipation.
65 year old female, Mrs JL admitted into hospital with atrial fibrillation. Past medical history includes valvular heart disease, osteoporosis, gastritis and hiatus hernia, cholecystectomy.

Explanation of issue: Mrs JL had complained of constipation for some time and was taking laxatives prior to admission into hospital. Also had to visit local health clinic for an enema post-discharge as constipation had become so bad.

Suggestion made by HMR pharmacist: Verapamil may be contributing to patient’s constipation. You might consider switching to a beta blocker for rate control of AF.

Outcome after pharmacist intervention: GP wrote a script and commenced patient on sotalol in place of verapamil after recommendation was made by HMR pharmacist.
Patient’s account at 30 days – Now taking sotalol 80mg BD for control of heart rate and rhythm.

Dispensing Summary: (Discharge)

<table>
<thead>
<tr>
<th>Brand</th>
<th>Strength</th>
<th>Dosage</th>
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<tbody>
<tr>
<td>Omeprazole 20mg</td>
<td>Caltrate 600mg</td>
<td>Fruenamide 20mg</td>
</tr>
<tr>
<td>Fonature 70mg</td>
<td>Paracetamol 1g</td>
<td>Verapamil 180mg</td>
</tr>
<tr>
<td>Fish oil 1000mg</td>
<td>Esteridin 5mg</td>
<td>Warfarin 5mg</td>
</tr>
<tr>
<td>Magnesium 1 daily</td>
<td>Multivitamins 1tab</td>
<td>Aspirin 100mg ee daily</td>
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</table>

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Constipation due to verapamil

**Consequence 1: Constipation due to verapamil**

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**HMR recommendation case study 3**

**Intervention Summary 101**

**Problem:** Patient requires additional antiplatelet therapy.

59 year old male Mr IC, admitted into hospital with uncontrolled diabetes. Past medical history includes acute myocardial infarction (stenting and 8 angiograms since 2000), hypertension, hypercholesterolaemia, NIDDM.

**Explanation of issue:** Mr IC indicated he is having ongoing problems with angina, on a daily or second daily basis, which is relieved by GTN spray. He suffered from an AMI in 2001, while on aspirin.

Suggestion made by HMR pharmacist: You may like to consider the addition of clopidogrel to Mr IC’s antiplatelet therapy for added ischaemic event protection (continuing on aspirin).

**Outcome after pharmacist intervention:** Clopidogrel commenced, but aspirin ceased.

**GP response:** Cessation of aspirin and commenced on clopidogrel (unclear if this is what pharmacist had intended in their suggestion).

Patients account at 30 days – Patient on clopidogrel 75mg morning and had ceased aspirin.

**Dispensing Summary (Discharge)**

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<tr>
<th>Medication</th>
<th>Dosage</th>
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<tr>
<td>glimepiride MR 60mg mane</td>
<td>hydrochlorothiazide 12.5mg daily</td>
</tr>
<tr>
<td>aspirin 100mg daily</td>
<td>isosorbide mononitrate 120mg daily</td>
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<tr>
<td>diltiazem 240mg daily</td>
<td>simvastatin 10mg daily</td>
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<tr>
<td>ramipril 10mg bd</td>
<td>rosiglitazone 4mg daily</td>
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<tr>
<td>protoprolen 50/units sc nocte</td>
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<tr>
<td>novorapid 20units sc tds</td>
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Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

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3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Thromboembolic event (e.g. AMI)

Consequence 1: Thromboembolic event

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HMR recommendation case study 4

**Intervention Summary 95**

**Problem:** Gastroesophageal reflux disease uncontrolled with ranitidine.

76 year old female, Mrs ON, admitted into hospital (29/3/05) with hypotension. Past medical history includes right lacunar CVA, NIDDM, AF+ pacemaker and AV ablation, anaemia, CCF secondary to IHD, osteoarthritis.

**Explanation of issue:** Patient suffering from symptoms of GORD while taking ranitidine 150mg bd. Suggestion made by HMR pharmacist: Trial of a proton pump inhibitor for relief of GORD.

**Outcome after pharmacist intervention:** Patient commenced on rabeprazole 20mg daily.

GP response: Script supplied for rabeprazole.

Patients account at 30 days – As per community pharmacy (who fill Webster pack) rabeprazole 20mg mane, ranitidine ceased.

**Dispensing Summary (Discharge)**

- FGF tab nocte
- Tramadol 100mg nocte
- Aspirin 100mg mane
- Coversyl plus 1 daily
- Oral 1 sachet bd
- Simvastatin 40mg nocte
- Paracetamol 500mg mane
- GTN spray 1-2 sprays SL pm
- Nitrazepam 5mg nocte
- Colecyl & Senna 1 nozzle
- Spironolactone 50mg mane
- Clopidogrel 75mg mane
- Ranitidine 150mg bd
- Glimepiride 80g bd
- Frusemide 40g mane

**Step one:** estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:
1. Poorly controlled GORD

Consequence 1: Poorly controlled GORD

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HMR recommendation case study 5

Intervention Summary 260

Problem: Possible increased sedation, due to reduced clearance of diazepam in combination with omeprazole.

71 year old female, Mrs ED, admitted into hospital with unstable angina. Past medical history includes ischaemic heart disease, hypertension, hypercholesterolaemia and irritable bowel syndrome. Throughout hospital admission patient did not complain of drowsiness or appear drowsy to any of the medical staff.

Explanation of issue: HMR pharmacist noted that omeprazole is likely to reduce clearance of benzodiazepines when taken in combination. This may lead to an accumulation of diazepam and resultant sedation. Omeprazole only being taken occasionally after home medication review, but had been taking regularly prior to admission and at discharge from hospital. Mrs ED had great difficulty deciphering between reflux and chest pain associated with angina and as a result was taking more omeprazole.

Suggestion made by HMR pharmacist: Patient made aware of potential drug interaction. Patient educated on risk of falls due to sedation and ways of preventing falls. Also instructed to take both omeprazole and diazepam on a ‘when required’ basis only.

Outcome after pharmacist intervention: Patient more aware of risk of falls associated with her medications.

Patients account at 30 days – No changes made to medications. Mrs ED is still taking diazepam 2.5mg daily pm and omeprazole 20mg daily pm.

Dispensing Summary (Discharge)                        Nil Relevant laboratory results
aspirin 100mg mane                                    
diazepam 2.5mg nocie                                  omeprazole 20mg nocie
OTN spray 400mcg SL pm                                perindopril 4mg nocie
metoprolol 25mg bd                                    simvastatin 40mg nocie

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Adverse drug reaction due to excessive plasma levels of diazepam

**Consequence 1: Adverse drug reaction due to excess diazepam**

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**Comment:**
HMR recommendation case study 6

Intervention Summary 324

Problem: Removal of unused and out of date medication.

63 year old, male Mr KN admitted into hospital with unstable diabetes. Past medical history includes NIDDM, hypertension, gout, dyslipidaemia, GORD, constipation, cystoscopy.

Explanation of issue: Mr KN has a long standing history of non-compliance, which has also been addressed in hospital. At the time of the home medication review the pharmacist removed: Mistard 50/50 Novolet (dated 15/7/99), Tramal, Flucloxacillin, metformin, Zyban, Adalat, and Celebrex. Patient requested to keep Panadeine Forte, ibuprofen and allopurinol. Mr KN stated he could read but has difficulty understanding english. He is aware of the long term complications associated with poor diabetes control and states he is already suffering from impaired vision.

Suggestion made by HMR pharmacist: Provided patient with general information about diabetes and his medications in Chinese. Pharmacist also highlighted the importance of ongoing education using a step by step approach so that Mr KN is not overwhelmed.

Outcome after pharmacist intervention: Patient appreciative of information provided and happy that pharmacist could discard of out of date and unused medications for him so as to avoid confusion.

Dispensing Summary

<table>
<thead>
<tr>
<th>Gliclazide MR 60mg daily</th>
<th>Colsonyl 120mg bd</th>
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<tbody>
<tr>
<td>Ramipril 10mg daily</td>
<td>Probenecid 500mg bd</td>
</tr>
<tr>
<td>Simvastatin 20mg daily</td>
<td>Rosiglitazone 4mg daily</td>
</tr>
<tr>
<td>Feloquine 5mg daily</td>
<td>Novomix 30 12units bd</td>
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<tr>
<td>Indapamide SR 1.5mg daily</td>
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Nil Relevant Laboratory results

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Non compliance/confusion – poorly controlled diabetes

Consequence 1: Non compliance/confusion – poorly controlled diabetes

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Appendices: Economic Analysis

Appendix XXXI  HMR Recommendation

HMR recommendation case study 7

**Intervention Summary 107**

**Problem:** Patient using an out of date Nitrolingual spray.
52 year old female, Mrs JC was admitted into hospital with suspected angina difficult to differentiate with GORD. Past medical history includes IHD, widespread peripheral vascular disease, hypertension, hyperlipidaemia, anxiety and panic attacks.

**Explanation of issue:** Patient did not bring GTN spray into hospital and did not list it as a medication she uses. There was no history of dispensing in 6 month history from community pharmacy. Therefore the patient was not discharged from hospital with a GTN spray. The HMR pharmacist visited Mrs JC at home and discovered she had been using an expired spray.

Suggestion made by HMR pharmacist: To remove the out of date GTN spray and provide patient with a new spray. Also reviewed importance of technique, storage and showed patient where the expiry date can be found on the bottle.

**Outcome after pharmacist intervention:** Patient has GTN that is in date and is clear on appropriate use and storage. Patient likely to replace current bottle when it expires.

**Dispensing Summary (Discharge)**

- Mylanta 10-20mls bd
colsyl & tenna 2tabs BD prn
- Seretide 250/50mg 1 puff bd
clopipagel 75mg mane
diazepam 2.5mg mane
prinsral 4mg mane
simvastatin 4mg note
sertaline 25mg note
terbutaline 500mcg 1-2puffs prn

**Step one:** estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed *(this is compulsory)*. Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Angina not relieved

Consequence 1: Angina not relieved

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HMR recommendation case study 8

Intervention Summary 78

Problem: Patient having difficulty swallowing Caltrate tablets.
75 year old female, Mr PH is admitted into hospital with chest pain. Past medical history includes IHD (coronary artery stent 2004), hernia, HTN, hypercholesterolaemia, osteoporosis.

Explanation of issue: Patient having trouble swallowing Caltrate tablets and had not had any dispensed by community pharmacy since December 2004. Also unclear at time of admission if she was still taking this medication. Hospital pharmacist suggested that community pharmacy follow this up with the patient and determine if alternative therapy is required.

Suggestion made by HMR pharmacist: Take Caltrate with a little yoghurt and follow with a full glass of water. If the difficulty with swallowing continues to be a problem, switch to an alternative brand of calcium.

Outcome after pharmacist intervention: Patient pleased with advice, continued with Caltrate.

Dispensing Summary (Discharge) | Nil relevant laboratory results
--- | ---
Aspirin 100mg daily | 
Risperidone 2.5mg daily | OTN spray 400mcg SL pm

* A note to community pharmacist regarding Caltrate included in summary

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: in the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
List of Possible Consequences:

1. Osteoporosis untreated

<table>
<thead>
<tr>
<th>Consequence 1: Osteoporosis untreated</th>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>No effect (derived)</th>
</tr>
</thead>
<tbody>
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Comment:

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Comment
HMR recommendation case study 9

**Intervention Summary:** 70

**Problem:** Patient continuing to smoke with medical history of ischaemic heart disease. 57 year old male, Mr RH, admitted into hospital with unstable angina. Past medical history includes AMI-triple vessel CABG and stenting (2004), TIA (2000), gastroesophageal reflux disease, HTN and hypercholesterolaemia.

**Explanation of issue:** Mr RH (well known to the cardiology unit at his local hospital) has tried to quit smoking several times in the past. He could not tolerate Zyban and he is sensitive to the adhesives on the nicotine replacement therapy patches. He recommenced smoking since being discharged from hospital. His understanding was that smoking did not play a big part in his heart problems. His interpretation of his cardiologist’s advice was that “cholesterol was the main cause of his heart problems”.

Suggestion made by HMR pharmacist: Educated patient on the many benefits from quitting smoking and suggested it would definitely help with his heart problem. Suggested he try new nicotine replacement in lozenge form, as he can adjust the dosage as required. The pharmacist and patient isolated Mr RH’s triggers to be emotional - mainly anger.

**Outcome after pharmacist intervention:** Mr RH agreed and was to give the nicotine replacement therapy (in lozenge form) a try.

Patients account at 30days: Mr RH is still smoking and unfortunately he didn’t try the NRT in lozenge form.

<table>
<thead>
<tr>
<th>Dispensing Summary</th>
<th>Nil relevant laboratory results</th>
</tr>
</thead>
<tbody>
<tr>
<td>aspirin 100mg mane</td>
<td>metoprolol 50mg bd</td>
</tr>
<tr>
<td>clopidogrel 75mg mane</td>
<td>pantoprazole 40mg daily</td>
</tr>
<tr>
<td>diltiazem CD 240mg noote</td>
<td>atorvastatin 40mg noote</td>
</tr>
<tr>
<td>GTN spray 400mcg SL, pm</td>
<td>nicorandil 5mg bd</td>
</tr>
<tr>
<td>isosoride mononitrata 120mg mane</td>
<td></td>
</tr>
</tbody>
</table>

**Step one:** estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.
**Appendices: Economic Analysis**

**Appendix XXXI  HMR Recommendation**

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.

Possible Consequences:

1. Adverse events related to cigarette smoking

<table>
<thead>
<tr>
<th>Consequence 1: Adverse events related to cigarette smoking</th>
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<tbody>
<tr>
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<tr>
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Comment:

Consider the consequence now, in the event the recommendation had been carried out (i.e., patient did try nicotine replacement therapy lozenges and had quit smoking):

<table>
<thead>
<tr>
<th>Consequence 1: Adverse events related to cigarette smoking</th>
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</thead>
<tbody>
<tr>
<td>Sever</td>
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Comment:

Other Consequence:

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Comment:
HMR recommendation case study 10

Intervention Summary 66

Problem: Long term prednisolone, no osteoporosis prevention.
82 year old female, Mrs JS is admitted into hospital with chest pain. Past medical history includes IHD, breast cancer, HTN, hypercholesterolaemia, thyroidectomy, diverticulitis and constipation.

Explanation of issue: Mrs JS has been on prednisolone long term for polymyalgia rheumatica. When her condition is controlled she remains on a 5mg daily dose to prevent an inflammatory flare. Mrs JS has tried Caltrate+D in the past and it upset her stomach so she ceased it.

Suggestion made by HMR pharmacist: calcium and/or vitamin D supplementation should be considered again for osteoporosis prevention. Pharmacist suggested to patient that she try again but take calcium with meals to minimise stomach problems.

Outcome after pharmacist intervention: Unknown – does not look like patient started therapy as recommended.

Dispensing Summary (30 days)  
Nil relevant laboratory results
metoprolol 25mg bd  aspirin 100mg mine
nizatidine 300mg mine  prednisolone 5mg mine
thyroxine 50mcg mine (sun-fri), 100mcg mine (sat)
eszopiclone 15mg daily  GTN spray 400mcg 5L daily
paracetamol 1g daily prn  lacticose 10ml daily

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Osteoporosis

Consequence 1: Osteoporosis untreated

<table>
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</table>

Comment:

Consider the consequence now, in the event the recommendation had been carried out
(ie Caltrate and Vitamin D supplements were commenced for prevention of osteoporosis)

Consequence 1: Osteoporosis

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<tr>
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Other Consequence: __________________________

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Comment
HMR recommendation case study 11

Intervention Summary: 63

Problem: Rash developed on face, since commencing diltiazem in hospital.
74 year old male, Mr CS, admitted into hospital with unstable angina. Past medical history includes ischaemic heart disease (CABG x4), hypertension, NIDDM and ulcerative colitis.

Explanation of issue: Patient commenced on aspirin, clopidogrel and diltiazem in hospital in an effort to medically control IHHD. When asked about his concerns Mr CS said his major concern was a fine rash that he had, which he thought was due to his diltiazem.

Suggestion made by HMR pharmacist: Keeping in mind there are a number of pathologies that could cause rash and also a number of medications, the pharmacist highlighted it is often difficult to isolate the cause of rash. The pharmacist discussed with the patient the commencement of new medications as a possible cause. The pharmacist reassured the patient that a rash caused by diltiazem usually disappears with continued use. The pharmacist discussed the importance of continuing to take the new medications and have the GP keep an eye on the rash in the meantime. The HMR pharmacist requested the GP to review.

Outcome after pharmacist intervention: Patient continued on diltiazem, aspirin and clopidogrel dose reviewed by specialist and rash resolved.
Patients account at 30 days – patient still compliant with diltiazem, aspirin and clopidogrel, no complaint of rash.

Dispensing Summary (Discharge)

<table>
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<tr>
<th>Drug</th>
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<tbody>
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<td>glimepiride</td>
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<td>mexitazone</td>
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<tr>
<td>rivastigmine</td>
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</table>

Nil relevant laboratory results

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

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3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Non compliance with diltiazem, worsening IHD

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Other Consequence: __________________________

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Comment
HMR recommendation case study 12

**Intervention Summary:** 28

**Problem:** Patient experiencing SOB but already on anticholinergic bronchodilator (tiotropium). 69 year old male, Mr DS, admitted into hospital with decreased mobility. Past medical history includes subarachnoid haemorrhage, abnormal liver function tests, COPD, recurrent right pneumothorax.

**Explanation of issue:** Mr DS is having difficulties with shortness of breath and can only walk about 15 metres before shortness of breath causes him to stop; he is currently on tiotropium. Suggestion made by HMR pharmacist: Consider addition of a long-acting β-agonist as they have been shown to improve exercise tolerance in COPD.

**Outcome after pharmacist intervention:** No changes made to COPD management.

Patients account at 30 days – Patient had obtained a script for salbutamol, but still no other changes made to COPD management.

**Dispensing Summary (Discharge)**

<table>
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<tbody>
<tr>
<td>Sodium valproate 100mg nocte</td>
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<tr>
<td>Carbamazepine 600mg bd</td>
<td>Diazepam 5mg nocte</td>
</tr>
<tr>
<td>Tiotropium 18mcg inh daily</td>
<td>Nil relevant laboratory results</td>
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</table>

**Step one:** Estimate the probability of the consequences of the potential medication issue.

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3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:
1. Worsening COPD

Consequence 1: Worsening of COPD

<table>
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Comment:

Consider the consequence now, in the event the recommendation had been carried out
(ie GP commenced patient on a long acting β-agonist to improve exercise tolerance in COPD)

Consequence 1: Worsening of COPD

<table>
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<tr>
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Other Consequence: 

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Appendices: Economic Analysis

Appendix XXXI  HMR Recommendation

HMR recommendation case study 13

Intervention Summary 25

Problem: Hypertriglyceridaemia treated with a statin.

51 year old male, Mr DM, admitted into hospital with chest pain. Past medical history includes ischaemic heart disease, OORD, alcohol abuse, hypertension, hypercholesterolaemia.

Explanation of issue: During Mr DM’s admission into hospital his blood tests revealed he had good cholesterol levels (3.35mmol/L); however his triglycerides were 5.21mmol/L. He has a history of poor compliance.

Suggestion made by HMR pharmacist: gemfibrozil is considered first choice for hypertriglyceridaemia and therefore may be more appropriate than pravastatin in this case.

Outcome after pharmacist intervention: No changes made to this gentleman’s medication.

Patients account at 30 days – Mr MD has not been to pharmacy since discharge from hospital.

Dispensing Summary

<table>
<thead>
<tr>
<th>Drug</th>
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</tr>
</thead>
<tbody>
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<td>aspirin 100mg</td>
<td>daily</td>
</tr>
<tr>
<td>pravastatin 40mg</td>
<td>noce</td>
</tr>
<tr>
<td>omeprazole 40mg</td>
<td>mune</td>
</tr>
<tr>
<td>temazepam 10mg</td>
<td>pm</td>
</tr>
<tr>
<td>atenolol 50mg</td>
<td>mune</td>
</tr>
<tr>
<td>diazepam 5mg</td>
<td>bd</td>
</tr>
<tr>
<td>GTN spray 400mcg</td>
<td>5L pm</td>
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<tr>
<td>paracetamol 1g</td>
<td>pm</td>
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</tbody>
</table>

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

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3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP; patient score the consequence a second time but imagine that the recommendation had been carried out.
List of Possible Consequences:

1. Poorly controlled hypertriglyceridaemia

Consequence 1: Poorly controlled hypertriglyceridaemia

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<thead>
<tr>
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<th>Severe</th>
<th>Moderate</th>
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Comment:

Consider the consequence now, in the event the recommendation had been carried out (i.e. GP prescribed gemfibrozil for hypertriglyceridaemia)

Consequence 1: Poorly controlled hypertriglyceridaemia

<table>
<thead>
<tr>
<th></th>
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Other Consequence:

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Comment:
HMR recommendation case study 14

Intervention Summary 327

Problem: Patient requires ongoing blood tests for potassium levels.

78 year old male Mr RC, admitted into hospital with a chest infection. Past medical history includes NIDDM, left ventricular failure, HTN, hypercholesterolaemia, GORD.

Explanation of issue: Mr RC had dose of frusemide increased during recent hospital admission. He had borderline to low potassium levels throughout his hospital stay. Medical team commenced Mr RC on potassium supplement. Patient was still taking supplement at time of home medication review.

Suggestion made by HMR pharmacist: Patient should discuss the need for ongoing potassium supplements with GP, and blood tests are warranted at this stage to check levels.

Outcome after pharmacist intervention: Patient had blood test and potassium levels normal.

GP response: To continue potassium and I will monitor.

Dispensing Summary

- ranitidine 150mg bd
- digoxin 125mcg mune
- enalapril 5mg bd
- frusemide 80mg mune
- aspirin 100mg daily
- gliclazide 80mg bd
- insulin biphasic (Mixtard 30/70) 24unit mune, 14units nocte

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

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3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Serum potassium level disturbance

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Comment:

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Appendices: Economic Analysis

Appendix XXXI  HMR Recommendation

HMR recommendation case study 15

Intervention Summary 8

Problem: Patient suffering from myalgia associated with statin therapy.

A 61-year-old female, Mrs ME, was admitted to hospital with fever for investigation. Past medical history includes GORD, transient ischaemic attacks, depression, hypercholesterolaemia. During her hospital stay the patient complained of muscle aches and pains which she believed were due to her simvastatin.

Simvastatin was continued at discharge from hospital.

At time of home medication review (following discharge from hospital) she suggested she only needed to climb a small set of stairs before her muscles ached. Mrs ME reported on a recent 3-week holiday, she did not take her simvastatin and suffered no aches and pains, despite some long walks. Mrs ME understood her cholesterol is high and requires treatment. HMR Report sent to GP with suggestion to have the patient trial another statin less likely to cause myalgia, or alternatively try a lipid lowering medication in another class altogether (ezetimibe). There was also suggestion made to use a Co Enzyme Q10 supplement as this can be reduced in the body by statins and may contribute to myalgia.

Outcome after pharmacist intervention: GP replied to the suggestion

“Seems Zocor does cause some grief+ back on it again and aching but uncertain if this relates to her current illness or Zocor. Cease Zocor 6/52+ diary of symptoms prior to and after recommencing. R/V in 2 months to consider continuation or switch to Pravachol or Ezetrol.”

Dispensing Summary

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<td>Assumin 20025mg bd</td>
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<td>omeprazole 20mg bd</td>
<td>fluoxetine 40mg mene</td>
<td>U/E/C Normal</td>
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<td>pantoprazol 1g tds</td>
<td>simvastatin 20mg note</td>
<td>CK/CKMB normal</td>
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<tr>
<td>meloxicam 15mg d prn</td>
<td>temazepam 10mg note prn</td>
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Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:
1. Adverse drug reaction to statin therapy (e.g. rhabdomyolysis)

Consequence 1: **Adverse drug reaction to statin therapy (e.g. rhabdomyolysis)**

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Comment:
HMR recommendation case study 16

Study number 159 Intervention Summary

Problem: Monitoring required to determine if gout is being appropriately measured.
Mr AJ, 74 years old, was admitted into hospital for unstable angina. His past medical history includes: asthma, cardiovascular disease, hernia, hypertension

Explanation of issue: Mr AJ takes colchicine when he experiences gout. This has been happening every three to six months. Mr AJ has identified alcohol and certain foods which precipitate his gout. The pharmacist recommended monitoring of uric acid levels, citing elevated uric acid levels as a potential risk factor for increased rate of mortality in patients with cardiovascular disease. If levels are elevated the implementation of allopurinol was recommended.

Suggestion made by HMR pharmacist: Measure uric acid levels and consider allopurinol if appropriate

Outcome after pharmacist intervention: Potential increased monitoring and reduced episode of gout if allopurinol is deemed appropriate

GP response: nil response

Patients account at 30 days – no changes to regular medications or blood tests

Dispensing Summary

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<td>isosorbide 60mg mane</td>
<td>aspirin 100mg mane</td>
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<td>terbutaline inhaler ONE/TWO puffs every FOUR hours</td>
<td>budesonide 400mcg inhaler ONE puff twice daily</td>
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<tr>
<td>pravastatin 40mg note</td>
<td>onceptazole 20mg mane GTN spray pm</td>
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<td>fosinopril 20mg/hydrochlorothiazide 12.5 mane</td>
<td>diltiazem 180mg mane</td>
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<tr>
<td>metronidazole cream</td>
<td>colchicine 500mg daily (used occasionally)</td>
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Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn't been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Poorly controlled uric acid levels

Consequence 1: Poorly controlled uric acid levels

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Consider the consequence now, in the event the recommendation had been carried out (i.e. uric acid levels were measured, patient commenced on allopurinol)

Consequence 1: Poorly controlled uric acid levels

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Appendices: Economic Analysis

Appendix XXXI  HMR Recommendation

HMR recommendation case study 17

Study number 193 Intervention Summary:

Problem: Patient using inhalers poorly, correct technique demonstrated at review.
MRS RC, 72 years old, was admitted to the RHE during May 2005 with labyrinthitis. Her past medical history includes; asthma, hypertension and hypercholesterolaemia. She has experienced allergies in the past to codeine, penicillins (rash and swelling) and aspirin.
Once symptoms were controlled, Mrs RC was discharged with no changes to her regular medications.

Explanation of issue: Patient was reviewed by pharmacist after discharge. It was identified by the pharmacist that the patient required demonstration of inhaler technique with both salbutamol and beclomethasone inhaler. Patient was instructed to rinse mouth after use of beclomethasone inhaler.

Suggestion made by HMR pharmacist: Appropriate inhaler technique encouraged.

Outcome after pharmacist intervention: Ensured that appropriate technique was achieved and hence maximised the effectiveness of her medications.

GP response: nil known

Patients account at 30 days: Patient was more confident with inhaler technique, and felt her asthma had been better controlled.

Dispensing Summary

- candesartan 16mg mane
- simvastatin 20mg nocte
- pantoprazole 40mg daily
- thyroxine 50mcg alternate days
- thyroxine 100mcg alternate days
- paracetamol 500mg occasional use
- beclomethasone 100mcg TWO puffs twice a day
- salbutamol inhaler TWO puffs every FOUR hours prn

Laboratory results

- nil relevant

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
List of Possible Consequences:

1. Worsening of asthma

Consequence 1: Worsening of asthma

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Comment
HMR recommendation case study 18

Study number 206 Intervention Summary:

**Problem:** Patient with infection requiring continued course of antibiotics
Mrs VII, 53 years old, was admitted into hospital with right lobar pneumonia. She has a medical history of hypertension, depression and weight management issues.

**Explanation of issue:** Patient admitted with pneumonia, discharged with amoxicillin 875mg/clavulinate course to complete. Was reviewed by GP before visit by the reviewing pharmacist and was found to have continued congestion. Patient was also using salbutamol via a volumatic spacer.

**Suggestion made by HMR pharmacist:** The pharmacist suggested that the patient return to their GP and discuss the potential need for a second course of antibiotics.

**Outcome after pharmacist intervention:** Infection resolved and re-admission avoided
GP response: Patient reviewed by GP but no repeat required.
Patients account at 30 days – Infection cleared.

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<td>irbesartan 300mg/hydrochlorothiazide 12.5mg mane</td>
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<td>sertraline 100mg mane</td>
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<td>salbutamol inhaler TWO puffs prn</td>
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<tr>
<td>norethisterone/oestradiol 250/50 ONE patch twice weekly</td>
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Medication ceased whilst in hospital: Herbalife (weight loss agent)

**Step one:** estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Respiratory infection unresolved

Consequence 1: Respiratory infection unresolved

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Comment:
HMR recommendation case study 19

Study number 276 Intervention Summary

Problem: Patient experiencing symptoms of indigestion whilst taking alendronate; a trial of risendronate was suggested.

Mrs MP, 80 years old, was admitted into hospital with atrial fibrillation. She has a past medical history which includes: anaemia, hypertension, peripheral vascular disease, osteoporosis and a single functioning kidney with proximal stenosis. Mrs MP had her medications managed by a friend who visited and packed them into a dosette device.

Explanation of issue: Mrs MP had trialled alendronate 70mg prior to recent admission. She had experienced indigestion whilst taking the medication and had ceased the bisphosphonate. At the time of review one of the pharmacist recommendations was to consider risendronate and/or vitamin D supplementation.

Suggestion made by HMR pharmacist: Consider a trial of risendronate in osteoporotic patient with treatment failure with alendronate.

Outcome after Pharmacist intervention: risendronate 30mg prescribed

GP response: prescribed risendronate for Mrs MP

Patients account at 30 days – had risendronate dispensed and was about to start taking it.

Dispensing Summary

telmisartan 80mg mane
simvastatin 80mg nove
frusemide 40mg mane and midday
flunarizipam 1mg nove
nitrofurantoin 100mg daily

clopixol 75mg mane
omeprazole 20mg two tablets mane
calcium carbonate 600mg mane
aspirin 100mg mane GTN spray prn
metoprolol 50mg HALF BD

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:

1. Osteoporosis untreated

Consequence 1: Osteoporosis untreated

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Comment
Appendices: Economic Analysis

Appendix XXXI  HMR Recommendation

HMR recommendation case study 20

Intervention Summary

Problem: Patient not on an ACE inhibitor with history of stroke and IHD.

73 year old male, Mr JW admitted into hospital with acute coronary syndrome. Past medical history includes IHD, CABG, asthma, stroke and right eye blindness secondary to thromboembolic event.

Explanation of issue: Patient not taking ACE inhibitor but has strong history to suggest it is indicated. Patient was commenced on ramipril in hospital in the emergency department but was later crossed off the chart by the medical team on the ward. There was no explanation in Mr JW’s notes as to why this medication was initiated and later ceased in hospital. Patient is a good candidate for treatment with an ACE inhibitor.

Suggestion made by HMR pharmacist: ‘For further cardiovascular protection you may like to consider the addition of an ACE inhibitor (ramipril titrated to 10mg daily or perindopril titrated to 8mg daily in normotensive individuals) to his therapy in light of his history of ischaemic heart disease and stroke. The addition of an ACE inhibitor would likely reduce his risk of cardiovascular and cerebrovascular events by around 20%. You may need to check his blood pressure in the initial phases of treatment.’

Outcome after pharmacist intervention: GP had been away on holiday, patient had not seen him since the home medication review was conducted.

Patients account at 30 days: No changes to medications.

Dispensing Summary

metoprolol 25mg bd salbutamol 100mcg inh pm
aspirin 100mg daily latanoprost 0.005% instill 1 drop O/E noct.
clopidogrel 75mg daily paracetamol 1g QID pm
beclometasone 100mcg inh bd

Step one: estimate the probability of the consequences of the potential medication issue.

1. Refer to and score the consequences provided on the next page that may have been caused if the discrepancy hadn’t been addressed (this is compulsory). Please feel free to comment. If you feel there is another more likely consequence, write your suggestion in the space provided and score. Please write a comment to outline your reasoning.

2. For the situation before the pharmacist’s intervention to correct the potential medication discrepancy, enter the probability that the consequence would have occurred at each three different levels of severity. By entering these three probabilities, the remaining probability of there being no consequence is automatically calculated.

3. Repeat the probability estimates for the situation after the pharmacist’s intervention.

4. This step does not apply to all cases: In the event that the recommendation had not been taken up by the GP/patient score the consequence a second time but imagine that the recommendation had been carried out.
Possible Consequences:
1. Cerebrovascular or cardiovascular event

Consequence 1: Cerebrovascular or cardiovascular event

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Comment:

Consider the consequence now, in the event the recommendation had been carried out (ie GP commenced patient on ACE inhibitor for cardiovascular protection)

Consequence 1: Cerebrovascular or cardiovascular event

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Appendices: Economic Analysis

Appendix XXXII  Tasks to be timed

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<td>Conduct QOL</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1h</td>
<td>Time requested printout from CP (S)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time sent (F)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1i</td>
<td>CP to find/printout &amp; Fax 6 month disp Hx</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(CP to record on fax)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1j</td>
<td>Request medical director printout from GP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1k</td>
<td>Identify discrepancies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1l</td>
<td>Compile reconciled prescribed medication list on admission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1m</td>
<td>Reconciled list discussed with CP/RMO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1n</td>
<td>Explain trial package</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check on discrepancies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1o</td>
<td>1. (24hrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1p</td>
<td>2. (48hrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1q</td>
<td>3. (~48hrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1r</td>
<td>Upload meds to website</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calculate scores</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1s</td>
<td>QOL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1t</td>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1u</td>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1v</td>
<td>Record speak RMO re: discrepancies at discharge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td>Prepare counseling document (RA/HP to record)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>Counseling at discharge (RA/HP to record)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2c</td>
<td>Prepare discharge on website</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td>Telephone GP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>Fax GP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3c</td>
<td>Telephone CP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3d</td>
<td>Fax CP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3e</td>
<td>HP provide additional info: lab results</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3f</td>
<td>Co-ordinate organise pharmacist to do HMR</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Please attach this form to the back of the patient file, so that it is visible.

Reviewed 3/8/05
Appendices: Economic Analysis

Appendix XXXIII Template for Quality of Life Survey

Appendix XXXIII Template for Quality of Life Survey

The AQoL instrument: Version B21

(For telephone administration.)

INSTRUCTIONS:
Hello, my name is <name>, and I’m from the <organization>.
<Short introductory statement about the research project and its importance, confidentiality of material, right to stop interview at any time.>

This questionnaire has 15 questions and will take about ten minutes. The questions are about your health during the last week. Please listen carefully, and choose the answer that best describes you.

Question 1.
Concerning your use of prescribed medicines in the last week,
{If the person asks ‘What is a prescribed medicine’, explain it refers to a medicine prescribed by a doctor, and it does not include over-the-counter drugs.}

Would you say that:
1. You did not or rarely used any medicines at all.
2. You used one or two medicinal drugs regularly.
3. You needed to use three or four medicinal drugs regularly.
4. You used five or more medicinal drugs regularly.

Question 2.
To what extent did you rely on medicines or a medical aid in the last week, excluding your glasses or hearing aid.
{If the person asks for an example explain this refers to a walking frame, wheelchair, or prosthesis etc.}

{If the person asks about ‘medicines’, explain this refers to all medicines used whether prescribed by a doctor, allied health professional or bought from a chemist.}

{If the person asks about ‘prosthesis’, explain this refers to equipment used to replace a body part, such as an artificial arm.}

Would you say that:
1. You did not use any medicines and/or medical aids.
2. You occasionally used medicines and/or medical aids.
3. You regularly used medicines and/or medical aids.
4. You had to constantly take medicines or use a medical aid.

Question 3.
In the last week, did you need medical treatment from a doctor or other health professional?

Would you say:
2. You had some regular medical treatment.
3. You were dependent on having regular medical treatment.
4. That your life was dependent on regular medical treatment.
Appendices: Economic Analysis

Appendix XXXIII Template for Quality of Life Survey

Question 4.
Did you need any help with personal care in the last week?
[If the person asks what is ‘personal care’, explain this refers to activities such as washing, dressing, personal grooming or going to the toilet.]
Would you say:
1. You needed no help at all.
2. Occasionally you needed some help with personal care tasks.
3. You needed help with the more difficult personal care tasks.
4. You needed daily help with most or all personal care tasks.

Question 5.
When doing household tasks during the last week, did you need any help?
[For example, with preparing food, gardening, using the video recorder, radio, telephone or washing the car.]
Would you say:
1. You needed no help at all.
2. Occasionally you needed some help with household tasks.
3. You needed help with the more difficult household tasks.
4. You needed daily help with most or all household tasks.

Question 6.
Thinking about how easily you got around your home and community in the last week.
Would you say:
1. You got around your home and community by yourself without any difficulty.
2. You found it difficult to get around your home and community by yourself.
3. You could not get around the community by yourself, but you got around your home with some difficulty.
4. You could not get around either the community or your home by yourself.

Question 7.
Were your personal relationships in the last week affected by your health.
[For example: with your partner or parents.]
Would you say your relationships:
1. Were very close and warm.
2. Were sometimes close and warm.
3. Were seldom close and warm.
4. You had no close and warm relationships.

Question 8.
Were your relationships with other people during the last week affected by your health.
Would you say:
1. That you had plenty of friends, and you were never lonely.
2. That although you have friends, you were occasionally lonely.
3. That you have some friends, but you were often lonely.
4. That you felt socially isolated and lonely.
Appendices: Economic Analysis

Appendix XXXIII Template for Quality of Life Survey

Question 9.
Thinking about your health and your relationship with your family in the last week.
Would you say:
1. Your role in the family was not affected by your health.
2. There were some parts of your family role you could not carry out.
3. There were many parts of your family role you could not carry out.
4. You could not carry out any part of your family role.

Question 10.
Thinking about your vision in the last week.
[including when using your glasses or contact lenses if needed.]
Would you say:
1. You saw normally.
2. You had some difficulty focusing on things, or you did not see them sharply.
   [For example: small print, a newspaper, or seeing objects in the distance.]
3. You had a lot of difficulty seeing things and your vision was blurred.
   [For example: you saw just enough to get by with.]
4. You only saw general shapes, or you are blind.
   [For example: you needed a guide to move around.]

Question 11.
Thinking about your hearing in the last week.
[Including using a hearing aid if needed]
Would you say:
1. You heard normally.
2. You had some difficulty hearing, or did not hear clearly.
   [For example: you asked people to speak up, or turn up the TV or radio volume.]
3. You had difficulty hearing things clearly.
   [For example: Often you did not understand what was said. You usually did not take part in conversations because you could not hear what was said.]
4. You heard very little indeed.
   [For example: you could not fully understand loud voices speaking directly to you.]

Question 12.
When you communicated with others in the last week.
[For example: by talking, listening, writing or signing.]
Would you say:
1. You had no trouble speaking to others or understanding what they were saying.
2. You had some difficulty being understood by people who did not know you. You had no trouble understanding what others were saying.
3. You were only understood by people who knew you well. You had great trouble understanding what others were saying.
4. You could not adequately communicate with others.

Question 13.
Thinking about how you slept in the last week. Would you say:
Appendices: Economic Analysis

Appendix XXXIII Template for Quality of Life Survey

1. You slept without difficulty most of the time.
2. Your sleep was interrupted some of the time, but you were usually able to go back to sleep without difficulty.
3. Your sleep was interrupted most nights, but you were usually able to go back to sleep without difficulty.
4. You slept in short bursts only. You were awake most of the night.

**Question 14.**
Thinking about how you generally felt in the last week. Would you say:
1. You did not feel anxious, worried or depressed.
2. You were slightly anxious, worried or depressed.
3. You felt moderately anxious, worried or depressed.
4. You were extremely anxious, worried or depressed.

**Question 15.**
How much pain or discomfort did you experience in the last week. Would you say:
1. You had none at all.
2. You had moderate pain.
3. You suffered from severe pain.

Thank you very much for answering these questions.
Dear Dr,

Your patient, MM, has been recruited into a study of patients commenced on warfarin at the Royal Hobart Hospital. The study aims to evaluate the effect of an intervention that combines pharmacist-conducted INR monitoring, warfarin education and a review of medication related issues conducted in the patient’s home. This study aims to improve medication management following discharge from hospital, in particular warfarin therapy. This study has been approved by the Royal Hobart Hospital Research and Ethics Committees. All patients have given their written consent to participate.

<table>
<thead>
<tr>
<th>Medication and dose</th>
<th>Frequency</th>
<th>Your patients’ medication on discharge from hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARFARIN Fe 100mg</td>
<td>Twice daily</td>
<td></td>
</tr>
<tr>
<td>Flucilite 100mg</td>
<td>Once daily</td>
<td></td>
</tr>
<tr>
<td>Thebain 150mg</td>
<td>Once daily</td>
<td></td>
</tr>
<tr>
<td>Gemfibrozil 600mg</td>
<td>Twice daily</td>
<td></td>
</tr>
<tr>
<td>Thyrogast 125mg</td>
<td>Daily</td>
<td></td>
</tr>
<tr>
<td>Premarin 300mg</td>
<td>Once daily</td>
<td></td>
</tr>
<tr>
<td>Provera 5mg</td>
<td>Once daily</td>
<td></td>
</tr>
</tbody>
</table>

Medication changes

<table>
<thead>
<tr>
<th>Ceased</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flucilite 300mg daily</td>
<td></td>
</tr>
<tr>
<td>Provera 5mg daily</td>
<td></td>
</tr>
<tr>
<td>Flucilite 100mg twice daily</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Added</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WARFARIN</td>
<td></td>
</tr>
<tr>
<td>Amiodarone 200mg</td>
<td>three times a day for two weeks</td>
</tr>
</tbody>
</table>

Your patient is also involved in a comprehensive warfarin education program, designed to improve anticoagulant knowledge after discharge from hospital and reduce anticoagulant related misadventure. As part of this program a review of your patient’s medication use was undertaken. The following issues may warrant further attention/assistance to benefit your patient condition(s) and I make the following suggestions for you to consider

Medication-related issues

- I have discussed the use of amiodarone with MM and reinforced to her the need for a reduction in dosing at some stage in the near future (I assume Dr X will discuss this with MM on Monday the 27th).
- As discussed with you, Mrs MM is experiencing some chest pain at night and during exercise. She appears reluctant to use her Nitrolingual spray for these symptoms. I have reinforced to her the need for prompt use of this agent if symptoms are present, however, if this is occurring on a regular basis her antianginal therapy may need review.
- I note that MM is receiving Gemfibrozil for hyperlipidaemia. Given her recent history of chest pain, you may consider review of her therapy with a view to instituting a ‘Statin’.
- I discussed with MM the use of vitamin and herbal medications, and I suggested to MM that the use of her Women’s multivitamin and Mineral is fine.

If you have any queries or issues you would like to discuss in relation to my suggestions, please do not hesitate to contact me.

Regards,

Shane Jackson BPharm PhD
Pharmacist
Tasmanian School of Pharmacy/Royal Hobart Hospital
Phone: 0408485430 or 6226 2203
Email: Shane.Jackson@utas.edu.au
Appendices: Warfarin trial

Appendix XXXIV Example reviews forwarfarin trial

Dear Dr,

Your patient, MR, has been recruited into a study of patients commenced on warfarin at the Royal Hobart Hospital. The study aims to evaluate the effect of an intervention that combines near-patient INR monitoring, warfarin education and a review of medication related issues conducted in the patient’s home. This study aims to improve medication management following discharge from hospital, in particular warfarin therapy. This study has been approved by the Royal Hobart Hospital Research and Ethics Committees. All patients have given their informed consent to participate.

Your patients’ medication on discharge from hospital

<table>
<thead>
<tr>
<th>Medication and dose</th>
<th>Frequency</th>
<th>Medication changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARFARIN 4mg</td>
<td>Once</td>
<td>Ceased</td>
</tr>
<tr>
<td>Acenocoumarin 10mg</td>
<td>Once</td>
<td>Aspirin 100mg</td>
</tr>
<tr>
<td>Enoxaparin 100mg</td>
<td>Once</td>
<td>Methyldopa 250mg</td>
</tr>
<tr>
<td>Indapamide 2.5mg</td>
<td>Once</td>
<td>Additions</td>
</tr>
<tr>
<td>Diliazem 500mg CR</td>
<td>Once</td>
<td></td>
</tr>
<tr>
<td>Furosemide 20mg</td>
<td>Half a tablet twice daily</td>
<td>WARFARIN 100mg once daily (until INR is therapeutic)</td>
</tr>
<tr>
<td>Metoprolol 50mg</td>
<td></td>
<td>Metoprolol 25mg twice daily</td>
</tr>
</tbody>
</table>

Your patient is involved in a comprehensive warfarin education program, designed to improve anticoagulant knowledge after discharge from hospital and reduce anticoagulant related misadventure. As part of this program a review of your patient’s medication use was undertaken. The following issues may warrant further attention, discussion to benefit your patient condition/s and I make the following suggestions for you to consider.

Medication-related issues

- To simplify her medication regimen her Coversyl 4mg and Dapa-tabs could be combined to a combination formulation, such as Coversyl-Plus (4mg/1.25mg). This however does not have the same dose of indapamide, therefore if this was changed, her BP may need to be monitored regularly.
- Marjorie might benefit from the substitution of omeprazole for famotidine for her symptoms of indigestion. She stated she takes her famotidine regularly in the morning and about 3-4 times per week at night. There is evidence that the PPIs reduce the risk of GI bleeding in elderly patients who are taking anticoagulants.
- There were suggestions from the hospital to recheck her thyroid function in one month’s time and also assess her vitamin D status (if this was low Ostein 1000 may be of benefit). I would also suggest the addition of a calcium 600mg tablet as I don’t believe she obtains adequate calcium intake through her diet.

If you have any queries or issues you would like to discuss in relation to my suggestions, please do not hesitate to contact me. I will be in touch with you directly to discuss this report. I hope this information is useful to you in your care of the patient.

Regards,

Shane Jackson
Pharmacist
Tasmanian School of Pharmacy/Royal Hobart Hospital
Phone: 0408485430 or 6226 2203
Email: shane.jackson@utas.edu.au
Appendix XXXV  Report on the quality of Medication reviews conducted in the Med eSupport Project

Report on Quality of Medication Reviews Conducted in the Med-e-Support Project

Peter Tenni M Pharm CGP

Contents

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Drug Related Problems Identified by Reviewing Pharmacists ...................................................................................... 4
Additional Problems Identified.................................................................................................................................. 9
Overall Appropriateness............................................................................................................................................. 10

Summary

The quality of reports and the number and nature of the drug related problems identified in the cases reviewed in the Med-e-support project were assessed. 94 reports were reviewed.

Reports were generally in a letter style and of reasonable quality in terms of format and terminology. A significant number of reports (35 or 37%) did not contain a list of the patient’s medications.

Overall the reviewing pharmacists identified 236 drug related problems, and the assessor identified a further 66 problems. Problems were generally adequately explained, but recommendations were less than ideal in almost half of the problems identified. A significant number of problems (12 or 5.4%) had a greater than 20% potential to have an adverse impact on the patient’s symptoms.
Report on Quality of Medication Reviews Conducted in the Med-e-Support Project

Approximately half of the reports were adequate when given an overall appropriateness score that involved assessing the nature, description and appropriateness of the problems identified.

Pharmacists Involved

Overall there were 94 medication reviews assessed. These were undertaken by 38 different accredited pharmacists with the majority of pharmacists only doing one review. Only three pharmacists conducted more than 4 reviews for the project (see Figure 1). It is likely that this is the main factor contributing to the variation in the nature and quality of the reports.

![Number of Reviews Conducted by Different Accredited Pharmacists](image)

Figure 1: Number of Reviews Conducted by Different Accredited Pharmacists

Report Format and Length

The medication review reports were presented in a range of formats. Usually, they were only one or two pages long (see Table 1), but most of these shorter reports did not include a list of the patient's medications. Of the reports assessed, 35 (37%) had
Report on Quality of Medication Reviews Conducted in the Med-e-Support Project

no drug profile presented. The AACP encourages the use of a list of drugs with the purpose for each drug (according to the patient) listed.

<table>
<thead>
<tr>
<th>Report Length (Pages)</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4.3%</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3.5%</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>54.7%</td>
</tr>
<tr>
<td>1</td>
<td>34</td>
<td>38.2%</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 1: Number of Medication Review Reports of Different Lengths

The vast majority of reports were in letter format, usually addressed to the referring prescriber (not always). The layout of these letters varied, with headings used in many cases. The headings often referred to the problem under discussion, but sometimes only served to divide the letter up into sections (e.g. findings, recommendations). Some standard reports (the AACP report form or the MediFlags forms) were used.

Generally the reports were well presented, but there were several exceptions to this. Some letters gave a poor impression in terms of layout and font size. This sometimes made the finding of relevant recommendations difficult and useful information was easily overlooked. A score was given to each review based on the overall quality of the format. This took into account factors such as length, appearance, readability and language and general structure. Results are shown in Figure 2. The mean score was 6.0 and the standard deviation was 1.4.
Drug Related Problems Identified by Reviewing Pharmacists

The Med-e-Support team provided each reviewing pharmacist with a list of changes made during the patient’s hospital admission, and some direction in terms of particular potential drug related problems. Many of the reviews therefore focussed on these changes.

Each medication review was assessed and the number of drug related problems in each review was determined. These were examined in terms of:

- the appropriateness of the description of the problem,
- the appropriateness of the recommendation made to resolve the problem,
- the clinical significance of the problem and
- whether or not the recommendation was made (at 30 days).

From the 94 reviews, 236 separate drug related problems were identified by the reviewing pharmacists. A histogram of the number of problems identified per case is shown in Figure 3.
As can be seen, in six of the reviews, the accredited pharmacist did not identify any problems. The mean number of problems was 2.51 +/- 1.67 and the median was 2 problems per case.

Generally the problems were either well described or adequately described, with over 80% of problems at least adequately described (see Table 2). There were some problems that were deemed inappropriate, and some of these had the potential to have negative effects (see later).

<table>
<thead>
<tr>
<th>Description of Problem</th>
<th>Number of Problems</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear and Appropriate</td>
<td>66</td>
<td>28.2%</td>
</tr>
<tr>
<td>Adequate detail</td>
<td>132</td>
<td>56.4%</td>
</tr>
<tr>
<td>Inadequate detail</td>
<td>20</td>
<td>8.5%</td>
</tr>
<tr>
<td>Inappropriate problem</td>
<td>16</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 2: Description of Drug Related Problems
Report on Quality of Medication Reviews Conducted in the Med-e-Support Project

The nature of the recommendations made for the problems is perhaps a cause for concern. Less than 60% of the recommendations that made were either adequate or clear and appropriate, while the remainder of recommendations were unclear, inappropriate or not ideal (see Table 3). Thus for almost half of the problems identified, recommendations would be either difficult to follow or inappropriate if followed.

<table>
<thead>
<tr>
<th>Quality of Recommendation</th>
<th>Number of Problems</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear and Appropriate</td>
<td>56</td>
<td>23.9%</td>
</tr>
<tr>
<td>Adequate</td>
<td>74</td>
<td>31.6%</td>
</tr>
<tr>
<td>Inadequate detail to recommendation</td>
<td>24</td>
<td>9.9%</td>
</tr>
<tr>
<td>Recommendation not ideal</td>
<td>38</td>
<td>16.2%</td>
</tr>
<tr>
<td>Inappropriate recommendation</td>
<td>21</td>
<td>9.0%</td>
</tr>
<tr>
<td>Inadequate and Inappropriate</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>No clear recommendation made</td>
<td>23</td>
<td>9.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>234</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Table 3: Quality of Recommendations

The clinical significance of each of the problems where a clear recommendation was made was assessed using the scale outlined in Figure 4 and Table 4.

<table>
<thead>
<tr>
<th>Clinical Significance</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20% chance of requiring or preventing medical consultation</td>
<td>16</td>
<td>6.7%</td>
</tr>
<tr>
<td>&lt;20% chance of causing or preventing noted effect</td>
<td>84</td>
<td>37.5%</td>
</tr>
<tr>
<td>&lt;20% chance of causing or preventing noticed effect</td>
<td>113</td>
<td>52.4%</td>
</tr>
<tr>
<td>&lt;20% chance of negative effect</td>
<td>12</td>
<td>5.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>234</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Table 4: Clinical Significance of Problems Identified by Reviewing Pharmacists
As can be seen, 12 of the 224 problems (5.3%) had the potential to worsen the patient’s condition. These problems can be identified in the appendix using the study numbers shown in Table 5.
Appendices: HMR

Report on Quality of Medication Reviews Conducted in the Med-e-Support Project

<table>
<thead>
<tr>
<th>Study Number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>107</td>
<td>Was on 50mg Sertraline at time of review, but is back on 25mg at 30 days (7). Was on 25mg at admission and increased to 50mg in hospital.</td>
</tr>
<tr>
<td>1243</td>
<td>JP recommended dose reduction of celecoxib. Given pain problems outlined above, this is inappropriate.</td>
</tr>
<tr>
<td>1246</td>
<td>Clonazepam being used for RLS. SM suggests change to pm. Given iron deficiency anaemia, this is likely to resolve, but until then treatment should be continued.</td>
</tr>
<tr>
<td>1253</td>
<td>YW suggested aspirin be added (High risk patient), however, history clearly stated PUD and so it would be contraindicated. Clopidogrel is also suggested if she is intolerant to aspirin. Given she is taking another NSAID (Mobic) this recommendation may have a serious outcome.</td>
</tr>
<tr>
<td>1640</td>
<td>Suggested addition of aspirin. Patient has no Civil risk factors and a strong history of PUD/GORD.</td>
</tr>
<tr>
<td>1647</td>
<td>Patient prescribed but not taking propranolol. SJ suggested review and cessation.</td>
</tr>
<tr>
<td>2</td>
<td>Amitriptyline use for ankle numbness is queried, one possible cause of ankle numbness is amiodarone causing neuropathy. She was on this previously and they were just in the process of re-starting it. Could be a problem. Note the amiodarone still being taken at 30 day followup but no indication of whether the numbness continues.</td>
</tr>
<tr>
<td>216</td>
<td>Recommends warfarin if patient taking amiodarone for atrial fibrillation. Patient’s history stated SVT, so warfarin would be inappropriate and would increase risk of bleeding.</td>
</tr>
<tr>
<td>216</td>
<td>BH recommended change from Felodipine to Diltiazem. This would be dangerous as already on amiodarone and HR recorded during admission of 600rpm. Contraindication to beta blockers mentioned is based on hypotension due to metoprolol, so not a true contraindication.</td>
</tr>
<tr>
<td>216</td>
<td>Recently commenced Amitriptyline, patient unsure of indication (if indication is anxiety, patient feels that she doesn’t have this). Actual indication unclear (BH indicates its for depropranolol but not sure what else (or this on)), as dose only 12.5mg (was increased to 25mg at 30 day followup). BH asked her to persevere until she sees the GP. Patient has supraventricular tachycardia and would therefore be at high risk for a pro-arrhythmogenic drug. Also she was admitted with gall bladder disease and amitriptyline can cause cholestatic jaundice which may exacerbate this. It would be more appropriate to find out why she is using it and consider a safer alternative.</td>
</tr>
<tr>
<td>268</td>
<td>Eprin without indication was prescribed 100/200 daily, and only taking 100m, but unclear indication. SL recommends review. Would be important to follow INR as warfarin requirements would likely increase if the valproate is ceased. Patient is currently on 4mg and SL has kindly removed the 5mg tablets from the house as she doesn’t need them.</td>
</tr>
<tr>
<td>63</td>
<td>Metformin with renal dysfunction, patient was actually on a lower dose than previously (500bd). 307 followup showed that the dose was increased back to what they were on before (850mg bd).</td>
</tr>
</tbody>
</table>

Table 5: Drug Related Problems with Potential Adverse Outcomes

The outcome of the recommendations that were clearly made were assessed against the drug list available at 30 days. In some patients this list was not available. In almost 70% of the problems, the recommendations were not implemented (see Table 6).
Report on Quality of Medication Reviews Conducted in the Med-e-Support Project

<table>
<thead>
<tr>
<th>Outcome at 30 days</th>
<th>Number</th>
<th>Percent</th>
<th>Percent of Known</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>74</td>
<td>35.2%</td>
<td></td>
</tr>
<tr>
<td>Partially Implemented</td>
<td>1</td>
<td>0.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Implemented</td>
<td>39</td>
<td>18.6%</td>
<td>28.7%</td>
</tr>
<tr>
<td>Implemented but other changes made as well</td>
<td>3</td>
<td>1.4%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Not Implemented</td>
<td>93</td>
<td>44.3%</td>
<td>68.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>210</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Outcome of Recommendations at 30 days

**Additional Problems Identified**

In 48 of the cases, 66 additional drug related problems were identified from the information available (1 to 4 problems per case). These problems were rated for clinical significance in the same way as previously outlined (see Table 7).

<table>
<thead>
<tr>
<th>Clinical Significance</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;20% chance of requiring or preventing hospitalisation</td>
<td>1</td>
<td>1.5%</td>
</tr>
<tr>
<td>&gt;20% chance of requiring or preventing medical consultation</td>
<td>7</td>
<td>10.8%</td>
</tr>
<tr>
<td>&gt;20% chance of causing or preventing noticed effect</td>
<td>39</td>
<td>50.0%</td>
</tr>
<tr>
<td>&gt;20% chance of causing or preventing noticed effect</td>
<td>25</td>
<td>37.5%</td>
</tr>
<tr>
<td>&gt;20% chance of negative effect</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>66</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 7: Clinical Significance of Additional Drug Related Problems Identified

As can be seen, a number of these additional problems were potentially serious, including one patient who was re-admitted, probably as a result of lack of anti-anginal therapy. When these problems are added to those previously identified, a total of 303 potential drug related problems were identified in the cases assessed (see Figure 5).
**Overall Appropriateness**

An overall score was given to each report that indicated the overall appropriateness of the problems identified and the recommendations made. This took into account the number and nature of the problems identified, the way they were described and the appropriateness of the recommendations made.

The results are shown in Figure 6. There was a broad distribution of scores, with some excellent and some very low scores. Approximately half of the reviews had an appropriateness score of over 50%, which would be considered adequate.
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Figure 6: Overall Appropriateness of Medication Reviews