10. Assessment of Opinion on the Model

It is recognised by the Project Team that the support of health care professionals and consumers for the draft Model and its implementation is required to maximise its likely effectiveness. It is also recognised that one of the aims of this project is to develop a Model which will promote partnership and collaboration across the health care system. To this end, a consultation process was conducted with relevant stakeholders, in regard to the draft Model, using a modified Delphi Process, with the following objectives:

- to reach broad agreement on a draft Model which describes the most appropriate approach, role and professional services that community pharmacists can provide to people who are at higher risk of developing, or have established, cardiovascular disease; and

- to reach broad agreement on the priorities, method and timelines for the implementation of the Model.

10.1 Input from Stakeholders using a Modified Delphi Process

Gaining input from stakeholders required a considered approach, in that the input needed to:

- maximise stakeholders’ likely long-term commitment to the outcomes of the Pharmacy Cardiovascular Health Care Model project;

- take into account the possible divergent views of stakeholders (i.e. different stakeholders may have different beliefs regarding the activities and the role and appropriateness of community pharmacists in providing these); and

- optimise the likelihood of generating the most appropriate information from stakeholders.

For the purposes of this Project, a modified Delphi Process was adopted to achieve these objectives in a timely manner. The Delphi Process is a research technique where the key objective is to gain commitment from a group of stakeholders in addition to accessing additional information from stakeholders. Since its appearance, the Delphi technique has been used for futures research, policy formulation and management decision-making. It is a very effective means of:
• achieving consensus on issues of interest;
• aggregating information from stakeholders or experts; and
• gaining commitment from the panel of stakeholders to an eventual approach.

The Project Team used a survey-feedback approach in the following way.

**Phase One:** Representatives of a small number of key stakeholder groups, listed below, had already provided feedback on community pharmacy involvement in CVD and the development of the Model (Section 2.4).

- Pharmacists (represented through the EAG by the Pharmacy Guild of Australia and the Pharmaceutical Society of Australia);
- Australian Divisions of General Practice;
- government (represented through the EAG by the Australian Government Department of Health and Ageing);
- National Heart Foundation;
- National Stroke Foundation; and
- all members of the Project Team.

**Phase Two:** The Project Team then analysed responses and used the feedback in the development of the draft Model.

**Phase Three:** A larger group of stakeholders (listed below) were sent the draft Model developed through the compilation of opinions, by email with an explanation of the Model and a request to complete a survey/questionnaire to obtain their views on the activities and community pharmacists’ role in undertaking these. Stakeholders were encouraged to share the Model with colleagues in their organisation but asked to provide a single response on behalf of their organisation. Stakeholders were invited to identify any relevant issues as part of the assessment process. Comments on Model were received for consideration by the Project Team.
Opinions were sought from the following key stakeholders:

- consumers (represented by the Consumers Health Forum and by Heart Support);
- pharmacists (represented through the EAG by the Pharmacy Guild of Australia and the Pharmaceutical Society of Australia);
- general medical practitioners (represented by the Australian Divisions of General Practice, the Royal Australian College of General Practitioners, and the Australian Medical Association);
- government (represented through the EAG by the Australian Government Department of Health and Ageing);
- specialists in cardiovascular issues (represented by the National Heart Foundation, the Cardiac Society of Australia and New Zealand, and the National Stroke Foundation);
- and
- all members of the Project Team.

Organisations were followed-up by telephone if they had not responded within two weeks. In the strict application of the Delphi Process, there is a face-to-face level of consultation in Phase one (depth interviews) and also a Fourth Phase, which the Project Team believes provides some additional strength to the outcome of the consultation process, but which for reasons of time constraints and budget could not be implemented. For interest, in Phase Four, the stakeholder panel is sent the compilation of phase three responses and asked to comment on, and possibly review, widely divergent predictions that were made. The resulting responses are then compiled into a final report that details predicted future events about which there is a general consensus, any significantly divergent opinion from the general consensus, and reasons for this divergence and those events around which there is significant uncertainty.
10.1.1 National Heart Foundation

The National Heart Foundation was highly supportive of the priority areas making up the draft Model. The Heart Foundation indicated that they did not have a formal position on the issue of pharmacy-based screening of high-risk individuals.

“Possible role but NHF not currently in a position to determine support one way or the other for this. If this were to occur it would need to be highly targeted, supported by evidence-based protocols and quality control mechanisms and be integrated with primary health care systems.”

The full response from the National Heart Foundation is reproduced below (Figure 55). The discussion paper sent to the organisations is shown in Appendix 1.
<table>
<thead>
<tr>
<th>Activity</th>
<th>a) Important?</th>
<th>b) Urgent?</th>
<th>c) Community pharmacists could implement?</th>
</tr>
</thead>
<tbody>
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<td>1. Community talks and lectures</td>
<td>5</td>
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<tr>
<td>2. Provision of education materials</td>
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<td>3. Uptake and promotion of specialty weeks</td>
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<td>4. Promoting/organising or conducting exercise groups</td>
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</tbody>
</table>
Please ensure you have placed a number in EVERY box on the preceding two pages. We
would be grateful if you would provide further comments and details for any activity/issue
where you have indicated a score of 6 or less in the space below.

**NIH COMMENT.**

For any criterion with a score marked: "**" above or below, the NIH is not currently in a position to
give a strong opinion one way or the other, as many issues would need to be carefully considered
before NIH could determine an appropriate policy position.

The Project Team has tentatively developed a list of priority areas and would appreciate your
feedback on whether you find (i) these are the real priority areas for community pharmacists
and (ii) pharmacists are able to usefully contribute in these areas. To do this, please complete
the following questions by indicating in every box, a number between 1 and 10 to indicate
your strength of agreement with each of the statements (where 1 = strongly disagree and 10
= strongly agree).

1. **Public/preventive health promotion**
   - e.g., Health promotion to prevent development and progression of CVD (SNAP
     Framework)
   - Improving awareness of risk factors
   - Improving awareness of symptoms and early warning signs of acute episodes
   (prompt presentation for chest pain etc.)

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</table>

2. **Continuum of care:** transfer of medication-related information between hospital
   and community, follow-up of patients post-discharge to identify and remedy any
   drug-related problems.

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   To consultation with patients usual clinical practitioners
   and health services.

3. **High-risk patients:** referral for screening and risk-assessment (must be based on
   absolute risk assessment), may be a role for pharmacy-based risk factor assessment
   and referral

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   Possible role but NIH not currently in a position to
   determine, support one way or the other. If things
   were to occur it would need to be highly targeted,
   supported by evidence-based protocols and quality
   control mechanisms and be integrated with primary
   health care system.

4. **Compliance with therapy:** promoting patient compliance with drugs, diet,
   exercise

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</table>

   10 for medications
   **" for diet
Figure 55 The response from the National Heart Foundation, providing feedback on the draft Model

10.1.2 The Royal Australian College of General Practitioners

The Royal Australian College of General Practitioners referred the request for feedback to their National Standing Committee on Quality Care and their National Manager for Quality Care. However, the Committee seemed to be in a state of flux due to the closing of the triennium and the change over of members. As a result, only one short response from a Committee Member was received:

‘This is a stunning document. It certainly builds on the role of the community pharmacist. In a time of major medical workforce shortage, there are some population level advantages in having other health care providers involved. However, some of the suggestions are not feasible at this time eg pharmacist prescribing. Who will pay if pharmacists start doing tests (? The patient) I think they have a major role in providing appropriate information regarding risk factors and especially in assisting with compliance. I am unsure about the issue of clinical guidelines as this role is currently fulfilled by NPS.’

10.1.3 National Stroke Foundation

The National Stroke Foundation was also supportive of the priority areas making up the draft Model. Their full response is reproduced below (Figure 56).
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9
2. Continuum of care: transfer of medication-related information between hospital and community, follow-up of patients post-discharge to identify and remedy any drug-related problems.

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</table>

5. Medication management and reviews: promoting evidence-based drug therapy of cardiovascular disease and preventing drug-related problems e.g. through Home Medicines Review scheme

<table>
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</table>

Figure 56 The response from the National Stroke Foundation, providing feedback on the draft Model
## 10.1.4 Heart Support

Heart Support - a national, volunteer, not-for-profit support organisation providing support, information and encouragement for people with a heart condition and their families (www.http://www.heartnet.org.au/) - was also in agreement with the priority areas making up the draft Model. Their full response is reproduced below (Figure 57).

<table>
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<tr>
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<th>a) Important</th>
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Please ensure you have placed a number in **EVERY** box on the preceding two pages. We would be grateful if you would **provide further comments** and details for any activity/issue where you have indicated a score of **6 or less** in the space below.

4. C P’s should only be involved in promotion of exercise groups.

13. Whether incidence of CVD event in shopping centres warrants such expense is doubtful.

23. Medical profession would not allow this, although such a scheme has merit.
2. Continuum of care: transfer of medication-related information between hospital and community, follow-up of patients post-discharge to identify and remedy any drug-related problems.

3. High-risk patients: referral for screening and risk-assessment (must be based on absolute risk assessment); may be a role for pharmacy-based risk factor screening and referral

4. Compliance with therapy: promoting patient compliance with drugs, diet, exercise

5. Medication management and reviews: promoting evidence-based drug therapy of cardiovascular disease and preventing drug-related problems e.g. through Home Medicines Review scheme
Responses were not received from the following stakeholder organisations within twelve weeks of the initial request for feedback, despite follow-up emails and telephone calls.

- Consumers Health Forum;
- Australian Medical Association;
- Australian Divisions of General Practice (although represented on the EAG and feedback was provided through the Guild); and
- Cardiac Society of Australia and New Zealand.
11. Conclusions

There is good evidence that community pharmacists are well placed to help patients who have, or who are at risk, of CVD.\(^7\)

Currently, some community pharmacists do undertake health promotion and screening activities related to CVD, but generally these involvements are limited in nature and the details of the specific activities undertaken are not often recorded. Unfortunately, as has been noted many times previously, the pharmacy profession as a whole does not generally document or publish its actual activities to enable the public, other health professionals and governments to appreciate the extent of pharmacy practice in Australia. Even in this Project, relatively little information was forthcoming from pharmacists themselves on activities currently being performed in the cardiovascular area.

There was also only limited feedback from key stakeholder groups on how pharmacists could contribute to alleviating the enormous societal burden of CVD. It could be argued that, within limits, the pharmacy profession should be the master of its own destiny and not be too concerned about the views of other professions, as long as services are directed at benefiting society as a whole and are faultless in their delivery.

The Project Team undertook a systematic review of published studies describing community pharmacy-based CVD programs. Medline, Embase, International Pharmaceutical Abstracts and the Cochrane Library were searched electronically for published literature on this topic. A relatively small proportion of the sourced literature was suitable for systematic review (i.e. for the assessment of the quality of the published studies). In general, the quality of these studies was poor, with only a small number of high quality randomised controlled trials evaluating the effect of community pharmacy’s involvement in CVD prevention and management.

At present, the role of community pharmacists in the prevention and management of CVD in this country and overseas can be essentially described in the same manner as the results of the 2000 Cochrane Database Systematic Review of pharmacists’ role expansion - there are relatively few studies, with doubtful generalisability as they have poorly defined interventions, cost assessments and patient outcome data. More rigorous research is needed.\(^{399}\) The pharmacy profession in Australia needs to urgently produce high quality studies of community pharmacists’ expanded role in CVD.
There is a large unmet need in Australia to perform scientifically rigorous trials of the management of CVD by community pharmacists in collaboration with general practitioners. Ideally, we will see studies in Australia like those of Bogden et al. and Borenstein et al. (see below), which demonstrated the value of close collaboration between pharmacists and medical practitioners. However, these studies were performed in settings where these health professionals physically work together – an uncommon scenario in the Australian community setting at present.


**OBJECTIVE:** To assess the effect of a program that encourages teamwork between physicians and pharmacists on attempts to lower total cholesterol levels and to meet recommended goals proposed by the National Cholesterol Education Program (NCEP). **DESIGN:** A single-blind, randomized, controlled trial lasting 6 months. **SETTING:** An ambulatory primary care center. **PATIENTS:** A sample of 94 patients with total cholesterol levels of 240 mg/dL (6.2 mmol/L) or higher. **INTERVENTION:** Equal numbers of patients were randomly assigned to a control arm in which standard medical care was received and an intervention arm which implemented close interaction between physicians and pharmacists. **MEASUREMENTS AND MAIN RESULTS:** Absolute change in total cholesterol levels from baseline values and the percentage of patients who achieved an NCEP goal after 6 months of intervention were determined. The rate of success in achieving NCEP goals in the intervention arm was double the rate in the control arm (43% vs 21%, P <.05). Total cholesterol levels in the intervention arm declined 44 +/- 47 mg/dL (1.1 +/- 1.2 mmol/L) versus 13 +/- 51 mg/dL (0.3 +/- 1.3 mmol/L) in the control arm (p <.01). The effect of intervention on reducing total cholesterol levels was similar for men and women and did not appear to be altered by age. The effect of intervention was greatest in patients with coronary heart disease (p <.01) followed by those without disease but with two or more coronary heart disease risk factors (p <.05). An effect of intervention was absent in patients without coronary heart disease and with fewer than two risk factors. **CONCLUSIONS:** Attempts to lower total cholesterol levels and achieve NCEP goals are likely to be more successful when combined with programs that include teamwork between physicians and pharmacists. Some programs, however, may be more successful for high-risk patients, for whom it is often easier to provide more aggressive therapies. Although altering adverse lipid profiles in lower-risk patients may be difficult, achieving optimal cholesterol levels could have an important impact on preventing movement to higher risk strata.


**OBJECTIVE:** To compare the effectiveness of an evidence-based, systematic approach to hypertension care involving comanagement of patients by primary care physicians and clinical pharmacists versus usual care in reducing blood pressure in patients with uncontrolled hypertension. **METHODS:** Patients in a staff model medical group with uncontrolled hypertension were randomized to either a usual care (UC) or a physician-pharmacist comanagement (PPCM) group. All physicians in the study received both group and individual education and participated in the development of an evidence-based hypertension treatment algorithm. Physicians were then given the names of their patients whose medical records documented elevated blood pressures (defined as systolic > or = 140 mm Hg and/or diastolic > or = 90 mm Hg for patients aged < 65 yrs, and systolic > or = 160 mm Hg and/or diastolic > or = 90 mm Hg for those aged > or = 65 yrs). Patients randomized to the UC group were managed by primary care physicians alone. Those randomized to the PPCM group were comanaged by their primary care physician and a clinical pharmacist, who provided patient education, made treatment recommendations, and provided follow-up. Blood pressure measurements,
antihypertensive drugs, and visit costs/patient were obtained from medical records. RESULTS: One hundred ninety-seven patients with uncontrolled hypertension participated in the study. Both PPCM and UC groups experienced significant reductions in blood pressure (systolic -22 and -11 mm Hg, respectively, p < 0.01; diastolic -7 and -8 mm Hg, respectively, p < 0.01). The reduction in systolic blood pressure was greater in the PPCM group after adjusting for differences in baseline blood pressure between the groups (p < 0.01). More patients achieved blood pressure control in the PPCM than in the UC group (60% vs 43%, p = 0.02). Average provider visit costs/patient were higher in the UC than the PPCM group ($195 vs $160, p = 0.02).

CONCLUSIONS: An evidence-based, systematic approach using physician-pharmacist comanagement for patients with uncontrolled hypertension resulted in improved blood pressure control and reduced average visit costs/patient.

As noted by the National Heart Foundation of Australia, the potential role of the pharmacy profession is considerable but needs to be evidence-based, and one that liaises with other health professionals involved in patient care.

Pharmacy is not alone in having a paucity of high-quality published research. This has also often been a criticism of general medical practice. However, in this context the clinical roles of general practitioners are accepted by the public and governments; the onus is on the pharmacy profession to provide tangible outcomes of its expanded clinical activities.

To inform the development of the Pharmacy Cardiovascular Health Care Model, particularly in regard to consumers’ perspectives of the current and potential roles of community pharmacists, a computer-assisted telephone survey of 505 households across Australia was conducted. The sample included a quota of 50% of interviewees with cardiovascular disease. The survey found that there was a high level of satisfaction with the quality of service provided by regularly visited pharmacies, although there also appeared to be a lack of awareness amongst consumers as to the skills and capabilities of pharmacists and of services available through pharmacies. Consumers indicated that providing advice on how to take medicines properly was the major activity in which pharmacists were most capable. The majority of respondents also agreed or strongly agreed that pharmacists are capable of providing screening or testing for hypertension and diabetes, and providing advice on lifestyle changes (weight loss, smoking, alcohol intake etc.) and information about cardiovascular diseases and their management.

A Model was developed based around priority areas in CVD and the roles community pharmacists can play, as perceived by the Project Team, based on the literature review, and an environmental scan and public survey, along with input from the EAG and stakeholder groups. There sources of guidance, along with national guidelines, have been reasonably
consistent in that the focus should be on high-risk patients, particularly with regard to improving the quality use of medicines (QUM).

Opinions were subsequently canvassed on the draft Model. Although the feedback obtained was relatively limited, it was supportive of the Model.

The Pharmacy Cardiovascular Health Care Model is based on the priority areas of improving QUM (including compliance) in patients with CVD, general health promotion related to preventing CVD, and the identification and referral of high-risk individuals for further assessment. It focuses on potential priority areas where community pharmacists could play a role, namely in:

- **Public/preventive health promotion** including:
  - health promotion to prevent development and progression of cardiovascular disease;
  - improving awareness of risk factors;
  - improving awareness of symptoms and early warning signs of acute episodes.

- **Continuum of care** including:
  - transfer of medication-related information between hospital and community;
  - follow-up of patients post-discharge to identify and remedy any drug-related problems.

- **High-risk patients** including:
  - referral for screening and risk-assessment (must be based on absolute risk assessment);
  - pharmacy-based risk factor screening and referral (may be a role).

- **Compliance with therapy** including:
  - promoting patient compliance with drugs, diet, exercise.

- **Medication management and reviews** including:
  - promoting evidence-based drug therapy of cardiovascular disease and preventing drug-related problems;
  - monitoring and educating patients e.g. through Home Medicines Review scheme.
The expanded involvement of pharmacists in improving compliance with medication, alone, would have major implications for the prevention of cardiovascular events and health resources savings nationally.

The Model will require improved clinical performance by pharmacists, greater collaboration with other health professionals and improved use of information and communications technology.

Pharmacists need to practise their skills and acquire additional training to be able to perform these expanded roles effectively. Only those with the requisite skills will be able to achieve the desired outcomes including having a positive influence on the quality of medication use in CVD. For example, in the United States, the community pharmacists participating in collaborative disease management programs with physicians have received special, comprehensive training related to the relevant diseases and their management.280

Greater cooperation between pharmacy organisations and the peak bodies associated with CVD would facilitate the acceptance and implementation of pharmacy-based services targeting CVD. Again, as noted by the National Heart Foundation of Australia, “Clearly the relationship between pharmacy and the National Heart Foundation of Australia is a key one that can support a potential change in pharmacy practice, a change endorsed by the peak body representing this health priority”. One example of where support would be of assistance would be in the greater promotion of the Home Medicines Review scheme, which represents a unique opportunity in Australia to optimise drug use in CVD and improved medication safety following hospitalisation of patients with CVD. The National Heart Foundation of Australia’s endorsement of this scheme and its promotion to the medical profession and the public would help achieve this goal. A Home Medicines Review for all patients discharged from hospital with an acute cardiovascular event would be an ideal mechanism, in the right environment, to provide education in regard to medicines and more general aspects of the secondary prevention of CVD.

Similarly, greater collaboration between the pharmacy organisations and the National Prescribing Service is critical for the profession and for society in improving QUM. This is particularly relevant in areas such as CVD, where the NPS has recently released a Prescribing Practice Review on the need for multiple drug therapy in patients with CVD.
Other areas where pharmacists are likely to have a major positive influence are in the screening and/or monitoring of patients with CVD when directed at improving the outcome of drug therapy (e.g. blood pressure monitoring; INR monitoring with warfarin). Given the increasing usage of warfarin for chronic atrial fibrillation, coupled with the availability of accurate, portable and relatively inexpensive monitoring devices, there is an opportunity to improving the management of therapy with warfarin by developing the role of the pharmacists in the area. The Project’s research has clearly shown that education and INR monitoring of patients by appropriately trained pharmacists improves clinical outcomes and, when implemented in a collaborative model, is welcomed by patients and general practitioners. This should be a role developed by accredited pharmacists who have completed advanced training in anticoagulation management.
12. Recommendations

The Project Team recommends the following.

1. The Pharmacy Guild of Australia and other relevant organisations (e.g. Pharmaceutical Society of Australia) progress the proposed framework, as detailed in this Project, prior to a wider implementation.

2. The Pharmacy Guild of Australia and the Pharmaceutical Society of Australia form closer links with the key national organisations related to cardiovascular disease, especially the National Heart Foundation of Australia and the National Stroke Foundation, as well as the National Prescribing Service.

3. There be an ongoing improvement in communication between community pharmacists and general practitioners and their respective organisations, and reinforcement of the fact that the Pharmacy Cardiovascular Health Care Model and related programs are intended to assist in improving the health of Australians and not as a threat to the medical profession.

4. Comprehensive training packages for pharmacists and pharmacy assistants on cardiovascular disease prevention and management be developed and disseminated.

5. There be increased promotion of the Home Medicines Review scheme in patients with cardiovascular disease, particularly in collaboration with the National Heart Foundation of Australia and the National Prescribing Service, as a key component of the Pharmacy Cardiovascular Health Care Model.

6. Pharmacy-based cardiovascular disease screening programs be specifically targeted at those individuals likely to be at elevated risk of cardiovascular disease and incorporate absolute risk assessment and close liaison with general practitioners. Further, only pharmacists with appropriate training and demonstrated competence should perform cardiovascular disease risk factor assessments. More research needs to be conducted on the clinical and economic outcomes of community pharmacy cardiovascular disease screening programs before they are widely implemented.

7. There be further development of information technology-based strategies (e.g. prompts within dispensing software) to encourage pharmacists to intervene and investigate possible instances of under-use of important cardiovascular agents, such as aspirin and β-blockers. The vast pool of electronic data at community pharmacists’ fingertips must be utilised to greater effect.
8. The role of accredited pharmacists in improving the management of therapy with warfarin be further developed and evaluated, given the promising results to date. This includes the need for further research to be conducted on the impact of pharmacist-conducted INR monitoring on patient care and outcomes. Subsequently, the profession should develop training courses and an accreditation process for consultant pharmacists to perform monitoring of warfarin therapy, in collaboration with general practitioners.

“Pharmacists could be better used to help all patients who are taking long term medication.”

Petty D. Drugs and professional interactions: the modern day pharmacist. Heart 2003; 89 (Suppl 2): 31-2
13. References

REFERENCES


7. Petty D. Drugs and professional interactions: the modern day pharmacist. Heart 2003;89 Suppl 2:i31-2; discussion i35-7.


18. National Heart Foundation of Australia & Cardiac Society of Australia and New Zealand. Reducing Risk in Heart Disease 2004. Guidelines for preventing cardiovascular events in people with...
coronary heart disease.


64. Maguire T. Pharmacy smoking cessation services: let's get our act together. Pharm J 2000;265:442.
65. Kelly B, Backgrounder. The year that was in smoking cessation. Aust Pharm 2002;20:560.


142. Peterson GM. The future is now: the importance of medication review. Aust Pharm 2002;21:268-75.

143. Peterson GM, Naunton M. Simple measures to assist with drug therapy can produce large benefits for elderly patients. Aust Pharm 2002;21(370-3).


146. Peterson GM. The drugs could be ok, but don't forget problems with dosage forms in the elderly. Aust Pharm 2003;22:212-5.


