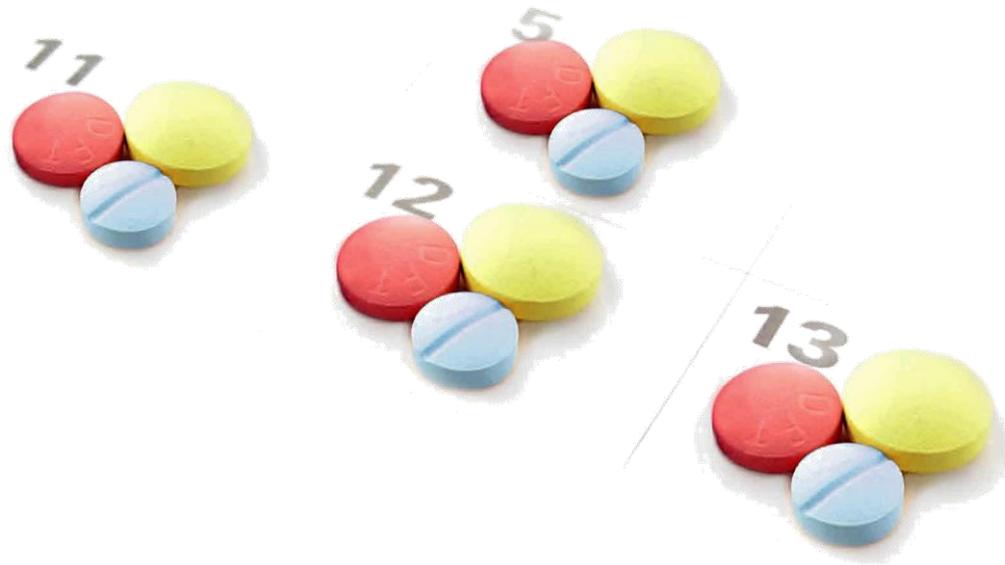




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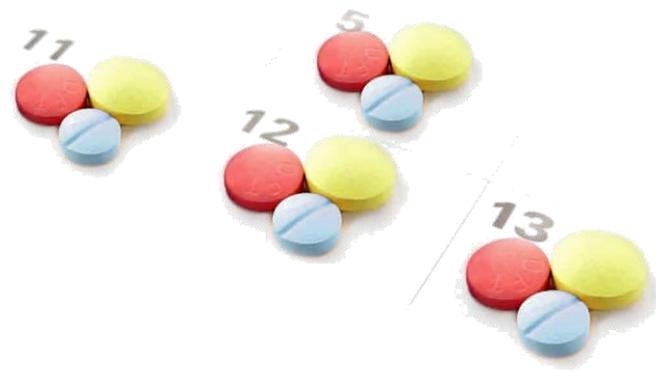


# MedsIndex

## Microsoft Excel MedsIndex File Example Explained

The following explanation refers to the Microsoft Excel File (Excel) patient case study (Stanley Smith).

This explanation will give you an understating of how to use the Excel version of the *MedsIndex* Score Calculator (note manual calculator [28 and 30 days pack supply only] and pharmacy dispense software are also options available to calculate the *MedsIndex* score).



## Format

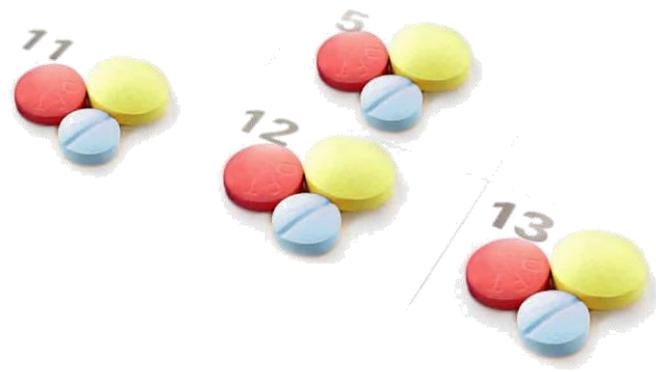
The first page on the file (Instructions) gives a quick stepped guide to using the spreadsheet. This explanation you are reading is more detailed than the information contained on this Excel page. The spreadsheet is designed in such a way that a pharmacist/ assistant need only fill in the blue sections. The 'Quantity per script' and 'Total daily dose' fields are drop-down selection menus. This is required of the system because formulas are calculated from this basis. In addition, the date fields need to be in the following date format: dd/mm/yyyy. This is important as calculations are made based on the correct date. Other fields are 'protected' which means data cannot be changed or added.

'PRN' medicines are not suitable for inclusion. If doses have changed for the medicines then a separate medicines Excel sheet / field needs to be completed.

## The following is a brief explanation of how to complete fields:

### Date

Insert the date of the MedsIndex Score review in the date format dd/mm/yyyy. You will note that date gets transferred to other sheets. This is useful when documents are being saved as it envisaged that patients will have their MedsIndex score regularly calculated.



## Patient Name

Only the first page needs to be completed with the patient's name as the data is transferred to all other medicines pages as well as the summary page.

## Medicine Name

When completing this field pharmacists are asked to include both the brand name and the generic drug name of the medicine in brackets and in capitals. For example, Seretide Accuhaler (FLUTICASONE/SALMETEROL)

## Medicine Strength

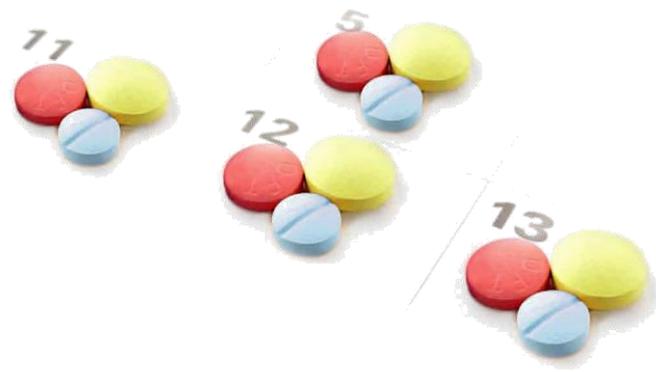
Complete the medicine strength including both ingredients if the medicine is a combination therapy. For example 250/50.

## Quantity per Script

This field is a drop down menu field. In the Excel example, Medicine 2 is Seretide Accuhaler which has 60 doses, so 60 is picked from the drop down menu. Whilst the drop down menu is in place for convenience, the user can also enter the quantity by typing in the value manually.

## Total Daily Dose

This field is a drop down menu field. It includes up to 10 divided doses in one day. A dose is defined as a single unit measurement. For example if the regimen was two tablets twice daily, the daily does equal 4 tablets – 4 would be selected from the drop-down menu. In the excel example, Medicine 2 Seretide Accuhaler, the prescribed dose is 1 bd so the daily does equal 2 and 2 would be selected from the drop-down box menu.



## Rx

This field is a text field, where the pharmacist can type in the patient's dosing instructions. This field is not linked to a mathematical formula. Completing this is for the patient's benefit.

## Days Usage per Script

A formula automatically calculates the day's usage per prescription by dividing the "Quantity per "Script" by "Total daily dose".

## Original Script and Subsequent Repeats

In the original script field it is important to insert the date of the first supply and not the date of the prescription being written (this was a common problem in the trial group).

As the pharmacist enters the first repeat dispensing date a number of fields become populated. Firstly, the number of days between the original date of dispensing (Original Script (5/0)) and the entered dispensing date is calculated – displayed as "Number of days since script first supplied".

The next column to the right independently calculates the number of doses required to comply with the prescribed dosing regimen. This is based upon the multiplication of the "Days usage per script" by the Repeat number. For example, Medicine 3 Avapro, has a box of 30. The "Quantity of medicine needed to comply with Dr's Script" for each repeat will be Repeat 1 =  $1 \times 30 = 30$ , Repeat 2 =  $2 \times 30 = 60$ , Repeat 3 =  $3 \times 30 = 90$  and so forth.

The column entitled "Possible missed doses based on previous dispense" calculates the number of doses that could have been missed in the interval from the last dispensing date. The value is garnered by firstly calculating the days between the current dispensing date and the previous dispensing date. The "Days usage per script" is then subtracted from this value and the answer is then multiplied by the "Total daily dosage".



For Medicine 1 Seretide Accuhaler, the first repeat interval (5/0 → 5/1) has a distance of 45 days since the previous dispensing. The “Days usage per script” is 30, and when subtracted as per the above formula, leaves a value of 15 day. In essence, this is 15 days of not taking the prescribed dose. Multiplying the 15 days by the “Total daily dosage” presents a value of 30 possible missed doses. Please note that here, a missed dose is seen as a single unit of measurement e.g. 1 puff.

Using the data points mentioned above, a previous dispense to current dispense compliance score is calculated by dividing the “Days usage per script” by the current dispensing interval (in days) and multiplying by 100 to produce a relevant score for the patient. For Medicine 1 Seretide Accuhaler, the dispense interval to Repeat 1 (5/1) is 45 days. “Days usage per script” (30 days) divided by 45 days =  $0.67 \times 100 = 67$  (Please note that all calculations are set to 2 significant figures).

The next column “Guild MedsIndex Original Dispense-to-Month Compliance Score” calculates the patient’s MedsIndex score based upon the long term calculation of the division of “Quantity of medicine needed to comply with Dr’s script” by “Number of days since script first supplied”. The Guild MedsIndex differs from the monthly compliance score as it provides a weighted longer term score on compliance.

Next to the MedsIndex Score, an Original dispense-to-month compliance box is colour coded to represent the patient’s compliance band. There are four key bands:

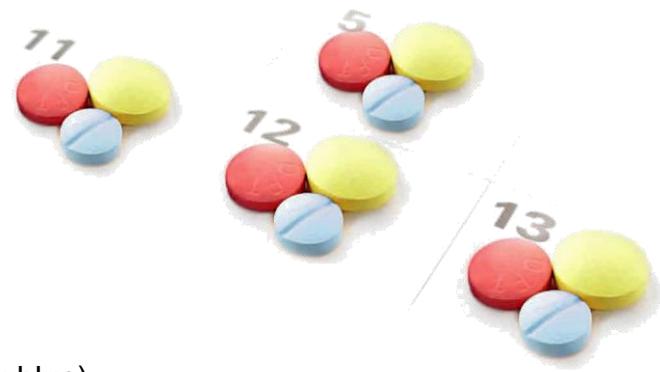
‘Time to act to improve your compliance’

– MedsIndex score lower than 70 (red)

‘Your pharmacist can help you to improve your compliance’

– MedsIndex score lower than 80 (light blue)

‘Room for improvement’



– MedsIndex score lower than 90 (navy blue)

‘Optimum result’

– MedsIndex score greater than or equal to 90 (dark blue)

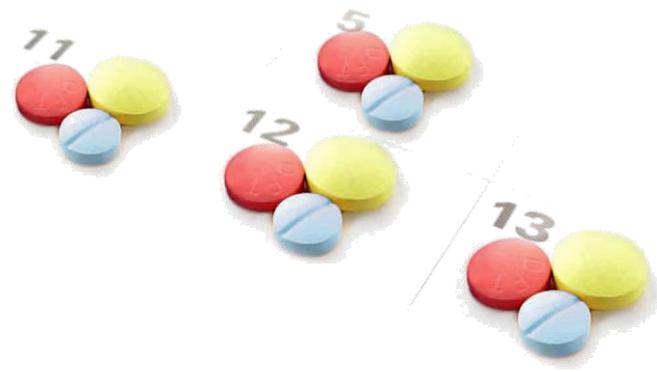
The Excel example indicates a compliance of 75 for Seretide Accuhaler in the first sheet - Calculator Med 1 Sheet. This value of 75 is an average score for the patient’s monthly MedsIndex Scores. It provides the pharmacist and the patient with a long term quantitative value for the patient’s medicine taking and when referenced against the graph, a qualitative measure of what the score indicates.

If the prescription history of the same medicine, at the same dose, is available for two prescription supplies (Original plus 5 repeats) then it is recommended to include the second prescription. The oldest prescription should be listed at the top. The Zocor example (Medicine 4) is one such example.

Some patients run two prescriptions at once. In this instance it is important to complete the dispensed prescriptions in date order.

## Missed Supplies

In “Calculator Med 3” Avapro there is a field missing and this represents a supply that was filled at another pharmacy. Supplies filled at other pharmacies for the purpose of the Excel spreadsheet are not to be filled in, unless the pharmacist can be certain of that date of dispensing. An overall Guild MedsIndex score is still calculated and gives a useful indication to the patient because the overall MedsIndex score is an average of the month to month scores and as mentioned above is based upon the long term calculation from the date of original supply to the date of dispensing. The approximate total missed doses however become irrelevant as a total score is unable to be calculated. This issue needs to be explained to patients.



## Summary

The summary page gives a visual indication of medicines compliance with up to 6 medicines. For the pharmacist, one can expect that compliance rates will differ for different medicines and medication formats. The higher the number of divided doses, research indicates the lower the compliance that is expected. Pharmacists are asked to complete the pharmacist's comments field on each and every occasion that a report is generated. This comments field should list action items which are to be discussed with the patient.

If a patient has shown improvement in their compliance since their last report it is vital to give both verbal and written encouragement. The report may recommend the patient consider a number of professional pharmacy programs which can assist to achieve better compliance.