

# Medication Reconciliation

## Aim

All discharge summaries received will be reviewed with both medication reconciled and actions completed within seven working days

## Background

It is well recognised in the literature that points of transition – admission, transfer and discharge are times of risk for medication errors. The Institute of Medicine reports that more than 40% of medication errors result from inadequate reconciliation in handovers during admission, transfer and discharge of patients, of which 20% were believed to result in harm. Patients with one or more medicines missing from their discharge information are 2-3 times more likely to be readmitted to hospital than those with correct information on discharge.

*“Medicines reconciliation is the process of collecting, comparing, and communicating the ‘most accurate’ list of medicines that a patient is taking, together with details of any allergies and/or adverse drug reactions (ADRs), with the outcome of providing correct medicines for a given time period”*

## Instructions

1. Identify patients for whom an EDS has been received in the previous three months. A query has been developed for MedTech and My Practice PMSs to assist with this, which are available online
2. Change the dates as appropriate
3. If running this query does not generate a sample that allows you to assess your medication reconciliation process (e.g. most discharge summaries are from the emergency department or for children and requiring minimal change to medications), consider re-running query for:
  - a. Patients >65 years
  - b. Identify discharges from General Medical services
  - c. Patients > 80 years
  - d. Include clinic letters

4. From the identified list, randomly select a sample of 10 patients using a criteria to identify patients who are more likely to have had a medication change while in hospital such as those who:
  - a. Had been admitted acutely to a General Medicine ward
  - b. Are elderly
  - c. Are on multiple medications
  - d. Have multiple comorbidities
5. Print and complete the Medication Reconciliation Audit Paper Form (included in the Medication Reconciliation audit spreadsheet)
6. Transfer the data collected to the Medication Reconciliation audit spreadsheet. Please make sure the date is entered beside each individual record. The data will automatically be collated and displayed on the run charts, which can be printed as needed
7. Save the spreadsheet
8. Email the completed spreadsheet by or on the 10th of each month (i.e. June data is due on 10 July, July data is due on 10 August).
9. The spreadsheet is to be emailed to your PHO Facilitator.

## Audit Questions

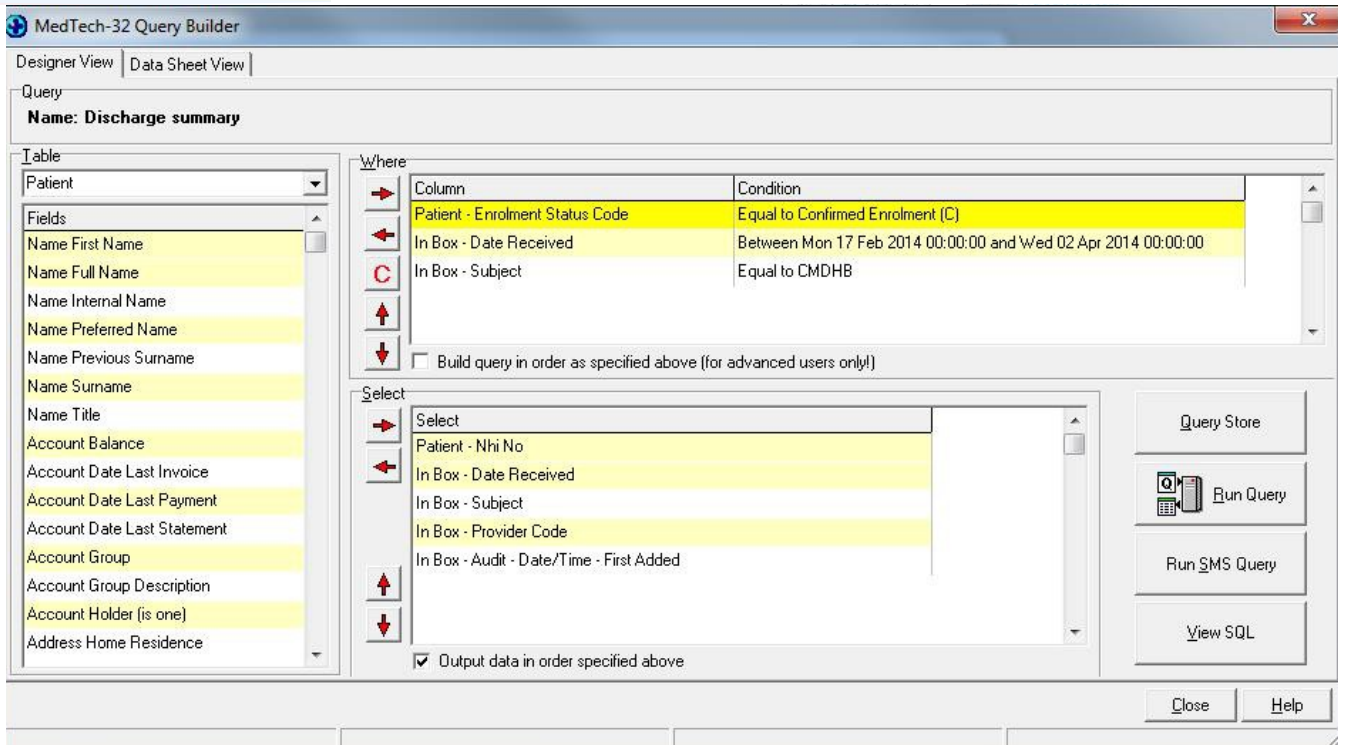
Measures	Rationale
Has medication reconciliation (as defined below) occurred within seven calendar days of the EDS being received?	<ul style="list-style-type: none"> <li>• Medicines reconciliation is defined by the Institute for Healthcare Improvement (IHI) as: “the process of obtaining an up-to-date and accurate medication list that has been compared with the most recently available information and has documented any discrepancies, changes, deletions or additions resulting in a complete list of medication accurately communicated”</li> <li>• A read code is available within the practice clinical system to identify when medicines reconciliation has occurred, practices may wish to start using this read code #8B318</li> <li>• Select YES if medicines reconciliation as defined by IHI has occurred within seven calendar days of the EDS being received by the practice</li> <li>• Select NO if Medication reconciliation has not occurred within seven calendar days of the EDS being received by the practice.</li> </ul>

<p>Has the patient's regular medication list been updated?</p>	<ul style="list-style-type: none"> <li>• There is a list of read codes available to help with recording when any changes to the patient's medications have occurred.</li> <li>• Select YES for all discharges with changes required that were documented in the patient's clinical record</li> <li>• Select NO for all discharges with changes required that were not documented in the patient's clinical record</li> <li>• Select N/A for all discharges where there are no changes to the medications.</li> </ul>
<p>Is it documented that any significant medication changes have been discussed with the patient or their representative within seven CALENDAR days of receipt?</p>	<ul style="list-style-type: none"> <li>• Using the PMS, identify if it is documented that any significant changes to the medications were discussed with the patient or their representative. Again, there is a read code available that practices may wish to use to record this, #8B3S0</li> <li>• Select YES for all discharges with changes discussed with the patient or their representative documented</li> <li>• Select NO for all discharges with changes discussed with the patient or their representative not documented</li> <li>• Select N/A for all discharges that have no changes to the medications.</li> </ul>
<p>Have all measures been met?</p>	<ul style="list-style-type: none"> <li>• If EACH of the above measures have been completed correctly so score a YES, or were not relevant to that discharge summary so had some scores of N/A, then the spread-sheet will automatically update the overall compliance to being YES</li> </ul>

## Query Build Example

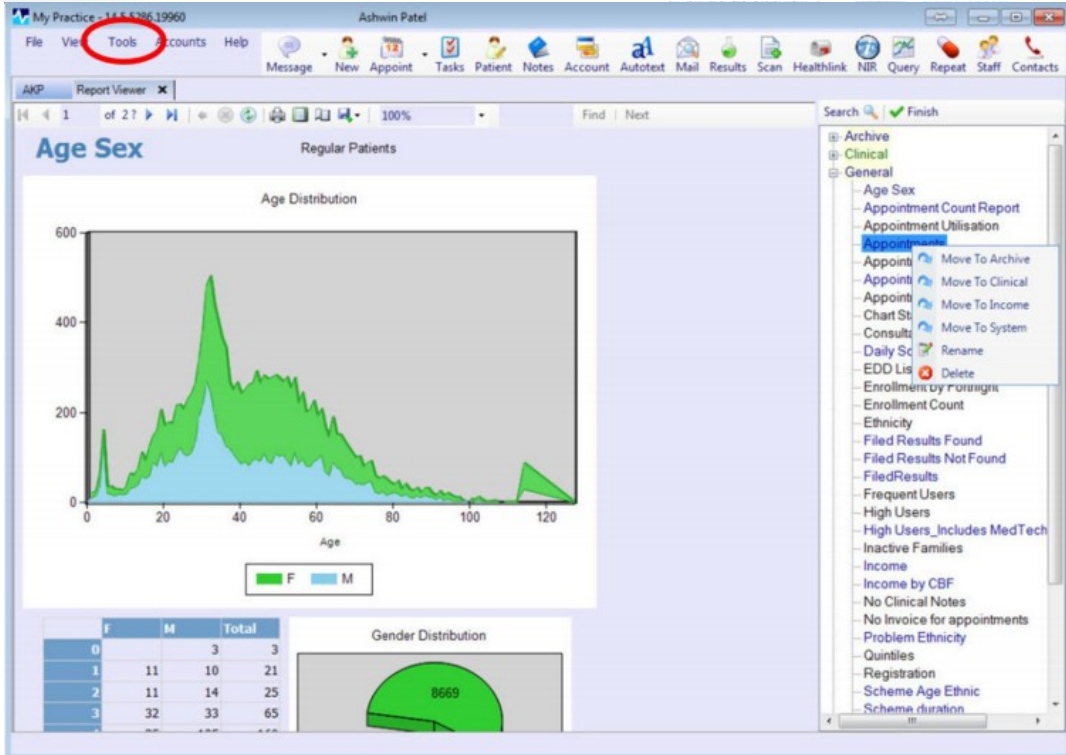
*Medtech32*

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### My Practice

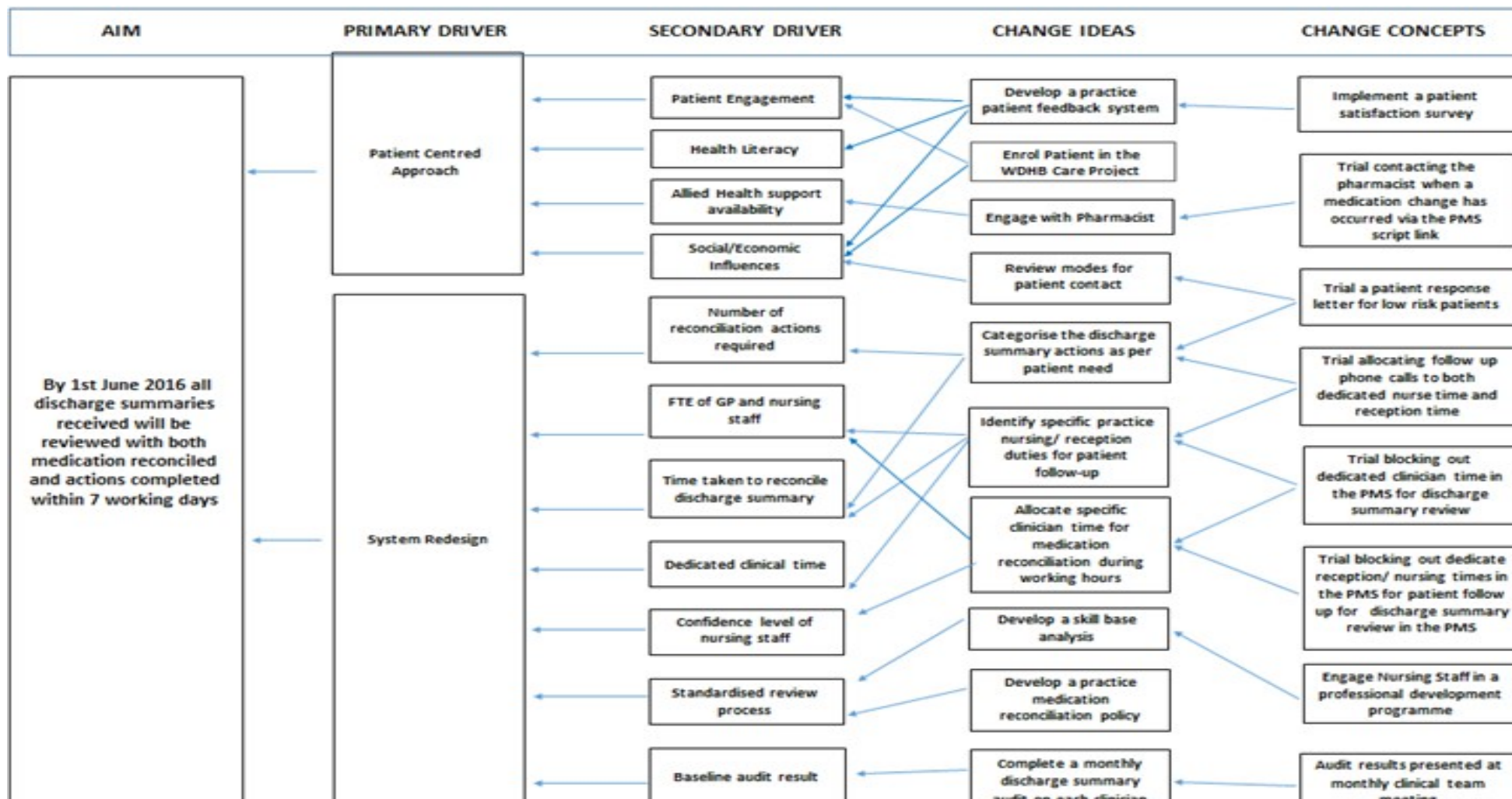
- Select Tools > Report Viewer to bring up the menu on the right hand side
- Medication Reconciliation and Results Handling are in the general folder.
- Click on a report name to run the report. You may be prompted for parameters such as date ranges. Reports may take a few seconds to minutes to run.



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**Theory of Improvement**

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## Change Ideas Tested by Previous Practices

Change Ideas Tested by Previous Practices	
<b>General</b>	<ul style="list-style-type: none"><li>• Patient satisfaction survey</li><li>• Liaise with pharmacy about medication reconciliation changes</li></ul>
<b>Clinical Processes</b>	<ul style="list-style-type: none"><li>• Block out dedicated clinician time for discharge summary review</li><li>• Up-skilling of nurses to do medication reconciliation</li><li>• Blocking out administration time for nurses to do medication reconciliation follow-up</li><li>• Administration time for nurses to do medication reconciliation follow-up</li><li>• Triaging of discharge summaries for who most appropriate person to do the medication reconciliation</li><li>• Audit medication reconciliation at monthly clinical/practice meetings</li></ul>
<b>Recording in PMS</b>	<ul style="list-style-type: none"><li>• Set up and use Medtech "Medication Status" categories to identify when new medications started, doses have been altered or medicines have been stopped (see Resources section). This function automatically records that change made in daily record and prints change onto script if printed that day</li><li>• Alternatively some practices prefer to use READ codes to identify when medication reconciliation has taken place. For example:<ul style="list-style-type: none"><li>○ #8B318 - Medicines Reconciliation</li><li>○ #8B316 - Medication Changed</li><li>○ #8B3A1 - Medication Increased</li><li>○ #8B3A2 - Medication Decreased</li><li>○ #8B313 - Medication Commenced</li><li>○ #8B3A3 - New Medication Commenced</li><li>○ #8B3R - Drug Therapy Discontinued</li><li>○ #8B396 - Treatment Stopped – alternative therapy undertaken</li><li>○ #67IM - Advice to GP to Change Patient Medication</li></ul></li></ul>



- #8B3S0 Patient has been contacted

Discussion of change with patient

- Clinician doing the reconciliation decides the most appropriate method of going over the changes with the patient (or their representative) e.g. phone the patient, get them to come in to see nurse and go over changes, get them to make doctor's appointment for review, utilise pharmacists if available to assist with this process.
- Utilise other staff members to contact the patient and set up the reviews
- Send 'low risk' patients a letter or text confirming changes.

### Benefits

- Medication reconciliation status when prescribing
- Reduced phone calls from pharmacy
- Confidence that patient's medications are being up dated better
- Less complicated follow up consultations if work is done upfront
- Nurses feel more confident when patient's call through
- Patients feedback positive
- Non-compliant patients now more compliant
- Good staff buy in to process
- Admin staff find delegating discharge summaries easier
- Using medication reconciliation status for daily prescribing also

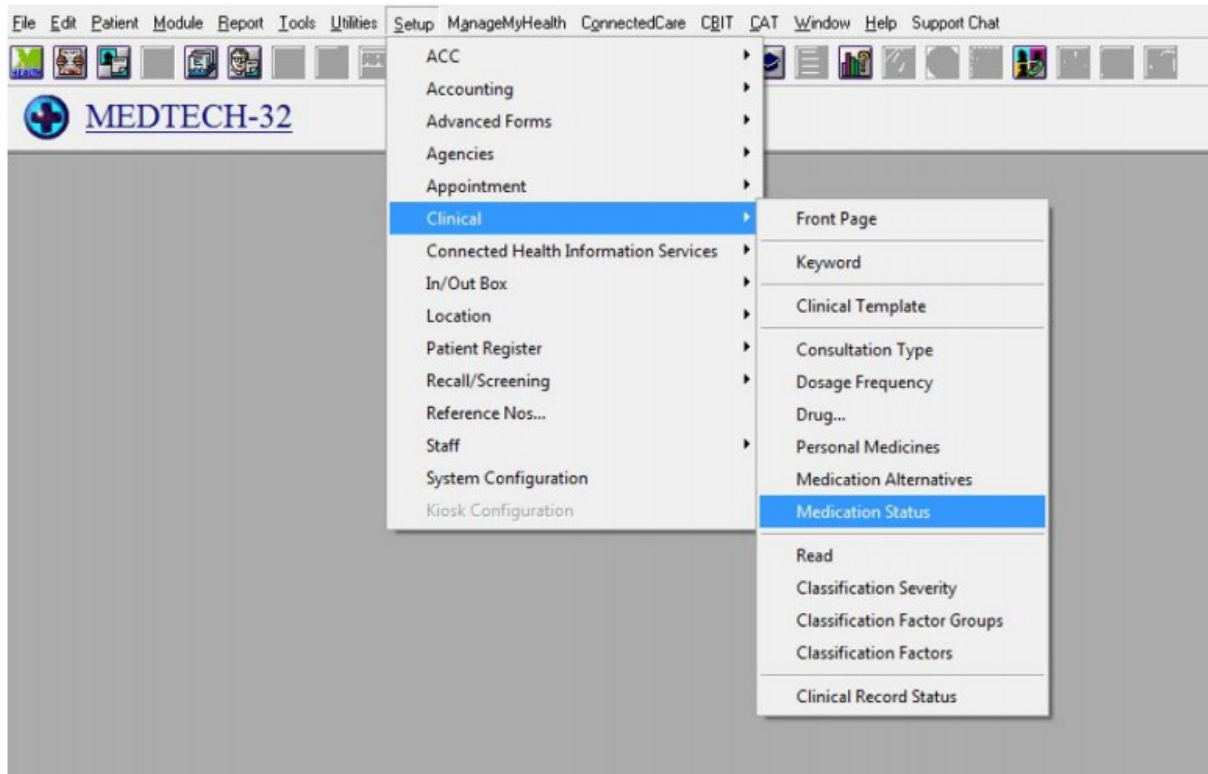
### Issues

- Time involvement – no easier way out
- Cost to practice for clinician time
- Cost to patients if they need to come in for follow up
- Discharge summaries lack clarity
- Discharge summaries can be a dump of hospital record and salient features can be missed
- Varying prescribing and discharging clinician styles
- Delay in getting summary from hospital
- Frequent reinforcement needed to effect change
- Identification of near misses
- Took time to effect change
- Defining what is a clinically significant drug change?

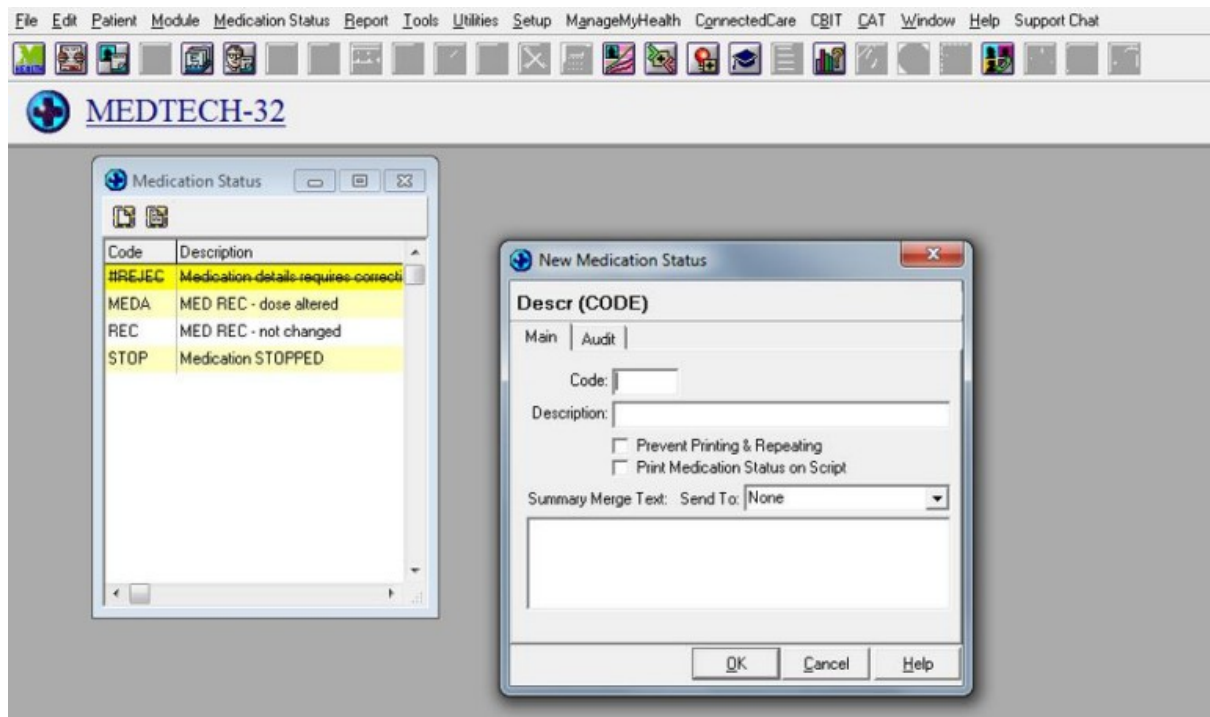
## Additional Resources

### Instructions for setting up Medication Status categories in Medtech 32

- Setup – Clinical – Medication Status



- Add new medication status click on top left hand corner



- Options can include:
  - Medications reconciled dose altered - Ticking the box Print Medication Status on script means that when this medication is printed that day it will also have a note on the actual prescription – which can be useful for the pharmacy to know.
  - Medications STOPPED - When a medication is stopped it is useful to tick the box “prevent Printing and Repeating”. If this is ticked then that medication will not be able to be printed again. If it is re-started then it will need to be re-prescribed. This helps to avoid the inadvertently repeating a medication which has been stopped. This example also provides space for identifying in the notes (see below) the reason the medication was stopped.
  - Medications reconciled not changed - This selection might be used if there are only a couple of individual medicines. If a number of medications have been reconciled but none have changed then an alternative option would be to create a Key Word which can indicate in the daily record that medications have all been reconciled that day.
  - New medication started

- In any of the above, optional text can be added automatically to the daily record by writing in the Summary Merge Text section and selecting the part of the notes (Subjective or Objective) that this will be recorded.
- Hovering over the free text area then R clicking allows insertion of the <DRUGNAME> option which automatically merges the drug that has been selected. The codes that sit BEFORE the text e.g. <b> identifies the subsequent text to be in this case written in bold. Other options can be selected from the options that show when you hover over it.
- The example outlined for medication STOPPED here has allowed space for writing in the reason for this
- Here is an example of how this might look when each option is automatically printed into the subjective section of the notes

The screenshot displays a medical software interface for a patient named 'MOUSE TEST PATIENT Mouse3'. The patient's details include 'A 1 - C', 'ABC1234', 'AC A-?', '01 Jan 1962 56 yrs', 'Unknow Maori - NZ', and '0.00 P'. The interface shows a 'Medication Status' window with a list of codes and descriptions: BREJEC (Medication details requires correct), MEDA (MED REC - dose altered), NEWM (New medication started), REC (MED REC - not changed), and STOP (Medication STOPPED). The main window shows a 'New Consultation' for 'MED REVIEW Metformin (Apotex) 500mg Tab STOPPED reason = poor renal function'. The 'Subjective' section contains the following text: 'Glucalazide 80mg Tab started today', 'Atorvastatin 40mg Tab reviewed - dose altered', and 'Aspirin 100mg Enteric coated Tab reviewed - not changed'. The 'Objective' section is empty. The 'Details' section shows a list of medications with their status: '3 mths - Metformin (Apotex) 500mg Tab - 2 po bd', '3 mths - Glucalazide 80mg Tab - 1 tab po mane', '3 mths - Atorvastatin 40mg Tab - 1 po daily', and '3 mths - Aspirin 100mg Enteric coated Tab - 1 po daily'.

## Medication Reconciliation Patient Questionnaire

### How are we doing?

Please take a few minutes to fill out this survey on the information you received about your medicines following your last hospital admission. This survey is in two parts: the first part is about when you were in hospital, and the second part is about when you came out of

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hospital. Please tick the relevant boxes and leave any additional comments in the box at the end. We value your feedback and your answers will be kept confidential. Thank you for your participation.

**Thinking about your last hospital admission:**

*Did you take your own medicines into hospital with you?*

- Yes  No  Don't know/Can't remember

If No, please explain if there were any reasons why not:

.....  
.....

*When you were going home, did you receive any information from the hospital about your medication changes?*

- Yes  No  Don't know/Can't remember

If Yes, who gave you the information?

- Hospital doctor  Nurse  Pharmacist  Other

How was this information given?

- Verbally  Written  Both

If No, would you like to have been given information?

- Yes  No

*Were you satisfied with the information from the hospital about your medication changes?*

- Yes  No  Don't know

If No, please provide details:

.....  
.....

**Thinking about when you got back home after your last hospital admission:**

*Did the doctor's surgery (GP practice) get in touch with you when you got back home from hospital?*

- Yes  No  Don't know/Can't remember

If Yes, how did they get in touch?

- By phone  By letter  Saw me at the surgery  Saw me at home

Don't know/Can't remember

*Did the doctor or staff at the surgery spend enough time explaining about your medication and any changes?*

Yes, definitely       Yes, to some extent       No       Don't know/Can't remember

If Yes, did you find this useful?

Yes, definitely       Yes, to some extent       No       Don't know/Can't remember

If No, would you have found this useful?

Yes, definitely       Yes, to some extent       No       Don't know/Can't remember

*Do you feel you fully understand how to take all your medicines?*

Yes    No       Don't know

**General Questions:**

*Who would you prefer to discuss any changes to your medication with if you have been in hospital?*

Hospital staff       Doctor's Surgery staff  
 Community Pharmacy (Chemist) staff    Don't know

**Additional Feedback or Comments**

Please leave any comments here

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**Resources**

1. Health Quality & Safety Commission, 2010. Medicine Reconciliation Standards, Version 3. Wellington: Health Quality & Safety Commission. Available at: [www.hqsc.govt.nz/assets/Medication-Safety/Med-RecPR/Medication\\_Rec\\_Standard\\_v3.pdf](http://www.hqsc.govt.nz/assets/Medication-Safety/Med-RecPR/Medication_Rec_Standard_v3.pdf)
2. Ministry of Health, 2015. Implementing Medicines New Zealand 2015-2020. Wellington: Ministry of Health. ISBN-978-0-478-44826-9. Available at: <https://www.psnz.org.nz/Folder?>

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Action=View%20File&Folder\_id=86&File=ImplementingMedicinesNZ2015to2020June2015.pdf

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4. Sullivan C, Gleason KM, Rooney D, et al, 2005. Medication reconciliation in the acute care setting: opportunity and challenge for nursing. *Journal of Nursing Care Quality*, 20:95-98
5. Aspden P, Wolcott J, Bootman JL, Cronenwett LR, 2007. *Identifying and Preventing Medication Errors*, eds. Washington, DC: The National Academies Press.
6. Stowasser DA, Stowasser M, Collins DM, 2002. A randomised controlled trial of medication liaison services – acceptance and use by health professional. *Journal of Pharmacy Practice and Research* 32: 133-40
7. Institute of Health Improvement. 2017. Medication reconciliation to prevent adverse drug events. Available at: <http://www.ihl.org/Topics?ADEsMedicationReconciliation/Pages/default.aspx>
8. Waitemata and Auckland District Health Boards, 2017. 2017/18 Annual Plan. Available at: <http://www.waitemataadhb.govt.nz/dhb-planning/organisation-wide-planning/annual-plan/>
9. Ministry of Health, 2016. Health and Independence Report. Available at: <https://www.health.govt.nz/publication/health-and-independence-report-2016>