



**MATCH UP Medicines  
Medication Reconciliation Resources  
National Medication Management Plan and  
support materials**

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# Overview

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- What is medication reconciliation
- Safe practice recommendations
- Medication Reconciliation Toolkit
- National Medication Management Plan
- Training materials and other resources

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# What is Medication Reconciliation

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A process for obtaining and documenting a **complete** and **accurate** list of a patient's **current medicines** upon admission and **comparing** this list to the prescriber's **admission, transfer and/or discharge orders** to **identify** and **resolve** discrepancies.

Santell JP Jt Comm J Qual Patient Safety 2006

# What is Medication Reconciliation

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A formal, systematic process

Healthcare professionals partner with patients to ensure accurate and complete medication information transfer at interfaces of care

Designed to prevent potential medication errors and adverse drug events

# Purpose of Medication Reconciliation

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## Reduce preventable errors

- Unintentional discrepancies  
e.g. eye drops for glaucoma omitted as medication history incomplete
- Undocumented intentional discrepancies  
e.g. antihypertensive ceased on admission intention to restart not documented

Patients receive medicines as intended

# The Medication Reconciliation Process

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## Four key steps

1. Obtain and document best possible medication history
2. Confirm medication history
3. Reconcile history with prescribed medicines and follow up discrepancies
4. Supply accurate information when care transferred

# Effective medication reconciliation

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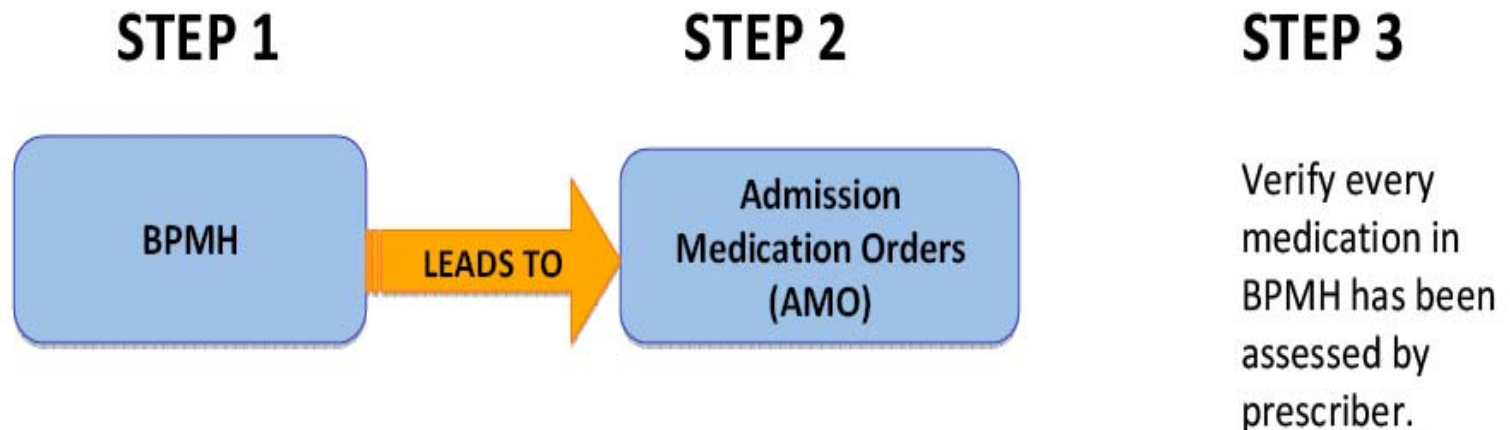


- To be successful needs to be built into the process of care – not added to it:
  - e.g. replace multiple histories with one that is used throughout episode of care
- **Integrate** steps into existing processes:
  - Patient flow, medication management system
- Best conducted in environment of shared accountability
- Multiple approaches
  - Models will differ from hospital to hospital, team to team

# Proactive Model



Occurs when the BPMH is conducted before admission medication orders



1. Create the BPMH
2. Using the BPMH, admission medication orders (AMOs) are written by the prescriber
3. Verify that the prescriber has assessed every medication on the BPMH, identifying and resolving any outstanding discrepancies with the prescriber

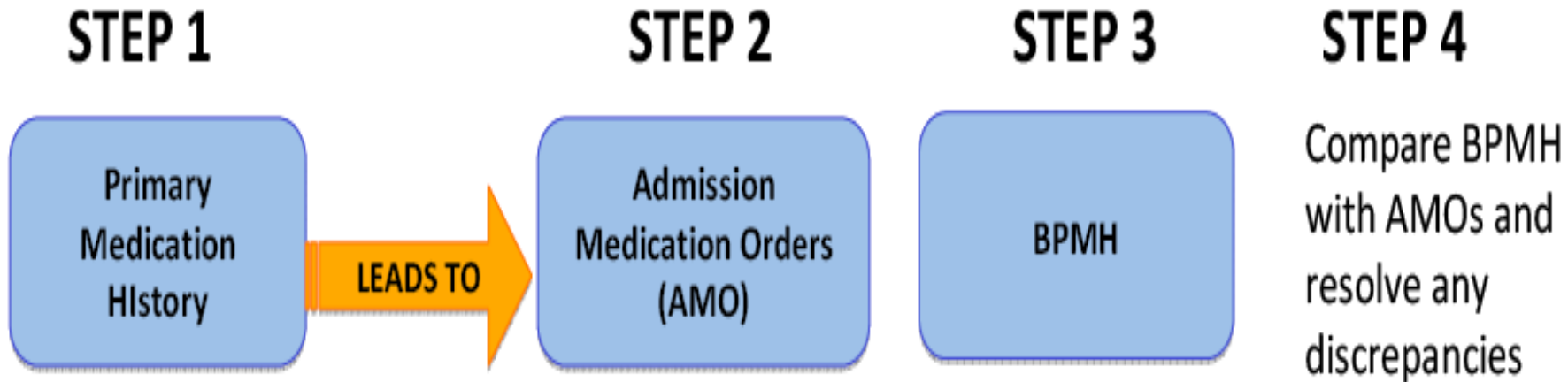
Source: High 5s Medication Reconciliation Getting Started Kit 2010



# Retroactive Model



- Occurs when the BPMH along with formal admission reconciliation occurs after admission medication orders are written



1. Primary medication history is taken
2. AMOs are written by prescriber
3. Create the BPMH
4. Compare the BPMH against the patient's AMOs, identify and resolve discrepancies

Source: High 5s Medication Reconciliation Getting Started Kit 2010

# Safe practice recommendations

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1. Develop a formal and **systematic** approach to reconciling patient medicines across the continuum
  - Multidisciplinary, reps from key depts (ED, ICU, pre-admission, med/surg units, pharmacy, Q&S unit)
2. Create **P&Ps** that outline roles, tasks in each step in the process
3. Adopt a **standardised form** for collecting pre-admission medicines list and reconciling medicines
  - Place in consistent, highly visible location with patient's chart - easily accessible when medicines are ordered
  - Electronic and paper

Massachusetts Coalition for prevention of medical errors

<http://www.macoalition.org/initiatives.shtml>

# Safe practice recommendations

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4. Assign **responsibility** for obtaining **BPMH** to someone with sufficient expertise
  - Shared accountability (MO, nurse and pharmacist work together)
5. Assign **responsibility** for resolving **variances** to someone with sufficient expertise
6. Establish **specific time frames** within which medicines should be reconciled
  - < 24 hours, within 4 hours for high risk medicines

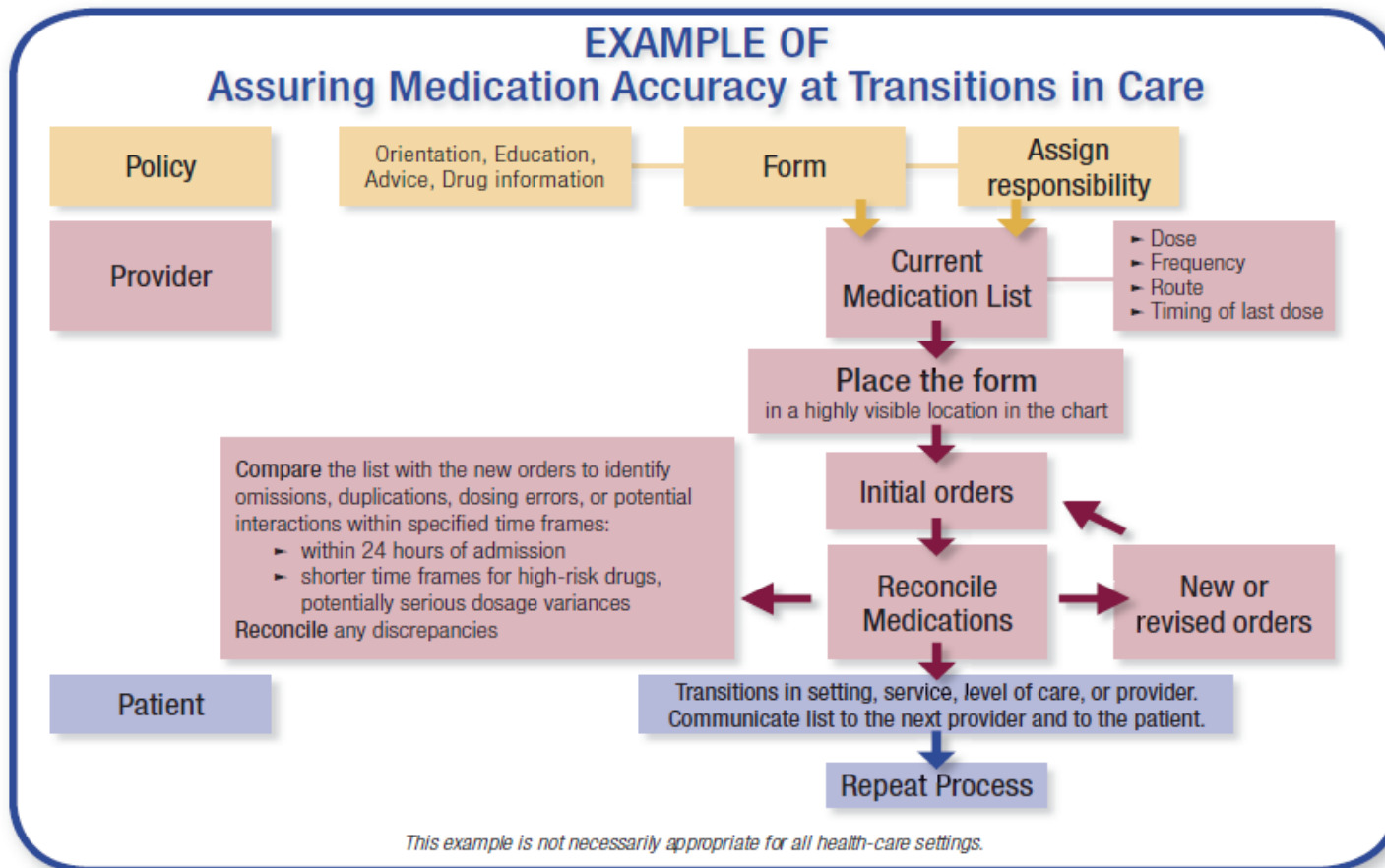
# Safe practice recommendations

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7. Provide clinicians ready **access to drug information** and a **pharmacist consult** when needed
8. **Improve access** to complete medicines lists at admission
9. Provide **orientation** and ongoing **training** to all health professionals
10. **Monitor** performance and provide **feedback**

# WHO Patient Safety Solution 6



# Medication reconciliation toolkit

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# Medication reconciliation toolkit

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- Initial focus on the admission process
  - In line with High 5s medication reconciliation project
  - If medication history on admission incorrect errors flows through to discharge
  - 49% of prescribing reconciliation failures occur at admission \*
  - Other Commission work occurring on discharge process

\* Santell JP Jt Comm J Qual Pt Safety 2006

# Medication reconciliation toolkit

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## Toolkit contents

- Educational materials
  - Medication reconciliation
- National Medication Management Plan (MMP)
- MMP training material
- Admission history training resource
- Other support material
- New tools on order





**WATCH**

**UP medicines**  
Medication reconciliation prevents harm.

AUSTRALIAN COMMISSION ON  
SAFETY AND QUALITY IN HEALTHCARE

  
matching medicines at transitions of care

# MATCH UP medicines



- Poster
- Brochure
- Powerpoint template
- Customise with hospital logo

**MATCH UP medicines**

**Medication reconciliation prevents harm.**  
**Why? Because up to two thirds of medication histories have errors, and a third of these errors can cause harm.<sup>1,2</sup>**

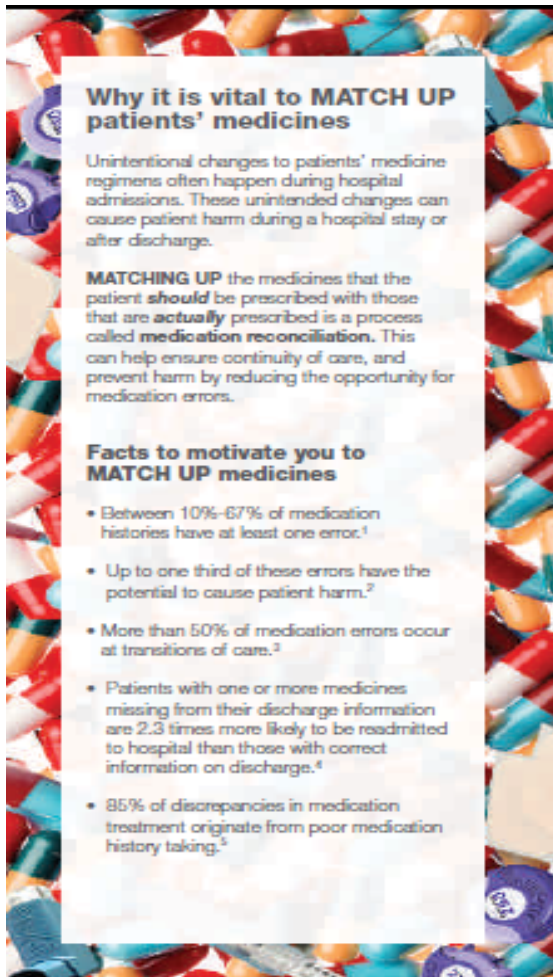
As patients move through the health system, information about their medicines needs to be current, accurate and move with them during transitions of care – on admission, transfer and discharge. Medication Reconciliation is the process of ensuring this information is accurate and clearly documented.

**4 steps to improve patient safety**

<b>1</b> Obtain a best possible medication history name of medicine, dose, frequency and route	<b>2</b> Confirm the accuracy of the history of the medicine with a second source eg. patient's medication list, GP, community pharmacy	<b>3</b> Reconcile the history with prescribed medicines bring discrepancies to the attention of the prescriber and document changes	<b>4</b> Supply accurate medicines information when care is transferred to next registration point or visit
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# MATCH UP medicines Brochure



## Why it is vital to MATCH UP patients' medicines

Unintentional changes to patients' medicine regimens often happen during hospital admissions. These unintended changes can cause patient harm during a hospital stay or after discharge.

**MATCHING UP** the medicines that the patient **should** be prescribed with those that are **actually** prescribed is a process called **medication reconciliation**. This can help ensure continuity of care, and prevent harm by reducing the opportunity for medication errors.

## Facts to motivate you to MATCH UP medicines

- Between 10%–67% of medication histories have at least one error.<sup>1</sup>
- Up to one third of these errors have the potential to cause patient harm.<sup>2</sup>
- More than 50% of medication errors occur at transitions of care.<sup>3</sup>
- 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.<sup>4</sup>
- 85% of discrepancies in medication treatment originate from poor medication history taking.<sup>5</sup>

## Medication reconciliation: 4 simple steps to improve patient safety

<b>1</b>	<b>Obtain a best possible medication history</b>	<b>2</b>	<b>Confirm the accuracy of the history</b>
<p>Using information from patient interviews, GP referrals and other sources, compile a comprehensive list of the patient's current medicines. Include prescription, over the counter and complementary medicines and information about the medicine's name, dose, frequency and route.</p> <p>This medication history, sometimes referred to as a <i>Best Possible Medication History (BPMH)</i>, should involve a patient medication interview, where possible. The BPMH is different and more comprehensive than a routine primary medication history, which is often a quick medication history.</p>		<p>Use a second source to confirm the information obtained, and ensure you have the best possible medication history. Verification of medication information can include:</p> <ul style="list-style-type: none"> <li>✓ Reviewing patient's medicines list.</li> <li>✓ Inspection of medicine containers.</li> <li>✓ Contacting community pharmacists and GPs, with the patient's consent.</li> <li>✓ Communicating with carers or the patient's family members.</li> <li>✓ Reviewing previous patient health records.</li> </ul>	
<b>3</b>	<b>Reconcile the history with prescribed medicines</b>	<b>4</b>	<b>Supply accurate medicines information</b>
<p>Compare the patient's medication history with their prescribed inpatient treatment. Check that these <b>match</b>, or that any changes are clinically appropriate.</p> <p>Where there are discrepancies, discuss these with the prescriber and ensure that the reasons for changes to therapy are documented eg. atenolol ceased prior to surgery.</p>		<p>When patients are transferred between wards, hospitals or to their home or residential care facility, ensure that the person taking over their care is supplied with an accurate and complete list of the patient's medicines.</p> <p>Ensure that the care provider, patient and/or their carer are also provided with information about any changes that have been made to medicines.</p>	

# Step 1. Best possible medication history



# 1

## Obtain a best possible medication history

Using information from patient interviews, GP referrals and other sources, compile a comprehensive list of the patient's current medicines. Include prescription, over the counter and complementary medicines and information about the medicine's name, dose, frequency and route.

This medication history, sometimes referred to as a *Best Possible Medication History* (BPMH), should involve a patient medication interview, where possible. The BPMH is different and more comprehensive than a routine primary medication history, which is often a quick medication history.

## Step 2. Confirm the accuracy of the medication



# 2

## Confirm the accuracy of the history

Use a second source to confirm the information obtained, and ensure you have the best possible medication history. Verification of medication information can include:

- ✓ Reviewing patient's medicines list.
- ✓ Inspection of medicine containers.
- ✓ Contacting community pharmacists and GPs, with the patient's consent.
- ✓ Communicating with carers or the patient's family members.
- ✓ Reviewing previous patient health records.

## Step 3. Reconcile history with prescribed medicines



# 3


## Reconcile the history with prescribed medicines

Compare the patient's medication history with their prescribed inpatient treatment. Check that these **match**, or that any changes are clinically appropriate.

Where there are discrepancies, discuss these with the prescriber and ensure that the reasons for changes to therapy are documented eg. atenolol ceased prior to surgery.

# Step 4. Best possible medication history



	<b>Supply accurate medicines information</b>
<p>When patients are transferred between wards, hospitals or to their home or residential care facility, ensure that the person taking over their care is supplied with an accurate and complete list of the patient's medicines.</p> <p>Ensure that the care provider, patient and/or their carer are also provided with information about any changes that have been made to medicines.</p>	



### How to take a best possible medication history

Wherever appropriate, interview the patient or their carer/family. Ensure the patient knows who you are, and why you are gathering this information. Explain the importance of having accurate medicines information.

Approach the interview in a **systematic way**, using a form such as the National Medication Management Plan to guide you. Use open-ended questions and gather information about:

- ✓ The names of all medicines taken, including prescription, over-the-counter, and complementary medicines.
- ✓ The dose taken, including strength, dose form and concentration, where relevant.
- ✓ The dose frequency.
- ✓ The duration of treatment.
- ✓ The indication for therapy.
- ✓ Other important information includes recent changes to treatment, and previous adverse drug reactions.

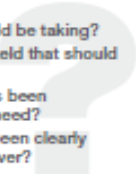
### Vulnerable points in transition of care

Whenever there is a transfer of a patient's care, there is an opportunity for errors to be introduced into their medicines regimen. These points of transition require special attention:

- ✓ Admission to hospital.
- ✓ Transfer from the Emergency Department to other care areas (wards, Intensive Care, or home).
- ✓ Transfer from the ICU to the ward.
- ✓ Transfer from hospital to home, residential aged care facility or another hospital.

### At these points, clinicians should ask:

- ✓ Is it clear what the patient should be taking?
- ✓ Have any medicines been withheld that should be restarted?
- ✓ Is there anything the patient has been prescribed that they no longer need?
- ✓ Have all changes to treatment been clearly documented for the next caregiver?



Medication reconciliation is everybody's business. Strong collaboration, communication and teamwork among staff involved in the patient's care - medical, nursing, ambulance and pharmacy staff **AND** the patient, their carer or family members is vital for its success.

**MATCH UP medicines:**  
Help prevent adverse medicine events in our hospital.

References: 1. Tam VC, Knowles SR *et al.* *CMAJ* 2006;173(5):510-5. 2. Cornish PL, Knowles SR *et al.* *Arch Intern Med* 2006;166:424-9. 3. Sullivan C, Gleason KM *et al.* *J Nurs Care Qual* 2006; 20:95-98. 4. Stowasser DA, Stowasser M, Collins DM. *Journal of Pharmacy Practice and Research* 2002;32:133-40. 5. Gleason KM, McDaniel MR *et al.* *J Gen Intern Med*; DOI:10.1007/s11606-010-1256-8.

AUSTRALIAN COMMISSION ON  
SAFETY AND QUALITY IN HEALTHCARE

**MATCH UP medicines**

### A guide to Medication Reconciliation.

**Medrec**  
matching medicines at transitions of care





# National Medication Management Plan

# Medication Management Plan

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Adopt a **standardised form** for collecting pre-admission medicines and reconciling variances

Place in consistent, highly visible location in patient notes

Easily accessible when medicines are prescribed

Electronic and paper

Massachusetts Coalition for prevention of medical errors

<http://www.macoalition.org/initiatives.shtml>

# National Medication Management Plan

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## History

- NIMC Workshop September 2008
  - Recommended a form replace section on front of NIMC for recording medicines prior to admission
- Working party convened
  - Collated charts from around Australia
  - Identified core elements
    - APAC Guiding Principles to Achieve Continuity of Medic'n Manag't
    - SHPA practice standards for medication reconciliation
  - Built on 5 years work by Queensland Health in design of form

# National Medication Management Plan

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## History cont'd

- Considered by Commission Medication Safety Program committees
- Modified for use in paediatrics
  - Trialled at Royal Children's Hospital, Brisbane
  - Consultation thru Children's Hospital Australasia
- Approved by Commission's Interjurisdictional and Private Hospital Sector Committees

# National Medication Management Plan



Supports key steps of Medrec

1. Obtain and document best possible medication history
2. Confirm medication history
3. Reconcile history with prescribed medicines
4. Document issues/discrepancies and actions
5. Supply accurate information when care transferred

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(Affix patient identification label here and overleaf)

ALLERGIES & ADVERSE DRUG REACTIONS (ADR)			URN:	
Drug (or other)	Reaction/Date	Intake	Family name:	Date of birth: <span style="float: right;">Sex: <input type="checkbox"/> M <input type="checkbox"/> F</span>
			Given names:	
			Address:	

URN:   
 Family name:   
 Given names:   
 Address:   
 Date of birth:  Sex:  M  F

First Clinician to Print Patient Name and Check Label Correct:

Date of admission:  /  /

Ward / Clinic:

Facility/Service:  Consultant:

Date / Time	Issue Identified	Proposed Action	Person Responsible	Date of Action	Result of Action
	Issue identified by: <input type="text"/> Contact number: <input type="text"/>				
	Issue identified by: <input type="text"/> Contact number: <input type="text"/>				
	Issue identified by: <input type="text"/> Contact number: <input type="text"/>				
	Issue identified by: <input type="text"/> Contact number: <input type="text"/>				

DO NOT WRITE IN THIS BINDING MARGIN

MEDICATION MANAGEMENT PLAN

KEEP WITH ACTIVE MEDICATION CHART - DO NOT REMOVE Please see over

Keep with medication chart for easy access



# National Medication Management Plan



- Capture of **complete** and **accurate** medication history on admission
- Allows for shared accountability
- Doctors plan column helps with reconciliation
- Identifies is supply required at discharge

(Affix patient identification label here and overleaf)

ALLERGIES & ADVERSE DRUG REACTIONS (ADR)			Patient Information				
<input checked="" type="checkbox"/> Nil known	<input type="checkbox"/> Unknown (add appropriate box or describe details below)	Initials	URN: 943862	Family name: JONES	Given names: MICHAEL DAVID	Date of birth: 4/12/1952	Sex: <input checked="" type="checkbox"/> M <input type="checkbox"/> F
Drug (or other)	Reaction/Date		Signature: M Dougan	Date: 31/10	Print Patient Name and Check Label Correct: M JONES		
MEDICINES TAKEN PRIOR TO PRESENTATION TO HOSPITAL							
Medicine Generic name (Trade name) / Strength / Form / Route	Dose	Frequency	Indication (confirm with patient)	How long or when started	Initials, profes- sion-	Dr's Plan On Admission Continue w/ Overhold A. Change	Supply at Discharge
Furosemide (Lasix) po	40mg	morning	HF	22yrs	MD	▲	✓
Digoxin 60 (Minorg) po	125mg	morning	HF	22yrs	MD	W	✓
Ramipril 5mg po	5mg	morning	HF	3wks	MD	✓	✓
Methoprolol 50mg po	25mg	morning	HF	1wks	MD		✓
DO NOT WRITE IN THIS BINDING MARGIN							
NOT FOR ADMINISTRATION							
MEDICATION MANAGEMENT PLAN							
Documented by: Signature: M Dougan			Name: M Dougan		Date: 31/10		
Counter signature (if required):							

# National Medication Management Plan

Prompts for and consolidates information

- Recently ceased or changed medicines
- Confirmation of history
  - Several sources may be needed
- General information
  - Who administers
  - Immunisation status (children)
  - Community contacts
- Checklist to assist in completing history

(Affix patient identification label here and overleaf)

**Medication Management Plan**

URN: \_\_\_\_\_  
 Family name: \_\_\_\_\_  
 Given names: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of birth: \_\_\_\_\_ Sex:  M  F

1st Clinician to Print Patient Name and Check Label Correct

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**RECENTLY CEASED OR RECENT CHANGES TO MEDICINES** (prior to presentation to hospital)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SOURCES OF MEDICINE LIST**

Source	Confirmed by	Date	Source	Confirmed by	Date
<input type="checkbox"/> General Practitioner			<input type="checkbox"/> Own Medicines		
<input type="checkbox"/> Community Pharmacist			<input type="checkbox"/> Community Nurse		
<input type="checkbox"/> Patient / Carer			<input type="checkbox"/> Patient List		
<input type="checkbox"/> Nursing Home			<input type="checkbox"/> Previous Admission		

**GENERAL INFORMATION**

Medicines usually administered by:  
 Self  Other (If other, specify): \_\_\_\_\_

Preferred administration method: \_\_\_\_\_

Did patient bring own medicines?  Yes  No Location of own medicines: \_\_\_\_\_

Patient's immunisation up to date?  Yes  No

General Practitioner details	Community Pharmacist details	Residential Care Facility details
_____	_____	_____
_____	_____	_____

**MEDICATION RISK IDENTIFICATION**

Level of Independence	Yes	No	Patient Assessment	Yes	No	Language spoken:
Lives alone	<input type="checkbox"/>	<input type="checkbox"/>	Can read/comprehend labels	<input type="checkbox"/>	<input type="checkbox"/>	_____ <input type="checkbox"/> Not an issue
Lives in residential care facility	<input type="checkbox"/>	<input type="checkbox"/>	Can understand English	<input type="checkbox"/>	<input type="checkbox"/>	
Uses dose administration device i.e. spacers, inhaler devices	<input type="checkbox"/>	<input type="checkbox"/>	Can open bottles	<input type="checkbox"/>	<input type="checkbox"/>	
Uses administration aid (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	Can measure liquids	<input type="checkbox"/>	<input type="checkbox"/>	
Uses medication list	<input type="checkbox"/>	<input type="checkbox"/>	Recent Home Medicine Review	<input type="checkbox"/>	<input type="checkbox"/>	
Swallowing issues	<input type="checkbox"/>	<input type="checkbox"/>	Suspected non-adherence	<input type="checkbox"/>	<input type="checkbox"/>	
Has impaired hearing	<input type="checkbox"/>	<input type="checkbox"/>	Assess adherence by asking:			
Has impaired vision	<input type="checkbox"/>	<input type="checkbox"/>	• People often have difficulty taking their pills for one reason or another. Have you had any difficulty taking your pills?			
Other information:						• About how often would you say you miss taking your medicines?

**MEDICATION HISTORY CHECKLIST**

<input type="checkbox"/> Prescription medicines	<input type="checkbox"/> Topical medicines (e.g. creams, ointments, lotions, patches)
<input type="checkbox"/> Sleeping tablets	<input type="checkbox"/> Inserted medicines (e.g. nose/ear/eye drops, pessaries, suppositories)
<input type="checkbox"/> Inhalers, puffers, sprays, sublingual tablets	<input type="checkbox"/> Injected medicines
<input type="checkbox"/> Oral contraceptives, hormone replacement therapy	<input type="checkbox"/> Recently completed courses of medicine
<input type="checkbox"/> Over-the-counter medicines	<input type="checkbox"/> Other people's medicines
<input type="checkbox"/> Analgesics	<input type="checkbox"/> Social and recreational drugs
<input type="checkbox"/> Gastrointestinal drugs (for reflux, heartburn, constipation, diarrhoea)	<input type="checkbox"/> Intermittent medicines (e.g. weekly or twice weekly)
<input type="checkbox"/> Complementary medicines (e.g. vitamins, herbal or natural therapies)	

DO NOT WRITE IN THIS BINDING MARGIN

# National Medication Management Plan



To ensure patient receives all intended medications  
Column to reconcile each medicine

(Affix patient identification label here and overleaf)

ALLERGIES & ADVERSE DRUG REACTIONS (ADR)			URN: 943862				
<input checked="" type="checkbox"/> Nil known	<input type="checkbox"/> Unknown (add appropriate box or complete details below)		Family name: JONES				
Drug (or other)	Reaction/Date	Initials	Given names: MICHAEL DAVID				
			Address: 4 HIGH ST				
			BROWNSVILLE				
			Date of birth: 4/12/1952	Sex: <input checked="" type="checkbox"/> M <input type="checkbox"/> F			
Slot: <u>M. Jones</u> Print: <u>DAVID</u> Date: <u>3/9/10</u>			1st Clinician to Print Patient Name and Check Label Correct: <u>M. JONES</u>				
MEDICINES TAKEN PRIOR TO PRESENTATION TO HOSPITAL							
Medicine Generic name (Trade name) / Strength / Form / Route	Dose	Frequency	Indication (confirm with patient)	How long or when started	Initials, profession- tion	Dr's Plan On Admission * Continue w/ Withhold * Cease * Change	Reconcile * * * * * * * *
Furosemide (Lasix) po	40mg	morning	HF	>2yrs	MD (Pharm)	▲	✓
Biglixin 60 (5microg) po	125microg	morning	HF	>2yrs	MD	W	✓
Ramipril 5mg po	5mg	morning	HF	3wths	MD	✓	✓
Metoprolol 50mg po	25mg	morning	HF	1wth	MD		✓

MARGIN



# Medication Management Plan



- Medication issues and actions
  - Changes made when discrepancies identified
  - Medication review issues identified & resulting changes
  - Clinical Handover



(Affix patient identification label here and overleaf)

ALLERGIES & ADVERSE DRUG REACTIONS (ADR)			URN:	
<input type="checkbox"/> Nil known	<input type="checkbox"/> Unknown	<small>Use appropriate box to complete details below</small>	Family name:	
Drug (or other)	Reaction/Date	Initials	Given names:	
			Address:	
			Date of birth:	
			Sex: <input type="checkbox"/> M <input type="checkbox"/> F	
Sign	Print	Date	1st Clinician to Print Patient Name and Check Label Correct:	

Date of admission: / /

Ward / Clinic: \_\_\_\_\_

Facility/Service: \_\_\_\_\_

Date / Time	Issue Identified	Proposed Action	Person Responsible	Initials	Action	Result of Action
	Issue identified by: Contact number:					
	Issue identified by: Contact number:					
	Issue identified by: Contact number:					
	Issue identified by: Contact number:					
	Issue identified by: Contact number:					
	Issue identified by: Contact number:					
	Issue identified by: Contact number:					
	Issue identified by: Contact number:					

KEEP WITH ACTIVE MEDICATION CHART - DO NOT REMOVE *Please see over*

matching medicines at transitions of care

DO NOT WRITE IN THIS BINDING MARGIN

MEDICATION MANAGEMENT PLAN

# Medication Management Plan

Assists with discharge

- ✓ Medication Risk Identification
  - Informs discharge process
  - Identify if assistance required to manage medicines at home
- ✓ Medication Changes During Admission
  - Inform the patient or GP
- ✓ Comments
  - ✓ Specific administration, supply requirements on discharge
- ✓ Discharge Checklist
- ✓ Referral for Home Medicines Review Considered

(Affix patient identification label here and overleaf)

**Medication Management Plan**

URN: \_\_\_\_\_  
 Family name: \_\_\_\_\_  
 Given names: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of birth: \_\_\_\_\_ Sex:  M  F

††† Clinician to Print Patient Name and Check Label Correct.

RECENTLY CEASED OR RECENT CHANGES TO MEDICINES (prior to presentation to hospital)

SOURCES OF MEDICINE LIST					
Source	Confirmed by	Date	Source	Confirmed by	Date
<input type="checkbox"/> General Practitioner			<input type="checkbox"/> Own Medicines		
<input type="checkbox"/> Community Pharmacist			<input type="checkbox"/> Community Nurse		
<input type="checkbox"/> Patient / Carer					
<input type="checkbox"/> Nursing Home					

**Medication Management Plan**

URN: \_\_\_\_\_  
 Family name: \_\_\_\_\_  
 Given names: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of birth: \_\_\_\_\_ Sex:  M  F

††† Clinician to Print Patient Name and Check Label Correct.

MEDICATION CHANGES DURING ADMISSION

COMMENTS (e.g. medication administration, liaison required, supply notes)

MEDICATION RISK IDENTIFICATION

Level of Independence

Lives alone	Yes	No	P
Uses in residential care facility	<input type="checkbox"/>	<input type="checkbox"/>	C
Uses 30/60/90 day supplies (i.e. spacers, inhaler devices)	<input type="checkbox"/>	<input type="checkbox"/>	C
Uses administration aid (specify):	<input type="checkbox"/>	<input type="checkbox"/>	R
Uses medication list	<input type="checkbox"/>	<input type="checkbox"/>	7
Swallowing issues	<input type="checkbox"/>	<input type="checkbox"/>	
Has impaired hearing	<input type="checkbox"/>	<input type="checkbox"/>	
Has impaired vision	<input type="checkbox"/>	<input type="checkbox"/>	
Other information:			O

MEDICATION HISTORY CHECKLIST

Prescription medicines

Sleeping tablets

Inhalers, puffers, sprays, sublingual tablets

Oral contraceptives, hormone replacement therapy

Over-the-counter medicines

Analgesics

Gastrointestinal drugs (for reflux, heartburn, constipation, diarrhoea)

Complementary medicines (e.g. vitamins, herbal or natural therapies)

KEEP WITH ACTIVE MEDICATION CHART

MEDICATION DISCHARGE CHECKLIST

Reconciled on discharge Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Own medicines returned Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Permission for disposal of medicines Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Medication supply Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Dose administration aid Type: \_\_\_\_\_

Script given to patient (if applicable)

Discharge Medication Record given/sent to:  Patient  GP  Pharmacy  Other: \_\_\_\_\_

Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Consumer Medicine Information Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Education provided Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Recommend Home Medicines Review referral (see checklist below)?  Yes  No

**RECOMMENDING A HOME MEDICINES REVIEW REFERRAL CHECKLIST**

Consider recommending a Home Medicines Review referral because:

<input type="checkbox"/> Difficulty managing medicines	<input type="checkbox"/> Taking more than 12 doses per day
<input type="checkbox"/> Suspected non compliance	<input type="checkbox"/> Significant changes to medication regimen during admission
<input type="checkbox"/> Inability to manage drug related therapeutic devices	<input type="checkbox"/> Medication requiring therapeutic monitoring
<input type="checkbox"/> Taking more than 5 medicines	
<input type="checkbox"/> Other: _____	

KEEP WITH ACTIVE MEDICATION CHART - DO NOT REMOVE



# NMMP Support materials

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- User Guide
  - Use to record BPMH, reconcile medicines
  - Privacy issues
  - Page by page instructions for use
- Forms basis for P&Ps on medication reconciliation

AUSTRALIAN COMMISSION ON  
SAFETY AND QUALITY IN HEALTHCARE

**National Medication Management Plan  
User Guide**

August 2010

# NMMP User Guide



- Provides examples on how to complete the form

Date of admission: 08/07/2010

Ward / Clinic: Gen Med

Consultant: Brown

**Medication Management Plan**

Facility/Service: PGH

Date / Time	Issue Identified	Proposed Action	Person Responsible	Date of Action	Result of Action
8/7/10 2pm	Patient normally takes metoprolol at home. Has not been charted	Please notify of plan. chart if to be continued. <small>Issue identified by: Mr Dunbar Contact number: 2948</small>	MO  pharm	8/7/10	metoprolol charted

# NMMP User Guide



## Paediatric Patients

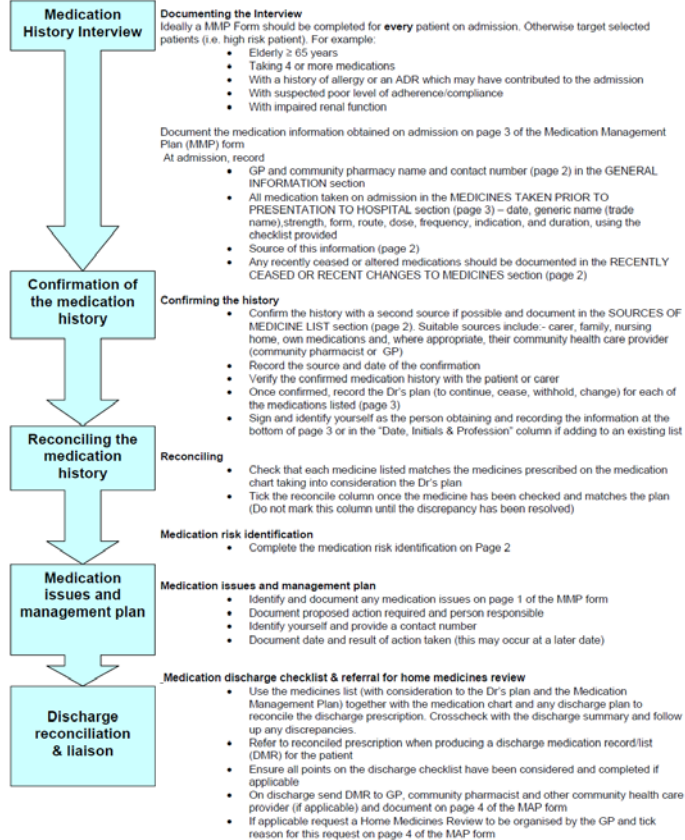
Record details on the method of administration usually used in the "medicine" column. This should include the route (e.g. "NG") and the formulation (e.g. "oral mixture"). It may be necessary to use an additional line for detailed information (e.g. "10mg tablet dispersed in 10mL water, give 1mL").

MEDICINES TAKEN PRIOR TO PRESENTATION TO HOSPITAL								
Medicine Generic name (Trade name) / Strength / Form / Route	Dose	Frequency	Indication (confirm with patient)	How long or when started	Initials, profes- sion	Dr's Plan On Admission ✓: Continue ✗: Withhold ✗: Cease ✗: Change	Supply at home ✓	Reconcile ✓
Omeprazole long tabs po (Disperse tabs in water to give via NG tube)	10mg	Morning	gut protection	4 wths	Jed pharm	✓	✓	✓
Topiramate 25mg tabs po (Disperse one tablet in 8mL water to give 6ml via NG tube)	3/4 tab	Morning night	seizures	1 week	Jed	✓	✓	✓

# NMMP User Guide



## Guide to completing the Medication Management Plan (MMP) Form



The MMP form should be kept with the active medication chart and on discharge filed in the medical record with the medication chart for that admission



# Medication Reconciliation Matching Medicines at Transition of Care

## Using the National Medication Management Plan

# Overview of contents

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- ✓ What is “Medication Reconciliation”?
- ✓ Why do it?
- ✓ What is the National Medication Management Plan form?
- ✓ How is it used?
- ✓ Discussion



# Guide to using the Medication Management Plan (MMP) Form

Document medicine/s recently ceased or changed.

Confirm medication with second source. (e.g. GP, patient's own medicines)

Document medicines taken prior to hospital admission including non-prescription including complementary medicines.

Middle

Document Dr's plan for each medicine listed.

Reconcile history with active medication orders & tick in reconcile column.

Document medication management issues for patients, e.g. requires administration aid

Use checklist to obtain complete medication history.

Document information relevant to discharge. (e.g. administration aid)

Pharmacist/nurse completes medication discharge checklist.

Assess if patient requires referral for Home Medicine Review.

## Key aspects of the Medication Management Plan form:

- Medication history, checklists & medicine list in middle of chart
- Medication issues requiring action on front of chart
- Discharge checklist & information required on discharge on back of chart

Document changes during admission that require communication to community healthcare providers at discharge.

Record issues identified during medication review. Clinician documents date and results of action.

Back

Front

• Keep MMP form with active medication chart for easy access.

• Medical, nursing, pharmacy staff involved in patient's care should record the information according to hospital policy.



# Other resources

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# Medication History Taking

Power point presentation with  
videos

# Admission History Education Resource

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Can be used for

- Facilitated group sessions
- Self directed learning

Contains

- Instructional notes
- Contents
  - What is involved in obtaining an accurate history
  - 8 steps in medication history interview
  - Communication technique

# Session objectives

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1. Outline the processes required to obtain and document an accurate medication history
2. Demonstrate effective communication skills
  - ✓ appropriate and inappropriate questioning styles/responses
3. Describe the limitations and benefits of information sources available to elicit and confirm a medication history

# Obtaining an accurate medication history: What does it involve?

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## ✓ Structured process

1. Review of sources of patient information
2. Patient/carer medication history interview
3. Organisation of patient data

## ✓ Confirmation

- Ensuring completeness and accuracy
- Not relying on a single source

# Medication history interview

## 8 steps\*



1. Obtain relevant patient background
2. Open the consultation
3. Confirm and document allergies and adverse drug events
4. Take and document a comprehensive medication history
5. Undertake a thorough adherence assessment
6. Assess patient's ability to manage their own medication
7. Confirm medication history
8. Reconcile medication history with current medication chart and current medical problems

\*This 8 step procedure has been developed using the Society of Hospital Pharmacists of Australia's Standards of Practice for Clinical Pharmacy (2005) and the Queensland Health Safe Medication Practice Unit – A Competency Framework for Pharmacy Practitioners to Provide Minimum Standard of Pharmaceutical Review: the General Level Framework Handbook (2006).

# Communication technique

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- ✓ Verbal versus non verbal communication
  - Body positioning
  - Voice tone
  - Eye contact
  
- ✓ Consider the patient's perspective
  - How would you feel if in their situation?
  - Is the patient able to hear clearly/do they need assistance?



# Case study – Medication history interview videos

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As you watch the video, use the Medication Management Plan form to document what you think the patient is taking and what you would want to clarify.

- ✓ Consider communication skills
  - Verbal and non-verbal cues
  - Communication technique
  - Consider patient's perspective



Medicine	Dose	Frequency	Indication	How long	Other information obtained
Aspirin 100mg tab	1	mane	Thins blood	2 yrs	Started post MI
Avapro HCT 150/12.5mg	1	mane	BP	2/12	
Frusemide 40mg tab	2	mane	Fluid	6 yrs	Increased 2days ago by GP. Regularly omits doses
Metoprolol 50mg tab	1	bd	BP	2 yrs	
Simvastatin 40mg tab	1	evening	Cholesterol	2 yrs	
Coloxyl & Senna tab		prn			
Salbutamol MDI	2	qid	SOB	2 days	Commenced by GP
Temazepam 10mg	1	nocte	Sleep	Years	Left at home – keeps by bedside
Paracetamol 500mg tab	2	prn	Headache		Only takes occasionally
Hydrocobalamin 1000 mcg IMI	1000 mcg	2 monthly	Vit B12 replacement		Due this Wednesday
Latanaprost eye drops	1 RE	nocte	Glaucoma	5-6 yrs	Keeps in fridge

## Assuring Medication Accuracy at Transitions of Care: Medication Reconciliation

Enter keywords



*"The interface between different care settings is particularly prone to error and a potential target for interventions to reduce medication error."*

Easton, K., T. Morgan, et al. (2008). Medication safety in the community: A review of the literature. Sydney, National Prescribing Service).

Communication problems between settings of care, or between health professionals, are a significant factor in causing medication errors and adverse drug events. Unintended changes to patients' medicines regimens often happen during hospital admissions. These unintended changes can cause serious problems during a hospital stay or when patients are discharged.

The process of medication reconciliation has been shown to reduce errors and adverse events associated with poor quality information at transfer of care and inaccurate documentation of medication histories on patient admission to hospital.

Assuring medication accuracy at transitions of care through the process of medication reconciliation is one of five patient safety priorities nominated by the [World Health Organization Patient Safety](#).

### What is medication reconciliation?

Medication reconciliation is a formal process of obtaining and verifying a complete and accurate list of each patient's current medicines. **Matching** the medicines the patient **should** be prescribed to those they are **actually** prescribed. Where there are discrepancies, these are discussed with the prescriber and reasons for changes to therapy are documented. When care is transferred (e.g. between wards, hospitals or home), a current and accurate list of medicines, including reasons for change is provided to the person taking over the patient's care. Points of transition that require special attention are:

- Admission to hospital
- Transfer from the Emergency Department to other care areas (wards, Intensive Care, or home)
- Transfer from the Intensive Care Unit to the ward

The national Medication Management Plan (MMP) is an initiative of the Australian Commission on Safety and Quality in Health Care (Commission). The MMP provides health service providers with a standardised form that can be used by nursing, medical, pharmacist and allied health staff to improve the accuracy of information recorded on admission and available to the clinician responsible for therapeutic decision making.

A standardised form to record the medicines taken prior to presentation at the hospital and use for reconciling patients' medicines on admission, intra-hospital transfer and at discharge is considered essential for the medication reconciliation process. The national MMP provides Australian hospitals with a suitable form to use for this purpose. The MMP form has been designed for use in adult and paediatric patients.

The MMP is based on the Medication Action Plan developed by the Safe Medication Management Unit, Queensland Health. This was done in consultation with nurses, doctors and pharmacists. The MMP aligns with the Australian Pharmaceutical Advisory Council's *principles to achieve continuity in medication management*. It incorporates the minimum data set for a medication history outlined in principle 4 - Accurate medication history.

[National Medication Management Plan PDF version](#)

National Medication Management Plan design files can be supplied on request.

## Support materials for the National Medication Management Plan

[Guide on how to complete the MMP.](#)

## Issues Register for National Medication Management Plan

The Commission maintains the Medication Management Plan (MMP).

A register of change requests, and outcomes of considerations will become available at a later date.

## World Health Organization's High 5s Medication Reconciliation Program



Sixteen Australian health services are participating in the World Health Organization's High 5s Medication Reconciliation Program. Participating hospitals will test a standard operating protocol designed to assure medication accuracy at transitions of care. It is an opportunity for participating hospitals to demonstrate leadership on medication reconciliation in high risk areas. They will have high visibility and recognition from implementing and evaluating the standard operating protocol, and for their leadership in standardising patient care processes.

This is a five year project. The first phase of the project is the introduction of medication reconciliation for patients 65 years of age and older who are admitted to an inpatient ward from the emergency department. In subsequent phases, the scope will be expanded to include all patients from all entry points to inpatient and outpatient settings.

# Under Development

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- OSSIE Guide to medication reconciliation
  - Implementation template
- Performance measures/indicators
- E- medication reconciliation
- Consumer information
- On-line training tool for NMMP



# Resources vs best practice recommendations



Recommendations	Resource	Status
Systematic process for reconciling medicines	OSSIE guide to medication reconciliation Medrec materials NMMP guide, PPT	 <input checked="" type="checkbox"/>
P & Ps for each step in process	User guide for NMMP	<input checked="" type="checkbox"/>
Standardised form for history and reconciling	NMMP	<input checked="" type="checkbox"/>

Recommendations	Resource	Status 
Assign roles and responsibilities	OSSIE Guide to medication reconciliation,  NMMP User guide	  
Improve access to complete medicines list at admission	Advocate patient medicines lists, consumer education	
Training health professionals	Medrec materials History ppt & videos NMMP guide, PPT	
Monitoring and feedback	QUM indicators, performance measures	



# Acknowledgements

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- Safe Medication Management Unit, Queensland Health for the use of their materials and permitting their adaption for national use
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- Medication Continuity Expert Advisory Group
- High 5s hospitals for their suggestions for the MATCH UP medicines materials, videos on history taking