MEDICATION SAFETY AND QUALITY
Continuity of medicines
Ensuring safe care

CLINICAL EXCELLENCE COMMISSION

GUIDE FOR DETERMINING ROLES, RESPONSIBILITIES AND DOCUMENTATION REQUIREMENTS

MEDICATION RECONCILIATION TOOLKIT

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INTRODUCTION

Though straightforward in concept, the process of implementing medication reconciliation across health services is complex. It relies heavily upon multidisciplinary teamwork and effective communication. The roles and responsibilities for each participant in the process need to be clearly defined. These roles and responsibilities may change depending on the needs or vulnerability of the patient, the transfer of care being undertaken and the clinical mix of available staff. Each clinical area should determine the roles and responsibilities for each member of their health care team.

This guide is designed to be used by health care teams to assist them to clearly define the team roles and responsibilities with respect to medication reconciliation at admission and discharge. All members of the health care team who have a role in medication management should be involved in the decision making process. This includes those who prescribe, dispense, administer, or supply medication or medication information.

Clearly defining roles and responsibilities will ensure that all essential steps of the medication reconciliation process are completed for every patient. This guide assists team members to recognise who is accountable for each step, who has delegated responsibility and who has a shared responsibility in ensuring the step is completed. This will reduce errors and patient harm that occurs from incomplete, haphazard processes that are reliant on individual health care professionals. The guide also prompts health care teams to consider roles and responsibilities at vulnerable times, that is, times when continuity may be at risk e.g. after hours, on weekends and on public holidays.

This guide will assist members of the health care team understand that they are jointly and individually responsible for making sure that each step of the medication reconciliation process is completed.

Definitions

Accountable

Required or expected to justify actions or decisions of assigned responsibilities, cannot be delegated.

Delegated Responsibility

Having an obligation to do something as part of one's job or role (may or may not be accountable for the responsibility).

ADMISSION

When a patient is admitted to hospital, it is important that a best possible medication history (BPMH) is obtained at the time of admission, or as early as possible in the episode of care. This will make sure that appropriate medication management is in place, and continuity is achieved.

This history forms a fundamental part of the patient's medication management plan during admission, and should be consulted and reconciled against prescribed medicines and treatment plans.

Several processes are required during this phase of transition to ensure continuity of medication management. These include:

1. Obtaining and documenting a BPMH
2. Documenting plans for medications on admission
3. Comparing the BPMH to prescribed medicines and resolving discrepancies

NB: The BPMH is more comprehensive than a primary medication history which may be the initial history taken in the Emergency Department.

Obtaining and Documenting a BPMH

Rationale

The first step to achieving continuity of medication management is to take a BPMH.

Putting together the BPMH is very important for continuity of medication management since information about the medications taken prior to admission, previous adverse drug events and other related information affects treatment options and decision making throughout the patient's care.

Taking a BPMH requires that the most accurate and complete medication history be taken at the point of admission, or as early as possible in the episode of care.

Process Required

Obtaining a BPMH involves collecting medication information (this should include a patient/carer interview whenever possible) and confirming the information obtained with at least one other source of information. Information obtained includes:

- Information about previous adverse drug events and allergies
- A list of medications and the source of the information.

Knowledge and Skills Required

The clinician responsible for obtaining and documenting the BPMH should have:

- A general knowledge of types and names of medications, medication related information and requirements for a BPMH (e.g. generic/brand name, strength, dose, dose form, route, administration schedule as actually taken by the patient, duration of therapy and indication according to the patient)
- Patient interviewing skills for obtaining an accurate medication history
- An awareness of the sources of medication history information and their limitations
- Communication skills for contacting community health care providers to obtain a medication history (e.g. general practitioners, community pharmacist, specialists)
- An ability to gather information from a collection of sources and decipher what is actually taken by a patient
- An ability to probe the patient/carer about medications that may have been omitted (e.g. by using a checklist) and an ability to recognise omissions from knowledge of a patient's medical conditions (e.g. patient has asthma but there are no inhalers documented)
- An ability to know when sufficient information has been gathered to compile a BPMH
- An ability to recognise the inability to validate a BPMH and to communicate this to other team members for follow up
- An ability to communicate and work within a multidisciplinary team.

Clinician Responsible for Obtaining and Documenting a BPMH

Health care teams should decide who is accountable for ensuring the BPMH is documented (this accountability cannot be delegated), who has the delegated responsibility to undertake the process (i.e. collect, confirm and document the BPMH) and who has a shared responsibility to ensure these steps are completed. This decision should be made in collaboration with all team members. The proposed decision should be communicated to all clinicians within the team to make sure everyone is aware of their role and responsibilities.

The team member responsible may differ depending on the time of day or week. Consider who is responsible after hours, on weekends and on public holidays. The clinician responsible for taking a BPMH may be different to the clinician who takes the initial medication history.

Time	Clinician/s Responsible
Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
After Hours	Accountable: Delegated Responsibility: Shared Responsibility:
Weekend and Public Holidays	Accountable: Delegated Responsibility: Shared Responsibility:

Potential Areas for Documentation

The BPMH must be documented so that it is available at the point of care. It needs to be readily available in a consistent location to all team members so that they are able to access it for information, to compare it with prescribed medicines at every transfer of care and to be able to contribute to decision-making. Considering this the health care team should decide where and how the BPMH is documented.

Please note that the National Safety and Quality Health Service (NSQHS) Standards recommend the use of a standard form with prompts to guide obtaining a BPMH.

U = already used in standard practice and considered appropriate
N = used in standard practice but not meeting needs
R = considered appropriate and requires incorporation into standard practice

Potential Areas for Documentation	Implementation (U/N/R)
NSW Medication Management Plan (MMP)	
Other endorsed form:_____	
Front of the National Inpatient Medication Chart (NIMC)	
Electronic form (e.g. PowerForm)	
Other: _____	

Documenting Plans for Medications on Admission

Rationale

A patient's medications are frequently changed when they are admitted to hospital. The majority of these changes are a result of decisions made for better patient outcomes. Errors, however, do occur. Documenting intentional changes made to medications reduces confusion, reduces rework and improves detection of unintentional changes.

Documenting the intention for each medication in the BPMH (i.e. whether the medication is to continue, continue with changes, cease or be withheld) facilitates reconciliation with the active medication orders. Ensuring each medication is accounted for reduces common errors of omission.

Documenting the reasons for changes made to medications facilitates the communication of this information at discharge. Informing the next health care provider of the rationale for the changes made reduces the likelihood of these changes being reversed.

Process Required

The prescriber should use the BPMH when determining the medications to be prescribed on admission. Each medicine in the BPMH should be considered in the context of the patient and their presenting condition. Prescribing decisions should be clearly documented in a consistent manner, preferably next to each medication in the BPMH.

Potential Areas for Documentation

The health care team should discuss all available options and decide on what practice should be used as the standard to ensure consistency. As it is preferable that the prescribing decision is documented for each medication in the BPMH the health care team may wish to choose the same document that has been selected to document the BPMH.

Please note that the NSQHS Standards recommend the use of a standard form to support the reconciliation process.

U = already used in standard practice and considered appropriate
N = used in standard practice but not meeting needs
R = considered appropriate and requires incorporation into standard practice

Potential Areas for Documentation	Implementation (U/N/R)
NSW Medication Management Plan (MMP)	
Other endorsed form:_____	
Front of the National Inpatient Medication Chart (NIMC)	
Electronic form (e.g. PowerForm)	
Other: _____	

Comparing the BPMH to Prescribed Medicines and Resolving Discrepancies

Rationale

Once a BPMH has been obtained and the plan for each medication documented, it should be compared against any prescribed medicines to make sure that no unintentional omissions, additions or changes have been made to the patient's medication regimen. Any discrepancies identified should be discussed with the prescriber and resolved with accompanying documentation as relevant.

Process Required

The BPMH should be reconciled (or compared) against prescribed medicines taking into consideration the plan that has been determined for each medication.

Any unexplained discrepancies should be further explored and/or discussed with the appropriate clinician. The discrepancy should be rectified by the prescriber by adjusting the order or by documenting the reason for the change if it is intentional.

Documenting that the process of reconciliation has been completed reduces rework.

NB: Though the prescribing medical officer should routinely reconcile the BPMH during prescribing, if possible, a clinician independent to the prescriber should undertake the formal reconciliation process, ideally within 24 hours of admission. Documentation should ideally be made where the BPMH is also documented.

Knowledge and Skills Required

The clinician responsible for comparing the BPMH to prescribed medicines should have:

- A general knowledge of medications, their indications and appropriate dosing
- Knowledge of the patient's medical conditions – both the patient's past medical history and his or her presenting condition upon hospital arrival
- An understanding of what constitutes a medication discrepancy
- An ability to review the BPMH, documented planned changes to medications and active inpatient medication orders to identify medication discrepancies
- An ability to determine when and how to contact a prescriber about a discrepancy (clinical judgment regarding the urgency of the discrepancy)
- An ability to communicate discrepancies to the prescriber and facilitate resolution of the discrepancy.

Clinician Responsible for Comparing the BPMH to Prescribed Medicines and Resolving Discrepancies

Health care teams should decide who is accountable for ensuring the BPMH is compared to the prescribed medicines, who has the delegated responsibility to undertake the comparison, identification and resolution of discrepancies, and who has a shared responsibility to ensure this step is completed. This decision should be made in collaboration with all team members. The proposed decision should be communicated to all clinicians within the team to make sure everyone is aware of their role and responsibilities.

The team member responsible may differ depending on the time of day or week. Consider who is responsible after hours, on weekends and on public holidays.

The health care team should also discuss how to trigger the completion of this step as it is reliant on the completion of the previous step (obtaining a BPMH) and the completion of the inpatient medication orders.

Time	Clinician/s Responsible
Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
After Hours	Accountable: Delegated Responsibility: Shared Responsibility:
Weekend and Public Holidays	Accountable: Delegated Responsibility: Shared Responsibility:

How will the person delegated responsibility for completing this step be informed that the required information (i.e. BPMH and inpatient medication orders) is available?

DISCHARGE

Patients/carers and community health care providers must be supplied with accurate medicines information at discharge to enable them to continue the safe and effective use of medicines.

Several processes are required at the point of discharge to ensure continuity of medication management. These include:

1. Reconciling discharge medications
2. Communication of medication changes and plans
3. Supply of medicines information to patients/carers

Reconciling Discharge Medications

Rationale

Just as reconciling medications soon after admission is important to continuity of care and making sure the right medications are given during the patient's stay, reconciling medications prior to discharge is important in making sure the patient leaves the hospital on the right medications. It ensures that medications are continued as they need to be, and promotes clinical review of medications prior to discharge i.e. checking if certain medications should be re-started or stopped before discharge.

This process will reduce the potential of adverse events associated with medication errors and subsequent readmissions.

Process Required

The process of medication reconciliation at discharge should include comparison of the patient's medication list upon admission (the BPMH), the current medication orders, any ongoing plan for medicines at discharge and the discharge medication order/summary. The MMP (or other sources of information) should be referred to in order to determine changes to 'prior to admission' medications and the reason for the change during the admission.

The following should be considered when reconciling medications prior to discharge:

1. Need to re-start any medications that had been withheld
2. Need to cease any medications that were specific to inpatient treatment
3. Need to review currently prescribed medications and the plan for discharge
4. Any unexplained discrepancies that are found should be further explored and/or discussed with the prescriber. The discrepancy should be rectified by the prescriber adjusting the discharge summary or by documenting the reason for the change if it is intentional.

To prevent delays on discharge, the medication plan for discharge should occur at the time the discharge decision is made.

NB: Though the prescriber is responsible for reviewing the medications at discharge and determining the plan for ongoing management, if possible a clinician independent to the prescriber should undertake the formal reconciliation process.

Knowledge and Skills Required

The clinician responsible for reconciling discharge medications should have:

- Advanced knowledge of medicines, their indications and appropriate dosing
- Knowledge of the patient's medical conditions – both the patient's past medical history and his or her current discharge condition
- An understanding of what constitutes a medication discrepancy
- An ability to review a BPMH, documented planned changes to medications, current medication orders at discharge and the discharge medication order/summary to identify medication discrepancies
- An ability to recognise in-hospital formulary changes and medications specific to inpatient treatment
- An ability to communicate discrepancies to the prescriber and facilitate resolution of the discrepancy
- An ability to identify changes to 'prior to admission' medications.

Clinician Responsible for Reconciling Discharge Medications

Health care teams should decide who is accountable for ensuring that medications are reconciled on discharge, who has the delegated responsibility to undertake the reconciliation and resolution of discrepancies, and who has a shared responsibility to ensure this step is completed. This decision should be made in collaboration with all team members. The proposed decision should be communicated to all clinicians within the team to make sure everyone is aware of their role and responsibilities.

The team member responsible may differ depending on the time of day or week. Consider who is responsible after hours, on weekends and on public holidays.

The health care team should also discuss how to trigger the completion of this step as it is reliant on the decision to discharge, the ongoing plan for management and the completion of the discharge medication order/summary.

Time	Clinician/s Responsible
Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
After Hours	Accountable: Delegated Responsibility: Shared Responsibility:
Weekend and Public Holidays	Accountable: Delegated Responsibility: Shared Responsibility:

How will the person delegated responsibility for completing this step be informed about the decision to discharge and that the required information (i.e. ongoing plan and discharge summary) is available?

Communication of Medication Changes and Plans

Rationale

Information on the patient's medication regimen should be communicated to community health care providers at the point of discharge, in a way that is simple to comprehend, and in a timely manner. Clinicians such as GPs, community pharmacists and residential aged care facility nursing staff, require clear, accurate and comprehensive medicines information to provide continuity of care and reduce the risk of a medication error occurring.

Providing clear information will help community health care providers support their patients with their ongoing medication management needs and avoid unplanned readmissions due to medication errors.

Process Required

The following information should be provided on the discharge summary:

1. A verified list of the patients most current medications (after discharge reconciliation) including medication name, strength, dose, frequency, route and indication for use
2. A list of any 'prior to admission' medications ceased during the admission
3. A clear explanation of any medication changes that have occurred e.g. rationale for ceasing, changing doses or initiating new medications
4. Monitoring or clinical review requirements
5. Recommendations for improving medication management e.g. dose administration aids, home medicines review (HMR)
6. Ongoing medication management plans e.g. date to restart or cease medication, the need to titrate to optimal treatment dose etc.
7. Any adverse drug reactions.

NB: Although the prescriber is responsible for completing the discharge summary and confirming the medication list and plan at discharge, the verification and compilation of the discharge medication list and medication plan may be a shared responsibility between the prescriber and other members of the clinical team.

Knowledge and Skills Required

The clinician responsible for communicating medication changes and plans should have:

- The same knowledge and skills required for reconciling discharge medications
- An ability to recognise and communicate patient specific continuing medication management needs.

Clinician Responsible for Communicating Medication Changes and Plans

Health care teams should decide who is accountable for ensuring the medication plan is communicated, who has the delegated responsibility to document all the medication information required, and who has a shared responsibility to ensure this step is completed. This decision should be made in collaboration with all team members. The proposed decision should be communicated to all clinicians within the team to make sure everyone is aware of their role and responsibilities.

The team member responsible may differ depending on the time of day or week. Consider who is responsible after hours, on weekends and on public holidays.

The health care team should also discuss how to trigger the completion of this step as it is reliant on the completion of the previous step (reconciling discharge medications).

Time	Clinician/s Responsible
Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
After Hours	Accountable: Delegated Responsibility: Shared Responsibility:
Weekend and Public Holidays	Accountable: Delegated Responsibility: Shared Responsibility:

How will the person delegated responsibility for completing this step be informed that the discharge reconciliation has occurred (i.e. the list of the patient's current medications has been verified)?

Supply of Medicines Information to Patients / Carers

Rationale

Providing medicines information to patients and/or carers is very important in ensuring continuity of medication management and the safe and quality use of medicines following discharge.

Several studies have shown that patients provided with the appropriate knowledge have a reduced risk of medication adverse events and associated hospital readmissions.

It is important that patients and/or carers know why certain medications have changed, why new medications have been started and why old medications have been stopped. Giving them this information makes sure they know how to take their medication when they leave the hospital and reduces the chance of medication misadventure.

Process Required

Patients/carers should be provided with information about their medication at the time of discharge. Two areas should be addressed:

1. What medications need to be continued, have changed and/or ceased following discharge
2. Specific information regarding new and/or high risk medications.

Of particular consideration are patients who have had new medication/s initiated during their admission; those with multiple medications (more than five); those who have had medication related adverse events; or those requiring treatment with a high-risk medication.

Medication lists/profiles or cards should be provided to patients; including information on the medications to be taken, how to take them and what they are for.

Knowledge and Skills Required

The clinician responsible for supplying medicines information should have:

- An ability to communicate effectively with patients and caregivers with varying levels of health literacy
- An ability to use the 'teach back' technique to confirm understanding
- An ability to determine the most important information required by the patient/carer to ensure safe ongoing medication management
- An ability to identify and refer patients that may require additional assistance with their medication in the community.

Clinician Responsible for Supply of Medicines Information

Health care teams should decide who is accountable for ensuring patients are provided with medicines information, who has the delegated responsibility to provide this information, and who has a shared responsibility to ensure this step is completed. This decision should be made in collaboration with all team members. The proposed decision should be communicated to all clinicians within the team to make sure everyone is aware of their role and responsibilities.

The team member responsible may differ depending on the time of day or week. Consider who is responsible after hours, on weekends and on public holidays.

Time	Clinician/s Responsible
Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
After Hours	Accountable: Delegated Responsibility: Shared Responsibility:
Weekend and Public Holidays	Accountable: Delegated Responsibility: Shared Responsibility:

Potential Resources for Provision of Patient Medication Lists

There are several methods to provide patients /carers with medication lists. The care team should discuss all available options and decide which to incorporate into standard practice.

The list provided to the patient should be in a patient friendly format i.e. easily understood, have no abbreviated directions or Latin, and contain an easy to follow administration schedule. Lists provided to patients must match the list on the discharge summary provided to their community health care provider.

Clinicians should be aware of and have access to the resources available to provide specific information on new and/or high risk medications e.g. Consumer Medicine Information leaflets, warfarin booklets, instructions for medication device use etc.

U = already used in standard practice and considered appropriate
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R = considered appropriate and requires incorporation into standard practice

Potential Resources	Implementation (U/N/R)
Computer generated medication lists/profiles	
Medication cards with written information	
Access to specific medication information is available to clinicians e.g. via CIAP or NPS MedicineWise	

Other comments:

ROLES AND RESPONSIBILITIES SUMMARY

Role	Time	Clinician/s Responsible
Who can obtain and document a BPMH?	Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
	After Hours	
	Weekend and Public Holidays	
Who can compare the BPMH with prescribed medicines and resolve discrepancies?	Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
	After Hours	
	Weekend and Public Holidays	
Who can complete medication reconciliation on discharge?	Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
	After Hours	
	Weekend and Public Holidays	
Who can communicate medication changes and plans at discharge?	Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
	After Hours	
	Weekend and Public Holidays	
Who can supply medicines information to patients/carers?	Business Hours	Accountable: Delegated Responsibility: Shared Responsibility:
	After Hours	
	Weekend and Public Holidays	

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