MEDICATION SAFETY AND QUALITY
Continuity of medicines
Ensuring safe care

CLINICAL EXCELLENCE COMMISSION

LOCAL OPERATING PROCEDURE

MEDICATION RECONCILIATION TOOLKIT

TABLE OF CONTENTS

PREAMBLE

Unintentional changes to patients' medications at transfers of care can result in considerable harm and have been linked to poorer health outcomes, increased hospital readmission and mortality.[1] Medication reconciliation is a strategy that has been shown to improve the continuity of medicines management, reducing medication errors by 70% and adverse events by over 15%.[2]

The Australian Commission on Safety and Quality in Health Care has identified discontinuity of medication management as an issue for patient safety and has included medication reconciliation in the National Safety and Quality Health Service Standards. In line with these standards, NSW Health has adopted medication reconciliation as best practice, and has included the process in their medication management policy (PD2013_043 Medication Handling in NSW Public Health Facilities).

This local operating procedure specifies how NSW public health services can apply and achieve medication reconciliation in line with National Standards and NSW Health policy.

SCOPE

This local operating procedure applies to staff that prescribe, dispense, administer or supply medication or medication information to hospital inpatients. These include:

Medical Officers (MO)
Nurse Practitioners (NP)
Pharmacists
Registered Nurses (RN)

This local operating procedure details the process of medication reconciliation, a key component in continuity of medication management. It should be applied in conjunction with any local policy or procedures pertaining to medication reconciliation and read in the context of wider medication management policy.

OVERVIEW

Medication reconciliation is a process that ensures patients receive all intended medicines by making sure accurate, current and comprehensive medicines information follows them at all transfers of care. It reduces adverse drug events by mitigating common errors of transcription, omission, commission and duplication.

Medication reconciliation involves four steps:

1. Collecting information to compile a Best Possible Medication History (BPMH)
    - This should include whenever possible a structured interview conducted at admission with the patient and/or carer by an appropriately trained clinician to obtain and document the patient's current pre-admission medications, including previous adverse drug reactions and allergies, and any recently ceased or changed medications.

2. Confirming the accuracy of the information
    - Using at least one additional source of medication information to verify the information obtained.

3. Comparing the history with prescribed medicines at every transfer of care
    - Compare the patient's BPMH with their prescribed inpatient medication orders on admission, transfers between wards/units, transfers between hospitals and on discharge. Check that changes are clinically appropriate and documented
    - Where there are discrepancies, these should be discussed with the prescribing medical officer then rectified by the medical officer either by, adjusting the currently prescribed medication to reflect the intended treatment (unintentional), or by documenting the reason for the changes to the therapy (intentional).

4. Supply accurate medicines information to the patient and next care provider
    - An accurate and complete list of the patient's medications is supplied to the patient and/or carer and the next care provider
    - Information about any changes that have been made to medicines and any ongoing therapeutic plan for medicines is also supplied.

Medical officers, nurses, pharmacists and patients/carers all have a role in the medication reconciliation process.

DEFINITIONS

Best Possible Medication History (BPMH)

As accurate a list as possible of a patient's current medications taken prior to admission. The BPMH should be compiled from an interview with the patient or the patient's carer whenever possible and confirmed with at least one other source of information.

Medication Discrepancy

A divergence or disagreement between medication lists that includes transcriptions, omissions, commissions, duplications and undocumented changes.

Medication Management Plan (MMP)

An approved standardised form used to facilitate accurate documentation and communication of information related to medicines. This form is used to document medications taken prior to admission, changes to medications during admission, medication reconciliation on admission and any medication issues and actions taken during the patient's episode of care. This information can be referred to during the patient's episode of care and used to inform the preparation of the discharge summary and prescriptions at the time of discharge. This form must be kept with the active medication charts throughout the patient's admission.

PROCEDURE

This procedure outlines the steps required to complete a formal medication reconciliation process and provides guidelines for documentation of medication reconciliation. Roles and responsibility for each step will need to be defined locally as this may vary depending on the workforce skill mix available in each ward/unit.

Medical officers, nurse practitioners, pharmacists and registered nurses undertaking medication reconciliation shall as a minimum have completed training in taking a BPMH and completed the HETI online learning modules on Continuity in Medication Management. It is highly recommended that all staff undertaking medication reconciliation be assessed as competent before being assigned roles and responsibilities. Registered nurses may require further training and support from pharmacy and medical staff.

Step 1 – Collect Information

1. Conduct a medication history interview with the patient or carer at the time of admission or as soon as possible in the episode of care. (Responsibility – medical officer, nurse practitioner, pharmacist or registered nurse).

    1.1. To facilitate the interview, patients should be encouraged to bring all medications, prescriptions and repeats with them into hospital. These medications should not be sent home with relatives/carers, but should be stored securely for review/reissuing/relabelling by the pharmacist on discharge.

    1.2. Follow an interview guide (refer to the CEC BPMH Interview Guide), use a checklist and language that the patient/carer understands.

    1.3. Document the information obtained from the interview on a standardised form such as the MMP (or electronic equivalent).

        1.3.1. Record:

        - Patient details
        - Date of documentation
        - Information about previous adverse drug reactions and allergies
        - All medications taken prior to admission: generic name, trade name, strength, form, dose, frequency, indication and duration
        - Any recently changed or ceased medications
        - Information source(s) used to elicit the medication history
        - Name of person who recorded the medication history
        - Whether the patient's own medicines were brought into hospital
        - Medication compliance or concordance issues
        - Any other relevant information
        - GP and community pharmacy name and contact.

    1.4. Compare the medication history with the patient's medical history. Identify and clarify any anomalies. For example, a patient is asthmatic and there are no medications identified to control or prevent asthma symptoms.

Step 2 – Confirm Accuracy

2. Confirm the medication history taken where appropriate with the patient's community health care provider. (Responsibility – medical officer, nurse practitioner, pharmacist or registered nurse).

    2.1. All histories are to be confirmed with a second source if possible. Examples of sources include:
    - Community pharmacist
    - General practitioner
    - Patient's own medicines
    - Residential care facility.

    2.2. Record the source and date of the confirmation on the MMP (or electronic equivalent).

Note: If confirmation cannot be obtained this must be communicated and delegated to a member of the treating team for follow up. The 'issue identified' section of the MMP may be used to record such communication.

Step 3 – Compare with Prescribed Medicines

3. Compare the medication history with prescribed medicines at every transfer of care (Responsibility – medical officer, nurse practitioner, pharmacist or registered nurse).

    3.1. In order to compare the medication history with the prescribed medicines the treating medical team's medication plan needs to be recorded.

        3.1.1. On admission record the plan for each medication on the MMP (or electronic equivalent). Note: The treating team's plan is not always readily available. If there is no documentation or evident clinical reason for change, the treating team should be contacted for clarification.

        3.1.2. The plan for each medication should be considered in the context of the patient's current presenting complaint and clinical condition. Any drug related problems identified should be followed up with the treating team. For example, a patient has been admitted with a gastrointestinal bleed and the patient's anticoagulant therapy has not been withheld.

        3.1.3. During the admission record explanations for any further changes to pre-admission medications in the 'medication changes during admission' section of the MMP.

    3.2. On admission compare each medication in the BPMH with the medication orders charted on the National Inpatient Medication Chart (NIMC). Any discrepancies identified must be clarified.

        3.2.1. Clarify by:
        - Referring to the treating team's plan on admission (on MMP or in clinical notes)
        - Contacting the prescribing medical officer.

        3.2.2. If the discrepancy cannot be clarified or resolved, document this in the 'issues identified' section of the MMP for follow up. Note: Any urgent medication issues should be brought to the attention of the medical officer as soon as possible.

        3.2.3. Any discrepancies identified as an intentional change should be documented on the MMP.

        3.2.4. Once the medication reconciliation process for each medication has been completed, tick the 'reconcile' column on the MMP.

A training presentation on how to use the MMP is available on the Australian Commission on Safety and Quality in Health Care's website: http://www.safetyandquality.gov.au/our-work/medication-safety/medication-reconciliation/nmmp/

3.3. **On transfer** from another ward/unit compare the BPMH with the medication orders charted on the National Inpatient Medication Chart (NIMC).

3.3.1. The treating medical team should consider whether:

- Withheld/ceased medications are to be restarted
- Medications prescribed in previous ward/unit are still required
- Medications are to be adjusted or commenced.

3.3.2. Any resulting changes to medications must be documented on the NIMC (e.g. ceased – no longer required) and on the MMP in the 'medication changes during admission' section, if the change relates to a pre-admission medication.

3.3.3. The registered nurse (prior to administration after transfer) or the pharmacist (reviewing medication orders after transfer) must clarify any changes between the BPMH and the medication orders charted on the NIMC that have not been documented. Any medication related problems should be followed up with the treating medical team. For example, withheld medications not restarted despite a change in the patient's condition.

If the transfer is between the ICU and the ward any electronic medication management system used by the ICU should be referred to for clarification of medication changes or plans.

3.4. **On transfer** from another hospital compare the patient's BPMH (communicated by the referring hospital), previously prescribed medications (i.e. copy of the medication chart at the previous hospital) with the medications that are to continue (from transfer documents).

3.4.1. Prior to ordering medications on the NIMC the accepting treating medical team should identify and clarify any changes made and any ongoing medication management plan.

3.4.2. The registered nurse (prior to administration after transfer) or the pharmacist (reviewing medication orders after transfer) must clarify any changes between the BPMH, previous orders and the current NIMC that have not been documented. Any medication related problems should be followed up with the treating medical team.

3.4.3. If the transferring hospital was unable to provide a BPMH, the medical officer, nurse practitioner, pharmacist or registered nurse at the receiving hospital should make a concerted effort to obtain the BPMH from the patient/carer or their community health care provider.

3.5. **At discharge** compile the list of medications the patient should continue with at home.

3.5.1. Medical officers should refer to the BPMH and medications prescribed on the NIMC when completing a discharge prescription and/or discharge summary.

3.5.1.1. Prior to completing the discharge prescription and/or discharge summary the medical officer should consider whether:

- Withheld/ceased medications are to be restarted
- Medications changed due to formulary restrictions are changed back

- Medications commenced during the hospital stay are still required (e.g. medications specific for inpatient treatment)
- Medications need to be adjusted or commenced on discharge.

3.5.1.2. Any changes made at discharge must be documented either on the NIMC or the MMP.

3.5.2. Prior to supplying discharge medications or providing discharge counselling the pharmacist or nurse should compare the BPMH and NIMC at discharge with the discharge prescription and/or discharge summary. Any discrepancies must be clarified and resolved.

3.5.2.1. Clarify by:

- Referring to the treating medical teams plan on discharge
- Contacting the prescribing medical officer.

Step 4 – Supply Accurate Medicines Information

4. Supply accurate medicines information to the patient and next care provider.

4.1. On discharge, once step 3.5 above is completed, provide an accurate and complete list of the medications the patient is to continue with at home to the patient and next care provider.

4.1.1. The medical officer should include the accurate and complete list of the patient's medications in the discharge summary for the next care provider. **Note:** where the medication list is completed by a pharmacist the medical officer must review and confirm it correlates to the proposed treatment plan on discharge.

4.1.2. The medical officer, nurse or pharmacist should provide an accurate and complete list of the patient's medications to the patient in a patient friendly format, free of medical jargon and complying with health literacy principles. **Note:** the medication list provided to the patient must correspond with the medication list provided in the discharge summary.

4.2. Include information about any changes that have been made to medicines and any ongoing therapeutic plan. To identify changes that have been made to medicines, compare the BPMH with the list of medications created at discharge. An explanation of the changes should be documented on the NIMC, MMP or clinical notes.

4.2.1. The medical officer should include information regarding changes that have been made to medicines (new, ceased or changed) and an explanation for these changes in the discharge summary.

4.2.2. The medical officer should include any information regarding the ongoing medication management requirements in the discharge summary for the next care provider.

4.2.3. The medical officer, nurse or pharmacist should include information regarding changes that have been made to medicines and an explanation for these changes in the medication list provided to the patient.

4.2.4. The medical officer, nurse or pharmacist should include information regarding the ongoing medication management requirements in the medication list provided to the patient.

FURTHER INFORMATION

5. Related policies/procedures/guidelines:

    5.1. PD2013_043 Medication Handling in NSW Public Health Facilities.

    5.2. NSW Poisons and Therapeutic Goods Act 1966.

    5.3. NSW Poisons and Therapeutic Goods Regulation 2008.

    5.4. CEC Continuity of Medication Management: Medication Reconciliation Toolkit.

    5.5. Australian Commission on Safety and Quality in Health Care's:

        5.5.1. Guide on how to complete the MMP

        5.5.2. MMP training presentation

        5.5.3. Get it right! Taking a BPMH training video.

COMPLIANCE EVALUATION

6. Compliance evaluation:

    6.1. Annual audit to determine compliance with obtaining patients' BPMH (e.g. NIMC audit).

    6.2. Annual audit to determine compliance with providing medication lists to patients.

    6.3. Annual audit to determine quality of medication information provided to patients and next care providers.

REFERENCES

1. Cornish PL, Knowles SR et. al. (2005). Unintentional Medication Discrepancies at the Time of Hospital Admission. Arch Intern Med 165: 424-429.

2. Whittington J, Cohen H. (2004). OSF Healthcare's Journey in Patient Safety. Quality Management in Health Care 13: 53-59.

Correspondence
Locked Bag 8
Haymarket NSW 1240
Tel 61 2 9269 5500
Fax 61 2 9269 5599
www.cec.health.nsw.gov.au

CLINICAL
EXCELLENCE
COMMISSION