Chapter 2: Assessment of Current Medication Management

INTRODUCTION

Assessment of a patient's current medication management is vital to ensure the quality use of medicines.[1] The assessment aims to optimise the quality use of medicines and therefore patient outcomes, and to minimise medicines-related problems.

To assess the patient's current medication management, the pharmacist confirms the safety and appropriateness of individual medication orders and the combination of medicines prescribed. This assessment is then documented in the patient's record or the pharmacy section of the National Inpatient Medication Chart (NIMC) or equivalent.

Assessment of a patient's current medication management should not be done in isolation. It requires a systematic, in-depth assessment of current medicines in consultation with the patient taking into account:

- the patient's medication history
- the patient's medication management plan (MMP) and data from the medication administration record
- a clinical review including therapeutic drug monitoring (TDM).

OBJECTIVE AND DEFINITION

Objective

Assessment of a patient's current medication management aims to optimise therapy and outcomes by ensuring the safety and appropriateness of prescribed medicines, taking into account patient-specific factors including their medical condition and previous experience with medicines. The goals are for the patient to receive the most appropriate dose and dosage form of their medicine, timing of dosage and duration of therapy and that the risks of medicines-related problems are minimised.

Pharmacist input into the appropriate choice of medicines and assessment of the patient's current medication management helps to:

- optimise the quality of patient care and clinical outcomes
- ensure that the selection of medicines follows local guidelines, formulary and availability limitations, where applicable
- promote the quality use of medicines
- promote the cost-effective use of medicines.

Definition

Assessment of a patient's current medication management by a pharmacist involves several elements including:

1. Reviewing all medicine orders and administration records (e.g. NIMC, electronic equivalent, intravenous fluid and electrolyte orders, outpatient and discharge prescriptions) to optimise medicine therapy, to ensure medicines are administered safely and appropriately and patient outcomes are optimised. This includes reviews when new medication charts are written or the patient is transferred to another setting.
2. Comparing the patient's current medicines to their MMP and data from the medication administration record, pharmacist clinical review, laboratory results and TDM.[2]
3. Providing advice on the selection of medicines to support therapeutic appropriateness, cost effectiveness and accessibility.

EXTENT AND OPERATION

Assessment of a patient's current medication management occurs on presentation or admission to a health service organisation (as part of medication reconciliation) throughout the episode of care and on discharge or transfer. Presentation may be on admission, in emergency departments, in outpatient clinics or other services.

Ideally, all acute patients should have their current medication management assessed and reviewed daily. If this is not achievable, prioritise those where maximum benefit is likely to be obtained.

Subacute patients may not require their current medication management to be reviewed daily. They should have their medication management assessed at regular intervals (including on admission, transfer or discharge) and when their medicines are changed or their health status changes. Non-acute patients should have an assessment when their medicines are changed or their health status changes. See *Chapter 8: Prioritising clinical pharmacy services.*

POLICY AND PROCEDURE

Medication Order Review

Medication order review involves assessing all current and recent orders and administration records including: NIMC, variable dose medicines, intravenous fluid and electrolyte orders, single dose medicines, anaesthetic and operative records, epidural medicines, analgesics, enteral and parenteral nutrition orders, outpatient and/or discharge prescriptions and other relevant medication orders. Areas to consider for assessment are included in Table 2.1.

In addition to reviewing the patient's medication order:

- assess their ability to adhere to their medication management before and during the episode of care. Determine if the patient requires help in managing their medicines at home or on discharge.[2] An initial assessment of adherence is part of the best possible medication history. See *Chapter 1: Medication reconciliation*
- assess if polypharmacy is an issue impacting on adherence
- ensure all medicines are ordered according to the patient's therapeutic goals and the MMP, if available
- identify and prioritise any medicines-related problems.

Take into account recent consultations, pathology results and investigations, treatment plans and daily progress when determining the appropriateness of current medication orders and planning patient care. See *Chapter 3: Clinical review, therapeutic drug monitoring and adverse drug reaction management*.

Liaise with the prescriber to resolve any issues, correct the medication orders and record in the health record.

Finally, sign the 'pharmaceutical review' section of the NIMC. See *Chapter 13: Documenting clinical activities*.

Table 2.2 lists the competencies and accreditation frameworks that are relevant to this chapter.

Table 2.1 Medication order review
For each medicine order assess:
Clarity
•Ensure prescriber's intention is clear to enable the safe supply and administration of medicines.
•Ensure all medicines are prescribed by their active ingredient or as recommended by local policy.
•Ensure prescribing abbreviations meet local and national policy.
•Annotate the order to clarify the administration of modified-release products, IV administration method, indication and maximum dose in 24 hours for PRN medications, administration in relation to food and relevant restrictions, e.g. schedule 8.
•Ensure cancelled medicine orders comply with national and local prescribing policies.
•Ensure date and time the medication is to commence and cease is written.
•Ensure duration of the medicine is appropriate, consideration should be given to medicines commonly used in short courses.
•Ensure time the dose should be given is endorsed in the relevant section of the chart.
Validity
•Check patient identifiers are present.
•Ensure order is signed and the prescriber can be identified.
•Ensure order conforms with legal and funding requirements and any additional requirements are fulfilled, e.g. authority granted.
Appropriateness
•Consider local guidelines for patient management when making recommendations on the choice of medicines. Also consider the latest evidence regarding the medicine's: -efficacy in the management of a particular disease or symptom -comparative efficacy and safety of therapeutic alternatives -likelihood of adverse effects, compared with therapeutic alternatives and ways to minimise adverse effects -pharmacokinetic and pharmacodynamic properties -route and method of administration -dosage form, comparative efficacy and adverse effects of different dose forms, intended site of action, dose required for intended effect, kinetics of different dose forms -method of monitoring for therapeutic and adverse effects.
•Check medication orders for interactions including drug–drug, drug–patient, drug–disease and drug–nutrient interactions and: -identify mechanism of the interaction -consider clinical significance -decide on an appropriate course of action.
•Consider interactions with laboratory tests and environmental factors, e.g. smoking, alcohol consumption, motor vehicle driving.
•Consider cost of the medicine therapy to the patient, hospital and community.
•Consider cost/benefit of prescribed medicines and costs of therapeutic alternatives.
•Check availability, i.e. government restrictions, marketing approval, hospital formulary limitations, methods of obtaining further supply outside of the facility.
•Check all medication orders for duplication.
•Check dose with respect to patient's previous experience with medicine, disease state, pregnancy, age, renal function, liver function, interactions, dose form and method of administration.
•Check dose conversions required with changes to route or formulation.
•Check the most appropriate route of administration is selected.
•Check timing of administration is appropriate with respect to food/feeds, administration rounds, convenience, scheduled procedures/investigations, TDM requirements.

Table 2.1 Medication order review (contd)
•Check orders for medicines to which the patient may be allergic or have experienced an ADR. Discuss with prescriber the need for such medicine and recommend an alternative, if appropriate. If the prescriber wishes to continue treatment with the suspected medicine, details of the discussion with the prescriber should be documented in the patient's health record.
•Ensure infusion solution, concentration and rate of administration are appropriate and clinical targets (e.g. blood sugar levels, blood pressure) are appropriate.
•Check administration record to see that all doses have been given as prescribed.
•Check availability of the medicine and annotate the supply method of individual medicines.
•Ensure necessary medicines are available and where necessary ordered, e.g. current medicines, premedication.

References

1. Australian Pharmaceutical Advisory Council. Guiding principles to achieve continuity in medication management. Canberra: The Council; 2005.

2. Task Force on Medicines Partnership. The National Collaborative Medicines Management Services Programme. Room for review. A guide to medication review: the agenda for patients, practitioners and managers. London: Medicines Partnership; 2002.

3. Society of Hospital Pharmacists of Australia. Clinical competency assessment tool (shpaclinCAT version 2). In: SHPA standards of practice for clinical pharmacy services. J Pharm Pract Res 2013; 43 (suppl): S50-S67.

4. Australian Pharmacy Profession Consultative Forum. National competency standards framework for pharmacists in Australia. Deakin: Pharmaceutical Society of Australia; 2010.

5. Australian Commission on Safety and Quality in Health Care. National safety and quality health service standards. Sydney: The Commission; 2012.

Table 2.2 Competencies and accreditation frameworks
Relevant national competencies and accreditation standards and shpaclinCAT competencies
shpaclinCAT[3]
Competency unit 1.1 Medication history 1.1.7 Patient's understanding of illness 1.1.8 Patient's experience of medicines use 1.1.11 Adherence assessment
Competency unit 1.2 Assessment of current medication management and clinical review 1.2.2 Drug–drug interactions 1.2.3 Drug–patient interactions 1.2.4 Drug–disease interactions 1.2.5 Drug–nutrient interactions 1.2.6 Appropriate choice of medicine 1.2.7 Medicine order/prescription clarity 1.2.8 Medicine order/prescription legality 1.2.9 Dose review 1.2.10 Route and timing of dose 1.2.11 Selection of formulation, concentration or rate
Competency unit 1.3 Identification, prioritisation and resolution of medicines-related problems 1.3.2 Identification of medicines-related problems 1.3.3 Prioritisation of medicines-related problems 1.3.4 Resolution of medicines-related problems 1.3.5 Documentation of medicines-related problems 1.3.7 Documentation of clinical pharmacy activities
Competency unit 1.4 Provision of medicine 1.4.1 Availability of medicines 1.4.3 Review of administration of prescribed medicines
Competency unit 2.1 Problem solving 2.1.2 Access information 2.1.3 Abstract information 2.1.4 Evaluation and application of information 2.1.5 Appraisal of therapeutic options 2.1.6 Formulation of a clear decision

Competency unit 2.2 Therapeutic understanding 2.2.1 Justification of therapeutic choice
Competency unit 2.4 Communication 2.4.1 Patient and carer 2.4.3 Prescribing staff 2.4.4 Nursing staff 2.4.5 Other health professionals
Competency unit 2.5 Personal effectiveness 2.5.1 Prioritisation 2.5.3 Efficiency 2.5.4 Logic 2.5.5 Assertiveness 2.5.6 Negotiation 2.5.7 Confidence
Competency unit 2.6 Team work 2.6.2 Interdisciplinary team 2.6.4 Promotion of rational medicines use
Competency unit 2.7 Professional qualities 2.7.2 Confidentiality 2.7.4 Responsibility for patient care
National competency standards framework for pharmacists[4]
Standard 1.1 Practise legally 1 Comply with statute law, guidelines, codes and standards 2 Respond to common law requirements 3 Respect and protect consumer's right to privacy and confidentiality 4 Support and assist consumer consent
Standard 1.3 Deliver 'patient-centred' care 1 Maintain primary focus on the consumer 2 Address consumer needs
Standard 1.4 Manage quality and safety 1 Protect and enhance consumer safety 2 Respond to identified risk
Standard 2.1 Communicate effectively 1 Adopt sound principles for communication 2 Adapt communication for cultural and linguistic diversity 3 Manage the communication process 4 Apply communication skills in negotiation
Standard 2.2 Work to resolve problems 1 Analyse the problem/potential problem 2 Act to resolve the problem/potential problem
Standard 4.2 Consider the appropriateness of prescribed medicines 1 Gather relevant information 2 Review the prescribed medicines 3 Promote optimal medicines use
Standard 7.1 Contribute to therapeutic decision-making 2 Assess current medication management 3 Recommend change in medication management 4 Support and assist patient self-management
Standard 7.2 Provide ongoing medication management 1 Seek consumer support 2 Review clinical progress 3 Initiate monitoring and intervention 4 Manage medication management records
National safety and quality health service standards[5]
Standard 4 Medication safety: communicating with patients and carers 4.13 Informing patients about treatment options 4.14 Medication management plan