Continuity in Medication Management

A Handbook for South Australian Hospitals

Government of South Australia
SA Health

Executive Summary

The South Australian and Australian governments have committed to a process of pharmaceutical reform in public hospitals. The key outcomes of the reforms are improved safety and quality of medication management services and increased equity of access to medications for patients.

This handbook outlines the Australian Pharmaceutical Advisory Council's (APAC) guiding principles to achieve continuity in medication management and provides information on how to implement them. The guiding principles support a multi-disciplinary approach to enhance the quality use of medicines, reduce the harm caused by medicines misuse and misadventure, and improve medication management during admission and when patients transfer between different care settings.

All hospitals, whether participating in the pharmaceutical reforms or not, will find this handbook a valuable resource for improving medication management.

Recommendations

- That hospital executive management and senior health care professionals acknowledge their duty of care to provide leadership in medication management in order to achieve optimal health outcomes for patients and the goals and objectives of the organisation.
- That hospital executive management ensure that systems exist and resources are provided to enable medication management across the continuum of care.
- That hospital executive management and senior health care professionals acknowledge their role in the medication management pathway by ensuring procedures are in place so all staff understand their responsibilities.

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Introduction

The South Australian and Australian governments have committed to a process of pharmaceutical reform. The key outcomes of the reforms are:

- improved safety and quality of medication management services through implementation of the Australian Pharmaceutical Advisory Council's (APAC) guiding principles to achieve continuity in medication management
- increased equity of access to medications for patients via public hospital access to medicines under the Pharmaceutical Benefits Scheme (PBS).

Quality Use of Medicines

Australia's National Medicines Policy[1] is a framework based on cooperative partnerships between governments, healthcare practitioners and educators, consumers, industry and the media. The policy aims to 'meet medication and related service needs, so that both optimal health outcomes and economic objectives are achieved for Australians'. It has four central objectives:

- timely, cost effective access to medicines
- quality, safety and efficacy standards for medicines
- quality use of medicines
- a responsible and viable medicines industry.

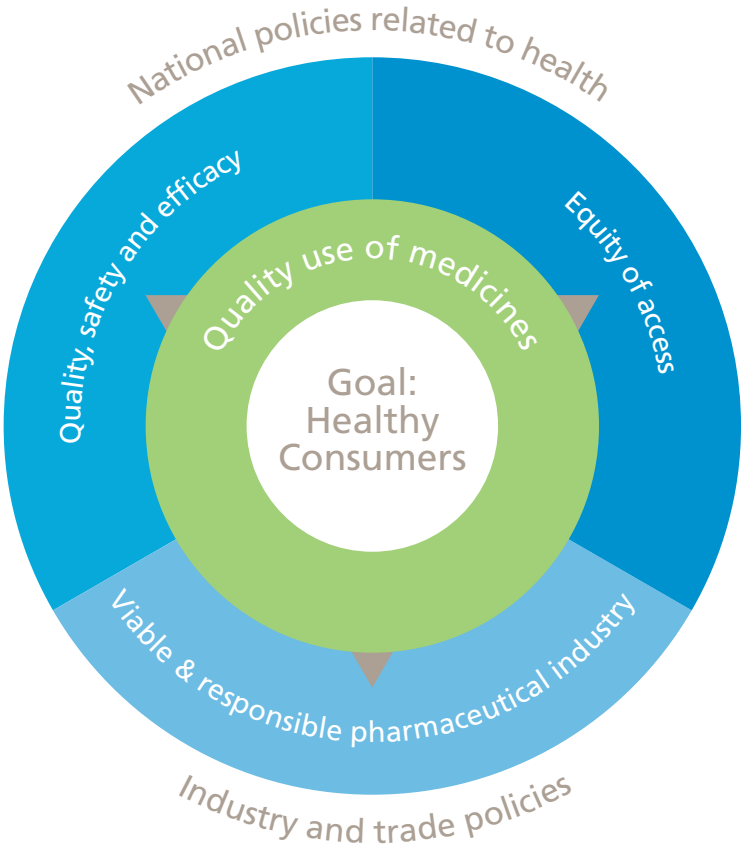


Figure 1: Illustration of the interdependence of the four components of the National Health Policy[2]

The national strategy for the quality use of medicines (QUM) is central to the National Medicines Policy and acknowledges that the four objectives of the policy are interdependent (Figure 1). Quality use of medicines means making the best possible use of medicines to improve health outcomes, while recognising:

- many people maintain their health without medicines
- medicines includes prescription, non-prescription, and complementary medicines.

Achieving quality use of medicines across the continuum of care requires commitment, coordination and cooperation among patients, health care professionals and hospital managers.

Purpose

This handbook has been developed as part of the Pharmaceutical Reforms Project: it aims to assist South Australian hospitals attain the milestones agreed with the Australian Government, when implementing the APAC guiding principles to achieve continuity in medication management.

The handbook focuses on the policies and activities which support the implementation of the guiding principles. To measure the impact of improving continuity in medication management, key performance indicators have been incorporated for each principle.

All hospitals, whether participating in the pharmaceutical reforms or not, will find this handbook a valuable resource for improving medication management.

Background

The multi-disciplinary Australian Pharmaceutical Advisory Council (APAC) was formed in 1991 to advise the Australian Government on medicines policy issues. The 'Guiding principles to achieve continuity in medication management'[3] were published in 2005 and provide a broader approach to quality use of medicines across the continuum of care, than the original APAC guidelines published in 1998.

According to the guiding principles, each hospital should have policies and guidelines in place to ensure continuity in medication management. This means the hospital and health care professional will maintain complete and accurate information about the patient's medicines and that it will be available at the point of care. Responsibility and accountability for collecting and maintaining this information should be documented in these medication management policies and guidelines.

Medication Management Cycle

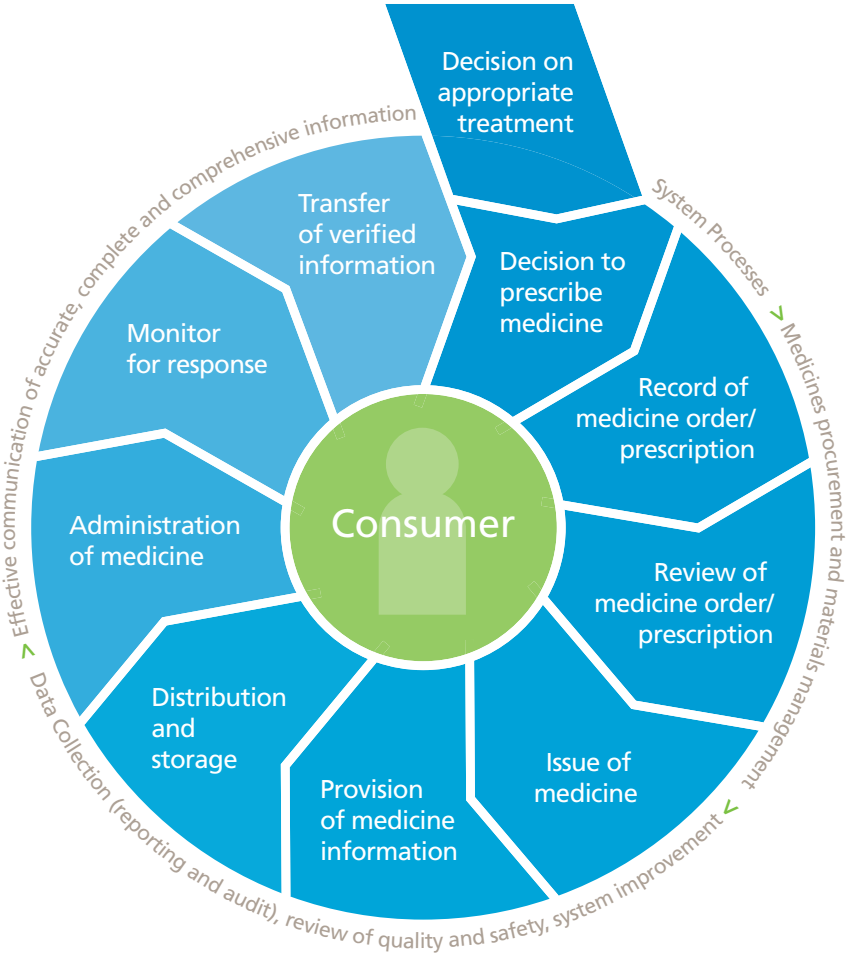


Figure 2: Medication Management Cycle [3]

The medication management cycle encompasses all the activities required to manage the quality use of medicines for patients at each episode of care. These activities are:

- Decide appropriate treatment and if a medicine is required, decide to prescribe the safest and most cost effective medicine.
- Transfer the intention to prescribe via a prescription or medicine order to others involved in the medication management cycle.
- Review the medicine order to ensure optimal use of the medicine, compliance with legislation, clinical appropriateness, and verification of prescribing intent and expected outcomes.
- Prepare the medicines safely and accurately.
- Issue the correct medicine with appropriate labelling to ensure the person administering the medicine understands the prescriber's intent.

- Provide appropriate information to the patient about the medicine, including how to store and use it properly.
- Distribute and store the medicine safely.
- Re-assess the need for the medicine (for example, pain relief, symptom control).
- Confirm that the correct medicine has been supplied and administer as prescribed.
- Monitor the response to the medicine; this includes self-monitoring by the patient and clinical monitoring by the health care professional.
- With the patient's consent and in a timely manner, transfer accurate information about the medicine to the health care professional involved in the next episode of care.

Continuity in medication management occurs when all components of the medication management cycle, relevant to the episode of care, are completed and information is transferred to the next care setting. Significant patient harm and sub-optimal use of medicines frequently result from discontinuity. An organisational systems approach has been shown to improve continuity in medication management.[4, 5]

APAC guiding principles

The APAC guiding principles (Figure 3) provide the framework for supporting the quality use of medicines and developing a medication management policy for an organisation. The patient is at the centre of the medication management process, in partnership with a multidisciplinary health care team. Responsibility for implementing the guiding principles lies with hospital executive managers and those health care professionals involved in the medication management cycle.

Principles 1 to 3 address organisational requirements of leadership, responsibility and accountability for medication management within the hospital. Principles 4 to 9 outline specific patient care activities to ensure continuity in medication management, while principle 10 relates to quality assurance of organisational requirements and evaluation of patient care activities.

The guiding principles[3] are:

1. Leadership

The hospital should have an overarching policy to direct and resource medication management. In a hospital setting, all steps of the medication management cycle should be included when developing policies, procedures and guidelines.

2. Responsibility

Every person involved in the medication management cycle should be aware of and accept responsibility for their role, including where responsibility can be delegated.

3. Accountability

Each hospital manager and health care professional is individually accountable for his or her responsibilities and jointly accountable, with other health care professionals, for ensuring continuity in medication management.

4. Accurate medication history

A complete and accurate medication history will provide a baseline for medication management decisions and should be documented at the time of presentation or admission, or as early as possible in the episode of care.

5. Medication review and reconciliation

The process of medication review commences on admission with reconciliation of the medication history and the medicines currently prescribed, to ensure quality use of medicines throughout the episode of care.

6. Medication Action Plan

The medication action plan is intended to be a 'working' document to support health care professionals and patients in developing medication management strategies. It should include actual and potential problems, with actions recommended to address these problems and medication management goals.

7. Supply of medicines information to patients

Patients should receive verbal and/or written information about their medicines and how to manage them before they transfer to the next episode of care.

8. Ongoing access to medicines

Patients should receive a sufficient supply of medicines, as well as information on access and availability. A review of medicines to be taken after transfer to the next episode of care should also be undertaken.

9. Communicating medicines information

With the patient's consent, comprehensive, complete and accurate information should be transferred to the health care professionals responsible for continuing the patient's medication management.

10. Evaluation of medication management

The hospital will evaluate the medication management components of the episode of care to ensure continuity of the patients' medication management has been achieved.

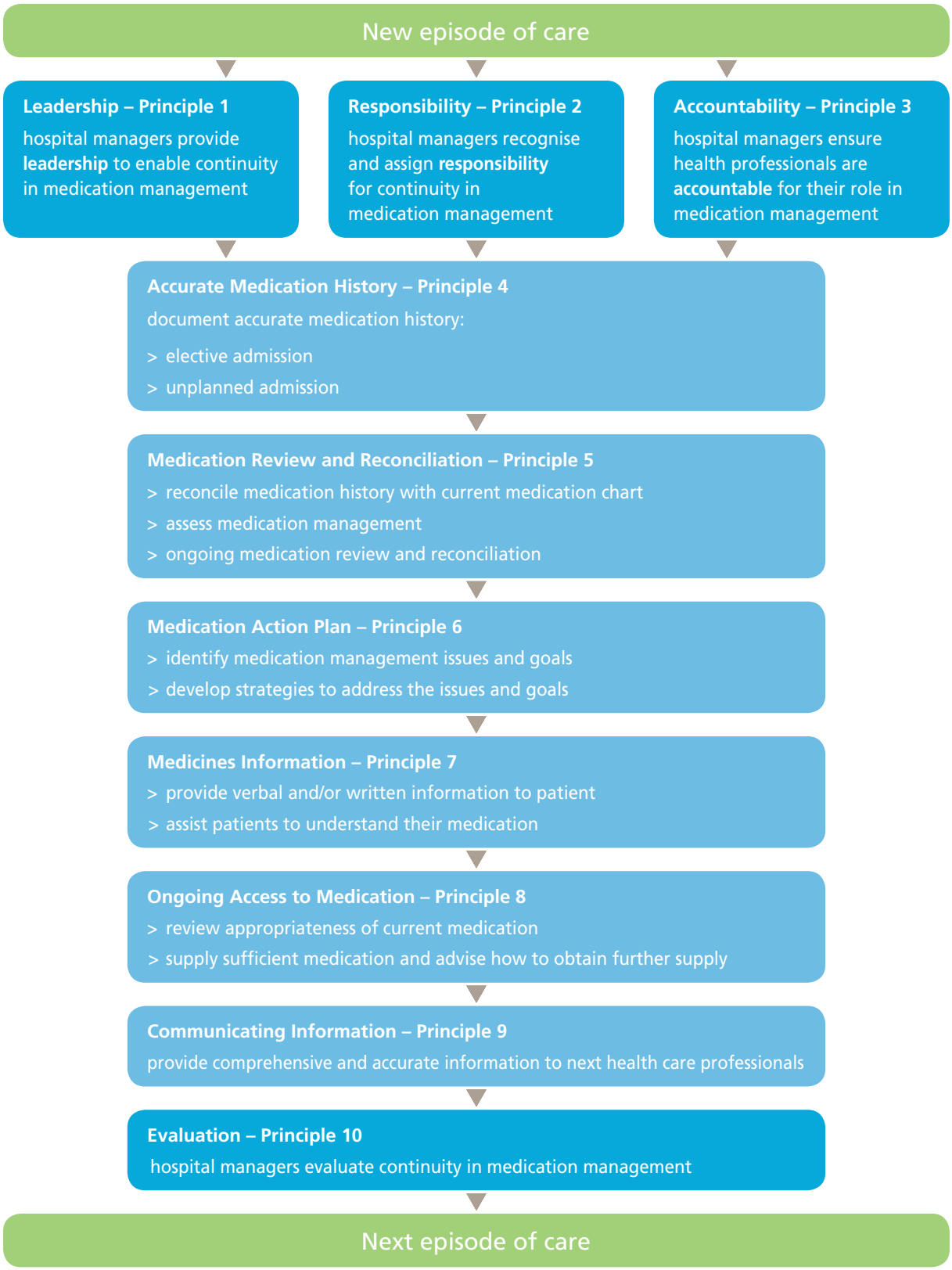


Figure 3: APAC guiding principles

APAC Milestones

The Pharmaceutical Reform Agreement between the Australian and South Australian governments includes a set of milestones (Appendix One) which participating hospitals are required to meet when implementing the APAC guiding principles.

To assist hospitals attain these milestones, SA Health has supported hospitals participating in the reforms to recruit human resources, sufficient to raise the ratio of clinical pharmacists to beds to the national standard (Appendix Two) as referenced in the APAC guiding principles. This standard must be maintained as a minimum in order for hospitals to meet their obligations under the Agreement.

Key Performance Indicators

The South Australian APAC key performance indicators (Appendix Three) were developed by SA Health to measure the impact of implementing the guiding principles. Where possible, these were aligned with existing national quality use of medicines indicators.

Applicability

While the goal of this resource is to assist hospitals achieve continuity in medication management for all patients transitioning in and out of hospitals, it is recognised that there may be patients for whom compliance with the APAC guiding principles, such as provision of a medication discharge plan, is deemed clinically inappropriate; for example, accident and emergency patients suffering from minor trauma and patients who do not take regular medications.

Continuity in medication management applies to transfers between many different care settings: wards within one hospital; from an acute ward to a rehabilitation centre or hospice; or, when a patient admitted to hospital is discharged to their own home or residential care facility.

While many of the medication management activities are ideally performed by a pharmacist, other appropriately skilled health care professionals may be responsible for undertaking the task; for example, medical officers, nurse or midwife practitioners, nurses or midwives, nurse educators and appropriately trained and supervised students or technicians.

Some of the medication management activities undertaken by these health care professionals may include:

- taking a complete and accurate medication history
- reviewing and reconciling medication
- supplying medicines information to the patient
- communicating medicines information to the health care professionals responsible for the next episode of care.

For the purpose of the handbook, and ease of reading, the term patient has been used throughout. The term is intended to include consumer, client or other person, however titled, receiving health care. Where the term patient is used, it is also intended to read as patient and/or carer.

1. Leadership for Medication Management

Guiding Principle 1

Hospital managers should provide leadership to ensure that the systems exist and resources are provided to enable medication management across the continuum of care.

Policy Statement

Hospital managers and senior health care professionals acknowledge their duty of care to provide leadership in medication management in order to achieve optimal health outcomes for patients and the goals and objectives of the organisation.

Hospital managers and senior health care professionals promote the quality use of medicines and recognise that medication management requires consultation and collaboration to ensure safe therapeutic outcomes.

The evidence based APAC guiding principles to achieve continuity in medication management are the basis for addressing all aspects of the medication management cycle, relevant to the hospital's level of service.

Hospital managers acknowledge their responsibility to ensure sufficient and appropriate resources are available to support continuity in medication management.

SA APAC Key Performance Indicator

SA APAC 1.1

There is a policy, procedure or guideline to define the roles of management, doctors, pharmacists, nurses/midwives, other health care professionals and patients in all steps of the medication management cycle.

2. Responsibility for Medication Management

Guiding Principle 2

Hospital managers and health care professionals have a responsibility to participate in all aspects of medication management in partnership with patients.

Policy Statement

Hospital managers and senior health care professionals acknowledge their role in the medication management pathway by ensuring procedures are in place so all staff understand their responsibilities, and how responsibilities are assigned for those processes not clearly associated with one health care profession.

Each person involved in the medication management cycle should be aware of their role, acknowledge responsibility for their role and assist others to participate in the cycle.

Where responsibility is delegated, hospital managers should ensure there are guidelines available.

Hospital managers should provide information to assist patients in understanding their responsibility in medication management.

SA APAC Key Performance Indicators

SA APAC 2.1

There is a policy, procedure or guideline that outlines the responsibilities of health care professionals in all aspects of medication management, with delegation where appropriate.

SA APAC 2.2

There is written information provided to patients and/or their carers outlining their responsibilities in medication management.

3. Accountability for Medication Management

Guiding Principle 3

Hospital managers and health care professionals are jointly and individually accountable for making sure that activities that support the continuity of medication management are implemented.

Policy Statement

Each health care professional is individually and jointly accountable, with other team members, for ensuring continuity in medication management. This accountability cannot be delegated.

Hospital managers should include accountability for medication management in staff job and person specifications.

Hospital managers acknowledge their responsibility to develop competency based training and assessment of health care professionals in medication management.

SA APAC Key Performance Indicator

SA APAC 3.1

There is a policy to include accountability for medication management in the job and person specifications of health care professionals.

4. Medication History

Guiding Principle 4

An accurate and complete medication history should be obtained and documented at the time of presentation or admission, or as early as possible in the episode of care.

Background

Adverse drug events are commonly caused by the lack of effective communication, particularly in the transition between the community and hospital settings.[6] On admission to hospital, up to 50% of patients have an incomplete medication list resulting in a medication not being administered during the hospital stay.[7] A medication history is a record of all the medications, including prescription, over-the-counter (OTC) and complementary medicines a patient is taking in the period prior to admission, and includes information about previous adverse drug events and allergies.

Junior medical staff are often responsible for obtaining and documenting the medication history and this may occur at a place and time which does not support accuracy (such as the emergency department and/or when patients are acutely ill).[8] Sources of information for the medication history under these circumstances may include:

- a medication list generated by the patient's general practitioner (GP) which may be based on all prescriptions written by that doctor over a long period of time
- the labels on medications accompanying the patient
- identification of medications in a current dose administration aid
- the medication chart or other documentation from a recent admission.

Almost half of GP referral letters include a medication list which is inaccurate for medication or dose.[9] Similarly, medicine labels and medication charts from previous admissions do not necessarily reflect a patient's current medication regimen accurately.

A complete and accurate medication history is the foundation for all decisions concerning medication management and assists patient care by reducing discrepancies in medication orders.[10] Optimally, this is achieved via a structured interview between a pharmacist or other appropriately skilled health care professional and the patient.

Many studies have identified the benefits of a pharmacist-obtained medication history in relation to accuracy and completeness over that obtained by other health care professionals.[11-14]

Responsibility

The patient, hospital managers and health care professionals are each responsible for ensuring a complete and accurate medication history is obtained, confirmed and documented as early as possible in the admission.

Procedure

Health care professionals should be skilled in obtaining a medication history, should consider all information sources and determine the complete and accurate list where discrepancies exist.

Patients should be encouraged to maintain a list of all their current medications, including recent changes, medications ceased or not being taken, medications taken only occasionally and over-the-counter and complementary medicines.

Ideally the medication history interview should be conducted by a pharmacist, but where this is not possible an appropriately skilled health care professional would conduct the interview.

Obtaining a complete and accurate medication history involves:

- reviewing sources of information
- interviewing the patient about their medication
- documenting patient and medication information
- assessing the patient's medication management.[15]

The interviewer should use open-ended questions, where appropriate, and document a complete list of the patient's medications including dosage, duration of therapy, the patient's perception of indication and effectiveness and a description of any adverse events or allergies.

Verifying the medication history with at least a second source, where appropriate, confirms that the information provided during the interview is supported.[16] With the patient's consent, details can be confirmed by family, carers, general practitioners, community pharmacists, residential care facilities or by physically reviewing the patient's medications.

The medication history should ideally be documented on a clearly identified form and filed in the medical record (for example adjacent the medication chart).

1. Elective admissions

A complete and accurate medication history should be documented as part of the pre-admission process or, if this is not possible, on admission. Where patients are attending for a day procedure or investigation, and where a complete and accurate medication history is deemed not to be necessary, procedures should be in place to document relevant medications.

If attending a pre-admission clinic, patients should be encouraged to bring with them:

- all of their current medicines (prescription, over-the-counter and complementary medicines)
- a list of all their medicines
- any other information that could inform the accurate recording of their medication history (for example warfarin book, repeat prescriptions).

If the pre-admission assessment is conducted by telephone, all the above items should be available as a resource for the patient.

Except where it is necessary to withhold medicines prior to surgery, patients should be advised to continue their current medication regimen, and any medication-related problems identified during the interview should be addressed. Information about when and for how long medicines should be ceased before a procedure must also be provided.[3]

The medication history taken in a pre-admission process should be confirmed and current medications reconciled on admission.

2. Unplanned admissions

A complete and accurate medication history should be documented as early as possible after admission.

Because of the acute nature of unplanned admissions, and possible delay in accessing the patient's relevant medication information, it may take several interviews to document a complete and accurate medication history. Any medication-related problems identified during the interview should be reviewed as soon as possible.

Medication history information

A medication history should ideally include:[3, 8, 17]

- patient details
- date and time of interview
- name, designation and contact details of the person who recorded the history.
- a list of medications and the source of the information:
  - medicine (active ingredient(s) and/or brand name, strength, and dose form)
  - dose, route and administration frequency (as actually taken by the patient)
  - indication as reported by the patient
  - recently changed and ceased medications, including the reasons for change or discontinuation
  - when started/duration of therapy
  - include all prescription and non-prescription (over-the-counter and complementary) medicines and those taken regularly and intermittently
  - social drug use
  - vaccination history.
- information about previous adverse drug events and allergies should be documented on the medication history form, medication chart, hospital alert sheets and hospital electronic system, where relevant, and should include:
  - active ingredient(s) of specific medicine, and brand name where relevant
  - type of reaction
  - when it occurred
  - how it was managed
  - how long after exposure to the medication the reaction developed
  - whether it was confirmed by a health care professional.
- name of patient's usual general practitioner and community pharmacy
- assessment of patient's medication management:[15]
  - who is responsible for patient's medication – for example, carer
  - patient's understanding of English and ability to read and comprehend labels and directions
  - patient's perceived effectiveness of the medication
  - medication compliance and need for dose administration aids
  - issues that may impact on the use of medicines – for example, swallowing or dexterity difficulties
  - medication administration technique and type of device – for example, inhalers, eye drops, insulin delivery device
  - storage of medicines.

Checklist

Where appropriate, a checklist of questions should be used in the interview to ensure the patient is asked specifically about, for example:[8]

- ☐ Non-prescription medicines e.g. antihistamines
- ☐ Sleeping tablets
- ☐ Eye, ear or nose drops/sprays
- ☐ Drugs for gastric reflux, heartburn or indigestion
- ☐ Patches
- ☐ Inhalers, puffers, sprays
- ☐ Creams or ointments
- ☐ Drugs for constipation or diarrhoea
- ☐ Sublingual tablets or sprays
- ☐ Aspirin, NSAIDS, pain relief
- ☐ Herbal preparations, vitamins, natural therapies
- ☐ Regular injections
- ☐ Oral contraceptives, hormone replacement therapy
- ☐ Other people's medications
- ☐ Medications stored in the refrigerator
- ☐ Alcohol
- ☐ Social drugs
- ☐ Smoking

Communication

To verify the documented medication history is complete and accurate, the person responsible for recording the information may need to contact the patient's primary health care professionals, such as the general practitioner, community pharmacist or residential care facility staff. The process should include:

- obtaining consent from the patient, where possible
- contacting the general practitioner, community pharmacy, other hospital or residential care facility by telephone or fax to obtain an up-to-date medication list
- where it is not possible to directly obtain patient consent and the information is critical to the treatment options for the patient, it is appropriate for the person recording the medication history to contact the primary health care professional.

Resources

A structured medication history form is a useful tool to support accurate documentation and should be filed adjacent the medication chart.

The standard formats for recording the medication history, and adverse drug reactions and allergies should be used in all places where these are documented, including:

- pre-admission clinic assessment
- emergency department admission
- clinical/care pathways
- discharge summaries.

Template examples (Appendix Four)

- MedMAP® - FMC, RGH, TQEH
- Patient Medication History Form - RAH

SA APAC Key Performance Indicators

SA APAC 4.1

There is a policy, procedure or guideline for documenting the medication history, including use of a standard form (for example, Medication History Form).

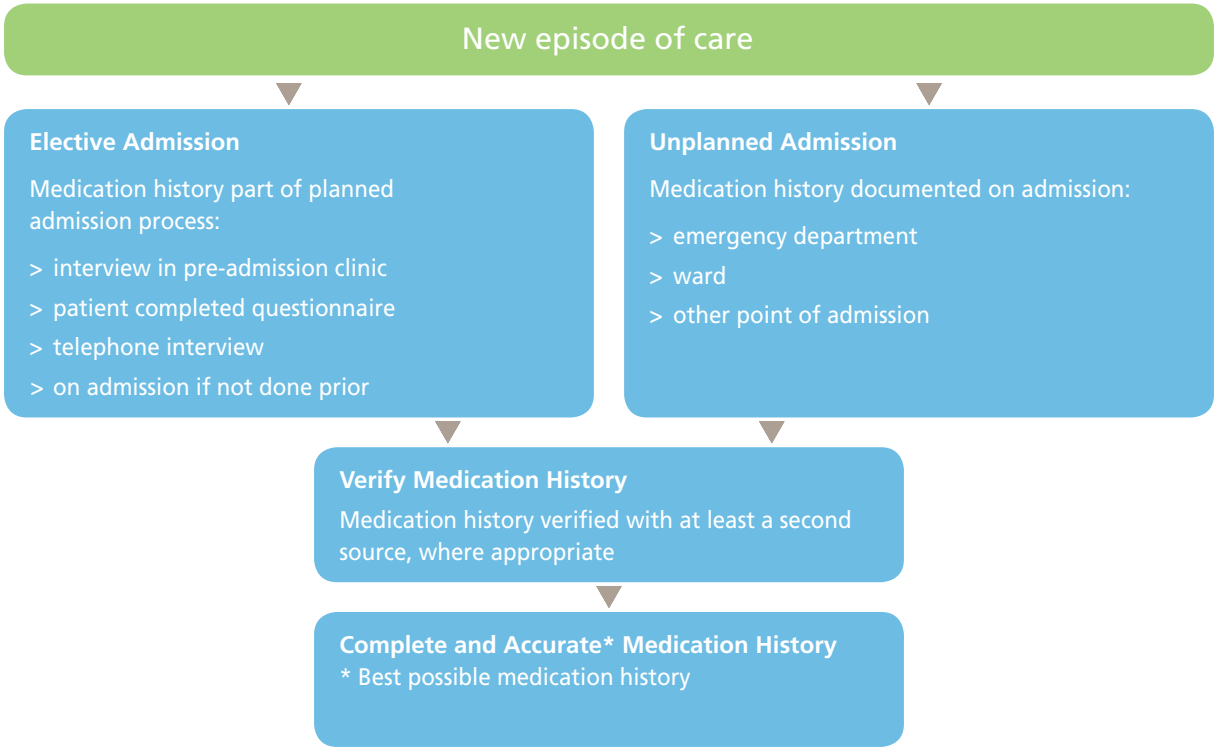
SA APAC 4.2

Percentage of inpatients that has a complete and accurate list of their current medications (including over-the-counter and complementary medications) documented and verified within a day of admission.

SA APAC 4.3

Percentage of inpatients that has a correctly completed record of prior adverse drug reaction (ADR) and allergy documented within a day of admission.

Medication History Pathway



5. Medication Review and Reconciliation

Guiding Principle 5

From the early stages and throughout each episode of care, current medicines and other therapies should be assessed to ensure the quality use of medicines, which means selecting management options wisely, choosing suitable medicines if a medicine is considered necessary, and using medicines safely and effectively.

Background

A review of an inpatient's medications includes assessment of their complete list of current medications to ensure safe and appropriate dosage administration and to optimise medicine therapy and patient outcomes. The review follows an accurate medication history and provides an opportunity to identify the need for further clinical pharmacy activities including therapeutic drug monitoring, assessment and management of suspected adverse drug reactions and patient education. The aim is to optimise the patient's medicines by ensuring that the patient receives the most appropriate medicine for their medical conditions. This includes ensuring that the most appropriate dose, dosage form, frequency and route of administration is chosen, that the timing of dosage and the duration of therapy is appropriate and that medicine-related problems are minimised.[15]

Medication review should be undertaken by an appropriately skilled health care professional (such as a pharmacist or medical officer) within 24 hours of hospital admission and ideally on a daily basis thereafter. The frequency of review is determined by the acuity or clinical risk of the patient; clinically unstable patients require daily review, as a minimum.[18]

The process of medication review commences on admission with reconciliation of the medication history and the medicines currently prescribed. Medication reconciliation occurs at multiple stages of the patient admission and is the process of comparing the up-to-date and accurate medication list with the prescribed list, taking into account any discrepancies, changes, deletions or additions. The purpose of medication reconciliation is to ensure patients receive all intended medicines and that errors of transcription, omission, duplication of therapy, and drug-drug and drug-disease interactions are avoided.[19]

Ongoing medication review is a dynamic process that builds on the reconciliation process and occurs in the context of the patient's ongoing care plan. Regular medication review provides a means to detect discrepancies in the prescribing, ordering or administering of medicines, as they account for a significant number of medication errors.

Common examples of these errors include:

- omissions
- drug prescribed when patient has a known allergy to the drug
- sustained release form not specified
- wrong or ambiguous dose
- dose absent
- wrong or unclear frequency
- frequency absent
- medication continued when it is no longer indicated
- duplication.[20]

Potential benefits associated with medication review and detection of drug related problems include reduced adverse drug events, reduced length of stay, reduced probability of readmission and reduced drug costs.[21]

Responsibility

It is the responsibility of each organisation to maintain procedures that ensure medication reconciliation and ongoing medication review is performed for every admitted inpatient.

Appropriately skilled health care professionals (ideally pharmacists) are responsible for ensuring the safe and effective use of medicines for admitted inpatients by the processes of medication reconciliation and regular medication review.

Procedure

The health care professional undertaking medication reconciliation and ongoing medication review should be competent in the processes of medication review and possess sound therapeutic knowledge and effective communication skills.

1. Medication Reconciliation

The first stage of the medication review process is medication reconciliation. The reconciliation process involves ensuring that the medicines and doses that are currently prescribed for the patient are correct. This may not mean that they will be identical to those documented in the medication history as intentional changes are frequently made to patient's medicines on admission to hospital.

(a) Reconciliation Process

The reconciliation process occurs on admission, during the inpatient stay and on discharge from hospital. It involves identifying any discrepancies between the confirmed medication history and the current medicines and acting on the information accordingly.

- **On admission:** Involves a comparison of the list obtained during the medication history with the list of medicines prescribed on admission. This assumes the medication history process has been completed and provides an accurate medication list (verified with secondary sources as appropriate) to serve as a comparator.
- **During the inpatient stay:** Checking that the confirmed medication history and current medicines are accurately transcribed for every transition the patient makes within the hospital and when new medication charts are written.
- **On discharge:** Checking that both the medicines ordered and the medication list in the discharge summary match the discharge plan and the medicines being taken at the point of discharge; reviewing the medication history to check that any medicines withheld on admission have been re-initiated where appropriate; and that any changes have been documented.

(b) Documentation

It is critical that information assembled during reconciliation be appropriately communicated. Any discrepancies or changes that have been made to the patient's medicines must be documented and dated for the benefit of other health care professionals involved in managing the patient's medicines. At the point of discharge, it is important to ensure that the reconciled medicines are accurately listed in the discharge summary with the reasons for any changes between admission and discharge. Examples of changes might include:

- when a medicine has been stopped, started or the dose of the medicine has been changed, and for what reason
- the intended duration of treatment for therapies such as antibiotics and short course corticosteroids.

2. Ongoing Medication Review Process

The ongoing review process is undertaken by the relevant health care professional at a frequency determined by the acuity of the patient. The patient's medical record is reviewed in conjunction with the medicines prescribed on the medication chart. Recent consultations, pathology results and investigations, treatment plans and daily progress should be taken into account when determining the appropriateness of current medicine orders and when planning patient care.

All current and recent medicine orders should be reviewed. These may include routine medicine orders, variable dose medicines, intravenous therapy, single dose medicines, anaesthetic and operative records, epidural medicine or other analgesics.

Components of the medication review process include:

- Ensuring there is a clinical need for continuing therapy with each medicine by confirming the medicine order is appropriate with respect to:
  - patient's previous medicines
  - patient-specific considerations; for example, age, renal function, hepatic function, disease state or pregnancy
  - medicine dose and dosage schedule
  - route, dosage form and method of administration.
- Identifying medicines to which the patient may be sensitive (including allergies and previous adverse drug reactions), discussing with the prescriber the need for these medicines, and recommending an alternative, if appropriate.
  - If the prescriber wishes to continue treatment with the suspected drug, details of the discussions with the prescriber should be fully documented in the patient's medical record.
- Checking all medication charts for duplications or contraindications.
- Ensuring medicines have not been inadvertently omitted.
- Detecting and managing medicine interactions.
- Ensuring administration times are appropriate, for example with respect to ward regimens, food, other medicines and procedures.
- Checking all doses ordered are administered according to the prescribed dosing schedule.
- Ensuring all medicine orders clearly indicate the date and time at which administration is to commence.
- Ensuring the duration of administration is appropriate, particularly for drugs commonly used in short courses, such as antibiotics and analgesics.
- Checking suitability of the route of administration and ability for dosage form to be administered, with respect to issues such as swallowing difficulties; naso-gastric tubes; availability of oral solutions.
- Ensuring the medicine order is cancelled in all sections of the medication chart when it is intended to be ceased.
- Following up non-formulary medicine orders and recommending a formulary equivalent where appropriate.
- Ensuring appropriate monitoring is implemented and following this up to determine whether the medicine has been achieving the goals of therapy.
- Reviewing infusion orders in regards to concentrations, compatibility, rate and clinical targets; for example, blood sugar levels and blood pressure.
- Reviewing medicines for cost-effectiveness.
- Endorsing or annotating orders comprehensively with information to minimise the risk of misinterpretation:
  - including generic names, brand names (especially for warfarin and combination products), allergies and adverse drug reactions, administration times in relation to food, reconstitution, administration instructions (such as dilution / flow rates for intravenous infusions).
- Ensuring orders are comprehensive and unambiguous, that appropriate terminology is used and that medicine names are not abbreviated.
- Checking that the medicines are prescribed in accordance with hospital policies and guidelines and legal requirements.

- Ensuring all necessary medicine is ordered; for example, current medicines, premedications, prophylactic treatment.
- Ensuring all necessary medicine is available.

Consultation regarding suggested and necessary changes must be undertaken with the relevant health care professional and the patient as soon as practical. This may occur during the medication review process, or at arranged times such as medical ward rounds. Consultation and interventions should be documented in the patient's medical record and pharmacy records where appropriate, including where the prescriber elects not to action a recommendation.

Once the review has occurred, it needs to be documented on the patient's medication chart. The reviewer should sign the 'Pharmaceutical Review' signoff box on the National Inpatient Medication Chart (NIMC) to indicate that the review has been completed.

The ongoing assessment should be a collaborative process between health care professionals. Feedback from the patient should be included with observations from health care professionals to determine whether:

- there are any new adverse medicine events (especially intolerable side effects)
- the expected response for a medicine is achieved, or if no response, the medicine is reviewed
- clinical factors are affecting the response, such as other diagnoses or nutritional status
- lifestyle factors such as diet/smoking are affecting medicine response
- the dose, frequency or duration of treatment should be modified
- the patient is persistently refusing medicines.

Communication

Discrepancies, changes, additions or deletions to the medicines regimen that are made during either the reconciliation process or ongoing medication review need to be effectively communicated with the patient, medical officer and other relevant health care professionals and, as appropriate, documented in the patient's medical record. Management of an inpatient's medicines relies on the accurate transfer of this information.

Resources

Forms, such as the MedMAP® (Appendix Four), are designed for inclusion in the patient's medical record and include a sign-off for the "Reconciliation Pharmacist" to document that the initial medication reconciliation has been completed. In addition, the MedMAP® form includes a section for documenting progress and changes to the patient's medications that occur as a result of the medication review process.

The Australian Commission on Safety and Quality in Health Care (the Commission) released a National Medication Management Plan (MMP) in October 2010. It is a standardised form to record the medication history and use in the medication review and reconciliation process. The MMP and user guide are available from the Commission's website: http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/PriorityProgram-06_MedRecon

SA APAC Key Performance Indicators

SA APAC 5.1

There is a policy, procedure or guideline for conducting a medication review, by a pharmacist and/or medical staff.

SA APAC 5.2

Percentage of patients reviewed by a pharmacist within a day of admission.

SA APAC 5.3

Percentage of admitted days that patients receive medication review by a pharmacist.

SA APAC 5.4

Percentage of patients with an INR result >4.0 that have had their dosage adjusted or reviewed prior to the next warfarin dose.

SA APAC 5.5

Percentage of patients with a toxic or sub-therapeutic aminoglycoside concentration that have had their dosage adjusted or reviewed prior to the next aminoglycoside dose.

Medication Review and Reconciliation Pathway

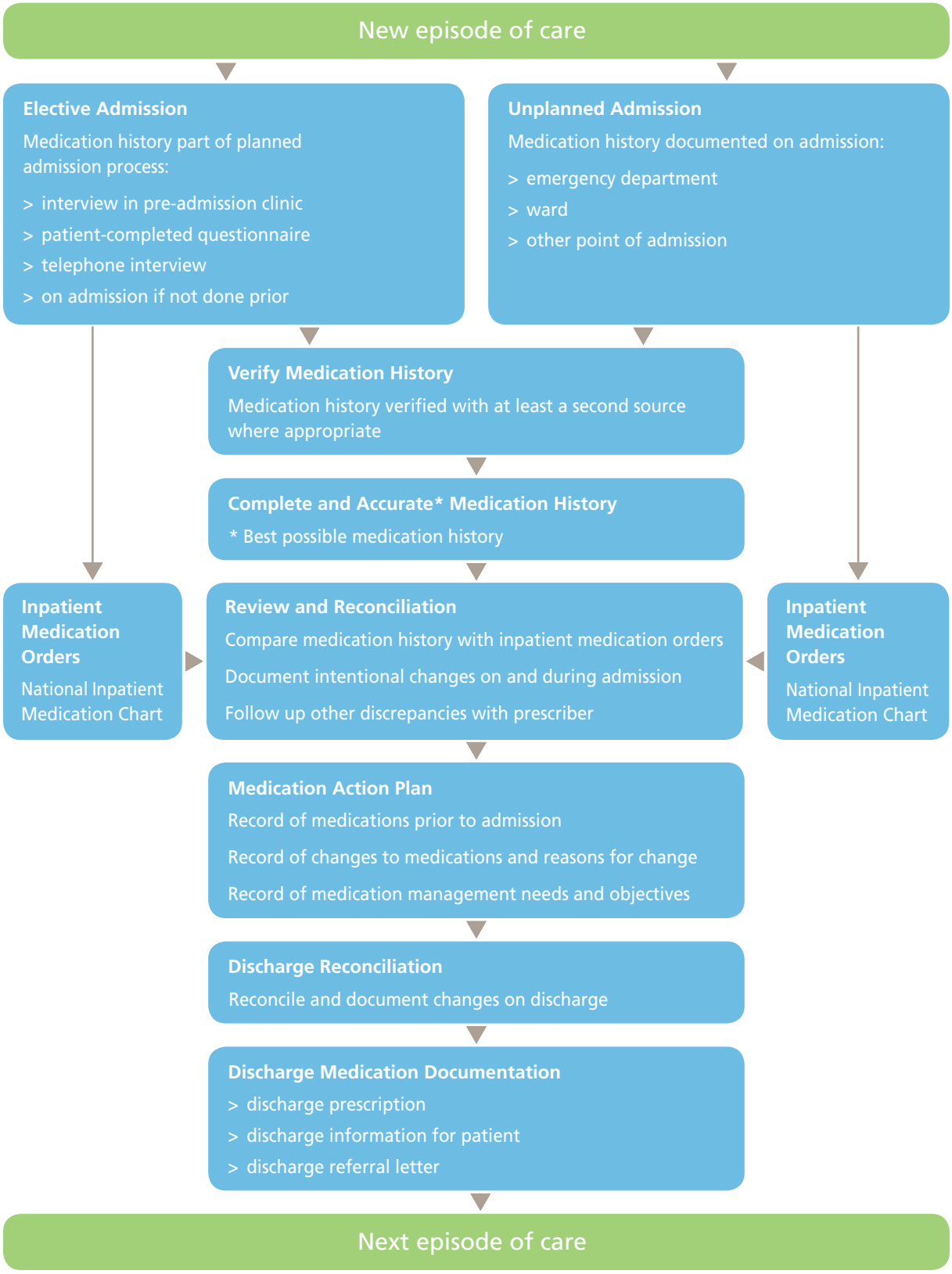


Figure 4: Medication review and reconciliation pathway

6. Medication Action Plan

Guiding Principle 6

A Medication Action Plan should:

> be developed with the patient and relevant health care professionals as early as possible in the episode of care

> form an integral part of care planning for the patient

> be reviewed during the episode of care and before transfer.

Background

The Medication Action Plan (MAP) is a 'working' document[3]; individualised and contemporary. It outlines the agreed goals, objectives and outcomes of a patient's medications, including strategies to manage them.

It is intended to be used by and shared among all health care professionals and the patient. At each episode of care it should be reviewed and updated.

The plan evolves from Guiding Principles Four and Five (medication history and medication review) and informs Guiding Principle Seven (supply of medicines information to patients). Action plans designed for specific disease states, for example heart failure, diabetes and asthma, form a component of the MAP. The plan should be considered within the framework of the patient's overall medication management strategy.

Responsibility

In collaboration with the patient, appropriately skilled health care professionals are responsible for initiating and maintaining a MAP.

Patients are responsible for managing their medication in accordance with the plan.

Hospital managers are responsible for providing guidelines for who creates the MAP, who is authorised to modify it and at what stage the plan is formally reviewed.

Procedure

The MAP should be initiated or reviewed at the time of the medication history interview and evolves as medication management problems are identified and addressed, and goals achieved.

The patient is integral to the plan, identifying or being made aware of problems and collaboratively setting goals and actions. The patient is also involved in nominating the health care professional(s) who should receive a copy of the MAP.

In addition to patient identification and general information, the essential activities associated with the MAP for an individual patient are:[15]

- Interpreting patient-specific data:
  - Reviewing and recording relevant data; for example, co-morbidities, allergies, laboratory results and dose with respect to age, renal and hepatic function, and route of administration.
- Identifying medication-related issues:
  - Documenting actual and potential issues arising from the patient-specific data, for example:
    - medications with no indication, and conditions which are currently untreated
    - inappropriate medication, dose and/or schedule
    - therapeutic duplication
    - clinically significant interactions (drug-drug, drug-disease).
  - Prioritising actions with regard to the significance, severity and urgency of each identified issue.
- Establishing and assessing therapeutic goals:
  - Identifying achievable goal(s) for each condition.
  - Evaluating therapeutic options with regard to efficacy, safety, availability, cost, patient preference, level of evidence, risks and benefits and the planned therapeutic goal.
  - Identifying the person responsible for each action described in the plan.
- Monitoring patient outcomes:
  - Using a methodical approach to monitor outcomes, including expected and unexpected outcomes.
  - Establishing the frequency of monitoring, taking into account the acuity of the patient, the complexity of therapy, timeframe for intended outcome and potential side effects associated with therapy.
- Documenting outcomes:
  - Documenting outcomes when goals are achieved.
  - Setting and documenting new goals when desired outcomes are not achieved.

Information about the management of ongoing issues identified in the Medication Action Plan should be provided to the patient and other health care professional(s) on transfer of care.

A copy of the MAP should be retained in the patient's medical record.

Communication

The Medication Action Plan should be communicated to the person(s) responsible for each action in the plan, in a format that is relevant to the recipient. This may include the patient, general practitioner, community pharmacist, residential care facility and/or other health care professionals.

Resources

A structured and consistent format for documenting the Medication Action Plan is a valuable resource that can be accessed and actioned by health care professionals involved in the patient's care. In some facilities this action plan may form part of the medication history and reconciliation document, or be documented in the case notes.

Template examples:

- MedMAP® (Appendix Four)
- Asthma Action Plan (Appendix Five)

SA APAC Key Performance Indicators

SA APAC 6.1

There is a policy, procedure or guideline to address who creates the Medication Action Plan, who is authorised to modify the plan and at what stage the plan is formally reviewed.

SA APAC 6.2

Percentage of patients prescribed salbutamol on discharge that are given a written action plan for acute exacerbations of respiratory disease, and a copy is communicated to the primary care clinician.

Note: Whilst it is acknowledged that other bronchodilators are in use, to simplify audit data collection the agent most commonly prescribed (at the time of writing), salbutamol, has been incorporated into this KPI.

7. Supply of Medicines Information to Patients

Guiding Principle 7

Before patients transfer to another health care provider, they will receive sufficient information, in a form they can use and understand, to enable them to safely and effectively use all medicines in accordance with the agreed Medication Action Plan.

Background

Appropriate education and provision of information to patients about their medicines is essential to encourage safe and effective medication use. This may include the supply of a current medication profile, counselling, consumer medicine information (CMI), identification of the requirement for, and provision of, dose administration aids or home medicines reviews. While education of the patient may occur at any time during a hospital admission or consultation, a current medication profile is best prepared and explained before the patient is transferred, taking into account any changes that have been made during the course of the encounter. Patients should be encouraged to take their current medication profile with them when visiting other health care professionals.

The aim of medication counselling is to provide comprehensive information and education to patients to ensure safe and appropriate use of their medicines in order to optimise therapeutic outcomes.[15] Medication education should be performed by an appropriately skilled health care professional.

Medication counselling prior to discharge improves patient outcomes[22]; in particular, a reduction in preventable adverse drug events,[23] medical visits and hospital re-admissions.[23, 24] Patients' medication knowledge and adherence improves when counselled about their medications by pharmacists.[24, 25]

Responsibility

Appropriately skilled health care professionals, preferably pharmacists, are responsible for providing sufficient medicines information and education to patients to ensure their safe and effective use.

Procedure

Patients should receive verbal counselling and written information to support their medication management. The information provided should be user-friendly and where possible, provided in a concise package. For admitted patients, their understanding of medications and retention of information is optimised if education occurs on an ongoing basis during their hospital stay as well as immediately prior to discharge. Follow-up education after discharge, as part of a home medicines review (HMR), can further consolidate patients' understanding of their medications.

The needs of patients who are visually or cognitively impaired or from culturally and linguistically diverse backgrounds should be addressed.[3, 15] It is important that the key medicine-related issues are communicated and that privacy and confidentiality issues as well as the patient's personal wishes are considered.[15]

1. Medicines Information for Patients

Medicines information may be provided in the form of industry prepared Consumer Medicines Information (CMI) or in some cases, locally prepared patient medication information for specific medicines or indications.[8] Provision of medicines information is particularly relevant to newly commenced medication.

2. Medication Profile

A medication profile is intended to improve patients' knowledge and understanding of their medication by providing essential information to assist with safe administration. Changes made to patients' medications should be highlighted to address any potential confusion that may arise. Different names for medications can also lead to confusion for patients and potential for medication error. Particular care should be taken to ensure the patient has a good understanding of their medications' generic and brand names as well as the names of common alternate brands, especially if a different brand is supplied compared to that which is normally used by the patient.

General information that should appear on the medication profile includes:

- date
- hospital pharmacy identification and contact number
- name of the pharmacist who prepared the medication profile
- general advice on appropriate storage of medications.

Patient specific information that should appear on the medication profile includes:

- patient's name and hospital identification number
- patient's adverse drug reactions and allergies, including their description.

Medication specific information that should appear on the medication profile includes:

- generic medication name and common brand name(s)
- form and strength
- indication
- dose, route and administration schedule
- special instructions pertaining to medications (for example, advisory and cautionary advice)
- common side effects that may occur
- potential interactions
- details of changes made to medicines including those newly started, those stopped, and those with changed dose or dosage forms.

Other information, where relevant, that should be provided in either verbal or written format includes:

- how long treatment with each medication is expected to continue (for example, ongoing, short-term)
- instructions on reducing/ceasing therapy
- information on the availability and future supply of medicines, including supply of repeat prescriptions
- specific storage information (for example, refrigeration)
- safe ways to dispose of medications (for example, patches)
- special instructions about missed doses
- specific instructions for certain forms of administration (for example, eye drops)
- information on monitoring requirements (for example, need for specific follow up tests and when and where to get them done).

3. Supporting Information

Medication costs – information on the costs, availability and future supply of medicines, including supply of repeat prescriptions where applicable, should be provided. Pamphlets detailing the Pharmaceutical Benefits Scheme should be available to patients where required. Patients should also be informed about any entitlements they may be eligible for and an explanation of the PBS Safety Net.[3, 8]

Medication monitoring aids – where appropriate, monitoring aids (for example, warfarin book, diabetes sugar level record) should be provided with education.[3, 8]

Dose administration aids (DAA) – where relevant, patients should be provided with sufficient education to safely and effectively manage the use and administration of their medications from a DAA (for example, dosette or blister pack). This should include education on how to pack a DAA in the case of a dosette. The medication regimen for medicines included in the DAA should be documented on the DAA backing sheet. A list of those medications that are not included in the DAA should also appear on the backing. A medication profile should be provided to assist the patient in the continued preparation of their dosette. Where it is not possible for a patient to be responsible for the preparation of a dosette, then appropriate liaison with the patient and the patient's community pharmacy should follow to ensure that the patient's medications are correctly packed into a DAA and available for use on discharge.

Medication Management Reviews – if a medication management review is required (for example, home medicines review), information should be provided to the patient about what it entails and how to arrange a review. [3, 8]

Communication

Medicines information that is provided to patients in one care setting becomes a source of medication history in the next care setting. To ensure continuity between different care settings, patients should be encouraged to share medicines information that has been provided to them (for example, a medication profile) with other health care professionals. Appropriate communication between health care professionals (with the patient's consent) is essential in ensuring that the correct information is obtained in every setting and that the patient's medication list is maintained as a current and accurate reflection of their medications which may be used by all parties.

Resources

Examples of patient medicines information are listed below (Appendix Five).

1. Medicines Information for Patients

- Industry prepared CMI
- Locally prepared patient medication information (for example, alendronate information sheet, omeprazole pamphlet, warfarin book)

2. Medication Profile

- Printed profiles (for example, MedProf® program)
- Handwritten medication cards

3. Supporting Information

- PBS pamphlets
- Warfarin monitoring (in book)
- DAA backing for dosettes or blister packs

In order to provide accurate and up-to-date medicines information to patients, current and practical resources need to be readily accessible in clinical practice areas in hospitals. Needs-based continuing education programs should also be in place.[3]

SA APAC Key Performance Indicators

SA APAC 7.1

There is a policy and procedure for providing patients with written information for hospital-initiated medications that are to be continued post discharge.

SA APAC 7.2

Percentage of hospital inpatients that received appropriate verbal counselling and/or written information about their medicines prior to discharge.

SA APAC 7.3

Percentage of patients commenced on warfarin during their admission that received counselling and written drug information prior to discharge.

8. Ongoing Access to Medication

Guiding Principle 8

Patients should receive sufficient supplies of appropriately labelled medicines (with the active ingredient name and brand name displayed) and information about how to obtain further supply of medicines to support their Medication Action Plan.

Background

Supply of medicines is usually undertaken by pharmacists or other authorised health care professionals (for example, medical officers or endorsed rural nurses).

Reviewing access and availability of medicines for patients transferring to another care setting is an essential part of a health care professional's role, and should take into account therapeutic goals and economic considerations.[3, 15] Patients require sufficient supply of medication until they are able to obtain a further supply, or to finish a course of treatment.

The correct medicine should be selected and clearly labelled according to legislative requirements, and supplied in sufficient quantity to ensure continuity in medication management.

Responsibility

Hospital managers are responsible for developing appropriate systems for the supply of medication to patients at discharge to ensure continuity of care between hospital and the community.[26]

Health care professionals are responsible for supplying sufficient quantity of medication until patients are able to obtain further supply.

Patients should have an understanding of how and where to access further supply of medication to maintain the goals of their medication action plan.

Procedure

Discharge prescriptions should be written to allow sufficient time for a pharmacist or other health care professional to review the prescription, dispense the medicines, prepare information for the patient, and provide counselling. The medicines should be clearly labelled in accordance with current legislation.

1. Prescription Review and Reconciliation

A medication review should be conducted to ensure the medications are appropriate, judicious and safe in accordance with the medication action and discharge plans.[17]

A pharmacist or other appropriately skilled health care professional should reconcile the discharge medications against the medication history and current medication charts and alert the prescriber to any discrepancies. All changes should be documented on the prescription and in the patient's medical record.

The procedures for medication reconciliation and review are outlined under guiding principle five.

2. Ongoing access

Before transferring to the next episode of care, patients should receive sufficient supply of their medicines to ensure continuity in their medication regimen. Patients should also receive information about how to obtain further supplies and the likely cost of their medicines.

When determining ongoing access and availability of medications, the health care professional should consider:

- whether the patient has sufficient supply at home
- the therapeutic goals of/for the patient
- PBS/RPBS applicability
- where the patient lives – for example, in rural or remote area
- whether the medicine is only available through the hospital, including being manufactured by the hospital, via the Special Access Scheme, or for compassionate use
- whether the medicine is part of a clinical trial
- the cost of the medicines for the patient
- whether the patient requires a dose administration aid (DAA), and if so, make arrangements for ongoing management.

To support continuity in medication management, accurate information about the patient's medication should be communicated to the next health care professional in a timely fashion, as outlined under guiding principle nine.

3. Appropriately labelled medicine

Medicines should be supplied in packaging that is

- easily distinguishable
- clearly labelled (including batch number, expiry date and storage conditions, where relevant)
- suitable for the patient's vision, literacy and dexterity (for example, use of childproof containers).

Communication

Communication between the health care professional and the patient is essential to ensure the patient has ongoing supply of their medication.

To avoid specific supply difficulties, it may be necessary for communication between health care professionals before the patient is discharged.

To ensure ongoing supply, accurate information about the patient's medication regimen and any changes made during the admission, should be communicated to the patient's primary health care professionals, such as the general practitioner and community pharmacist. Where possible, consent should be obtained from the patient.

SA APAC Key Performance Indicators

SA APAC 8.1

There is a policy, procedure or guideline for reviewing medication management issues, including ongoing access to medication, prior to discharge.

SA APAC 8.2

Percentage of discharge prescriptions reviewed and reconciled by a pharmacist prior to dispensing.

9. Communicating Medicines Information

Guiding Principle 9

When a patient is transferred to another episode of care, the transferring health care professional(s) should supply comprehensive, complete and accurate information to the health care professional(s) responsible for continuing the patient's medication management in accordance with their Medication Action Plan.

Background

Current information about a patient's medication management is essential for ongoing continuity of care. Comprehensive, timely and accurate medication management information must be supplied by the current health care professional to the patient's next health care professional on transfer or discharge. The interface between hospital and the community often contributes to medication errors and adverse events.[27-29] Appropriate communication of information will enable the patient and subsequent health care professionals to continue the safe and effective management of their medications.

Communication between health care settings is frequently poor, and is a contributing factor to medication related adverse events and unintended hospital re-admissions.[18] Factors contributing to poor or inaccurate communication include:

- lack of awareness of the roles of hospital and community health care teams to the patient's care
- increasing pressure on discharge planning with reduced length of stay and early time of discharge
- multiple changes to patient's medicines during an episode of care.

Discrepancies commonly occur between discharge prescriptions, transfer letters and separation summaries. Verification of information is an important step prior to transfer to the next health care setting.

Responsibility

Health care professionals are responsible for communicating comprehensive and accurate information about a patient's medication management to the next health care professional(s).

The patient is responsible for nominating the health care professional(s) who should receive the information.

Hospital managers are responsible for ensuring availability of appropriate processes and procedures for timely transfer of the information.

Procedure

Accurate and comprehensive information should be presented in a format that is relevant to the recipient and transferred in a timely manner in accordance with the patient's needs.

Transfer between episodes of care may refer to many different care settings: for example, wards within a hospital; between hospitals; discharge from an acute setting to a rehabilitation centre or hospice; or, when a patient admitted to hospital is discharged to their own home or residential care facility.

The information provided on transfer should include:

- a verified list of the patient's current medicines reconciled with medicines taken prior to the episode
- changes to medicines during the episode and reasons for change, including new or ceased medicines and dose changes
- monitoring and management of medicines
- details of problems identified during the episode, including adverse events
- specific needs for medication management; for example, dose administration aids.

When transferring to primary care, information should also include the following:

- Health services organised for follow-up post-discharge; for example hospital in the home and post-discharge medication liaison services for patients at high risk of medication misadventure.
- If there is a recommendation for future Home Medicines Review or Residential Medication Management Review this should be communicated to the patient and other relevant health care professional(s).
- Information in the discharge summary should be communicated to the relevant persons responsible for actioning the items in the medication action plan, and may include: patient; general practitioner; community pharmacist; other health care professional; and residential care facility.

Resources

The method of information transfer is dependent on the next episode of care and could include:

- patient's medical record
- hard copy – separation summary, nursing/midwifery discharge letter
- electronic transfer – for example, OACIS separation summary
- email or facsimile transfer
- electronic health records.

When transferring information, patient consent, confidentiality and privacy issues must be considered in accordance with guidelines and legislation.

OACIS Separation Summary Template example (Appendix Four).

SA APAC Key Performance Indicators

SA APAC 9.1

There is a policy, procedure or protocol supporting provision of a complete and accurate discharge summary to relevant health care professionals.

SA APAC 9.2

Percentage of discharge summaries that document an accurate medication list and the reasons for all medication therapy changes from medications taken prior to admission.

10. Evaluation

Guiding Principle 10

The transferring hospital is responsible for evaluating the extent to which continuity of patients' medication management has been achieved.

Background

The guiding principles were developed to facilitate continuity in medication management by promoting a consistent and standard approach across all health care settings and health care providers. The principles comprise hospital organisational requirements in leadership, responsibility and accountability, and the specific activities to be undertaken by health care professionals.

Continuity in medication management is achieved when a series of medication management cycles are linked with information transfer between the cycles (Figure 5).

Continuity refers to transfers within a facility as well as transfer from one care setting to another.

Evaluating the medication management component of selected or sampled episodes of care is necessary to demonstrate that continuity has been achieved.

APAC Guiding Principles and Continuity in Medication Management

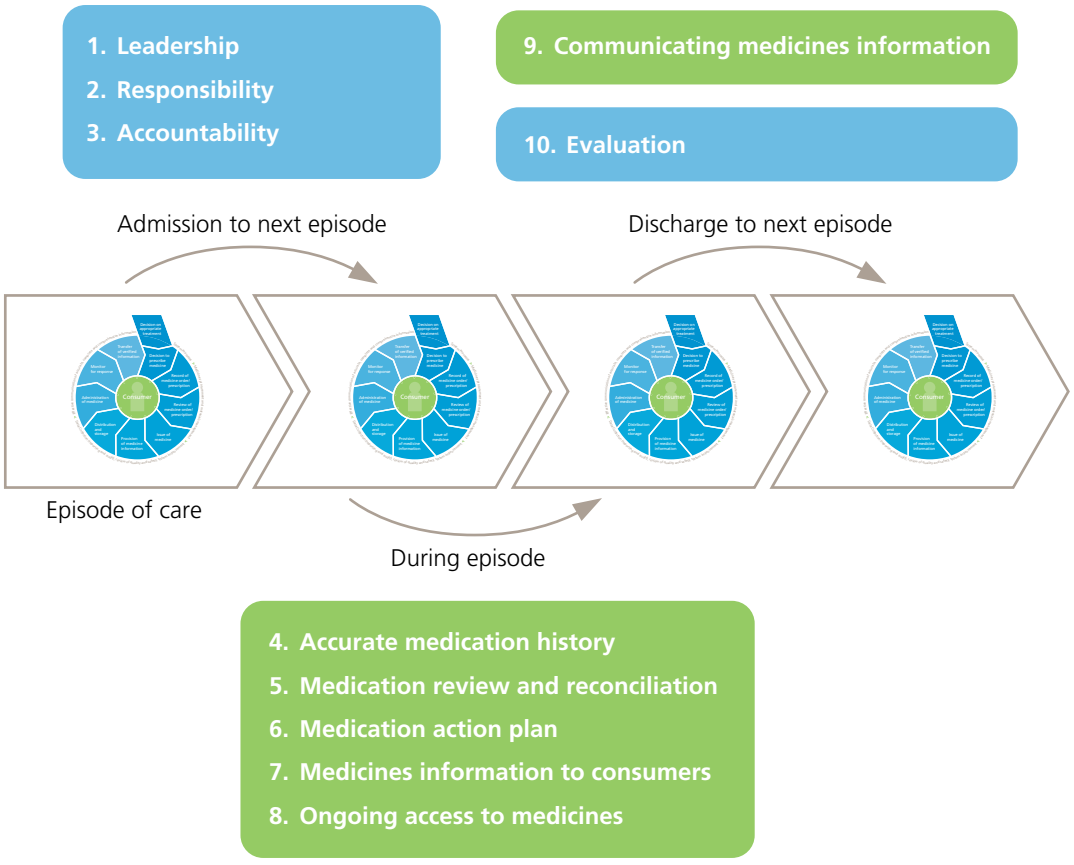


Figure 5: Continuity between episodes of care

Responsibility

It is the responsibility of the transferring hospital to evaluate continuity in medication management from the perspectives of the patient, health care professional and the hospital.

Procedure

The methodology for evaluating continuity in medication management is outlined in the key performance indicators document 'Continuity in medication management. South Australian APAC key performance indicators for hospitals participating in pharmaceutical reform' (Appendix Three).

Data is to be collected annually and reported to SA Health.

Resources

Evaluation resources (Appendix Three)

- SA APAC Key Performance Indicators for Continuity in Medication Management.
- Template for reporting the key performance indicators.

SA APAC Key Performance Indicators

Key performance indicators to evaluate continuity in medication management from the hospital perspective:

- Leadership – 1.1
- Responsibility – 2.1, 2.2
- Accountability – 3.1
- Policies and procedures – 4.1, 5.1, 6.1, 7.1, 8.1, 9.1

Key performance indicators to evaluate continuity in medication management from a health care professional perspective:

- Accurate medication history – 4.2, 4.3
- Medication review and reconciliation – 5.2, 5.3, 5.4, 5.5
- Medication action plan – 6.2
- Medicines information for the patient – 7.2, 7.3
- Ongoing access to medication – 8.2
- Communicating changes in medication management – 9.2

SA APAC 10.1

Percentage of patients satisfied with the information they received about their medications while in hospital.

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Further Information

Resources for health professionals

- Australian Injectable Drugs Handbook (www.shpa.org.au)
- Australian Medicines Handbook (www.amh.net.au)
- Australian Pharmaceutical Formulary[30]
- MIMS (www.mimsonline.com.au)
- Nursing and Midwifery Board Standards for medicine management (www.nmbsa.sa.gov.au/stan_nbsa.html)
- PBS Online (www.pbs.gov.au)
- Poisons Information Centre (13 11 26)
- Royal Children's Hospital Pharmacopoeia (http://www.rch.org.au/pharmacy/dev/index.cfm?doc_id=11341)
- Standards of practice for pharmacists (www.shpa.org.au) and Pharmaceutical Society of Australia (www.psa.org.au)
- Therapeutic Guidelines (www.tg.com.au)
- SA Health Pharmaceutical Reforms (www.safetyandquality.sa.gov.au/pharmreforms)

Resources for patients

- Arthritis Australia (www.arthritisaustralia.com.au)
- Diabetes Australia (www.diabetesaustralia.com.au)
- National Asthma Council Australia (www.nationalasthma.org.au)
- National Heart Foundation (www.heartfoundation.com.au)
- National Prescribing Service consumer medicines information leaflets (www.nps.org.au/site.php?page=2)
- National Prescribing Service (NPS) Medicines Line (1300 888 763) (www.nps.org.au)
- National Stroke Foundation, Australia (www.strokefoundation.com.au)
- Therapeutic Goods Administration – for consumer medicines information and product information (www.ebs.tga.gov.au)

Supporting/Related Policy

- SA Health Directive – Hospitals Participating in Pharmaceutical Reform
- SA Health Directive – System Wide Discharge

Appendix 1 – APAC Milestones

APAC Principle	APAC Milestone	Due Date*	Completed Y/N
One			
	Develop policies, procedures and workplace instructions for medication management.	12 months	Y/N
Two			
	Develop documentation that assigns responsibility for health care providers in the medication management pathway.	12 months	Y/N
	Develop an information process for consumers and/or their carers, advising them about their responsibilities in medication management.	12 months	Y/N
Three			
	Include accountability for medication management in staff job and person specifications.	2 years	Y/N
	Work towards developing a system to ensure competency training and assessment in medication management for health care professionals.	5 years	Y/N
Four			
	Develop guidelines for recording a complete and accurate medication history for patients.	6 months	Y/N
	Implement the medication history guidelines	12 months	Y/N
	Develop protocols for communicating with primary health care providers regarding patients' medication.	12 months	Y/N
Five			
	Develop guidelines and protocols for conduct of medication review by medical and/or pharmacist staff.	12 months	Y/N
	Implement strategies for medication review.	2 years	Y/N
Six			
	Develop guidelines and protocols for documenting a Medication Action Plan in consultation with the consumer.	12 months	Y/N
	Implement the strategies for documenting a Medication Action Plan.	2 years	Y/N
Seven			
	Develop guidelines and protocols for the provision of discharge medicines information.	12 months	Y/N
	Implement strategies to provide consumers with relevant medicines information when discharged.	2 years	Y/N

APAC Principle	APAC Milestone	Due Date*	Completed Y/N
Eight			
	Develop guidelines for review of medication management issues prior to discharge.	6 months	Y/N
	Implement strategies to review and dispense adequate quantities of medication prior to discharge.	12 months	Y/N
Nine			
	Develop guidelines for communicating changes in medication management with primary health care providers.	2 years	Y/N
	Liaise effectively with primary health care providers about continuity in medication management	3 years	Y/N
Ten			
	Develop a framework for evaluating continuity in medication management – consumer perspective.	6 months	Y/N
	Develop a framework for evaluating continuity in medication management – health care provider perspective.	6 months	Y/N
	Evaluate continuity in medication management.	12 months and then annually	Y/N

** From the time the hospital commences PBS dispensing.*

Appendix 2 – Workforce

Note: To maintain a comprehensive patient-focused service which meets the aims of the APAC guiding principles, hospitals must staff their patient care areas with an appropriate number of full time pharmacists. These pharmacists are additional to those involved in the supply and distribution of medicines in the hospital, including the dispensing of PBS prescriptions.

The suggested bed:pharmacist ratios (table)[15] were first published in 1996, and reviewed in 2005, by the Society of Hospital Pharmacists of Australia. They were based on delivering a basic clinical pharmacy service in normal business hours[31]; that is, accurate medication history, assessment of current medication management and provision of medicines information to patients.

Clinical pharmacy practice has since evolved and with implementation of the APAC guiding principles, the ratios underestimate the requirements for a comprehensive clinical pharmacy service as documented in this handbook. The ratios are currently under review.

Category	Beds: pharmacist	Type of bed
1	90	> Hospice > Long-term psychiatry > Nursing home
2	50	> Day surgery > Obstetric > Plastic surgery > Rehabilitation
3	40	> Surgical – including: – Cardiothoracic – Gastroenterology – Gynaecology – Neurosurgery – Orthopaedics – Vascular
4	30	> Medical – including: – Acute psychiatry – Burns – Cardiovascular – Dermatology – Endocrinology – Gastroenterology – Paediatric † – Infectious Disease – Neurology – Ophthalmology – Palliative Care – Respiratory – Vascular

Category	Beds: pharmacist	Type of bed
5	20	> Special units – including: – HIV – Neonatal – Nephrology – Oncology – Transplant
6	15	> Critical care units

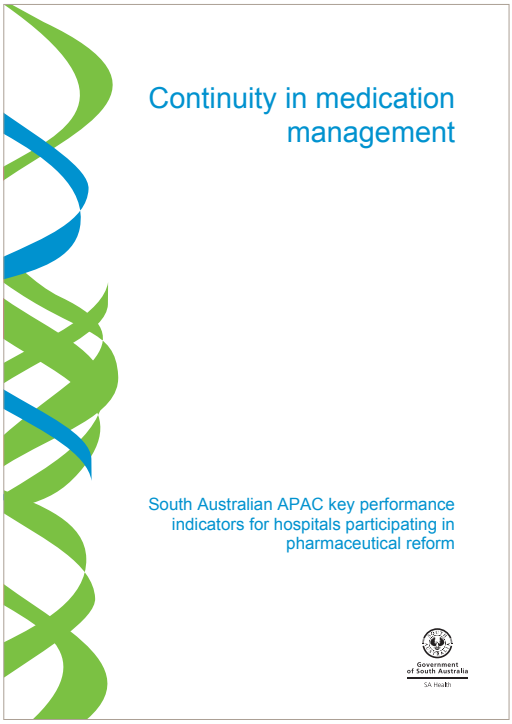
† For specialty – refer to type of bed, e.g. paediatric orthopaedics use orthopaedics

Emergency Department[32]

Bed description	Ratio of beds/presentations per FTE pharmacist
Standard ED cubicles	60 presentations per day
Short stay unit	20 beds

Appendix 3 – SA APAC Key Performance Indicators

The KPIs in this handbook are those initially established and are subject to ongoing review. The latest version of the SA APAC key performance indicators, including definitions and methodology, can be downloaded from: www.safetyandquality.sa.gov.au/pharmreforms



Template for Reporting SA APAC Key Performance Indicators

KPI Number	SA APAC KPI	Compliant Y/N – Result %
1.1	There is a policy, procedure or guideline to define the roles of management, doctors, pharmacists, nurses/midwives, other health care professionals and patients in all steps of the medication management cycle.	Y/N
2.1	There is a policy, procedure or guideline that outlines the responsibilities of health care professionals in all aspects of medication management, with delegation where appropriate.	Y/N
2.2	There is written information provided to patients and/or their carers outlining their responsibilities in medication management.	Y/N
3.1	There is a policy to include accountability for medication management in the job and person specifications of health care professionals.	Y/N
4.1	There is a policy, procedure or guideline for documenting the medication history, including use of a standard form (for example Medication History Form).	Y/N

KPI Number	SA APAC KPI	Compliant Y/N – Result %
4.2	Percentage of inpatients that has a complete and accurate list of their current medications (including over-the-counter and complementary medications) documented and verified within a day of admission.	%
4.3	Percentage of inpatients that has a correctly completed record of prior adverse drug reaction (ADR) and allergy documented within a day of admission.	%
5.1	There is a policy, procedure or guideline for conducting a medication review, by a pharmacist and/or medical staff.	Y/N
5.2	Percentage of patients reviewed by a pharmacist within a day of admission.	%
5.3	Percentage of admitted days that patients receive medication review by a pharmacist.	%
5.4*	Percentage of patients with an INR result >4.0 that have had their dosage adjusted or reviewed prior to the next warfarin dose.	%
5.5*	Percentage of patients with a toxic or sub-therapeutic aminoglycoside concentration that have had their dosage adjusted or reviewed prior to the next aminoglycoside dose.	%
6.1	There is a policy, procedure or guideline to address who creates the Medication Action Plan, who is authorised to modify the plan and at what stage the plan is formally reviewed.	Y/N
6.2	Percentage of patients prescribed salbutamol on discharge that are given a written action plan for acute exacerbations of respiratory disease, and a copy is communicated to the primary care clinician.	%
7.1	There is a policy and procedure for providing patients with written information for hospital-initiated medications that are to be continued post discharge.	Y/N
7.2	Percentage of hospital inpatients that received appropriate verbal counselling and/or written information about their medicines prior to discharge.	%
7.3	Percentage of patients commenced on warfarin during their admission that received counselling and written drug information prior to discharge.	%
8.1	There is a policy, procedure or guideline for reviewing medication management issues, including ongoing access to medication, prior to discharge.	Y/N
8.2	Percentage of discharge prescriptions reviewed and reconciled by a pharmacist prior to dispensing.	%
9.1	There is a policy, procedure or protocol supporting provision of a complete and accurate discharge summary to relevant health care professionals.	Y/N
9.2	Percentage of discharge summaries that document an accurate medication list and the reasons for all medication therapy changes from medications taken prior to admission.	%
10.1	Percentage of patients satisfied with the information they received about their medications while in hospital.	%

Appendix 4 – Templates

MedMAP – FMC, RGH, TQEH

12616

Government of South Australia
SA Health

MedMAP
Medication Management Plan

Form.....of.....

MRN:
Family name:
Given names:
Address:
Date of birth: Sex: ☐ M ☐ F
Height: Weight:
(Affix patient identification label here and overleaf)

Medicare no.
Concession no.
Safety Net no.

Patient Requirements on Discharge:
- ☐ Medication list:
- ☐ Dosette Box / Blister Pack:
- ☐ Copy of medication chart:
- ☐ Own medication returned:
- ☐ Other:

ALLERGIES & ADVERSE DRUG REACTIONS (ADR)
☐ Nil known ☐ Unknown (Tick appropriate box or complete details below)

Drug (or other)	Reaction/Date	Initials

Sign.....Print.....Date.....

Admission Date: .....

Reconciled ✗ or ✓	Generic Name/Dose/Frequency/Route of Administration (all drug names to be written in full)	Comments (including indication confirmed with patient if relevant)	Changes	Required on dlc	Reconciled on dlc

MEDICATION MANAGEMENT PLAN

Source of Medication History

Source	Confirmed by	Date	Source	Confirmed by	Date
☐ General Practitioner:			☐ Own Medicines		
☐ Community Pharmacist:			☐ Patient List		
☐ Patient / Carer:			☐ Current Medical Notes		
☐ Aged Care Home / other Hospital:			☐ Previous Medical Notes		

Residence Prior to Admission		Renal Function				Swallowing Status
☐ HLC	☐ Home alone	Date				Crushing required Y / N
☐ LLC	☐ Home with partner	Cr				.....
☐ Retirement unit	☐ Other	CrCl				NGT Y / N / PEG Y / N

Reconciliation Pharmacist ..... **Pager:** ..... **Sign & Date:** .....

This form is to remain with the current drug charts during the admission for easy referral by all clinicians and should be filed in the patient history at discharge

Form continues over page ➤

MEDICATION MANAGEMENT PLAN

Community Health Care Team

General Practitioner: .....

Phone: ..... Fax :.....

Community Pharmacy: .....

Phone: ..... Fax :.....

MRN:

Family name:

Given names:

Address:

Date of birth: Sex: ☐ M ☐ F

(Affix patient identification label here and overleaf)

Patient Presentation

Presenting Complaint: .....

Previous Medical History: .....

Medication Management Assessment

Medication Usually Administered By: .....

Dose Administration Container Used (specify): .....**Filled By:** .....

COMPLIANCE ASSESSMENT

☐ Adequate ☐ Inadequate Comments.....

PATIENT ASSESSMENT

Has hearing issues ☐ Yes ☐ No Can understand English ☐ Yes ☐ No

Has cognition issues ☐ Yes ☐ No If NO, language spoken is .....

Medication Issues and Relevant Monitoring

Task Completed for Discharge

Task Completed for Discharge				Completed by Signature..... Date.....
Med list provided to:	☐ Patient/Carer	☐ GP	☐ CP	
☐ Medication authority completed	☐ RDNS	☐ Metrohome Link		
☐ Separation Summary reconciled	☐ OACIS	☐ Nursing		
☐ Education:.....				
☐ Own meds returned				
☐ Blister pack/Dosette provided				
☐ CP contacted to fill dosage administration aid				
☐ Med chart faxed to	☐ ACH	☐ CP servicing ACH		
☐ Referral to Liaison Pharmacist				
☐ HMR recommended	☐ HMR arranged			
☐ Other				

Medication Follow-up Plan for Discharge

Reconciliation Pharmacist ..... **Pager:** ..... **Sign & Date:** .....

This form is to remain with the current drug charts during the admission for easy referral by all clinicians and should be filed in the patient history at discharge

TQEH acknowledge the significant contribution of Flinders Medical Centre, Northern Sydney Central Coast and Queensland Health Safe Medication Practice Unit.

Patient Medication History Form - RAH

Government of South Australia
Central Northern Adelaide Health Service

PATIENT MEDICATION HISTORY

Completed by: _____ Title: _____
Signature: _____ Pager: _____ Date: _____ Time: _____

Source of history: ☐ Patient consent obtained to contact primary care providers

- ☐ Patient
- ☐ Carer: (specify) _____
- ☐ General Practitioner: (specify) _____
- ☐ Community pharmacy: (specify) _____
- ☐ Residential care facility: (specify) _____
- ☐ Other hospital: (specify) _____
- ☐ Patient's list: (specify) _____
- ☐ Patient's medications

Patient Assessment:

Can read / comprehend labels ☐ Yes ☐ No
Can understand English ☐ Yes ☐ No

Is the patient compliant with his / her medication? ☐ Yes ☐ No

_____
_____

Medication Management:

Patient's medications managed by:
☐ Patient ☐ Family / carer ☐ Community Nurse ☐ Residential Care Facility

Medication Administration Aid:
☐ None ☐ Medication box (e.g. Dosett®) Prepared by: _____ ☐ Blister pack (e.g. Webster®) Prepared by: _____

Community Pharmacy: _____
Phone: _____ Fax: _____

This form is to remain with the current drug charts in the treatment folder during admission for easy referral by all clinicians and should be filed in the medical record at discharge

Nov 2009

PATIENT MEDICATION HISTORY

MR 89.8/A15.0

Medications taken prior to admission

Generic name (Trade name)		Dose	Route	Frequency	Indication (from patient)	Duration of therapy	POM*
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						
	Tick if Slow Release						

* POM Patient's own medications are suitable for use as an inpatient

Attach ADR sticker

ALLERGIES & ADVERSE DRUG REACTIONS

Nil known ☐ Unknown ☐ Alert Form (MR 0) completed: Y ☐ N ☐

Drug (or other)	Reaction / Type / Date

UR Number:

Surname:

Given Name:

DOB: Sex:

AFFIX PATIENT LABEL

Weight: _____ kg
Height: _____ cm
Lean body weight _____ kg
Creat: _____ micromol/L (Date: _____)
CrCL: _____ mL/min

Recommendations / Considerations:

Social drugs:

☐ Alcohol		usual amount	_____	day / week. Last used	_____
☐ Cigarettes		usual amount	_____	day / week. Last used	_____
☐ Recreational / illicit drugs	_____	usual amount	_____	day / week. Last used	_____
(specify)	_____	usual amount	_____	day / week. Last used	_____
	_____	usual amount	_____	day / week. Last used	_____

Checklist:

			Complete for CTSU Pre-operative Assessment Clinic only
☐ Warfarin	Last taken	_____	Stop 5 days prior and admit for IV heparin infusion
☐ Aspirin	Last taken	_____	Continue / stop _____ days prior
☐ Clopidogrel / ticlopidine	Last taken	_____	Continue / stop _____ days prior
☐ Dipyridamole	Last taken	_____	Continue / stop _____ days prior
☐ Dipyridamole + aspirin	Last taken	_____	Continue / stop _____ days prior
☐ NSAIDs / COX2	Last taken	_____	Continue / stop _____ days prior

☐ Other analgesics	☐ Sleeping tablets	☐ Eye / ear / nose drops
☐ Inhalers / puffers / sprays	☐ Sublingual tablets / sprays	☐ Patches
☐ Laxatives / antidiarrhoeals	☐ Antacids	☐ Regular injections
☐ Herbal / natural medicines	☐ Vitamins	☐ Creams / ointments
☐ Osteoporosis medication	☐ Hormonal medication (e.g. OCP/HRT)	

PATIENT MEDICATION HISTORY

MR 89.8/A15.0

Recommendations / Considerations continued:

Complete for CTSU Pre-operative Assessment Clinic only

Fasting lipids:

Date	Triglycerides	Total cholesterol (TC)	HDL	LDL	TC: HDL ratio

This form is to remain with the current drug charts in the treatment folder during admission for easy referral by all clinicians and should be filed in the medical record at discharge

Separation Summary

Government of South Australia
SA Health

PATIENT IDENTIFICATION			
MRN:	000000-HOSP	***Sex:***	Female
Name:	PATIENT, MARY		
DOB:	10/11/1931	***Age:***	77 y
Address:	1 ANY DR NORTH ADELAIDE SA 5006		

SEPARATION SUMMARY

Admission Date:	03/08/2009
Separation Date:	04/08/2009
Dest. on Separation:	Home
Date Time Sent:	05/08/2009 08:45
Attending Doctor/Consultant	Peter Doctor

Problem List

Principal Diagnosis:	Gastro-oesophageal reflux disease
Complications:	Nil
Secondary Diagnosis:	• Diabetes mellitus poorly controlled • Ischaemic heart disease – x2 CABG 5 yrs ago • Hypercholesterolemia • Hypertension • Ulcerative colitis • Hiatus hernia • Benign thyroid tumour • Hysterectomy • Appendectomy • Varicose vein stripping

Procedures

Primary Procedure:	Nil

Legal Orders, Advance Directives, Infectious Risk *– Please note all descriptions specific to the patient may not have been recorded. For other information contact the source hospital for this document.*

Clinical Synopsis

```
77 yo lady presented with central chest pain which gradually resolved within one hour.
Pain felt like indigestion but was also similar to the sensation prior to her 2004 CABG.
She is not on regular PPIs. Her husband took her pulse and said it felt irregular.
On examination, vitals were normal, pulse regular. Other examinations normal. ECG normal
SR.

Bloods: CBE showed chronic anaemia (Hb 101)
        MBA20 NAD
        Serial troponins <0.02, CK not raised.

She was started on regular pantoprazole and is now pain free.
Serial ECGs show no further changes and she was discharged with advice to continue with
regular PPIs.
```

Selected Investigations

Laboratory:

Date	*Test Name*
03/08/2009 15:30	COMPLETE BLOOD EXAM
03/08/2009 22:30	CARDIAC TROPONIN
	BIOCHEMICAL ANALYSIS

Government of South Australia
SA Health

PATIENT IDENTIFICATION			
MRN:	000000-HOSP	***Sex:***	Female
Name:	PATIENT, MARY		
DOB:	10/11/1931	***Age:***	77 y
Address:	1 ANY DR NORTH ADELAIDE SA 5006		

Management Plan

Discharge medications:

Status	***Name***	***Details***	***Duration***	***Reason for Changes***
New	Pantoprazole	40mg, oral, daily	Long Term	
Active	Aspirin	100mg, oral, daily	Long Term	
Active	Metformin	1000mg, oral, bd	Long Term	
Active	Amitriptyline	20mg, oral, nocte	Long Term	
Active	Frusemide	60mg, oral, mane	Long Term	
Active	Metoprolol	50mg, oral, bd	Long Term	
Active	Simvastatin	40mg, oral, daily	Long Term	
Active	Betamethasone valerate cream 0.02%	Affected areas, topical, PRN	Long Term	
Active	Clotrimazole cream	Affected areas, topical, PRN	Long Term	
Active	Paracetamol	665mg, oral PRN	Long Term	
Active	Prochlorperazine	5mg, oral, PRN	Long Term	
Active	Lomotil	2.5mg/25 microg, oral, PRN	Long Term	

Follow Up Management Plan:

```
Regular PPI use

GP follow up as needed please.
Thankyou for her ongoing care.
```

Services on discharge: **None**

Future Hospital Appointments:

Date/Time	*IP/OPD*	*Hospital*	*Department*	*Clinician*
20/10/2009 08:45	Outpatient Enc	Hospital	Ophthalmic Clinic	George Doctor
13/05/2010	Outpatient Enc	Hospital	Diabetic Clinic	Harry Doctor

Other Appointments **None**

Hospital Details

Clinical Unit:	CARDIOLOGY	Hospital Phone No: 08 0000 0000	
Primary Contact:	Cardiology Intern	Phone/Pager:	08 0000 0000/ 1111
Consultant:	Peter Doctor		
Other Contact:	GP Liaison on (08) 0000 0000 pager 2222 to obtain further information or provide feedback		

Summary details

Distribution History:

Date	*Status*	*Sender*	*Recipient*	*Location*	*Method*
05/08/2009 08:45	FINAL	Dr Intern	Dr G Practitioner	Town Medical Services – TOWN Ph: 08 1111 1111	Fax
05/08/2009 08:45	FINAL	Dr Intern	Medical Records Unit		Print

Separation Summary

Government of South Australia
SA Health

PATIENT IDENTIFICATION			
MRN:	000000-HOSP	***Sex:***	Female
Name:	PATIENT, MARY		
DOB:	10/11/1931	***Age:***	77 y
Address:	1 ANY DR NORTH ADELAIDE SA 5006		

Laboratory Details Report

Procedure:	COMPLETE BLOOD EXAM	**Status:**	FINAL
Collection date:	03/08/2009 15:30	**Received Date:**	03/08/2009 16:13
Request Date:	03/08/2009 16:13	**Request By:**	XXXXXX
Department:	Haematology	**Spec. Site:**	

Test	Result	Normal Range	Abnormal Code
Haemoglobin	101 g/L	115 - 155	L
Red Blood Cells	3.51 x 10^{12}/L	3.80 - 5.20	L
Packed Cell Volume	0.32 L/L	0.35 - 0.45	L
Mean Cell Volume	91.2 fl	80.0 - 98.0	
M.C.H.	28.8 pg	27.0 - 33.0	
Mean Cell HB Conc.	316 g/L	315 - 355	
Red Cell Distribution Width	15.5%	11.5 - 15.5	
Platelet Count	300 x 10^9/L	150 - 400	
White Cell Count	7.69 x 10^9/L	4.00 - 11.0	
Neutrophils %	51.2%		
Absolute Neutrophil Count	3.94 x 10^9/L	1.80 - 7.50	
Lymphocytes %	34.5%		
Absolute Lymphocyte Count	2.65 x 10^9/L	1.00 - 3.50	
Monocytes %	11.8%		
Monocytes	0.91 x 10^9/L	0.20 - 0.80	H
Eosinophils %	2.0%		
Eosinophils	0.15 x 10^9/L	0.02 - 0.50	
Basophils %	0.5%		
Basophils	0.04 x 10^9/L	0.00 - 0.10	

Procedure:	CARDIAC TROPONIN T	**Status:**	Final
Collection date:	03/08/2009 22.:30	**Received Date:**	03/08/2009 22:44
Request Date:	03/08/2009 22:44	**Request By:**	YYYYYY
Department:	DI	**Spec. Site:**	

Test	Result	Normal Range	Abnormal Code
TROPONIN T	<0.02		
Troponin T	less than 0.02 microg/L	METHOD: ROCHE Elecsys	

A troponin of < 0.02 microg/L in the clinical situation of possible myocardial ischaemia should be followed by a second estimation in 6 to 10 hours to exclude the possibility of an acute coronary syndrome.

Procedure:	BIOCHEMICAL ANALYSIS	**Status:**	Final
Collection date:	03/08/2009 22:30	**Received Date:**	03/08/2009 22:44
Request Date:	03/08/2009 22:44	**Request By:**	YYYYYY
Department:	Biochemistry	**Spec. Site:**	

Test	Result	Normal Range	Abnormal Code
Creatine Kinase	93 U/L	0 - 180	

Separation Summary

Appendix 5 – Patient Information Examples

Asthma Action Plan

Asthma Action Plan **for Children and Young People**

Date: 26 May, 2010
Prepared by: Medical Officer
Contact: 1111
Notes:

PATIENT LABEL
UR: 12345
Surname: Citizen
Given Names: John
Birth Date:10 Sep 2000

When Well

Reliever

Take only when necessary for relief of wheeze or cough.
2 puffs Salbutamol (Ventolin, Asmol, Airomir or Epaq) (blue/grey)

First preventer

Flixotide 50mcg puffer (orange)
Use 2 puffs 2 times per day

Second preventer

Singulair 5mg tablet (black text)
1 tablet once per day

Before exercise

Take Salbutamol (Ventolin, Asmol, Airomir or Epaq) (blue/grey) - 2 puffs 10-15 minutes before exercise.

When Not Well

Reliever

Salbutamol (Ventolin, Asmol, Airomir or Epaq) (blue/grey)
Use up to 12 puffs every 3-6 hours as required

Continue normal treatment.

If Symptoms Get Worse - THIS IS AN ACUTE ATTACK

Continue any preventer medications you usually take.

Reliever

Take 12 puffs of Salbutamol (Ventolin, Asmol, Airomir or Epaq) (blue/grey) every 2-4 hours as needed.

Prednisolone

If this is a more severe attack, or the symptoms are not getting better after about 6 hours with regular use of your reliever, take Prednisolone 30mg (6ml) (brown bottle with red logo) immediately then once each morning for 3-5 days.

If you need your reliever more than every 3 hours seek medical attention.

EMERGENCY CARE

If you/your child's symptoms are getting worse despite regular reliever medication:

CALL AN AMBULANCE - DIAL 000

Give Salbutamol (Ventolin/Asmol/Airomir/Epaq) continuously while waiting for ambulance.

Consumer medicines information – Clopidogrel – MIMS

Iscover ® Tablets

Clopidogrel (clo-pid-o-grill)

Consumer Medicine Information

Please read this leaflet carefully before you start to take Iscover.

What is in this leaflet

This leaflet answers some common questions about Iscover tablets. It does not contain all the available information. Some of the information it contains may not apply to you. It does not take the place of talking to your doctor or pharmacist.

All medicines have benefits and risks. In deciding to give you Iscover, your doctor has weighed the risks of you taking Iscover against the benefits it will have for you.

Always follow the instructions that your doctor and pharmacist give you about Iscover.

If you have any concerns about taking this medicine, ask your doctor or pharmacist.

Please read this leaflet carefully and keep it in a safe place so you may refer to it later.

What ISCOVER is used for

Iscover contains the medicine clopidogrel. Clopidogrel belongs to a group of medicines known as antiplatelet medicines.

Platelets are very small blood cells which clump together during blood clotting. By preventing this clumping, antiplatelet medicines reduce the chances of blood clots forming (a process called thrombosis).

Iscover is used to prevent blood clots forming in hardened blood vessels as they can lead to events such as stroke, heart attack or death.

You have been prescribed Iscover to help prevent blood clots forming and to reduce the risk of stroke, heart attack and death because:

- You have previously suffered a heart attack, stroke or have a condition known as peripheral arterial disease (leg pain on walking or at rest).
- You have suffered acute coronary syndrome (either a severe type of chest pain called unstable angina, or a heart attack). In this case you may also be prescribed aspirin.

Your doctor may have prescribed this medicine for another use. If you want more information, ask your doctor.

Iscover is only available on a doctor's prescription.

Before you take ISCOVER

When you must not take it:

You should not take Iscover if:

- you are allergic to clopidogrel, or to any of the ingredients listed under 'Product Description' at the end of this leaflet
- you have a medical condition that is causing bleeding such as a stomach ulcer
- you have any bleeding within your head
- you suffer from severe liver disease
- you are breast feeding or intend to breast feed

Iscover passes into breast milk and, therefore, there is the possibility that the breast fed baby may be affected.

- the packaging shows signs of tampering
- the expiry date on the pack has passed.

Iscover is not recommended for children because the safety and effectiveness of Iscover in children have not been established.

Before you start to take ISCOVER

You must tell your doctor if:

- you are pregnant or intend to become pregnant
- Your doctor will discuss the possible risks and benefits of taking Iscover during pregnancy.
- you are planning to have an operation (including dental surgery) in the next two weeks
- Your doctor will decide whether or not you need to stop Iscover prior to surgery.
- if you have or have had any medical conditions, especially the following:
- - bleeding disorders or blood clotting problems
- - any illness or disability that was caused by bleeding for example impaired sight or vision because of bleeding within the eye.
- - recent serious injury.
- - recent surgery (including dental surgery).
- - any form of liver disease.

If you have not told your doctor about any of the above, tell him/her before you start taking Iscover.

Taking other medicines

Tell your doctor if you are taking any other medicines, including any that you buy without a prescription from your pharmacy, supermarket or health food store.

Some medicines and Iscover may interfere with each other. These include:

- medicines that "thin the blood". The most common examples of these include aspirin, heparins and warfarin. There are other medicines used to 'thin the blood'.
- **Check with your doctor or pharmacist to see if any medicine you take may have this effect.**
- non-steroidal anti-inflammatory drugs (NSAIDS) - medicines used to treat arthritis, period pain, aches and pains,
- phenytoin - a medicine used to treat epilepsy,
- tolbutamide - a medicine used to treat diabetes,
- fluvastatin - a medicine used to lower cholesterol,
- tamoxifen - a medicine used to treat breast cancer.
- omeprazole - a medicine used to treat excess acid in the stomach

These medicines may be affected by Iscover or affect how well Iscover works.

Your doctor may need to change the amount of your medicines, or you may need to take different medicines.

If you are unsure about any medicine you are taking you should check with your doctor or pharmacist. They will have more information on medicines to be careful with or avoid while taking Iscover.

They may differ from the information contained in this leaflet.

How much to take

The usual dose of Iscover is one 75 mg tablet daily.

If you are prescribed Iscover for the treatment of acute coronary syndrome, you will receive a starting dose of 300 mg (either one 300 mg tablet or four 75mg tablets), then one 75mg tablet daily.

If you do not understand the instructions on the box ask your doctor or pharmacist for help.

How to take it.

Swallow the Iscover tablet with a glass of water.

When to take it.

You can take Iscover before or after meals.

Take Iscover at about the same time each day. Taking your tablet at the same time each day will have the best effect. It will also help you to remember when to take it.

If you forget to take ISCOVER

If you miss a dose, take it as soon as you remember. If it is almost time for your next dose, skip the dose you missed, and take your next dose when you are meant to.

If you have trouble remembering when to take your medicine, ask your pharmacist for some hints.

If you take too much (overdose).

Take Iscover exactly as your doctor has prescribed, and have any blood tests promptly when your doctor recommends that tests be done.

Tell your doctor

- if you become pregnant while taking Iscover.
- if you decide to breast feed your baby.
- Your doctor may want to discuss your decision and change your medicine.
- that you are taking Iscover if you are about to start on any new medicine.
- **and dentists, nurses or pharmacists that you are taking Iscover.**
- Iscover may increase the risk of bleeding during an operation or some dental work.
- Therefore, treatment may need to be stopped before surgery. Your doctor will decide whether to stop Iscover and if so, how long before surgery.
- **immediately if you are injured while taking Iscover.**
- It may take longer than usual to stop bleeding while you are taking Iscover.
- **immediately if you notice any of the following:**
- abnormal bruising or bleeding; abnormal nose bleeds; red or purple blotches on your skin; bloody or black bowel motions; swelling of the face, lips, mouth, tongue or throat which may cause difficulty swallowing or breathing. (see also Side Effects section).

Things you must not do:

There are activities you should avoid while taking Iscover, for example certain sports. Sometimes after an injury bleeding may occur inside your body without you knowing about it.

Ask your doctor for advice.

Do not take Iscover to treat any other complaint unless your doctor says it is safe. Do not give this medicine to anyone else.

Do not suddenly stop taking Iscover without telling your doctor.

Be careful driving or operating machinery until you know how Iscover affects you. As with other medicines Iscover may cause faintness or dizziness in some people. Make sure you know how you react to Iscover before you drive a car operate machinery, or do anything else that could be dangerous if you are faint or dizzy. If this occurs do not drive. If you drink alcohol faintness or dizziness may be worse.

Side Effects

Tell your doctor or pharmacist as soon as possible if you do not feel well while taking Iscover.
Like other medicines Iscover can cause some side effects. Most are likely to be minor and temporary. However, some may be serious and need medical attention.

Ask your doctor or pharmacist to answer any questions you may have.

- diarrhoea
- itching
- pain or stiffness in the joints
- things taste different

Tell your doctor immediately if you notice any of the following:

(NOTE: If you take both Iscover and aspirin the risk of side effects related to bleeding may be increased)

- bloody or black bowel motions
- diarrhoea with blood and mucus, stomach pain and fever
- abdominal or stomach pain
- nausea, vomiting, weight loss
- vomiting of blood or vomit that looks like coffee grounds
- coughing of blood
- blood in the urine
- bleeding in eyes
- unusually heavy bleeding or oozing from cuts or wounds
- unusually heavy or unexpected menstrual bleeding
- bleeding (including nose bleeds) or bruising more easily than normal
- rash
- hives
- itching, inflamed, cracking or red skin
- red or purple spots visible through your skin
- anaemia (being tired and looking pale)
- numbness (paralysis) or problems with co-ordination
- fever, muscle weakness, loss of appetite and fatigue
- muscle pain
- faintness, dizziness, lightheadedness or blurred vision
- confusion or hallucinations
- slurred speech or other difficulty in speaking
- tightness of the chest, wheezing, coughing or difficulty breathing
- headache (severe and continuing)
- fever or other signs of infection, such as a sore throat
- swelling of the face, lips, mouth, tongue or throat which may cause difficulty in swallowing or breathing
- chills, sweating or clammy skin
- yellowing of the skin or whites of the eyes, vomiting, pale stools, dark urine and stomach pain with swelling

These could be more serious side effects - you may need urgent medical attention.

Other side effects not listed above may also occur in some patients. Tell your doctor if you notice any other effects.

After using ISCOVER

Storage

Keep your tablets in the blister pack until it is time to take them.
If you take your tablets out of the box or blister pack they will not keep well.

Keep Iscover in a cool, dry place where the temperature stays below 25°C.

Heat and dampness can destroy some medicines. Do not leave Iscover in the car on hot days.

Do not store Iscover or any other medication in the bathroom or near a sink.

Keep Iscover where young children cannot reach it.
A locked cupboard at least one and a half metres above the ground is a good place to store medicines.

Disposal

If your doctor tells you to stop taking Iscover, ask your pharmacist what to do with any medicine that is left over.

Product Description:

What it looks like

Iscover 75 mg tablets are pink, round tablets with 75 engraved on one side and 1171 on the other side.

A box may contain 4 tablets (sample pack), or 28 tablets (trade pack).

Each 75 mg Iscover tablet contains

Active Ingredient: clopidogrel 75 mg

Other Ingredients: mannitol, macrogol 6000, microcrystalline cellulose, hydrogenated castor oil, hydroxypropylcellulose, hypromellose, lactose, titanium dioxide, glycerol triacetate, red iron oxide and carnauba wax.

In the hospital, patients may receive a single-dose of Iscover as a 300 mg pink, oblong tablet - engraved with "300" on one side and "1332" on the reverse.

(Note: Iscover does not contain any salicylates)

Manufacturer

Iscover is supplied in Australia by:

Bristol-Myers Squibb Australia Pty Ltd
556 Princes Highway
Noble Park, Victoria 3174

Registration Number

AUST R 79021.

Date of preparation: 1 July 2009.

Iscover is a registered trademark of sanofi-aventis.

Code: bqciscov10709

Iscover (cmi)19.doc

Hospital generated patient information – Alendronate – RAH

Government of South Australia
SA Health

PHARMACY DEPARTMENT 8222 5549

INFORMATION ON ALENDRONATE ONCE WEEKLY TABLETS

Please refer any questions about this information to the Pharmacy staff.

Other Names: Fosamax® Once Weekly, Fosamax Plus® Once Weekly Alendro® Once Weekly, Alendrobell®

Purpose

Alendronate is used to treat osteoporosis; a condition of brittle or weak bones that are more likely to break. Alendronate works by slowing down the natural process of breaking down old bone and helps to rebuild more new bone. This helps to create stronger bones which are less likely to break.

How and when to take

Alendronate 70 mg tablets are taken once a week. You should pick a day of the week that best fits your schedule. Every week, take one alendronate tablet on your chosen day (mark it on your calendar).

- Take it first thing in the morning at least 30 minutes before you have any food, drink or medication.
- Swallow the tablet whole with a full glass (200 mL) of plain water (not mineral water, fruit juice, milk, coffee *etc*.). Do not crush, suck or chew the tablet.
- Stay upright (standing, sitting, walking) for at least 30 minutes after taking the alendronate tablet.
- Wait at least 30 minutes before taking any food, drinks or medicines.

You must have a dental assessment before starting this medication

You must tell your doctor, nurse or pharmacist if you

- Have an allergy to any medicine or substance
- Have kidney problems
- Have swallowing or digestive problems
- Have a bone or calcium disorder (*e.g*. vitamin D deficiency) which may cause low calcium levels
- Are unable to stand or sit upright for at least 30 minutes
- Are pregnant or breastfeeding, or plan to become pregnant
- Are about to start any new medicines, including non-prescription medicines

You must tell your dentist you are taking alendronate

Alendronate has caused permanent damage to the jaw bone in some patients making it very important to tell your dentist if you are taking alendronate as this may affect the dental procedure.

Possible side effects

- Stomach pain or discomfort
- Heartburn
- Diarrhoea
- Aching muscles, joints or bones
- Headache
- Nausea or vomiting
- Jaw bone damage (necrosis) - rare

If you notice any of the following tell your doctor or nurse straight away

- Skin rash or redness of the skin
- Blurred vision, pain or redness in the eye
- Mouth ulcers
- Cramps or spasms
- Tingling sensation in the fingers or around the mouth
- Pain or injury to your mouth, teeth or jaw bone (*e.g.* toothache or jaw pain, delayed healing or infection especially after a tooth extraction)

If any of the following happen, stop taking alendronate and tell your doctor straight away or go to Accident and Emergency at your nearest hospital

- Swelling of the face, lips, mouth, throat or tongue which may cause difficulty breathing or swallowing
- Severe skin reactions, including hives
- Pain or difficulty swallowing
- Chest pain
- New or worsening heartburn
- Black tar-like and/or bloody stools

Additional Information

Many people taking alendronate also take calcium and vitamin D tablets to further strengthen their bones. Your doctor may have also prescribed these for you. It is important that you take your calcium/vitamin D tablet **at least 2 hours after** your alendronate.

You take alendronate once a week on

_____

(Specific Day)

Detailed information on alendronate is available in the full Consumer Medicine Information (CMI) for alendronate. Please ask the Pharmacist for a copy of the CMI if you would like this additional information.

Please refer any questions about this information to your doctor, pharmacist or nurse.

The information contained within this publication is for general information only. Readers should always seek independent, professional advice where appropriate. Royal Adelaide Hospital will not accept any liability for any loss or damage arising from reliance upon any information in this publication.

Approved by RAH Drug Committee on May 2008
Author : Pharmacy Department Date of Development : 06/12/2004
Document Location : PHARMACYPIGAlendronateONJ&Bisphophonate2 Date of Last Review : 23/02/2009
Version : 2 Reviewed & Endorsed by RAH Consumer Advisory Council

Important information

- If you are using capsules, do not throw out any remaining pellets - please put them back into the capsules.
- If you are using parts of tablets please keep the remainder.

Possible side effects

Omeprazole is well tolerated. Most side effects are mild and usually last only a short time. These include:

- Nausea and/or vomiting
- Diarrhoea or constipation
- Skin rashes

If you are worried about any of these side effects or any others please contact your child's doctor.

Commercially available dosage forms and strengths

Tablets: 10mg & 20mg; Capsules: 20mg

In case of overdose or poisoning, contact the Poisons Information Centre on 131126.

For more information

Contact your child's doctor or:

Pharmacy Drug Information
Phone: (08) 8161 7222
Monday – Friday, 9am – 5pm

Women's and Children's Hospital
72 King William Road
North Adelaide
South Australia 5006
Phone: (08) 8161 7000
Fax: (08) 8161 7459
Web: http://www.wch.sa.gov.au

The Women's & Children's Hospital is a smoke free site

Non-English speaking: for information in languages other than English, call the interpreting and Translating Centre and ask them to call The Department of Health. This service is available at no cost to you, contact (08) 8226 1990.

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Government of South Australia
SA Health

Women's & Children's Hospital

About Your Medication

Omeprazole
(Losec)
(phy022)

Government of South Australia
SA Health

Women's & Children's Hospital

What is omeprazole and what is it for?

Omeprazole is a medication called a proton pump inhibitor. It is used to reduce the amount of acid made by the stomach. In reflux, the contents of the stomach flow backwards up into the oesophagus (food pipe). Acid in the stomach contents can irritate the oesophagus. Taking omeprazole can be an important part of the treatment of reflux by helping to reduce irritation. It is also used for the treatment of stomach ulcers.

How to take this medication

It is important that this medication is taken only as directed and is not given to other people.

The dose varies for each patient.

Omeprazole is taken one or two times a day. It does not matter whether omeprazole is given with food or on an empty stomach.

Omeprazole is available in 10mg and 20mg tablets and 20mg capsules.

Giving omeprazole to small children or babies

At the WCH, Omeprazole mixture is available only to children with small naso-gastric feeding tubes in place. If you are using the tablets (which contain pellets in a tablet base) you may need to break it in half. If you are using the capsules you may need to count or measure a number of pellets to get the right dose.

The pellets contain the medication. It is important that they are not crushed or dissolved before taking. This may stop the medication working properly.

To give a dose:

Tablets

- Put the tablets in non-fizzy water or acidic fruit juice.
- Stir until the tablet falls apart (note that it is not a clear solution).
- Drink immediately or within 30 minutes. Make sure you stir the suspension again just before drinking.
- To ensure that all the medication has been taken, rinse the glass with some more fluid and drink.

If you wish to give the omeprazole using a syringe you can:

- Remove the plunger from the syringe.
- Put the tablet (or part of the tablet) in the syringe.
- Replace the plunger.
- Draw up a small amount of water (1½ to 2mL) and allow the tablet to fall apart.

Then give immediately.

Capsules

- Open the capsule
- Count the number of pellets you need for the right dose.
- Put the left-over pellets back into the capsule
- Mix the pellets with a small amount of soft food. This can be fruit pulp or gel or other pureed food.
- The uncrushed pellets can then be given in this food.

Your doctor or pharmacist will tell you if your dose needs to be given in another way.

What to do if a dose is missed

If you miss a dose of omeprazole it can be taken as soon as you remember. Do not take the dose if there is less than six hours before the next dose – just take the next dose as normal. Do not double-up on any doses.

Storing the medication

It is important to keep omeprazole locked away out of the reach of children.

Do not keep the medication in the bathroom, near the kitchen sink or in other damp warm places because this may make it less effective.

Use of other medication

Check with your doctor or pharmacist before giving any other medicine including those you buy without a prescription from a pharmacy, supermarket or health food shop.

Medication Profile

Pharmacy Department
XXXX Hospital
XXXX Street
ADELAIDE SA 5000
Telephone 8000 0000

Name: Rebel Ann Jones 000001

Allergies: Penicillin (anaphylaxis), sesame seed oil (migraines)

You have been prescribed the following medication. This information will help you use it safely and effectively.
Side effects other than those listed may occur. See your doctor or pharmacist if you experience any unusual effects from medications, or if you require more information.

Medication Name	Other Names	Number to Take				Purpose for Medication	Special Instructions
		Morn-ing	Mid-day	Even-ing	Bed-time		
Aspirin Tablets 100 mg	**Cartia Cardiprin Astrix**	**1**				To thin the blood to prevent heart attack or stroke.	Take with food if stomach irritation occurs. May irritate stomach ulcers and may worsen asthma in some people. See your doctor if this is a problem.
Perindopril Tablets 5 mg	**Coversyl**	**1**				For blood pressure.	Do not take potassium supplements unless advised by your doctor. Space doses away from antacids. May cause cough, alteration of taste, rash, stomach upset, dizziness or diarrhoea. See your doctor if this is a problem.
Metformin Tablets 1000 mg	**Diabex Diaformin Glucophage**	**1**	**1**	**1**		To control blood sugar levels	Take after food. Avoid alcohol. Stomach upset, rash or metallic taste may occur. See your doctor if these are troublesome, or if complete loss of appetite, unexplained rapid weight loss, drowsiness, and rapid sighing breathing occur.
Long acting insulin analogue – insulin glargine 100 units per mL	**Lantus Solostar**	**35 units**				Insulin for controlling blood sugar levels.	Inject subcutaneously, as directed. Usually administered in the abdomen, or less commonly in the thigh, upper arm or buttocks. Rotate injection sites in the same general area. Pinch skin to reduce risk of injecting into a blood vessel. Store in the fridge (2 – 8 °C), protect from light, do not freeze. Allow to come to room temperature before administering. Storage of a vial at room temperature (up to 25 °C) is acceptable for up to 1 month. **Do not mix insulin glargine with other insulins.**

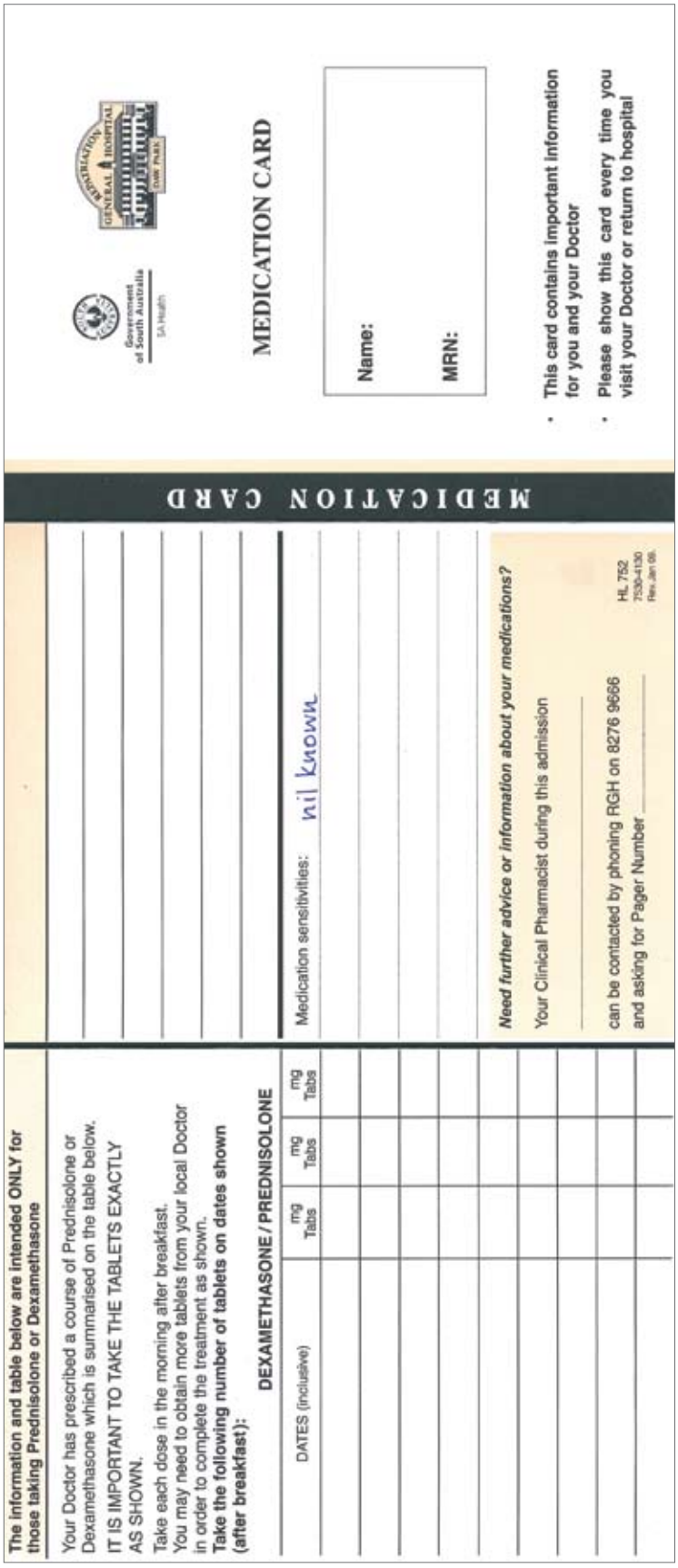
Changes made to your medications during this admission to the XXXX Hospital:
New medications: perindopril, metformin, insulin glargine (Solostar®).

In all cases: - Read directions carefully, - Store medication away from children (best in a locked cupboard), - Destroy unwanted medication
- Remove medication from package only for immediate use, - Do not change treatment unless directed by your doctor,
- Do not give your medication to other people or use it for other illnesses, - Try to have all your prescriptions dispensed at the same Pharmacy
- Do not run out of medication.

If you need further assistance call the 'phone number at the top of this profile.

Prepared by: Jay Brown , Med 1A pharmacist **Phone: 08 8000 0000 (switchboard) and ask for pager #9999**

Medication Profile – Handwritten medication card



The information and table below are intended ONLY for those taking Prednisolone or Dexamethasone

Your Doctor has prescribed a course of Prednisolone or Dexamethasone which is summarised on the table below.

IT IS IMPORTANT TO TAKE THE TABLETS EXACTLY AS SHOWN.

Take each dose in the morning after breakfast.
You may need to obtain more tablets from your local Doctor in order to complete the treatment as shown.
Take the following number of tablets on dates shown (after breakfast):

DEXAMETHASONE / PREDNISOLONE

DATES (inclusive)	mg Tabs	mg Tabs	mg Tabs	mg Tabs

MEDICATION CARD

Medication sensitivities: nil known

Need further advice or information about your medications?

Your Clinical Pharmacist during this admission

_____

can be contacted by phoning RGH on 8276 9666 and asking for Pager Number _____

HL 752
7530-4100
Rev. Jan 08.

Government of South Australia
SA Health

MEDICATION CARD

Name:

MRN:

- This card contains important information for you and your Doctor
- Please show this card every time you visit your Doctor or return to hospital

Take or use the following medications every day (or as directed) Valid from 20/11/09

MEDICATION	STRENGTH	BRAND NAMES	BREAK-FAST	LUNCH	DINNER	BEDTIME	FURTHER ADVICE
Aspirin	300mg	Solprin	½				blood thinner
Spironolactone	25mg	Aldactone Spiractin	1				for heart
Digoxin	62·5mg	Lanoxin·PG	2				for heart
Carvedilol	25mg	Dilatrend Kredex	1			1	for heart
Frusemide	40mg	Lasix Urex Uremide	1				fluid tablet
Fosinopril	5mg	Monopril	1				for heart
Allopurinol	100mg	Zyloprim Progout	1				for gout
Simvastatin	40mg	Lipex Zocor				1	lowers cholesterol
Thiamine	100mg	Betamin	1				vitamin B
Prednisolone	5mg	Solone	1				rheumatoid arthritis
Sulphasalazine	500mg	SalazopyrinEN	2			2	rheumatoid arthritis

Take or use the following medication ONLY when needed
Please follow the directions on your medication labels

For constipation: Coloxyl with senna, TWO tablets twice daily.

Dose administration aid backing

Example - Dose Administration Aid backing

Name: Arthur Jones

Medication Name	Number to take			
	Morning	Midday	Evening	Bed-time
Aspirin 100mg tablets	1			
Atorvastatin 40mg tablets	1			
Perindopril 10mg tablets	1			
Indapamide 2.5mg tablets	1			
Metformin 1g tablets	1	1	1	
Gliclazide MR 30mg tablets	1			
Paracetamol 500mg tablets	2	2	2	2
Amitriptyline 25mg tablets				Half
Amoxycillin/Clavulanic acid 875/125mg tablets	1		1	

Not packed in dosette: Insulin glargine, temazepam

DANGER KEEP OUT OF THE REACH OF CHILDREN

XX Hospital, J. Brown (pharmacist)
Packed 15/07/09

Warfarin booklet

Anticoagulant Patient Handbook

Always carry this handbook with you

Guide to Anticoagulant Tablets

	Strength	Apperance	Colour
Warfarin (Marevan brand)	1mg		Brown
	3mg		Blue
	5mg		Pink
Warfarin (Coumadin brand)	1mg		Light Tan
	2mg		Lavender
	5mg		Green

It is recommended that you continue to take the same brand of warfarin during anticoagulant treatment.

Patient Details

Name _____

Address _____

_____

Hospital MRN _____

Name of anticoagulant _____

Indication _____

Desired INR range _____

Intended duration of treatment _____

_____

Patient's G.P. _____

Telephone No. _____

INR Results and Dose Record

Date	Blood test result (INR)	Daily dose until next blood test	Date of next blood test	Comments

Appendix 6 – Glossary

Accountability

Being answerable for your actions; or as a representative of an organisation, to be answerable for either your actions or the actions of your organisation.

Active ingredient

In the case of medicines, the ingredient responsible for the therapeutic effect. This term can be interchanged with 'approved name' or 'generic'.[1]

Adverse drug event

An adverse event due to a medicine. This includes harm from the medicine itself (adverse drug reaction) and harm resulting from errors or system failures associated with the preparation, prescribing, dispensing, distribution or administration of medicines.[2]

Adverse drug reaction

A response to a drug which is noxious and unintended, and which occurs at doses normally used or tested in man for the prophylaxis, diagnosis, or therapy of disease, or for the modification of physiologic function.[3]

Appropriately skilled health care professional

A health care professional who has the relevant knowledge and ability to perform a task to a pre-defined standard of competence. Assessment and monitoring of competency is at the discretion of the hospital.

Brand name

The product name given to a medication by a manufacturer.

Carer

A person responsible for or taking part in, the care of another person receiving health care. Carers can be formal, such as a paid community care worker, or informal, such as a family member.[1]

For the purpose of this handbook and ease of reading this term has not been included. Where the term patient is used, it is intended to read as patient and/or carer.

Complementary medicines

Medicinal products containing herbs, vitamins, minerals and nutritional supplements, homeopathic medicines and certain aromatherapy products. Complementary medicines comprise traditional medicines, including Chinese medicines, Ayurvedic medicines and Australian indigenous medicines.[4]

Consumer

A person receiving health care from a health care professional. This term has not been used in this document.[1]

For the purpose of the handbook and ease of reading, the term patient has been used and is intended to include consumer, client or other person, however titled, receiving health care.

Consumer medicines information

Brand-specific leaflets produced by a pharmaceutical company, in accordance with the Therapeutic Goods Regulations (Therapeutic Goods Act 1989), to inform patients about prescription and pharmacist-only medicines. Available from a variety of sources; for example, enclosed within the medication package, supplied by a pharmacist as a leaflet or computer printout, provided by a doctor, nurse or hospital, or available from the pharmaceutical manufacturer or via the internet (www.ebs.tga.gov.au)[2].

Discrepancy

An inconsistency or difference in the medication regimen identified during the medication reconciliation process. A discrepancy can be either intentional or unintentional.

Dose administration aid

A device or packaging system where doses of one or more solid oral dosage forms of medicines can be organised according to time of administration.[1]

Episode of care

An instance where a patient comes into contact with, or seeks the services of a health care professional, whether within the home, community-based service or a hospital.

A new episode of care commences each time a patient moves to a new health care setting and health care professional.[1]

Health care professional

Persons who have professional qualifications in all health care settings; for example, doctors, pharmacists, nurses, midwives, and allied health professionals.[1]

Health service

A location where health care professionals work in a systematic way to deliver health care to patients; for example hospitals, clinics, outpatient facilities, residential care facilities, pharmacies, professionals' consulting rooms.[2]

For the purpose of the handbook and ease of reading, the term hospital has been used and is intended to include all relevant health care settings.

Home medicines review

The home medicines review (HMR, also known as DMMR – Domiciliary Medication Management Review) is a patient-focused, structured and collaborative health care service provided in the community setting, to optimise quality use of medicines and consumer understanding. It involves the consumer, their general practitioner, their pharmacy, and other relevant members of the health care team[5].

Hospital

A location where health care professionals deliver health care to patients. For the purpose of this handbook, the term hospital is intended to include all health care settings as defined under health service.

Hospital managers

Persons who are responsible for the clinical governance, administration and financial management of hospitals providing health care.[2]

Medication profile

A list of all medications currently used by a patient.

Over-the-counter medicines

Health care products that can be purchased without a prescription.[2]

Patient

A person receiving health care. For the purpose of this handbook and ease of reading, only this term has been used. It is intended to include consumers, clients and other people, however titled, receiving health care from a health care professional.[2]

For ease of reading this term is also intended to include and/or carer.

Pharmaceutical Benefits Scheme (PBS)

A system for subsidising the cost of most prescription medicines, as determined by the Australian Government under the National Health Act 1953. This scheme also includes medicines for veterans under the Repatriation Pharmaceutical Benefits Scheme (RPBS).

Responsibility

To be entrusted with or assigned a duty. In many instances, responsibility is assumed, appropriate with a person's duties.

Responsibility can be delegated to someone who has the ability to carry out the task or function; however, the person who delegated responsibility remains accountable, along with the person accepting the task or function.[1]

Senior health care professional

Health care professionals who are responsible for the clinical governance, administration and management of their work unit providing health care.

1. APAC – Australian Pharmaceutical Advisory Council
2. ACSQHC – Australian Commission on Safety and Quality in Health Care
3. WHO – World Health Organisation
4. TGA - Therapeutic Goods Administration
5. Pharmacy Guild of Australia

Abbreviations

FMC	Flinders Medical Centre
RAH	Royal Adelaide Hospital
RGH	Repatriation General Hospital
TQEH	The Queen Elizabeth Hospital
WCH	Women's and Children's Hospital

Appendix 7 – Acknowledgement

Handbook writing group members:

Kaye Barratt, Senior Project Officer, Pharmaceutical Reforms	SA Health
Lauren Beckmann, Senior APAC Pharmacist	Lyell McEwin Hospital
Naomi Burgess, Pharmacy Consultant, Pharmaceutical Reforms	SA Health
Lauren Cortis, Area Manager, Clinical Pharmacy Services	Women's and Children's Hospital
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Sally Marotti, Clinical Team Leader, Pharmacy	The Queen Elizabeth Hospital
Anna McClure, Clinical Pharmacy Coordinator	Repatriation General Hospital
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Josephine Thomas, Consultant Physician, Department of General Medicine	Royal Adelaide Hospital
Kerrie Westaway, Senior Project Officer, Medication Safety	SA Health

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Karen O'Leary	Society of Hospital Pharmacists of Australia
Usha Ritchie	Women's and Children's Hospital
Amber Roberts	Department of Health and Human Services, Tasmania
Lisa Robertson	Flinders Medical Centre
Kirsty Scarborough	Royal Adelaide Hospital
Jackie Sutherland	Noarlunga Health Service
George Taylor	University of Tasmania

For more information

Pharmaceutical Reforms
SA Health
11 Hindmarsh Square
Adelaide SA 5000
Telephone: 08 8226 7375 / 08 8226 7240
www.safetyandquality.sa.gov.au/pharmreforms

Non-English speaking: for information in languages other than English, call the Interpreting and Translating Centre and ask them to call The Department of Health. This service is available at no cost to you, contact (08) 8226 1990.

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