Delivering a **Healthy** WA

Pharmaceutical Review Policy

Produced by Office of Safety and Quality

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In particular, the OSQH would like to recognise and thank the members of the Expert Advisory Group for their valuable work and contribution to this policy (see Appendix A).

Foreword

Western Australians live in a flourishing state and benefit from an excellent health care service. As we continue to build on our reform achievements, we remain committed to providing a world-class health care service to our community.

Advances in health technology and a strategic investment in pharmacotherapeutic innovation has led to substantive health care improvement for Western Australians. However, as medicines, both new and established, bring us an opportunity to improve clinical care processes and outcomes and change the course of illness in our community, they may also bring with them unintended effects that need to be addressed.

The quality use of medicines relies on balancing these emergent clinical risks and the needs of patients and clinicians against the proven therapeutic benefits of complex and innovative pharmaceutical technology. As part of a robust clinical governance system, pharmaceutical review forms a tangible component of Western Australia's commitment to strengthening the safety and quality of our health care service.

This pharmaceutical review policy has been developed in consultation with key clinical leaders from a range of disciplines in the field. It aims to strengthen the quality processes around medication use in Western Australia by outlining the key components of the process of pharmaceutical review, thus setting the context for future direction in medication management and pharmaceutical review for our state.

Dr Neale Fong
Director General
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March 2007

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1. Executive Summary

Under the directive of Australia's Health Ministers and the national health reform agenda, a process of pharmaceutical review for Western Australia is being progressed.

The following definitions and standards have been developed subsequent to consultation with key stakeholders in Western Australia and under the guidance of the Pharmaceutical Review Expert Advisory Group (Appendix A).

Pharmaceutical review is 'the systematic appraisal of all aspects of a patient's medication management to optimise patient outcomes.' It consists of five standards.

1. Chart review - all inpatient medication charts are to be reviewed, ideally on a daily basis, by an appropriately credentialled professional, such as a clinical pharmacist.
2. Medication reconciliation on admission - medication reconciliation, including an accurate medication history, is to be conducted for all inpatients by an appropriately credentialled professional, ideally within 24 hours of admission for high-risk patients.
3. Medication education during hospitalisation and on discharge - patients and/or their carers are to be provided with medication education during their hospitalisation to ensure that they have an understanding of their medications, and ideally be given a medication profile on discharge.
4. Discharge process: communication with general practitioners and other health professionals - a patient's medication-related information is to be provided to his or her general practitioner and other health professionals upon discharge.
5. Quality initiatives promoting medication safety – health services are to be involved in medication-related safety and quality initiatives.

Each standard in this policy is supported by:

- a list of required activities to fulfil the standard;
- a list of supplementary activities to complement and support the required activities;
- the corresponding Australian Pharmaceutical Advisory Council (APAC) guideline to support the requirements of the Pharmaceutical Benefit Scheme (PBS) Reform; and
- the rationale for why the standard is significant.

This document also outlines related statewide and national initiatives that that will complement or support the process of pharmaceutical review.

2. Purpose

The purpose of this policy is to inform the Western Australian Health System of:

- the definition of pharmaceutical review;
- the components of pharmaceutical review; and
- the standards expected within the health system.

By implementing the standards of this policy, it is envisaged that preventable medication-related adverse events will be reduced and patient safety improved.

3. Scope

This policy is applicable to all Western Australian public hospitals and relates to all staff involved in medication safety, including pharmacists, doctors, nurses, pharmacy technicians and policy makers.

Implementation of this policy is intended to occur across all levels of pharmacy services, as appropriate to the hospital level outlined in the WA Health Clinical Services Framework (Appendix B).

4. Background

4.1 Adverse Events

There is strong evidence that adverse events are a significant cost to health systems. The Harvard Medical Practice (HMP)[1] and the Quality in Australian Health Care (QAHC)[2] studies into medical error remain the benchmarks in providing population-level data on the rates of injuries or adverse events to patients in hospitals. Both studies identified a substantial amount of unnecessary human suffering as a result of medication error.

4.2 Adverse Drug Events

It is estimated that across Australia 140,000 hospital admissions per year are associated with problems with the use of medicines.[3] Medication error accounts for approximately 20% of reported adverse events in health care and is estimated to cost $380 million per year in the public hospital system.[3] A considerable proportion of these events may be preventable.

In Western Australia medication errors are identified in both the Advanced Incident Management System (AIMS) and the Sentinel Event Program. Medication errors are the second most common (23%) incident reported to AIMS in Western Australia, with omission and overdose accounting for 35% and 18% respectively of reported medication errors.[a] Over 40% of reported medication errors are caused by a failure to read or misreading prescribing information and 25% as a failure to follow policy and procedure.[a] The Second WA Sentinel Event Report noted that it was reasonable to believe that one patient died in a Western Australian hospital during 2005/06 due to the incorrect administration of drugs.[b]

4.3 National Patient Safety Initiatives

In April 2004 Australia's Health Ministers agreed on a national health reform agenda. To reduce the number of adverse events and improve patient safety, the following key safety and quality initiatives were endorsed:

- implementation of a national common medication chart;
- implementation of a process of pharmaceutical review;
- introduction of new 'incident management' systems to monitor, investigate, analyse and guide public hospitals' actions in relation to incidents;
- reporting of all sentinel events to the state department;
- contribution to a National Report on Sentinel Events;
- implementation of the '5 step right patient, right site, right procedure protocol';
- distribution of the booklet '10 tips for safer health care: what everyone needs to know'; and
- implementation of a patient safety risk management plan.[c]

This policy addresses the second initiative listed above, the implementation of a process of pharmaceutical review.

a Data obtained from 'Report on WA data collected by the Australian Incident Management System – Annual Report 1 July 2005 – 30 June 2006'.

b The Second WA Sentinel Event Report published by the Department of Health is available online at www.health.wa.gov.au/publications/documents/sentinal%20event%20(4).pdf

c The Australian Health Ministers' Conference 'Joint Communiqué' can be viewed at www.health.gov.au/internet/wcms/publishing.nsf/Content/health-mediarel-yr2004-jointcom-jc001.htm

5. Definitions

Adverse Drug Event – an incident resulting in harm as a result of the intrinsic nature of a medication as well as harm resulting from medication errors associated with distribution and use of medicines. This includes events resulting from under-use of medicines or failure to prescribe a medicine when indicated.[4]

Adverse Drug Reaction – a reaction that is harmful and unintended, and which occurs at doses normally used in humans for the prophylaxis, diagnosis or therapy of disease, or for the modification of physiological function.[3]

Appropriately Credentialled Professional – a pharmacist, doctor or nurse who has the relevant knowledge, or the ability to access relevant knowledge, about certain aspects of the medication management cycle. Assessment and monitoring of appropriate competency is at the discretion of the health service and beyond the scope of this document.

Chart Review – a review of a patient's medication chart(s) to identify potential risks associated with a patient's medications and clarify information that is not clear or legitimate. The review of the medication chart(s) may involve reference to other sources of information, such as the IV Fluid chart.

Consumer Medicine Information (CMI) - brand-specific leaflets produced by a pharmaceutical company, in accordance with the Therapeutic Goods Regulations, to inform consumers about their medications.[5]

Discharge Summary – a detailed overview of the events during a patient's hospitalisation. The medical officer responsible for the patient completes the summary on the day of a planned discharge or within 24 hours following an unplanned discharge.

Drug Use Evaluation – a systematic quality improvement activity undertaken with the purpose of improving the safety, quality and cost-effectiveness of drug use, thereby improving patient care.[6]

High-Risk Patient – a patient who meets one or more of the following criteria:

- is currently prescribed five or more medications;
- has multiple co-morbidities;
- is prescribed a medication with a narrow therapeutic index;
- is receiving therapy with high-risk drugs (such as anticoagulants and immuno-suppressants);
- has symptoms suggestive of a drug-related admission; and
- is having difficulty managing medicines because of literacy, language difficulties, dexterity problems, impaired sight, dementia or other cognitive difficulties.

Medication Counselling – an interactive consultation between the patient and medical officer, in which the patient is educated about his or her medications (including what the medication is for, how long it is to be taken, special directions, adverse effects, etc) and lifestyle factors.

Medication Education – the provision of information related to patients' medications to ensure that they have an understanding of and are able to manage their own medications.

Medication History – the recording of all medications (including over-the-counter medications and complementary therapies) a patient is taking at the time of hospital admission or presentation. It includes recording previous adverse drug reactions and allergies and any recently ceased or changed medications.[d]

Medication Profile – a complete list of current medications at discharge. A medication profile should include, but is not limited to:

- generic drug name;
- suggested trade names;
- brief discussion of the drug's purpose;
- dosing schedule;
- special instructions;
- allergy status; and
- information about possible side effects.

Medication Reconciliation – the formal process of obtaining a complete and accurate list of a patient's current home medications and comparing the medical officer's admission, transfer or discharge orders to that list.[e]

Patient's Own Medication Bags - standardised click-seal bags designed for the storage and transport of a patient's own medications.[f]

Pharmaceutical Review - the systematic appraisal of all aspects of a patient's medication management to optimise patient outcomes.

Quality Use of Medicines (QUM) – is one of the central objectives of Australia's National Medicines Policy. The goal of QUM is to make the best possible use of medicines to improve health outcomes for all Australians, and is based on the principles of:

- selecting management options wisely;
- choosing suitable medicines if a medicine is considered necessary; and
- using medicines safely and effectively.[g]

Standard – specifications or procedures designed to ensure that a material, product, method or service is fit for its purpose and consistently performs in the way it was intended. Standards establish a common language that defines quality and establishes safety criteria.[h]

Supplementary Activities – tasks that are expected to enhance the outcome of the standard, and should be undertaken if the activity concurs with current practice and resources are available.

d Adapted from Queensland Health: Safe Medication Practice Unit
e Adapted from the 'Preventing Adverse Events Toolkit' – Victorian Department of Human Services, Safer Systems Saving Lives Program, www.health.vic.gov.au/sssl/downloads/prev_adverse_drugv3.pdf
f Available commercially from Stirling FILDES – ph: 1300 651 118
g Adapted from Australian Government Department of Health and Ageing – Quality Use of Medicines
h Adapted from 'Standards Australia' definition

6. The Five Standards of Pharmaceutical Review

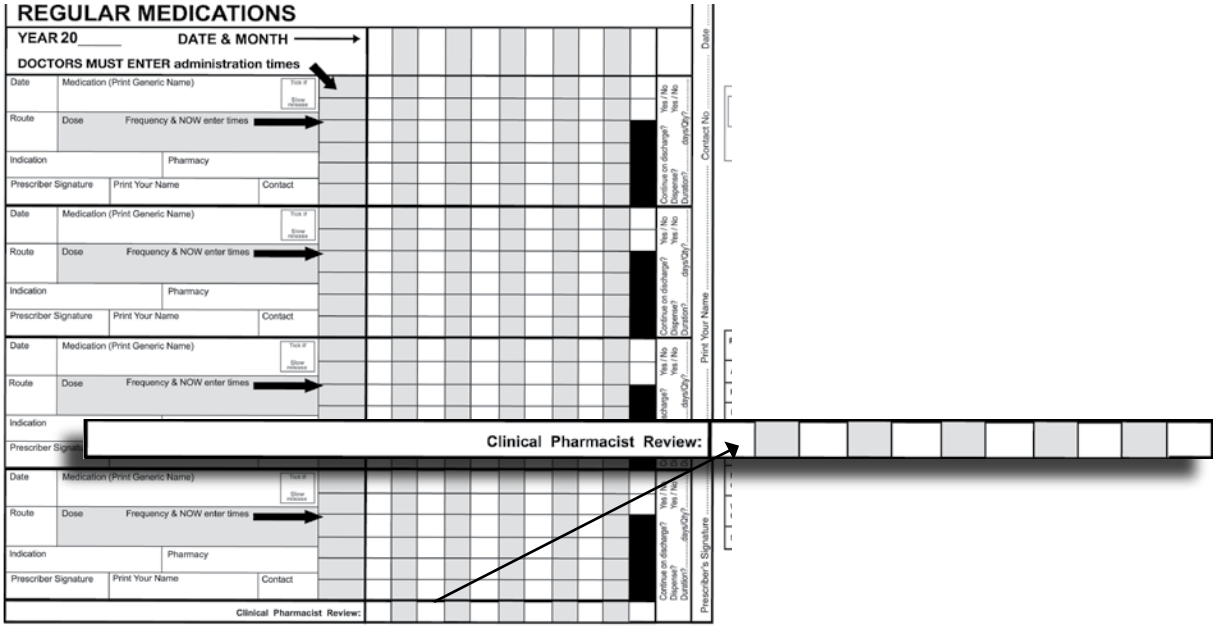
Standard 1: Chart Review

Required activities
All inpatient medication charts are to be reviewed, ideally on a daily basis, by an appropriately credentialled professional, such as a clinical pharmacist.

- The frequency of chart review needs to be determined by the acuity or clinical risk of the patient.
- High-risk patients require daily chart review.

Chart Review by an Appropriately Credentialled Professional

- The tasks associated with chart review undertaken by an appropriately credentialled professional should include but are not limited to:
  - identifying, clarifying and documenting potential adverse drug reactions;
  - changing medication names from trade names to generic names;
  - clarifying doses for all medications, particularly for all paediatric patients and inpatients with compromised renal function, etc;
  - clarifying dose times with respect to meal times or other ward/team regimes;
  - checking for allergies documented on the chart - if the patient is available then confirm or clarify with him or her;
  - identifying new medications and providing or arranging for education, if required;
  - getting clarification from other health professionals, if required;
  - ensuring that the prescription meets legal requirements;
  - clarifying the form of drug required by the patient and how it is to be delivered; and
  - providing reconstitution directions and administration guidelines (or where to find them).
- Once the review has occurred, it needs to be documented on the patient's chart.
  - If the reviewer is a clinical pharmacist, they should sign the 'Clinical Pharmacist Review' signoff box on the medication chart.
  - If the reviewer is another appropriately credentialled professional, they should sign immediately under the 'Clinical Pharmacist Review' signoff box on the medication chart.
- When a new medication is commenced, it is the responsibility of the prescriber to review the chart at the time of writing the prescription. The prescription of medications is to be adherent to the Quality Use of Medicines (QUM) principles.



Prescriber Chart Review

- The tasks associated with chart review undertaken by the prescriber should include, but are not limited to:
  - identifying, clarifying and documenting potential adverse drug reactions;
  - ensuring that generic drug names are used for prescriptions;
  - ensuring that the prescription is legible and approved abbreviations are used;
  - ensuring that each drug prescribed is appropriate for the patient;
  - ensuring that each drug prescribed is for an approved indication;
  - ensuring that drugs prescribed are in accordance with hospital policies, guidelines and restrictions on use;
  - ensuring appropriate doses for all medications;
  - clarifying dose times with respect to meal times or other ward/team regimes;
  - checking for allergies documented on the chart – if the patient is available then confirm or clarify with him or her;
  - identifying new medications and providing or arranging for education, if required;
  - ensuring that the prescription meets legal requirements;
  - clarifying the form of drug required by the patient and how it is to be delivered; and
  - providing reconstitution directions and administration guidelines where appropriate.

Chart Review at Time of Administration

- The person administering the drug should review the patient's medication chart before administering the medication to the patient.
- The tasks associated with chart review undertaken by the administrator should include, but are not limited to:
  - identifying allergies;
  - identifying known interactions;
  - ensuring that the prescription is legible and approved abbreviations are used;
  - verifying that the drug is at a correct dose and frequency; and
  - verifying previous drug doses given to patient.
- The person administering the medication should conduct the review within his or her scope of clinical practice, and consult local hospital policy for further guidance.

Supplementary activities

- Prescriber to document the source of the medication list.

Corresponding APAC Guideline

Guiding Principle 5 – Assessment of current medication management
This principle refers to the assessment of a patient's current medicines and other therapies, including selecting management options wisely, choosing suitable medicines if a medicine is considered necessary, and using medicines safely and effectively. Assessment should be ongoing, i.e. continually re-evaluated.

Rationale

Studies have demonstrated that errors in the prescribing or ordering stage of the medication management cycle account for the majority of medication errors.[7,8] Within this category an Australian study found the following types of errors most common:

- drug prescribed when documented as allergic;
- sustained release form not specified;
- wrong or ambiguous dose;
- dose absent;
- wrong or unclear frequency;
- frequency absent; and
- duplication.[8]

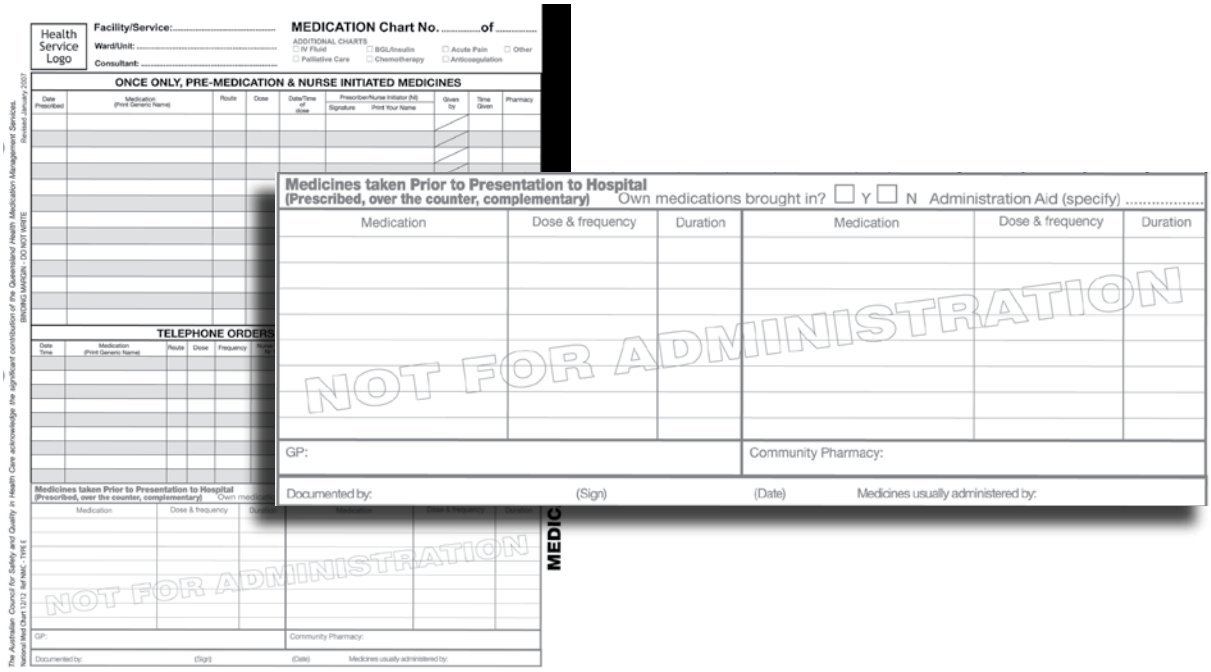
These types of errors will be detected by regular chart review. Potential benefits associated with chart review by an appropriately credentialled professional, such as a clinical pharmacist, include reduced adverse drug events, reduced length of stay, reduced probability of readmission and reduced drug costs.[9]

Standard 2: Medication Reconciliation on Admission

Required activities

Medication reconciliation, including an accurate medication history, is to be conducted for all inpatients by an appropriately credentialled professional, ideally within 24 hours of admission for high-risk patients.

- Further to obtaining a medication history from the patient/carer, one other source should be consulted to confirm the patient's current medications. This source should ideally be the patient's general practitioner, or alternatively, the community pharmacist, carer or family members.



- Some patients may not be a reliable source of information for the medication reconciliation process, e.g. unconscious, inaccessible or unidentified patients. In these instances, attempts at contacting alternative sources should be made according to the clinical situation (see above).
- In some situations (such as patients in need of critical care), medication reconciliation will not be clinically relevant until the patient's clinical state is stabilised and ongoing drug therapy considered.

Supplementary activities

- Supply 'Patient's Own' medication bags to St John Ambulance, Silver Chain and other residential care facilities, to encourage the collection of the patient's medications prior to admission.
- Consult patient's current medication profile.
- Consult patient's previous hospital discharge summaries and nursing home summaries, as applicable.
- Consult St John Ambulance's 'MedicAlert' bracelet and 'MedicAlert' wallet card.

Source: www.suslik.org/FirstAid/Medical/diabetes.html

Corresponding APAC Guideline

Guiding Principle 4 – Accurate medication history
This principle indicates that an accurate and complete medication history should be obtained at the time of admission, or as early as possible. It also includes the accurate documentation of the medication history.

Rationale

Medication history is deemed to be an integral component of a patient's assessment on admission to the hospital, however it is reported that between 60% and 70% of patients will have at least one discrepancy in this process.[10,11] A clinical audit of 106 high-risk patients at Royal Perth Hospital in 2006 confirmed the inaccuracy of medication histories, reporting that each patient had an average of 2.1 errors in the medication history.[12]

Confirmation of a patient's history and the reconciliation of medications can therefore result in a reduction in errors and potential harm to patients.[10,11,12]

Standard 3: Medication Education during Hospitalisation and on Discharge

Required activities

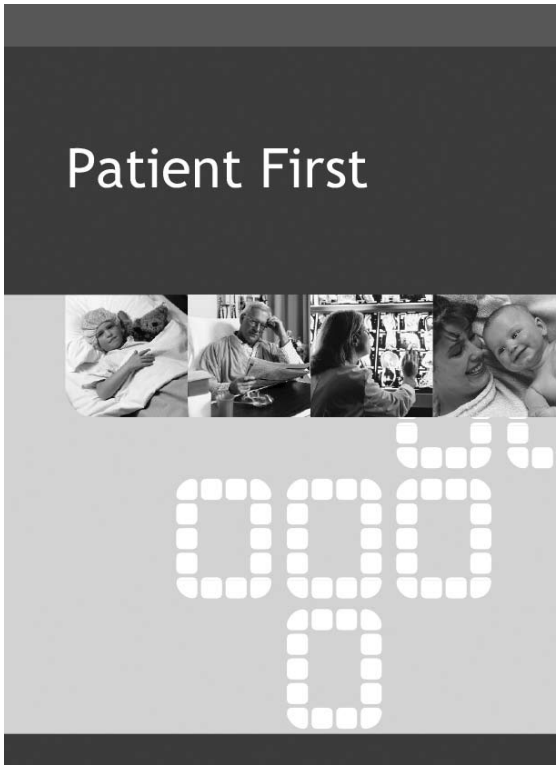
Patients and/or their carers are to be provided with medication education during their hospitalisation to ensure that they have an understanding of their medications, and ideally be given a medication profile on discharge.

- Medication education is to be provided by an appropriately credentialled professional.
- Medication education may be requested, encouraged or prescribed, depending on the needs of the patient.
- Medication education is to be provided when any additions, cessations or alterations are made to the dosage regime of the patient's medications.
- Medication education is to be provided to patients being prescribed high-risk drugs.
- When a clinician engages in providing medication education, factors that the patient/ carer should understand include:
  - what the medication is for and the expected outcome;
  - how long the medication should be taken;
  - the dose and frequency to be taken;
  - special directions;
  - potential side effects of the medication; and
  - lifestyle changes that the patient can make to complement his or her medication therapy.
- Medication education, such as Consumer Medicine Information, is to be provided with every new drug prescribed.
- As a minimum, a medication profile is to be provided for all high-risk patients.
- The patient should be encouraged to communicate the medication profile to his or her general practitioner, or other health professionals, as appropriate.

Note – in this document, the terms medication education and medication counselling are used synonymously. Many pharmacists use the term medication counselling to refer to the process of communicating with the patient to provide information and advice regarding the appropriate use of medications, the patient's illness and any appropriate lifestyle modifications.

Supplementary activities

- Distribute 'Patient's Own' medication bags to high-risk patients for use upon re-admission.
- Distribute the 'Patient First' booklet produced by the Department of Health to consumers and health professionals, and encourage the following questions to be discussed:
  - What is the medicine for?
  - How should I take the medicine?
  - When should I stop using any of my medicines?
  - Are there any special instructions that I need to follow?
  - Will there be any side effects?
  - Are there any lifestyle issues I need to know about?[13]



Corresponding APAC Guideline

Guiding Principle 7: Supply of medicines information to consumers
This principle stipulates that patients and/or their carers should 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'.[5]

Rationale

Educating patients about their drugs has been shown to result in patients having a greater understanding about their medicines and consequently, higher medication regime compliance rates on discharge.[14] In a study conducted in Massachusetts, 28% of elderly hospital admissions were drug-related.[15] Of this, 11% were found to be due to non-compliance, and 17% a result of an adverse drug event.[15] As the provision of medication counselling in conjunction with other written information has been documented to increase compliance,[14] an inverse relationship can be expected between patient education, medication regime compliance and drug-related hospital admission.

Patients benefit from receiving education about their medications at discharge, however to avoid information overload at the time of discharge, it has been identified that patients would also benefit from receiving some education during their hospital admission.[16]

Standard 4: Discharge Process - Communication with General Practitioners and other Health Professionals

Required activities
A patient's medication-related information is to be provided to his or her general practitioner and other health professionals upon discharge.

- It is the medical officer's responsibility to ensure that accurate medication-related information is included in the discharge summary.
- Ideally, a pharmacist should be involved in the medication component of the discharge summary.
- The medication-related information in the discharge summary should reflect the information in the patient's medication profile.
- For patients using administration aids (such as Webster-Paks), information about the patient's medications should be communicated to the patient's preferred community pharmacist.
- The key elements relating to medications that a discharge summary should include are:
  - generic drug name (or brand name where relevant);
  - dose;
  - drug status (changes to therapy between pre-admission and discharge, e.g., increased dose, decreased dose);
  - rationale for changes;
  - surveillance requirements for interactions;
  - expected outcomes; and
  - any adverse drug reactions experienced in hospital.

Supplementary activities
- Prompt the general practitioner that a Home Medicines Review may be required in the future (refer to section 7.6).
- Request any information about adverse drug reactions identified by the general practitioner be communicated back to the hospital.

Corresponding APAC Guideline

Guiding Principle 9: Communicating medicines information
This principle indicates that comprehensive, complete and accurate information must be supplied by the current health care provider to the patient's new health care provider, prior to transfer or discharge.

Rationale

It is traditionally understood that communication between public hospital staff and general practitioners or other health professionals caring for the patient, such as their community pharmacist, is relatively poor. A number of factors contribute to communication difficulties including:

- a lack of understanding of the reciprocal role of hospital staff and general practitioners in patient care;

- potential disinclination by the general practitioner to be involved in the patient's hospital management; and
- a lack of awareness by hospital staff of how the general practitioner can be used to assist in patient care.[17]

Increased communication by hospital staff with the general practitioner and other health professionals throughout a patient's hospitalisation and particularly on discharge, offers many benefits. A general practitioner's knowledge regarding a patient's hospital admission can enable the general practitioner to play a greater role in the patient's care. This will potentially allow the patient to spend less time in the hospital setting.[17] Post-discharge continuity of care is also a factor in determining readmission rates.[18] It has been noted that after being discharged from hospital, changes often occur between the medications received on discharge and those received subsequently from the community.[19] Ideally, any change in therapy made by the hospital prescriber is intended to be communicated to the patient's general practitioner.[19] However if this communication does not occur, the result can be a reissue of previous prescriptions that are no longer required or have been changed.[19] This outlines the importance of communicating with the general practitioner on discharge to reduce adverse drug events.

Standard 5: Quality Activities Promoting Medication Safety

Required activities
Health services are to be involved in medication-related safety and quality activities. This includes, but is not limited to the activities in the list below.

- Detecting, reporting and analysing adverse drug reactions (ADR). ALL adverse drug reactions must be reported via the hospital's clinical incident management process (e.g. Advanced Incident Management System - AIMS).
- Detecting, reporting and analysing ADRs. ALL adverse drug reactions must be reported to the Adverse Drug Reaction Advisory Committee (ADRAC).
- Developing appropriate responses to reported ADRs.
- Identifying and reporting ADRs to an appropriate committee. This committee should be responsible for the oversight and coordination of initiatives relating to the Quality Use of Medicines (QUM), and should have a clearly delineated relationship in the organisation's executive. This could occur via the establishment of an executive sponsor.
- Promotion of participation in QUM activities.
- Participation in drug use evaluations.
- Routine review/audit of charts for:
  - legibility;
  - errors on charts;
  - dose administration times; and
  - dose omissions.

Supplementary activities
- Involvement with other hospital and state medication safety working groups, and email discussion networks, such as the WA Medication Safety Group.

Corresponding APAC Guideline

Guiding Principle 10: Evaluation of medication management
This principle addresses the importance of evaluating the medication management components of an episode of care from the perspectives of both the consumer and the health care provider to confirm that Guiding Principles 1-9 have been achieved.

Rationale

The primary objective of health services should be to provide safe, quality care. This is best achieved by taking measures to:

1) identify the systems and procedures that permit medical errors to occur;
2) amend these systems and procedures; and
3) continuously re-evaluate and refine systems and procedures to suit the environmental conditions.

As identified previously in this document, medication error is a significant contributor to adverse events and patient harm. Engaging in quality activities to promote medication safety will help to achieve the Department of Health's objective of 'providing a safe, high quality, accountable and sustainable health care system.'[i]

i WA Health Operational Plan 2006-07. Available from: www.health.wa.gov.au/HRIT/publications/docs/WA%20Health%200607%20Op%20Plan%2028%20Apr%2006.pdf

7. Related Initiatives

This section of the policy outlines various statewide and national initiatives that complement or support the implementation of the process of pharmaceutical review.

7.1 Medication Management Cycle

The medication management cycle refers to the following nine steps (Figure 1), which should be incorporated into each episode of care, irrespective of the health care setting and the nature of the episode of care.

1. Decision of appropriate treatment and decision to prescribe medicine.
2. Record of medicine order/prescription.
3. Review of medicine order/prescription.
4. Issue of medicine.
5. Provision of medicine information.
6. Distribution and storage.
7. Administration of medicine.
8. Monitor for response.
9. Transfer of verified information.[5]

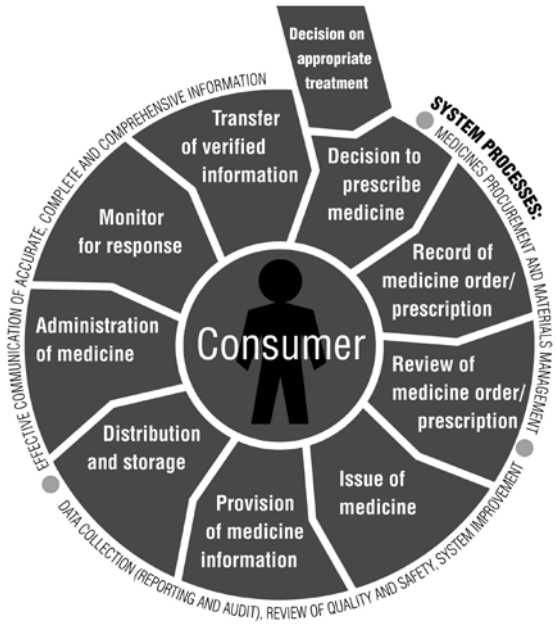


Figure 1. Medication Management Cycle[5]

The process of pharmaceutical review outlined in this policy provides a tool to assist health services in monitoring and verifying the completion of the medication management process.

7.2 Commonwealth PBS Reform and APAC Guidelines

As part of a strategy for improving the continuum of care for patients moving between the hospital and community setting, the Commonwealth and WA governments have been working together to improve the way patients access their medication. The reforms are designed to make it safer, easier and more convenient for patients to receive appropriate pharmacological care by applying the Commonwealth's Pharmaceutical Benefit Scheme (PBS) to public hospitals.[20]

Participation in the PBS Reform Program requires hospitals to agree to implement a set of guidelines developed by the Australian Pharmaceutical Advisory Council, known as the APAC Guidelines. These Guidelines aim to achieve the continuum of quality use of medicines between hospital and the community.[5]

This policy identifies the APAC Guideline that corresponds to each of the pharmaceutical review standards. By achieving the pharmaceutical review standard, the corresponding APAC Guideline will also be implemented.

7.3 WA Pharmacy Reform

In 2004 a review of public hospital pharmacy departments was undertaken in Western Australia.[j] The key recommendations of the Aldous Review have been incorporated into the Pharmacy Reform Project that is being undertaken by the Health Reform Implementation Taskforce. The Pharmacy Reform Project is very broad in scope, containing many components. The focus of the Quality Improvement component of the Pharmacy Reform Project is to implement the APAC Guidelines. By achieving the pharmaceutical review standards within this policy, the corresponding APAC Guideline will also be achieved.

7.4 SHPA Guidelines

The Society of Hospital Pharmacists of Australia (SHPA) has developed Standards of Practice for Clinical Pharmacy.[21] These standards include reference to the establishment of a Medication Action Plan (MAP) consisting of the following components:

1) interpretation of patient-specific data;
2) identification of clinical problems;
3) establishment of therapeutic goals;
4) evaluation of therapeutic options;
5) individualisation of therapy; and
6) monitoring of patient outcomes.

In addition, there are ten specific activities that contribute to the components of a MAP:

1) accurate medication history;
2) assessment of current medication management;
3) clinical review;
4) decision to prescribe;
5) therapeutic drug monitoring;

j Review of public hospital pharmacy departments in Western Australia by D. Aldous January 2004.

6) participation in multidisciplinary ward rounds and meetings;

7) provision of medicines information to health professionals;

8) provision of medicines information to patients;

9) information for ongoing care; and

10) adverse drug reaction management.[21]

Many of the components of the MAP are also key activities required to meet the pharmaceutical review standards.

7.5 Information Technology

Implementation of a single statewide electronic Pharmacy Management Application (PMA) with contemporary functionality is critical to achieve best practice in pharmaceutical reform and compliance with the principles of pharmaceutical review.

Ideally the PMA should support a number of functions, including:

- purchasing, stock control and distribution of medications;
- electronic medication management;
- patient medication history management;
- managing the requirements of the PBS Reform;
- managing the discharge process and the generation of discharge medication profiles;
- generating Consumer Medicines Information; and
- maintaining records of adverse drug reactions.

In addition, the implementation of an integrated electronic prescribing system along with effective decision support is critical for further improvements in both pharmaceutical review and safe medication management.

7.6 Home Medicines Review

Home Medicines Review (HMR) is a medication management service provided by general practitioners and community pharmacists. This service aims to assist in the quality use of medicines. The potential need for a HMR may be identified by a health professional including a hospital discharge manager. There are a number of risk factors known to predispose people to medication-related adverse events, including:

- recent discharge from hospital;
- currently prescribed five or more medications;
- significant changes to medication regimen;
- prescribed medications with a narrow therapeutic index;
- symptoms suggestive of an adverse drug reaction;
- suboptimal response to treatment with medicines;
- patient experiencing difficulty managing medicines because of literacy, language difficulties, dexterity problems, impaired sight, dementia or other cognitive difficulties; and
- patients attending a number of different general practitioners.[k]

k Sourced from correspondence with representatives of The Pharmacy Guild of Australia

The Home Medicines Review consists of a five-step process:

1. Patient consultation with the general practitioner to generate a referral to the community pharmacist.
2. Home interview with patient conducted by accredited pharmacist to discuss current medications.
3. Clinical assessment of the patient's medications, including prescription and over-the-counter medications by accredited pharmacist.
4. Provision of a written report by the accredited pharmacist back to the general practitioner regarding the patient's medications, especially any medication changes recommended as a result of the review.
5. Patient consultation with the general practitioner to discuss the outcome of the report and any necessary medication changes.[22,23]

There is the potential for a reciprocal relationship between the HMR and the process of pharmaceutical review. For eligible patients, the hospital discharge summary should prompt the general practitioner to refer patients to the HMR Program. This will enable patients to obtain a better understanding of all of their medications.

In addition, where a patient with a HMR report is admitted to hospital, the patient and the general practitioner will have an accurate record of all of the patient's current medications. This will increase the reliability and quality of the hospital medication reconciliation process.

7.7 WA Therapeutic Advisory Group (WATAG)

The role of the Western Australian Therapeutics Advisory Group (WATAG) is to promote rational therapeutic drug use in WA. In addition to supporting the quality use of medicines, WATAG provides independent advice to health professionals, health services and the Department of Health regarding the use of drugs and therapeutics in the public hospital and wider community setting in WA. Three subcommittees are established under WATAG, namely the Western Australian Psychotropic Drugs Committee, Western Australian Drug Evaluation Panel and Western Australian Medication Safety Group (WAMSG).

The primary aim of WAMSG is to reduce patient harm associated with medication errors. This subcommittee operates by involving stakeholders and local experts to develop standards that may be uniformly applied throughout the WA Health System. A number of Working Groups have been established under WAMSG, such as a Medication History Working Group, which may be able to advise on strategies or initiatives that can be implemented to achieve the standards contained in this policy.

7.8 Patient First Program

The Patient First Program is an initiative jointly developed by the Health Consumers' Council of WA, WA Council for Safety and Quality in Health Care and the Department of Health. This patient-centred program aims to improve health care by empowering the consumer to be an active, involved and informed participant in his or her health care experience and management.[13]

One module of the Patient First Program is 'Managing your medications safely'. This section outlines a number of measures that consumers can undertake to manage medications safely, including:

- keeping a written record of the medications they take at home, including complementary and non-prescription medications;
- making sure that they understand all of the instructions they have been given about their medications prior to leaving the hospital;
- obtaining their medications from the same pharmacy every time, so their pharmacist can keep a record of the medications they are taking and alert them to any dangerous interactions; and
- asking their health practitioner for any written Consumer Medicines Information that they can refer to when required.[13]

It is anticipated that if consumers follow the guide of the Patient First Program, the outcome of their pharmaceutical review is likely to be more accurate and of a higher quality.

8. Implementation and Review

Performance against this policy will be measured using a number of relevant indicators. Appropriate performance indicators will be developed throughout 2007.

The Office of Safety and Quality in Health Care will review this policy in January 2008, and subsequently every three years.

9. Appendix A

In Western Australia, key stakeholders involved in medication management across public hospitals attended a workshop to determine the definition of pharmaceutical review and its operational requirements and features.

An Expert Advisory Group (EAG) was formed to assist in the further development of the process of pharmaceutical review, with the following members:

- Mr Frank Andinach, Regional Pharmacist, Goldfields, WA Country Health Service
- Ms Helen Bayliss, Nurse Manager, Rockingham Kwinana District Hospital, South Metropolitan Area Health Service
- Dr Chris Beer, Senior Lecturer and Geriatrician/Clinical Pharmacologist, the University of Western Australia, Royal Perth Hospital and Swan Health Service
- Ms Tandy-Sue Copeland, Senior Pharmacist, Fremantle Hospital, South Metropolitan Area Health Service
- Ms Linda Fellows, A/Director Pharmacy, North Metropolitan Area Health Service
- Ms Jacqueline Hills, Clinical Nurse Specialist, Medical Centre, Armadale Health Service, South Metropolitan Area Health Service
- Ms Samantha Hilmi, Senior Pharmacist, Royal Perth Hospital, South Metropolitan Area Health Service
- Dr Tom Hitchcock, Emergency Physician, Royal Perth Hospital, South Metropolitan Area Health Service
- Mr Neil Keen, Senior Pharmacist, Sir Charles Gairdner Hospital, North Metropolitan Area Health Service (now at Canberra Hospital)
- Ms Louise McCauley, Pharmacist, Princess Margaret Hospital, Child and Adolescent Health Service
- Ms Susan Moore, Clinical Nurse Manager, Rockingham Kwinana District Hospital, South Metropolitan Area Health Service
- Dr Yusuf Nagree, Director of Emergency Services, Armadale Hospital and Staff Specialist, Fremantle Hospital, South Metropolitan Area Health Service
- Mr Philip Nairn, Senior Pharmacist, Sir Charles Gairdner Hospital, North Metropolitan Area Health Service
- Dr Shiong Tan, Senior Clinical Advisor, Office of Safety and Quality in Health Care

The support and contribution of the EAG Email Reference Group is also recognised. This multidisciplinary group representing various WA Health Services was periodically consulted regarding issues of the process of pharmaceutical review, and valuable feedback obtained.

10. Appendix B

WA Clinical services framework: Level of pharmacy services[24]

Level	Pharmacy Services
1	■ Service oversight by pharmacist located elsewhere. ■ Drugs supplied on individual prescription from community pharmacy.
2	As for level 1, plus: ■ Visiting pharmacist from regional hospital. ■ Minimal clinical services. ■ Staff education. ■ Drugs provided by regional hospital.
3	As for level 2 plus: ■ At least one pharmacist employed full time. ■ Pharmacy drug purchasing and distribution to inpatients in accordance with state drug policies and formulary. ■ May provide pharmacy undergraduate and postgraduate teaching role. ■ May have regional role.
4	As for level 3 plus: ■ More than one pharmacist employed. ■ Emergency after hours on-call service ■ Limited clinical pharmacy service to inpatients. ■ Limited outpatients dispensing. ■ Develops local drug policies. ■ Participates in hospital committees.
5	As for level 4 plus: ■ 6-day service and on-call service. ■ Inpatient and outpatient services. ■ Drug information. ■ Extensive clinical pharmacy service to inpatients. ■ Intravenous additive and/or cytotoxic drug preparation. ■ Extemporaneous dispensing. ■ Support for clinical trails.
6	As for level 5 plus: ■ 7-day service. ■ 24-hour on-call service. ■ Specialist pharmacist positions, e.g., oncology, cardiology, paediatrics, geriatrics, psychiatry, and drug information. ■ Involved in research, clinical trials, clinical review and drug use evaluations. ■ Product evaluation with drug use/policy development.

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