Medication Review Procedure

1. Purpose

This procedure outlines the minimum requirements for the review of a patient's medications on presentation to WA Country Health Service (WACHS) hospitals, during hospitalisation and prior to transition back into the community or transfer to other health care facilities.

This procedure:

- is in place to ensure continuity of care, reduce the risk of preventable medication-related adverse events and improve patient safety
- is intended to support staff to achieve this objective by providing the following:
  - clear roles and responsibilities in relation to medication review (see Roles and Responsibilities and Appendix A)
  - guidance on how to perform each of the tasks of medication review (Appendix B and Appendix C)
  - guidance on how to risk assess patients for medication related harm (and prioritise them for medication review)
  - guidance on how to refer patients to a pharmacist when additional support is required.
- complements MP0104/19 Medication Review Policy and the Best Practice Principles for Medication Review
- relates to hospital inpatients (irrespective of length of stay); however, the principles of medication review apply to all patients where medication reconciliation, chart review and patient education can help to reduce the chance of medication-related adverse events or harm and improve patient care.

2. Procedure

2.1 Medication Review

Medication review is a multidisciplinary responsibility and must be patient centred. It ensures the ongoing safe and effective use of medications at all stages of the medication management pathway including at the point of prescribing, dispensing and administering a medication, as well as transitions of care where there is an inherent risk of medication misadventure if important information is not communicated.

Medication Review is comprised of four Standards:

1. Medication reconciliation on admission
2. Medication chart review
3. Patient education
4. Medication reconciliation at discharge / transfer of care

Standard 1: Medication reconciliation on admission

Medication reconciliation on admission consists of taking a Best Possible Medication History (BPMH) (confirmed list of all medicines taken prior to admission) and reconciling this information against the medications prescribed for the patient in hospital. Reconciliation involves an intentional decision about each confirmed pre-admission medicine of the BPMH (e.g. continuation, withhold, increase / decrease), and the avoidance of unintentional discrepancies (e.g. omission, inadvertent changes). The aim is to reconcile the BPMH and have all discrepancies resolved or intentional changes documented as soon as possible. Refer to Appendix B for guidance on how to perform admission medication reconciliation. Document medication reconciliation on admission (BPMH and reconciliation) on the MR170.1 WACHS Medication History and Management Plan, or health care record.

Medication reconciliation on admission must be completed by an appropriately trained health professional as early as possible in the patient's episode of care. Whenever practical, this should be completed before the end of the next calendar day (ENCD) after admission. If admission medication reconciliation cannot be completed by the ENCD, a risk assessment must be completed to determine priority of medication reconciliation by patient acuity or clinical risk. Refer to the patient risk assessment and prioritisation section for guidance on how to risk assess and prioritise patients for medication reconciliation on admission.

Staff must escalate concerns related to the patient's medications to the treating team as soon as possible, regardless of whether medication reconciliation has been completed in full.

Standard 2: Medication chart review

Prescribers and pharmacists are to undertake medication chart review.

Assessment of a patient's current medications and other therapies is to be continually re-evaluated during the hospital admission. This includes selecting management options wisely, choosing suitable medications if a medication is considered necessary and using medications safely and effectively.

Review of all of the patient's medication chart(s) is to be undertaken by the prescriber, pharmacist, and the nurse / midwife (prior to each administration), to ensure medication orders are safe and appropriate.

The patient's health care record must be reviewed in conjunction with the medications prescribed on the chart(s). Recent consultations, pathology results, investigations, treatment plans and daily progress should be taken into account when determining the appropriateness of current medication orders, and when planning patient care. Refer to Appendix C for guidance on how to perform medication chart review. Document medication chart review on the relevant medication chart(s), or health care record. Issues, concerns and recommendations arising from medication chart review need to be communicated to the prescriber in a timely manner, and outcomes / medication management plans documented accordingly.

An initial medication chart review must be performed by the prescriber or pharmacist by the ENCD after admission. Thereafter, a daily medication chart review should be

completed. If daily review is not practicable, a risk assessment must be conducted to determine the frequency of ongoing chart review, based on patient acuity or clinical risk. Refer to the patient risk assessment and prioritisation section for guidance on how to risk assess and prioritise patients for medication chart review.

Standard 3: Patient education

By discharge, the patient and / or their carer must have received medication information (verbally and / or written) in a form they can use, understand and that is culturally appropriate, to enable them to safely and effectively manage their medicines. Use interpreters where relevant. Providing information / education throughout the admission is more ideal (rather than at discharge only) to enable better understanding and an opportunity for questions and discussion.

Once education has been provided, the patient / carer should understand:

- what the medication is for and the expected outcome(s)
- how to administer the medication
- how long the medication should be taken for
- the dose and frequency to be taken
- special directions for use
- potential side effects
- lifestyle changes or self-care advice that the patient can make to complement their medication therapy.

Document patient education on the MR170.1 Medication History and Management Plan, relevant medication chart(s) (e.g. anticoagulation chart), and/or health care record.

Refer to the WACHS Pharmacy Services intranet page for links to consumer medicines information resources that can be printed by staff and provided to patients. The medication list (e.g. that will be part of the discharge summary) can be used as part of education. By the time of discharge, the medication list should be provided to the patient / carer, with key information explained to them, and an opportunity to answer any questions or concerns they may have.

Refer to the Patient Risk Assessment and Prioritisation section for guidance on how to risk assess and prioritise patients for medication education.

Standard 4: Medication reconciliation at discharge / transfer of care

Medication reconciliation at discharge or transfer is undertaken by an appropriately trained health professional and includes:

- reconciliation to compare the prescriber's discharge or transfer medication orders (includes discharge prescriptions and discharge summary) to the medication history and medication charts to ensure that medications intended for discharge are confirmed
- medication liaison (clinical handover) between all health care professionals involved in the patient's care, and relevant information is communicated to the patient / carer. Essential information to be communicated include rationale for changes to pre-admission medicines (i.e. not only the change itself but a clear reason for the change), post-discharge monitoring requirements and plans for follow up care.

Discrepancies commonly occur between medication charts, prescriptions, transfer letters and discharge summaries. Reconciliation at the point of transfer or discharge involves an

intentional decision about each confirmed pre-admission medicine of the BPMH (e.g. continuation, withhold, increase / decrease), and the avoidance of unintentional discrepancies (e.g. omission, inadvertent changes). The aim is to convey the plan for all pre-admission medicines (including clear communication of changes to these) and any new medicines initiated during the admission that are intended to be continued, to both the receiving clinician (general practitioner (GP) or other healthcare professional) and to the patient / carer.

The prescriber is responsible for ensuring that the electronic discharge medication list is complete and correct prior to finalisation of the discharge letter. A pharmacist (if available) may facilitate this process through updating and reconciling the list as per the discharge plan and in consultation with the treating team.

Refer to Appendix B for guidance on how to perform discharge / transfer medication reconciliation. Document medication reconciliation on discharge / transfer on the MR170.1 WACHS Medication History and Management Plan, prescriptions and / or health care record.

Refer to the Patient Risk Assessment and Prioritisation section for guidance on how to risk assess and prioritise patients for medication reconciliation on discharge / transfer.

2.2 Patient Risk Assessment and Prioritisation

Staff are to use clinical judgement to determine which patients to prioritise for medication review (reconciliation on admission, medication chart review, reconciliation on discharge / transfer, and patient education). Risk assessment of patient factors enables clinicians to identify those patients at greater risk of medication-related harm, and hence prioritise medication review for these patients (earlier review to reduce the likelihood of harm).

The factors in Table 1 may increase a patient's risk of medication-related harm. Higher risk patients benefit from earlier medication reconciliation and review, which may or may not include referral to a pharmacist. Refer when you have concerns or need support.

Table 1: Risk factors for medication-related harm

Admission suspected to be related to medications, e.g.: • significant changes to medicines in last 3 months • suspected or known to be non-adherent with medicines • recent medication-related problem or adverse reactions to medicines
More than **2 presentations or admissions** to hospital in the past 6 months **or** any **unplanned readmission** within 28 days of discharge
Suboptimal response to treatment with medicines
On a **high risk** medication: A – Antimicrobials (e.g. vancomycin; aminoglycosides – gentamicin, tobramycin, amikacin; amphotericin; nebulised antibiotics or antifungals including pentamidine; aciclovir, valaciclovir, famciclovir, valganciclovir) including restricted antimicrobials P – Psychotropic / antipsychotic medicines (e.g. clozapine, lithium, olanzapine, zuclopenthixol acetate, sodium valproate), and depot / long acting medicines P – Potassium and other electrolytes, particularly IV potassium, calcium, phosphate or magnesium, and hypertonic saline I – Insulins, particularly high concentration insulins (e.g. Toujeo®, Humalog U200®), intravenous, and subcutaneous pumps

N - Narcotics (Schedule 8 medicines) (e.g. oxycodone, buprenorphine, morphine) C - Chemotherapy or cytotoxic medicines (whether used for cancer treatment or non-cancer treatment) (including methotrexate) H – Heparin and anticoagulants (e.g. heparin, enoxaparin, warfarin, apixaban, dabigatran, rivaroxaban, fondaparinux, dalteparin) Systems – e.g. intrathecal medicines, epidural medicines, medicines administered via enteral tubes Schedule 4 Restricted medicines (e.g. tramadol, benzodiazepines) Other – phenytoin, monoclonal antibodies, and other immunotherapies / modulators and immunosuppressants
On a medication requiring **therapeutic monitoring** (e.g. vancomyin, digoxin, phenytoin, gentamicin)
More than 5 prescribed medicines (may increase **falls risk**)
Co-morbidities - co-morbidities likely to involve complex medicines are: • epilepsy • transplant • Parkinson's Disease
Obese or **very underweight**
Age: • aged 65 years or older • aged 45 years or older (Aboriginal patients) • aged 12 years or younger
Hepatic impairment, or **renal** impairment (GFR < 30 mL/min)
Confusion, dementia or other **cognitive** difficulties
Interpreter required or **language/literacy** barrier identified
Uses a **dose administration aid** (blister / Webster packs / sachets) (other than self-packed dosette boxes) OR has problems using medication delivery devices
Any other **specific concerns** related to medicines, e.g.: • change in swallowing status • sight / hearing impaired, difficulty reading medicines label • dexterity problems, difficulty opening / handling medicines
Patient being **discharged** with: • significant changes to their pre-admission medicines • complex medication regimes • medicines requiring dose adjustment post-discharge

2.3 Referral to a Pharmacist

Staff are encouraged to refer patients to a pharmacist if they have concerns about a patient's medications or if they need support for any aspect of medication review.

The reason for referral is important to include so that the pharmacist can prioritise referrals.

Reasons for referral to a pharmacist include (but are not limited to) the following:
- medication history requiring pharmacist input to complete medication reconciliation
- medications charted that require pharmacist input
- patient education required
- discharge medication reconciliation required.

Referral processes are needed within each region (for sites which do not have on-site pharmacy services). eReferrals is ideal to use. As processes may vary across regions, Appendix D – Pharmacist Referral Form Template is provided as an optional template for regions to use / adapt (e.g. where eReferrals is not in use).

2.4 Staff Education and Training

All medical, nursing, midwifery and pharmacy staff who participate in medication reconciliation and patient education (Standards 1, 3, and 4) should complete the following recommended education packages:

- National Standard Medication Charts Declaration (NMCWA EL2)
- Get it right! Taking the Best Possible Medication History Declaration (MDGIR EL2)
- Teach Back.

There are no specific education / training requirements for prescribers and pharmacists to undertake Standard 2 (medication chart review).

Refer to the WACHS Pharmacy Services intranet page for additional e-Learning packages. Individual regions may have additional education resources available.

3. Roles and Responsibilities

The staff member best placed to perform medication review will vary depending on the services available at individual sites during business hours, after-hours and on weekends and public holidays. Staff responsibility for completing each of the four Standards of medication review is outlined in Appendix A.

The **pharmacist** is responsible for:

- leading medication reconciliation, medication chart review and patient education
- see Appendix A for more information in relation to completing each of the four Standards of medication review.

The **prescriber** is responsible for:

- leading medication reconciliation and medication chart review if a pharmacist is not available
- patient education
- see Appendix A for more information in relation to completing each of the four Standards of medication review.

The **nurse / midwife** is responsible for:

- assisting with BPMH and escalating medication-related concerns to the pharmacist or prescriber
- patient education
- see Appendix A for more information in relation to completing each of the four Standards of medication review.

All staff are required to work within policies and guidelines to make sure that WACHS is a safe, equitable and positive place to be.

4. Monitoring and Evaluation

4.1 Monitoring

Adverse events and clinical incidents relating to the prescribing and administration of medicines, including medication reconciliation and medicines review, are to be reported and managed as per the WACHS Medication Prescribing and Administration Policy. The WACHS Medication Safety Committee and regional Medicines and Therapeutics Committees reviews clinical incident data relevant to medication reconciliation and medicines review.

Regional Medicines and Therapeutics Committees are responsible for auditing via the WA Medication Reconciliation Audit every 6 months using the WA REDCap audit tool (downtime form), monitoring results, identifying trends and developing action plans to improve compliance. Regional Directors are responsible for ensuring that the risks arising from the WA Medication Reconciliation Audit reports are managed. Regional resource centres are to be audited every 6 months (random sample of 30 patients recommended). Regions may choose (on a risk assessment basis) to audit other regional sites (sample size of 10 or actual number of beds, if audited). Regional audit results and action plans are reported to the WACHS Medication Safety Committee (refer to Appendix E – Medication Review Reporting Template). Refer to the WACHS Audit and Reporting Framework.

The WACHS Medication Safety Committee provides oversight of audit results across WACHS, development of WACHS-wide initiatives to optimise medication review; and ensuring audit results are provided to the WA Department of Health (mandatory policy requirement).

4.2 Evaluation

An evaluation of the effectiveness of this procedure will be undertaken via the Medication Reconciliation Audit and reporting.

This procedure will be reviewed as required to determine effectiveness, relevance and currency. At a minimum it will be reviewed every five years by the WACHS Medication Safety Committee.

5. Compliance

This procedure has been developed to meet the requirements of MP0104/19 Medication Review Policy.

Failure to comply with this procedure may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the Integrity Policy Framework issued pursuant to Section 26 of the *Health Services Act 2016* and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies and procedures is mandatory.

6. References

Guiding principles to achieve continuity in medication management [Internet]. Commonwealth of Australia Department of Health and Aged Care; 2022 [updated 2023; cited 2023 Dec 15]. Available from: https://www.health.gov.au/resources/publications/guiding-principles-to-achieve-continuity-in-medication-management?language=en

Recommendations for terminology, abbreviations and symbols used in medicines documentation [Internet]. Australian Commission on Safety and Quality in Health Care; 2016 [updated 2023; cited 2023 Dec 15]. Available from: https://www.safetyandquality.gov.au/our-work/medication-safety/safer-naming-and-labelling-medicines/recommendations-terminology-abbreviations-and-symbols-used-medicines-documentation

7. Definitions

Term	Definition
Appropriately trained health professional	A health professional (namely doctor, nurse or midwife, pharmacist or pharmacy staff) who has the relevant knowledge and training in taking medication histories, medication review, and / or providing medication education to patients.
Best possible medication history (BPMH)	Best possible medication history (BPMH) refers to a list of all medicines a patient is taking prior to admission. The list should include prescribed, 'over the counter' and complementary medicines. The list should be confirmed with at least two sources (if second source deemed unnecessary, this must be explicitly documented). It includes recording previous adverse reactions to medicines and allergies and any recently ceased or changed medicines.
Discharge medication list	A complete list of current medicines at discharge. A medication profile should include, but is not limited to: • generic medicine name • suggested trade names • indication for the medicine • dosing schedule • special instructions • allergy status. May include whether discharge prescriptions or supply of medicines are provided or organised.
Dose administration aid	A device or packaging system which organises tablets and capsules according to the time of administration, e.g. blister packs, sachets, Webster-pak®, dosette box.
End of next calendar day (ENCD)	End of next calendar day (ENCD) refers to a task that is to be completed by the end of the next calendar day after the patient's admission to hospital.
Medication chart review	A comprehensive review of a patient's current medication chart(s) to confirm appropriateness of therapy, identify potential risks associated with a

	patient's medications and clarify information that may be ambiguous.
Patient	Where the term patient is used in this procedure, this refers to the patient or their carer (who may manage / help the patient manage their medicines).
Patient education	An interactive consultation between the patient / carer and trained health professional, in which the patient is educated about their medications (including what the medication is for, how long it is to be taken, special directions, adverse effects). This may include the provision of written information and can form part of the consumer medication action plan.
Prescriber	Those health professionals authorised under the Medicines and Poisons Regulations to prescribe Schedule 4 and Schedule 8 medications.

8. Document Summary

Coverage	WACHS-wide
Audience	Medical, nursing, midwifery, pharmacy
Records Management	Clinical: Health Record Management Policy
Related Legislation	*Medicine and Poisons Act 2014* (WA) Medicine and Poisons Regulations 2016 (WA)
Related Mandatory Policies / Frameworks	• MP 0051/17 Language Services Policy • MP 0078/18 Medication Chart Policy • MP 0104/19 Medication Review Policy
Related WACHS Policy Documents	• High Risk Medications Procedure • Medication Handling and Accountability Policy • Medication Prescribing and Administration Policy
Other Related Documents	• WA Health Best practice principles for medication review: guidance document • WA Health Medication Reconciliation Audit Tool Guidelines • WA Health WA Medication History and Management Plan User Guidelines
Related Forms	• MR156A WACHS Insulin Subcutaneous Order and Blood Glucose Record - Adult • MR170.1 WACHS Medication History and Management Plan • MR170A WA Hospital Medication Chart – Short Stay • MR170C WACHS Anticoagulant Medication Chart
Related Training Packages	• Get it right! Taking the Best Possible Medication History Declaration (MDGIR EL2) • National Standard Medication Charts Declaration (NMCWA EL2) • Teach Back
Aboriginal Health Impact Statement Declaration (ISD)	ISD Record ID: 2540
National Safety and Quality Health Service (NSQHS) Standards	1.03, 1.07, 1.27, 4.01, 4.03, 4.04, 4.05, 4.06, 4.07, 4.10, 4.11, 4.12
Aged Care Quality Standards	Nil
Chief Psychiatrist's Standards for Clinical Care	Nil

9. Document Control

Version	Published date	Current from	Summary of changes
1.00	30 January 2024	30 January 2024	New procedure

10. Approval

Policy Owner	Executive Director Clinical Excellence
Co-approver	Executive Director Nursing and Midwifery
Contact	WACHS Chief Pharmacist
Business Unit	Clinical Excellence
EDRMS #	ED-CO-23-512146

This document can be made available in alternative formats on request.

Appendix A: Staff Roles and Responsibilities for Medication Review

Medication review is a multidisciplinary responsibility. The staff member best placed to complete medication review will vary depending on the services available at individual sites.

In general:

- If a pharmacist is available, they are to lead medication reconciliation, medication chart review and patient education services. Medical and nursing / midwifery staff are to aid in the identification of patients at high risk of medication misadventure to ensure they are prioritised for review, including referral to an off-site pharmacist where appropriate.
- If a pharmacist is not available, medical staff are to lead medication reconciliation and medication chart review.

The tables below define which staff member is best placed to complete each of the 4 standards which comprise medication review, depending on the services available at individual sites during business hours, after-hours and on weekends and public holidays.

Note: Urgent concerns about a patient's medications must be escalated as soon as possible, either to the medical team or the pharmacist where available (where on-call / weekend services exist follow the usual process to escalate to the available pharmacist).

*Referrals to the pharmacist outside of business hours will be reviewed on the next pharmacy business day.

Group A sites: Prescriber, nurse / midwife and pharmacist on-site Medication review is a multidisciplinary responsibility. The staff member(s) best placed to complete the various Standards of medication review at Group A sites are listed below.				
	Standard 1: Medication Reconciliation on Admission (Best Possible Medication History (BPMH) and reconciliation)	**Standard 2: Medication chart review**	**Standard 3: Patient education**	**Standard 4: Medication Reconciliation at Discharge and Transfer**
During business hours	Pharmacist Prescriber or nurse / midwife to assist with BPMH Prescriber or nurse / midwife to refer to pharmacist if concerned	Pharmacist	All (ideally pharmacist)	Pharmacist reconciles medication charts with discharge summary and prescriptions Nurse / midwife to assist with reconciliation Prescriber or nurse / midwife to refer to pharmacist if concerned

				Prescriber finalises medication list within the discharge summary
After hours, weekends, public holidays	Prescriber Nurse / midwife to assist with BPMH Prescriber or nurse / midwife to refer to pharmacist if concerned*	Prescriber Prescriber to refer to pharmacist if concerned*	Prescriber Nurse / midwife to assist Prescriber or nurse / midwife to refer to pharmacist if concerned*	Prescriber Nurse / midwife to assist with reconciliation Prescriber or nurse / midwife to refer to pharmacist if concerned*

Group B sites: Nurse / midwife on-site. Prescriber on-site or available via Inpatient Telehealth Service (ITS). No pharmacist on-site.
Medication review is a multidisciplinary responsibility. The staff member(s) best placed to complete the various Standards of medication review at Group B sites are listed below.

	Standard 1: Medication Reconciliation on Admission (BPMH and reconciliation)	**Standard 2: Medication chart review**	**Standard 3: Patient education**	**Standard 4: Medication Reconciliation at Discharge and Transfer**
During business hours	Prescriber Nurse / midwife to assist with BPMH Prescriber or nurse / midwife to refer to pharmacist if concerned	Prescriber Prescriber or nurse / midwife to refer to pharmacist if concerned	Prescriber Nurse / midwife to assist Prescriber or nurse / midwife to refer to pharmacist if concerned	Prescriber Nurse / midwife to assist with reconciliation Prescriber or nurse / midwife to refer to pharmacist if concerned
After hours, weekends, public holidays	Nurse / midwife Nurse / midwife to refer to prescriber or pharmacist if concerned*	Prescriber Prescriber or nurse / midwife to refer to pharmacist if concerned*	Nurse / midwife Nurse / midwife to refer to prescriber or pharmacist if concerned*	Prescriber Nurse / midwife to assist with reconciliation Prescriber or nurse / midwife to refer to pharmacist if concerned*

Group C sites: Nurse / midwife on-site. Infrequent visiting medical services. No pharmacist on-site. Medication review is a multidisciplinary responsibility. The staff member(s) best placed to complete the various Standards of medication review at Group C sites are listed below.				
	Standard 1: Medication Reconciliation on Admission (BPMH and reconciliation)	**Standard 2: Medication chart review**	**Standard 3: Patient education**	**Standard 4: Medication Reconciliation at Discharge and Transfer**
All times	Nurse / midwife Nurse / midwife to refer to prescriber or pharmacist if concerned*	Prescriber Prescriber or nurse / midwife to refer to pharmacist if concerned*	Nurse / midwife Nurse / midwife to refer to prescriber or pharmacist if concerned*	Prescriber Nurse / midwife to assist with reconciliation Prescriber or nurse / midwife to refer to pharmacist if concerned*

Appendix B: How to perform medication reconciliation on admission and discharge / transfer

This appendix provides guidance on how to obtain a medication history and perform reconciliation on admission and discharge. Document medication reconciliation on admission (BPMH and reconciliation) discharge / transfer on the MR170.1 WACHS Medication History and Management Plan (MHMP), or health care record. The front of the WA Hospital Medication Chart can be used to document the BPMH, however it does not have prompts for documentation of sources used, or for reconciliation. Refer to the WA Medication History and Management Plan User Guidelines for more detail, including examples of completed forms.

Steps required to complete Medication Reconciliation on Admission

1. **Interview the patient and document a best possible medication history (BPMH)**

- It is best practice to interview the patient or whoever manages the medications at home.
- Record a complete and accurate list of pre-admission medications on the MHMP, including:
  - Generic medication name
  - Strength
  - Dose
  - Frequency
  - Form
  - Route.
- Include 'over-the-counter' and complementary medicines.
- Record any previous adverse reactions to medicines and allergies (name of medicine(s), reaction and date, if known).
- Make note of any recently ceased or changed medications.
- Document any adherence issues or barriers to medication adherence.
- Document if the patient uses a dose administration aid, e.g. blister/Webster packs/sachets.
- Document who manages the patient's medicines, e.g. the patient or their carer.
- Document if Patient's Own Medicines (POM) are available. Keep POM in hospital where possible, so they can used for reconciliation at admission, used for administration if required, reconciled at discharge and returned to the patient if appropriate.

2. **Confirm**

- The BPMH should be confirmed with at least two sources. Ideally one of these sources should be the person who looks after the medicines in the community (patient / carer, residential care facility). Second sources of information may include:
  - Patient's own medicines
  - Patient's own list
  - Patient's prescriptions or repeats
  - Community pharmacy
  - General Practitioner
  - My Health Record
  - Previous discharge summaries (check the date of the discharge summary – information may not be current)
  - Residential care facility (nursing home) record (check the date of the record).

- If a second source is deemed unnecessary (based on clinical judgment), this decision should be explicitly documented (e.g. on the MHMP, front of the WA Hospital Medication Chart, or health care record).

3. **Reconcile**

- Compare the BPMH to the medicines prescribed for the patient in hospital. Ensure that any discrepancies are brought to the attention of the prescriber and resolved or noted as intentional changes.
- Complete the "Reconciled with HMC at admission" column on the front of the MHMP.

Steps required to complete Medication Reconciliation on Discharge and Transfer

1. **Reconcile**

- Compare the discharge or transfer medication orders (including discharge prescriptions and the discharge summary) to the BPMH and the medication charts to ensure that any discrepancies are brought to the attention of the prescriber.
- Ensure all medication charts are reviewed, including the WA Hospital Medication Chart, WA Anticoagulation Chart, Insulin Subcutaneous Order and Blood Glucose Record and any other charts in use.
- Return Patient's Own Medicines (POM) and offer to dispose of any medicines that are no longer needed or appropriate.
- Complete the "Discharge Plan" column on the front of the MHMP.

2. **Medication Liaison**

- Complete, accurate and reconciled medication information must be provided by the prescriber to the patient's subsequent health care provider (community clinician or receiving hospital/facility) via the discharge summary, with additional verbal communication where appropriate.
- The information in the discharge summary must include:
  - a current allergy / adverse reaction to medicines status, including any new reactions experienced in hospital
  - a current and complete list of medications at discharge including name of medicine, dose, frequency, and route
  - intended duration of treatment and /or expected outcomes
  - the rationale for change in therapy compared to medications on admission including both the initiation and cessation of medications
  - ongoing monitoring and medication management requirements.
- The medication list should be provided to the patient / carer, with key information explained to them, and an opportunity to answer any questions or concerns they may have.
- Organise discharge prescriptions (e.g. provide prescriptions, organise electronic prescriptions) as required.
- For patients using dose administration aids such as blister / Webster packs / sachets, liaise with the community pharmacy for medication changes and supply. Send copies of the discharge medication list and discharge prescriptions (as required).
- Additionally, when **transferring a patient** from one hospital to another:
  - Contact the receiving hospital to confirm availability of current medications.
  - Consider medications which may be required during transfer.
  - Send copies of:
    - All current medication charts (including the WA HMC, WA Anticoagulant Chart, subcutaneous insulin, intravenous fluid therapy chart, etc.)
    - The completed WA MHMP (if available).

Appendix C: How to perform a medication chart review

This appendix provides guidance on performing medication chart review as described in the WA Health guidance document Best Practice Principles for Medication Review. Medication chart review refers to review of the:

- MR170A WA Hospital Medication Chart (WA HMC)
- MR170C WACHS Anticoagulant Medication Chart
- MR156A WACHS Insulin Subcutaneous Order and Blood Glucose Record - Adult, and
- all other medication charts.

Chart review by a prescriber

Prescribers should adhere to the Guiding principles to achieve continuity in medication management particularly Guiding Principle 6: medication review.

Medication chart review conducted by the prescriber includes ensuring that:

- each medication prescribed is appropriate for the patient
- the prescription / medication order is legible and meets legal requirements
- medications prescribed are in accordance with WACHS policies and guidelines (including restricted antimicrobials in line with the WACHS Antimicrobial Stewardship Policy, and Statewide Medicines Formulary restrictions for newly initiated medicines)
- generic names are used for prescribing medications except for combination products containing more than 4 active ingredients and insulin preparations
- indication is documented, especially for newly initiated as required (PRN) medications
- only safe terminology is used (ACSQHC 'Recommendations for terminology, abbreviations and symbols used in medicines documentation')
- doses are appropriate
- dosing times are clarified with respect to meal times or other ward / team regimes
- dosing forms and route of administration are clarified
- the patient's allergy / adverse reaction to medicines status has been documented on both the WA HMC and in the patient's health care record
- medication interactions are considered particularly for newly initiated medicines
- medications are not continued beyond the appropriate duration
- medicines that are ceased or changed have a reason documented (this is helpful for discharge reconciliation and communication of not only changes, but the reason for these changes).

De-prescribing

Part of medication review includes de-prescribing medicines that are no longer required. De-prescribing is the systematic process of identifying and discontinuing medicines where the existing or potential harms outweigh existing or potential benefits.

Review of current medications can assist in identifying medicines that are no longer appropriate. Prescribers should consider the effectiveness and potential harm of each medication, both individually and in combination. Some triggers for considering de-prescribing include:

- A change in a patient's clinical condition
- Progression of an existing condition
- An increased need for assistance with daily activities
- An increased risk of falls
- A decline in weight or liver / renal function

- Following a transition in care.

When a medication needs to be de-prescribed, it is the responsibility of the prescriber to discuss this with the patient and inform them of any monitoring requirements during this period. The rationale for deprescribing should also be included in the discharge summary to communicate changes to the patient's GP and subsequent healthcare providers.

The treating team may suggest that the GP reviews certain medicines with a view to de-prescribing at a later time.

Documentation

Medication chart review by the prescriber should be documented on the WA HMC chart by initialling the 'Pharmaceutical Review' box.

The health care record can also be used to document chart review.

Chart review by the pharmacist

This information is taken from the WA Health guidance document Best Practice Principles for Medication Review. Regional pharmacy departments may have additional guidance documents on chart review by a pharmacist.

Medication chart review conducted by the pharmacist includes, but is not limited to:

- identifying, clarifying, monitoring and assessing medications prescribed for potential adverse reactions
- ensuring that the prescription / medication order is legible and meets legal requirements
- ensuring that the prescription / medication order complies with best practice guidelines and is safe and appropriate for the patient
- identifying changes in dose, frequency, formulation and route of administration to regular medications
- identifying any medication interactions and bringing them to the attention of the prescriber
- providing clarification of:
    - medication names from trade names to generic names except for combination products containing more than 4 active ingredients and insulin preparations
    - doses for all medications, particularly for all paediatric patients and inpatients with compromised renal or liver function
    - dosing times with respect to meal times or other ward / team regimes
    - medication orders to ensure no error-prone abbreviations are used
    - form of medication required by the patient and how it is to be administered.
- monitoring the patient's response to the medication(s) (such as therapeutic monitoring and, biochemistry parameters)
- identifying newly-initiated medications and providing or arranging for education, if required.
- ensuring that medications are not continued beyond the appropriate duration.

Documentation

Medication chart review by the pharmacist should be documented on the WA HMC chart by initialling the 'Pharmaceutical Review' box or in the health care record.

Appendix D: Pharmacist referral form template

Affix Patient identification label here	**Email/fax this referral to:** *Write over this text and add email address for referrals specific to each region, e.g. shared inbox*

Referring site:	**Date of referral:**
Referrer's name:	**Referrer's role:** ☐ Doctor ☐ Nurse / midwife *Immediate concerns about this patient's medications, are to be escalated to the treating team as soon as possible.*
Admitting Medical Officer (name and contact):	
Best site contact details for return paperwork:	
Pre-admission medicines (if known): ☐ Nil regular ☐ Blister / Webster pack / sachets ☐ Self-managed ☐ Carer	
Name of community pharmacy (if known):	
Optional fields (regions to consider and include if necessary. If not needed (e.g. information can be obtained via BOSSNET, then delete): ***Diagnosis or reason for admission:*** ***Past medication history:***	

Please send:	Attached
Copies (all sides) of all medication charts – includes WA Hospital Medication Chart, Anticoagulant Medication Chart, Subcutaneous Insulin and Blood Glucose Record	☐
Emergency Department Notes MR1 (where relevant)	☐
Observations charts (optional – region to consider and include or delete)	☐
Medication History and Management Plan (MHMP) MR170.1 – please send even if it is only partially completed	☐

What is the reason for referral? Tick all that apply (this helps pharmacy to prioritise referrals).

☐ **Admission medication reconciliation**
- ☐ Medication history requiring pharmacist input to complete medication reconciliation
- ☐ Admission suspected to be related to medications
- ☐ Other concerns (please describe below)

☐ **Medication chart review**
- ☐ On a high risk medication (see list on next page)
- ☐ On a medication requiring therapeutic monitoring (see examples on next page)
- ☐ Medication charts not reviewed recently
- ☐ Other concerns (please describe below)

☐ **Patient education**
- ☐ Patient education required (e.g. communication barriers, adherence issues, recent changes to medication, patient uncertainty / confusion with medicines)
- ☐ Other concerns (please describe below)

☐ **Discharge medication reconciliation**
- ☐ Changes to pre-admission medications or newly initiated medications
- ☐ Patient uses a blister / Webster pack / sachets - requires communication with community pharmacy
- ☐ Other concerns (please describe below)

Other concerns and additional information:

Risk factors for medication-related harm
Admission suspected to be related to medications, e.g.: - significant changes to medicines in last 3 months - suspected or known to be non-adherent with medicines - recent medication-related problem or adverse reactions to medicines
More than **2 presentations or admissions** to hospital in the past 6 months OR any **unplanned readmission** within 28 days of discharge
Suboptimal response to treatment with medicines
On a **high risk** medication (see below): A – Antimicrobials (e.g. vancomycin; aminoglycosides – gentamicin, tobramycin, amikacin; amphotericin; nebulised antibiotics or antifungals including pentamidine; aciclovir, valaciclovir, famciclovir, valganciclovir) including restricted antimicrobials P – Psychotropic / antipsychotic medicines (e.g. clozapine, lithium, olanzapine, zuclopenthixol acetate, sodium valproate), and depot / long acting medicines P – Potassium and other electrolytes, particularly IV potassium, calcium, phosphate or magnesium, and hypertonic saline I – Insulins, particularly high concentration insulins (e.g. Toujeo®, Humalog U200®), intravenous, and subcutaneous pumps N - Narcotics (Schedule 8 medicines) (e.g. oxycodone, buprenorphine, morphine) C- Chemotherapy or cytotoxic medicines (whether used for cancer treatment or non-cancer treatment) (including methotrexate) H – Heparin and anticoagulants (e.g. heparin, enoxaparin, warfarin, apixaban, dabigatran, rivaroxaban, fondaparinux, dalteparin) Systems – e.g. intrathecal medicines, epidural medicines, medicines administered via enteral tubes Schedule 4 Restricted medicines (e.g. tramadol, benzodiazepines) Other – phenytoin, monoclonal antibodies, and other immunotherapies / modulators and immunosuppressants
On a medication requiring **therapeutic monitoring** (e.g. vancomyin, digoxin, phenytoin, gentamicin)
More than 5 prescribed medicines (may increase **falls risk**)
Co-morbidities - co-morbidities likely to involve complex medicines are: • epilepsy • transplant • Parkinson's Disease
Obese or **very underweight**
Age: • aged 65 years or older • aged 45 years or older (Aboriginal patients) • aged 12 years or younger
Hepatic impairment, or **renal** impairment (GFR < 30 mL/min)
Confusion, dementia or other **cognitive** difficulties
Interpreter required or **language / literacy** barrier identified
Uses a **dose administration aid** (blister / Webster packs / sachets) (other than self-packed dosette boxes) OR has problems using medication delivery devices
Any other **specific concerns** related to medicines, e.g.: • change in swallowing status • sight / hearing impaired, difficulty reading medicines label • dexterity problems, difficulty opening/handling medicines
Patient being **discharged** with: • significant changes to their pre-admission medicines • complex medication regimes • medicines requiring dose adjustment post-discharge

Appendix E: Medication review audit report template

MEDICATION REVIEW AUDIT REPORT TEMPLATE

- Regions may use this report template to report to the WACHS Medication Safety Committee (MSC).
- Send completed reports along with any relevant attachments (e.g. REDCap reports, and / or regional Medicines and Therapeutics Committee, or equivalent, agenda paper and / or minutes which may include action plans) to: WACHS.MedicationSafetyCommitteeMailbox@health.wa.gov.au
- Complete a separate report for each site audited (if more than one site audited).
- Commentary is often very helpful to understand the context around audit results. Please add as much detail as relevant and where possible, include previous audit results in order to understand trends and areas for improvement.

Region:

Site:

Reporting period: ☐ January – June ☐ July – December

Note: Reports are due on the 31st July and 31st January after each reporting period.

Reporting period year: 20__

Have the audit results and / or action plan been reported to the Regional Director?

☐ **Yes** ☐ **No**

Have the audit results been tabled at the regional Medicines and Therapeutics Committee (MTC) or regional Medication Safety Committee (MSC)?

☐ **Yes** - please describe the action plan arising from regional MTC / MSC discussion and / or attach any relevant agenda papers and / or meeting minutes (which may include action plans):

☐ **No** - to be tabled at next regional MTC / MSC meeting

Note: The following is based on the statewide audit reporting template. If reportable indicator results and commentary are captured in a different format for the regional MTC (e.g. REDCap report), there is no need to use the below.

STANDARD 1: MEDICATION RECONCILIATION ON ADMISSION

Indicator 1A: Percentage (%) of inpatients with a complete medication history documented	
Numerator: Number of patients with a complete medication history documented	
Denominator: Number of patients in sample	
Comment:	

Indicator 1B: Percentage (%) of inpatients with a medication history confirmed with a second source documented	
Numerator: Number of patients with a medication history confirmed with a second source	
Denominator: Number of patients in sample	
Comment:	

Indicator 1C: Percentage (%) of inpatients with a reconciled list of medications documented	
Numerator: Number of patients with a reconciled list of medications documented	
Denominator: Number of patients in sample	
Comment:	

Indicator 1D: Percentage (%) of inpatients with all three admission steps (1A & 1B & 1C) of medication reconciliation documented	
Numerator: Number of patients with all three admission steps (1A & 1B & 1C) of medication reconciliation documented	
Denominator: Number of patients in sample	
Comment:	

Indicator 1E: Percentage (%) of patients admitted just prior to or during a weekend or public holiday	
Numerator: Number of patients admitted just prior to or during a weekend or public holiday	
Denominator: Number of patients in sample	
Comment	

Indicator 1: Percentage (%) of inpatients with all steps of Medication Reconciliation on ADMISSION (documented by the next calendar day after admission) **(1 = 1A+1B+1C)**	
Numerator: Number of patients with all three admission steps (1A & 1B & 1C) of medication reconciliation documented by the next calendar day after admission	
Denominator: Number of patients in sample	
Comment:	

STANDARD 4: MEDICATION RECONCILIATION ON DISCHARGE/TRANSFER OF CARE

Indicator 2A: Percentage (%) of inpatients with medications planned post discharge confirmed as the same as the information in the discharge summary	
Numerator: Number of patients with medications planned for the patient post discharge confirmed as the same as the information in the discharge summary	
Denominator: Number of patients in sample	
Comment:	

Indicator 2B: Percentage (%) of inpatients with changes in medication therapy during admission communicated in the discharge summary	
Numerator: Number of patients with changes in medication therapy during admission communicated in the discharge summary	
Denominator: Number of patients in sample	
Comment:	

Indicator 2C: Percentage (%) of patients discharged or transferred during a weekend, public holiday or Monday morning up until 12 noon	
Numerator: Number of patients discharged or transferred during a weekend, public holiday or Monday morning up until 12 noon	
Denominator: Number of patients in sample	
Comment:	

Indicator 2: Percentage (%) of inpatients with all steps of Medication Reconciliation completed and documented on DISCHARGE **(2 = 2A+2B)**	
Numerator: Number of patients with all steps (2A + 2B) completed and documented at discharge	
Denominator: Number of patients in sample	
Comment:	

STANDARD 2: MEDICATION CHART REVIEW

Indicator 3: Percentage (%) of inpatients that are reviewed by a clinical pharmacist within one day of admission (end of next calendar day)	
Numerator: Number of patients that have been reviewed by a clinical pharmacist within one day of admission (end of next calendar day)	
Denominator: Number of patients in sample	
Comment:	

STANDARD 3: PROVISION OF MEDICATION EDUCATION TO THE PATIENT DURING HOSPITALISATION AND ON DISCHARGE

Indicator 4: Percentage (%) of inpatients that receive medication education during hospitalisation and on discharge	
Numerator: Number of patients that have received medication education that is documented	
Denominator: Number of patients in sample	
Comment:	