



# A Guide to Medication Reviews for NSW Health Services 2019



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# 1. About this guide

## 1.1 Purpose

The purpose of this guide is to provide a resource for NSW Health services and clinicians to develop systems and processes to conduct medication reviews for patients, in line with evidence and best practice. A well-structured medication review will minimise medication-related problems and optimise the intended effect of medicines for patients (ACSQHC, 2017).

The guide supports the Australian Commission on Safety and Quality in Health Care's (ACSQHC) National Safety and Quality Health Service (NSQHS) Standards action 4.10 by providing practical advice on what constitutes best practice and encouraging health services to consider how they may work to improve their medication review processes to optimise patient care (ACSQHC, 2017).

## 1.2 Scope

The guidance provided in this document is applicable to all NSW Health services accredited against the NSQHS Standards and relates to staff overseeing and involved in medication safety, including pharmacists, medical officers (MO), nurse practitioners, nurses, midwives, safety and quality personnel as well as local governing bodies such as the Drug and Therapeutics Committee. The Guide focuses on the process of conducting a medication review, with the main purpose being to establish a common understanding of what medication review is.

## 1.3 How to use this guide

The guide is intended to form a basis for a common understanding of medication review across health services. It provides guidance on best practice and should inform the level of care provided to patients in this respect.

It provides a practical framework for approaching medication review and encourages health services to consider:

- The purpose of medication review.
- The importance of partnering with patients, carers and their families.
- Roles, responsibilities and training requirement of clinicians.
- Development of a consistent and effective method for conducting medication reviews, including how it can be built into existing work practices and how it relates to other medication management processes such as medication reconciliation.

## 2. What is medication review

Medication review is a systematic assessment of a patient's medication management with the aim of optimising the quality use of medicines and minimising medication-related problems. It is a multidisciplinary responsibility that ensures the ongoing safe and effective use of medicines at all stages of the medication management pathway (ACSQHC, 2017).

The NSQHS Standards describe three types of medication review:



**Prescription or medication order review:** a review of individual medication orders and / or prescription validity.



**Concordance or medication adherence review:** a review of a patient's medicine- taking behavior.



**Clinical medication review:** a comprehensive review of a patient's medicines in the context of their clinical condition/s.

This classification focuses on the purpose of the review and the particular needs of the patient at a point in time (Clyne, Blenkinsopp and Seal, 2008).

A medication order review is the most simple review type and a clinical medication review the most comprehensive. The different types of review are not hierarchical but each has a distinct purpose. The reviews are also not mutually exclusive, for example elements of a medication order review as well as a medication adherence review will occur during a clinical medication review, unless already conducted (Clyne, Blenkinsopp and Seal, 2008). The various types of medication review will be further expanded on in Section 5.

Key outcomes from a medication review include the identification of actual and potential medication-related problems and recommendations to optimise medicines use. Identified problems and recommendations should be documented and actions prioritised according to their risk and urgency (SHPA, 2016, NICE, 2015).

### 3. Medication review and medication reconciliation

Medication review and medication reconciliation are distinct but interrelated processes. Medication review involves an evaluation of a patient's medicines with the aim of optimising the quality use of medicines. A medication review will often result in the identification of actual or potential medication-related problems and recommendations to optimise medicines use. Medication reconciliation involves ensuring accurate and complete medicines information is communicated at all transfers of care. Medication reconciliation will often result in identification of medication discrepancies (e.g. differences between the documented medication history and the admission medication orders) which may be intentional, undocumented intentional or unintentional discrepancies (ACSQHS, 2017).

Prior to any type of medication review being conducted, it would be expected that medication reconciliation processes have been undertaken. Implementation of formal medication reconciliation processes that include obtaining a best possible medication history (BPMH), are essential in providing the optimal platform for a patient-centred and accurate medication review.

While undertaking medication reconciliation processes on admission, a review of current medication orders and a patient's medication adherence are often included. This may mean elements of a medication order and medication adherence review will be complete at the same time as medication reconciliation.

### 4. Who can conduct a medication review?

Medication review is a multidisciplinary responsibility which ensures the ongoing safe and effective use of medicines at all stages of the medication management pathway. Health services should determine locally the most appropriate clinicians\* to conduct or supervise the various types of medication reviews; it may be dependent on the clinician's scope of practice, the clinician's practice area, years of clinical experience and training or accreditation.<sup>1</sup> For example a registered nurse will undertake a medication order review as part of the 5 Rights of medication administration<sup>6</sup>, however they would not ordinarily undertake a clinical medication review.

Who can conduct a medication review should be based on the clinicians' knowledge and skill, including their knowledge of processes for managing medicines, their therapeutic knowledge on medicines use, and their ability to effectively communicate (ACSQHC, 2017, NICE, 2015).

Locally defining who is responsible for undertaking the various types of medication review is essential to ensure processes are appropriate and reflect the skill mix of clinicians at each health facility (ACSQHC, 2017).

\*An appropriate clinician refers to a pharmacist, MO, nurse practitioner, registered nurse, enrolled nurse or midwife who has the relevant knowledge, or the ability to access relevant knowledge about certain aspects of medication management. Assessment and monitoring of appropriate competency should be determined by the individual health service.

## 5. Types of medication review

### 5.1 Medication order review

#### Purpose

The purpose of a medication order review is to address issues relating to individual medication orders and prescription validity that will minimise medication-related problems (ACSQHC, 2017, Clyne, Blenkinsopp and Seal, 2008).

#### What

A medication order review involves reviewing essential safety elements of current medication order/s, this includes assessing orders for: clarity, validity and some areas of appropriateness.

The main focus of the review is the medication order itself. It may take place without the patient present. The following items should be considered essential safety elements when undertaking this type of review (ACSQHC, 2017, SHPA, 2016, NSW Health, 2013, Clyne, Blenkinsopp and Seal, 2008):

#### Clarity

- Check that the prescriber's order is clear and complete – medicine name, route, dose, frequency and indication.
- Check medications are prescribed by their active ingredient or as recommended by local policy.
- Check order abbreviations meet the national standards for terminology, abbreviations and symbols.
- Check all orders, including cancelled orders comply with local, state and national policy.
- Check that the time the dose should be administered is completed.
- Check the duration of the medication is appropriate.
- Annotation of the order to clarify the administration of modified release products, IV administration method, maximum dose in 24 hours for PRN medications, administration in relation to food and relevant restrictions e.g. Schedule 8 or non-formulary items.

#### Validity

- Check that the patient identifiers are present.
- Check that the patient's allergies and adverse drug reactions section is complete.
- Check the orders are signed and the prescriber can be identified.
- Check the orders comply with legal requirements e.g. Schedule 8 items.

## Appropriateness

- Check for medications the patient may be allergic or have experienced an ADR to.
- Check the orders for duplications.
- Check medication availability.
- Check the most appropriate route of administration/dose form is selected.
- Check timing of administration is appropriate e.g. with respect to food, medication rounds.
- Check weight / dose appropriateness.
- Check relevant monitoring where applicable e.g. check blood pressure before administering an antihypertensive medication.
- Check dose conversions required with changes to route or formulation.
- Check infusion solution compatibility, concentration and rate of administration are appropriate.
- Check administration records to see if all doses have been given as prescribed.

Use of an approved electronic medication management (EMM) system or the National Inpatient Medication Chart (NIMC) will assist in ensuring many of the clarity and validity elements of medication orders are met (ACSQHC, 2016, ACSQHC, 2012). Other elements may be assessed as part of mandatory procedures such as when a MO reviews an order they have just prescribed, a pharmacist reviews an order prior to dispensing and a nurse adhering to the 5 Rights prior administering a medication (NSW Health, 2013). If after review there are any concerns regarding a medication order then the reviewer should raise their concern with the relevant clinician.

## When

A medication order review should be undertaken whenever a medication is prescribed, prior to a medication being dispensed and/or prior to a medication being administered.

Outlined in Table 1 are examples of how a medication order review can lead to the identification and resolution of medication-related problems.



Table 1. Examples of a medication order review

Identify	Address	Document
<p>A nurse is preparing to give a patient their morning medications.</p> <p>The patient has an order for their regular potassium chloride (Span-K), one tablet in the morning with food.</p> <p>The patient was fitted with a percutaneous endoscopic gastrostomy (PEG) tube the previous day.</p> <p>The nurse notes that Span-K tablets cannot be crushed and administered via PEG tube.</p>	<p>The nurse identifies that there is a potassium product, Chlorvescent, which is available and can be dissolved in water and administered via PEG tube.</p> <p>The nurse speaks with the attending MO and explains the issue and suggests changing to Chlorvescent tablets.</p> <p>The MO agrees with this recommendation and goes to change the medication order accordingly.</p>	<p>The MO ceases the Span-K order and prescribes the Chlorvescent tablets, noting administration via PEG tube.</p> <p>The MO also documents the reason for changing to the alternative potassium product in the patient's health record.</p> <p>Upon supply of the Chlorvescent, the pharmacist makes an annotation on the order detailing the volume of water to dissolve the tablet in for appropriate administration via PEG tube.</p>
<p>A MO is reviewing a patient's medication orders as part of the daily ward round and sees that there is no duration specified for the ceftriaxone order. The patient has already had 3 days treatment.</p>	<p>The MO reviews the guidelines in view of the patient's current condition and relevant microbiology.</p> <p>They obtain a consult from the infectious diseases (ID) team as the patient is still exhibiting concerning symptoms.</p> <p>The ID team recommend changing to an oral antibiotic, which has a better spectrum of activity, for four more days.</p>	<p>The MO agrees with the ID team's recommendation and discusses the reason for changing to an oral antibiotic with the patient.</p> <p>The patient understands and accepts the reason for the change in treatment and the MO cancels the ceftriaxone order and prescribes the new oral antibiotic with a clear review date documented.</p>
<p>A pharmacist is reviewing a patient's medication orders upon transfer from the Emergency Department to the ward. They see the patient has been prescribed omeprazole and esomeprazole.</p> <p>Upon speaking to the patient, they reveal they used to take omeprazole a few months ago but now take esomeprazole instead.</p>	<p>The pharmacist notifies the attending MO of the duplication in therapy and that the patient currently takes only esomeprazole.</p> <p>The MO says they will cease the omeprazole order.</p>	<p>The pharmacist documents the issue and discussion with the MO.</p> <p>The MO ceases the omeprazole order, noting the unintentional duplication.</p>

## 5.2 Medication adherence review

### Purpose

The purpose of a medication adherence review is to address issues relating to the **patient's medicine-taking behaviour** (ACSQHC, 2017, Clyne, Blenkinsopp and Seal, 2008). Non-adherence reduces the patient's potential to benefit from treatment and may lead to unnecessary escalation in treatment (SHPA, 2016).

### What

A medication adherence review involves partnering with the patient to gain an understanding of how they actually take their medicines and what their beliefs about medicines are. It may involve reviewing past prescription records if available and wherever possible should include an open discussion with the patient taking a non-judgemental approach, respecting the patient's beliefs about medicines. The below elements/questions could be considered when undertaking a medication adherence review (ACSQHC, 2017, Usherwood, 2017, ACSQHC, 2016, Clyne, Blenkinsopp and Seal, 2008):

#### Actual pattern of medicine taking

- Ask the patient what medicines they currently take, including regular, when required, over the counter and complementary medicines as well as prompting for use of non-oral dose forms e.g. eye drops, inhalers and transdermal patches.
- Ask the patient about any new or recently stopped medicines.
- Explore how the patient actually takes their medicines e.g. do they vary the dose or frequency from that prescribed. Consider the language used with the patient; you may ask how they arrange or organise their medicines.
- Ask the patient if they ever miss taking their medicines for one reason or another.
- Ask the patient whether they experience any difficulties using their medicines e.g. opening bottles, using inhalation devices.
- Review past prescription records or other objective measures such as blood drug concentrations if relevant and available.

#### Beliefs about medicines

- Ask the patient what they understand each of their medicines is for and how effective they think it is at managing their condition.
- Ask the patient if they ever have any difficulty taking their medicines for one reason or another.
- Ask the patient about perceived side effects.

From the above questioning this will allow you to ascertain any unintentional or intentional non-adherence and particular barriers that may be relevant for the individual patient e.g. complex medication regime, concerns about side effects, misunderstanding the purpose of medicines, cannot open bottles or high cost (ACSQHC, 2017, Usherwood, 2017).

The use of medication risk identification checklists such as the one used on the National Medication Management Plan (MMP) (ACSQHC, 2016) or validated patient self-reporting questionnaires such as the Beliefs about Medicines Questionnaire may also be helpful in eliciting an understanding of the patient's medicine-taking behaviour and beliefs (Horne, Weinman and Hankins, 1999).

### When

A medication adherence review could occur any time during the patient's admission to the health service. Often medication adherence will be reviewed as part of undertaking a best possible medication history (BPMH) when a patient is admitted to a service. A medication adherence review may also occur after discharge during follow up visits with community nursing or allied health staff as well as by primary health care providers such as the patient's general practitioner (GP) or community pharmacist (ACSQHC, 2017).

Outlined in Table 2 are examples of how a medication adherence review can lead to the identification and resolution of medication-related problems.

Table 2. Examples of a medication adherence review

Identify	Address	Document
<p>A MO is in the process of obtaining a best possible medication history on admission and sees that the patient has brought in all their medicines.</p> <p>The MO uses the patient's medications as prompts in the history taking process.</p>	<p>When the MO asks the patient about Asasantin SR® and asks how they take it, the patient reveals that they don't take it often as they find the bottle top hard to open due to suffering from severe rheumatoid arthritis.</p> <p>The MO consults the pharmacist and occupational therapist to see if there are any aids to assist the patient with the opening bottle.</p> <p>The MO also reviews whether it could be appropriate for this patient to switch to taking aspirin alone for secondary prevention of stroke.</p>	<p>The MO discusses the options with the patient and documents the agreed plan regarding Asasantin SR® in the patient's health record.</p>
<p>A nurse is reviewing a patient's medication chart to make sure all the medicines prescribed are available for the next shift.</p> <p>While the nurse is looking at the inhalers in the patient's bedside drawer, they take the opportunity to ask the patient how they use them. The patient mentions that they only use 'that' puffer (the preventer) when their asthma 'gets bad.'</p>	<p>The patient is currently an inpatient due to a recent acute respiratory infection with a background of asthma. The patient doesn't appear to have a current asthma action plan or awareness of what triggers to look out for.</p> <p>The nurse informs the attending MO of the discussion she had with the patient regarding their irregular preventer use and lack of asthma action plan.</p> <p>The MO reviews the patient's current condition and agrees that regular preventer use would be appropriate and recommended for this patient.</p>	<p>The MO and nurse discuss and document an appropriate asthma action plan with the patient.</p> <p>The MO documents the agreed asthma action plan within the patient's health record and includes the plan in the discharge summary to the GP.</p>

## 5.3 Clinical medication review

### Purpose

The purpose of a clinical medication review is to address issues relating to the patient's use of medicines in the context of their clinical condition/s, with the aim of reaching an agreement about treatment with medicines, optimising the effect of medicines and minimising medication-related problems (ACSQHC, 2017, SHPA, 2016, NICE, 2015, Clyne, Blenkinsopp and Seal, 2008).

### What

A clinical medication review involves a structured, comprehensive review of the patient's medication management. It considers the management of the conditions being treated and the appropriateness and continuing need of each medication, as well as potential gaps in therapy. Partnering with the patient is essential when undertaking a clinical medication review.

A clinical medication review requires gathering patient-specific information about their clinical condition and medicine use and then evaluating the information to guide treatment. The below elements should be considered when undertaking a clinical medication review (ACSQHC, 2017, SHPA, 2016, NICE, 2015, Clyne, Blenkinsopp and Seal, 2008):

#### Gather patient-specific information

- Confirm any allergies or adverse drug reactions.
- Confirm what medicines the patient currently takes or uses, including regular, when required, over the counter and complementary medicines as well as non-oral dose forms.
- Confirm how the patient takes their medicines, including dose, route, frequency and formulation.
- Confirm the indication for all medicines.
- Assess the patient's medication adherence, and how they physically manage their medicines e.g. storage, use of dose administration aids.
- Appropriately access patient-specific clinical data such as laboratory investigations, clinical observations and progress notes.
- Determine the patient's satisfaction with the outcomes from their medicines, this may also involve exploring the patient's beliefs about their medicines.

#### Evaluation

- Consider the continuing need for medicines – according to guidelines or best practice? Have the patient's goals of treatment been considered?
- Identify suboptimal treatment or treatment that is missing.
- Identify actual or potential adverse drug events.
- Identify clinical significant drug interactions and contraindications.

- Consider monitoring requirements.
- Consider cost and accessibility of medicines, including after hospital discharge.

### When

Not all patients will require a clinical medication review while in the health service, however many patients would likely benefit from having this type of review. Patients with a higher risk of experiencing medication-related harm should be prioritised if resources will not allow all patients to be provided with a clinical medication review during their episode of care (Clyne, Blenkinsopp and Seal, 2008). Risk assessment and stratification should be based on evidence and local organisational priorities (SHPA, 2015).

In the event a clinical medication review is recommended while in hospital but cannot be undertaken, referral for a community-based medication review should occur. For some patients, both a hospital and community-based clinical medication review may be appropriate (ACSQHC, 2017).

Outlined in Table 3 are examples of how a clinical medication review can lead to the identification and resolution of medication-related problems.

Table 3. Examples of a clinical medication review

Identify	Address	Document
<p>A pharmacist is undertaking a clinical medication review with a patient on the ward they service.</p> <p>Upon reviewing the patient's blood test results they note that their total cholesterol and LDL-C are markedly raised.</p> <p>The patient is on a relatively low dose of atorvastatin and has been adherent and taking this same dose for a number of years.</p>	<p>The pharmacist contacts a MO in the treating team and suggests a review of the patient's cholesterol management and consideration of an increase in the dose of atorvastatin.</p>	<p>The pharmacist documents the finding and recommendation in the patient's health record.</p> <p>The MO reviews the pharmacist's recommendations and agrees. They discuss the benefits of a dose increase of atorvastatin with the patient. The patient agrees with the recommended dose increase.</p> <p>The MO prescribes the increased dose and documents the reason for increasing the dose in the patient's health record. Upon hospital discharge this change and its rationale is documented in the discharge summary as well as communicated to the patient.</p>
<p>A multidisciplinary geriatric team note a number of patients who are at high risk of experiencing a medication-related problem during their daily round.</p> <p>The geriatric pharmacist who is part of the team undertakes a clinical medication review with one of these patients.</p> <p>The patient has had a number of falls over the last few months. The pharmacist notes that the patient has been taking temazepam as a long term sleep aid.</p>	<p>The pharmacist consults with the geriatrician and discusses the patient's falls risk and the medications that may be contributing to this. The harm/benefit ratio of temazepam are considered in partnership with the patient.</p> <p>It is decided that the temazepam should be slowly reduced with a view to stopping following hospital discharge.</p>	<p>The pharmacist summarises the findings and recommendations from the review and the specific deprescribing plan for the temazepam in the patient's health record.</p> <p>The geriatrician makes appropriate amendments to the temazepam dosage regimen on the patient's medication chart in line with the deprescribing plan.</p> <p>The ongoing deprescribing plan after hospital discharge and the rationale for its implementation is documented in the discharge summary as well as communicated to the patient.</p>

Table 3. Continued: Examples of a clinical medication review

Identify	Address	Document
<p>A patient being treated for community-acquired pneumonia has been referred to the ward pharmacist by the treating medical team for a clinical medication review as they noted the patient was taking a number of high risk medicines to manage their rheumatoid arthritis.</p> <p>The patient has a long history of glucocorticoid use to manage numerous arthritic exacerbations and is currently taking prednisolone 7.5 mg once a day.</p> <p>The patient is taking both calcium and vitamin D supplements, however during the review the pharmacist identifies that the patient is likely at high risk of developing glucocorticoid-induced osteoporosis considering their history of glucocorticoid use, age and female sex.</p> <p>The pharmacist reviews the patient's recently pathology report which included a bone mineral density (BMD) scan and their T-score was -2.1.</p>	<p>The pharmacist consults with a MO in the treating team and discusses the patient's risk of developing glucocorticoid-induced osteoporosis and fracture risk.</p> <p>The pharmacist mentions that they have explored the risk factors for developing osteoporosis with the patient, and that a while back the patient's GP had mentioned something about starting on a medication for her 'bones.'</p> <p>The pharmacist recommends to the MO to consider starting a bisphosphonate such as alendronate 70 mg tablets, once a week.</p>	<p>The pharmacist summarises the recommendations from the review including starting alendronate in the patient's health record.</p> <p>The MO reviews the pharmacist's recommendations and agrees. They discuss the benefits of reducing the patient's fracture risk by starting bisphosphonate therapy.</p> <p>This is discussed with the patient who agrees with the suggested treatment plan.</p> <p>The MO prescribes the alendronate and documents the reason for starting. Upon hospital discharge this information will be communicated in the discharge summary as well as to the patient.</p>



## 6. References

1. Australian Commission on Safety and Quality in Health Care. (2017). *National Safety and Quality Health Service Standards Guide for Hospitals*. Sydney: ACSQHC.
2. Australian Commission on Safety and Quality in Health Care. (2016). *National Inpatient Medication Chart User Guide*. Sydney: ACSQHC.
3. Australian Commission on Safety and Quality in Health Care, (2012). *Electronic Medication Management Systems: a guide to safe implementation, 2nd edition*. Sydney: ACSQHC.
4. Clyne, W., Blenkinsopp, A. and Seal R. (2008). *A Guide to Medication Review*. [online] Liverpool, UK: National Prescribing Centre. Available at: <http://www.cff.org.br/userfiles/52%20-%20CLYNE%20W%20A%20guide%20to%20medication%20review%202008.pdf> [Accessed 5 Jun. 2019].
5. Horne, R., Weinman, J. and Hankins, M. (1999). The Beliefs about Medicines Questionnaire (BMQ): the development and evaluation of a new method for assessing the cognitive representation of medication. *Psychology & Health*, [online] Volume 14(1), p. 1-24. Available at: <https://www.tandfonline.com/doi/abs/10.1080/08870449908407311> [Accessed 5 Jun. 2019].
6. Lowe, C., Petty, D., Zermansky, A. and Raynor, D. (2000). Developing a Method for Clinical Medication Review by a Pharmacist in General Practice. *Pharmacy World & science*, [online] Volume 22(4), p. 121-6. Available at: <https://link.springer.com/article/10.1023/A:1008758823788> [Accessed 5 Jun. 2019].
7. National Institute for Health and Care Excellence. (2015). *Medicines Optimisation: the safe and effective use of medicines to enable best possible outcomes*. [online] UK: NICE. Available at: <https://www.nice.org.uk/guidance/ng5> [Accessed 5 Jun 2019].
8. NSW Health. (2013) Medication Handling in NSW Public Health Facilities Policy Directive. Sydney: NSW Health.
9. Society of Hospital Pharmacists of Australia. (2016). *Standards of Practice for Clinical Pharmacy Services*. Melbourne: SHPA.
10. Society of Hospital Pharmacists of Australia. (2015). *Risk Factors for Medication-Related Problems: fact sheet*. Melbourne: SHPA.
11. Usherwood, T. (2017). Encouraging Adherence to Long-Term Medication. *Australian Prescriber*, [online] Volume 40(4), p. 147-50. Available at: <https://www.nps.org.au/australian-prescriber/articles/encouraging-adherence-to-long-term-medication> [Accessed 5 Jun. 2019].



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