



HEALTH QUALITY & SAFETY
COMMISSION NEW ZEALAND
Kupu Taurangi Hauora o Aotearoa

his^o

Health Information Standards Organisation
PAEREWA PĀRONGO HAUORA

Medicine Reconciliation

STANDARD

VERSION 3, SEPTEMBER 2012

Date	Version	Page number	Chapter number	Changes
2009	1.0			Published
2011	2.0			Published
09/2012	3.0			Review

Published in September 2012 by the Health Quality & Safety Commission.

This document is available on the Health Quality & Safety Commission website, www.hqsc.govt.nz and the National Health IT Board website, www.ithealthboard.health.nz/hiso-2010.

ISBN: (online) 978-0-478-38531-1

Citation: Health Quality & Safety Commission. 2012. Medicine Reconciliation Standards, Version 3. Wellington: Health Quality & Safety Commission.



Crown copyright ©. This copyright work is licensed under the Creative Commons Attribution-Non Commercial Works 3.0 New Zealand licence. In essence, you are free to copy and distribute the work (including other media and formats), as long as you attribute the work to the Health Information Standards Organisation (HISO), do not adapt the work and abide by the other licence terms.

To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc/3.0/nz>

Acknowledgements

The Health Quality & Safety Commission (the Commission) would like to acknowledge the assistance of the 20 District Health Boards (DHBs) throughout New Zealand and the many stakeholders from across the health and disability sector who are engaged in the National Medication Safety Programme. We particularly acknowledge the assistance of the former Safe Medication Management (SMM) Programme medicine reconciliation working group and the DHB paper and electronic pilots for their input into these standards.

Endorsement

This document has been endorsed as a Standard for the New Zealand health and disability sector by the Health Information Standards Organisation (HISO), a committee that reports to the National Health IT Board.

Copyright Enquiries

If you are in doubt as to whether a proposed use is covered by this license, please consult the Commission:

Medication Safety Programme

Health Quality & Safety Commission
PO Box 25496
Wellington 6146

Keeping Standards Up-To-Date

HISO Standards are living documents that reflect changes and progress in health information science, technology and systems. All Standards are periodically reviewed to assess and maintain their currency and new editions are published. Amendments may also be issued between editions being published.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which will incorporate any amendments that may have been issued since the Standard was last published.

Detailed information about HISO Standards, drafts, amendments and new projects can be found by visiting the HISO website: www.ithealthboard.health.nz/hiso-2010.

HISO and the Commission welcome suggestions for improvements, and encourages readers to immediately advise any apparent inaccuracies or ambiguities, using email at: info@hqsc.govt.nz or write to:

Medication Safety Programme

Health Quality & Safety Commission
PO Box 25496
Wellington 6146

New Zealand Legislation

The following legislation is referred to within this Standard. They may be consulted, if required, in order to further clarify this Standard.

Health Practitioners Competence Assurance Act 2003
Medicine Act 1981
Medicines Regulation 2005
Health and Disability Services (Safety) Act 2001
Privacy Act 1993
Health (Retention of Health Information) Regulations 1996

Contents

1	Introduction	1
	1.1 Scope of Application	1
	1.2 Review Period	1
	1.3 Interpretation	1
2	Summary of Medicine Reconciliation Standards	2
3	Accountabilities and Responsibilities	3
	3.1 Personal	3
	3.2 Organisational	4
4	Medicine Reconciliation Processes	5
	4.1 Collect	5
	4.2 Compare	9
	4.3 Communicate	10
5	Documentation	12
	5.1 Documentation	12
6	Measuring, Evaluation and Reporting	13
	6.1 Measuring and Evaluation	13
	6.2 Reporting	14
	Appendix A – Glossary	15
	Appendix B – References	17

1 Introduction

Medicine reconciliation is about obtaining the most accurate list possible of patient medicines, allergies and adverse drug reactions (ADRs) and using this information within and across the continuum of care to ensure safe and effective medicine use. The key to its success lies in accurate communication (verbal and written) of medicine related information between healthcare practitioners.

Medicine reconciliation is an evidence-based process, which has been demonstrated to significantly reduce medication errors caused by incomplete or insufficient documentation of medicine related information¹. It is expected that the process, whether it is paper or electronic, will facilitate the optimal use of medicines and reduce discrepancies that have the potential to cause an error and/or harm to the patient.²

International studies show:

- between 10 and 67 percent of medication histories have at least one error³
- up to one-third of these errors have the potential to cause patient harm⁴
- more than 50 percent of medication errors occur at transfers of care⁵
- patients with one or more medicines missing from their discharge information are 2.3 times more likely to be readmitted to hospital than those with correct information on discharge⁶
- 85 percent of discrepancies in medication treatment originate from poor medication history taking.⁷

Medicine reconciliation has increasingly become an important element of collaborative practice particularly at points for transfer of care. The vision is for medicine reconciliation to become integrated into the daily routine of all healthcare practitioners. The goal is for the medicine reconciliation process to be completed for all patients within 24 hours of transfer of care within the New Zealand health and disability sector.

1.1 SCOPE OF APPLICATION

This Standard applies to any person or organisation that provides medicine reconciliation within the New Zealand health and disability sector. It applies to both the paper and electronic medicine reconciliation process.

1.2 REVIEW PERIOD

This Standard provides a consistent framework for the implementation of medicine reconciliation across the New Zealand health and disability sector. It is intended that the Standard for medicine reconciliation continues to reflect the challenges and changes experienced by the healthcare sector. In order to achieve this, the Standard will be reviewed every two years from date of publication unless required sooner.

1.3 INTERPRETATION

Within the text of this document, the words 'shall' and 'will' refer to practices that are mandatory for compliance with this Standard. The words 'should' and 'may' refer to practices that are advised or recommended.

2 Summary of Medicine Reconciliation Standards

The Medicine Reconciliation Standard consists of four key areas.

Each key area has an overall aim and specific requirements which need to be met in order to achieve the outcomes of the Standard. The objectives for each specific requirement are listed below. To ensure understanding of these objectives and to reduce any ambiguity, further specificity is included underneath the objective requirements.

Key area	Objectives
Accountabilities and Responsibilities	<p>Personal (Chapter 3.1) All registered healthcare practitioners involved in medicine reconciliation are responsible and accountable for the accuracy and quality of information provided to support the medicine reconciliation process at a given point in time.</p> <p>Organisational (Chapter 3.2) Each organisation ensures each healthcare practitioner involved in the medicine reconciliation process is able to undertake their role and responsibilities competently.</p>
Medicine Reconciliation Processes	<p>Collect (Chapter 4.1) The healthcare practitioner collects the most accurate list of medicines, allergies, and adverse drug reactions (ADRs) using a minimum of two source types.</p> <p>Compare (Chapter 4.2) The healthcare practitioner compares the collected medicines, allergies and ADR list against the prescribed information, such as the medication chart, identifying and documenting any discrepancies.</p> <p>Communicate (Chapter 4.3) At each transfer point, all changes that have occurred to the patient's medicines, allergies and ADR lists will be documented, dated, and communicated by the healthcare practitioners involved to ensure the care of the patient is continued.</p>
Documentation	<p>Documentation (Chapter 5.1) Any information associated with medicine reconciliation is complete, accurate, relevant and current. The responsibility for this remains with the healthcare practitioners involved.</p>
Measuring, Evaluation and Reporting	<p>Measuring and Evaluation (Chapter 6.1) Medicine reconciliation process, impact and balance measures are undertaken at regular intervals for learning and improvement using a continuous quality improvement cycle eg, Plan – Do – Study – Act (PDSA) cycle.</p> <p>Reporting (Chapter 6.2) Each organisation ensures reporting on medicine reconciliation meets local and national requirements, for example, certification.</p>

3 Accountabilities and Responsibilities

The aim of this section is to ensure all healthcare practitioners are informed and educated on their accountabilities and responsibilities for medicine reconciliation by the healthcare organisation that employs them. Guidance is provided on how objectives in the key area will be met. There are specific requirements from a Personal and Organisational perspective.

3.1 PERSONAL

Objective: All registered healthcare practitioners involved in medicine reconciliation are responsible for the accuracy and quality of information.

The following are required to achieve this objective.

3.1.1 Healthcare practitioners will hold a current New Zealand practising certificate⁸.

Medical practitioners, pharmacists, nurses or midwives can hold accountability for all or parts of the medicine reconciliation process. Other healthcare workers such as pharmacy technicians and enrolled nurses can participate in the process but under the supervision of a registered healthcare practitioner.

3.1.2 Healthcare practitioners will ensure the medicine reconciliation process remains patient centered with an emphasis on patient safety.

Healthcare practitioners will engage and work in partnership with the patient to encourage the patient to take a more active role in their medicine management.
Healthcare practitioners will ensure they introduce themselves, their role and why the information is being gathered about the patient's medicines, allergies and ADRs to the patient.
Healthcare practitioners will explain about the value of the medication history and possible consequences if it is inaccurate.

3.1.3 Healthcare practitioners will clearly communicate and document all parts of the medicine reconciliation process that they have been involved in.

Details of the healthcare practitioners involved in the medicine reconciliation process are clearly documented and viewable. This includes the healthcare practitioner's family and given name, designation and signature.
Electronic signatures are acceptable if legal dispensation has been granted.
Electronic systems will hold the healthcare practitioner's registration number.

3.2 ORGANISATIONAL

Objective: Each healthcare organisation ensures each healthcare practitioner involved in the medicine reconciliation process is able to undertake their role and responsibilities competently.

The following are required to achieve this objective.

- 3.2.1 The organisation will ensure as a minimum that medicine reconciliation is performed at vulnerable points for transfer of care, eg, admission to hospital, transfer from emergency department or intensive care to home or ward, transfer or discharge to home, aged residential care facility or another hospital.

Medicine reconciliation should be completed within 24 hours of transfer of care.

- 3.2.2 The organisation ensures annual practising certificates and any notifications of the healthcare practitioner's scope of practice are sighted annually by the line manager or person with delegated authority.

- 3.2.3 The organisation will have a current medicine reconciliation policy that outlines the local requirements in line with the objectives for:

- a. accountability
- b. roles and responsibilities during different points of transfer of care
- c. medicine reconciliation process
- d. education and training
- e. measuring, evaluation and reporting.

- 3.2.4 The organisation will have a nominated person/team/department responsible for ensuring medicine reconciliation is included as part of induction and orientation programmes for all new healthcare practitioners.

- 3.2.5 The organisation will have a nominated person/team/department responsible for the education and training of all healthcare practitioners involved in the medicine reconciliation process to enable them to undertake their roles and responsibilities competently.

A train-the-trainer approach is suggested with 'hands on experience' to help facilitate the dissemination of medicine reconciliation practice. A medicine reconciliation education and training toolkit is available from the Commission.

The main focus will be on understanding the purpose and impact of medicine reconciliation on improving patient safety, the process, roles and responsibilities involved and medication history taking techniques at different points for transfer of care. Some healthcare practitioners will require varying frequency of education and training. Education and training material should be reviewed and monitored on a regular basis.

- 3.2.6 The organisation will have a quality assurance process conducted annually for all healthcare practitioners and any healthcare workers, eg, pharmacy technicians and enrolled nurses undertaking medicine reconciliation.

Quality assurance (QA) refers to planned and systematic activities to ensure the quality of the product or service provided. It involves systematic review and monitoring against an expected standard with an associated feedback loop that confers error prevention. This could be in the form of a peer review or competency assessment against the requirements.

4 Medicine Reconciliation Processes

The aim of this section is to ensure the medicine reconciliation process is clear, consistent and able to be replicated for any patient by any healthcare practitioner to increase reliability, uniformity and widespread adoption of the process. Guidance is provided on how objectives in the key area will be met.

There are three stages of the Medicine Reconciliation Process: Collect, Compare and Communicate. Details of the objectives and requirements needed to achieve for each of these stages are listed below.

4.1 COLLECT

4.1.1 General Requirements

Objective: The healthcare practitioner collects the most accurate list of medicines, allergies and ADRs based on a standardised data set using a minimum of two information source types.

The following are required to achieve this objective.

- a. A paper or electronic system that enables medicine reconciliation to be carried out every time a patient's care is transferred.
- b. Sources used to obtain the medicine, allergy and ADR information can be verbal or written. If written, it can be electronic or paper based.

A primary source will be one of the minimum sources used where possible. Consult and confirm with the patient the secondary and tertiary source information.

There are three types of sources: primary, secondary and tertiary

- Primary sources include:
 - verbal information from the patient, patient's family/caregiver
 - patient held medication list ie, yellow card
 - patient's own medicines as presented by the patient (noting date of supply and expiry date).
- Secondary sources include:
 - general practitioner's information
 - community pharmacy's information
 - community mental health team information
 - non-government organisations (NGOs)
 - aged residential care facility
 - lead maternity carers
 - other appropriate community health teams.

- Tertiary sources of information include:
 - clinical notes
 - current medication chart
 - transfer letters
 - hospital pharmacy records
 - previous reconciliation documentation.

Communicate the reason for collecting the information to all verbal sources used.

Information provided by sources should cover at least a period of six weeks prior to the present day.

Written sources of information should not be used if older than three months.

- c. All collected lists should account for any changes to medicines found within a minimum six-week period (start, stop, continue or change), allergies and ADR status and be documented.
- d. Use national medical warning systems, local patient alert databases or records within the organisation as sources of information for allergies and ADR information.
- e. Record the details of the source used or contacted eg, given and family name, designation, address, email or phone number, date and time contacted.

4.1.2 Patient Identification Details

Objective: The patient's details will be collected and clearly documented.

The following are required to achieve this objective.

- a. Patient's National Health Index (NHI) number.

The NHI number is the unique lifetime identifier and takes precedence over all other identifiers for consumers of health services in New Zealand.

Patient identification errors are a significant patient safety risk. A patient identification label can be used once all the patient details have been verified.

- b. Patient's family name.

The family name must accurately match the details associated with the patient's NHI number. The family name may consist of more than one name and could be hyphenated. The family name is also known as the surname.

- c. Patient's given name(s).

The given name(s) must accurately match the details associated with the patient's NHI number.

- d. Patient's gender.

The gender of the patient must be recorded as either male, female, undetermined.

e. Patient's date of birth.

The date of birth must be presented in dd/mmm/yyyy format eg, 02/Jul/1974.

f. Patient's allergies.

Allergies are immune-mediated and can cause reactions ranging from mild to anaphylaxis. When documenting allergies, include the following:

- medicine name and formulation
- status such as type, severity and date of onset. Document 'no known allergies' if they have none or 'unknown' if not known
- source of the allergy information eg, patient, Centre of Adverse Reactions Monitoring (CARM), medic alert bracelet.

g. Patient's adverse drug reactions.

An adverse drug reaction (ADR) is a response which is noxious and unintended and which occurs at doses normally used in human for the prophylaxis, diagnosis or therapy of disease, or for the modification of physiological function. When documenting ADRs, include the following:

- medicine name and formulation
- status such as type, severity and date of onset. Document 'no known ADR' if they have none or 'unknown' if not known
- source of ADR information eg, patient, CARM, medic alert bracelet.

4.1.3 Patient Medicine Details.

Objective: The patient's current medicine details will be collected and clearly documented.

The following are minimum requirements to achieve this objective.

a. Medicine name.

The medicine name will be written in non-abbreviated terms using the generic name. If there are safety reasons that require the addition of the trade/brand name, then this should be documented in brackets next to the generic name eg, oxycodone (OXYCONTIN).⁹

Electronic systems should select medicine names using the New Zealand Universal List of Medicines (NZULM). A free text option may be required but use of this functionality should be limited.

Abbreviations for medicine names are to be avoided eg, KCl to be written as potassium chloride or EPO to be written as erythropoietin or evening primrose oil.

b. Medicine dose and units.

The medicine dose and units describe the measurement of the medicine and must be clear and unambiguous. If the patient takes a dose range such as 10 - 20 mg, indicate the most common dose and units the patient takes next to the dose range. This can be entered as a free text comment.⁹

Avoid leading zeros by rewriting the dose as smaller units eg, 0.5mg as 500 micrograms). If not possible, include a leading zero eg, 0.5mL.⁹

Never write a zero after a decimal point eg, write 1.0mg as 1mg.⁹

Use words or Hindu-Arabic numbers ie, 1,2,3 to describe the dose.⁹

Write microgram, nanogram, unit or international unit in full.⁹

c. Frequency of administration.

The frequency describes how often the medicine can be administered to the patient. If the medicine does not have a specified minimum or maximum frequency and is taken as required (PRN), indicate the most common frequency or the minimum frequency the patient commonly uses. This could be entered as a free text comment.

Write 'daily' in full or the intended time of administration in English not Latin eg, morning, night.⁹

d. Route(s) of administration.

The route describes the means by which the medicine is to be administered to the patient. If the patient has been prescribed a medicine by two or more routes, specify which one the patient uses more commonly.

Write 'subcut' or 'subcutaneous' or 'subling' or 'sublingual' rather than any other abbreviation.⁹

e. Specified individualised time for the medicine to be administered.

The time that the medicine is to be administered as a once-only event as specified by the prescriber. The time is to be recorded in hour(s):minute(s) 24-hour format (hh:mm).

f. Supplemental information will need to be recorded within the system to aid decision-making processes such as:

- indication for medicine use especially if only taken as required
- form of the medicine eg, inhaler, cream, spray, ointment, lotion
- over the counter, alternative, complementary, rongoā medicines or therapies are part of the patient's medication history even if they are not able to be reconciled
- new and/or recently discontinued medicines
- reasons for any medicine change eg, form, dose, frequency, stops, starts
- PHARMAC details eg, special authority numbers
- special care requirement, eg, breastfeeding, pregnancy, renal and hepatic impairment
- chemical information eg, tobacco, alcohol, recreational drugs
- adherence assessment outcome
- last medicine dose and time taken
- date of last dispensed medicines.

4.2 COMPARE

Objective: The healthcare practitioner compares the collected medicines, allergies and ADR list against the prescribed information, such as the medication chart, identifying and documenting any discrepancies.

The following are required to achieve this objective.

- 4.2.1 Compare the collected medicines, allergies and ADR list to the prescribed medicines, allergies and ADRs at admission, transfer and discharge to identify any differences.

The prescribed medicine list can vary depending on the care setting. For example, in hospital, it will be the medication chart. In general practice, the discharge medicines, allergies and ADR list would be compared to the current patient's medicines list held by the general practice.

Medicine reconciliation documentation will indicate the status of the medicines, allergies and ADRs after comparison eg, same or different.

- 4.2.2 Review the patient's clinical record to identify any documented explanation for medicine differences found. Any medicine difference which is undocumented, even if clinically indicated, is called a discrepancy.

Discrepancies are any medicine that is omitted, altered, added or substituted without documented explanation in the patient's clinical record or other form of accepted communication.

Medicine discrepancies can be intentional (ie, deliberate decision by prescriber at time of prescribing) or unintentional (ie, unaware or unknown to prescriber at time of prescribing).

- 4.2.3 Medicine reconciliation documentation will indicate that the medicine discrepancy requires further action eg, reconciling by a prescriber.

- 4.2.4 Any differences in allergies and ADR information will be presented to the prescribing healthcare practitioner for an appropriate clinical decision and documentation.

Medicine reconciliation documentation will indicate that allergies/ADRs require further action eg, review by a prescriber rather than reconciling. This is because the quality of allergy and ADR information is not able to be verified easily.

4.3 COMMUNICATE

Objective: At every transfer point, all changes that have occurred to the patient's medicines, allergies and ADR list will be communicated, dated, and documented to ensure the care of the patient is continued.

The following are required to achieve this objective.

- 4.3.1 Healthcare practitioners understand that coordinated and timely communication and accurate documentation of all changes to a patient's medicines, allergies and ADR list at a transfer point is essential in reducing medication errors.
- 4.3.2 Healthcare practitioners involved in the medicine reconciliation process are responsible for ensuring the transfer of medicine information occurs appropriately between healthcare practitioners and organisations eg, to and from hospitals, general practitioner (GP), community pharmacy and aged residential care.
- 4.3.3 The communication step involves reconciling any discrepancies identified to complete the process. Where reconciliation is considered to be urgent, the prescriber should be contacted immediately to discuss and rectify the situation. Within 24 hours of the discrepancy notification, the prescriber must:
 - a. reconcile each discrepancy by indicating whether the discrepancy is unintentional or intentional
 - b. document a reason why the medicine has been stopped, changed, withheld or started
 - c. sign, date and time to indicate reconciliation completed for each discrepancy
 - d. update relevant patient records electronically or manually eg, medication chart, discharge summary, clinical notes. Responsibility for prescribing medicines as a result of the medicine reconciliation process lies with a prescribing healthcare practitioner.
- 4.3.4 Once all the discrepancies are reconciled, the medicines, allergies and ADR list is classed as the most accurate medicines, allergies and ADR list at a given point in time.
- 4.3.5 Full communication of the medicine reconciliation process will include:
 - a. patient details eg, given and family name and NHI number
 - b. date that medicine reconciliation was started in dd/mmm/yyyy format and time in 24-hour format (hh:mm) eg, 01/Jul/2009 13:05
 - c. date that medicine reconciliation was completed in dd/mmm/yyyy format and time in 24-hour format (hh:mm) eg, 01/Jul/2009 13:25
 - d. details of the sources of information used eg, the given and family name(s) of the person contacted and contact telephone number, email and/or address
 - e. collected medicines, allergy and ADR list
 - f. discrepancies identified that require reconciliation by the prescriber
 - g. prescriber's reconciliation (unintentional or intentional and reasons for changes)
 - h. details of the healthcare practitioners involved in the medicine reconciliation process eg, given and family name, designation, contact details and signature.

- 4.3.6 An accurate medicines, allergies and ADR list will include information on medicines started, stopped and continued including any changes to dose, route, frequency and reasons for these changes.
- 4.3.7 The accurate medicines, allergies and ADR list will be accessible to other users and systems involved in medicines management eg, clinical record, electronic prescribing and administration systems, electronic discharges.
- 4.3.8 An accurate medicines, allergies and ADR list will be provided at specific transfer points to facilitate transfer of care ie, transfer from aged residential care to hospital or discharge from hospital to home, to:
- a. patient (or patient's family/caregiver if authorised)
 - b. general practitioner (GP)
 - c. community pharmacy
 - d. aged residential care
 - e. other lead carers as appropriate.

5 Documentation

The aim of this section is to ensure documentation for medicine reconciliation is complete, accurate, relevant and current in a manner that allows for an interdisciplinary, collaborative approach. Guidance is provided on how objectives in the key area should be met.

5.1 DOCUMENTATION

Objective: Any information associated with medicine reconciliation is complete, accurate, relevant and current.

The following are required to achieve this objective.

5.1.1 Information will be kept up-to-date.

All healthcare practitioners involved in medicine reconciliation are responsible and accountable for the accuracy and quality of information provided at all transfer points to support the medicine reconciliation process.

5.1.2 Information will be in a form that can be used by relevant people.

Medicine reconciliation forms will be incorporated as part of the patient's record. When designing a local form (paper or electronic) for the medicine reconciliation process, ensure the contents of the form comply with the criteria detailed in the Standard.

5.1.3 Information will be retained in accordance to current legislative requirements and good practice guidelines.⁸⁻¹⁴

To ensure the quality of the information, regulate the development, approval, issue, change, distribution, maintenance, use, storage, security and disposal of documents. Old documentation should be archived on a documentation management server, can be accessed by users. User rights to system or specific information should be set up on a per user basis that reflect local or national security considerations.

5.1.4 Information will be documented in accordance with the organisation's policy and contains the requirements that meet the Standard.

Policies and procedures are reviewed according to timelines but also when learnings are significant to warrant documentation change.

5.1.5 Information will be presented in language that can be understood and is relevant to the user.

Do not use error-prone abbreviations, symbols and dose designations.⁹

6 Measuring, Evaluation and Reporting

The aim of this section is to demonstrate medicine reconciliation has resulted in a reduction in discrepancies that have the potential to become medication errors or result in medication related harm to the patient. Guidance is provided on how objectives in the key area should be met.

6.1 MEASURING AND EVALUATION

Objective: Medicine reconciliation process, impact and balance measures are undertaken at regular intervals for learning and improvement using a continuous quality improvement (CQI) cycle eg, Plan – Do – Study – Act (PDSA) cycle.

The following are required to achieve this objective.

6.1.1 Identify the person/team/department responsible for measuring.

6.1.2 Determine the measures to be undertaken and set up an improvement cycle.

The Plan-Do-Study-Act (PDSA) cycle (also known as the Deming cycle) is a model for continuous quality improvement (CQI). The PDSA cycle enables measurement for improvement to:

- identify areas where improvement could be achieved
- demonstrate that improvement is being achieved
- demonstrate that improvement is being sustained.

The Institute for Healthcare Improvement (IHI) also provides methodology for tracking safety improvements made to medication systems. Their structure includes three types of measures¹⁵:

- Process - how well are we implementing the proposed changes ie, are we meeting our target within 24 hours?
- Impact - are we actually achieving improvement ie, reducing discrepancies?
- Balance - are the changes to improve this part of the system causing new problems in other parts of the system ie, delays in patients receiving their medicines?

The CQI process should continue after the medicine reconciliation is fully implemented.

Systems should be in place to facilitate data collection from both patients and healthcare practitioners to measure and evaluate the success of the current process

6.1.3 Evaluate the measuring and reporting to determine points of merit, worth, and significance.

6.1.4 Incorporate results and learnings into part of on-going medicine reconciliation educational support and training within the organisation.

6.1.5 Feed relevant learnings and changes required to appropriate organisation governance groups.

6.2 REPORTING

Objective: Each organisation ensures reporting requirements meet local and national requirements eg, certification or health targets.

The following are required to achieve this objective.

- 6.2.1 Identify the person/team/department responsible for reporting locally and nationally if required.

The organisation will identify a process owner for medicine reconciliation and therefore a line of reporting eg, Chief Medical Officer, Director of Nursing or Chief Pharmacist.

- 6.2.2 Report the results and learnings to appropriate staff, clinical, quality, governance and management teams regularly.

Measuring without regular reporting of results and learnings to staff involved in medicine reconciliation will result in very little or no improvement ie, the PDSA cycle must be completed.

Presenting the results also identifies evidence of where improvement is most required. This will enable new knowledge to be brought into daily practice.

Appendix A – Glossary

TERM	DEFINITION
Authorised prescriber	A registered medical practitioner, midwife, dentist, nurse or optometrist, who has the rights to prescribe specified prescription medicines as set out in Section 2(1) of the Medicines Act 1981 and Medicines Regulations 2005 relating to scope of practice in New Zealand.
Certification	Mandatory requirements by the Ministry of Health, introduced under the Health and Disability Services (Safety) Act 2001 and based on the health and disability regulations and legislations, which establish the minimum level of care that should be expected of any healthcare provider within New Zealand.
Criteria	Mandatory components that are required to be in place in order to achieve the outcome of the Standard.
Designation	Current role of the healthcare practitioner.
Discrepancy	A difference between the collected medicines list during the medicine reconciliation process and the prescribed medicines that is not documented in the clinical record, even if clinically appropriate.
Guidance	Non mandatory information to assist with the implementation of the Standard.
Healthcare practitioner	A person who is, or is deemed to be, registered with an authority as a practitioner of a particular health profession.
Intentional	Describes a medicine discrepancy that was a deliberate decision by the prescriber at the time of prescribing, but not documented.
Medicine	Any substance or article, other than a medical device, that is manufactured, imported, sold, or supplied wholly or principally: <ul style="list-style-type: none">• for administering to one or more human beings for a therapeutic purpose; or• for use as an ingredient in the preparation of any substance or article that is to be administered to one or more human beings for a therapeutic purpose.
Medicine reconciliation	The process to collect, compare, and communicate the most accurate list of medicines that a patient is taking, together with details of any allergies and/or adverse drug reactions (ADRs) with the outcome of providing correct medicines for a given time period. <ul style="list-style-type: none">• Initiated - collect, compare and communicate has occurred.• Completed - collect, compare, communicate and reconcile has occurred.

Outcome	Overall expected result of the requirements in the Standard.
Prescribe	In medical practice, the act of authorising an order to supply or administer a substance used or capable of being used to prevent, treat, or palliate a disease, or the symptoms or effects of a disease for the purpose of clinical treatment of a patient under the authorising person's care.
Rongoā	The term used for traditional Māori medicine. It includes herbal medicines (Rākau Rongoā).
Reconciled	Describes a medicine discrepancy that has been individually categorised by the prescriber as unintentional or intentional and action has been undertaken to resolve the medicine discrepancy. As part of the action undertaken, each individual medicine discrepancy must have a time, date and signature (can be electronic) documented for accountability.
Transfer of care	Movement of patient(s) between healthcare practitioners, locations (including within the same location), providers or different levels of care as the patient's conditions and care needs change.
Source	<p>Describes the point or place from where the medicine information originates. Sources of information are generally categorised as primary, secondary, or tertiary depending on their originality and their proximity to the source.</p> <ul style="list-style-type: none"> • Primary sources contain raw, original, unevaluated information. A primary source can be a person with direct knowledge of a situation or a document created by such a person. • Secondary sources digest, analyse, evaluate and interpret the information contained within primary sources. Generally, they are accounts written after the fact with a primary source. • Tertiary sources consist of information that is a distillation of primary and secondary sources.
Unintentional	Describes a medicine discrepancy that was unknown to the prescriber at the time of prescribing.

Appendix B – References

1. World Health Organisation. 2007. Assuring Medication Accuracy at Transitions of Healthcare. Patient Safety Solution Volume 1, Solution 6. Last accessed on 10 Aug 2012
www.ccforspatientsafety.org/common/pdfs/fpdf/presskit/PS-Solution6.pdf
2. Associate Minister of Health, Minister of Health. Actioning Medicines New Zealand 2010. Wellington: Ministry of Health 2010. Last accessed 08 July 2012
www.health.govt.nz/publication/actioning-medicines-new-zealand
3. Tam VC, Knowles SR, Cornish PL, et al. 2005. Frequency, type and clinical importance of medication history errors at admission to hospital: a systematic review. *Canadian Medical Association Journal* 173(5): 510-5.
4. Cornish PL, Knowles SR, Marchesano R, et al. 2005. *Archives of Internal Medicine* 165: 424 -9.
5. Sullivan C, Gleason KM, Rooney D, et al. 2005. Medication reconciliation in the acute care setting: opportunity and challenge for nursing. *Journal of Nursing Care Quality* 20: 95-98.
6. Stowasser DA, Stowasser M, Collins DM. 2002. A randomised controlled trial of medication liaison services - acceptance and use by health professionals. *Journal of Pharmacy Practice and Research* 32: 133-40.
7. Gleason KM, McDaniel MR, Feinglass J, et al. 2010. Results of the Medications At Transitions and Clinical Handoffs (MATCH) study: an analysis of medication reconciliation errors and risk factors at hospital admission. *Journal of General Internal Medicine* 25(5):441-447.
8. Health Practitioners Competence Assurance Act 2003.
9. Health Quality and Safety Commission. Error prone abbreviations, dose designations and symbols not to use. May 2012. Last accessed on 10 Aug 2012
www.hqsc.govt.nz/our-programmes/medication-safety/publications-and-resources/publication/455/
10. Medicine Act 1981
11. Medicines Regulation 2005
12. Health and Disability Services (Safety) Act 2001
13. Privacy Act 1993
14. Health (Retention of Health Information) Regulations 1996
15. Institute for Health Improvement (IHI). Measures. Last accessed on 10 Aug 2012
www.ihl.org/knowledge/Pages/HowtoImprove/ScienceofImprovementEstablishingMeasures.aspx

