



Government of **Western Australia**
Department of **Health**

Closing the Loop Program: SAC 1 Implementation and Evaluation of Recommendations Strategies and Action Plan



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1.0 Introduction

The purpose of the Clinical Incident Management (CIM) Policyⁱ is to ensure appropriate management of clinical incidents to prevent or reduce future harm to patients/consumers by:

- identifying and treating hazards before they cause harm
- identifying when patients/consumers are harmed and intervening promptly to minimise the harm
- taking preventative actions, evaluating actions and sharing lessons learned.

Since the CIM Policy was first released in 2011, hospitals/health services have significantly improved and developed the incident investigation component of the CIM process. Generally, the investigation reports received by the Patient Safety Surveillance Unit (PSSU) are thorough and well considered with recommendations intended to improve the safety and quality of health care.

In October 2014 changes were made by the then Acting Director General to WA Health's CIM Policy, that reduced the timeframe to complete investigations into SAC 1 clinical incidents from 45 working days to 28 working days. The timeframe to implement and evaluate the recommendations arising from SAC 1 incidents was also reduced from 12 months to six months. The CIM Policy also required from this time the provision of the evidence of the evaluation of SAC1 recommendations. Since then PSSU has been working to develop resources and processes that advise health services of these requirements and support them with their delivery. This has become known as the "Closing the Loop" Program. This implementation plan has been written to capture activities that have already occurred in the short term but also to indicate those that are planned in the medium and longer term acknowledging that this maturity process takes time.

The focus of the Closing the Loop Program is to progress and enhance two components of SAC 1 clinical incident management. These are:

1. Development and implementation of recommendations and;

ⁱ http://www.health.wa.gov.au/circularsnew/circular.cfm?Circ_ID=13224

2. Evaluation of recommendations. This is seen by the PSSU as the next step in the maturation of the safety and quality culture within WA Health with regard to the CIM process and is an integral part of ensuring that lessons are learnt from clinical incidents so that improvements in health care delivery and patient care are achieved.

2.0 Strategic Alignments

The Closing the Loop Program is aligned to the *WA Health Strategic Intent 2015-20 (the Strategic Intent)*. A key priority in the *Strategic Intent* is to provide more effective and efficient hospital services through improving clinical and non-clinical processes across health services.

The Closing the Loop Program is also directly aligned to the *WA Health Strategic Plan for Safety and Quality in Health Care 2013-2017*, and the *National Safety and Quality Health Service Standards* developed by the Australian Commission on Safety and Quality in Health Care (ACSQHC) .

Principle 3 of the *WA Health Strategic Plan for Safety and Quality in Health Care 2013-2017* is that the organisational structures, processes and culture of an organisation support continuous quality improvement and effective health care delivery. The Closing the loop program aligns with the following strategies:

- Maintain clear, consistent safety and quality policies and procedures for health care delivery.
- Support all who work in the health system to identify, manage and mitigate clinical risk, and improve healthcare quality through clinical practice improvement.
- Apply lessons learned through investigating, managing and responding to identified clinical incidents and complaints.

The Closing the Loop Program will assist in the compliance with Standard 1 of the *National Safety and Quality Health Service Standards*. This includes contributing to:

- An integrated system of governance that actively manages patient safety and clinical incident management.

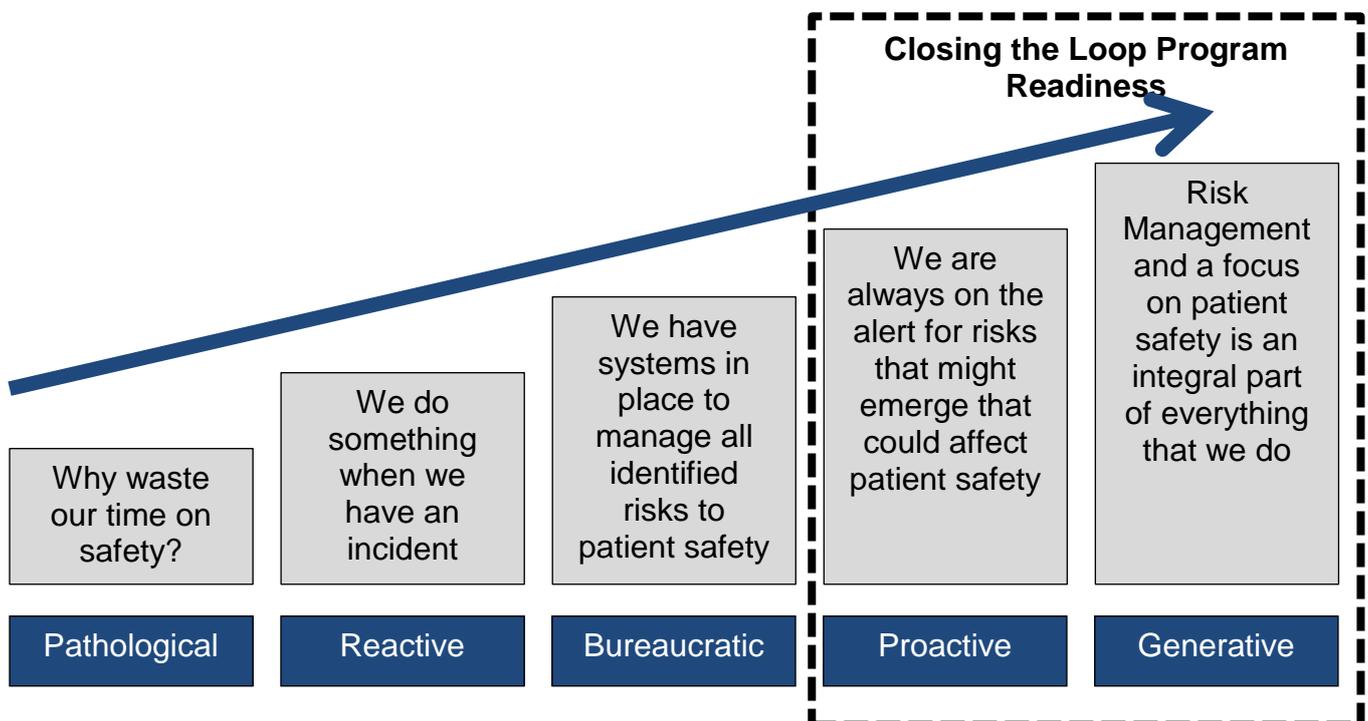
- A governance system that sets out safety and quality policy, procedures and/or protocols and assigns roles, responsibilities and accountabilities for patient safety.
- A clinical workforce that is guided by current best practice and uses clinical guidelines that are supported by the best available evidence.
- Patient safety and quality adverse events that are recognised, reported and analysed, and this information is used to improve safety systems.

The Closing the Loop Program Readiness

The *WA Health Strategic Plan for Safety and Quality in Health Care 2013-2017* provides an overview of the Manchester Patient Safety Framework (MaPSaF). The framework is an example of a Capability Maturity Model that is applied to healthcare. The framework aims to assist organisations in assessing the maturity of their patient safety culture. The framework is designed as a team based reflection and educational exercise whereby 10 aspects of safety culture are provided with teams then required to choose the description that best captures their organisation’s patient safety culture. It is through discussion and reflection that staff are then able to progress toward developing a mature patient safety culture.

Figure 1 details the proactive and generative stages within the Capability Maturity Model that a hospital and health service needs to reach before they are ready to adopt and fully benefit from the Closing the Loop Program.

Figure 1: Five levels of maturity with respect to patient safety culture and the Closing the Loop Program



3.0 Developing and Implementing Recommendations

3.1 Overview

The development and implementation of recommendations are fundamental components of clinical incident management. Recommendations provide the framework for actions to improve health care delivery by preventing adverse events from reoccurring and/or minimising the harm that results.

In order to be effective, SAC 1 clinical incident recommendations need to:

- be based on contributory factors and aimed at preventing or minimising the occurrence of similar events and/or minimizing the harm that results.
- clearly identify the recommended action.
- include a planned date for completion.
- include an outcome measure to enable improvements to be evaluated.
- identify the individual(s) who will be responsible for the implementation and monitoring of the recommendations.
- be approved by the Chief Executive or delegate to ensure that the recommendations are actioned and submitted to the PSSU and the Health Service's Safety, Quality and Performance team.

Recommendations in response to SAC 2 and SAC 3 clinical incidents also need to be developed according to these principles, except that the Head of Department has the final sign off. The CIM Policy requires all recommendations to be evaluated within 6 months of the investigation of the incident being completed to ensure that they have effectively reduced the risk of same or similar incidents occurring and/or the harm that results.

3.2 'SMART' Recommendations

Clinical incident recommendations must directly address the root causes identified via the investigation process. Recommendations must be implementable, specific, measurable and include who will be accountable for the implementation and timelines for completion and evaluation. Implementation of recommendations should effectively prevent recurrence of the clinical incident and/or minimize the harm that results. When developing

recommendations it is useful to adopt the SMART system of goal setting to ensure the greatest likelihood of producing sustainable improvements in health care delivery.

Recommendations should be SMART:

Specific: Who are you targeting and what action or activity is being evaluated? (e.g. ward patients, patient having surgery etc). For example, to reduce pressure injuries prevalence by 10% within six months, on all the orthopaedic wards.

Measurable: How much change is expected?

The abovementioned example is an easily measurable goal as it outlines the issue, establishes a reduction measure of 10%, identifies a target group and provides a timeline.

Accountable: State who will be responsible for implementing and evaluating this recommendation.

Realistic: Recommendations needs to be realistic to ensure that the outcome goal can be achieved. For example, to reduce pressure injuries for patients who are at high risk, we need to purchase four dynamic air flow system mattresses over the next two years.

Time related: It is imperative to state a deadline in which the goal will be achieved.

Recommendations made from a Root Cause Analysis (RCA) are a critical component to ensuring that these types of clinical incidents are prevented or minimised. A Recommendation/ Action Hierarchy was developed by the Veterans Affairs National Center for Patient Safety to assist in the development of actions that are more likely to succeed and achieve the desired outcomes (see appendix A).

The Recommendations/Actions Hierarchy is a valuable tool that can assist staff in identifying and creating stronger recommendations/actions to ensure effective system change. Recommendations fall into three categories – stronger, intermediate and weaker actions.ⁱⁱ Using the principles of human factors, stronger recommendations/actions focus on modifying human behaviour to limit or prevent clinical incidents from occurring. For example, eliminating the use of universal adaptors and peripheral devices for medical equipment and use tubing/fittings that can only be connected the correct way.

ⁱⁱ Action Hierarchy levels and categories are based on *Root Cause Analysis Tools*, VA National Center for Patient Safety, http://www.patientsafety.va.gov/docs/joe/rca_tools_2_15.pdf (2015).

3.3 SMARTA Scoring

To further assist WA Health staff in developing stronger recommendations a ‘SMARTA’ score rating has been developed which will allow staff to assess each recommendation/action using the SMART criteria with the addition of assessing recommendation/action strength. Write your recommendation and then assess it using the ‘SMARTA’ score and if necessary revise your recommendation to make it stronger and more effective (see Table 1 and Appendix A for examples of strong recommendations).

SMART Scoring: Met = 1 point Not met = 0 points

Recommendation Strength: Strong = 2 points Intermediate =1 point Weak =0 point

SMARTA SCORE: Excellent =7 points Very Good = 6 points Good =5 points Fair =4 points Poor =>3 points

Table 1: EXAMPLE of Closing the Loop: Complete SMARTA Scores for Each Recommendation/Action

	Specific	Measurable	Accountable	Realistic	Time Related	Recommendation/Action Strength	SMARTA SCORE
To reduce by 50% the frequency of clinical deterioration incidents on ward A within 3 months by conducting monthly clinical deterioration audits on ward A. Staff Development Nurse J Brown is responsible for audits.	Met =1	Met =1	Met =1	Met =1	Met =1	Monitoring plan to be reviewed at least twice each shift for every patient. Intermediate =1	5 + 1= 6 Very Good

This recommendation has obtained a score of 6 indicating that the recommendation is very good with an intermediate action strength.

4.0 Evaluating Recommendations

Evaluation of the recommendations once they have had time to embed is the second fundamental component of closing the loop, as it assesses how effective the recommendations have been in minimising or preventing the reoccurrence of same or similar clinical incidents.

The methodology used to evaluate recommendations is contingent on the type of recommendation being evaluated and can range from conducting an audit or undertaking a cross sectional survey to checking that a particular piece of diagnostic equipment is calibrated every time before it is used.

The evaluation component provides evidence as to whether the recommendation to prevent or minimise a clinical incident from reoccurring has been effective.

Please see the CIM Toolkit to obtain information on the different types of evaluation methodologies.

PSSU have developed a template (see Table 2) to allow health services to log their evidence in regard to the evaluation of their recommendations.

Table 2: EXAMPLES OF EVALUATION OF RECOMMENDATION ACTIONS FOLLOWING A SAC 1 INVESTIGATION

Datix CIM Number: Hospital/Service: Date investigation report submitted to PSSU: Date evaluation report due:								
Contributing/Causative factor as per investigation report	Aim	Recommendation/Action		Implementation	Evaluation Date	Evidence of evaluation of effectiveness of recommendations/actions	Evaluation	
		Recommendation/Action details	Action type	Evidence of implementation (If implementation not complete state why not and provide latest results)			Has QI been achieved? Fully/Partially/Not achieved	Sign off that achievements completed
							If not fully achieved, state why not	State date
Signs of clinical deterioration were not recognised and appropriate responses were not actioned	To reduce by 50% the frequency of clinical incidents resulting from failure to recognise and respond to clinical deterioration on ward A within 3 months	Clinical deterioration education refresher given to staff	Training	Clinical deterioration module added to mandatory competencies schedule. Staff required to complete within three months of introduction and then annually.	10/10/2014	<ul style="list-style-type: none"> During September there were 18 incidents that identified a failure to recognise and respond to clinical deterioration. This is down from 40 incidents notified in the May audit. 10 incidents resulted in unplanned admission to ICU. 12 incidents resulted in delayed escalation to the MER team. 8 incidents resulted from the monitoring plan not being reviewed for every shift in last 24 hours. Nil patient deaths observed. Findings were presented to the ward staff, clinical deterioration education continues to be a ward priority. 	Yes QI fully achieved with 50% reduction achieved by September 2014	Staff Development Nurse 10/10/2014
The patient monitoring plan was not reviewed during the shift	To ensure that 100% of patient monitoring plans on Ward A are reviewed at least twice during each shift	Shift protocol to be updated to require monitoring plan to be reviewed at least twice during each shift	New procedure/memorandum/policy	Requirements for two reviews of monitoring plans were included in the shift protocol from 29/5/2014 and Ward A staff informed	10/10/2014	Audit of patient records in June showed only 45% where monitoring plans were reviewed twice during each shift. The follow-up audit in September showed the level of compliance had increased to 73%, however this is below the target of 100% and 8 incidents resulted.	Yes QI partially achieved with improvement in the proportion of monitoring plans being reviewed. However compliance remains below the level desired and the Executive have approved an ongoing QI activity around this.	Staff Development Nurse 10/10/2014
Inadequate skill mix of senior nursing staff on ward A	To increase the staffing ratio of senior staff to junior staff for each shift within 2 months	Rosters to be reviewed and ratio of junior staff balanced across shifts with monthly survey of nursing rosters to assess adequacy of staffing skill mix	Increase in staffing/decrease in workload	Rosters have been reviewed and upper limit of 60% junior staff instigated. Reconfiguration of rosters is planned to be completed by the end of July.	8/10/2014	<ul style="list-style-type: none"> During September 84% of nursing shifts were appropriately staffed. 14 shifts showed 60% or more of the rostered staff for that shift were graduate/junior nursing staff. Lack of senior night duty staff requires senior day staff to be frequently rostered onto nights. 	Yes	Nurse Manager 8/10/2014
Lack of senior night duty staff	To increase the ratio of permanent senior nursing night duty staff on ward A within 2 months	Recruit four permanent night duty staff within 2 months	Increase in staffing/decrease in workload	Three permanent senior night duty staff have commenced work in June and the fourth started in mid-July.	8/10/2014	During September 80% of night duty shifts had at least 40% senior staff ratio	Yes	Nurse Manager 8/10/2014

5.0 Closing the Loop Implementation Strategy and Action Plan

Goals	Strategies	Actions	Responsibility	Implementation Priority Timeframe
<p>Maximise the utilisation of the Closing the Loop Program (CLP) so that successful recommendations that address clinical incidents are achieved and lead to better patient outcomes.</p> <p>(Awareness)</p>	<p>Raise awareness of the Closing the Loop Program by engaging Health Service staff.</p>	<p>Promote the 'SMARTA Score' in a poster to Health Service staff.</p>	PSSU	Short
		<p>Promote the 'SMARTA Score spreadsheet to Health Service staff</p>	PSSU	Short
		<p>Promote the Recommendations Evaluation template including integration into the spreadsheet and a due date reminder and overdue prompt</p>	PSSU	Short
	<p>Raise awareness of the Closing the Loop Program supporting documentation to Health Service staff.</p>	<p>Introduce a CLP section on the Patient Safety and Quality internet web site.</p>	PSSU	Medium
		<p>Update the Clinical Incident Management Toolkit to include the SMARTA tool, Recommendations Evidence Spreadsheet and details on outcome measures and evaluation methods.</p>	PSSU	Medium
<p>Maximise the utilisation of the SMARTA tool to improve the quality of investigation recommendations to minimise or prevent clinical incidents from reoccurring.</p> <p>(Desire)</p>	<p>Provide evidence of how 'strong recommendations' lead to enhanced patient outcomes to Health Service Staff.</p>	<p>Include case scenarios with clinical incident recommendations examples in the CIM Toolkit.</p>	PSSU	Short
	<p>Support WA Health Staff to use the SMARTA Tool.</p>	<p>PSSU staff to ensure materials are user friendly</p>	PSSU	Medium
	<p>Explain to SAC1 owners how the implementation and evaluation of recommendations will be reported to the statewide Peak Incident Review Committee (PIRC).</p>	<p>Provide KPI data to PIRC on the timeliness of evaluation reports received.</p>	PSSU	Short

Goals	Strategies	Actions	Responsibility	Implementation Priority Timeframe
	Ensure strong and visible leadership involvement with supporting the CLP from CE/ED at the HS.	Write to CE/ED at the HS engaging their involvement in the implementation of the CLP.	Assistant DG	Medium
<p>Maximise the utilisation of the SMARTA and evaluation tools by ensuring staff understand the tools and process used to achieve improved clinical incident outcomes.</p> <p>(Knowledge)</p>	Support WA Health staff to use the SMARTA Tool.	Provide education including via VC to S&Q teams who can then assist their staff to use the SMARTA tool to develop strong and effective recommendations.	PSSU	Long
	Support WA Health staff to understand the requirements of evaluation including appropriate methodologies	Provide information including via VC to S&Q teams who can then assist their staff to understand evaluation requirements	PSSU	Long
	Support WA Health staff to use the recommendation evaluation template	Provide education including via VC to S&Q teams who can then assist their staff to use the evaluation template to develop effective evaluation methodologies.	PSSU	Long
	Undertake a workshop or roadshow to promote the CLP.	Visit key HS sites and invite key stakeholders* involved in CIM and investigations to attend.	PSSU	Long
	Provide resources to assist WA Health staff in understanding the CLP.	Provide an updated version of the Clinical Incident Management Toolkit.	PSSU	Medium
	To achieve well developed recommendations that minimises or prevents clinical incidents from reoccurring.	Support WA Health staff in developing strong clinical incident recommendations.	S&Q teams to monitor recommendations submitted as part of clinical investigation reports and provide feedback to investigation teams.	S&Q Teams

(Ability)	Support WA Health Staff to use the SMARTA Tool.	PSSU staff to be available to assist S&Q staff with SMARTA queries.	PSSU	Medium
To prevent clinical incidents from reoccurring.	To sustain improvements made by HS with regard to the development of strong clinical incident recommendations.	Obtain evidence to ensure that the recommendations are in place and working effectively and report this to the PSSU.	HS	Long
(Reinforcement)		Integrate Closing the Loop elements into Datix CIMS	State Datix Committee	Long
	Identify and reward WA Health staff who are successfully implementing the CLP.	Provide positive feedback and recognition to the individual/team involved in the development of effective sustainable recommendations supported by evaluation evidence.	PSSU	Ongoing
		Collate and circulate across WA Health successful and sustainable recommendations/outcome data.	PSSU	Ongoing

* Target the key stakeholders identified as requiring collaboration and being kept informed

Appendix A: Recommendations Hierarchy

Action Strength	Recommendation/Action Category	Example
Stronger Actions	Architectural/physical plant changes	Replace revolving doors at the main entrance into the building with powered sliding or swinging doors to reduce patient falls.
	New devices with usability testing	Perform heuristic tests of outpatient blood glucose meters and test strips and select the most appropriate for the patient population being served.
	Engineering control (forcing function)	Eliminate the use of universal adaptors and peripheral devices for medical equipment and use tubing/fittings that can only be connected the correct way (e.g., IV tubing and connectors that cannot physically be connected to sequential compression devices or SCDs).
	Simplify process	Remove unnecessary steps in a process. Standardize on equipment or process Standardize on the make and model of medication pumps used throughout the institution. Use bar coding for medication administration.
	Tangible involvement by leadership.	Participate in unit patient safety evaluations and interact with staff; support the RCA ² process; purchase needed equipment; ensure staffing and workload are balanced.
Intermediate Actions	Redundancy	Use two RNs to independently calculate high-risk medication dosages.
	Increase in staffing/ decrease in workload	Make float staff available to assist when workloads peak during the day.
	Software enhancements, modifications	Use computer alerts for drug-drug interactions.
	Eliminate/reduce distractions	Provide quiet rooms for programming PCA pumps; remove distractions for nurses when programming medication pumps.
	Education using simulation-based training, with periodic refresher sessions/observations	Conduct patient handoffs in a simulation lab/environment, with after action critiques and debriefing.
	Checklist/cognitive aids	Use pre-induction and pre-incision checklists in operating rooms. Use a checklist when reprocessing flexible fibre optic endoscopes.
	Eliminate look- and sound-alikes	Do not store look-alikes next to one another in the unit medication room.
	Standardised communication tools	Use read-back for all critical lab values. Use read-back or repeat-back for all verbal medication orders. Use a standardized patient handoff format.
	Enhanced documentation, communication	Highlight medication name and dose on IV bags.
Weaker Actions	Double checks	One person calculates dosage, another person reviews their calculation.
	Warnings	Add audible alarms or caution labels.
	New procedure/ memorandum/policy	Remember to check IV sites every 2 hours.
	Training	Demonstrate the hard-to-use defibrillator with hidden door during an in-service training.

Action Hierarchy levels and categories are based on *Root Cause Analysis Tools*, VA National Center for Patient Safety, http://www.patientsafety.va.gov/docs/joe/rca_tools_2_15.pdf (2015).



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