

SECTION 10

SURVEILLANCE, AUDITING AND NOTIFICATION

CONTENTS

| | |
|--|-----|
| 10 SURVEILLANCE, AUDITING AND NOTIFICATION | 184 |
| 10.1 ROLE OF SURVEILLANCE | 184 |
| 10.1.1 MANDATORY HAI SURVEILLANCE IN NSW | 186 |
| TABLE 28. NSW HAI CLINICAL INDICATORS | 186 |
| 10.1.2 REPORTING OF NOTIFIABLE DISEASE | 187 |
| TABLE 29. CLINICAL SCENARIOS | 187 |
| 10.1.3 SUGGESTED SURVEILLANCE IN NON-ACUTE SETTINGS | 193 |
| 10.1.4 ANTIMICROBIAL RESISTANCE SURVEILLANCE METHODS | 193 |
| 10.2 AUDITING | 194 |
| 10.2.1 AUDITING PRINCIPLES | 194 |
| 10.2.2 AUDITING FOR THE NATIONAL HAND HYGIENE INITIATIVE | 196 |
| 10.3 INCIDENT MANAGEMENT AND NOTIFICATION | 197 |
| 10.3.1 CLINICAL INCIDENT | 198 |

ESTABLISH THE CONTEXT

IDENTIFY INFECTION RISKS

ASSESS THE RISK OF INFECTION

CONTROL THE RISK OF INFECTION

REVIEW EFFECTIVENESS OF CONTROL MEASURES

10.1 Role of surveillance

Each year, a large number of hospital patients in Australia experience a healthcare complication in the form of a hospital-acquired infection. By the provision of patient care that mitigates avoidable risks all healthcare acquired complications (HACs) can be prevented or reduced (213). The HAC includes the following diagnosis:

Urinary tract infection (UTI)

Surgical site infection (SSI)

Pneumonia

Blood stream infection (BSI)

Central and peripheral line associated blood stream infection

Multidrug resistant organism

Infection associated with prosthetics/implantable devices

Gastrointestinal infection

Healthcare associated infection surveillance programs enable healthcare organisations (HO) to monitor the outcomes of current practice and provide timely feedback to clinicians to ensure practice improvement and better patient outcomes. Surveillance is an essential component of any infection prevention and control program and patient safety initiative. Surveillance involves the systematic collection, collation, analysis, interpretation and dissemination of data for use in the planning, implementation and evaluation of the provision of healthcare as well as quality and safety of patient care (214, 215).

The primary purpose of surveillance in infection prevention and control is to monitor for sentinel events, and to monitor healthcare associated infections (HAIs) and to report to the relevant stakeholders including Infection Prevention and Control Service. Significant incidents such as outbreaks or clusters of HAIs, multidrug-resistant organisms (MROs) and/or non-MROs should be escalated to the health service or LHD management as soon as possible to determine ongoing action. Refer to NSW Health guideline [Triggers for Escalation Following Detection of Infection Outbreaks or Clusters](#).

In NSW, a number of mandatory HAI clinical indicators have been established for state-wide HAI surveillance purposes. When the HO submits data on any clinical indicators a suitably qualified or experienced health worker (HW), who is able to reliably interpret, evaluate and report recommendations to a peak committee, is needed. In addition to mandatory indicators, other clinical indicators may be used locally. When establishing additional clinical indicators consider:

- Prevalence - *has there been a sudden increase in cases?*
- Setting - *will all departments be surveyed or only specific ones?*
- Capacity to undertake surveillance - *is there staff and systems available to undertake this surveillance?*
- Availability of data - *is there sufficient data available to support this?*
- Potential for change - *is there potential for an intervention to be introduced and supported locally to improve HAI rates?*
- Relevance to the risk - *does the risk warrant measuring and reporting the indicator?*
- Feedback and reporting lines - *who is this new information going to be reported to?*

When conducting HAI surveillance:

- use standardised definitions and data collection tool where available and appropriate
- undertake regular data collection in line with reporting requirements
- establish baseline rates and continue surveillance over time (or as long as required)

It is imperative to only collect data that is useful and directly related to the prevention and control of HAI. If there is no useful outcome for data collection (i.e. intervention is not possible, and/or improvement cannot be achieved) then surveillance objectives should be re-assessed.

[Australian Guidelines for the Prevention and Control of Infection in Healthcare - 2019](#)

ACSQHC
[National definition and calculation of HAI *Staphylococcus aureus* bacteraemia](#)

[CDI Surveillance Implementation Guide](#)

[National definition and calculation of Hospital identified *Clostridium difficile* infection](#)

[National definition and calculation of central line Associated Blood Stream Infection](#)

[Surveillance Validation Guide for healthcare associated *Staphylococcus aureus* bloodstream infection](#)

[SAB Surveillance Implementation Guide](#)

[Implementation Guide for Surveillance of Central Line Associated Bloodstream Infection](#)

[NSW Health HAI Clinical Indicator Manual](#)

10.1.1 Mandatory HAI surveillance in NSW

The NSW HAI Clinical Indicator Manual outlines the minimum level of mandatory HAI surveillance that all NSW HOs are to undertake. These are outlined in Table 28.

Table 28. NSW HAI clinical indicators

| Clinical Indicator | Rationale |
|--|---|
| MRSA acquired in ICUs | Patients admitted to ICU are at a higher risk of acquiring MRSA. ICU MRSA acquisition rates include both colonisation and infection. |
| CLABSI | Patients in ICU are at high risk of HAI through invasive central line insertion (centrally and peripherally) and post insertion management. |
| <i>Staphylococcus aureus</i> bacteraemia (SAB) | SAB infections are associated with increased patient morbidity and mortality and are seen as potentially preventable. |
| Vancomycin-resistant enterococcus (VRE) blood stream infection including VAN A and VAN B types | Bacteraemia with VRE are associated with increased length of stay and has a negative impact on patients' survival and leads to higher health care costs. |
| Carbapenemase-producing <i>Enterobacterales</i> (CPE) blood stream infection | CPEs are resistant to carbapenem antibiotics, by means of an acquired carbapenemase gene, therefore often difficult to treat, leaving very few therapeutic options. |
| Surgical site infections (SSIs) (hip & knee arthroplasties, coronary artery bypass grafts) | SSI account for around 70% of all HAIs in hospitalised patients (216). |
| <i>Clostridioides difficile</i> infection | CDI has been identified as the most common cause of antibiotic associated diarrhoea in hospitalised patients. HAIs involving CDI are considered indicators of poor antimicrobial stewardship. |

The Clinical Excellence Commission revised clinical indicators will add the following:

- *Vancomycin resistant enterococci bacteraemia* - Bloodstream infections caused by VRE have been associated with significant mortality for critically ill and immunocompromised patients.
- *CPE bacteraemia*: Higher rates of mortality have been attributed to patients with CPE bacteraemia than patients with a bacteraemia from non-resistant strains of similar infections.
- CPE clinical isolate: A positive CPE isolate obtained from either a normally sterile site such as CSF OR a non-sterile site when clinically associated with infection (e.g. urinary tract infection, wound infection or pneumonia)
- CPE screening/colonisation isolate: A positive rectal swab or other site such as skin or wound swab AND there is no evidence of infection (the patient does not receive antibiotics active against CPE) OR the patient is known to have been screened for CPE.

HOs should have systems in place to ensure staff whose role is to conduct mandatory surveillance can receive all reports, documents and results that are necessary to conduct HAI surveillance. This would include microbiology reports, access to medical records systems, and theatre management systems.

The CEC's Quality Improvement Data System ([QIDS](#)) provides support to local health districts and speciality health networks (LHD/SNs) with processing data and sharing information to assist with patient safety and quality improvement activities. It has reporting and charting capacity for business

intelligence, and for management of hospital complications including infections, falls, pressure injuries, venous thromboembolism and medications. QIDS is intended as a 'one stop shop' for clinicians and managers to view incident and hospital coded data as well as provide access to tools and resources fundamental to improvement work. The system facilitates collaborative decision making allowing LHD/SNs to manage and organise their own permissions and information sharing with clinicians and managers.

Quality Audit Reporting System ([QARS](#)) is another electronic tool developed by the CEC in collaboration with all other organisations in NSW Health, including LHD/SNs. QARS is used for conducting: clinical audits, patient surveys, and other data collection processes in a more efficient and effective way for NSW Health organisations.

10.1.2 Reporting of notifiable disease

Medical practitioners and hospitals are required to report notifiable conditions to their local PHUs on the basis of reasonable clinical suspicion.

Section 11
[Outbreak Management](#)

Case notification should be initiated within 24 hours of diagnosis either by telephone or in writing. Information for each notifiable disease and condition is available from the following link:

[Disease notification](#)

Table 29. Clinical scenarios

| Scenario 1: Anywhere in Acute Hospital | Answer the following questions based on the scenarios |
|---|---|
| <div> <div> <p>Anywhere Hospital: TKR SSI HAI Rate/100 cases Jan 2015 - Sep 2017 (superficial & deep)</p> </div> <div> <p>360 beds-Major rural hospital IP&C – reports to DDON. IP&C has been on Mat Leave Apr 16 – Apr 17. Backfilled with inexperienced but enthusiastic RN.</p> <ul style="list-style-type: none"> ○ Clinical Microbiologist available for consultation ○ IP&C Committee meets every 2 months ○ No medical representation ○ Bi-monthly reports on HAI Surveillance are submitted – no trend data ○ No permanent NUM in OR – difficult to recruit. Multiple acting NUMs over 2 years </div> </div> | <ol style="list-style-type: none"> 1. At what point would you consider an investigation? 2. What do you do immediately (response and escalation)? E.g. communication, documentation, meeting. 3. What is included in your investigation plan? 4. How will you evaluate your response and escalation plan? |

Risk Scenario 1 – Investigating increasing healthcare associated infections in an Acute Hospital

| | |
|---|--|
| At what point would you consider an investigation? | <p>As soon as the rate increases – must have statistical significance</p> <p>Look for other trigger points</p> <p>A death is a certain trigger for an internal review and a reportable Incident brief (RIB): Review the cause of death</p> <p>When there are 3 points above the baseline</p> <p>When there is a sustained increase</p> |
| Investigation Method | <p>IIMs or relevant system for case reviews</p> <p>M&Ms for case reviews</p> <p>Root Cause Analysis (RCA), London Protocol or Detailed Clinical Reviews.</p> <p>Ensure an infection prevention and control person is on the team</p> |
| What do you do immediately? | <p>Definition: confirm the case definition</p> <p>Plan for an interim report within 48 hours to guide further communication</p> <p>Determine who collects the data – consistency</p> <p>Treat like an outbreak and use same methodology (refer chapter 11 Outbreak management)</p> <p>DOCUMENTATION</p> <ul style="list-style-type: none"> ○ IIMs or other relevant system ○ Surveillance program ○ Team meeting notes ○ Record of communication and escalation <p>DATA</p> <p>Check the data. Review the numerator and denominator (confirm they are accurate)</p> <p>Check if there have been any changes in the review or validation process</p> <p>Risk stratify – separate deep and superficial – graph these separately</p> <p>Check if the increase in HAI is linked to increased surgical or hospital activity</p> <p>PROCESS/COMMONALITIES</p> <ul style="list-style-type: none"> ○ Look for immediate commonalities e.g. same surgeon/anaesthetist/other medical staff/scrub or scout nurse/operating theatre ○ Same or similar organisms + discussion with clinical microbiologist ○ Same day onset for HAI e.g. all day 3 ○ Ask doctors to review and confirm each case with the ICP <p>COMMUNICATION</p> <p>Speak to the surgeon(s) to confirm SSIs</p> <p>Escalate - communicate the increase to surgeons, other relevant stakeholders such as Operating Theatre, General Manager, DON, DMS, Specialty Head of Department, Infectious Diseases, Orthopaedic Ward NUM, patient safety/quality managers. Refer to NSW health Triggers for Escalation Following Detection of Infection Outbreaks or Clusters for more information.</p> <p>Determine who are the stakeholders to ensure that all required people/teams receive the information</p> <ul style="list-style-type: none"> ○ Who it should be escalated to immediately ○ Who it should be communicated to when further information is available ○ Who is should be communicated to when the investigation is completed <p>• Check if Open Disclosure has occurred with the affected patients</p> |

What is included in your investigation plan?

RECOVERY ROOM (RR)

Time in recovery room
Wound care
Develop an action plan from recommendations. Make sure there are people assigned to actions with a timeframe
Review governance structure
Any changes to management or education programs within the peri-operative setting

INPATIENT WARD

Inpatient ward or ICU – perform a ward round
Wound care
Nursing ratios
Nursing skill mix
Observe hand hygiene, use of Standard Precautions
Environmental cleaning audit results
Look at other process measures e.g. surgical prophylaxis
Review all audit and risk assessment outcomes/results
Review other services that are involved in the care/treatment of surgical patients e.g. rehabilitation
Education

Lookback process with other SSIs
Review of microbiology reports
Develop a checklist to assist with the lookback and investigation
Detail: where, when, who, what, how with a timeline
Full review of cases within the defined period
Determine who will be part of the investigation team e.g. IP&C, OT, surgical ward, medical staff, Clinical Governance Unit (CGU) or patient safety, microbiology or Infectious Diseases
Determine what you will review and perform risk assessments on for the investigation
Determine the type of education and training required
Determine how you will check for other linked incidents/adverse events

PRE-OPERATIVE MANAGEMENT

Review of pre-operative assessments
Review of MRO screening practices
Pre-operative care e.g. chronic wounds
Admission timeframes from pre-operative assessment to admission for surgery, timeframe from hospital admission to surgery
Review of pre-operative washes e.g. if they are performed, type of antiseptic, number performed, patient education, MRSA/MSSA decolonisation

PATIENT FACTORS

- Review of patient risk factors e.g. obesity, diabetes, nutrition, smoking, Staph aureus carriage

SURGICAL/ANAESTHETIC PROCEDURE

- Surgical teams – is there a common person/group
- Common operating theatre
- Check changes in practice within operating theatre e.g. draping method or type, new equipment, performing skin prep before scrubbing
- Check surgery type e.g. elective v's emergency
- Compliance with scrubbing, gowning and gloving
- Review the existing pre-op antiseptic (type and how it is applied) and if any changes have been made
- Review aseptic technique competence and audit compliance
- Review type of wound closure method and dressing used
- Check antimicrobial prophylaxis, time, dose
- Review workflow within operating theatre during surgical procedures. Observe any changes to operating theatre equipment or patient beds

ENVIRONMENT

- Results of environmental cleaning audits
- Any changes to the environmental cleaning e.g. usual cleaner on leave
- Check practices within sterilization department e.g. changes to the procedure, equipment used or changes in chemicals, changes to staffing
- Review hand hygiene performance
- Review sterile stock storage
- Any building/refurbishment work in close proximity to operating theatre
- HEPA filters changed in operating theatre

How will you evaluate your response and escalation plan?

- Any problems or changes to the air handling systems in operating theatre
- WORKFORCE**
- Staffing and skill mix in operating theatre
 - Has a culture survey been performed in the operating theatre and issues identified with patient safety

Team to perform the evaluation
 Evaluate all the known gaps and check progress on actions
 Escalate data to all key stakeholders
 Monitor data trend

- Benchmark with other sites
- Set measurable goals

Determine what audits needs to have continuous monitoring (the timeframes for these may be changed as HAIs reduce)
 Determine if an independent review is to be undertaken

Report findings to:

- Surgical teams
 - M&M Meetings
 - Clinical Governance Unit
 - Infection Prevention and Control Committee
 - Peak Quality/Patient Safety Committee
 - Follow up meeting(s)
- Present investigation and outcomes as a case study – what were the learnings
 - Develop a regular feedback mechanism e.g. monthly 1 page summary that includes action plan achievements, surveillance data
 - Continue to have a visual presence in the clinical areas e.g. operating theatre, surgical wards
 - Provide education, feedback and resources to clinical staff as appropriate
 - Review the infection prevention and control meetings to determine the reports are tabled and trend results discussed. If reports are not tabled, then need to add as a standing agenda item
 - Review the recommendations that are made from the investigation. Ensure that recommendations have a risk rating assigned to each one before they are submitted.
 - Review what risks were identified from the investigation and determine what high risks should be added to the facility Risk Register e.g. capability of relief for Infection Prevention and Control staff

Scenario 2 Risk Assessment- Investigating increasing healthcare associated infections Paediatric Hospital

Scenario 2: Anywhere in Paediatric Hospital

- 260 beds
- At the last Paediatric Surgery M&M Meeting, the surgeons discussed the number of post-discharged patients with SSI.
- The SSIs are from patients who underwent emergency laparoscopic Appendectomy within the last 3 months.

Answer the following questions based on the scenarios

1. At what point would you consider an investigation?
2. What do you do immediately (response and escalation)? e.g. communication, documentation, meeting
3. What is included in your investigation plan?
4. How will you evaluate your response and escalation plan?

| | |
|---|--|
| <ul style="list-style-type: none"> You do not currently perform surveillance on patients undergoing this surgery The Chair of the M&M Meeting tells you that approximately 7 patients have had a SSI (2 surgeons) | |
| At what point would you consider an investigation? | <p>As soon as the rate increases – must have statistical significance</p> <p>Look for other trigger points</p> <p>A death is a certain trigger for an internal investigation and a RIB. Review cause of death patient</p> <ul style="list-style-type: none"> When there are 3 points above the baseline When there is a sustained increase |
| Investigation Method | <p>IIMs for case reviews</p> <p>M&Ms for case reviews</p> <p>RCA, London Protocol or Detailed Clinical Reviews</p> |
| <p>What do you do immediately?</p> <p>Communication</p> | <p>Ensure the increased incidence of SSIs is entered into the IIMs/relevant reporting system</p> <ul style="list-style-type: none"> Check complaints Check clinical notifications <p>Develop an action plan for the investigation</p> <p>Escalate to key stakeholders</p> <ul style="list-style-type: none"> Direct Line Manager Infectious Diseases Team Quality and Safety Clinical Governance Unit Brief to General Manager/CE <p>Meet with surgical teams</p> |
| What is included in your investigation plan? | <p>Risk assessment for each child. Include past medical history</p> <p>What is the current benchmark?</p> <ul style="list-style-type: none"> Within surgical teams Within hospital Within other hospitals <p>What is the organism(s)?</p> <ul style="list-style-type: none"> Same Different <p>Similar e.g. all gram +ve</p> |
| <p>How will you evaluate your response and escalation plan?</p> <p>Report findings to:</p> | <p>Determine process of reporting e.g. readability, succinct, graphical displays</p> <ul style="list-style-type: none"> Surgical teams M&M Meetings Clinical Governance Unit Infection Prevention and Control Committee Peak Quality/Patient Safety Committee <p>Determine if the risk is either declining or ceased</p> <ul style="list-style-type: none"> Ongoing monitoring |

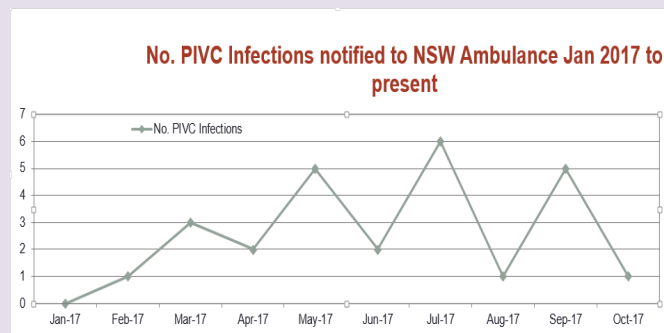
Scenario 3 Risk Assessment- Investigating increasing healthcare associated infections Ambulance Service

Scenario 3: Anywhere in Ambulance service

Answer the following questions based the scenarios

Increase in PIVC site infections related to Emergency IV insertions.

- There have been a number of reports from several hospitals (multiple LHDs) to multiple people within the NSW Ambulance Service
- These notifications have been occurring over the last 10 months. At a meeting, the topic is discussed. When the notifications are graphed, these are the results:



1. At what point would you consider an investigation?
2. What do you do immediately (response and escalation)? e.g. communication, documentation, meeting
3. What is included in your investigation plan?
4. How will you evaluate your response and escalation plan?

At what point would you consider an investigation?

Immediately when the notification occurs

What do you do immediately?

Perform a documentation review

- IIMs
- eMR

Establish an actual event

Communication

Briefing to relevant people

- Chief Executive (CE)
- Director of Clinical Governance (DCG)
- Clinical Governance Unit (CGU)
- Education
- Service delivery
- CEC – via DCG and CGU

What is included in your investigation plan?

Assessment of clinical reason for insertion of cannula

Use of A Checklist for Investigation

- HW level of experience
- HW geographical location
- Emergency v's on-emergency insertion
- Determine if dwell time can be established
- Number of attempts
- Insertion site
- Use of correct equipment
- Use of stickers (Emergency Insertion)
- Time of days for insertion/shift duration
- Usual technique compared with skill level
- Evaluate the outcomes

| | |
|--|--|
| How will you evaluate your response and escalation plan? | <p>Increase in surveillance from other LHDs</p> <p>Engineer a system of regular notification</p> <p>Notify the incident to relevant source health facility or ambulance service</p> <p>Perform snapshot auditing e.g. cannula, PIVC emergency insertion stickers, duration of PIVC</p> |
|--|--|

10.1.3 Suggested surveillance in non-acute settings

The incidence of HAIs in non-acute settings should be regularly monitored. The type and scope of surveillance will be determined by the type of service being provided and the associated risk to the patient.

[The Australian Council on Healthcare Standards](#)
Clinical Indicator manuals for oral health and hospital in the home (Password required)

Surveillance activities for community-based settings could include but are not limited to:

- Oral health clinics:
 - Infections identified following dental treatment. This can be recorded as a HAI register or through data entry record of an antibiotic script following a procedure
- Community-based settings
 - Unplanned readmissions to hospital due to an infection related complication
 - Infection rates associated with peripherally inserted intravenous cannulas, the management of central venous access devices and urinary catheterisation.

Collection and reporting of occupational exposures to blood and/or body fluids are mandatory for all public facilities, including (32):

- Community Acute without surgery;
- Community Non-Acute;
- Nursing Homes;
- Multi-Purpose Services; and
- Hospices.

[NSW Health PD](#)
Infection Prevention and Control Policy

Monitoring should be specific to a significant organism, condition or process where HAIs pose an increased risk. Surveillance should be evidence-based, utilise clear definitions and, where possible, allow for benchmarking between similar HO. Adaptations of standardised clinical indicators or locally developed clinical indicators should be reviewed by a suitably qualified HW with experience in data collection and analysis prior to implementation.

10.1.4 Antimicrobial resistance surveillance methods

To meet the Australian National Standards, a HO must monitor antimicrobial usage and resistance. A suggested means of monitoring antimicrobial resistance is through the development of an annual hospital-level cumulative antibiogram, which will provide information on likely antimicrobial susceptibilities for common microorganisms.

[NSQHS - NATIONAL STANDARDS VERSION 2](#)

The Antimicrobial Use and Resistance in Australia (AURA) Surveillance System, coordinated by the Australian Commission on Safety and Quality in Health Care (the Commission), provides essential information to develop and implement strategies to prevent and contain antimicrobial resistance (AMR) in human health and improve antimicrobial use across the acute and community healthcare settings.

[Antimicrobial Use and Resistance in Australia Surveillance System](#)

[ACSQHC, 2013 Specification for Hospital Cumulative Antibiogram](#)

The AURA Surveillance System coordinates data from a range of sources to provide a comprehensive and integrated picture of patterns and trends of AMR and antimicrobial use in human health across Australia. The AURA National Coordination Unit (NCU) at the Commission is responsible for the conduct of the AURA Surveillance System. The cumulative hospital-level antibiogram should be used to inform local empirical antimicrobial recommendations and formulary management.

Antibiogram should be available to clinicians and groups who are responsible for local antimicrobial therapy guidelines. The ACSQHC has published a *Specification for a Hospital Cumulative Antibiogram* which provides more information on the use of hospital cumulative antibiogram. Monitoring antimicrobial resistance aligns with the Australian Government's National Antimicrobial Resistance Strategy (2015) which provides a framework to guide actions on preventing the development and spread of antimicrobial resistance.

[National Antimicrobial Resistance Strategy \(2015-2019\)](#)

For smaller HOs where a hospital-level cumulative antibiogram may not be feasible or appropriate, antimicrobial resistance may be monitored through review of MRO data in liaison with the microbiology service provider. Also liaise with the committee that oversees antimicrobial stewardship in the HO, with a specific focus on how local antimicrobial susceptibility patterns may impact empiric antibiotic therapy.

In community health settings, antimicrobial resistance may be monitored by reviewing infection rates associated with insertion of medical devices, checking whether these infections are due to MROs, and conducting targeted surveillance, where appropriate, for microorganisms, including MROs.

[NATIONAL STANDARDS VERSION 2 Standards for community health services](#)

At the time of writing, dental services were not required to monitor antimicrobial resistance. However, in keeping with antimicrobial stewardship principles, any information available on antimicrobial resistance in the patient population being treated could be used to ensure appropriate antibiotics are recommended and prescribed in the service.

[NSQHS - NATIONAL STANDARDS VERSION 2 Standards Guide for Dental Practices and Services](#)

10.2 Auditing

10.2.1 Auditing principles

In the context of infection prevention and control, performance measures or auditing is a process aimed at measuring the quality of care HOs provide against relevant standards to reduce clinical variation with specific infection prevention or control strategies. If HOs fail to meet a set of agreed standards or benchmarks, the performance measure will assist HOs and IPAC Units to understand the factors causing non-compliance, and enable priorities to be set and make improvements.

Establishing, monitoring, and reporting performance can enhance credibility by demonstrating the extent to which we are meeting our goals and providing value to the patient safety measures. Using a systematic and objective approach to assess the effectiveness of and/or compliance with specific infection prevention or control strategy, an audit may be conducted to yield quantitative or qualitative data, or both (217).

An infection prevention and control performance measures/ audit should focus on a specific topic, be repeatable and preferably involve the use of a standardised tool if benchmarking is required (218). Performance measures/ audits therefore should be brief and easy for the auditor to complete and

understand. Following the audit, an action plan should be formulated to address any areas which do not meet the required practice. The action plan should be shared with the overseeing Infection Prevention and Control Committee (or equivalent committee) and direct line management.

Performance measure in infection prevention and control can be used to identify specific practices and behaviours against standards or policies, with the purpose of marking compliance or areas for improvement (1).

Performance measure can be done at the point-of-care, through the review of healthcare records, or both.

Examples of point-of-care audit could be to measure compliance with policies or procedures for:

- post-insertion peripheral cannula management;
- aseptic technique;
- standard or transmission-based precautions; or
- fingernail and/or hand/wrist jewellery of the HW

[NSQHS - NATIONAL STANDARDS VERSION 2](#)

[Australian Guidelines for the Prevention and Control of Infection in Healthcare](#)

Examples of audits that involve a review of healthcare records may include:

- correct documentation for insertion or removal of intravascular access devices (and/or proceduralist identification);
- properly documented invasive device insertion or removal;
- screening swabs on admission/ discharge (e.g. MRO, wound swabs); or
- HW uptake of immunisation.

Infection Prevention and Control performance measure identifies areas for improvement and areas of exemplary practice in relation to quality and safety. In addition, an audit provides a level of assurance around the compliance with standards and policy requirements developed by NSW Ministry of Health and supported by the NSQHS – National Standards Version 2 (specifically Standard 3). An audit should complement a range of infection prevention and control activities which aim to improve or provide assurance on the safety and quality of patient care.

Case study 10: Poppy's story - Auditing for change

In the surgical ward where Poppy, an RN, works there has been feedback from the Nurse Unit Manager (NUM) about a recent incident concerning a patient's infected cannula site. A look through the patient's progress notes established that the likely contributing factor for the infection was the cannula had been left in situ for 6 days. Looking to improve patient safety in the ward, the NUM asks Poppy to conduct an audit of staff adherence to the *Intravascular Access Devices (IVAD) - Infection Prevention & Control Policy Directive (PD)*.

After consultation with the IPC, Poppy is given an audit tool that specifically refers to cannula management based on the PD from the NSW Ministry of Health. The audit is brief, easy to follow and can be completed by any clinical staff with the relevant experience.

Poppy completes the audit and now has data from 16 patients with PIVC from her ward.

She notes that generally PIVC are managed as per the PD, however she discovers that one patient has a cannula site with phlebitis and another two have no documentation surrounding cannula insertion. Poppy reports this information back to her NUM who immediately schedules a ward meeting to share this information with all her staff. The meeting is intended to improve staff compliance with PIVC management, therefore improving patient safety.

The patient with phlebitis has his cannula reviewed and removed. An incident report was completed by the patient's nurse and the incident number was recorded in the patient's healthcare record for future reference and the patient was notified of the incident. A review of the other two patients' notes identified the staff members that looked after them over the last few days and, through discussion with them, the NUM was able to discover when the cannula was inserted. The NUM has asked Poppy to complete another audit in a fortnight's time to measure any improvement.

Performance measure should focus on the HO's governance processes for quality and safety and not on individual performance. Infection Prevention and Control auditing and frequency should be based on a risk management framework which aims to evaluate the systems and processes in place to control HAI risks to patient. Outcomes of audits can be evaluated through a combination of self-assessment and/or independent verification processes to assess improved patient care.

10.2.2 Auditing for the National Hand Hygiene Initiative

In alignment with NSQHS – National Standards Version 2, NSW HOs must regularly audit the hand hygiene compliance of its workforce.

To do this, NSW HOs should use a method consistent with the National Hand Hygiene Initiative's for Hand Hygiene standard.

This approach allows comparison of

- hand hygiene compliance within healthcare facilities and between professional groups at a facility level and
- comparison of hand hygiene compliance between facilities and local health districts and speciality health networks at a state level.

NSW HOs should refer to the Commissions National Hand Hygiene Australia (NHHA) for further advice on the data collection process, clinical area selection and number of moments required for a facility, based on acute inpatient bed numbers.

[NSQHS - NATIONAL STANDARDS VERSION 2](#)

[Australian Guidelines for the Prevention and Control of Infection in Healthcare](#)

[National Hand Hygiene Initiative](#)

Hand hygiene compliance data from HOs is added to the national database once validated by regional and state jurisdictional officers.

[QIDS](#)
Quality
Improvement Data
System Clinical
Excellence
Commission

Hand hygiene compliance data is also published on websites such as Quality Improvement Data System ([QIDS](#)) where a HO's aggregate hand hygiene compliance rate will be compared to the national interim benchmark.

Results from hand hygiene auditing should be discussed in a relevant and timely fashion. Therefore it is imperative that a HO's hand hygiene compliance report is generated locally and received by everyone, from the HO senior executive team through to the healthcare workers from where the data was collected.

The concept of frontline ownership of hand hygiene data is emerging as an important enabler of hand hygiene culture sustainability. It follows that clinical areas and their management are responsible for their own hand hygiene compliance results and as such, should engage in strategies to improve and invigorate their ward or departments hand hygiene compliance.

Public display of ward and facility hand hygiene compliance results can act as a visual cue for clinical practice improvement and reinforce consumer awareness that hand hygiene is everyone's 'core business'.

Healthcare facilities may wish to track their progress in hand hygiene resources, promotion, and activities, plan their actions, and aim for improvement and sustainability through the use of the WHO Hand Hygiene Self-Assessment Framework.

The WHO Hand Hygiene Self-Assessment framework is a tool to obtain a situation analysis of hand hygiene promotion and practices within an individual healthcare facility, according to a set of indicators. This framework also acts as a diagnostic tool, identifying key issues requiring attention and improvement. Repeated use of this framework may allow documentation on hand hygiene compliance progress with time.

WHO, 2010
[Hand Hygiene Self-Assessment Framework](#)

10.3 Incident Management and Notification

This section of the handbook refers specifically to the management of infection control critical incidents and the reporting of notifiable conditions and diseases.

An incident can be described as any unplanned event resulting in, or with the potential for, injury, damage or other loss.

Immediate local goals of incident management should be to identify, contain and document the incident. This includes:

- Advising line manager (who, in turn should ensure that the HO's general manager and chief executive are advised of the incident);
- Preventing a repeat of the incident;
- Identifying the extent of the problem; and
- Completing notification in the Incident Management system.

[NSQHS –NATIONAL STANDARDS VERSION 2](#)

[NSW Health PD](#)
Incident Management Policy

[NSW Health GL](#)
Triggers for Escalation
Following Detection of Infection
Outbreaks or Clusters

10.3.1 Clinical Incident

In infection prevention and control, a clinical incident is concerned with the transmission or risk of transmission of microorganisms to an individual or group of patients and/or an individual or group of HWs in the healthcare setting (32). A clinical incident involves a breach in infection prevention and control practices which may cause:

- Actual or potentially contaminated instruments/equipment from inadequate disinfection or sterilizing processes that could lead to transmission of an infectious disease
- Provider-to-patient exposure from infected HWs who perform exposure prone procedures (EPPs) on patients
- Any acute illnesses due to blood borne pathogens that are likely to have been transmitted in a HO or
- Patient-to-patient transmission of communicable disease or MROs
- Transmission of microorganisms from the environment or a HWs to a patient.

[NSW Health PD](#)

Infection Prevention and Control Policy

10.3.2 Lookback

Lookback is a process that is triggered when a notification of a clinical incident or concern from any source leads to the need for the notification, investigation and the management of a group of commonly affected patients.

Where there is a significant failure of infection control, an assessment should be made as to whether patients may be of risk of cross infection, and if so, whether those patients should be notified of the incident and actions to take.

Assessment is needed on a case by case basis. Where a patient notification exercise is thought necessary, a risk-based approach should be considered i.e. those persons who are at highest risk of infection should be assessed first.

Lookback involves:

- Forming a local committee including infectious disease, public health, infection prevention and control, sterilizing services, clinical governance, clinical risk manager and other participants as indicated, to investigate the incident and prepare a risk assessment
- Identifying, tracing, communicating and providing appropriate ongoing advice to, and/or management of, the group of patients affected;
- Reporting the risk assessment and incident to the CEC, the NSW Ministry of Health, health service or LHD management and formation of a communication strategy;
- Notification to the wider public, if applicable; and,
- Evaluation or review of the Lookback process.

[NSW Health PD](#)

Infection Prevention and Control Policy

[NSW Health PD](#)

Lookback Policy

The HO Chief Executive is responsible for initiation of the Lookback process. Timely and appropriate management of the critical incident should begin within 24 hours of the incident being notified. An effective Lookback procedure requires effective communication at all levels and include Public health Units (PHUs).

A HO must, as mandated by the NSW Health *Lookback Policy Directive* undertake a Lookback should one the following HAI critical incidents occur:

- HW exposure to a blood borne virus
- Contamination of breast milk or administration to the wrong infant.

Other HAI critical incidents that may require the HO to undertake Lookback include incidents that involve inadequately reprocessed equipment and/or instruments.

[NSW Health PD](#)

Maternity - Breast Milk: Safe Management

[NSW Health Safety Advocate 7](#)

Self-Management of Breastmilk

[NSW Health PD](#)

HIV, Hepatitis B and Hepatitis C – Management of Health Care Workers Potentially Exposed

The NSW Blood borne Advisory Panel is a group of clinicians who provide advice to HOs on a number of matters including sterilization breaches and incidents as well as patients who have been exposed to staff members' body fluids. For advice from the NSW Blood Borne Advisory Panel contact the Health Protection Unit in the NSW Ministry of Health.

10.3.3 Open disclosure

Open disclosure is a process for ensuring that open, honest, empathic and timely discussions occur between patients and/or their support person(s) and HO staff following a patient safety incident.

The open disclosure PD sets out the minimum requirements for a consistent open disclosure process within NSW HOs, to ensure that patients and their support person(s) and health service staff are:

- Communicating effectively about a patient safety incident
- Provided with an opportunity to recount their experiences, concerns and feelings and are listened to
- Treated respectfully and provided with ongoing care and support for as long as is required.

[NSW Health PD](#)

Open Disclosure Policy

Open disclosure is:

- A patient's and consumer's right
- A core professional requirement of ethical practice and an institutional obligation
- A normal part of an episode of care should the unexpected occur
- A critical element of clinical communications
- An attribute of high quality health services and an important part of health care quality improvement