STANDARD 3: Preventing and Controlling Healthcare-Associated Infection

CRITERION: Clinical governance and quality improvement systems are in place to prevent and control infections, and support antimicrobial stewardship and sustainable use of infection prevention and control resources (Actions 3.01 – 3.05)

Systems are in place to support and promote prevention and control of healthcare-associated infections and improve antimicrobial stewardship.

Provide a summary of the processes that are in place to meet this criterion.

The Western Health (WH) Infection Prevention plan is developed and endorsed by the Infection Prevention Committee (IPC), it includes the organisational approach to Infection Prevention and Control at WH. The IPC is co-chaired by an Infectious Diseases Physician (Clinical Lead) and the Sunbury Day Hospital (SDH) and Standard 3 Director of Nursing.

The purpose of this committee is to prevent healthcare associated infections (HAIs), prevent the spread of resistant organisms, and communicate its work to the whole workforce to achieve appropriate outcomes. IPC members represent various disciplines and roles throughout the organisation as well as a consumer representative. The IPC reports through the Safe Care Committee to the Best Care Committee.

The IPC oversees the development of procedures, training resources, clinical compliance, surveillance performance data and the Department of Health (DH) priorities including infection related risks, process issues and provides advice on all matters related to Infection Prevention and Control at WH.

Since the last survey, Western Health has incorporated the Bacchus Marsh and Melton Community Hospitals into the organisation with 1.6 EFT of IP resources within the WH IP team and has been integrating WH IP procedures and practices to those 2 hospitals and supporting their transition with a gap analysis and follow up actions.

Since July 2023, Western Health has also incorporated a large component of the former North West Mental Health Service from Royal Melbourne and Mercy Werribee Hospital with a dedicated senior IP transition lead for 3 months assisting in reviewing all transitioned services to ensure they meet the requirements of Western Health IP program, Standard 3 gap analysis and Model of Care for Sunshine Mental Health and Wellbeing Centre. Following on from this transition work will be an additional 1 EFT to support mental health services. WH has also incorporated the Dame Phyliss Frost Correctional Centre with IP working with the transitional leads to support this unique primary care service within WH.

The WH Antimicrobial Stewardship working group (WHAMSWG) convenes quarterly to review antimicrobial prescribing and key strategies. Within the scope of the working group is the assessment of the performance of the program against the AMS procedure informed by the National AMS Clinical Care Standard. The WHAMSWG reports to the IPC.

The Infection Prevention team are experienced and qualified staff who are dedicated to applying and supporting WH Infection Prevention and Control practices. They are supported

by the Infection Prevention Link group program that aims to link clinical areas and the Infection Prevention team to increase awareness of infection prevention issues, practice and support clinical practice.

WH has an infection prevention (IP) policy, and evidence-based guidelines and procedures that recognise and reference its responsibility to infection prevention and control practices.

How does the health service monitor the requirements of this criterion are being met and where is the information reported?

Compliance with WH policy and procedures is measured on an ongoing basis through operational performance reporting mechanisms such as scheduled and ad hoc audits (e.g., IV cannula audits, aseptic technique audits), Morbidity and Mortality meetings and the report and follow up of Infection Prevention related incidents i.e., Incident Severity Rating 1-2 Staphylococcus aureus Bacteraemia (SAB) infections.

Local audits are undertaken to support antimicrobial stewardship.

A suite of Key Performance Indicators (KPIs) report surveillance to committees, executives, and the Board. Specific surveillance data is reported to jurisdictional (VICNISS) and national bodies. WH's surveillance program monitors key surgical site and bloodstream infections, detects emergence of multi-resistant organisms, and evaluates the success of infection prevention strategies including against the DH Statement of Priorities.

Infection risks and data results are presented at the IPC. Action plans related to non-compliance are reviewed and discussed at the IPC and reported to the Safe Care Committee and referred to Divisional Directors and mangers for rectification plans. Actions arising from non-compliance are implemented and evaluated for safety improvements.

Have improvements been implemented?

Improvement strategies are implemented to address issues identified during surveillance and auditing. Surveillance with a novel virus (SARS-CoV-2) was challenging to say the least. Once testing was readily available an interphase was built between the electronic medical record system (EMR) and the WH Monitoring and Performance system (MaP) in the form of a dashboard. This dashboard was designed to identify and facilitate transmission-based precautions for all COVID-19 suspected and positive patients.

Through this interphase a list of all the current COVID-19 positive inpatients at Western Health, and all outpatients who have tested positive in the last 48 hours is emailed to the IP and ID teams and other relevant personnel within WH in real-time every time new results were available.

A snapshot of key metrics for COVID-19, SCOVID and quarantined patient infectious alerts daily is also sent to IP and ID teams and others. This included the number of confirmed inpatients, wards and ICU, suspected inpatients ward and ICU and confirmed or suspected deceased in the previous 24 hours. IP, ID key leads meeting weekly or as required with Exec for issues related to COVID with escalation or de-escalation strategies. A risk-based matrix has recently been developed to support staff in understanding any escalation process based on community risks undertaken in conjunction with local data and the Western Public

Health Unit catchment regional data of community cases and residential aged care facilities outbreaks.

A MaP dashboard was also used to report all positive cases back the DH daily through VICNISS with their COVID Patient Monitoring module which informed the Victorian Government of hospitalisation and vaccination uptake rates to inform statewide strategies. Since 2022, this VICNISS COVID patient monitoring module incorporated patient time to antivirals and mortality outcomes from those COVID recovered patients that remained in the hospital systems post deisolation. Footscray Hospital was a pilot hospital for this new component before Statewide roll out.

Provide examples of outcomes since the previous onsite assessment:

WH continues to achieve DH Statement of Priorities (SoP) SAB threshold limit of <0.7/10,000 occupied bed days. In 2021-22 the WH SAB rate was 0.4/10,000 overall bed days (14 cases) versus the VICNISS aggregate of 0.6, 10 cases less than in 2020-21 (0.6/10,000 overall bed days). In 2022-2023 DH SoP the threshold limit was reduced to 0.7/10,000 OBDs with WH achieving 0.6/10,000 overall bed days (27 cases) which is equal to the VICNISS aggregate.

The SAB numbers increased during the pandemic to almost double from 13 cases in 2018-19 to 27 in 2022-23. It is thought that this was brought about with the increased glove usage during transmission-based precautions caused by fear of COVID-19 self-infection and PPE practices with glove usage. The continuous use of gloves may have interfered with proper hand hygiene and aseptic technique, impacting on the number of SABs. Several strategies including a series of talks during the popular daily DOS meetings, in-depth case reviews, Link group presentations, patient stories, creation of a SAB Taskforce and case studies back to the individual wards to increase local awareness have been undertaken.

A new PIVC procedure has been undertaken by IP and Education with key stakeholder consultation which aligns with the inherent requirements of the Management of Peripheral Catheters Clinical Care Standard. A specific Difficult Intra-Venous Access (A-DIVA) escalation pathway has been incorporated into the procedure following on from findings in a Serious Adverse Patient Safety Incident (SAPSI) which was a consequence of being a DIVA that resulted in a blood stream infection. A new WeLearn PIVC training has been developed with a patient story highlighting the risks of device related blood stream infection. Scrub the Hub posters, awareness raising campaigns and education has been undertaken in 2023 along with NUM/MUM presentations to foster awareness and ownership of such infections locally. A consumer screen saver around key points of PIVC and how they can participate in their care of PIVCs, including 'count with me for 15 seconds' for scrub the hub messaging.

The IPC consumer representative actively reviews and advises the IPC on issues related to providing information to consumers and carers. In 2023, the IPC consumer provided feedback about a complaint she received from her national patient advocate role on the condition of a bathroom at Sunshine Hospital Ward 1B which had damaged floor vinyl and poor cleaning standards. This resulted in an internal investigation after which the affected bathrooms were rectified. This was fed back by the consumer representative to the family member involved who initially raised the concerns, the family member was greatly appreciative of the prompt action.

CRITERION: Infection prevention and control systems (Actions 3.6 – 3.16)

Evidence-based systems are used to mitigate the risk of infection. These systems account for individual risk factors for infection, as well as the risks associated with the clinical intervention and the clinical setting in which care is provided. A precautionary approach is warranted when evidence is emerging or rapidly evolving. Patients, consumers, and members of the workforce with suspected or confirmed infection are identified promptly, and appropriate action is taken. This includes persons with risk factors for transmitting or acquiring infection, or colonisation with an organism of local, national, or global significance. The health service organisation is clean and hygienic, and has well-maintained and configured engineering systems for the delivery of effective models of care

Provide a summary of the processes that are in place to meet this criterion.

WH has processes to identify and communicate infection risks. The WH Standard and Transmission Based Precautions (TBP) procedure details guidelines and work practices for the prevention of transmission of infection or communicable diseases. This is in line with the Australian Guidelines for the Prevention and Control of Infection in Healthcare and jurisdictional guidelines.

Patients with multi-resistant organisms are identified within the EMR infectious risk alert system or through an admission infectious diseases screening questionnaire performed in the Emergency department before admission. Once identified, patients with infectious risks have alerts added to their EMR.

WH had its first CPE/CPO transmission event in January 2023 with a long-term patient who had been repatriated from overseas to Sunshine having spent 3 years in that overseas hospital because of COVID lockdowns with extensive ICU admissions and multiple surgery. It was a unique genotype and the only 2 cases identified in Victoria. Transmission occurred prior to WH being aware of this unique genotype with the 2nd patient testing positive initially though the index patient had been isolated appropriately as had another CPO infection with additional risk mitigation strategies in place. There had been cross over with the same single room used by both when the index case was transferred to another hospital for neurosurgery and then co-located side by side.

The CPE transmission ward underwent 4 weeks of point of prevalence screening as requested by DH with nil further cases identified. A total of 1384 contacts were identified from extensive contact tracing back to July 2022 with nil new cases to date from designated room/ward contacts with PRIS infectious alerts placed on all other ward patients for 12 months for any representation to WF. The Victorian Antimicrobial Resistant Incident Management Team (AMR IMT) met with key IP/ID to identify probable transmission source and transmission time frame with Sunshine Hospital being added to the Victorian Transmission Risk Area report for 12 months until 23rd June 2024. The index case has 3 different CPO/CPE organisms with nil transmission of the other 2 organisms with ongoing risk mitigation strategies in place including sink biofilm management as one had grown in the sink from environmental swabbing undertaken.

WH has a well-established Hand Hygiene program and procedure which is consistent with the Australian National Hand Hygiene Initiative (NHHI). WH also contributes to the NHHI audit program and consistently achieves greater than the Victorian DH SoP target of >85% and national benchmark target of 80%, with a result of 88.7% for Round 2 2023 versus the national aggregate of 86.6%.

Aseptic technique online training is in place for key clinical staff groups. An Aseptic Technique Risk Matrix and a Risk Management approach is taken when implementing policies, procedures and/or protocols for aseptic technique utilising current national guidelines and ongoing review of ongoing audit results. There are processes in place for the appropriate use and management of invasive devices including training, management, and asepsis. Auditing is undertaken to verify aseptic processes which has been streamlined with the introduction of RedCap audits.

Staff training, appropriate equipment, cleaning activities and infrastructure all support a safe environment for patients with infections and others in their environment.

WH has a risk-based healthcare worker immunisation program in line with the Australian Immunisation Handbook and State requirements including pre-employment screening, with no staff starting at WH without an immunisation health check clearance. With COVID surge workforce required to support the organisation, exemptions for vaccination clearance were provided to allow staff to commence timely and have subsequent follow up by the IP Staff Immunisation program. A subsequent review, follow up and escalation process has been occurring to ensure staff compliance from January 2021-current.

98% of WH staff received the mandatory 3 doses of COVID-19 vaccine with 4th and 5th booster doses offered to staff in 2023. 97% of Category A/B staff received their mandatory 2022 influenza vaccine against the VICNISS aggregate of 84.7% with WH receiving a Certificate of Excellence. Mandatory A/B staff uptake improved to 98% in 2023. WH achieved a total of 94.8% vaccinated (A/B/C categories) in 2022 which increased to 96% in 2023. Grant Lodge RACF at Bacchus Marsh achieved 100% staff and volunteer compliance in both 2022 and 2023 versus the State RACF aggregate of 98.3% for 2022. They also received a Certificate of Excellence in 2022.

With WH being one of the most impacted organisations in Victoria and nationally during each wave of the COVID-19 pandemic significant infection prevention resources were implemented. 2 Infection Preventionists were seconded into the COVID preparedness team for 6 months to prepare the organisation, a standard and transmission-based precautions (S&TBP) online module was developed for all staff. A dedicated Coronavirus microsite was developed as the source of truth which was accessible externally and readily accessible with frequently changing communications and guidance.

A PPE Champion program was initially developed to foster a 'Buddy' PPE system to keep each of the clinical staff safe which was overseen by one of the COVID Response team members with IP input for education. A PPE Spotter program was subsequently implemented with training provided over Zoom and then moved to an online training module. Shift PPE Spotter reports were initiated to ensure safe practice and to act on any identified issues or gaps for training. Significant PPE breach issues were actioned by the PPE Spotter Coordinator in IP with escalation as required.

Quick Reference Guidelines, posters, training videos, communications were regularly reviewed and updated on the Coronavirus microsite with each Victorian guidance changes by IP and the COVID Response team. IP representation was included in the PPE Core Working group and the PPE Clinical Taskforce who oversaw the WH PPE Guidelines and

communicated all changes. Victorian COVID Safe workplace plans were undertaken as required and submitted to DH and located on the microsite. WorkSafe Victoria would also undertake local audits with the OH&S team as required.

IP engagement was sought when setting up or expanding testing sites in the community or internally as well as input into one of 3 Metro Vaccine Hubs set up out of Sunshine Hospital for COVID vaccination programs for staff and the community. Community outreach vaccination programs were also set up to support vaccinations in high-risk areas in the community with a large proportion of migrant representation from non-English speaking backgrounds as well as RACF's.

A dedicated Contact Tracing (CT) team was established in mid-2020 led by one of the IP team members who oversaw all internal patient and staff contact tracing with the Western Public Health Unit (WPHU) responsible for all community management and response. The CT team progressively expanded with subsequent waves and oversaw all outbreak management in conjunction with IP and ID, they reviewed all healthcare worker infections with use of automated RedCap surveys for staff and utilisation of MS Teams to support contact tracing by all team members including remotely and outbreak management.

Utilisation of the locally invented McMonty Ventilation Hood greatly supported the reduction in the number of HAI infections to other patients with a fleet of ~191 hoods in use across the organisation as did significant investment in air purifiers in clinical areas and break rooms. This was done in conjunction with air handling audits to identify problem areas and boost air exchanges per hour in all patient areas plus air directionality reviews by Melbourne University Engineering Department.

A dedicated team of medical staff (Deisolation Team) undertook the clinical side of COVID response management 24/7 by reviewing all results, communicating them to clinical areas in real time of results becoming available, following up on newly identified staff cases with test results, approving rapid PCR testing in conjunction with IP CNC's, developing testing criteria, risk categorisation, de-isolation and bed allocation guidelines and communicating to treating teams plus having oversight on deisolating of all SCOVID and COVID patients. Regular meetings are held several times per week to discuss outbreaks, issues across sites and for planning purposes between CT team, IP, Infectious Diseases, Desiolation team and the DON for Standard 3.

Infection Prevention supported the WPHU IP persons to go out to outbreak community RACF's to undertake reviews, provide support and report back to the aged care sector of DH.

Footscray Hospital participated in a VICNISS pilot program for additional dataset with community and hospital administered antiviral treatment and morbidity datasets to support the Victorian Chief Health Officer identify potential gaps in timeliness for antivirals which was subsequently rolled out to all Victorian hospitals by VICNISS and targeted communication to GP's.

The Operations Manager of Infection Prevention participated as guest speaker in 2 Safer Care Victoria forums around COVID and PPE given WH's experience as well as speaking at VICNISS forums about the Footscray hospital pilot for antivirals and morbidity data addition to COVID patient monitoring requirements.

How does the health service monitor the requirements of this criterion are being met and where is the information reported?

The IP team review all patients under TBP at least once during their admission on their daily ward rounds. The IP nurse will discuss the reasons why TBP was instigated and provide reading materials to the patient and or carers as appropriate. Patient stories are undertaken for presentation at Infection Prevention Committee monthly from this patient engagement.

The WH IP team and Link group undertake observational audits to monitor and report on serious non-compliance of TBP.

WH conducts hand hygiene compliance audits against the National Hand Hygiene Initiative audit tool in 72 clinical departments across all six campuses which is tabled at IPC. The clinical areas known to have greater potential for high infection rates are targeted as high risk.

Aseptic technique compliance audits are conducted by IP Link nurses and the Infection Prevention team, e.g. peer review in real-time during working hours when preforming any procedure that includes aseptic technique such as wound dressing, IV medication or fluid administration, intravascular device insertion and urinary catheter Insertion. Results of clinical areas auditing are tabled at IPC. Audit tools have transitioned across to RedCap format to streamline auditing for clinical ward staff in a more user-friendly format. Audit results are also discussed or tabled at the different Divisional meetings by either IP or Best Care Coordinators.

UV markers are used to audit cleaning requiring a 100% pass mark. Compliance rates are reported, reviewed, and discussed at the monthly IPC meetings, Divisional Quality and Safety meetings, Operational Performance meetings, and unit and ward meetings.

Hand hygiene compliance is also reported at Executive and Board levels and is also included in DH Performance Monitor reports generated quarterly. The overall annual compliance result for WH was 89% for 2022-2023 and has been consistently above the Victorian DH target >85% and national benchmark target of 80%.

IP is represented on new building committees, Capital Redevelopment and Refurbishment Committees, and IPC consultation for identified facility risks. The Principal Infection Prevention CNC also sits on the Product Evaluation and New Technology committee to assess the safety of products to be used or introduced into WH.

WH has adopted a 'no jab, no job' attitude with new employees who are required to provide a comprehensive history of vaccine preventable diseases before commencement of employment which includes blood borne virus status for staff performing Exposure Prone Procedures (EPPs). This was suspended due to surge workforce demands. A subsequent review, follow up and catch-up program has been undertaken with escalation process to ensure staff compliance from January 2021-current. Immunisation status records are also maintained by staff immunisation clinic.

WH through the Executive Director of Nursing and Midwifery sits on the Victorian DH working group looking to make HCW recommended vaccinations mandatory for all healthcare workers with influenza vaccination the first to be implemented in 2022.

Have improvements been implemented?

The WH IPC addresses and escalates the organisational response to the management of non-compliance to IP practices. This occurs when hand hygiene compliance rates in the any department are consistently low. Strategies to improve compliance would include increased hand hygiene awareness campaign, training of additional Link nurses and increased auditing and feedback of results to staff. Noncompliance is escalated to the Divisional leadership team through regular feedback of audit results.

Disinfecting wipes are available to facilitate the cleaning of shared equipment to nurse and other healthcare workers at the point of care. WH has also has available sporicidal wipes (Clinell Red) for use of cleaning of patient equipment with suspected or known Clostridium Difficile.

Improved alternative methods of evaluating and auditing environmental cleanliness in addition to visual inspection such as fluorescent gel markers and microbial methods have enhanced the monitoring of environmental cleaning.

Provide examples of outcomes since the previous onsite assessment:

Posters were developed as a quality initiative to improve staff understanding of the air pressure maintenance requirements in the negative pressure isolation rooms, these are displayed outside every room.

Principal IP CNC was involved in the writeup of the cleaning and disinfection instructions for the newly developed McMonty ventilation hoods used extensively throughout the pandemic to isolate COVID-19 suspected and positive patients across WH sites. The Operations Manager of Infection Prevention supported the research team for the McMonty ventilation hoods in developing their submission documentation for TGA approval and oversight of the training video for the cleaning aspect.

98% of WH staff received the mandatory 3 doses of COVID-19 vaccine with the Vaccine Hub program utilising the COHORT staff health database to record all staff doses and upload into the Australian Immunisation Register (AIR) manually. 97% of Category A/B staff received the mandatory 2022 Influenza vaccine against the VICNISS aggregate of 84.7% with WH receiving a Certificate of Excellence. WH achieved a total of 94.8% vaccinated (A/B/C categories) for influenza, versus the 84.2% VICNISS aggregate. The A/B uptake result improved to 98% in 2023 and 96% for A/B/C staff.

Healthcare worker hand hygiene compliance rate remained consistently high at >88% since the last assessment with 30,685 correct of 34,641observed moments. WH continues to benchmark highly against Victorian healthcare services and the national aggregate.

CRITERION: Reprocessing of reusable medical devices (Action 3.17)

Reprocessing of reusable equipment, instruments and devices is consistent with relevant current national standards.

Provide a summary of the processes that are in place to meet this criterion:

WH has stand-alone sterilising departments at all sites, with a dedicated CSSD and Instrument technician Managers and a Sterilisation Services Manager with relevant qualifications. The CSSD supplies reusable critical and semi-critical equipment, reusable medical devices (RMDs) to multiple departments, including the Operating Theatres, Day Procedure unit (DPU), Radiology. Cath Lab, EDs and Outpatients.

Qualified CSSD technicians are allocated to the main DPU's to support the reprocessing of Endoscopes and the tracking and maintenance of the Endoscope fleet.

Workflows in CSSD and the newly refurbished Footscray DPU, follow the principle of dirty to clean via designated pathways for high level disinfected RMDs and sterilized RMDs. Transportation of all reprocessed stock is supported with enclosed transport trolleys or direct movement to dedicated sterile storerooms.

Requests for new RMDs is approved by the Product Evaluation and New Technology committee. The Central Sterile Supply Department (CSSD) manager is a member of this committee to ensure that the selection of Reusable Medical Devices can be processed in accordance to AS/NZS4187:2014.

Departments are required to provide a TGA certificate and reprocessing instructions prior to approval for purchase.

WH uses an electronic tracking system, Scancare, to support service delivery. The computerized tracking system allows the CSSD to track all processes from manual/automated cleaning to patient use. Scancare allows for the storage of all daily mandatory testing outcomes, RMD information, including pictures and processing information and is a data base for the tracking of repairs and associated costs. Scancare enables product families to be created from data input which underpins the yearly validation processes of all sterilizers and washer disinfectors.

Scancare is installed in all external department where RMDs are used and supported by the CSSDs staff and educator. This allows for real time tracking of RMDs to patients.

WH CSSD was the first hospital in Victoria to employ a full-time instrument technician Educator, this role supports the orientation of new staff, assists staff with on the floor education, in-services and works with WeLearn to manage the online education packages. WH is partnered with a Registered Training Organisation (RTO) which provides training for a Certificate 3 and 4 in Sterilisation

Staff are encouraged to attend external education days and become members of their professional body.

WH has a comprehensive set of hospital procedures which are compliant with national and international standards. The procedures cover, for example, processing reusable equipment, use of loan RMDs, tracking and recall.

How does the health service monitor the requirements of this criterion are being met and where is the information reported?

WH is able to trace RMDs using the ScanCare computerised tracking system. This system allows WH to track processed RMDs to each patient encounter both in Theatre and other areas as the Day Procedure Units, Radiology, Catheterisation Lab and Outpatient Clinics. ScanCare records from each area are audited monthly for any incomplete records. Incomplete records are then referred to the appropriate areas for rectification.

Other audits undertaken cover sterilisation throughput, linen quality, testing procedures, Personal Protective Equipment use by CSSD staff, and sterile stock.

Results of audits are discussed at CSSD management meetings, with any areas of concern raised at the IPC meetings by the CSSD manager.

The IPC also monitors compliance with gap analysis and action implementation against the AS4187:2014.

Have improvements been implemented?

A comprehensive, CSSD focused gap analysis has been completed for AS4187:2014. A priorities action plan was developed and is monitored by the IPC on a quarterly basis to review progress reports and strategies that have been implemented or being implemented to achieve full compliance.

A gap analysis and business case has been completed to support the installation of RO water, including the replacement of WDs and sterilizers to meet water quality for final rinse water of RMDs (Table 7.2, AS4187, 2014) Completion date for this scope of works is December 2023.

Provide examples of outcomes since the previous onsite assessment:

WH has maintained strong audit performance and low infection rates since the previous onsite assessment.

This has been supported by the ongoing review of procedures and processes prompted by gap analysis against AS4187:2014 and related initiatives such as the introduction of a clinical educator to support orientation for new staff and ongoing support and learning for all staff across the health service.

How does the health service monitor the requirements of this criterion are being met and where is the information reported?

WH is able to trace RMDs using the ScanCare computerised tracking system. This system allows WH to track processed RMDs to each patient encounter both in Theatre and other areas as the Day Procedure Units, Radiology, Cardiac Catheterisation Lab and Outpatient Clinics. ScanCare records from each area are audited monthly for any incomplete records. Incomplete records are then referred to the appropriate areas for rectification.

Other audits undertaken cover sterilisation throughput, linen quality, testing procedures, Personal Protective Equipment use by CSSD staff, and sterile stock.

Results of audits are discussed at CSSD management meetings, with any areas of concern raised at the IPC meetings by the CSSD manager.

The IPC also monitors compliance with gap analysis and action implementation against the AS4187:2014.

Have improvements been implemented?

A comprehensive, CSSD focused gap analysis has been completed for AS4187:2014. A priorities action plan was developed and is monitored by the IPC on a quarterly basis to review progress reports and strategies that have been implemented or being implemented to achieve full compliance.

A broader scoped gap analysis was developed against AS4187:2014.

Monitoring activity has triggered a review of the cleaning, disinfecting, and tracking of ultrasound probes across WH, with guidance provided to the relevant clinical areas in the appropriate precautions to be undertaken to prevent cross-infection.

An approved BC will see UV processors installed in 4 of the 6 CSSDs to support the cleaning and High-level disinfection (HLD) of ultrasound probes used in the Perioperative Division. Other departments, such as Emergency, Urgent Care, Renal dialysis, radiology, Cardiac Cath Lab have installed UV processors to support in-house cleaning and HLD of probes utilizing the inbuilt UV tracking system.

Provide examples of outcomes since the previous onsite assessment:

WH has maintained strong audit performance and low infection rates since the previous onsite assessment.

This has been supported by the ongoing review of procedures and processes prompted by gap analysis against AS4187:2014 and related initiatives such as the introduction of a clinical educator to support orientation for new staff and ongoing support and learning for all staff across the health service.

CRITERION: Antimicrobial stewardship (Actions 3.18 – 3.19)

The health service organisation implements systems for the safe and appropriate prescribing and use of antimicrobials as part of an antimicrobial stewardship program.

Provide a summary of the processes that are in place to meet this criterion.

The WHAMSWG oversees all AMS activities across the network. Key activities include implementing clinical guidelines, monitoring antimicrobial utilisation and feedback to prescribers, identifying areas for in-depth evaluation, developing intervention and education strategies, overseeing AMS ward rounds, monitoring outcomes of intervention and education strategies, establishing formulary and prescribing restrictions, monitoring local trends of antimicrobial resistance rates and reporting key performance indicators to the AMS reporting line.

The organisational AMS procedure directly informs how stewardship is undertaken within the health service. This procedure aims to provide a consistent approach to the use of antimicrobials that is reflective of both the AMS NSQHS Standard and the AMS Clinical Care Standard. Furthermore, it endorses the Therapeutic Guidelines (TG) as the preferred antimicrobial prescribing reference or locally adapted guidelines, where available.

The eTGs are available service-wide, via Clinicians Health Channel (CHC) and the WH Library intranet, as well as linked within the EMR for access at the point-of-care. This application can be installed on personal electronic devices using WH tokens which allows for remote and offline access. AMS ward rounds offer an avenue for promoting the TGs and clinical staff are shown how to use relevant guidelines as well as informed about contemporary evidence.

Point-of-care tools have been developed to provide decision support including locally adapted guidelines and EMR Order Sets. The AMS service has also developed gentamicin, amikacin and vancomycin dosing calculators available via the EMR and the WH intranet.

Antimicrobial formulary restrictions are in place to promote the use of narrow spectrum antimicrobials, where appropriate. The formulary is regularly reviewed to ensure that the required antimicrobials are included and that the level of restriction placed on them is appropriate. A pre-access approval system is recorded within the EMR which reflects existing WH formulary restrictions.

Educational information is delivered to wide audiences (medical, nursing, pharmacy) and email and other media are also utilised to reinforce AMS messages (including posters and online modules). The Infectious Diseases Unit provides education at unit meetings and Medical Grand Rounds, in particular ongoing education to junior medical staff. The National Prescribing Service (NPS) antimicrobial modules must be completed by new prescribers each year and completed certificates are recorded by the Medical Workforce Unit. WeLearn modules have been developed for pharmacists on a range of topics (e.g. antimicrobial dosing and monitoring and management of Staphylococcus aureus bacteraemia). The AMS Infectious Diseases physician also delivers presentations to different groups when a gap in practice or knowledge is identified (e.g., upskilling staff on recent changes to the antimicrobial eTGs).

Targeted educational strategies may also be initiated in response to monitoring and auditing activity. AMS ward rounds allow for individual academic detailing of prescribers whereas unit meetings allow for tailored feedback to a larger audience.

Antimicrobial formulary restrictions are in place to promote the use of narrow spectrum antimicrobials, where appropriate. The formulary is regularly reviewed to ensure that the

required antimicrobials are included and that the level of restriction placed on them is appropriate. A pre-access approval system is recorded within the EMR which reflects existing WH formulary restrictions.

Sepsis, allergy, and surgical prophylaxis guidelines have all been developed in accordance with the 2020 AMS Clinical Care Standards. Auditing of sepsis management is currently underway and planning is underway for a trial antibiotic allergy delabelling service. The appropriate collection of microbiological samples is codified in Western Health guidelines (e.g., Blood Culture Collection) and promoted by nursing educators. The EMR has been set up with mandatory data entry fields (e.g., severity of allergic reaction, indication for antimicrobial) to ensure consistent documentation of antimicrobial prescriptions and allergies. The EMR also promotes adequate review of antimicrobial therapy in accordance with the clinical care standards through the requirement for approval codes for restricted antimicrobials. Patient engagement in antimicrobial choices takes place primarily through discussions between the patient (or relevant medical decision-maker) and medical/surgical teams on daily ward rounds. Medical, nursing and pharmacy staff provide detailed information regarding antimicrobials to be taken on discharge and written information is provided to supplement these discussions.

Antibiotic use is routinely monitored using a variety of different audits, which in turn are used to provide direction to AMS initiatives including priority areas to address on AMS ward rounds.

AMS ward rounds occur weekly at both Footscray and Sunshine hospitals. target units are visited by an ID physician and pharmacist and the prescribing of antimicrobials of the unit's current patients reviewed. Recommendations on patient management is provided (e.g., narrowing of spectrum, discontinuation of unnecessary antimicrobials) and broader education on antimicrobial stewardship is provided to help prescribers choose appropriate antimicrobials for their future patients. The ID unit also participates in regular stewardship rounds in the ICU and Diabetic Foot Service which facilitate appropriate antibiotic prescribing in a multidisciplinary setting.

IP undertake surgical antibiotic prophylaxis (SAP)data collection as part of the VICNISS surgical site surveillance requirements with SAP concordance reports provided to IPC and WHAMSWG for feedback to relevant surgical units. Annual Aged Care NAPs is undertaken by IP in Grant Lodge RACF. The AMS pharmacist also performs routine surgical antibiotic prophylaxis audits (SNAPS audits), the results of which are also fed back to the relevant surgical teams.

The development of antibiotic usage dashboards that will enable easier and more accurate monitoring of antibiotic usage on a unit basis has begun. Such dashboards will enable the AMS team to give timely feedback to medical and surgical teams on their antibiotic usage in useful metrics that relate to daily practice. A request for tender for software which will be able to produce these dashboards (amongst other reporting features that will assist the AMS service) has been advertised and review of the tender response is underway.

The structure of the AMS service and antimicrobial approval processes are currently being reviewed. Improvements to the functioning and structure of the AMS service are largely dependent on staffing and potential options for increasing staffing to the AMS team are being investigated.

How does the health service monitor the requirements of this criterion are being met and where is the information reported?

Several metrics are monitored to identify key priorities including areas for in-depth evaluation. The AMS service routinely reviews data on antimicrobial use, including volume and appropriateness of prescribing.

Audits performed in the last three years include the annual NAPS point-prevalence audit, bimonthly antimicrobial consumption reports (NAUSP) as well as audits on surgical antimicrobial prophylaxis, microbiology collection, antibiotic usage in critically ill COVID patients, use of COVID therapies, IV to oral switch and fluoroquinolone usage. Reports are subsequently fed back to relevant areas as well as used to inform ongoing AMS strategies or interventions.

The WHAMSWG sends regular reports, including meeting minutes and audits, to the WH Drugs and Therapeutics Committee, IPC, and as required to clinical divisions on issues impacting their units. The WHAMSWG also receives relevant reports, surveys and audits including: antibiograms from the WH Microbiology service, the National Antibiotic Utilisation Surveillance Program (NAUSP) reports, updates from Spleen Australia regarding recommendations for vaccination of splenectomy patients, National Antimicrobial Prescribing Survey (NAPS), Infection Prevention reports on hospital-acquired infections and resistance rates and Adverse Drug Reactions (ADR) Committee reports for antimicrobials.

Have improvements been implemented?

A high proportion of gentamicin-resistant gram-negative organisms were seen on the WH Antibiogram. In response to this, amikacin has been incorporated into the updated empiric antibiotic guidelines in place of gentimicin as a stat dose for septic shock and in place of gentamicin in the obstetric sepsis guideline. An amikacin dosing calculator was also developed to ensure amikacin is dosed correctly. The usage of amikacin has now been extended to septic obstetric patients with the development of the new obstetric sepsis guideline and the amikacin calculator was updated to reflect this new indication.

COVID guidelines and corresponding EMR order sets incorporating restrictions on access to COVID antivirals have been developed and continuously reviewed to ensure the appropriate prescribing of these agents.

EMR updates were also implemented to standardise the documentation of indications (options to be selected from pre-filled indication list) and streamline the use of restricted antibiotics in paediatric, neonatal patients and kidney transplant patients (pre-approved codes to be used for certain indications, removing the need to call ID).

A guideline on the management of antibiotic allergies (including antibiotic desensitisation) was developed and the appropriate management of antibiotic allergies have been consistently reinforced by the AMS rounds.

A report of antibiotic usage based off EMR prescribing was developed to provide more accurate month-to-month information on antibiotic usage than the NAUSP reports which are based on dispensing data.

The ICU AMS meeting has been reformatted to in-person rounds in ICU to facilitate decision-making and to promote engagement of ICU staff with antimicrobial stewardship and to increase the acceptance of AMS recommendations. This change has been met positively by both ICU and ID staff.

The AMS list used on AMS round has been updated to streamline the review process and increase efficiency. This change has increased the number of patients reviewed per round.

Reviews of the surgical and empiric antibiotic guidelines have been performed and changes made to ensure the regimens recommended in the guidelines reflect the Therapeutic guidelines and are appropriate based on changes in susceptibility patterns.

Numerous changes to the medication formulary have been made which will ensure timely access to life-saving antibiotics.

Provide examples of outcomes since the previous onsite assessment:

NAPS auditing shows slight improvements in the proportion of antimicrobial prescriptions that are compliant with guidelines and are appropriate. Documentation of indication and review of antimicrobials remains high. Western health compares favourably to its comparator hospitals.

NAUSP reports have shown lower usage of carbapenems than comparator hospitals at Sunshine and usage at Footscray is comparable to comparator hospitals. Footscray hospital has shown a reduction in 3rd/4th generation cephalosporin and piperacillin-tazobactam usage in the past 12 months and both Footscray and Sunshine have shown reductions in fluoroquinolone usage.

The implementation of a stat dose of amikacin for patients in septic shock and repeated education on this by the AMS ID consultant has resulted in reductions in carbapnem usage in ICU (as seen in the NAUSP reports). Reductions in Moxifloxacin usage have also been evident in 2023, likely owing to the consistent targeting of antibiotic allergy management in the AMS ward rounds.