

THE NATIONAL INFECTION PREVENTION AND CONTROL STANDARDS FOR NURSING HOMES

2025

INTRODUCTION

This document presents the standards for the Infection Prevention and Control (IPC) programme in all nursing homes (NHs) in Singapore. The National Infection Prevention and Control (NIPC) Committee was commissioned by the Ministry of Health (MOH) to develop the standards in consultation and collaboration with the Agency for Integrated Care (AIC) and NHs.

Purpose of the standards

The purpose of the standards is to provide (i) a quality assurance mechanism to ensure relevant systems are in place and (ii) a quality improvement mechanism to realise aspirational or developmental goals. This document serves as a checklist for self-assessment of the performance of a long-term care facility. The standards closely model the 'Revised National Infection Prevention and Control Guidelines for Long Term Care Facilities' and is aligned with the broad regulatory requirements for infection prevention and control. This document is applicable for all NHs in Singapore.

How to use the standards?

The standards are grouped into the following components:

- a) Governance and management
- b) Human resource
- c) Infection Prevention and control structures, systems, and processes
- d) Surveillance
- e) Outbreak management
- f) Hand hygiene
- g) Environmental and facilities management
- h) Antimicrobial resistance
- i) Microbiological support
- j) Emergency preparedness and response.

Each standard is made up of "Core" and "Expected" elements. Core elements define activities fundamental for the IPC programme. Expected elements identify good-to-have activities where NHs can work towards to improve their IPC programme. The expected elements may develop into core elements in future. The IPC standards will be regularly reviewed. During future reviews, new "Core" or "Expected" elements may be introduced.

Accompanying the set of standards is a workbook that can be used as a tool to review the existing IPC programme. The workbook is available in Annex A.

ACKNOWLEDGEMENT

The National Infection and Prevention Standards for Nursing Homes is endorsed by the National Infection Prevention and Control Committee (NIPC). The composition of the NIPC is provided in <u>Table 0.1</u>.

Table 0.1: Composition of NIPC

S/N	Name	Role	Designation
1	Adj Asst Prof Kalisvar <u>Marimuthu</u>	Chairperson	Senior Consultant, Department of Infectious Diseases, TTSH & National Centre for Infectious Diseases (NCID)
2	Prof Dale <u>Fisher</u>	Advisor	Senior Consultant, Division of Infectious Diseases, University Medicine Cluster, National University Hospital (NUH)
3	A/Prof <u>Ling</u> Moi Lin	Member	Director, Infection Prevention and Epidemiology, Singapore General Hospital (SGH)
4	Adj Asst Prof Surinder <u>Pada</u>	Member	Director and Senior Consultant, Infectious Diseases, Ng Teng Fong General Hospital (NTFGH)
5	Dr Louisa <u>Sun</u>	Member	Consultant, Division of Infectious Diseases, Alexandra Health (AH)
6	Dr <u>Tan</u> Si Huei	Member	Consultant, Laboratory Medicine, Changi General Hospital (CGH)
7	A/Prof <u>Thoon</u> Koh Cheng	Member	Senior Consultant, Infectious Disease Service and Infection Control Committee Chair, KK Women's and Children's Hospital (KKH)
8	Dr Ray <u>Lin</u>	Member	Clinical Lead, Infection Prevention and Control Office, WH
9	Ms Poh Bee Fong	Member	Deputy Director of Nursing and Infection Control Lead Nurse, TTSH
10	Dr Margaret Soon	Member	Director of Nursing, National Centre for Infectious Diseases (NCID)
11	Adj A/Prof Brenda Ang	Member (Former)	Clinical Director, Department of Infection Prevention and Control, Tan Tock Seng Hospital (TTSH)
12	Ms Sharon Wong	Member (Former)	Senior Nurse Clinician, Infection Prevention and Control, Sengkang General Hospital (SKH)

CONTENTS

INTRODUCTION	1
ACKNOWLEDGEMENT	2
CONTENTS	3
CHAPTER 1. GOVERNANCE AND MANAGEMENT	4
CHAPTER 2. HUMAN RESOURCE MANAGEMENT	6
CHAPTER 3. INFECTION PREVENTION AND CONTROL PROCESSES	9
CHAPTER 4. SURVEILLANCE PROGRAMME	12
CHAPTER 5. OUTBREAK MANAGEMENT	13
CHAPTER 6. HAND HYGIENE	15
CHAPTER 7. ENVIRONMENT AND FACILITIES MANAGEMENT	17
CHAPTER 8. ANTIMICROBIAL RESISTANCE	22
CHAPTER 9 MICROBIOLOGICAL SUPPORT	24
CHAPTER 10 EMERGENCY PREPAREDNESS AND RESPONSE	25
ANNEX A: THE NATIONAL IPC STANDARDS WORKBOOK	26

CHAPTER 1. GOVERNANCE AND MANAGEMENT

<u>Intent</u>

This chapter stipulates the standards for effective governance and management of an IPC programme. The intention of the set of standards in this chapter is to ensure:

- a) Reporting structure is linked with healthcare quality, clinical governance, and key appointment holders;
- b) Clear lines of accountability and responsibility for providing a safe and clean environment which effectively minimises the risk of infection among residents, staff and visitors; and
- c) The number/ratio of IPC staff in health and social care facilities represents the highest levels of quality and safety to residents. It is recommended that all health and social care facilities ensure that the ratio of IPC staff meets national and international best practice.

<u>Standard 1.1.</u> The licensee of the NH is accountable for the overall management, implementation, and monitoring of the IPC programme.

This standard comprises the following elements:

Element 1.1.1. Licensee of the NH ensures that the responsibilities, goals, and functions of the IPC programme are clearly documented. [Core element]

Element 1.1.2. Licensee of the NH ensures the integration of the IPC programme into the overall corporate plan of the NH, incorporating IPC outcomes as a key performance indicator (KPI) in the balanced scorecard. [Core element]

Element 1.1.3. Licensee of the NH ensures that the evaluation of the IPC programme's performance is conducted within a blame-free institutional culture. [Expected element]

<u>Standard 1.2.</u> The key appointment holder(s) of the NH regularly receives information on healthcare-associated infection (HAI) rates across the respective facilities to assess the management of such infections.

This standard comprises the following elements:

Element 1.2.1. The state of the IPC goals and strategies, as well as the impact of IPC activities, is regularly reported to key appointment holders. [Core element]

Element 1.2.2. Regular reports on surveillance indicators are shared with key appointment holders. This information is dealt with and responded to in a timely and efficient manner in order to prevent, control and reduce the risk of the spread of infection. [Core element]

Element 1.2.3. Regular reports on surveillance indicators are shared with key appointment holders. This information is addressed promptly and efficiently to prevent, control, and reduce the risk of infection spread. [Core element]

<u>Standard 1.3.</u> Financial and manpower resources are allocated to organise and execute the IPC programme.

This standard comprises the following elements:

Element 1.3.1. There is an annual budget to support the IPC programme. [Core element]

Element 1.3.2. An IPC team or equivalent is set up for the overall management, implementation, and monitoring of the IPC programme in the NH¹. [Core element]

Element 1.3.3. IPC staffing² level is appropriate for the size and complexity of care delivered by the NH (at least 1 FTE per 250 beds). [Expected element]

Element 1.3.4. A multi-disciplinary IPC Committee is appointed with clearly defined terms of reference and lines of accountability and reports to senior management. The committee's responsibilities include annual goal setting and programme evaluation. It is comprised of members from a variety of disciplines (e.g., facilities management, environmental services etc.). The goal of this interdisciplinary task force is both to bring together individuals with expertise in different areas of healthcare and ensure involvement of the senior management. The IPC Committee supports the implementation and execution of the IPC programme by the IPC team. [Core element]

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¹ Refer to Chapter 1 of the "Revised National IPC Guidelines for Long Term Care Facilities" for the recommended structure of an IPC committee.

² IPC staffing refers to infection control nurses (ICNs) and/or executives who are trained in IPC and involved in the day-to-day activities of the IPC unit/department.

CHAPTER 2. HUMAN RESOURCE MANAGEMENT

<u>Intent</u>

This chapter stipulates the standards to ensure adequate IPC training and education are provided to IPC team, infection control link officers/nurses (ICLO/N), general staff, residents and their families, and that workplace safety and health is in place. The intention of the set of standards is to reduce infection rates by:

- a) The provision of a continuous and ongoing education programme for IPC staff, as well as all staff, aimed at increasing awareness of IPC issues and improving resident safety; and
- b) Protecting staff health and safety through access to an occupational health service to promptly and effectively address occupational incidents.

<u>Standard 2.1.</u> All staff of the IPC team are trained and qualified to manage the IPC programme for the facility's size, complexity of activities, and level of risks, as well as the programme's scope. Their qualification(s) may be met through education, training, experience, certification and/or licensure.

This standard comprises the following elements:

Element 2.1.1. The person(s) charged with directing the IPC programme is qualified and trained in IPC (e.g., completion of Certification in Infection Control (CIC), Asia Pacific Society of Infection Control (APSIC), Society for Healthcare Epidemiology of America (SHEA) training courses). [Core element]

Element 2.1.2. All IPC staff have the relevant skills, competencies and appropriate qualifications and training. [Core element]

Element 2.1.3. Professionals responsible for surveillance activities are trained³ in basic epidemiology, surveillance, and IPC within 12 months of work commencement. [Expected element]

Element 2.1.4. Financial resources are provided for continuing professional education of the IPC staff. [Core element]

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³ Refers to any form of training, including on-line training, self-learning programs, informal attachments etc.

<u>Standard 2.2.</u> The NH provides basic education about IPC to all staff and other professionals. The staff education includes policies, procedures, and practices of the IPC programme.

This standard comprises the following elements:

Element 2.2.1. Both initial basic and periodic refresher training on IPC principles and practices for all health care personnel are provided annually. Orientation programmes include an IPC component (e.g., appropriate use of personal protective equipment [PPE], hand hygiene) for all new staff. [Core element]

Element 2.2.2. Staff education encompasses facility-specific IPC policies and procedures. A system is in place to monitor and enhance staff compliance with these policies and procedures, which is integrated with educational programmes. [Core element]

Element 2.2.3. Continuing education addresses IPC needs of the NH with regards to content, target audience and timing of the education (e.g., scheduled continuing education, special education based on specific needs such as outbreak). Periodic staff education is provided in response to significant trends in infection data. [Core element]

Element 2.2.4. IPC education is evaluated to ensure that it is current, relevant, and effective. [Core element]

Element 2.2.5. Resources are allocated to conduct IPC education to achieve the educational goals of the programme (includes IT support). [Core element]

Standard 2.3. The NH provides education about infection prevention and control to residents and families⁴.

This standard comprises the following elements:

Element 2.3.1. Residents and families are able to describe the relevant IPC requirements of the nursing home [Core element]

Element 2.3.2. A policy is in place to facilitate patients' and families' compliance with IPC practices. [Core element]

⁴ To refer to Chapter 2 of the "Revised National IPC Guidelines for Long Term Care Facilities" for IPC training of residents and families.

Standard 2.4. Staff health and safety in relation to IPC is protected.

This standard comprises the following elements:

Element 2.4.1. At the time employment, all staff undergo and fulfil the prevailing medical clearance requirements.

Element 2.4.2. There is easy access to PPE that is appropriate to the task. [Core element]

Element 2.4.3. The NH follows immunity requirements and MOH's recommendations for immunisation of healthcare personnel⁵. [Core element]

Element 2.4.4. There is a policy for post-exposure management of infectious diseases encountered in the workplace. [Core element]

Element 2.4.5. Institutions should have a mechanism for monitoring and preventing occupational biological risks⁶. [Core element]

⁵ To refer to the "Revised *National IPC Guidelines for Long Term Care Facilities*" and the latest MOH circulars on immunisation of healthcare workers, and Licensing Terms and Conditions under PHMCA/HCSA for the recommended vaccination list and immunity requirements.

⁶ Occupational biological risks may include sharps and needlesticks injuries, exposure to chemical disinfectants etc.

CHAPTER 3. INFECTION PROCESSES

PREVENTION

AND

CONTROL

<u>Intent</u>

This chapter stipulates the standards to ensure structures are in place to effectively implement a comprehensive IPC programme to reduce the risks of HAIs in residents and health care workers. The intention of the set of standards is to ensure:

- a) A risk-based approach to run programmes to reduce risks of HAIs;
- b) A strategy is in place to deal with urgent critical issues and plans for continuous improvement over the years; and
- c) A comprehensive programme that crosses all levels of the facility, to reduce the risk of healthcare-associated infections in residents and healthcare workers.

<u>Standard 3.1.</u> The IPC programme is based on current scientific knowledge, accepted practice guidelines, and Singapore's laws and regulations.

This standard comprises the following elements:

Element 3.1.1. IPC policies and guidelines meet the requirements of the national IPC guidelines. [Core element]

Element 3.1.2. IPC policies and guidelines are reviewed and updated on a regular basis i.e., 3-yearly. [Core element]

<u>Standard 3.2.</u> Infection control risks are identified annually, and an annual plan is developed with risk-reduction goals and measurable objectives.

This standard comprises the following elements:

Element 3.2.1. The IPC programme incorporates an annual infection risk assessment that evaluates and prioritises potential risks for infections, contamination, and exposures. The assessment also evaluates the programme's preparedness to eliminate or mitigate such risks, considering the care complexities required for NH residents. [Core element]

Element 3.2.2. The priorities identified from the risk assessment are incorporated into the annual IPC work plan. [Core element]

Element 3.2.3. Infection control strategies are implemented to reduce the rates of infection for the identified priorities. Initiatives are planned in accordance with these priorities to reduce HAIs. [Core element]

Element 3.2.4. The IPC programme is reviewed at least once a year to reassess the NH's needs and to determine which elements are required to continue to meet the goals of the programme. [Core element]

Element 3.2.5. Strategic actions, including setting annual goals and defining relevant KPIs, are taken to enhance the programme over time. [Core element]

Element 3.2.6. Annual IPC goals are shared with all relevant stakeholders. [Core element]

<u>Standard 3.3.</u> The IPC team has the responsibility and authority to monitor and advise on the implementation of the IPC Programme.

This standard comprises the following elements:

Element 3.3.1. The IPC team is empowered to ensure that the IPC programme meets current national standards and requirements, as well as the requirements of the NH. [Core element]

Element 3.3.2. The IPC team meets regularly (i.e., at least 3-monthly) to review performance against IPC programme goals. [Core element]

Element 3.3.3. The IPC team conducts prospective outcome indicator measurement for signal surveillance, process indicator measurement, or point prevalence surveillance⁷. [Core element]

Element 3.3.4. Regular reports (i.e., at least quarterly) on surveillance results are sent to the senior management, key appointment holders, and relevant stakeholders (e.g., nursing managers). [Core element]

Element 3.3.5. Regular audits are done systematically to evaluate efficacy of implementation of IPC policies and procedures, and timely feedback is given to management and relevant stakeholders for follow-up action, and for use in the NH's education programmes. [Core element]

⁷ Refer to Chapter 1 of the "Revised National IPC Guidelines for Long Term Care Facilities" for the quality indicators.

<u>Standard 3.4.</u> The IPC programme is coordinated involving medical, nursing, operations and others assigned with IPC responsibilities.

This standard comprises the following element:

Element 3.4.1. Regular meetings are held between IPC team and the IPC liaison personnel⁸ at least every 6-monthly and ad-hoc basis, whenever needed. [Core element]

<u>Standard 3.5.</u> Information management systems support the infection prevention and control programme.

This standard comprises the following elements:

Element 3.5.1. IT support is available for IPC education and training. [Core element]

Element 3.5.2. IT support is available for IPC surveillance activities. [Core element]

Element 3.5.3. IT support is available for IPC audit activities. [Core element]

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⁸ IPC liaison personnel refer to infection prevention & control liaison nurses/officers who are appointed as IPC champions in designated work areas.

CHAPTER 4. SURVEILLANCE PROGRAMME

<u>Intent</u>

The overall purpose of surveillance is to reduce the incidence of HAIs and therefore reduce the associated morbidity, mortality, and costs. A surveillance programme also provides useful data on incidence and types of infections which not only can be used to determine the efficacy of IPC practices, but also to better identify future preventative practices and risk factors. Surveillance followed by action for improvement can have a significant impact on rates of HAIs.

This chapter stipulates a set of standards to ensure HAIs and antimicrobial resistance are monitored, audited, and reported through a systematic surveillance programme.

<u>Standard 4.1.</u> There is a defined and documented surveillance programme. Information is used to evaluate and support the activities of the IPC Programme.

This standard comprises the following elements:

Element 4.1.1. There is a surveillance programme in line with national guidelines to monitor incidence of common infectious disease symptoms e.g., symptoms of respiratory illness (fever, cough, running nose, sore throat, etc.), gastroenteritis (diarrhoea, vomiting, etc)⁹. This is done systematically by keeping records of residents and staff with such symptoms and analysing the data on a regular and ongoing basis. [Core element]

Element 4.1.2. Surveillance data is utilised to promptly implement corrective actions when the transmission of epidemiologically important organisms or increasing and persistently elevated rates of HAIs are detected. [Core element]

Element 4.1.3. Information from the surveillance programme is reported on a 6-monthly basis to senior management and key appointment holders of the NH. [Core element]

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⁹ To refer to the "Guidelines on the notification of clusters of infectious diseases in Singapore for institutions in long-term care sector".

CHAPTER 5. OUTBREAK MANAGEMENT

<u>Intent</u>

The efficient detection and management of outbreaks is essential for minimising the impact on implicated persons.

This chapter stipulates a set of standards to ensure infection outbreaks are detected early, and managed and controlled in a timely, efficient, and effective manner.

Standard 5.1. Outbreaks are managed in a systematic manner.

This standard comprises the following elements:

Element 5.1.1. There is an Outbreak Management Policy. [Core element]

Element 5.1.2. Prompt notification systems to the IPC team are in place for suspected or confirmed outbreaks. [Core element]

Element 5.1.3. MOH is informed of:

- a) Any resident or staff with a notifiable disease under the Infectious Diseases
 Act (IDA) or any other diseases as required by MOH for the purposes of
 surveillance, outbreak investigation and response within stipulated time; and
- b) Outbreaks of HAIs that fulfil MOH's criteria for reporting within stipulated time. [Core element]

Element 5.1.4. Outbreak reports are compiled at the end of outbreak management, incorporating lessons learned and recommendations to enhance the IPC programme where applicable. [Core element]

<u>Standard 5.2.</u> The Outbreak Management Policy includes escalation of reporting to the appropriate institutional leadership, and the Ministry of Health (MOH).

This standard comprises the following element:

Element 5.2.1. There are established systems to notify MOH and the appropriate institutional leadership of outbreaks that fulfil MOH's criteria for reporting within required time frame. [Core element]

Standard 5.3. In the event of an outbreak, the IPC team/Outbreak Control Team liaises directly with the appropriate head of services – this should lead to the development of a clear, documented, and well communicated operational plan (including resource consequences) for managing and containing the outbreak. This should include appropriate monitoring mechanisms.

This standard comprises the following elements:

Element 5.3.1. Respective heads and supervisors are notified promptly of outbreaks at their clinical areas upon identification by the IPC team. [Core element]

Element 5.3.2. Outbreaks are closely monitored, and regular updates are given to relevant stakeholders and NH leaders. [Core element]

CHAPTER 6. HAND HYGIENE

<u>Intent</u>

Hand hygiene is recognised internationally as the single most important preventative measure in the transmission of pathogens, particularly in health and social care facilities. Hand hygiene refers to the use of soap/disinfectant and water as provided at a wash-hand basin, and also the use of alcohol-based handrubs which can be used to decontaminate hands if not visibly dirty or soiled.

This chapter stipulates a set of standards to ensure:

- a) Hand hygiene practices that prevent, control, and reduce the spread of HAIs are in place; and
- b) A culture of hand hygiene is embedded in the facility.

<u>Standard 6.1.</u> There are policies, procedures, and systems for hand hygiene practices to reduce the risk of the spread of infection.

This standard comprises the following elements:

Element 6.1.1. Hand hygiene policy promotes preferential use of alcohol-based handrub over soap and water except when hands are visibly soiled (e.g., blood, body fluid). [Core element]

Element 6.1.2. World Health Organisation (WHO) 4 Moments for Hand Hygiene is understood by staff. [Core element]

Element 6.1.3. Alcohol-based handrub is easily available at the point of care. [Core element]

Element 6.1.4. Staff are aware and practice hand hygiene before and after removal of gloves. [Core element]

<u>Standard 6.2.</u> A multidisciplinary, multifaceted hand hygiene programme must be developed and implemented in all health care settings.

This standard comprises the following element:

Element 6.2.1. Self-assessment of current hand hygiene activities is done annually (e.g., using the WHO Hand Hygiene Self-Assessment Framework). The results are used to develop initiatives to enhance hand hygiene compliance. [Expected element]

<u>Standard 6.3.</u> The WHO multimodal strategy is used to develop initiatives for improvement.

This standard comprises the following elements:

Element 6.3.1. There is mandatory training¹⁰ of all staff at time of employment, with ongoing education on hand hygiene provided at least every 2-yearly [Core element]

Element 6.3.2. Internal direct observation of hand hygiene is monitored at least every 6 months or more often and is used for internal improvement purposes. [Expected element]

Element 6.3.3. Hand hygiene information is easily available for all staff and visitors in the NH. [Core element]

¹⁰ Refers to any form of training including on-line training, self-learning programmes etc.

CHAPTER 7. ENVIRONMENT AND FACILITIES MANAGEMENT

<u>Intent</u>

It is vital that the physical environment is planned and maintained to maximise resident safety and the needs of the community it serves. It is also essential that high levels of cleanliness and hygiene are maintained to ensure the safety and well-being of its residents and staff.

This chapter stipulates a set of standards to ensure the physical environment, facilities and resources are managed to minimise the risk of infection to residents, staff, and visitors.

<u>Standard 7.1.</u> Adequate resources must be devoted to housekeeping services in all NHs.

This standard comprises the following elements:

Element 7.1.1. There is at least one individual hired by the NH who is responsible for overseeing housekeeping for each NH. [Core element]

Element 7.1.2. There are written procedures for cleaning and disinfection of care areas and equipment. [Core element]

Element 7.1.3. All staff engaged in environmental cleaning are trained on the use of PPE, types of disinfectants and methods of cleaning. Staff should also be aware of the required frequency of cleaning. [Core element]

Standard 7.2. Cleaning schedules are developed, with frequency of cleaning reflecting whether surfaces are high-touch or low-touch; the type of activity taking place in the area and the infection risk associated with it; the vulnerability of the residents housed in the area; and the probability of contamination.

This standard comprises the following elements:

Element 7.2.1. There is a table of the cleaning schedule for various areas of the NH. [Core element]

Element 7.2.2. Clear responsibilities are defined amongst healthcare workers on cleaning of the work area. [Core element]

Element 7.2.3. There are written policies and procedures for the appropriate cleaning of medical equipment, that clearly define the frequency and level of cleaning, and who is responsible for the cleaning. [Core element]

Element 7.2.4. The IPC team is involved in all product evaluation of items that may pose infection control issues during use. [Core element]

<u>Standard 7.3.</u> There should be a process in place to measure the quality of cleaning in the NH.

This standard comprises the following elements:

Element 7.3.1. Methods of auditing include both visual assessment and, if possible, one of the following tools: residual bio burden, or environmental marking. [Expected element]

Element 7.3.2. Results of cleaning audits are collated and analysed monthly with feedback to staff. [Expected element]

Element 7.3.3. There is a competency-based training programme for environmental cleaning. [Core element]

<u>Standard 7.4.</u> An environmental action plan should be developed to identify and correct cleaning deficiencies.

This standard comprises the following element:

Element 7.4.1. An annual environmental hygiene action plan, as described in the 'National IPC Guidelines for Long Term Care Facilities', is developed in consultation with relevant stakeholders, based on audit results and risk assessments. [Expected element]

<u>Standard 7.5.</u> The structural design and layout of each NH complies with evidence-based best practice for IPC, risk management and other specialised design specifications for healthcare facilities.

This standard comprises the following elements:

Element 7.5.1. There is physical separation for storage of clean and dirty items. [Core element]

Element 7.5.2. There is a minimum clearance of at least 1.5 m between the edges of one bed to another bed in multiple residents' bedrooms. [Core element]

Element 7.5.3. Isolation rooms, if any, should have a minimum size of 25 m² to meet the isolation needs. [Expected element]

<u>Standard 7.6.</u> The IPC team is consulted at all stages of the planning and implementation process and during all, new builds, environmental/systems repairs and refurbishments.

This standard comprises the following element:

Element 7.6.1. The IPC team is represented in committees responsible for construction and renovation planning. [Core element]

<u>Standard 7.7.</u> The possible spread of infection is minimised during construction/renovation/demolition.

This standard comprises the following element:

Element 7.7.1. The NH implements IPC measures relevant to construction, renovation, demolition, and repairs, including performance of an IPC risk assessment, before a project is started. [Core element]

<u>Standard 7.8.</u> Safe handling of linen is required to prevent exposure of environmental services workers and laundry staff to infection risk.

This standard comprises the following elements:

Element 7.8.1. Used linen soiled with blood, body fluids, secretions and excretions are handled, transported, and processed in a manner that prevents skin and mucus membrane exposure. [Core element]

Element 7.8.2. There is clear segregation of clean and contaminated linen. [Core element]

Element 7.8.3. Clean linen is packaged, stored, and transported in such a way to protect it from contamination. [Core element]

<u>Standard 7.9.</u> Disposal of infectious waste and body fluids is managed to minimise infection transmission risk.

This standard comprises the following elements:

Element 7.9.1. Waste is discarded into the appropriate waste bins (i.e., biohazardous waste is discarded into biohazard bins, general waste is discarded into general waste bin). [Core element]

Element 7.9.2. Safety devices are used to mitigate risk for sharps injuries amongst healthcare workers. [Core element]

Element 7.9.3. Training is provided to all staff who prepare and/or administer injections and parenteral infusions (if applicable). [Core element]

<u>Standard 7.10.</u> The NH identifies and implements practices to reduce the risk of injury and infection from the handling and management of sharps and needles and waste.

This standard comprises the following elements:

Element 7.10.1. A sharps injury prevention programme is implemented in the NH. [Core element]

Element 7.10.2. Baseline information on sharps injuries, along with weaknesses identified in the assessment of programme operation processes, is used to determine priority areas in prevention programme. [Core element]

Element 7.10.3. There is a plan for providing employee education and training on blood-borne pathogen prevention at the time of hire, as well as on an annual basis. [Expected element]

Element 7.10.4. A system is in place to ensure that new safety devices are assessed for appropriate use in the NH. [Expected element]

Element 7.10.5. Policies on medical waste management are in place. [Core element]

Element 7.10.6. Multi-dosing vials are limited to individual resident use, if practiced. [Core element].

<u>Standard 7.11.</u> The NH prepares food and nutrition products using documented desirable sanitation and temperatures.

This standard comprises the following element:

Element 7.11.1. Regular audits are done to ensure a clean environment during food preparation. [Core element]

<u>Standard 7.12.</u> All catering areas are effectively managed and maintained to minimise the possible spread of infection.

This standard comprises the following element:

Element 7.12.1. Food hygiene practices (i.e., hand hygiene practices, food handling, clean premises, specific food types) should be done in accordance with the Singapore Food Agency's (SFA) Guidelines¹¹. [Core element]

<u>Standard 7.13.</u> Ventilation and isolation policies are effective to minimise the possible spread of infection.

This standard comprises the following element:

Element 7.13.1. Permanent environmental ventilation is available in care areas. Ventilation, whether natural, mechanical, or mixed mode, should be optimised to prevent dead space. [Core element]

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¹¹ The SFA's guidelines for food hygiene practices can be accessed at https://www.sfa.gov.sg/food-retail/food-hygiene-practices-quidelines/

CHAPTER 8. ANTIMICROBIAL RESISTANCE

Intent

Healthcare institutions worldwide are increasingly faced with the emergence and transmission of multidrug-resistant organisms (MDROs). Residents can be harmed by MDRO infections. Left unchecked, the spread of MDROs will also increase the burden on healthcare infrastructure e.g., isolation rooms, as well as increase healthcare costs. The inappropriate use of antimicrobials (e.g., antibiotics) is associated with the emergence and rising levels of antimicrobial resistance. The emergence of antimicrobial resistance can be controlled with an antimicrobial stewardship programme (ASP).

This chapter stipulates a set of standards to ensure that there are systems in place to reduce and control antimicrobial resistance.

<u>Standard 8.1.</u> Precautionary measures are used to prevent development and/or spread of MDROs.

This standard comprises the following elements:

Element 8.1.1. Oversight of antimicrobial usage is in place to ensure adherence to the antibiotic guidelines. [Core element]

Element 8.1.2. Hand hygiene is practised in accordance with institutional guidelines. [Core element]

Element 8.1.3. Environmental hygiene is practised in accordance with institutional guidelines. [Core element]

<u>Standard 8.2.</u> There are policies, procedures, and outcomes for the evidence based best usage of antimicrobials and the reduction of antimicrobial resistance.

This standard comprises the following elements:

Element 8.2.1. The NH has a policy that requires prescribers to document an indication for all antimicrobials in the medical record or during order entry. [Core element]

Element 8.2.2. The NH has antimicrobial guidelines based on local antibiograms to assist with antimicrobial selection for common clinical conditions. [Core element]

Element 8.2.3. There is a formal procedure for clinicians to review the appropriateness of antimicrobial at or after 48 hours from initial orders. [Core element]

Standard 8.3. An antimicrobial stewardship programme is in place.

This standard comprises the following elements:

Element 8.3.1. The NH demonstrates leadership support for efforts to improve antimicrobial use (antimicrobial stewardship). [Core element]

Element 8.3.2. The NH has identified individuals accountable for leading antimicrobial stewardship activities. [Expected element]

Element 8.3.3. The NH has written policies on antimicrobial prescribing. [Expected element]

<u>Standard 8.4.</u> Overall antimicrobial use is audited annually. The data should include dose, duration and indication, and route of antimicrobial therapy. All data collected is reviewed and used to improve the quality of the service provided.

This standard comprises the following elements:

Element 8.4.1. An audit on antimicrobial utilisation is done annually. [Expected element]

Element 8.4.2. Audit includes dose, duration and indication, and route of antimicrobial therapy. [Expected element]

Element 8.4.3. Audit results are used to improve the antimicrobial stewardship program. [Expected element]

Element 8.4.4. The NH provides clinical prescribers with feedback about their antimicrobial prescribing practices. [Expected element]

CHAPTER 9 MICROBIOLOGICAL SUPPORT

Intent

Microbiological services are required to support the functions of an effective IPC service. The service is needed to support best practice for clinical decisions, surveillance of HAI and antimicrobial resistance and outbreak detection and control. The level of microbiological support required will depend on a number of factors such as the type and size of service provided and the level of risk to the service user.

This chapter stipulates a set of standards to ensure that microbiological services are available in a timely and effective manner to support IPC services.

<u>Standard 9.1.</u> There is daily support by a nationally accredited Microbiology Laboratory.

This standard comprises the following elements:

Element 9.1.1. There is a recognised accredited microbiology laboratory serving the NH. [Core element]

Element 9.1.2. Molecular typing of organisms is done to help confirm outbreaks, where required. [Expected element]

Element 9.1.3. There is a licensed clinical laboratory that nursing homes can engage for sample testing and reporting of culture and sensitivity results, as needed. [Core element]

Element 9.1.4. Critical results can be communicated on a 24-hour basis. [Core element]

<u>Standard 9.2.</u> There are systems in place for the rapid reporting of epidemiologically important organisms to the IPC team.

This standard comprises the following element:

Element 9.2.1. Timely reporting of epidemiological important organisms is made to the IPC team for their necessary action to be taken to prevent HAIs. [Core element]

CHAPTER 10 EMERGENCY PREPAREDNESS AND RESPONSE

<u>Intent</u>

Preparedness plans should be in place for a NH to respond promptly to prevent spread of the infectious disease of concern. The primary goal is to protect the safety and well-being of residents, staff, and visitors. Simultaneously, the ability to continue the essential functions of care to residents must be maintained.

This chapter stipulates a set of standards to ensure preparedness plans are in place to respond to any infectious disease outbreaks of national concern.

<u>Standard 10.1.</u> There is a written plan to manage emerging infectious disease outbreaks of national concern.

This standard comprises the following elements:

Element 10.1.1. A detailed written plan is developed to manage response to an emerging infectious disease outbreak that is of national concern. [Core element]

Element 10.1.2. This plan is accessible to all staff. [Core element]

Element 10.1.3. The plan is aligned with the national preparedness plan. [Core element]

Standard 10.2. Systems are in place to validate the written preparedness plan.

This standard comprises the following element:

Element 10.2.1. Tabletop exercises or drills should be conducted at least 2-yearly to validate the written preparedness plan. [Core element].

ANNEX A: THE NATIONAL IPC STANDARDS WORKBOOK

This workbook has been developed for individuals within the nursing home facility who are responsible for the infection prevention standards plan, as well as strategizing and implementing measures to address gaps in existing processes/programme.

1	GOVERNANCE AND MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
1.1.	The licensee of the nursing home (NH) is accountable (IPC) programme.	ole for the o	verall managen	nent, impleme	ntation, and monitoring of the infection prevention and control
1.1.1.	Licensee of the NH ensures that the responsibilities, goals, and functions of the IPC programme are clearly documented.	Core element			
1.1.2.	Licensee of the NH ensures the integration of the IPC programme into the overall corporate plan of the NH, incorporating IPC outcomes as a key performance indicator (KPI) in the balanced scorecard.	Core element			
1.1.3.	Licensee of the NH ensures that the evaluation of the IPC programme's performance is conducted within a blame-free institutional culture.	Expected element			
1.2.	The key appointment holder(s) of the NH regularly rassess the management of such infections.	eceives info	ormation on hea	althcare-assoc	ciated infection (HAI) rates across the respective facilities to
1.2.1.	The state of the IPC goals and strategies, as well as the impact of IPC activities, is regularly reported to key appointment holders.	Core element			
1.2.2.	Regular reports on surveillance indicators are shared with key appointment holders. This information is dealt with and responded to in a timely and efficient manner in order to prevent, control and reduce the risk of the spread of infection.	Core element			

1	GOVERNANCE AND MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
1.2.3.	Regular reports on surveillance indicators are shared with key appointment holders. This information is addressed promptly and efficiently to prevent, control, and reduce the risk of infection spread.	Core element			
1.3.	Financial and manpower resources are allocated to	organise ar	nd execute the	IPC programm	e.
1.3.1.	There is an annual budget to support the IPC programme.	Core element			
1.3.2.	An IPC team or equivalent is set up for the overall management, implementation, and monitoring of the IPC programme in the NH.	Core element			
1.3.3.	IPC staffing level is appropriate for the size and complexity of care delivered by the NH (at least 1 FTE per 250 beds).	Core element			
1.3.4.	A multi-disciplinary IPC Committee is appointed with clearly defined terms of reference and lines of accountability and reports to senior management. The committee's responsibilities include annual goal setting and programme evaluation. It is comprised of members from a variety of disciplines (e.g., facilities management, environmental services etc.). The goal of this interdisciplinary task force is both to bring together individuals with expertise in different areas of healthcare and ensure involvement of the senior management. The IPC Committee supports the implementation and execution of the IPC programme by the IPC team.	Core element			

2	HUMAN RESOURCE MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
2.1.	All staff of the IPC team are trained and qualified to the programme's scope. Their qualification(s) may				ity's size, complexity of activities, and level of risks, as well as rience, certification and/or licensure.
2.1.1.	The person(s) charged with directing the IPC programme is qualified and trained in IPC (e.g., completion of Certification in Infection Control (CIC), Asia Pacific Society of Infection Control (APSIC), Society for Healthcare Epidemiology of America (SHEA) training courses).	Core element			
2.1.2.	All IPC staff have the relevant skills, competencies and appropriate qualifications and training.	Core element			
2.1.3.	Professionals responsible for surveillance activities are trained in basic epidemiology, surveillance, and IPC within 12 months of work commencement.	Expected element			
2.1.4.	Financial resources are provided for continuing professional education of the IPC staff.	Core element			
2.2.	The NH provides basic education about IPC to all s programme.	taff and oth	er professiona	ls. The staff ed	ucation includes policies, procedures, and practices of the IPC
2.2.1.	Both initial basic and periodic refresher training on IPC principles and practices for all health care personnel are provided annually. Orientation programmes include an IPC component (e.g., appropriate use of personal protective equipment [PPE], hand hygiene) for all new staff.	Core element			
2.2.2.	Staff education encompasses facility-specific IPC policies and procedures. A system is in place to monitor and enhance staff compliance with these policies and procedures, which is integrated with educational programmes.	Core element			

2	HUMAN RESOURCE MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
2.2.3.	Continuing education addresses IPC needs of the NH with regards to content, target audience and timing of the education (e.g., scheduled continuing education, special education based on specific needs such as outbreak). Periodic staff education is provided in response to significant trends in infection data.	Core element			
2.2.4.	IPC education is evaluated to ensure that it is current, relevant, and effective.	Core element			
2.2.5.	Resources are allocated to conduct IPC education to achieve the educational goals of the programme (includes IT support).	Core element			
2.3	The NH provides education about infection prevent	ion and con	trol to residen	ts and families	
2.3.1.	Residents and families are able to describe the relevant IPC requirements of the nursing home.	Core element			
2.3.2.	A policy is in place to facilitate patients' and families' compliance with IPC practices.	Core element			
2.4	Staff health and safety in relation to IPC is protecte	d.		'	
2.4.1.	At time of employment, staff are evaluated for conditions relating to communicable diseases that can be spread in the healthcare setting.	Core element			
2.4.2.	There is easy access to personal protective equipment (PPE) that is appropriate to the task.	Core element			
2.4.3.	The NH follows immunity requirements and the Ministry of Health's (MOH) recommendations for immunisation of healthcare personnel.	Core element			
2.4.4.	There is a policy for post-exposure management of infectious diseases encountered in the workplace.	Core element			

2	HUMAN RESOURCE MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
	Institutions should have a mechanism for monitoring and preventing occupational biological risks.	Core element			

3	INFECTION PREVENTION AND CONTROL PROCESSES	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
3.1.	The IPC programme is based on current scientific	knowledge,	accepted praction	ce guidelines,	and Singapore's laws and regulations.
3.1.1.	IPC policies and guidelines meet the requirements of the national IPC guidelines.	Core element			
3.1.2.	IPC policies and guidelines are reviewed and updated on a regular basis i.e., 3-yearly.	Core element			
3.2.	Infection control risks are identified annually, and	an annual p	lan is developed	with risk-red	uction goals and measurable objectives.
3.2.1.	The IPC programme incorporates an annual infection risk assessment that evaluates and prioritises potential risks for infections, contamination, and exposures. The assessment also evaluates the programme's preparedness to eliminate or mitigate such risks, considering the care complexities required for NH residents.	Core element			
3.2.2.	The priorities identified from the risk assessment are incorporated into the annual IPC work plan.	Core element			
3.2.3.	Infection control strategies are implemented to reduce the rates of infection for the identified priorities. Initiatives are planned in accordance with these priorities to reduce HAIs.	Core element			

3	INFECTION PREVENTION AND CONTROL PROCESSES	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
3.2.4.	The IPC programme is reviewed at least once a year to reassess the NH's needs and to determine which elements are required to continue to meet the goals of the programme.	Core element			
3.2.5.	Strategic actions, including setting annual goals and defining relevant KPIs, are taken to enhance the programme over time.	Core element			
3.2.6.	Annual IPC goals are shared with all relevant stakeholders.	Core element			
3.3.	The IPC team has the responsibility and authority	to monitor a	nd advise on the	implementat	ion of the IPC Programme.
3.3.1.	The IPC team is empowered to ensure that the IPC programme meets current national standards and requirements, as well as the requirements of the NH.	Core element			
3.3.2.	The IPC team meets regularly (i.e., at least 3-monthly) to review performance against IPC programme goals.	Core element			
3.3.3.	The IPC team conducts prospective outcome indicator measurement for signal surveillance, process indicator measurement, or point prevalence surveillance.	Core element			
3.3.4.	Regular reports (i.e., at least quarterly) on surveillance results are sent to the senior management, key appointment holders, and relevant stakeholders (e.g., nursing managers).	Core element			

3	INFECTION PREVENTION AND CONTROL PROCESSES	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
3.3.5.	Regular audits are done systematically to evaluate efficacy of implementation of IPC policies and procedures, and timely feedback is given to the management and relevant stakeholders for follow-up action, and for use in the NH's education programmes.	Core element			
3.4.	The IPC programme is coordinated involving medi	cal, nursing	, operations and	others assign	ned with IPC responsibilities.
3.4.1.	Regular meetings are held between IPC team and the IPC liaison personnel at least every 6-monthly and ad hoc basis, whenever needed.	Core element			
3.5.	Information management systems support the infe	ction preve	ntion and contro	l programme.	
3.5.1.	IT support is available for IPC education and training.	Core element			
3.5.2.	IT support is available for IPC surveillance activities.	Core element			
3.5.3.	IT support is available for IPC audit activities.	Core element			

4	SURVEILLANCE PROGRAMME	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
4.1.	There is a defined and documented surveillance p	rogramme. I	nformation is us	ed to evaluate	e and support the activities of the IPC Programme.
4.1.1.	There is a surveillance programme in line with national guidelines to monitor incidence of common infectious disease symptoms e.g., symptoms of respiratory illness (fever, cough, running nose, sore throat, etc.), gastroenteritis (diarrhoea, vomiting, etc). This is done systematically by keeping records of residents and staff with such symptoms and analysing the data on a regular and ongoing basis.	Core element			
4.1.2.	Surveillance data is utilised to promptly implement corrective actions when the transmission of epidemiologically important organisms or increasing and persistently elevated rates of HAIs are detected.	Core element			
4.1.3.	Information from the surveillance programme is reported on a 6-monthly basis to senior management and key appointment holders of the NH.	Core element			

5	OUTBREAK MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
5.1.1.	There is an Outbreak Management Policy.	Core element			
5.1.2.	Prompt notification systems to the IPC team are in place for suspected or confirmed outbreaks.	Core element			

5	OUTBREAK MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
5.1.3.	MOH is informed of: a) Any resident or staff with a notifiable disease under the Infectious Diseases Act (IDA) or any other diseases as required by MOH for the purposes of surveillance, outbreak investigation and response within stipulated time; and b) Outbreaks of HAIs that fulfil MOH's criteria for reporting within stipulated time.	Core element			
5.1.4.	Outbreak reports are compiled at the end of outbreak management, incorporating lessons learned and recommendations to enhance the IPC programme where applicable.	Core element			
5.2.	The Outbreak Management Policy includes escalat	ion of repor	ting to the appro	priate institut	tional leadership, and MOH.
5.2.1.	There are established systems to notify MOH and the appropriate institutional leadership of outbreaks that fulfil MOH's criteria for reporting within required time frame.	Core element			
5.3.		perational p			propriate head of services – this should lead to the development quences) for managing and containing the outbreak. This
5.3.1.	Respective heads and supervisors are notified promptly of outbreaks at their clinical areas upon identification by the IPC team.	Core element			
5.3.2.	Outbreaks are closely monitored, and regular updates are given to relevant stakeholders and NH leaders	Core element			

6	HAND HYGIENE	ELEMENT TYPE	MET	NOT MET	ACTION PLAN			
6.1.	There are policies, procedures, and systems for hand hygiene practices to reduce the risk of the spread of infection.							
6.1.1.	Hand hygiene policy promotes preferential use of alcohol-based handrub over soap and water, except when hands are visibly soiled (e.g., blood, body fluid).	Core element						
6.1.2	World Health Organisation (WHO) 4 Moments for Hand Hygiene is understood by staff.	Core element						
6.1.3	Alcohol-based handrub is easily available at the point of care.	Core element						
6.1.4	Staff are aware and practice hand hygiene before and after removal of gloves.	Core element						
6.2.	A multidisciplinary, multifaceted hand hygiene prog	gramme mu	st be developed	and impleme	nted in all health care settings.			
6.2.1.	Self-assessment of current hand hygiene activities is done annually (e.g., using the World Health Organisation [WHO] Hand Hygiene Self-Assessment Framework). The results are used to develop initiatives to enhance hand hygiene compliance.	Expected element						
6.3.	The WHO multimodal strategy is used to develop in	itiatives for	improvement.					
6.3.1.	There is mandatory training of all staff at time of employment, with ongoing education on hand hygiene provided at least every 2-yearly.	Core element						
6.3.2.	Internal direct observation of hand hygiene is monitored at least every 6 months or more often and is used for internal improvement purposes.	Expected element						
6.3.3.	Hand hygiene information is easily available for all staff and visitors in the NH.	Core element						

7	ENVIRONMENT AND FACILITIES MANAGEMENT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
7.1.	Adequate resources must be devoted to housekee	ping service	es in all NHs.		
7.1.1.	There is at least one individual hired by the NH who is responsible for overseeing housekeeping for each NH.	Core element			
7.1.2.	There are written procedures for cleaning and disinfection of care areas and equipment.	Core element			
7.1.3.	All staff engaged in environmental cleaning are trained on the use of PPE, types of disinfectants, and methods of cleaning. Staff should also be aware of the required frequency of cleaning.	Core element			
7.2.	Cleaning schedules are developed, with frequency the area and the infection risk associated with it; the second sec				e high-touch or low-touch; the type of activity taking place in the area; and the probability of contamination.
7.2.1.	There is a table of the cleaning schedule for various areas of the NH.	Core element			
7.2.2.	Clear responsibilities are defined amongst healthcare workers on cleaning of the work area.	Core element			
7.2.3.	There are written policies and procedures for the appropriate cleaning of medical equipment, that clearly define the frequency and level of cleaning, and who is responsible for the cleaning.	Core element			
7.2.4.	The IPC team is involved in all product evaluation of items that may pose infection control issues during use.	Core element			

7.3.	There should be a process in place to measure the	quality of c	leaning in the Ni	н.		
7.3.1.	Methods of auditing include both visual assessment and, if possible, one of the following tools: residual bio burden, or environmental marking.	Expected element				
7.3.2.	Results of cleaning audits are collated and analysed monthly with feedback to staff.	Expected element				
7.3.3.	There is a competency-based training programme for environmental cleaning.	Core element				
7.4.	An environmental action plan should be developed	d to identify a	and correct clea	ning deficiencie	9S.	
7.4.1.	An annual environmental hygiene action plan, as described in the 'National IPC Guidelines for Long Term Care Facilities', is developed in consultation with relevant stakeholders, based on audit results and risk assessments.	Expected element				
7.5.	The structural design and layout of each NH comp specifications for healthcare facilities.	lies with evid	dence-based bes	st practice for II	PC, risk management and other specialised design	
7.5.1.	There is physical separation for storage of clean and dirty items.	Core element				
7.5.2.	There is a minimum clearance of at least 1.5 m between the edges of one bed to another bed in multiple residents' bedrooms.	Core element				
7.5.3.	Isolation rooms, if any, should have a minimum size of 25 m ² to meet the isolation needs.	Expected element				
7.6.	The IPC team is consulted at all stages of the planning and implementation process and during all, new builds, environmental/systems repairs and refurbishments.					
7.6.1.	The IPC team is represented in committees responsible for construction and renovation planning.	Core element				

7.7.	The possible spread of infection is minimised duri	ng construc	tion/renovation/d	emolition.	
7.7.1.	The NH implements IPC measures relevant to construction, renovation, demolition, and repairs, including performance of an IPC risk assessment, before a project is started.	Core element			
7.8.	Safe handling of linen is required to prevent expos	ure of envir	onmental service	s workers and	laundry staff to infection risk.
7.8.1.	Used linen soiled with blood, body fluids, secretions and excretions are handled, transported, and processed in a manner that prevents skin and mucus membrane exposure	Core element			
7.8.2.	There is clear segregation of clean and contaminated linen.	Core element			
7.8.3.	Clean linen is packaged, stored, and transported in such a way to protect it from contamination.	Core element			
7.9.	Disposal of infectious waste and body fluids is ma	naged to m	inimise infection t	transmission ri	sk.
7.9.1.	Waste is discarded into the appropriate waste bins (i.e., biohazardous waste is discarded into biohazard bins, general waste is discarded into general waste bin).	Core element			
7.9.2.	Safety devices are used to mitigate risk for sharps injuries amongst healthcare workers.	Core element			
7.9.3.	Training is provided to all staff who prepare and/or administer injections and parenteral infusions (if applicable).	Core element			

7.10.	The NH identifies and implements practices to red	uce the risk	of injury and infe	ection from the	handling and management of sharps and needles and waste.		
7.10.1.	A sharps injury prevention programme is implemented in the NH.	Core element					
7.10.2.	Baseline information on sharps injuries, along with weaknesses identified in the assessment of programme operation processes, is used to determine priority areas in prevention programme.	Core element					
7.10.3.	There is a plan for providing employee education and training on blood-borne pathogen prevention at the time of hire, as well as on an annual basis.	Expected element					
7.10.4.	A system is in place to ensure that new safety devices are assessed for appropriate use in the NH.	Expected element					
7.10.5.	Policies on medical waste management are in place.	Core element					
7.10.6.	Multi-dosing vials are limited to individual resident use, if practiced.	Core element					
7.11.	The NH prepares food and nutrition products using	g document	ed desirable sani	tation and tem	peratures.		
7.11.1.	Regular audits are done to ensure a clean environment during food preparation.	Core element					
7.12.	All catering areas are effectively managed and maintained to minimise the possible spread of infection.						
7.12.1.	Food hygiene practices (i.e., hand hygiene practices, food handling, clean premises, specific food types) should be done in accordance with the Singapore Food Agency's (SFA) Guidelines.	Core element					

7.13.	Ventilation and isolation policies are effective to minimise the possible spread of infection.					
7.13.1.	Permanent environmental ventilation is available in care areas. Ventilation, whether natural, mechanical, or mixed mode, should be optimised to prevent dead space.					

8	ANTIMICROBIAL RESISTANCE	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
8.1.	Precautionary measures are used to prevent deve	lopment and	d/or spread of MD	ROs.	
8.1.1.	Oversight of antimicrobial usage is in place to ensure adherence to the antibiotic guidelines.	Core element			
8.1.2.	Hand hygiene is practised in accordance with institutional guidelines.	Core element			
8.1.3.	Environmental hygiene is practised in accordance with institutional guidelines.	Core element			
8.2.	There are policies, procedures, and outcomes for	the evidenc	e based best usa	ge of antimicro	bials and the reduction of antimicrobial resistance.
8.2.1.	The NH has a policy that requires prescribers to document an indication for all antimicrobials in the medical record or during order entry.	Core element			
8.2.2.	The NH has antimicrobial guidelines based on local antibiograms to assist with antimicrobial selection for common clinical conditions.	Core element			
8.2.3.	There is a formal procedure for clinicians to review the appropriateness of antimicrobial at or after 48 hours from initial orders.	Core element			

8.3.	An antimicrobial stewardship programme is in place.						
8.3.1.	The NH demonstrates leadership support for efforts to improve antimicrobial use (antimicrobial stewardship).	Core element					
8.3.2.	The NH has identified individuals accountable for leading antimicrobial stewardship activities.	Expected element					
8.3.3.	The NH has written policies on antimicrobial prescribing.	Expected element					
8.4.	Overall antimicrobial use is audited annually. The collected is reviewed and used to improve the qua			ration and indi	cation, and route of antibiotic antimicrobial therapy. All data		
8.4.1.	An audit on antimicrobial utilisation is done annually.	Expected element					
8.4.2.	Audit includes dose, duration and indication, and route of antimicrobial therapy.	Expected element					
8.4.3.	Audit results are used to improve the antimicrobial stewardship program.	Expected element					
8.4.4.	The NH provides clinical prescribers with feedback about their antimicrobial prescribing practices.	Expected element					

9	MICROBIOLOGICAL SUPPORT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN			
9.1.	There is daily support by a nationally accredited microbiology laboratory.							
9.1.1.	There is a recognised accredited microbiology laboratory serving the NH.	Core element						
9.1.2.	Molecular typing of organisms is done to help confirm outbreaks, where required.	Expected element						

9	MICROBIOLOGICAL SUPPORT	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
9.1.3.	Systems are in place to consult a microbiologist when needed.	Core element			
9.1.4.	Critical results can be communicated on a 24-hour basis.	Core element			
9.2.	There are systems in place for the rapid reporting	of epidemic	ologically importa	nt organisms to	o the IPC Team.
9.2.1.	Timely reporting of epidemiological important organisms is made to the IPC team for their necessary action to be taken to prevent HAIs.	Core element			

10	EMERGENCY PREPAREDNESS AND RESPONSE	ELEMENT TYPE	MET	NOT MET	ACTION PLAN
10.1.	There is a written plan to manage emerging infect	tious diseas	e outbreaks of na	tional concern.	
10.1.1.	A detailed written plan is developed to manage response to an emerging infectious disease outbreak that is of national concern.	Core element			
10.1.2.	This plan is accessible to all staff required.	Core element			
10.1.3.	The plan is aligned with the national preparedness plan.	Core element			
10.2.	Systems are in place to validate the written prepa	redness pla	n.		
10.2.1.	Tabletop exercises or drills should be conducted at least 2- yearly to validate the written preparedness plan.	Core element			