Published Date: 28 April 2025 (Version: 2.00)

Infection Prevention and Control Inpatient Placement and Cohorting Guideline

1. Purpose

This guideline is intended to support decision-making related to appropriate bed allocation within WA Country Health Service (WACHS) healthcare facilities (HCFs). Appropriate bed placement is a two-step process informed by a risk assessment, followed by prioritisation of the seriousness of any transmissible disease and any competing needs. Collaboration with the local Infection Prevention and Control (IPC) service should be sought, where necessary, as soon as possible.

2. Guideline

Transmission-based precautions should be applied in addition to standard precautions, in accordance with the National Health and Medical Research Council (NHMRC) <u>Australian Guidelines for the Prevention and Control of Infections in Healthcare (2019)</u> – Appendix 2: Supplementary information 6.4 - Type and duration of precautions for specific infections and conditions and jurisdictional guidance.

Depending on the infectious organism and the mode of transmission, one or more types of transmission-based precautions may be required. Supplementary information regarding type and duration of precautions can be found in the WACHS <u>Infection Prevention and Control</u> - Patient management and healthcare worker exclusion periods Policy.

Current versions of the following guidance documents should be referred to as necessary, in conjunction with the guidance provided in this guideline:

- the Communicable Diseases Network Australia (CDNA) <u>Series of National Guidelines</u> (SoNGs)
- the Australian Commission on Safety and Quality in Healthcare (ACSQHC) <u>Patient Placement Guide Infection Prevention and Control</u>
- the Australian Centre for Disease Control (ACDC) topics on communicable diseases
- WA Health IPC policies and guidelines.

2.1 Risk assessment

Placement in any clinical area should be considered and risk assessed according to several factors, including, but not limited to:

- whether a person is suspected or known to be colonised or infected with a highly transmissible or epidemiologically significant pathogen (such as a novel virus or a multidrug-resistant organism)
- whether they have signs and symptoms that raise suspicion of the presence of an infectious condition
- how the known or suspected infectious organism is transmitted, and the period transmission-based precautions should be used.

Guidance on factors to be considered when conducting a risk assessment to inform placement is provided in <u>Appendix A</u>.

2.2 Single room prioritisation

The prioritisation of single rooms for isolation for transmissible diseases and consideration for alternative arrangements when a single room is not available, is not just dependent on the mode of transmission and infectivity of the organism, but also on the seriousness of the infection to other individuals.

Key points to consider include:

- decision regarding priority of isolation when demand for single rooms exceeds availability, should be made in conjunction with the IPC team based on the person's acuity and the suspected or confirmed transmissible disease
- priority should always be given to those requiring airborne precautions
- single rooms with ensuite bathroom facilities are preferred for those requiring isolation for communicable diseases and are always indicated for diseases requiring airborne precautions, preferably in a negative pressure isolation room (NPIR)
- prior to placing a person in a NPIR, the pressure differential should be checked and when in use, should be checked regularly, preferably daily, even if a continuous differential pressure sensing device is in use
- review of competing needs for those requiring a single room for other purposes, including persons requiring:
 - o end-of-life care
 - o a higher need for privacy and dignity
 - reduction of harm afforded by a single room
 - o isolation due to immunosuppression.

Recommendations on the prioritisation of specific infectious conditions are provided in Appendix B.

2.3 Inpatient placement

Staff providing care to people with transmissible diseases must adhere to current recommended guidelines that include the use of a NPIR where available, for those with probable or confirmed airborne transmissible diseases, or the use of a standard single room with adjoining ensuite, a negative air flow from the corridor and adjacent areas and a portable air purifier.

Key points to consider include:

- where a NPIR or single room with adjoining ensuite is unavailable, a single room with a dedicated bathroom/toilet should be allocated
- where droplet and airborne precautions are implemented, the door should be kept closed where possible
- where available, toilet lids should be closed prior to flushing to minimise risk of aerosolisation
- when a single room is not available i.e., there are insufficient isolation facilities available for the number of suspected or confirmed infectious persons, consultation with the local IPC team member/s is recommended to assess the various risks associated with other placement options (e.g. cohorting)
- when isolating a person for a transmissible disease, the person should be informed of
 the reason for the isolation and any precautions that they or their visitors are required
 to take. The WACHS Why am I in isolation brochure? should be provided to all persons
 placed in isolation for IPC related reasons and the Healthy WA website has a variety of
 information sheets that can be readily accessed.

2.4 Cohorting

In some circumstances where single room availability has been depleted, it may be determined that those with the **same** confirmed transmissible disease can share a multi-bed area, which is known as cohorting.

Key points to consider include:

- those without the same confirmed transmissible disease are not to be cohorted
- the decision to create a cohort care area will need to be undertaken in discussion with key stakeholders such as healthcare facility (HCF) executives, clinical leads and IPC team members
- HCFs may consider reducing bed numbers in shared rooms to reduce transmission risks e.g. reduce occupancy to two beds in a four-bed room or utilise other respiratory protective devices such as HEPA filtered air purifiers/ventilation hoods
- a cohort care area may be a bay/room/area/ward or unit in which a group of people
 with the same confirmed transmissible disease are placed together within the same
 physical space, due to lack of isolation facilities. e.g., caring for those with the same
 confirmed transmissible disease in a multi bedded room/area with a shared bathroom
- a designated isolation/grouped area of single rooms may be used to assist in provision of safe and efficient care and to comply with IPC guidelines. e.g. reducing traffic flow through the area and dedicating staff
- the use of a dedicated team of experienced healthcare staff should be utilised to care for those within a cohort care area
- cohorting must always be utilised in combination with all other standard IPC measures
- a review of HVAC systems, air flows and air exchanges is recommended to be undertaken before an area is designated as an isolation or cohort care area
- when determining the location of the cohort care area, the following should be considered:
 - the ability to limit entry/access (the number of persons entering the cohort care area should be limited to the minimum number necessary to deliver care and support) note: cohort care areas are not to be used as a thoroughfare
 - the ability to ensure contact, droplet and airborne precautions can be maintained
 - availability of necessary equipment
 - spatial separation of at least 1.5 metres between bed spaces (e.g., curtains, privacy screens or barriers may be used to define separate areas)
 - cohort care areas should be physically separated from other persons who are potentially at greater risk of complications from transmissible diseases (e.g., haematology, oncology and transplant services, severely immunosuppressed persons)
- clear signage indicating the transmission-based precautions and personal protective equipment (PPE) required, is to be placed at the entrance of the cohort care area
- all HCWs should have completed a practical assessment for donning and doffing PPE
- transport should be limited where possible. e.g., consider the use of portable X-rays
- specific outbreak management may support cessation of admissions to a particular area/ward/unit/facility. Concerns should be escalated to an IPC team member
- exclusion policies may also be implemented to restrict the spread of disease throughout a HCF such as excluding persons from participating in specific activities
- medical equipment should be single person use or dedicated to the cohort care area and cleaned and disinfected between each use.

<u>Appendix B</u> provides guidance to support appropriate single room prioritisation and cohorting based on disease transmission risk. This table includes common transmissible

diseases, however, is not exhaustive and review of the resources highlighted and/or discussions with IPC team members may be required.

2.6 Use of PPE in a cohort care area

Key points include:

- when providing care in a cohort area, PPE should be changed when moving between each person in the area
- "Extended use" of PPE (e.g., continued use of masks/eye/face wear) can increase the
 risk of cross transmission of infection for both those in the cohort area and HCWs, and
 the risk of environmental contamination. Any decision to allow extended use of PPE
 must be made in consultation with the IPC team members
- as per standard precautions, a risk assessment should be undertaken in relation to the requirement for the use of gowns, aprons, and gloves
- gloves, when worn, must be changed between different tasks/procedures performed on a person e.g., catheter care and administration of intravenous therapy
- as their clinical condition allows, a person in a cohort care area where the transmissible disease is transmitted by the droplet or airborne route, can be encouraged to wear a surgical mask or particulate filter respirator (PFR)
- there may be issues around compliance when dealing with specific groups such as paediatrics, or those with dementia or claustrophobia. In these cases, other IPC measures should be considered
- in long-term care facilities, isolation and cohorting may not be possible, so hand hygiene with appropriate use of relevant PPE for individual resident and environmental contact may be preferred.

3. Roles and Responsibilities

WACHS Executive and Regional Executive teams are responsible for ensuring the processes outlined in the relevant National Safety and Quality Health Service Standards are in place.

WACHS Managers and **supervisors** are responsible for monitoring compliance of relevant staff to this procedure.

All staff are required to comply with the directions in WACHS policies and procedures as per their roles and responsibilities. Guidelines are the recommended course of action for WACHS and staff are expected to use this information to guide practice. If staff are unsure which policies procedures and guidelines apply to their role or scope of practice, and/or are unsure of the application of directions they should consult their manager in the first instance.

4. Monitoring and Evaluation

Monitoring and evaluation of IPC systems and risk management strategies includes:

- auditing to monitor adherence to standard precaution practices such as hand hygiene practices, hand hygiene product placement, bare below the elbow practices, waste management processes and cleaning practices, PPE practices and transmission-based precautions
- outcome measures related to transmission of infectious diseases such as:
 - decreased infection transmission rates
 - decreased number of outbreaks

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- decreased hospitalisation rates
- o decreased morbidity and mortality rates.

Outcomes should be escalated as applicable, with actions implemented, documented and monitored via the regional IPC Committees and other relevant committees.

The WACHS Infection Control Advisory Forum (ICAF) is to review this policy every five years, or earlier if required.

5. References

Communicable Diseases Network Australia (CDNA). Series of National Guidelines (SoNGs). Australian Government Department of Health and Aged Care, 2024. [accessed 27 March 2025]. https://www.health.gov.au/resources/collections/cdna-series-of-national-guidelines-songs#a

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Khadar A, Sim J, McDonald VM, McDonagh J, Clapham M, Mitchell BG. Air Purifiers and Acute Respiratory Infections in Residential Aged Care. JAMA Network Open. 2024. 7(11):e2443769–9. [accessed 27 March 2025]

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2825943?resultClick=1#google_vignette

6. Definitions

| Term | Definition | |
|--------------------------------|--|--|
| Airborne precautions | Airbourne precautions are a set of infection prevention practices used for people known or suspected to be infected with pathogens transmitted person-to-person by the airborne route via particles in the respirable size range that remain infective over time and distance. Airborne precautions require the use of a PFR, protective eyewear and other personal protective equipment (PPE) as per standard precautions. The person should be accommodated in a negative pressure isolation room (NPIR) where possible. | |
| Aerosols | Aerosols are microscopic particles < 5 microns in size that are the residue of evaporated droplets and are produced when a person coughs, sneezes, shouts, or sings. These particles can remain suspended in the air for prolonged periods of time and can be carried on normal air currents in a room or beyond, to adjacent spaces or areas. | |
| Cohort Care Area | A cohort care area is a bay/room/area/ward/unit in which a group of people with the same confirmed infection are placed together if required, usually within the same physical space. | |
| Cohorting | Cohorting refers to grouping individuals with the same infectious disease/laboratory confirmed organism in the same location e.g. room, ward section, ward or building. | |
| Personal protective equipment | Clinical personal protective equipment in healthcare includes surgical masks, particulate filter respirators (such as P2 or N95), gloves, goggles, glasses, face shields, gowns and aprons. | |
| Standard precautions | Standard precautions are work practices that constitute the first-line approach to infection prevention and control in the healthcare environment. These are recommended for the treatment and care of all patients. | |
| Transmission-based precautions | | |

7. Document Summary

| Coverage | WACHS-wide | | |
|--|--|--|--|
| Audience | All Staff | | |
| Records Management | Non-Clinical: Corporate Recordkeeping Compliance Policy Clinical: Health Record Management Policy | | |
| Related Legislation | Health Services Act 2016 (WA) Public Health Act 2016 (WA) Therapeutic Goods Act 1989 (Cth) Work Health and Safety Act 2020 (WA) Work Health and Safety Regulations 2022 (WA) | | |
| Related Mandatory Policies/Frameworks | MP 0122/19 Clinical Incident Management Policy MP 0134/20 National Safety and Quality Health Service Standards Accreditation Policy MP 0172/22 Respiratory Personal Protective Equipment Policy MP 0177/23 Screening and Management of Multiresistant Organisms in Healthcare Facilities Policy Clinical Governance, Safety and Quality Framework Public Health Policy Framework | | |
| Related WACHS Policy Documents | Engaging Consumer and Carer Representatives Policy Environmental Cleaning Policy Exposure and Outbreak Management Policy Hand Hygiene Policy Infection Prevention and Control - Patient management and healthcare worker exclusion periods Policy Infection Prevention and Control Policy Negative Pressure Isolation Room Procedure Waste Management Policy Work Health and Safety Policy | | |
| Other Related Documents | ACSQHC Patient Placement Guide – Infection Prevention and Control CDNA Series of National Guidelines (SoNGs) NHMRC Australian Guidelines for the Prevention and Control of Infections in Healthcare (2019) WA Health infection prevention and control policies and guidelines | | |
| Related Forms | Nil | | |
| Related Training | Available from MyLearning: Basics of Infection Prevention and Control Orientation Module (CICB EL2) Clean and Safe Healthcare Environment Practical Assessment (CSHE 003) Clean and Safe Healthcare Environment Assessor/Trainer Declaration (CSHE EL5) | | |

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| | Correct Use of Personal Protective Equipment (PPE EL1) Hand Hygiene Declaration (CICHH EL2) Infection Prevention in Healthcare for Non-Clinical Staff (IPNC EL1) |
|--|--|
| Aboriginal Health Impact Statement Declaration (ISD) | ISD Record ID: 1598 |
| National Safety and Quality Health Service (NSQHS) Standards | 1.09, 1.10, 1.15, 3.01, 3.02, 3.04, 3.05, 3.08, 3.09 3.12, 3.17, 5.07 |
| Aged Care Quality Standards | 1(1)(2a)(2b)(2c); 3(1)(2); 4(1)(2); 5(1)(2); 7(1)(2); 8(1)(2). |
| Chief Psychiatrist's Standards for Clinical Care | Nil |
| Other Standards | Nil |

8. Document Control

| Version | Published date | Current from | Summary of changes |
|---------|----------------|---------------|---|
| 1.00 | 28 July 2022 | 28 July 2022 | The document has had the purpose expanded from being a COVID-19 specific document to having a broader purpose. |
| 2.00 | 28 April 2025 | 28 April 2025 | updated guidance in relation to PPE use for cohorting persons in alignment to the most recent guidance from the Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019) updated references. |

9. Approval

| Policy Owner | Executive Director Nursing and Midwifery | |
|----------------------|--|--|
| Co-approver | Executive Director Clinical Excellence | |
| Contact | Clinical Nurse Consultant Infection Prevention and Control | |
| Business Unit | WACHS Nursing and Midwifery | |
| EDRMS# | ED-CO-22-241698 | |

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This document can be made available in alternative formats on request.

Appendix A: Guidance on factors to be considered when conducting a risk assessment to inform bed placement.

| RISK FACTORS | Source and modes of transmission | Clinical predictors of transmission | Clinical impact of transmission | Room availability |
|-----------------------------|--|---|---|---|
| Questions for Consideration | Is human to human transmission known? Is/are the mode/s of transmission known? Has the person recently returned from overseas travel? What is the infectivity of the organism? | Does the patient have factors that would increase the risk of transmission? | How susceptible are other patients in the area? What is the morbidity and mortality associated with the organism/conditi on disease? Will the safety of the individual who is to be isolated be affected? | What is the availability of negative pressure isolation rooms? What competing priorities exist for single room provision? Are single rooms with designated toilet facilities available? Are there other patients with the same organism, species and/or strain that could be cohorted? |
| Examples | Suspected or confirmed acute respiratory infection Public health notification | Wandering Cognitive impairment Incontinence Broken skin Open/draining wounds Invasive devices Poor hygiene practices Clinical symptoms such as: Diarrhoea Vomiting Coughing Sneezing | Organism not easily transmitted but associated with high mortality rate Immunosuppres sed patients Neonates and young children Elderly patients Patients with burns Renal patients Pregnant women | Patients requiring high security or one- on-one observation Patient requiring end-of-life care Privacy and dignity issues Existing cohorts |

Reference: <u>Australian Commission on Safety and Quality in Healthcare (ACSQHC) Patient</u> Placement Guide – Infection Prevention and Control

Appendix B: Recommended prioritisation of single room/ensuite based on transmission risk

| Priority | Communicable Disease | Precautions in addition to standard precautions | Cohorting Guidelines/Comments. DO NOT COHORT without discussion/guidance from IPC team member. Those without the same confirmed transmissible disease are not to be cohorted. |
|---|---|--|---|
| | Viral Haemorrhagic fever (VHF) | Contact, Airborne and Quarantine | DO NOT COHORT . Negative Pressure Isolation Room (NPIR) with ensuite required. Arrange transfer to appropriate VHF referral facility ASAP for Quarantine isolation. Person is NOT to wait in communal areas or with others. |
| Highest Priority | Measles | | Pre-arrange accommodation. Person is NOT to wait in communal areas or with others. |
| for NPIR/ | Chickenpox | | |
| Single Room (and air purifier) | Disseminated HZV (shingles) MERS/SARS/C OVID- 19/Pandemic | Contact and Airborne | NPIR with ensuite preferred. Arrange transfer as appropriate ASAP. If NPIR is not available, use a single room with door closed and utilise an air purifier (if available). |
| | influenza Pulmonary tuberculosis | Airborne | Discuss concerns with placement of cases/lack of NPIRs or single rooms with IPC. |
| Medium | CPO/CPE | Contact | |
| | C. difficile-CDI | Contact | Single room accommodation with an ensuite is preferred for all transmissible diseases in the medium |
| | Infectious gastroenteritis | Contact (Droplet if vomiting) | and low priority groups. It may not be appropriate to cohort the same multi-resistant organism if they have different resistance mechanisms or phenotypes from |
| priority for | Meningococcal disease | Droplet | others. |
| single room | Influenza | Droplet | Cohorting should only occur in discussion with key stakeholders, including IPC. |
| | Pertussis | Droplet | Highest priority for single room placement in these |
| | Respiratory syncytial virus | Droplet | groups should be given to high-risk unit admissions, and persons with risk factors for transmission, such as |
| | Mumps | Droplet | faecal incontinence/diarrhoea, immunocompromised, uncontained discharging wounds or indwelling devices |
| Lowest priority for single room | MRSA, VRE, ESBL, MRGNB | Contact | and babies <12 months. Note: Shared bathrooms in cohort areas must be |
| | Shingles | Contact | cleaned and disinfected: |
| | Scabies | Contact | at least twice a day and/or if the area is noted to be visibly soiled |
| | Head Lice | Contact | after each time the bathroom is used for showering. |
| | Impetigo | Contact | |