Infection Prevention and Control

Bed Management Toolkit

For infectious diseases and multi-resistant organisms

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Introduction

This bed management toolkit has been developed to assist clinicians and bed management
coordinators in healthcare facilities when single rooms are in short supply.

It will help in determining whether patients in acute care hospitals or residents of long term
care facilities e.g. aged care or rehabilitation with certain infectious diseases or multi-
resistant organisms require single rooms and ensuite bathrooms.

In large acute facilities, cohorting should only be initiated after consultation with
Infection Prevention and Control staff at the site/Local health Network, or the on call
Infectious Diseases Consultant if available.

For further information please see specific guidelines:

> Infection Control Management of Infectious Diseases Summary Table
> Clinical Guidelines for the Management of Patients with Methicillin-resistant Staphylococcus aureus (MRSA)
> Clinical Guideline for the Management of Patients with Vancomycin-resistant Enterococcus (VRE)
> Multi-resistant Gram negative organisms (MRGN): Infection Prevention and Control Clinical Guideline
Flowchart 1: Infectious disease priority guide for allocation of isolation rooms and patient cohorting

On suspicion of, or proven disease, the following guidance will assist with single room allocation & bed management. Infectious diseases of significance or those spread via the airborne route are generally regarded as the highest priority. Infectious periods for common and significant infectious diseases for which isolation as part of transmission-based precautions is required. Refer to the: Infectious Diseases Table

**Highest priority**

- Pandemic influenza  
- SARS / MERS  
- Viral haemorrhagic fevers (VHF)

**Negative pressure room**  
**or**  
**Single room with ensuite**  
**DOOR CLOSED**

- CONTACT, DROPLET  
- or  
- AIRBORNE PRECAUTIONS¹

- Carbapenem-resistant Gram-negative bacteria (CR-GNB)²

**Single room with ensuite**  
**DO NOT COHORT**

**CONTACT PRECAUTIONS**

**Medium priority**

- Chickenpox/disseminated shingles  
- Measles  
- Pulmonary tuberculosis

**Pre-arrange accommodation**  
**NOT** to wait in common area  
**or** with others  
**DO NOT COHORT**

- Negative pressure single room with ensuite  
**DOOR CLOSED**

- AIRBORNE PRECAUTIONS¹

- Meningococcal disease with less than 24 hours antibiotics³

**Single room**  
**DOOR CLOSED**

**DROPLET PRECAUTIONS**

- *Clostridium difficile*  
- *Diarrhoea / vomiting⁴

**Single room**  
**or**  
**Cohort with dedicated bathroom facilities after consultation with IP&C⁶

**DROPLET plus CONTACT or *CONTACT PRECAUTIONS**

**Lower priority**

Prioritise as follows:  
1. Shingles  
2. MRSA  
3. ESBL  
4. VRE⁷  
5. LRE / LRVRE⁷

**Single room**  
**or**  
**Cohort after consultation with IP&C⁶

**CONTACT PRECAUTIONS**

**NOTES**

1. If a negative pressure room is not available, place person in a single room with door closed. Ensure air-conditioning is vented to the outside.

2. Includes: Enterobacteriaceae, *Acinetobacter sp*, *Pseudomonas sp*.

3. Isolation is only required for 24 hours following administration of appropriate antibiotics.

4. Droplet precautions are required if Norovirus suspected.

5. Single room is required if admitted to an area where babies <12months are housed


7. Higher priority should be given if the person is to be admitted to a high risk unit such as ICU, HDU, burns, transplant, renal or haematology/oncology, or if the person has faecal incontinence/diarrhoea.
Flowchart 2: Bed management: Multi-resistant Gram negative (MRGN) Organisms

Placement should be based on a risk assessment.

The following flowchart will assist to identify risk factors for MRGN transmission.

The person has an active alert or has known MRGN carriage#

# or is an overseas/interstate patient transfer screened for Carbapenem-resistant Enterobacteriaceae (CRE) / Carbapenemase-producing Enterobacterales (CPE)

Known or suspected Carbapenem-resistant Gram-negative bacilli (CR-GNB) (includes CRE & CPE) #
- Enterobacteriaceae / Enterobacterales (e.g. E.coli, Klebsiella pneumoniae)
- Acinetobacter sp.
- Pseudomonas aeruginosa

Discuss management with an ID physician or Infection Control Service on 7425 7161

Known or suspected ESBL or Amp C producing Enterobacterales, e.g.
- E.coli
- Klebsiella pneumoniae
- Enterobacter species
- Proteus species

Multi-resistant strains of:
- Pseudomonas aeruginosa

Minimum requirements:
- Single room with ensuite bathroom
- Transmission based precautions
- For CPE also refer to the SA Health CPE Infection Control Webpage

Does the person have any of the following?
- Diarrhoea or uncontained faecal incontinence
- Discharging wound/s that cannot be contained by a dressing
- Presence of an enterostomy or urinary catheter
- Unable to comply with, or manage personal hygiene

The patient requires a single room with ensuite bathroom * & place on contact precautions

* if an ensuite bathroom is not available a shared bathroom can be used. However, it must be cleaned & disinfected more frequently e.g. twice a day and after use.

As a short term strategy if a single room is not available, the person can be placed in a shared room on Contact Precautions only with others at low risk of transmission of infection i.e. other people in the shared accommodation/bay do not have:
- unhealed wounds present
- indwelling devices e.g. PEG, indwelling urinary catheter
- not on immune suppressive therapy or are immunocompromised.

Do not cohort with another person carrying a different MRO e.g. Methicillin-resistant Staphylococcus aureus (MRSA), Vancomycin Resistant Enterococci (VRE)

NOTE: The risk of multi resistant organism (MRO) transmission can be minimised by adherence to standard transmission based precautions including hand hygiene and environmental cleaning as well as antimicrobial stewardship.

Contact precautions should be maintained in a cohort situation.

For further information on MRGN see SA Health MRGN Guideline
Flowchart 3: Bed management: Methicillin-resistant *Staphylococcus aureus* (MRSA)

Placement should be based on a risk assessment.
The following flowchart will assist to identify risk factors for MRSA transmission.

The person has an active alert or has known MRSA carriage

Does the person have an unhealed wound?
- chronic ulcer
- discharging wound
  (healed surgical wounds not included)

NO

Does the person have an indwelling medical device present?
- e.g. PEG, long term indwelling urinary catheter, wound drain
- external fixation device
- vascular access device

NO

Does the person have an exfoliating skin condition?
- e.g. psoriasis

YES

Patient requires single room with ensuite bathroom *& place on contact precautions*
* if an ensuite bathroom is not available a shared bathroom can be used. However, it must be cleaned & disinfected more frequently e.g. twice a day and after use.

NO

As a short term strategy if a single room is not available, the person can be placed in a shared room on Contact Precautions only *with others at low risk of transmission of infection*
i.e. other people in the shared accommodation/bay do not have:
- unhealed wounds present
- indwelling devices e.g. PEG, indwelling urinary catheter
- not on immune suppressive therapy or are immunocompromised.

Do not cohort with another person carrying a different MRO e.g. Extended spectrum beta-lactamase producers (ESBL), Vancomycin Resistant Enterococci (VRE)

**NOTE:** The risk of multi resistant organism (MRO) transmission can be minimised by adherence to standard and transmission based precautions including hand hygiene and environmental cleaning as well as antimicrobial stewardship.

**Contact precautions should be maintained in a cohort situation.**
Flowchart 4: Bed management: Vancomycin-resistant enterococci (VRE)

Placement should be based on a risk assessment.
The following flowchart will assist to identify any risk factors for VRE transmission.

The person has an active alert or has known VRE carriage

- Does the person have diarrhoea or uncontained faecal incontinence?
  - Yes
    - Single room with ensuite bathroom* & place on contact precautions.
    - * if an ensuite bathroom is not available, a shared bathroom can be used. However, it must be cleaned & disinfected more frequently, e.g. twice per day and after use.
    - Note: Consider use of a commode rather than a shared toilet.
  - No

- Does the person have a discharging wound?
  - Yes
    - Single room with ensuite bathroom* & place on contact precautions.
    - * if an ensuite bathroom is not available, a shared bathroom can be used. However, it must be cleaned & disinfected more frequently, e.g. twice per day and after use.
    - Note: Consider use of a commode rather than a shared toilet.
  - No

- Does the person have an enterostomy?
  - Yes
    - Single room with ensuite bathroom* & place on contact precautions.
    - * if an ensuite bathroom is not available, a shared bathroom can be used. However, it must be cleaned & disinfected more frequently, e.g. twice per day and after use.
    - Note: Consider use of a commode rather than a shared toilet.
  - No

- Is the person able to comply with, or manage, personal hygiene including hand hygiene?
  - Yes
  - NO
  - NO
  - YES

As a short term strategy if a single room is not available, the person can be placed in a shared room on Contact Precautions only with others at low risk of transmission of infection

i.e. other people in the shared accommodation/bay do not have:
- unhealed wounds present
- indwelling devices e.g. PEG, indwelling urinary catheter
- not on immune suppressive therapy or are immunocompromised.

Do not cohort with another person carrying a different MRO e.g. Methicillin-resistant Staphylococcus aureus (MRSA), Extended spectrum beta-lactamase producers (ESBL)

NOTE: The risk of multi resistant organism (MRO) transmission can be minimised by adherence to standard and transmission based precautions including hand hygiene and environmental cleaning as well as antimicrobial stewardship.

Contact precautions should be maintained in a cohort situation.

For further information on MRSA, see SA Health MRSA Guideline