

Multi Resistant Organism (MRO) Procedure



1. Purpose

This clinical procedure outlines the requirements for the management of Multi Resistant Organisms (MROs) at the Women's.

This procedure relates to the [Infection Prevention and Control Policy](#) and the

[Carbapenemase-producing Enterobacteriaceae \(CPE\) - Management of Suspected and Confirmed Colonised Patients](#) guideline

2. Definitions

Multi-resistant Organisms (MRO): Organisms that are resistant to one or more antimicrobial drugs to which they are normally susceptible.

MROs include, but are not limited to:

- *C.difficile* - Clostridium difficile
- *C.auris* - Candida auris
- CPE - Carbapenemase- producing *Enterobacteriaceae*
- ESBL - Extended Spectrum Beta Lactamases
- GRO - Gentamicin Resistant Organisms
- MDRGNB - Multi Drug Resistant Gram Negative Bacilli
- MRSA - Methicillin resistant *Staphylococcus aureus*
- VRE - Vancomycin Resistant *Enterococcus faecalis* or *Enterococcus faecium*

MRO specific information for patients and staff can be found on the [Resources](#) tab on the Infection Prevention and Control intranet page

Colonisation: Presence of bacteria in/on a patient which shows no sign of invasive infection.

Cohort: Physically locating patients with the same infectious organism or clinical syndrome together.

Infection: Invasion by a pathogenic organism which, under favourable conditions, multiplies and produces an inflammatory response.

Transmission based precautions:

Contact Precautions: Contact Precautions are intended to prevent transmission of infectious agents which are spread by direct or indirect contact with the patient or the patient's environment.

Direct Contact: i.e. direct physical transfer between a susceptible host and an infected or colonised person.

Indirect Contact: i.e. exposure of the susceptible host to a contaminated object.

PPE - Personal Protective Equipment: items that provide a barrier, includes gowns, gloves, masks, goggles.

Precautions - Recommended infection control measures to minimise the risk of nosocomial infections.

3. Responsibilities

It is the responsibility of all health care workers (HCW) to be familiar with this procedure and to ensure patients with MROs are identified and appropriate precautions are instigated. It is the responsibility of Infection Prevention and Control, Department Heads and Unit Managers to ensure that the appropriate guidelines for the management of patients infected or colonised with a MRO are in place and adhered to.

4. Procedure

4.1 Multi-Resistant Organisms

The management of patients infected or colonised with a MRO should be discussed with the Infection Prevention and Control (IPC) team. Screening of contacts and cohorting of patients may be required.

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Admissions

Patients who are known to be colonised with a MRO have an alert placed on the hospital patient management system (iPM) and on the alert page in the front of their medical record.

Admitting staff must check iPM and the alert sheet on admission and ask all patients if they have resided overnight in an overseas hospital or in residential care, or have been placed in contact precautions in the past 12 months in accordance with the [Carbapenemase-producing Enterobacteriaceae \(CPE\) - Management of Suspected and Confirmed Colonised Patients guideline](#).

Should staff be informed that a patient has had a MRO isolated elsewhere, e.g. at another hospital or through their GP, they should notify Infection Prevention and Control (IPC) on ext.2791 (after hours leave a message for follow up).

Room Allocation

Wherever possible, a single room with a single bathroom is recommended for any patient with a MRO, regardless of when the MRO was isolated. This is essential if the patient has an infection caused by the MRO that cannot be contained, e.g. MRSA and an exfoliating skin disease or VRE and diarrhoea.

If a single room with a single bathroom is not available, please contact IPC on ext 2791 or the Infectious Diseases (ID) team (after hours) via the hospital switchboard.

Signage

- A [Contact Precautions Poster](#) must be displayed at the entrance to the patient's room. The door may remain open.

Access to shared spaces

At the discretion of the Nurse/Midwife in Charge patients with MROs may ambulate in communal patient areas and leave the ward providing:

- they perform appropriate hand hygiene on exiting their room and before touching communal surfaces
- they are continent of faeces/urine or are wearing continence aids
- they do not visit other patient rooms or use communal facilities.

Equipment

Management of room equipment should comply with the policy for [Cleaning, Disinfection, Sterilisation of Reusable Medical Equipment](#).

- Minimal stock of non-critical items should be stored in the room
- Disposable stock, eg tourniquets, should be used whenever possible and discarded on patient discharge
- Reusable equipment should remain in the room for the duration of the patient's hospitalisation. eg. Stethoscopes, thermometers. This equipment should be cleaned on a daily basis and when visibly soiled.
- Communal equipment which is required for another patient must be decontaminated and allowed to dry before re-use. Equipment which is to be decontaminated must be taken immediately to the clean-up area.
- Decontamination of equipment is to be performed by the PSA with warm water and detergent, followed by a disinfectant in accordance with the Cleaning and Hotel Services guidelines. Alternatively a detergent and disinfectant wipe (e.g. Tuffie 5™ or similar) may be used.

Standard and Transmission Based Precautions

Refer to Infection Prevention and Control Procedures:

- [Infection Prevention and Control - Standard Precautions](#)
- [Infection Prevention and Control - Transmission Based Precautions](#)

[Contact Precautions Signage](#) must be displayed at the entrance to the patient's room. The door may remain open.

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Personal Protective Equipment (PPE)

Where the patient has a MRO, gowns or plastic aprons should be worn for contact with the patient, patient environment or infectious matter. Plastic aprons must be worn if soiling is likely. Gowns/ plastic aprons should be removed and discarded on leaving the patient's room.

Unsterile gloves are worn for contact with body fluids and changed between procedures or if heavily soiled. Gloves should be removed and discarded immediately upon completion of activity. Sterile gloves are worn for aseptic procedures.

Gloves are not a substitute for hand hygiene. Appropriate hand hygiene must be performed before and after donning PPE.

Hand Hygiene

- Alcohol Based Hand Rub (ABHR) is recommended whenever appropriate.
- Hands should be washed with neutral detergent when visibly soiled
- If a patient has an infection or is colonised with VRE or *C.difficile*, ABHR should be used within the patient room and the HCWs hands should be washed prior to leaving the room.
- Hand hygiene should occur in accordance with the [Hand Hygiene Guideline](#) and the WHO 5 moments for Hand Hygiene.
- Hands must be decontaminated **after** leaving the patients room.

Clinical Waste

Used disposable items must be discarded in accordance with the [Waste Management Guideline](#)

- Disposable items that are contaminated with infectious matter should be placed into a clinical (yellow) waste bag (denoting the biological hazard symbol and the wording "Infectious Waste").
- Other disposable items e.g. paper towels, plastic aprons and gowns may be placed in a black plastic waste bag.
- If the outer surface of a waste bag is contaminated with infectious matter, it should be placed in a second bag (double bagged) and thereafter handled in the normal manner.

Linen

- The management of linen should comply with the [Linen Management Procedure](#).
- The linen skip should be taken to the bedside so linen can be discarded at the point of use. Used linen should never be carried to a skip.
- If the outer surface of a linen bag is contaminated, it should be placed in a second bag (double bagged) and thereafter handled in the normal manner.

Patient Charts

- Patient charts are to be left outside the room.

Meals, Crockery, Cutlery, Infant Feeding Equipment and Toys

- Hospital trays may be taken into the patient room. The tray will be collected by food services and placed directly into the transport trolley.
- Disposable bottles/breast expression equipment to be disposed of as per normal procedure. Breast pumps must be decontaminated with a Tuffie 5™ wipe after use.
- Toys should be kept to a minimum and made of suitable material to enable efficient cleaning (no shared soft toys and no water-retaining toys). Toys should stay with the patient until discharge or it is decontaminated as per the procedure '[Cleaning and Disinfection of Patient Care Non-Medical Equipment](#)'. Patient's own toys should be placed in a bag for discharge home.

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Visitors

The nurse/midwife/doctor shall explain to the family:

- Purpose of the contact precautions.
- Method and importance of hand hygiene.
- Use of protective apparel. Visitors and parents are not routinely required to wear gowns or gloves unless they are involved in patient care or are visiting multiple patients
- Correct disposal of linen and waste.

Room Cleaning

- The PSA should wear a gown and disposable gloves for room cleaning which are to be disposed of before leaving the room.
- **Daily room cleaning** for all MROs is to be performed by the PSA using warm water and detergent, paying particular attention to horizontal surfaces, bed rails, door handles, basins, and taps. The bucket and mop must be changed after cleaning an isolation room.
- Frequently touched patient items, e.g. bed rails, patient table etc, may be wiped with Tuffie 5™ wipes, in accordance with manufacturers guidelines, during daily room cleaning.
- Refer to ISS for details of cleaning procedures.

Discharge/Terminal cleaning for all MROs:

- The room should be cleaned with warm water and detergent followed by a disinfection clean in accordance with the Cleaning and Hotel Services guidelines.
- Reusable equipment, e.g. Breast pumps or IV pumps, should be cleaned as above, or alternatively cleaned with warm water and detergent and wiped over with Tuffie 5™ wipes.
- Blinds should be cleaned and curtains laundered.
- Carpeted areas should be steam cleaned.
- All single use equipment in the room must be discarded.

Contact Infection Prevention and Control for specific cleaning recommendations.

Inter/ Intra Hospital Transfers

Limiting transfer of a patient on contact precautions reduces the risk of environmental contamination. If transfer within or between facilities is necessary, it is important to ensure that infected or colonised areas of the patient's body are contained and covered. Contaminated PPE should be removed and disposed of and hand hygiene performed before the patient is moved. Clean PPE should be put on before the patient is handled at the destination.

The receiving departments, hospitals and where applicable ambulance service, must be notified prior to transfer that a patient is colonised or infected with a MRO. Appropriate documentation should be completed.

Cessation of precautions - MRO clearance and readmission

MRSA – clearance screening may occur in consultation with the IPC or ID team when

- more than 3 months has elapsed since the last positive specimen
- all wounds have healed and there are no indwelling medical devices present
- there has been no exposure to any antibiotic or antiseptic body wash for at least 2 weeks
- there has been no specific anti-MRSA antibiotic therapy in the past three months.

Evaluation of the screening swabs must be undertaken by the IPC or ID team prior to removal of the MRO alert.

Gut colonised MROs (e.g CPE, ESBL, VRE, GRO) - clearance screening is not routinely undertaken as these

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MROs can persist for long periods. Transmission based precautions are continued for the duration of the admission and subsequent admissions for all known infected and colonised MRO patients.

5. Evaluation, monitoring and reporting of compliance to this procedure

- Monitoring of incident reporting
- Auditing of compliance to MRO procedure.

6. References

1. Department of Health and Human Services Patient-centred risk management strategy for multi-resistant organisms <https://www2.health.vic.gov.au/public-health/infectious-diseases/infection-control-guidelines/patient-centered-management-multi-resistant> last accessed 19.2.19
2. Hand Hygiene Australia Manual, updated 2018. Australian Commission for Safety and Quality in Healthcare p34 http://www.hha.org.au/UserFiles/file/Manual/HHAManual_2010-11-23.pdf
<https://www.hha.org.au/local-implementation/hha-manual>
3. NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare. Commonwealth of Australia – under review <https://nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2010>

7. Legislation/Regulations related to this procedure

Not applicable.

8. Appendices

Not applicable.

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