# Perioperative Suite Guidelines for Patients who Require Transmission-Based Precautions

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**Review Team:** OGCCU / Infection Control

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All guidelines should be read in conjunction with the Disclaimer at the beginning of this manual.
1 INTRODUCTION

All patients known or suspected of being colonised or infected with epidemiologically significant pathogens or transmissible diseases will have Transmission-based Precautions applied whilst inpatients at King Edward Memorial Hospital. These Transmission-based precautions are to be used in addition to standard precautions; they are extra measures designed to contain the infection and thereby prevent spread to other patients, staff and visitors. Specific Transmission-based precautions are to be implemented according to the guidelines described in this policy.

2 TYPES OF TRANSMISSION-BASED PRECAUTIONS

2.1 Contact precautions (e.g. MRSA, VRE, GRE/ESLB, CRE)
Are applied where certain infectious agents are transmitted by either direct or indirect contact during patient care.
- Direct contact – infective agents are directly transferred from an infective or colonised person to another.
- Indirect contact – infective agents are transferred by touching surfaces or equipment in the patient’s environment.

2.2 Droplet precautions (e.g. RSV, parainfluenza, influenza, pertussis)
Are applied where infectious agents are disseminated through respiratory droplets generated when coughing, sneezing or during procedures such as suctioning. Close proximity is required for transmission, within 1 metre, as the droplets do not remain suspended in air. Transmission may also occur by contact with the conjunctivae and mucous membranes of the nose and mouth.

2.3 Airborne precautions (e.g. varicella, measles, pulmonary tuberculosis)
Are applied where infectious agents are transmitted via airborne droplet nuclei or small respiratory particles. Inpatients in ward areas will be cared for in an Airborne Infection Isolation Room (AIIR).

Some diseases can have more than one route of transmission (e.g. varicella) and therefore may require a combination of precautions.

3 CONTACT PRECAUTIONS

Contact Precautions should be used for any patient identified as have the following Micro-alert:

<table>
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<th>Micro C</th>
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<td>Micro V</td>
<td>Colonised or infected with VRE</td>
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<td>Micro G</td>
<td>Colonised or infected with Carbapenem-resistant Enterobacteriaceae (CRE)</td>
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<td>Micro H</td>
<td>Contact of a patient with Carbapenem-resistant Enterobacteriaceae (CRE)</td>
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<tr>
<td>Micro Y</td>
<td>Colonised or infected with a Multi-resistant gram negative bacteria (MRGNB): Gentamicin resistant enterobacteriaceae (GRE) or extended spectrum beta-lactamase (ESBL)</td>
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1. Patient does not have to go last on the list
2. Contact Precautions to be used throughout Perioperative Suite.
3. After patient identity checks have been performed in the Perioperative Holding Bay, the patient will be transferred directly to theatre ready for Anaesthetic team.
4. Place the Contact Precautions sign on all external doors of the operating suite.
5. All equipment / instruments in contact with the patient must be either disposable or appropriately reprocessed (this includes the theatre stock trolley) i.e. cleaned, disinfected or sterilised.
6. Remove all non-essential equipment (chairs, lithotomy poles, diathermy machine) from the theatre room.
7. 2-step clean with routine detergent followed by hypochlorite 0.125%. The area can be used as soon as the hypochlorite has dried.
8. Use Tuffie 5 (disinfectant) wipes only for sensitive electronic equipment e.g. anaesthetic machine, electronic equipment cables.
9. **Post anaesthetic care unit:**
   a. Patient must be admitted into bay 1. There needs to be bay between patients.
   b. Curtains should be disposable, or laundered post discharged to ward.
   c. 2-step clean of the bed and surrounding area with routine detergent followed by hypochlorite 0.125%. The area can be used as soon as the hypochlorite has dried.
   d. Use Tuffie 5 (disinfectant) wipes only for sensitive electronic equipment e.g. anaesthetic machine, electronic equipment cables.

See Appendix 1 for Orange, Green and Blue Card precautions

4 **DROPLET PRECAUTIONS**

1. Place the **patient last** on the operating list.
2. Segregate the patient from others by one metre in the Perioperative Holding Bay.
3. After the patient identity checks have been performed in the holding bay, the patient will be transferred directly to theatre ready for Anaesthetic team.
4. The patient must be transferred wearing a surgical mask.
5. Respiratory hygiene and cough etiquette is to be practiced by the patient.
6. Place Droplet Precautions sign on the external doors of the operating suite.
7. All staff in the operating theatre must wear a surgical mask if they are within one metre of the patient during the surgical procedure, including the anaesthetist and anaesthetic technician.
8. All equipment / instruments in contact with the patient must be either disposable or appropriately reprocessed (this includes the theatre stock trolley) that is cleaned, disinfected or sterilised.
9. Remove all non-essential equipment (chairs, lithotomy poles, diathermy machine) from the theatre room.
10. **Post operative recovery in the Operating Room is required.**
11. 2-step clean with routine detergent followed by hypochlorite 0.125%. The area can be used as soon as the hypochlorite has dried.
12. Use Tuffie 5 (disinfectant) wipes only for sensitive equipment e.g. anaesthetic machine, electronic equipment cables.

See Appendix 1 for Orange, Green and Blue Card precautions

5 **AIRBORNE PRECAUTIONS**

1. Place the **patient last** on the the operating list.
2. The Airborne Infection Isolation Room (AIIR) is located in the ward, therefore the patient must be moved directly from the ward Isolation room to the theatre room.
3. The patient is to wear a surgical mask for the journey, where tolerated.
4. Respiratory hygiene and cough etiquette is to be practiced by the patient.
5. Place Airborne Precautions sign on the external doors of the operating suite.
6. All Theatre staff in contact with the patient must be either immune to the specific disease (e.g. varicella) or wear an N95/ P2 mask during patient contact (e.g. Tb).
7. **Post-operative recovery in the Operating Room is required.**
8. All equipment / instruments in contact with the patient must be either disposable or appropriately reprocessed (this includes the theatre stock trolley) that is cleaned, disinfected or sterilised.
9. Remove all non-essential equipment (chairs, lithotomy poles, diathermy machine) from the theatre room.
10. 2-step clean with routine detergent followed by hypochlorite 0.125%. Area can be used as soon as the hypochlorite has dried.
11. Use Tuffie 5 (disinfectant) wipes after the detergent wipe only for sensitive equipment e.g. anaesthetic machine, electronic equipment cables.
See Appendix 1 for Orange, Green and Blue Card precautions

**NB** – If the patient is suspected of having extra pulmonary tuberculosis such as pelvic tuberculosis and is undergoing abdominal surgery or laparoscopy **ALL** staff must wear an N95/ P2 (duck billed mask) for the duration of the procedure. **This includes anaesthetic staff.**

6 EQUIPMENT

1. Sterile supplies taken into the operating room during the procedure and not opened/used must be considered contaminated and be reprocessed.

3. In the case of emergencies, any equipment used, including anaesthetic equipment must be cleaned with detergent followed by 0.125% hypochlorite

4. Use Tuffie 5 (disinfectant) wipes after the detergent wipe only for sensitive equipment e.g. anaesthetic machine, electronic equipment cables.
### Perioperative Model of Care for Patients Under Transmission-Based Precautions

#### Holding Bay Nurse
- Check if the patient has a Micro-alert. Patient notes must not be placed on the patient’s bed. The notes must be kept separate to the patient and the bed space. Ask the patient to show their ID band. If you need to touch patient, put on some gloves first. When finished with the patient, take the gloves off, dispose of in the clinical waste bin and perform hand hygiene before touching anything else.

#### Orderly’s and Nurse/Midwife
- Gown and glove before pushing patient’s bed. Do not open doors with gloved hands that have touched the patient’s bed and bedding – de-glove and perform hand hygiene first. Once in operating room, transfer the patient to the table and put any excess linen in the linen skip or back on the patient’s bed. Assist with positioning, remove the bed and store the bed in an appropriate place with a Contact Precautions (orange card) sign to notify other staff not to touch the bed unless wearing appropriate PPE. When the orderly and assistants have positioned the patient and moved the patients bed, they are to remove gown and gloves, place them in the non clinical bin and perform hand hygiene.

#### Surgical Team
- The surgical team and any assistants must wear a gown and gloves to position the patient and then discard the gown and gloves into a waste bin before scrubbing.

#### Circulating Nurse
- Required equipment only in the room if possible. Once the patient is positioned and connected to the required equipment, the circulating nurse can remove their gown and gloves, place in the bin and perform hand hygiene. Recording counts and documentation must be done with clean hands. He/she will only need to gown and glove again if contact with the patient, surgical team, anaesthetist or patient care equipment is likely i.e. taking a specimen or an emergency situation.

#### Anaesthetic Team
- All planned drugs, ET tubes and possible equipment must be readily available/accessible. The anaesthetist remains at the head of the patient during the procedure. Once intubation is complete the anaesthetic nurse/technician can take their gown and gloves off, place in bin and perform hand hygiene. Once their hands are clean, they can get any additional equipment out of drawers and hand to the anaesthetist in a non-touch way (using kidney dish etc.) If the anaesthetist wants to write notes after touching patient, he/she has to de-gown and glove and perform hand hygiene first.

#### Post Anaesthetic Care Unit
- The patient must be recovered in designated bay that is well supplied with appropriate PPE and cleaning equipment. The nurse recovering the patient must wear a gown and gloves when in direct contact with the patient and/or and any equipment used in the care of the patient. Hand hygiene must be performed when the gloves are removed. All equipment used in the care of the patient must be cleaned after use:
  - 2-step clean with routine detergent followed by hypochlorite 0.125%. The area can be used as soon as the hypochlorite has dried.
  - Use Tuffie 5 (disinfectant) wipes only for sensitive electronic equipment e.g. monitors, electronic equipment cables.
- Patients notes must not be placed onto patients bed.

#### Transfer back to Ward – Orderly’s and Nurse/Midwife
- Gown and glove before pushing patient’s bed. Do not open doors with gloved hands that have touched the patient’s bed and bedding – de-glove and perform hand hygiene first. Orderly to remove gown and gloves before leaving the patient’s room and perform hand hygiene. Patient’s notes are not to be placed onto the patient’s bed.
| Support People (where applicable) | Are required to perform hand hygiene before entering and on exiting the theatre room. Support people are to wear a gown and surgical mask (for droplet and airborne precautions only) if deemed appropriate. |


### Appendix 1

**Contact Precautions**
- **Hand Hygiene**
  - Use alcohol gel before & after contact with the patient or environment
  - Wash hands if visibly soiled
- **Gown Gloves**
  - Wear patient gown
  - Gloves
- **Room**
  - Single room
  - Door may be open
- **Patient care equipment**
  - Dedicated equipment
  - Disinfectant with 70% alcohol wipe or 0.125% hypochlorite
- **Environmental Cleaning**
  - Use detergent daily
  - Use 0.125% hypochlorite on discharge
- **Visitors**
  - Please see nurse/clinician before entering room
  - Clean hands before entering & after leaving room
  - Do not visit other patients

**Droplet Precautions**
- **Hand Hygiene**
  - Use alcohol gel before & after contact with the patient or environment
  - Wash hands if visibly soiled
- **Face visor Gown Gloves**
  - Use face visor or mask & visor for droplet protection
  - Wear patient gown
  - Gloves
- **Room**
  - Single room or cohort
  - Door may be open
- **Patient care equipment**
  - Dedicated equipment
  - Disinfectant with 70% alcohol wipe or 0.125% hypochlorite
- **Environmental Cleaning**
  - Use detergent daily
  - Use 0.125% hypochlorite on discharge
- **Visitors**
  - Please see nurse/clinician before entering room
  - Clean hands before entering & after leaving room
  - Do not visit other patients

**Airborne Precautions**
- **Hand Hygiene**
  - Use alcohol gel before & after contact with the patient or environment
  - Wash hands if visibly soiled
- **Mask Gown Gloves**
  - N95 (P2) mask
  - Gloves & barrier
  - No mask
  - Do not enter the room unless immune
  - Wear patient gown & gloves
- **Room**
  - Negative pressure room
  - Turn key on patient to isolate
  - Door must be kept closed
- **Patient care equipment**
  - Dedicated equipment
  - Disinfectant with 70% alcohol wipe or 0.125% hypochlorite
- **Environmental Cleaning**
  - Use detergent daily
  - Use 0.125% hypochlorite on discharge
- **Visitors**
  - Please see nurse/clinician before entering room
  - Clean hands before entering & after leaving room
  - Do not visit other patients
Appendix 2: DONNING AND REMOVAL OF PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) provides a barrier between the source and the operator. Its use does not negate the need for safe work practices or hand hygiene. PPE should be worn prior to performing the procedure or task. PPE may include: gloves, gowns and aprons, eye and/or facial protection (goggles/face shields), masks (P2/N95), adequate footwear. The appropriate PPE is to be available in the Ante-Room of each Negative Pressure Room or on a trolley outside a single room.

APPLYING PPE

Step 1: GOWN
- Put on a long-sleeved gown that completely wraps around the back.
- Gown must be fastened at the neck and waist.
- Place an apron over the top if splash contamination is anticipated.

Step 2: MASK
- Choose appropriate P2/N95 Particulate respirator mask or surgical mask as required
- Ensure correct mask size is selected.
- Check placement in mirror (located in ante-room)
Step 3: FACE SHIELD/GOGGLES
- Place over face and eyes.
- General spectacles/glasses are not sufficient.

Step 4.

GLOVES
- Put on gloves and extend to cover wrist (over cuff) of isolation gown
REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)
*PPE to be removed prior to exiting patient room. The only exception is N95 masks, which are to be removed after exiting patient room. i.e. discarded in the ante-room.

Step 1.
Remove Gloves
- The outside surface of the glove is considered contaminated.
- Grasp the outside of glove with opposite gloved hand, peel off
- Put removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glove
- Discard gloves in rubbish bin
- Perform Hand Hygiene

Step 2
Remove GOGGLES / FACE SHIELD
- Outside of goggles / face shield are to be considered contaminated.
- For removal, only handle by bands
- Discard in rubbish bin
Step 3
Remove GOWN

- Gown front and sleeves are to be considered contaminated.
- Unfasten ties
- Pull away from neck and shoulders, only touching the inside of the gown

- Turn gown inside out
- Fold or roll into a bundle and discard in rubbish bin

Step 4
Remove MASK

- Front of mask is to be considered contaminated
- To remove, only handle by ties / bands
- Discard in rubbish bin
- Perform HAND HYGIENE
Appendix 3: FIT CHECKING

Every time a P2 respirator (or N95 respirator) is used, a “Fit Check” must be performed. This check ensures the mask is properly fitted to provide adequate protection for the caregiver.

### Signs of a GOOD fit

- **On Exhalation:** respirator should bulge slightly
- **On Inhalation:** respirator should collapse slightly

### Signs of a POOR Fit

- **On exhalation:** if air escapes or your glasses/face shield fogs
- **On Inhalation:** respirator does not draw in or air escapes
- Readjust the respirator by repeating the steps above
- Checking if: headbands/earrings/hair is caught in the seal; glasses or face shield is interfering with the seal, you have an incorrect size/type mask; facial hair

If you are unable to achieve a good facial seal DO NOT proceed with your clinical activity. Speak to your supervisor as an alternative style or size may need to be sourced.

If a HCW fails to achieve a seal on an alternative mask, they should be excluded from clinical care of the patient.