INFECTION CONTROL PRACTICE IN THE B WARD

Lead author: Brian Eley, Brian.Eley@uct.ac.za

1. Hand hygiene
   - For optimal practice all staff members, including students should attend a hand hygiene demonstration
   - Please wash your hands upon entering the ward
   - Thereafter, your hands should be disinfected before and after each patient contact
   - Alcohol rub and even washing hands may be insufficient to decontaminate hands following contact with a patient with adenovirus infection. Disposable gloves should ideally be worn for each patient contact
   - **It is the responsibility of all staff members to ensure that a D-germ bottle is available on each bedside. Stock is available in the clinic room.**
   - To promote universal hand hygiene, one of the ward infection control champions may discuss sub-optimal practices with offending staff members
   - A copy of the hospital hand hygiene policy is available in an infection/infection control procedure file, in the doctor’s office
   - The ‘My 5 Moments for Hand Hygiene approach’ promoted by the World Health Organization emphasizes the key moments when health-care workers should perform hand hygiene, i.e.
     - Before touching a patient
     - Before clean / aseptic procedure
     - After body fluid exposure risk
     - After touching a patient
     - After touching patient surroundings

2. Isolation practice

   I. General principles

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<thead>
<tr>
<th>Airborne precautions (RED POSTERS)</th>
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<tbody>
<tr>
<td>o To improve environmental safety all cubicles in the upgraded wards (B1 and B2) are under constant negative pressure ventilation. To ensure efficient air extraction (&gt;15 complete air changes per hour) the DOORS TO ALL CUBICLES SHOULD BE CLOSED AT ALL TIMES</td>
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<tr>
<td>o Patients should be provided with a single room, or cohorted if there are two or more children infected with the same infection [NB: drug susceptible TB, MDR-TB and XDR-TB are separate infections]</td>
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<tr>
<td>o If the patient is being isolated for TB, then an N95 respirator mask should be worn by staff</td>
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members and visitors inside the room, and by the patient whenever leaving the room if possible.

**Droplet precautions (GREEN POSTERS)**

- Single room if possible. If not available, spatial separation of ≥ 1 metre between the bed of the infected child and the beds of other children.
- Staff and visitors should wear a surgical mask when in the vicinity of the patient. A surgical mask should be worn by the patient whenever leaving the area if possible.
- If the child is suspected of having SARS or viral haemorrhagic fever, isolate and use an N95 respirator mask in the vicinity of the patient.

**Contact precautions (BLUE POSTERS)**

- Where possible, provide the patient with a single cubicle e.g. pan-resistant bacterial infections, viral haemorrhagic fevers.
- Gloves (clean, non-sterile) should be used at all times.
- Hand hygiene should be performed after glove removal.
- Gowns and aprons should be used during direct contact with patients.

### II. Isolation guidelines

**Airborne precautions (RED POSTERS) are required for the following infections:**

- Pulmonary tuberculosis (PTB)
- Drug-resistant TB (INH-resistant TB, MDR-TB, XDR-TB)
- Measles
- Varicella infection (chickenpox)

**Droplet precautions (GREEN POSTERS) are required for the following infections:**

- All acute respiratory infections
- Respiratory syncitial virus infection
- Adenovirus pneumonia
- Diphtheria (pharyngeal)
- Influenza
- Mumps
- *Mycoplasma pneumoniae*
- *Neisseria meningitides*
- Pertussis
- Plague (pneumonic)
- Rhinovirus
- Rubella
- Severe Acute Respiratory Syndrome (SARS)
- Group A streptococcal pharyngitis or Scarlet fever
- Viral hemorrhagic fevers

**Contact precautions (BLUE POSTERS) required**

- Infections caused by multi-drug or pan-drug resistant bacteria
- Adenoviruses
- All acute respiratory infections
- *Clostridium difficile*
- Diphtheria (cutaneous)
- Enteroviruses
- *E coli* 0157
- Hepatitis A
- Parainfluenza virus
- Pediculosis (lice)
- Respiratory syncytial virus
- Rotavirus
- *Salmonella*
- Scabies
- *Shigella species*
- *Staphylococcus aureus*
- Viral hemorrhagic fevers

### III. Isolation cubicles

- There are few single-cubicles in the B wards. **Priority should be given to children with PTB, MDR-TB, XDR-TB, Measles, Varicella infection, Adenovirus pneumonia, children with Methicillin Resistant *Staphylococcus Aureus* (MRSA) infection or Extended**
Spectrum Beta-Lactamase (ESBL)-producing *Klebsiella pneumoniae* infection, Pan-resistant bacterial infection and Viral hemorrhagic fevers

- **Cohorting children:** This should be considered when there are two or more patients with the same infection, requiring isolation

IV. Duration of isolation

- PTB: 2 weeks from the start of anti-TB therapy, assuming effective treatment against a sensitive organism
- MDR- & XDR-TB: For the duration of the admission
- Measles: For 5 days from the onset of the rash
- Chickenpox: Until lesions are crusted over
- Adenovirus pneumonia: For the duration of the illness
- MRSA & ESBL-KP: For the duration of the admission
- Pan-resistant bacterial infection: For the duration of the admission
- Viral haemorrhagic fevers: For the duration of the admission; these patients should ideally be transferred to Tygerberg Hospital, the designated facility for managing viral haemorrhagic fevers in the Western Cape

V. Precautions for Meningococcal infection

- For children with meningococcal infection, droplet precautions including surgical masks should be observed for the first 24 hours of antibiotic therapy

VI. Preventing secondary Varicella transmission

- The following measures have prevented secondary transmission at RCWMCH:

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<td>Discharge relatively healthy index cases and manage as outpatients</td>
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<td>Consider acyclovir for all institutionalised index cases:</td>
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<tr>
<td>- If well: Oral Acyclovir 20 mg/kg, 6-hourly for 5 days</td>
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<tr>
<td>- If severely immunocompromised / disseminated disease: Intravenous Acyclovir 500 mg/m², 8-hourly for 7 days</td>
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<td>Nurse in a negative pressure ventilated cubicle until lesions are crusted over</td>
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<th>Post-exposure prophylaxis for non-immune contacts</th>
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<tr>
<td>Children $\geq$ 9 months old and HIV-uninfected and immunocompetent: Varicella vaccine: 1 dose given ideally within 72 hours and possibly up to 120 hours after exposure</td>
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Children < 9 months old, HIV-infected, HIV status unknown, or immunocompromised: VZIG given as soon as possible, within 10 days after exposure

3. Face mask etiquette
   - For patients with PTB, MDR-TB and XDR-TB health professionals should wear a N95 face mask
   - For all other children being managed with airborne of droplet precautions, health professionals should use a surgical mask
   - For parents of children requiring airborne precautions and parents with suspected or confirmed PTB, surgical face masks should be worn during ward visits
   - Refer to the hospital policy entitled: ‘Use of disposable face mask’ in the infection/infection control procedure file in the doctor’s office, for recommended practice

4. Cleaning equipment between patient contacts
   - Stethoscopes, monitoring probes and other equipment should be decontaminated before and after each patient contact
   - If visibly dirty, wash equipment with hot soapy water
   - To decontaminate equipment, D-germ (70% alcohol solution) applied to paper towel or gauze swab can be used

5. Procedure room decontamination
   - To minimise cross-infection, ensure that the examining bed in the procedure room is decontaminated, and a clean linen sheet and a new linen saver are placed on the examining bed before each patient contact. Clean sheets / linen savers are available in the procedure room. It is the responsibility of the attending clinician to ensure that the examining bed has been decontaminated and the linen is clean before a procedure.
   - If the examining bed is visibly dirty, wash with hot soapy water
   - To decontaminate the examining bed, D-germ (70% alcohol solution) applied to paper towel should be used
   - After each patient contact, the sheets should be removed from the examining bed and the examining bed wiped down with D-germ

6. Specimens for blood culture & CSF analysis, and insertion of intravenous lines
   - These procedures must be performed under sterile conditions: please use a sterile pack and sterile gloves when performing these procedures, ensure adequate hand hygiene before applying sterile gloves, and wear a plastic apron
   - Blood cultures should not be drawn from an existing intravenous line, but from a separate venous site. Where central line sepsis is suspected, an additional blood culture should be drawn through the central line.
- Biotane in alcohol (Chrohexidine gluconate 1 in 200 [0.5%] in 70% alcohol) should be used for skin disinfection before sterile procedures

7. Blood taking procedures

- When blood specimens are taken safety aspects must be considered and it must be done under aseptic conditions. Hands should be washed before commencing the procedure. All items needed must be assembled beforehand, e.g. sterile needles and syringes, specimen containers, gloves (which may be unsterile gloves) before the patient is brought into the room. The doctor should also wear a white plastic apron. The assistant who restrains the child should also wear an apron and gloves

- Biotane (as above) may be used to for skin disinfection prior to taking the blood.

8. Work flow

- To minimise opportunities for cross-contamination, it may be necessary during daily patient assessments to complete all procedures on one patient (e.g. clinical examination, compiling notes, replacing a drip, completing blood taking, etc) before moving to the next patient. This is particularly indicated (1) when the patient is known to be colonised or infected by a hazardous pathogen or (2) where a patient is severely immunocompromised

9. Caregivers/Parents with suspected TB

- If there is a high probability of TB, a caregiver/parent should be screened by the attending clinician. A folder must be opened for the caregiver, thereafter, CXR and sputum for TB diagnosis may be performed

- Caregivers / parents with active TB should be referred to the local TB clinic as soon as possible, and have restricted access to the ward e.g. limited or no visits to the child during the first 2 months of TB treatment, wear face mask if the caregiver is required to enter the ward

10. Visitors

- Visitors to patients: Two visitors per bed are allowed in the wards at any given time. Parents /caregivers are encouraged to visit at any time. Other visitors are restricted to visiting times viz. 3pm – 4pm & 7pm – 8pm. The ward sister reserves the right to limit the number of visitors to the ward.

- Other groups of people visiting the hospital must be accompanied by the Public Relations Officer and not be more than 10 people at any given time. The consultant leading the ward rounds should limit the number of people entering patient rooms / cubicles.

11. Dress etiquette

- Uniforms should be worn as per hospital policy
- Hand and wrist jewellery can harbour micro-organisms and can reduce compliance with hand hygiene. It is a good practice to remove wrist watches and other jewellery at the beginning of the shift.
- Sleeves on uniforms /clothing should either end above the elbow or be rolled up above the elbow when undertaking cleaning duties or procedures. Cardigans/coats/jackets should not be worn whilst undertaking duties.
- Neckties should either not be worn or should be tucked in when performing patient care procedures. Scarves should be tied securely so as not to fall over the patient when bending over the patient, or should not be worn at all.
- Hair should be kept neat and short. Long hair including braids should be tied back and up off the collar.

12. Cleaning procedure
- Beds, cots and incubator frames and lockers should be washed with hot soapy water (using the all purpose cleaner) when visibly soiled/dirty. Daily damp dusting with “sintol” by the general assistants. Wheels should be kept clean and well oiled.
- All other patient care equipment should be cleaned by nursing staff according to manufacturer’s instructions between use on patients and on discharge of patients.