CYSTIC FIBROSIS PROTOCOL

1. Introduction

Cystic Fibrosis (CF) is a genetic disorder affecting the lungs and digestive system, where the body produces thick mucus that may interfere with lung function or digestion. **CF is not contagious**. Approximately 1 in 3600 children born in Canada has Cystic Fibrosis.

There is evidence people with CF can share epidemic strains of many pathogens, which results in adverse clinical impact. Transmission of CF pathogens (such as *Pseudomonas aeruginosa* and *Burkholderia cepacia*) among people with CF is very well documented. Transmission of CF pathogens from individuals *without* CF to individuals *with* CF appears to be almost exclusively limited to respiratory viral pathogens.

2. Infection Prevention and Control Practices/Duration of Precautions

2.1. All persons with Cystic Fibrosis are to wear a procedure or surgical mask when not isolated in their room/bedspace or when in common areas of the hospital (e.g., cafeterias, lounges).

- If masking is not practical, take reasonable efforts to maintain a distance of 2 metres from other people.

Note: Do not substitute procedure or surgical masks with masks not intended for medical use. For instance, Vogmasks® are not suitable for use in healthcare; the manufacturer indicates they are NOT for illness, diseases, or infection and the intended use is to provide deodorization and reduce pollen, dust and possibly ozone.

2.2. Implement Contact Precautions with each admission/visit; do not discontinue.

- HCW to wear:
  - gloves to enter the room, cubicle or patient's designated bed space within a shared room.
  - a long sleeved gown **if** it is anticipated clothing or forearms will be in direct contact with the patient or with environmental surfaces or objects in the patient care environment.
  - a procedure or surgical mask and eye protection **if** anticipating splashes or sprays (as per Routine Practices).
- Patient does NOT wear gloves or an isolation gown at any time.
- Refer to the Contact Precautions Protocol for detailed information.

2.3. Continue to assess patient for signs and symptoms of infection. Implement appropriate Additional Precautions, in addition to Contact Precautions, as indicated:

- Implement Droplet/Contact Precautions if pathogens transmitted by the droplet or droplet and contact routes are known or suspected (e.g., mumps, adenovirus, rhinovirus, influenza like illness).

- Implement Airborne/Contact Precautions if pathogens transmitted by the airborne or airborne and contact routes are known or suspected (e.g., tuberculosis, varicella [chickenpox], rubeola [measles]).

2.4. Allow the patient out of their room as required for their care plan. Supervise the patient if compliance with precautions [8.4], e.g., hand hygiene or masking, not complied with.
- Isolate CF patients from others with CF.[8.2]

2.5. Care of Nebulizers in the Hospital:[8.2]
- Single-patient use only
- Always follow aseptic technique when handling the nebulizer and dispensing medications
- Single-dose vials of medication used in nebulizers are always preferred
- Handheld disposable nebulizers are managed as follows:
  - After each use, rinse out residual volume with sterile water[8.3]
  - Wipe mask/mouthpiece with an alcohol pad
  - Allow to air dry[8.4]
  - Discard the nebulizer every 24 hours

For additional information, refer to Aerosol Drug Therapy (Via a Nebulizer) HSC Patient Care Policy & Procedure Manual Policy # 80.120.1208.

2.6. Respiratory interventions: [8.2]
- Perform all respiratory interventions (e.g., aerosol therapy, airway clearance, and collection of respiratory tract cultures) in the patients' rooms whenever possible.
- If 2 people with CF who reside together in the community are sharing a room, perform these procedures when the second person is not in the room.

3. Accommodation

3.1. **Single Room (preferred):**
- A single room with a private toilet (or designated commode chair), designated patient sink and a dedicated staff hand washing sink is preferred.
- When single rooms are limited perform a risk assessment to determine patient placement and suitability for cohorting. Prioritize single rooms to patients with specific conditions/presentations (e.g., uncontained drainage, stool incontinence, young age, cognitive impairment) that increase infection transmission risk.
- Door may remain open.

3.2. **When a single room is not feasible:**
- **Do not place a person with CF in the same room as another CF patient** unless they reside together in the community.
- Do not place a person with CF in the same room as a person who is at high risk for complications if infection occurs, or with conditions/presentations

that may facilitate transmission (e.g., indwelling devices, open wounds, immunocompromised condition).
- Assign a designated commode or toilet to the person with diarrhea.
- Where possible, close privacy curtains between beds to minimize opportunities for direct contact.
- Ensure family members/visitors are able to comply with the required precautions.
- Ensure there is a minimum of 2 meters separation between bedspaces. [8.1]

4. Pulmonary Function Test Lab/Clinic Settings/Physiotherapy Office

In addition to the measures outlined in Section 2 (above):
Wipe or drape horizontal surfaces such as patient chair, desk closest to patient, exam table, and so on with a cover such as a clean sheet, between CF patients.
- Schedule CF patient as last patient of the day if possible.
- Allow 30 minutes between CF patients.[8.2]
- See only one CF patient per day if possible.
- If shared rooms: maintain a separation of 2 metres between patients; draw curtains.[8.1]

5. Screening

Do not screen for Cystic Fibrosis; CF is not contagious.

6. Patient Transport

- Patient performs hand hygiene and wears a procedure or surgical mask when leaving his/her room:
  - If masking is not practical*, take reasonable efforts to maintain a distance of 2 metres from other people
    *E.g., when transporting an active toddler.
  - Patient does NOT wear gloves or an isolation gown at any time, unless required for Routine Practices.
- Notify the receiving unit/clinic/site in advance that Contact Precautions are required.
- Place people with CF, regardless of their respiratory culture results, in a room immediately on arrival to minimize time in common areas.
- HCWs maintain Contact Precautions during both intra-facility and inter-facility transport.

7. Visiting Other Patients

Persons with CF are not to visit other persons with Cystic Fibrosis in the hospital unless they reside together in the community. In other extraordinary circumstances, and on a case-by-case basis, visiting may be done for compassionate reasons, following consultation with Infection Prevention and Control.

8. References

8.1. Cystic Fibrosis Spatial Separation email. (April 6, 2017). Expert opinion, Dr. Joanne Embree.

8.2. Infection Control and Hospital Epidemiology, Vol. 35, No. S1, Cystic Fibrosis Foundation Guideline, pp. S1-S67. (August 2014). Cystic Fibrosis Foundation. Available at: http://www.jstor.org/stable/10.1086/676882?seq=1#page_scan_tab_contents.

8.3. Infection Control Guideline for the Prevention of Healthcare-Associated Pneumonia. (2010). Centre for Communicable Diseases and Infection Control Public Health Agency of Canada. Available at: http://publications.gc.ca/collections/collection_2012/aspc-phac/HP40-54-2010-eng.pdf.

8.4. Routine Practices and Additional Precautions: Preventing the Transmission of Infection in Healthcare (2012 April) Manitoba Health. Available at http://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf.

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