Worcestershire Acute Hospitals NHS Trust

Guidelines for the Prevention of Cross Infection in Children and Young People with Cystic Fibrosis

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Key Amendment

Date	Amendment	Approved by
19th Nov 2020	Document extended for one year	Dr J West
26th March 2021	Document approved with no amendments	Paediatric Guideline Review Day Meeting
9th Feb 24	Physiotherapy section added. Slight amendments to nebulisers, cleaning and not sharing	Paediatric Guideline Review Day

Introduction

These guidelines refer to Infection prevention and control measures that should be adhered to in the management of children and young people with cystic fibrosis (CF) within the Trust.

Many different bacterial organisms, viruses and fungi can infect the respiratory tract of patients with CF. Respiratory infection in CF population can be more significant than for other individuals and is associated with deterioration of lung function. For example, acquisition of Pseudomonas aeruginosa (PsA), one of the common CF chronic infections, is associated with a reduction in life expectancy and increased morbidity. Acquisition of other respiratory infections results in additional morbidity, the need for additional treatment, and is the primary cause of progressive lung damage and eventual mortality.

Appropriate infection control measures are therefore a fundamental part of the care provided by a CF service. This document outlines the Infection prevention and control measures which should be adhered to by all staff working with children and young people with CF.

There is no irrefutable evidence that CF patients infect one another by mixing but there is some supportive evidence and clear theoretical support for cross-infection. Therefore, national guidelines recommend that CF patients do not mix either as inpatients or outpatients in the hospital setting, nor as outpatients in the community. The Paediatric Respiratory team support the national guidance.

Practices to contain respiratory secretions and prevent transmission must be followed with all cystic fibrosis patients. Strict infection control and avoidance of patient to patient contact within cystic fibrosis clinics and between CF inpatients is essential to reduce risk of transmission.

Objectives of the Guideline

These guidelines should improve awareness and understanding of the risks of infection to CF children and young people. The aim is to ensure best practice in infection control amongst all staff in contact with children and young people with CF and thus reduce risk to these individuals.

Outpatient clinic:

Hand washing or decontamination, with alcohol hand gel is essential when in contact with the patient and the patient's environment. Hands should be washed with soap and water at the start and end of

clinical duties, when hands are visibly soiled or potentially contaminated and following the removal of gloves. Routine periodic hand decontamination with alcohol-based rub should be performed between every patient contact, or between each activity for the same patient, when hands are not visibly soiled.

Covering mouth during coughing and disposing of tissues is an important way of reducing the spread of respiratory viruses. Patients should be instructed to cough into a tissue that should be immediately discarded, into a bin with an orange bag or tiger stripe (yellow and black) bag. Hand hygiene should be performed after coughing. Sputum should not be expectorated down toilets, sinks or in showers.

Patients known to have Burkholderia cepacia complex must not attend routine CF clinics, but should be seen in other non-CF clinics or brought to the ward as ward attenders.

Isolation in outpatients:

The child should have their height and weight measured on arrival when possible and should then be taken into a clinic room straight away. The patient should ideally not have any periods of waiting in the waiting room. No two CF patients should ever be in the waiting room at the same time. Children's Outpatients Department (COPD) staff should prioritise CF patients to be weighed and measured.. The Multi-Disciplinary Team will attend to the patient in the patient's clinic room.

Sanitizing disinfectant wipes should be available in all the examination rooms for cleaning of multi-use items such as stethoscopes and saturation probes between patients.

If physiotherapy takes place in the clinic, physiotherapy staff should wear single-use aprons and gloves that give adequate cover of clothing. Hand hygiene must be carried out following removal of gloves and aprons

The spirometer must be wiped using a disinfectant wipe between patients. Consider the use of a bacterial filter if required.

Stethoscopes must be cleaned using sanitizing disinfectant wipes after each patient examination.

Toys should not be passed around and must be cleaned after use with sanitizing disinfectant wipes. Soft toys should not be provided.

Clinical staff should clean equipment and surfaces using sanitizing disinfectant wipes between patients and at the end of clinic.

When atients use the toilets in clinic, staff should be made aware and wipe down with disinfectant wipes all points of contact.

Community setting:

Where children go to the same school they are kept in separate classes and the school is made aware that they should not play together. The CNS will work with the school to ensure an appropriate risk assessment has been carried out to prevent and reduce the risk of cross infection.

Whilst the Trust cannot prevent our patients mixing in the community we need to send a clear message that it is not recommended, and we need to clearly prohibit mixing during any Trust supported event.

Only one CF patient should be asked to Trust supported Fundraising/Trips unless patients are siblings.

Inpatients admissions:

Where possible we admit only one patient with CF at any one time (unless siblings). CF patients should be nursed in a cubicle with an en-suite. Where a cubicle cannot be made available, a child or young

person with CF may be nursed in a bay but infection risk from other patients must be assessed. For example, a child or young person with CF should not share a bay with another CF patient, a patient with known non-CF bronchiectasis, or a patient who is immune-compromised. A child or young person with CF should also not share a bay with other patients with acute respiratory infection. The child or young person with CF should transfer to a cubicle as soon as possible

If there is more than one CF patient admitted to the ward, then best practice is that cubicles are as far apart as possible (ideally at opposite ends of the ward). Two CF patients should not be cared for by the same ward nurse if possible.
Whilst an inpatient, children or young people with CF should not enter other cubicles. If another child or young person with CF is admitted, they should not play in the play room at the same time, and they should not partake in ward activities at the same time.

Physiotherapy/Nebulisers/airway devices:

Nebuliser and airway clearance devices must not be shared between CF patients.

When being admitted patients should bring in their own nebuliser from home (if they have one) for use during their admission.

Nebilisers should be cleaned and sterilised as per the manufacturer's instructions for specific device.

Airway clearance devices to be cleaned as per manufacturer's instructions after every use. When cleaning equipment, disposable wash bowls must be used. Airway clearance device components must be separated and cleaned with ward water with a few drops of washing up liquid. Components should be rinsed in warm water to remove soapy residue in a separate bowl. All water and wash bowls to be disposed of in the sluice. Water must not be discarded in the sink or toilet. All components must be left to air dry and then stored in an airtight container.

Burkholderia cepacia:

Any child who is colonised with Burkholderia cepacia should not be admitted to the ward unless a cubicle is available, and should not be seen in a clinic with other CF patients for at least 24 months after the last isolation. These patients should receive physiotherapy last if an inpatient and physiotherapists should wear an apron and gloves. Patients with B Cepacia should also have separate Spirometry equipment.

Visiting the paediatric unit:

There may be occasions where adult CF patients may attend the paediatric unit (i.e. as parents or visitors). They should be aware of the risk of exposure to respiratory viruses whilst on the paediatric ward. They should be asked not to visit, or spend time with, any CF inpatients (unless immediate family).

Playroom:

Children can attend the playroom, but only one CF child or young person is allowed in the playroom at any one time.
Play sessions will be arranged by the play leaders at the bedside at times when another CF child or young person is having their turn in the playroom.

Socialising:

CF patients should be asked not to socialise with other CF patients. CF patients should be allowed to go to non-clinical areas, such as the shop and canteen.

Room and Equipment Cleaning:

All single patient rooms on Riverbank are now part of the augmented care areas for pseudomonas monitoring and flushing. If the en-suite facilities are not in use, or if the occupant is not using the en-suite shower or hand basin regularly, the taps need to be flushed daily for at least a minute and should be recorded on the housekeeper's daily record.

Single rooms occupied by CF patients must be cleaned thoroughly on a daily basis and after discharge. Ward staff should contact domestics to arrange cleaning of the room.

All 'patient-touch' surfaces, including bed frames, should be cleaned daily. The cubicle should have a daily "AMBER" clean by the domestic staff whilst it is in use.

Gram-negative bacteria survive well in a moist environment, so special care and cleaning is essential for nebuliser equipment etc. All items must be stored dry.

A fresh kit box of equipment (including gloves, apron, stethoscope) will go into the room with the patient on admission and will stay in the room until discharge. Upon discharge, any unused stock (eg aprons, gloves) can be used. The Respiratory Team will be responsible for ensuring that a kit box is available for use.

All clinical equipment must be decontaminated according to manufacturer's recommendations and in line with the Decontamination policy (WHAT-INF-009). All ward equipment (ie infusion pumps, saturation monitors) should stay in the room during the inpatient stay and then at discharge have a "RED" HPV clean.
On discharge, there should be terminal clean and the Ward Manager should assess the cleanliness of the fittings.

Infection control procedures:

All staff and visitors must decontaminate their hands before and after contact with the patient, their immediate surroundings and on leaving the room/area.
In general, other than observing good hand hygiene practice, visitors do NOT need to follow the same precautions unless they have certain conditions (e.g. open and suppurating wounds) or if they are assisting with the nursing care of a patient.

Dedicated equipment or single-use items are preferred when possible.

All staff must use appropriate personal protective equipment (PPE) to reduce incidence of splash injury, this includes wearing fluid shield masks when performing cough inducing procedures.

COVID:

Please note that COVID symptoms (e.g cough) do not exclude a patient for review and no further adjustments to clinic procedures are required.

References

- CF Trust (2011) Standards for the Clinical Care of Children and Adults with Cystic Fibrosis in the UK. Second Edition. London: CF Trust.

- CF Trust (2004) Pseudomonas aeruginosa infection in people with Cystic Fibrosis. Suggestions for prevention and infection control. Second edition. London: CF Trust.

- CF Trust (2004) The Burkholderia Cepacia Complex Suggestions for prevention and infection control. Second edition. London: CF Trust.

Contribution List

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	Infection Prevention and Control

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Name	Committee / group
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