



Cross Infection Control Policy

Cystic Fibrosis Research Institute (CFRI) is committed to the safety and well-being of all people attending CFRI sponsored activities. CFRI promotes stringent cross infection guidelines in maintaining high standards to minimize the risk of cross infection at CFRI events and elsewhere as fitting. CFRI is committed to educating its staff, volunteers, CF patients, CF families, and the greater community, with the most current knowledge about CF cross infection risks and prevention of the spread of respiratory infections. CF infection control and prevention guidelines at CFRI may differ from those at your CF center, please consult your CF care providers for the most up to date guidelines at your care center.

While the guidelines outlined below are designed to reduce risks of infection, attendees should be aware that there remains the possibility that persons attending a CFRI sponsored event carry pathogens that may be harmful to people with CF that could be transmitted unknowingly or inadvertently to others in attendance, such as organisms belonging to *Burkholderia cepacia* complex, *Stenotrophomonas maltophilia*, *Staphylococcus aureus*, *Haemophilus influenzae*, and other pathogens listed below, as well as newly emerging strains, and thus, there remains some risk of cross infection. Because CFRI cannot guarantee an environment risk free of transmissible pathogens, each attendee must make her/his own evaluation of the benefits and risks in deciding to attend. Assistance in making such decisions may best be obtained from the potential attendee's physician.

Specific pathogens most prevalent in individuals with CF, such as organisms belonging to *Burkholderia cepacia* complex (all strains, including *Burkholderia dolosa*),¹ *Mycobacterium abscessus* (a species of non-tuberculous mycobacterium (NTM)),^{2,3} *Staphylococcus aureus* (both methicillin-resistant *Staphylococcus aureus* [MRSA] and methicillin-sensitive *Staphylococcus aureus* [MSSA], any multi-drug resistant bacteria, including known transmissible strains of *Pseudomonas aeruginosa*, such as the Liverpool epidemic strain, have been associated with an increased risk of morbidity and mortality in individuals with CF.^{4,5}

The risks of cross infection of other pathogens that may be dangerous to those with CF, including and not limited to *Stenotrophomonas maltophilia* and *Achromobacter xylosoxidans* are unclear, but may also be associated with accelerated lung disease.⁶

Current literature suggests that there is a community of CF bacteria and viruses in the lungs of people with CF, posing challenges for complete microbiology analyses and interpretation. Most pathogens, viruses and fungi known to be harmful to those with CF are widespread in the general environment, in hospitals, on contaminated surfaces, and in soil and air.

The most current cross infection guidelines for CF follow these assumptions⁸ and should be applied to all persons – those with CF as well as those without CF – attending CFRI events. These basic precautions may be effective in preventing most, but not all, cross infection events:

1. Practice vigilant respiratory and hand hygiene, especially before eating, after coughing, blowing the nose, disinfecting nebulizers, or doing treatments.
2. Because the shaking of hands is known to be a primary source of pathogen and viral transmission, all attendees should refrain from shaking hands.
3. Reduce contamination of environmental sources, such as surfaces in common areas, by cleaning frequently.
4. Avoid close contact (hugging, kissing, sharing food/drinks/phones) between all people.
5. To avoid pathogen spread by droplets from saliva and breath during speaking, individuals with CF should maintain a minimum distance of 6 feet apart from each other, and all persons should avoid speaking directly into the face of the listener.

CFRI requires attendees of all CFRI-sponsored activities to abide by the following:

1. In order to attend overnight events such as the CFRI Conference and/or Retreat, prospective attendees with CF must have a medical release form signed by their physician showing that they have had a sputum culture at a CFF accredited treatment center laboratory within six weeks of the event, and that they have: 1. Never had a confirmed positive culture for an organism belonging to or related to *Burkholderia cepacia* complex (B.cc); 2.

Have not cultured MRSA within the past 12 months 3. Have not had a positive culture for *Nontuberculous mycobacteria* (NTM) in the past 12 months; and 4. Do not currently culture positive for any pandrug-resistant (PDR) bacteria (bacterial isolates non-susceptible to all agents in all antimicrobial categories) or extensively drug resistant (XDR) bacteria that remain susceptible to only one category of antimicrobials (does not apply to XDR isolates remaining susceptible to two or more categories of antimicrobials). Although negative sputum cultures do not eliminate risk, they may reduce risk of pathogen transmission.

- a. If the individual is hospitalized between the sputum culture and the CFRI Conference and Retreat, or other CFRI event, a repeat sputum culture and medical release form is required to attend these events.
 - b. Lung transplant recipients must also submit a medical release form signed by their physician which may be based on the most recent bronchoscopy result or sinus culture within the six week period prior to the event.
 - c. Attendees of multi-day events such as the CFRI Conference and/or Retreat will be required to sign a Cross Infection Agreement and Release from Liability form which acknowledges that they are voluntarily in attendance and are aware of the risks of cross infection in settings where other people with CF are present.
 - d. If only one person with cystic fibrosis attends a CFRI event, the following cross infection control policy regarding the following pathogens is not applicable: 1. Never had a confirmed positive culture for an organism belonging to or related to *Burkholderia cepacia* complex (B.cc); 2. Have not cultured MRSA within the past 12 months; 3. Have not had a positive culture for *Nontuberculous mycobacteria* (NTM) in the past 12 months; and 4. Do not currently culture positive for any bacteria resistant to multiple antibiotics and potentially a risk to other individuals with CF. The rest of the cross infection control policy remains in effect.
2. Attendees with CF at all CFRI single-day events are required to sign CFRI's Cross Infection Policy form upon check-in, available at the registration table. Those with CF will need to know their sputum culture results obtained within the previous 6 weeks or they will not be able to attend.
 3. It is recommended that all rooms where those with CF gather at CFRI events have adequate ventilation and space.
 4. All CFRI events will have visible signage and announcements will be made about cross infection risks and prevention.
 5. All CFRI events will have personal protective items such as gloves, surgical masks and alcohol-based hand gel available for *all attendees*.
 6. Attendees with CF at all CFRI events will be provided with a hygiene kit including tissues, gloves, masks, and hand gel.
 - a. Use a tissue to cover a cough and dispose of dirty tissues in the plastic *Ziplock* bag provided.
 - b. Wash hands or use alcohol based hand gel (minimum 62% alcohol) to sanitize after coughing or blowing the nose, doing treatments, before eating and after using the restroom, or after having contact with other people.
 - c. Dispose of used masks in the plastic *Ziplock* bag provided upon leaving.
 7. Because it has been determined that droplets containing viruses and pathogens that are potentially harmful to persons with CF can be dispersed up to six feet while talking, people with CF are strongly encouraged to sit at least 6 feet apart – ideally at separate tables or across from each other at a large table – to minimize the risk of droplet contamination.
 8. Microphones should be passed to speakers by volunteers without CF. Microphones will be cleaned by persons who do not have CF between each use with a Caviwipe-1.
 9. Volunteers without CF will serve food and beverages to those with CF. Individuals with CF will not touch common serving utensils and beverage dispensers.
 10. We encourage that volunteers without CF be the point of contact for opening doors and turning on lights.
 11. To protect the health of those with CF, any attendee - CF or not - who appears to have symptoms of a respiratory infection (cough, sneezing) or other communicable diseases may be asked to leave the premises of a CFRI hosted event immediately.

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 - (2) Aitken ML, Limaye A, Pottinger P et al. Respiratory outbreak of *Mycobacterium abscessus* subspecies *massiliense* in a lung transplant and cystic fibrosis center. *Am J Respir Crit Care Med* 2012;185:231-232.
 - (3) Bryant JM, Grogono DM, Greaves D et al. Whole-genome sequencing to identify transmission of *Mycobacterium abscessus* between patients with cystic fibrosis: a retrospective cohort study. *Lancet* 2013.
 - (4) Aaron SD, Vandemheen KL, Ramotar K et al. Infection with transmissible strains of *Pseudomonas aeruginosa* and clinical outcomes in adults with cystic fibrosis. *JAMA* 2010;304:2145-2153.
 - (5) Saiman L. Infection prevention and control in cystic fibrosis. *Curr Opin Infect Dis* 2011;24:390-395.
 - (6) Dasenbrook EC. Update on methicillin-resistant *Staphylococcus aureus* in cystic fibrosis. *Curr Opin Pulm Med* 2011;17:437-441.
 - (7) Hansen CR. *Stenotrophomonas maltophilia*: to be or not to be a cystic fibrosis pathogen. *Curr Opin Pulm Med* 2012;18:628-631.
 - (8) O'Malley CA. Infection control in cystic fibrosis: cohorting, cross-contamination, and the respiratory therapist. *Respir Care* 2009;54:641-657.