

## SUPPLEMENTARY MATERIAL

### *Bcc genotyping*

Whole genome sequencing (WGS) were performed on the *Burkholderia cepacia* complex (Bcc) isolates obtained from the 11 patients with new-onset *Burkholderia cenocepacia* ET12 lineage (ET12-Bc) infection, as well as an additional isolate taken on one patient 3 years after acquisition. In addition, typing was performed on 17 ET12-Bc isolates from 17 CF patients known to be chronically infected with ET12-Bc, of which 8 had overlapping admissions with the 11 patients with new-acquisitions from 2008 to 2017. Four isolates from ET12-Bc infected CF patients in Michigan, USA, as well as the ET12-Bc J2315 reference strain, were also included as comparators in this analysis. WGS was performed using 150 base pair paired-end runs on an Illumina HiSeq4000 DNA sequencer. Reads were assembled using SPAdes 3.9.0 genome assembler. Assembled contiguous genome segments were then converted into WGS databases, using a ‘makeblastdb’ tool. The core genome sequences of each strain were aligned against the complete genome of J2315 using the Harvest Suite (<http://github.com/marbl/harvest>). Single nucleotide polymorphisms (SNPs) between the newly sequenced strains and the J2315 reference strain were profiled.

### *Epidemiology of Bcc infection in the Toronto Adult CF Centre*

The distribution of new-onset infections caused by Bcc species and *Burkholderia gladioli* at the Toronto Adult CF centre (in addition to infection control practices used at the time) is shown in **Supplementary Figure**. The number of new cases of Bcc and *B. gladioli* increased from 20 new cases in 1998-2007 to 37 new cases in 2008-2017. With respect to ET12-Bc, although there were only five new cases from 1998 to 2007, five new cases occurred in 2008 alone. A single new acquisition occurred in 2009, whereas two cases occurred in both 2014 and in 2016. The latest new acquisition occurred in 2017.

### *Infection prevention and control measures*

Since 1992, the ambulatory clinics have been segregated by Bcc status with Bcc culture-positive patients seen on a different clinic day than Bcc culture-negative patients. The Bcc clinics are further segregated by ET12-Bc status; patients with ET12-Bc are usually seen on a different day. If ET12-Bc positive patients need to be seen due to an acute illness, they are seen in a physically separate clinic. The inpatient specialty CF ward consists of 12 patient rooms over an approximate 5,400 square foot area. All patients are admitted to patient rooms on the same ward. Patients are encouraged to remain in their rooms, with closed doors. If they step out of the room, they must remain six feet apart from another patient with CF and wear a mask while in the healthcare center. Although some of the inpatient hospital rooms are under negative pressure, the majority are not and have six air exchanges per hour. Hand hygiene and segregated clinics, universal gowning and gloving was put in place years before it was recommended in the literature <sup>12</sup>. Nursing assignment is done according to Bcc status, whenever possible given resources. Specifically, an individual nurse would not be caring for both a Bcc positive and a Bcc

negative patient. Pulmonary function testing is done in the patient's room using a portable machine and equipment is cleaned after use using hydrogen peroxide wipes. The method of cleaning of rooms and equipment did not change during the period of incident cases of ET12-Bc.