Infection Prevention and Control Policy

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CF Foundation’s Infection Prevention and Control Policy: Key Elements

• At any CF Foundation-sponsored indoor event, meeting or office, including gatherings such as Foundation chapter committee meetings, only one person with CF may be present.
CF Foundation’s Infection Prevention and Control Policy: Key Elements

• At Foundation-sponsored outdoor events or gatherings, people with CF need to maintain a distance of at least 6 feet from each other.

• Under no circumstances shall individuals who have ever had a confirmed positive sputum culture for *Burkholderia cepacia* (*B. cepacia*) complex attend any Foundation events, meetings or offices.
Update on Infection Prevention and Control in CF:
Living Safe with CF

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Goals for Today

• Discuss why infection prevention and control (IP&C) are important in CF
• Review rationale for *updating* IP&C Guidelines
• Discuss *new* data
• Review recommendations to *minimize spread* of germs to people with CF
IP&C Committee and Areas of Expertise

Rebekah Brown – CF Center Dr.
*Elizabeth Bryson – PNP, CF Practice Manager
Mary Jo Chambers – MSW
Veronica Downer – Inpatient RN
Jill Fliege – NP, Coordinator
Leslie Hazle – CFF
Manu Jain – CF Center Dr.
*John LiPuma – CF Microbiology, Molecular Epidemiology
Bruce Marshall – CFF
*Catherine O’Malley – RT
Suzanne Pattee – CF Adult

*Gail Potter-Bynoe – IP&C
Siobhan Reid - Parent
Kathy Sabadosa – Parent, CFF
*Lisa Saiman – CF Microbiology, IP&C, ID
Joel Schmidt – CF Center Dr.
*Jane Siegal – IP&C, ID
Elizabeth Tullis – CF Center Dr.
Jennifer Webber - Parent
*David Weber – IP&C

*Served in 2003
Progress: Update of IP&C Guidelines

• Completed systematic review for evidence-based guidelines in collaboration with Hopkins team
• Voted January 2013 on recommendations
• Writing up background and recommendations
• Submit for public comment by CF care centers May 2013
• Revise June 2013
• Submit for publication September 2013
• Present at North American CF Meeting October 2013
Goals of First IP&C Guidelines

• Reviewed published research

• Created revised, evidence-based recommendations for infection control practices
  – inpatient
  – outpatient
  – non-healthcare settings
  – psychosocial implications

• Update as needed

• It’s been a decade!
Spread of CF Germs

• We do not know where all CF germs come from, but there is much evidence that CF germs spread between people with CF:
  – *Burkholderia* spp.
  – *Pseudomonas aeruginosa*
  – *Staphylococcus aureus*
    • MSSA
    • MRSA
  – Rare reports of *Achromobacter*
  – ? NTM
Review How Germs Are Spread

- Direct contact
- Indirect contact
- Droplet spread

Spread of CF Germs

Non-healthcare Settings

- Socializing
- Siblings
- Sharing a toothbrush
- Kissing
- Exercise class
- Long car rides

Clinical Impact of Specific CF Germs: New Data

• *Pseudomonas* – the Liverpool strain

• *Burkholderia* species – *B. dolosa*

• MRSA

• Non-tuberculous mycobacteria (NTM)
Pseudomonas Liverpool Strain and Increased Mortality / Transplant

Figure 3. Comparison of Time to Death or Lung Transplant

HR 3.26 (95% CI 1.41, 7.53, P=0.01)

Strain A
Liverpool
n=67

Strain B
N=32

Unique Strains
n=218

Aaron S et al. JAMA 2010
Liverpool Strain

- **Ontario**
  - ~ 15% of patients

- **UK**
  - ~ 48% of CF clinics
  - ~ 11% of CF patients

- **US**
  - Unknown
  - Ongoing studies

Burkholderia dolosa: Morbidity and Mortality

- Case-control study
  - 31 B. dolosa
  - 24 B. multivorans
  - 58 uninfected controls
- Deterioration in lung function
- Increased risk of dying within 18 months:
  - 13% B. dolosa
  - 7% B. multivorans
  - 3% controls

Impact of MRSA on Survival: Kaplan-Meier Estimates (N = 19,833)

Ad HR 1.27 (95% CI, 1.11, 1.45)

M. abscessus subsp. massiliense

- 5 adults with CF
- Index case multi-drug resistant M. abscessus ss massiliense for 7 years
  - AFB 4+ smear positive
- 4 others (+)ve in 8 months
- 4/5 shared CF clinic days
  - 3/5 died

Core IP&C Principles: In All Settings

• Assume that **ALL** people with CF have possible germs in their respiratory tract secretions

• Educate staff, people with CF and their families about IP&C – regularly

Core IP&C Principles: In All Settings

• Minimize potential for people with CF to contact each other’s secretions via contact or droplets.

• Separate people with CF from others with CF by at least 6 feet.

Hand Hygiene Prevents Spreading Germs

• Touching common items
• After coughing and sneezing
• Before eating
• After using bathroom
Respiratory Hygiene Prevents Spreading and Getting Germs

• Contain secretions in a tissue
• Discard immediately
• Cover mouth when coughing
• Hand hygiene after coughing
Avoid Contact between People with CF in Non-healthcare Settings: IP&C Guidelines

The CFF recommends that all people with CF who do not reside in the same household avoid activities and risk factors that have been associated with the spread of CF germs in non-healthcare settings.
The CF Foundation recommends that **only one** person with CF attend a CFF-sponsored **indoor** event, **meeting or office** to reduce the risk of the spread of germs.
Avoiding Contact: Non-healthcare Settings

- The CF Foundation recommends that people with CF CAN attend CFF-sponsored outdoor events (e.g., Great Strides) providing they maintain a distance of at least 6 feet from others with CF.
Infection prevention and control is the most effective way to prevent infections in CF.
Questions?