



# Infection Prevention and Control Policy

March 27, 2013



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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***

**Lisa Saiman, MD, MPH**

Professor of Pediatrics

Columbia University Medical Center

Hospital Epidemiologist, Morgan Stanley Children's

Hospital of NewYork-Presbyterian



COLUMBIA UNIVERSITY  
MEDICAL CENTER



# 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

**Karen Robinson** – Sys. Review Exp.

**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**

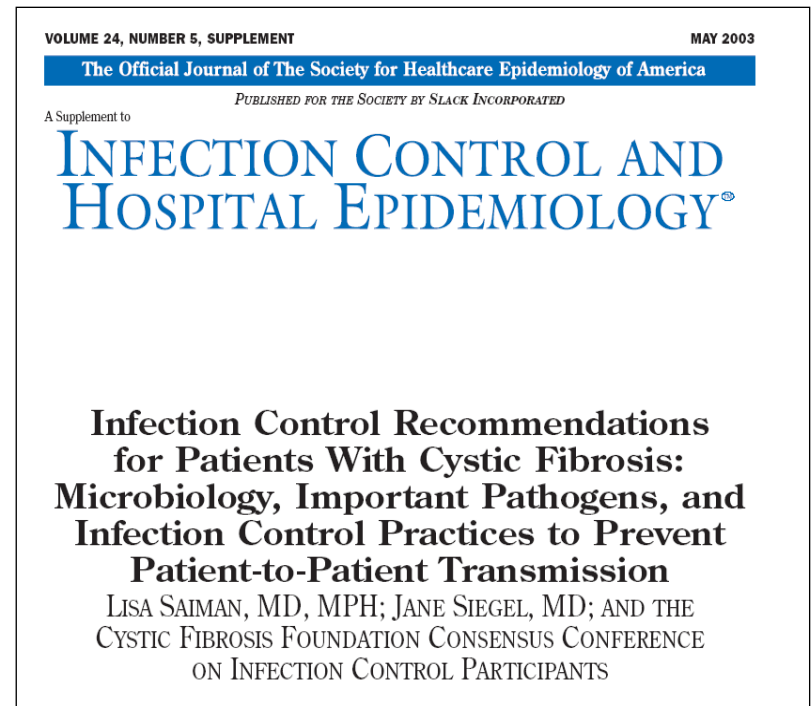


# Progress: Update of IP&C Guidelines

- 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***

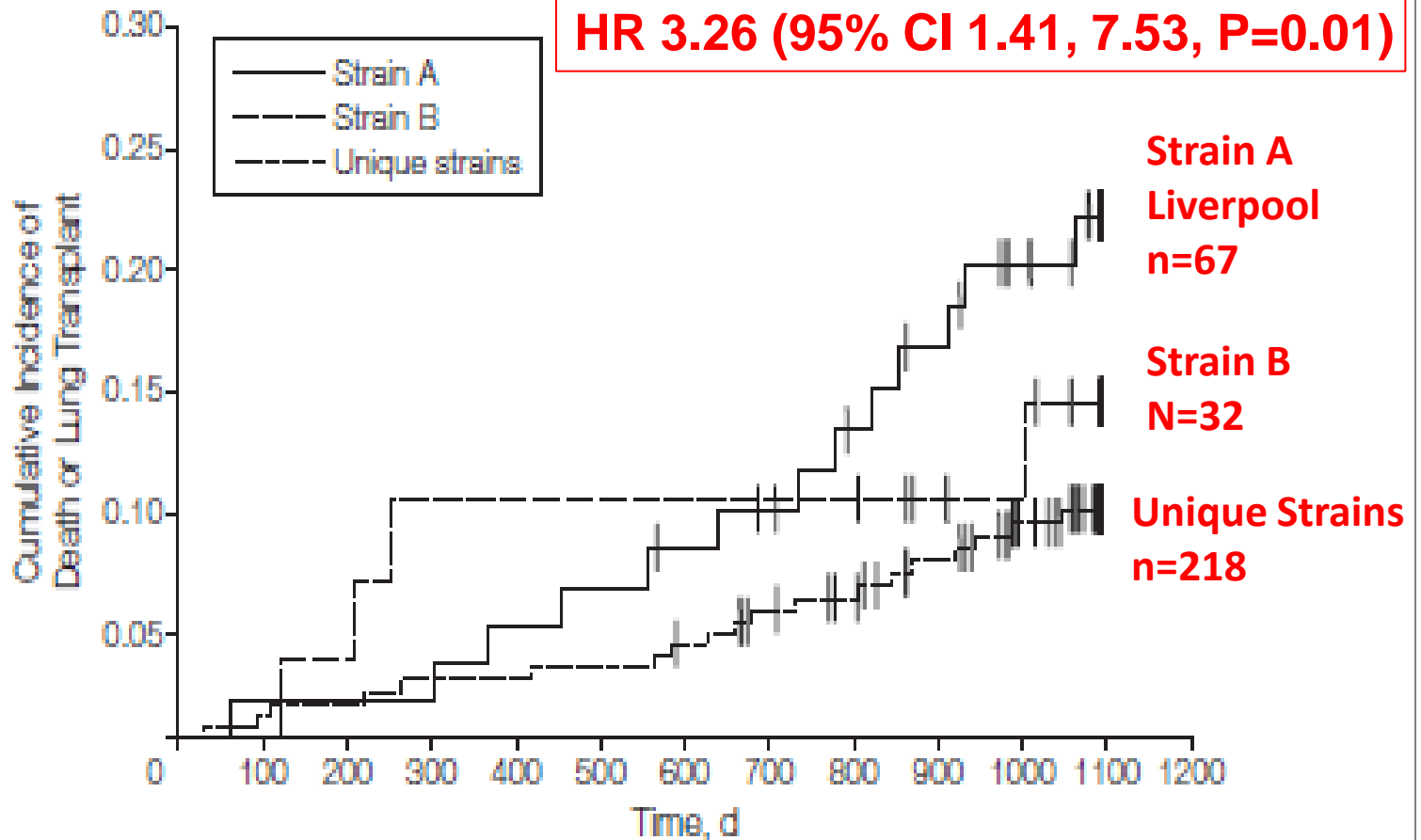
- Socializing
- Siblings
- Sharing a toothbrush
- Kissing
- Exercise class
- Long car rides

# 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



# Liverpool Strain

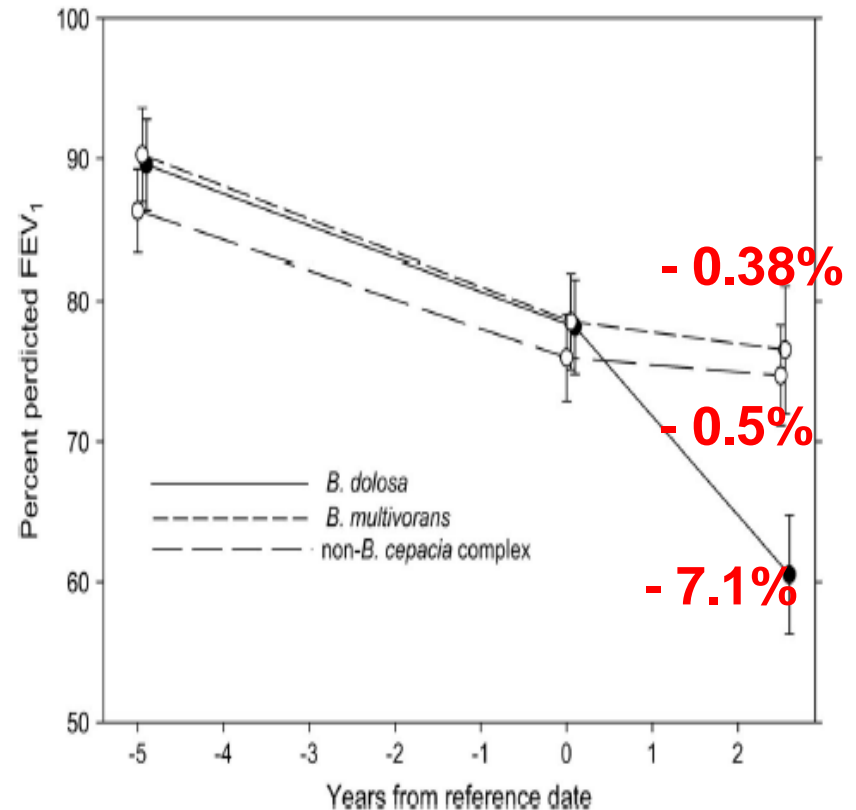
- **Ontario**
  - ~ 15% of patients
- **UK**
  - ~ 48% of CF clinics
  - ~ 11% of CF patients
- **US**
  - Unknown
  - Ongoing studies

**Aaron S et al JAMA 2010; Al-Aloul M et al. Thorax 2004;  
Fothergill JL, et al Eur Resp J 2012 epublished**

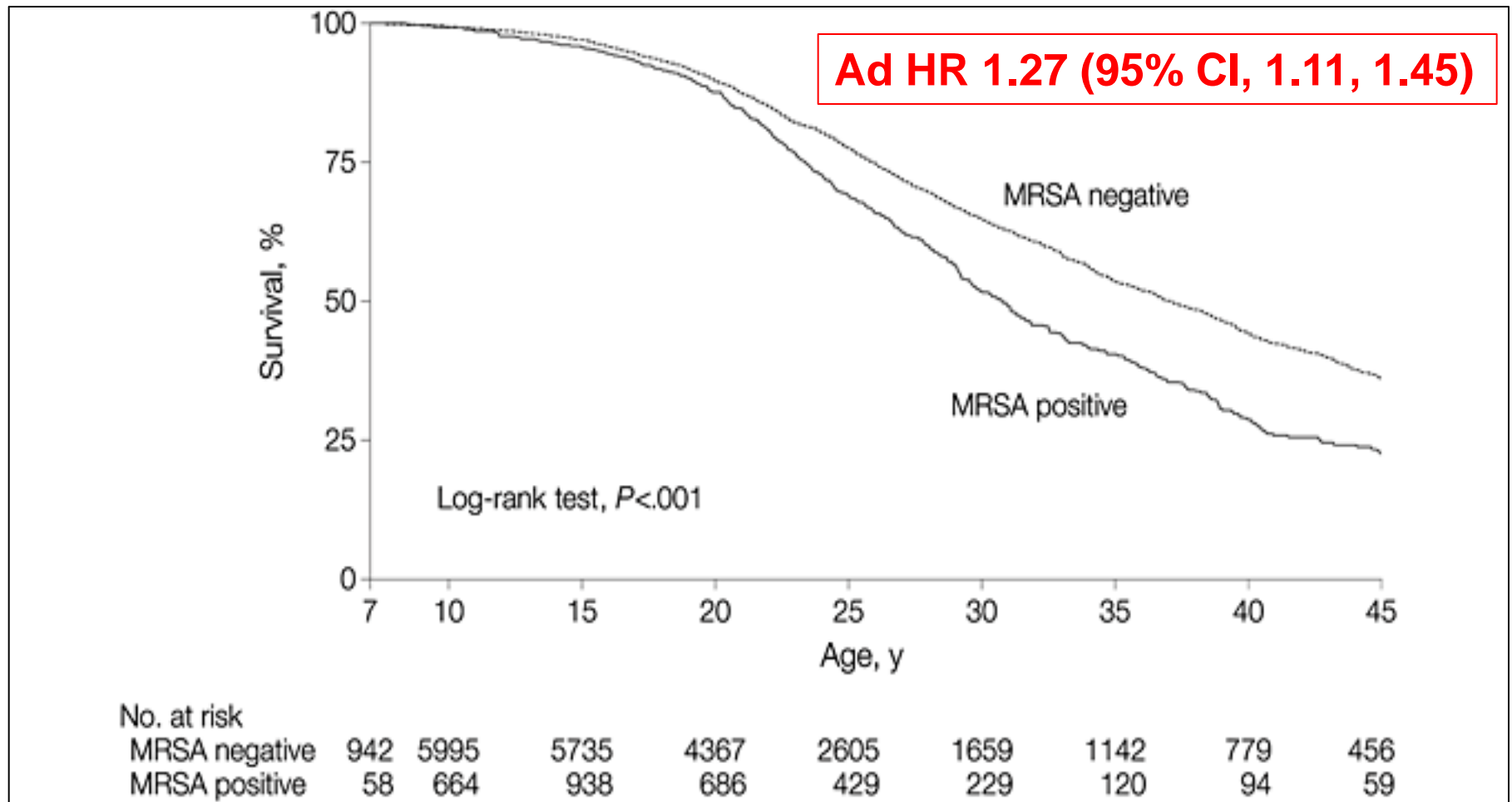


# *Burkholderia dolosa*: Morbidity and Mortality

- 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

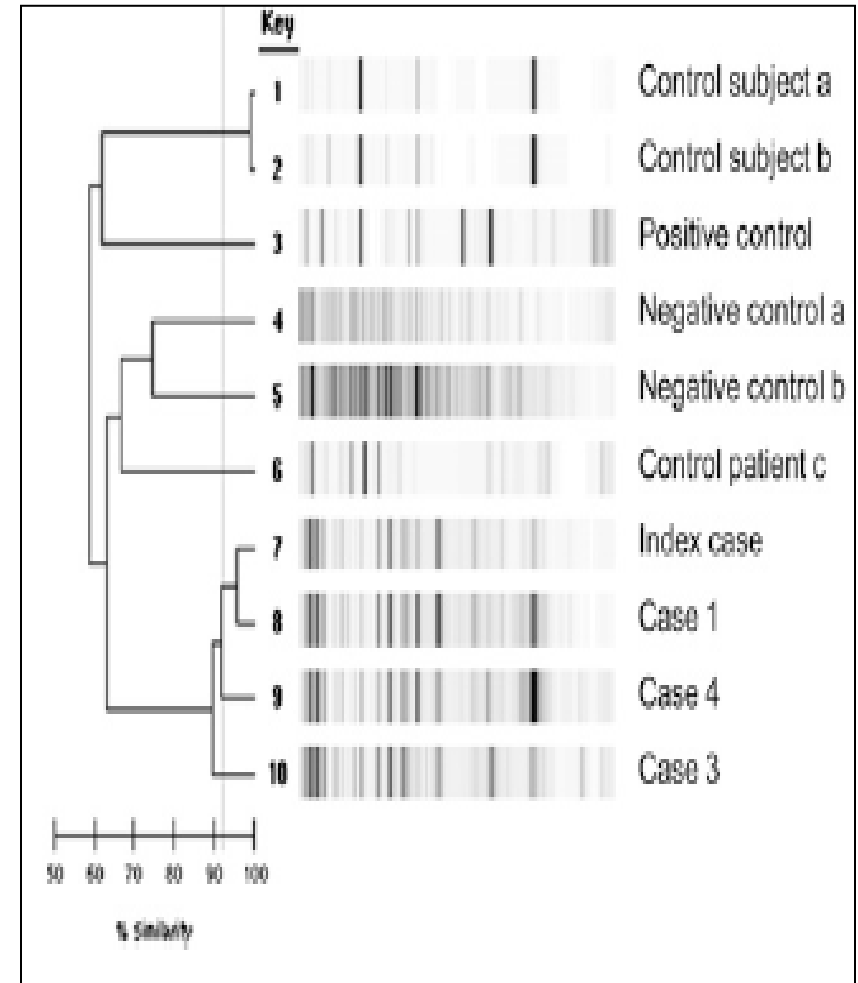


# Impact of MRSA on Survival: Kaplan-Meier Estimates (N = 19,833)



# *M. abscessus* subspecies *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

**Saiman L, et al. Consensus Recommendations for Infection Control. Siegel JD, et al. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings**

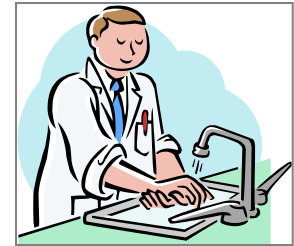
# Core IP&C Principles: In All Settings

- 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**

Saiman L, et al. Consensus Recommendations for Infection Control. Siegel JD, et al. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

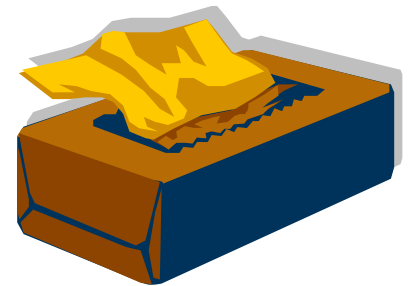
# Hand Hygiene Prevents Spreading Germs

- 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.



# Avoiding Contact: 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?

