

“The single most important practice for preventing transmission of infectious agents is the observation of proper hand hygiene”

CF Awareness Day

November 1, 2003

AFTERNOON BREAKOUT SESSION: INFECTION CONTROL/AIRWAY CLEARANCE

Jeannine Cheatham, MS, RN, CCNS
UNIVERSITY OF CHICAGO Hospitals

Cathy O'Malley RRT
Children's Memorial Hospital

1. Why is infection control so important?
2. Infection Control in the hospital – what are “standard precautions”? Isolation?
3. Infection Control in the clinic
4. Home suggestions

Airway Clearance Techniques –Options for individuals and families with CF
Pros/cons
Incorporating infection control into each airway clearance technique

What else can be done?

Consider carrying waterless hand gel sanitizers

Immunization: Flu shot, Pneumovax or Prevnar, RSV shot for infants under 2 years of age
Plus other routine immunizations

Take/give antibiotics as prescribed and finish the full course prescribed... Why?

Monitor sputum/throat culture results two to four times per year. This must be done at a cystic fibrosis center. Discuss the results with your/your child's MD/Practitioner

Resources:

CFF.org

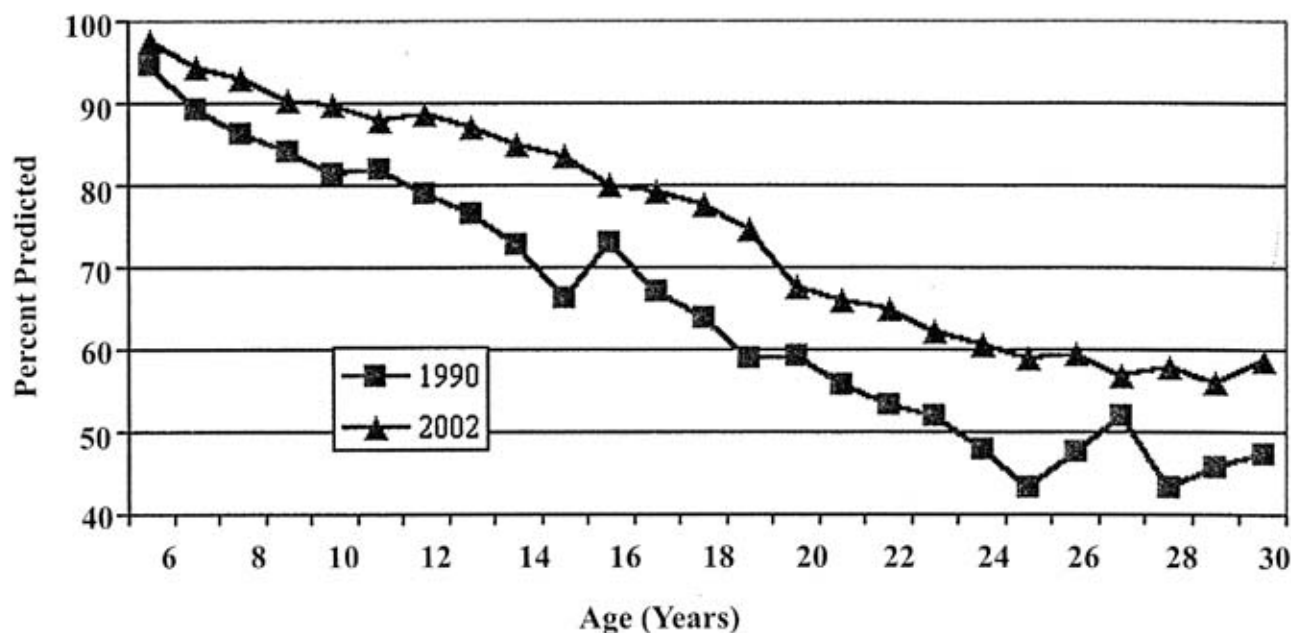
Consensus conference on infection control

Lung Function

Goal: Everyone with CF will receive the right therapies to keep lung function steady and to decrease the number of respiratory infections or pulmonary exacerbations. These will be diagnosed early and treated quickly.

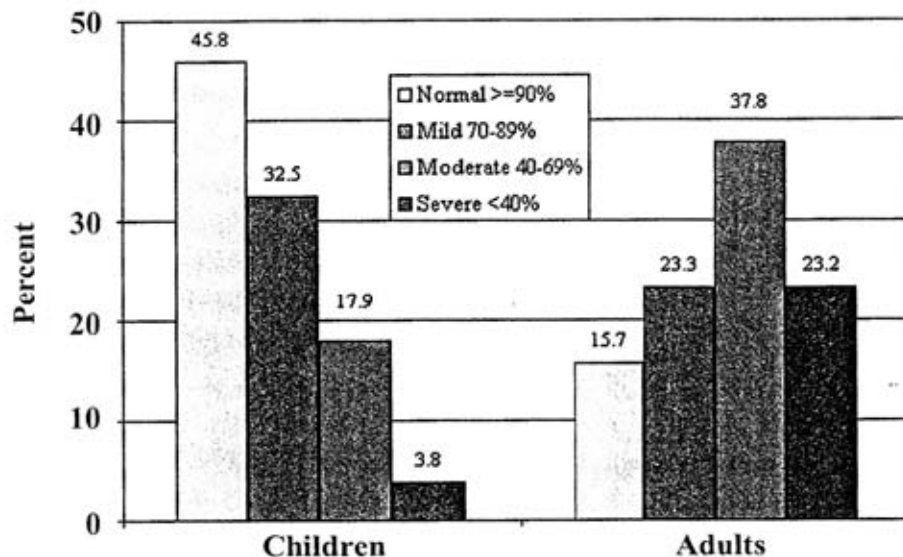
Everyone with CF starts with healthy lungs at birth. Lung function is measured by FEV₁, or Forced Expiratory Volume over one second, which is shown as percent predicted based on a healthy, non-smoking, group of people. It is usually near normal or just under 100 percent when first measured around six years of age. As seen below, lung function then declines at about two percent per year. However, since 1990, lung function has improved five to 10 percentage points for all ages from six to 30 years.

Median Percent Predicted FEV₁ vs. Age, 1990 and 2002



The next graph shows the percentage of children and adults and the severity of lung disease in each group. The lower a person's FEV₁, the more severe the lung disease. An FEV₁ greater than or equal to 90 percent is normal. If the FEV₁ is between 70 and 89 percent, the person has mild lung disease. An FEV₁ between 40 and 69 percent, means the person has moderate lung disease. If the FEV₁ is less than 40 percent, this means severe lung disease is present. The graph shows that adults have more severe lung disease, but many have normal or mild lung disease. Therapies like Pulmozyme®, antibiotics like TOBI® and better nutrition have all worked to improve FEV₁. Airway clearance and exercise also lead to better lung function.

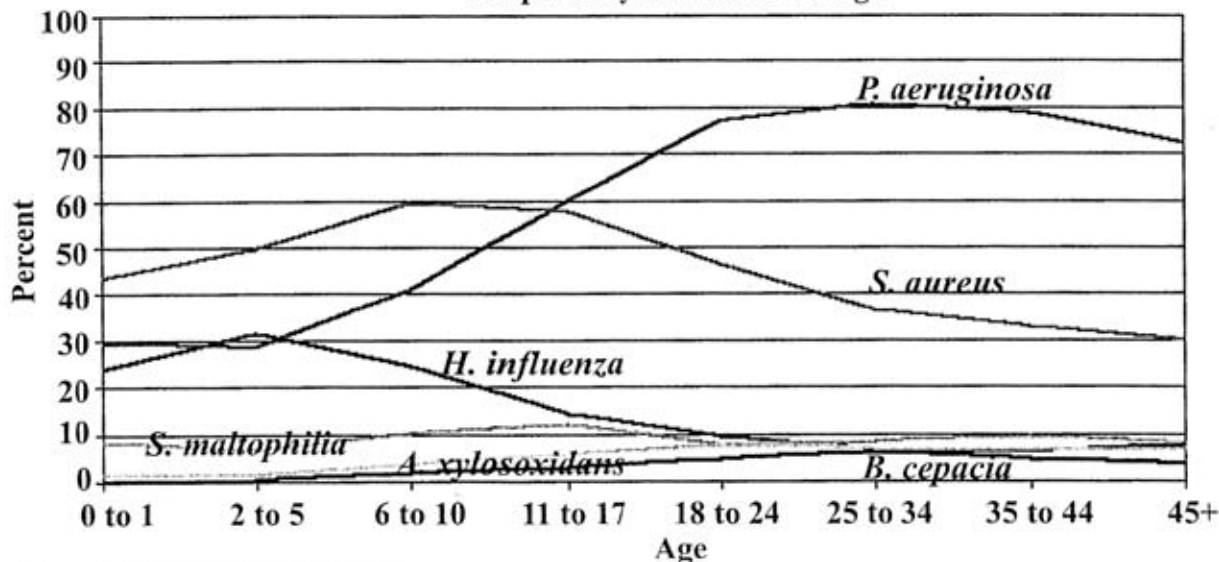
Respiratory Severity for Children and Adults — FEV₁ Percent Predicted



Goal: People with CF and their care teams will work together to eliminate the chances of patients getting respiratory pathogens or germs, particularly *P. aeruginosa* and *B. cepacia*, in the hospital, clinic and home settings.

Repeated respiratory infections or pulmonary exacerbations are a main concern for people with CF. It is the cycle of infection and inflammation that damages the lungs. This damage causes lung function (FEV₁) to decline. When the lungs are damaged, pulmonary exacerbations happen more often. The next graph shows what germs can cause lung infections in different age groups. To learn more about preventing respiratory infections, ask your CF care team. Information about stopping the spread of germs is also on the CF Foundation's Web site at www.cff.org.

Respiratory Infections vs. Age



Overall Percentage in 2002:

- *P. aeruginosa* 57.8%
- *S. aureus* 49.7%
- *H. influenza* 16.3%
- *S. maltophilia* 9.4%
- *B. cepacia* 3.1%
- *A. xylosoxidans* 5.2%