I. PURPOSE
Epidemiological studies demonstrate the organisms infecting or colonizing the respiratory tracts of Cystic Fibrosis (CF) patients can be transmitted to other CF patients by direct contact or through droplet transmission. Standard precautions, transmission-based precautions, appropriate hand hygiene for health care workers (HCW), patients, and their families, and care of respiratory tract equipment to prevent the transmission of infectious agents serve as the foundations of infection control and prevent the acquisition of potential pathogens by patients with CF. The following recommendations are intended to minimize transmission of resistant organisms in the hospital setting, ambulatory care, pulmonary function test sites, and social settings for adult and pediatric patients.

II. REFERENCES
F. Additional references: See Appendix i

III. POLICY
Practices to minimize the spread of respiratory secretions and prevent transmission of respiratory tract pathogens must be applied to ALL CF patients including those who have undergone lung transplantation.

IV. PROCEDURE
All areas of the hospital (inpatient, outpatient, testing sites [e.g. Pulmonary Function Testing (PFT) lab, Interventional radiology, PrePare]): Implement UCSF Isolation Precautions for every CF patient contact. Wear a gown and gloves for routine contact, mask with eye protection (shield or goggles) for contact with respiratory secretions, and N95 or Powered Air Purifying Respirator (PAPR) for high hazard respiratory treatments.

A. Hospitalized Patients
1. Room/Nursing Assignment:
   a. Assign CF patients to a private room with a private bathroom, and affix the “UCSF Isolation Precautions” sign to the door.

   i. If assignment to a private room is not possible, CF patients may not share rooms with other CF patients, patients with tracheostomy, immune-suppressed or neutropenic patients.

   ii. If assignment to a room with a private bathroom is not possible, CF patients may not share a bathroom with other CF patients, immune-suppressed neutropenic patients or with patients with a tracheostomy.

   b. CF patients may share a hospital room with a person who sleeps in the same room at home, e.g. siblings.

   c. Nursing will stock personal protective equipment (gowns and gloves, masks & eye protection, N95, PAPR) at CF patient’s room entrance.

   d. Patients will have dedicated disposable equipment, e.g. stethoscope, blood pressure cuff, thermometer.

   B. Standard and Transmission-based Precautions

   1. Gowns, gloves and masks/eye protection will be used in accordance with Standard Precautions. As per the UCSF Precautions signage, healthcare workers (HCW) must anticipate potential contact with respiratory secretions through contact with the patient or the patient’s environment.

      a. Wear gown and gloves for all contact with a patient diagnosed with CF.

      b. Wear mask with eye protection for anticipated splashes or sprays such as those created during cough-inducing procedures.

      c. Wear N-95 or PAPR during a high hazard medical procedure.

      d. Wear a PAPR if the patient has an airborne infectious disease and receiving a high hazard medical procedure.

   2. For CF patients who require isolation for other conditions or diseases, affix the appropriate transmission-based precautions sign on the door (Contact, Droplet or Airborne precautions) in addition to the UCSF Precautions sign, **Transmission-based**
precautions and/or any associated departmental policies will supercede the “UCSF Isolation Precautions”.

3. Hand hygiene is the single most important practice for preventing transmission of infections. HCW must perform hand hygiene in accordance with the Hand Hygiene policy.

4. Educate CF patients in frequent hand hygiene using alcohol-based hand rub and/or handwashing sinks in their own rooms. CF Patients must perform hand hygiene prior to leaving their rooms.

5. CF patients must routinely wear surgical masks covering mouth and nose when out of their rooms.

C. Equipment and Environmental Cleaning
1. Clean the rooms occupied by CF patients or from which CF patients have been discharged according to routine cleaning procedures.
2. Follow hospital policy and procedure for disinfection and sterilization of patient care equipment.
3. Disinfect environmental surfaces when they become contaminated with respiratory tract secretions, e.g., during pulmonary function testing, body plethysmography.

D. Respiratory therapy and pulmonary function testing
1. Perform all respiratory interventions, including aerosol therapy, airway clearance and sputum collection, in the patient’s room.
2. Dedicate airway clearance devices (e.g., flutter, acapella, pep device, therapy vest) to single patient use during inpatient hospitalization.
3. Respiratory Therapy/PFT equipment shall not be shared between CF patients.
   a. Reusable equipment shall be disinfected before re-use in accordance with hospital policy for disinfection and sterilization.
   b. Disposable items not used for invasive purposes (e.g. nebulizers) may be issued per patient and reused for the same patient. Schedule for replacement of such items will be determined by the nursing unit and respiratory therapy.

E. Communal/Social Settings
1. Playrooms, Schoolroom, Teen Lounge, Allstars Technology Room, and PFT lab will accommodate one CF patient at a time.
2. Admission of pediatric CF patients who are eligible for child life services will be communicated by charge nurse to the unit-based Child Life Specialist (CLS) at morning report; this information is conveyed to the departmental Child Life CF Specialist.
3. Admission of CF patients to other pediatric in-patient nursing areas will be communicated to the Child Life CF specialist by the CLS following the patient.
4. The Child Life CF Specialist creates a daily schedule for programming spaces so that CF patients have assigned times that do not overlap with other CF patients.
5. Neutropenic patients or patients with a tracheostomy will not attend the Playrooms, Schoolroom, Teen Lounge, Allstars Technology Room, or PFT laboratory at the same time as a CF patient.
6. Patients must wash their hands prior to entering the room.
7. Equipment, computers, or toys handled by CF patients shall be disinfected prior to being handled by another patient.

8. Patients in Transmission-based precautions (Contact, Droplet or Airborne isolation) may not use these communal facilities.

9. Patients with CF are not allowed to visit in other CF patients’ rooms.

10. With a physician’s order, CF patients are allowed to visit public areas of the hospital (e.g. cafeteria, lobby, gift shop) with appropriate escort as required.

11. Benioff Children’s Hospital Security Policy requires that pediatric patients be accompanied by a staff member when leaving the unit.

12. CF patients will maintain a distance of 6 feet from other known CF patients when in public places.

F. Outpatient Ambulatory Practices

1. Schedule and manage outpatients to minimize time in common waiting area.
   a. Stagger appointment times in the clinic schedule
   b. Patient must be masked in the waiting room. Patient may remove mask in exam room
   c. Staff will wear gown and gloves.
   d. Move patients to an exam room as soon as one is available.
   e. Keep the patient in one exam room; the CF team rotates through each room.

2. Ensure ample alcohol-based hand rub is available in the corridors and in each exam room. All care providers and patients perform hand hygiene on entering and leaving each exam room.

3. Disinfect environmental surfaces
   a. Before and after spirometry
   b. Before the next CF patient is admitted to the exam room
   c. After an exam room is cleaned, no other CF patient may enter for 30 minutes. A green card is placed on the outside of the exam room door verifying that it has been cleaned and also noting the time at which another CF patient may enter. The 30 minute wait time does not apply to non-CF patient,

4. Mucus produced by patients that is not captured for culture will be caught in a tissue and discarded into a covered, no touch receptacle.

V. HISTORY OF POLICY

Revised 6/02, 3/04, 10/04, 8/08, 11/11, 7/14