Cystic fibrosis

Cystic fibrosis (CF) is caused by a defect in the CF transmembrane conductance regulator gene that affects the transport of ions and water across the epithelium. This leads to progressive pulmonary disease associated with pulmonary infections, which are the major cause of morbidity and mortality in CF patients. The major pathogens are S. aureus, H. influenza (usually non-encapsulated in CF patients), *S. pneumoniae, Burkholderia* and Pseudomonads, particularly mucoid *P. aeruginosa* strains. Strains of *P. aeruginosa* with differing antibiotic susceptibilities may be isolated from a single sample.

General information

Collection container (including preservatives): Collect specimens in appropriate CE marked leak proof containers and transport specimens in sealed plastic bags.

Sputum/Pleural Fluids/BALs

Cough Swabs (Paediatric CF)

Specimen type: Respiratory specimens; Sputum and Cough Swabs (Paediatric use only)

Collection: Use aseptic technique.

Specimen transport: Specimens should be transported and processed as soon as possible. Paediatric postal samples should be submitted using the kit provided by the Microbiology Laboratory.

Minimum volume of sample: 5mL

Special precautions: Some complex identification can take several weeks to confirm identity.

If processing is delayed, refrigeration is preferable to storage at ambient temperature. Delays of over 48hr are undesirable.

Laboratory information

Measurement units: Not applicable

Biological reference units: Not applicable

Turnaround time: Negative results available at 2 working days and positives generally within 8 working days.

Clinical information

Clinical decision points: Not applicable

Factors known to significantly affect the results: Specimens should be transported and processed as soon as possible. The recovery rate of *Haemophilus sp.*, is reduced the longer the time taken to transport the specimen.

(Last updated December 2014)