MEASURING BACTERIAL SEDIMENTATION IN CYSTIC FIBROSIS CLINICS

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ABSTRACT

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OBJECTIVE: To measure bacterial shedding during outpatient visits from cystic fibrosis (CF) patients. Mucus from the respiratory tract of CF patients is a potential source of environmental contamination during the course of outpatient visits.

METHODS: During the study period, patients were enrolled at the time of their outpatient visit. A sterile swab was applied to the patient’s hands and air samples were taken from the examination room. Bacterial shedding was measured using a culturing and molecular method of analysis. Molecular analysis was performed using pulsed field gel electrophoresis (PFGE) analysis of Staphylococcus aureus and Pseudomonas aeruginosa.

RESULTS: During the study period, bacterial shedding was observed in 24% of patients. The most common bacterial species observed were Staphylococcus aureus and Pseudomonas aeruginosa. The most common environmental source of bacterial shedding was the patient’s hands. Molecular analysis of bacterial shedding was performed using PFGE analysis. The most common bacterial shedding observed was Pseudomonas aeruginosa. PFGE analysis was performed to confirm the identity of the bacterial shedding observed.

CONCLUSIONS: Bacterial shedding from CF patients was observed during outpatient visits. PFGE analysis is ongoing, but thus far has been useful to confirm identity between bacterial shedding observed.

Hypothetical

Cystic fibrosis patients shed bacteria to the local environment during the course of outpatient visits.

METHODS

Sedimentation and physical analyses

1. Bacterial shedding was measured during outpatient visits from cystic fibrosis (CF) patients. A sterile swab was applied to the patient’s hands and air samples were taken from the examination room. Bacterial shedding was measured using a culturing and molecular method of analysis. Molecular analysis was performed using pulsed field gel electrophoresis (PFGE) analysis of Staphylococcus aureus and Pseudomonas aeruginosa.

RESULTS

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