

Cystic Fibrosis Research News

Title:

A critical review of definitions used to describe *Pseudomonas aeruginosa* microbiological status in patients with Cystic Fibrosis for application in clinical trials

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What was your research question?

Our aim was to evaluate the definitions regarding *Pseudomonas aeruginosa* (Pa) microbiological status of people with CF.

Why is this important?

Assigning the correct Pa microbiological status is essential for appropriate inclusion of these people in future clinical trials of antibacterial therapy. For example, in order to determine the effectiveness of a treatment aimed at getting rid of Pa from the airways in the initial phases of infection we need to ensure that people participating in the trial don't already have established chronic Pa infection where we can't get rid of the organism. Otherwise this could give misleading results.



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What did you do?

We reviewed all of the available medical literature relating to previous trials of antibiotics for eradicating and treating Pa in CF and compared the definitions used to include people in these studies. We then evaluated the strengths and weaknesses of each of these to formulate the most appropriate definitions of Pa microbiological status for use in future clinical trials

What did you find?

We found wide variability in the definitions of Pa microbiological status used in historical clinical trials.

What does this mean and reasons for caution?

This makes it difficult to compare previous trial findings to determine which antibiotic treatments are the most effective.

What's next?

By proposing a more standardised set of definitions of Pa status it should make the interpretation of clinical trials for Pa treatment easier in future, provided all agree to use these definitions at trial enrolment. Ultimately, this should improve our ability to correctly identify the best antibacterial strategy for treating Pa in different phases of infection in CF.

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