



Cystic Fibrosis Research News

Manuscript Title and Citation:

Short-term and long-term response to pulmonary exacerbation treatment in cystic fibrosis. *Thorax*. 2016 Mar;71(3):223-9. doi: 10.1136/thoraxjnl-2014-206750.

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What was your research question (50 words maximum)?

We looked at differences in pulmonary exacerbation care in patients with cystic fibrosis (CF) to see how these care differences may affect treatment success. We looked at short-term and long-term lung function changes, changes in how patients reported feeling, and how long patients were able to go before the next intravenous (IV) antibiotic therapy.

Why is this important (100 words maximum)?

It is important to understand how various treatments for lung infections impact how patients feel, short and long-term lung function, and time between infections for people with CF.

Understanding these effects can help us make better treatment plans in the future.

What did you do (100 words maximum)?

We used data from people 10 years and older with CF who had been started on intravenous antibiotics (IVs) due to a lung infection. We then looked to see if there was a connection between treatments and the short and long-term health of the patients.

What did you find (100 words maximum)?

About one-third of CF patients had less than 10% relative improvement in lung function during treatment. These patients were more likely to be below their baseline lung function 3 months after treatment and they also had a longer time before they used intravenous antibiotics again, which was surprising. The study found that most patients' symptoms improved with pulmonary exacerbation treatment. However, there was not a clear relationship between the improvements from pulmonary



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exacerbation treatment and long-term lung function recovery and time between infections needing treatment.

What does this mean and reasons for caution? (100 words maximum):

How patients felt after treatment for pulmonary exacerbation did not match well with their lung function or how long they could go before needing intravenous antibiotics again. These results can help inform future research into treatment regimens for lung infections by providing expected outcomes for lung function response.

What's next? (50 words maximum)?

There are no next steps planned for this study.