Cystic Fibrosis Research News

Title:
Factors associated with lung function response with oral antibiotic treatment of pulmonary exacerbations in cystic fibrosis

Lay Title:
Response to oral antibiotic treatment in people with cystic fibrosis

Authors:
Ana Blanchard, Michelle Shaw, Felix Ratjen, Elizabeth Tullis, Nick Daneman, Valerie Waters

Affiliations:
Ste Justine Hospital (Montreal, QC), Hospital for Sick Children (Toronto, ON), St Michael's Hospital (Toronto, ON), Sunnybrook Health Sciences Centre (Toronto, ON)

What was your research question?
Our research question was to determine which factors were associated with poor response to oral antibiotic treatment in people with CF (pwCF).

Why is this important?
Treatment of symptoms such as cough with oral antibiotics is very common in pwCF. Unlike treatment with intravenous antibiotics, less in known about why some pwCF respond to oral antibiotics and other don't.

What did you do?
We studied children and adults with CF who were followed at the Toronto CF clinics between 2009-2018. We looked at lung function measured before and after oral antibiotic treatment to identify factors associated with poor response.

What did you find?
We found that bigger drops in lung function at the time of starting oral antibiotic treatment was associated with less lung function improvements compared to baseline health. In addition, being older and female were risk factors for less lung function improvement with oral antibiotic treatment. Longer antibiotic treatment duration may also be associated with greater increases in lung function.

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What does this mean and reasons for caution?

This means that we may be able to predict which patients are more or less likely to respond to oral antibiotics, thus allowing us to target improvements in therapy. However, this study was retrospective (looking back in time at charts) so we would need to confirm these results in a prospective (moving forward) study.

What's next?

As modulator therapies become increasingly used in pwCF, treatment with oral antibiotics may become more common so it is important to further define these episodes and optimize treatment responses.

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