

Cystic Fibrosis Research News

Title:

Remote monitoring of cystic fibrosis lung disease in children and young adults

Lay Title:

Remote monitoring of CF

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What was your research question?

The aim of this study was to see if lung function tests done at home using a home spirometer gave similar results to those done at the hospital over a 12-month period in children and adolescents with cystic fibrosis (CF).

Why is this important?

With new technology, people with CF can now use telemedicine and home devices to keep track of their lung health. Home spirometry allows patients to measure their lung function at home and share the results with their CF care team. This supports the growing use of mobile health apps and offers a more flexible, patient-centered way to manage CF care. However,

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some studies have shown that home spirometry results can vary, so more research is needed to make sure the results are reliable.

What did you do?

This 12-month study included children and young adults with CF from seven clinics in Sweden. Participants used a home spirometer to check their lung function before doctor visits and after finishing antibiotics. They also did regular lung function tests at the hospital. Antibiotic treatments were recorded using an app, which shared the information with their CF clinic. The main goal was to track lung health and treatment over time in everyday life.

What did you find?

The study showed that lung function tests taken at home followed similar trends and gave similar average results to those done at the hospital. However, it's important to use good technique when doing home spirometry to get accurate results. It's also important to keep track of any antibiotic treatments, as lung function can be affected if the test is done during a flare-up (exacerbation).

What does this mean and reasons for caution?

This study shows that good-quality lung tests done at home can help keep track of lung health in children and young adults with CF. The results from home and hospital tests were mostly similar when looking at the whole group. However, we still need to learn more about how well each person's home test results match their hospital test results.

What's next?

The goal is to use both home and hospital spirometry in everyday CF care and to better understand individual results.

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