

Cystic Fibrosis Research News

Title:

When is *Burkholderia cepacia* complex truly eradicated in adults with cystic fibrosis? A 20-year follow up study

Lay Title:

How long after treatment do people with cystic fibrosis no longer have *Burkholderia cepacia* complex in their sputum samples?

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What was your research question?

How long after treatment do people with cystic fibrosis no longer have *Burkholderia cepacia* complex (BCC) in their sputum samples?

Why is this important?

In the UK, there is still a recommendation for people with CF to attend different clinics according to which bacteria are grown in their sputum samples. However, it is unknown how long after receiving treatment for BCC we can be confident that people with CF no longer have BCC in their lungs.

What did you do?

We followed all people with CF at our centre with a new growth of BCC in their sputum over a 20-year period. We reviewed what treatment they received and examined all their sputum samples afterwards to see if BCC had been eradicated (got rid of) or resulted in chronic infection.

What did you find?



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Of all people with CF with a new BCC infection, about half had BCC eradicated and about half developed chronic BCC infection. 16.7% of people with only negative sputum samples 6-12 months after receiving treatment for BCC later had sputum samples which were positive for BCC and 10.7% of people with only negative samples at 12-24 months had positive samples later. In people where BCC was truly eradicated, they were more likely to have had eradication treatment for a greater number of days, compared to people who developed chronic infection.

What does this mean and reasons for caution?

Some people with negative sputum samples after receiving treatment for BCC may still go on to develop chronic infection, therefore care should continue to be taken with infection control measures. Longer duration of treatment for BCC may be more effective compared to shorter courses, however treatments varied a lot between individuals as there is currently no standardised or recommended eradication treatment. There were also some people with BCC who didn't receive eradication treatment, but did not develop chronic infection.

What's next?

Further work on how CFTR modulator treatments effect chronic respiratory infections such as BCC may be needed, as the effects are currently unclear.

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