

Cystic Fibrosis Research News

Title:

Longitudinal effects of elexacaftor/tezacaftor/ivacaftor on liver tests at a large single adult cystic fibrosis centre

Lay Title:

Effects of elexacaftor/tezacaftor/ivacaftor on liver tests in cystic fibrosis

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What was your research question?

To find out the effects of elexacaftor/tezacaftor/ivacaftor on liver tests over a 12-month period in adults with cystic fibrosis.

Why is this important?

In clinical trials, elexacaftor/tezacaftor/ivacaftor caused changes in liver tests in a small number of individuals. Since licencing, there have been rare cases of serious liver injury in some individuals after starting elexacaftor/tezacaftor/ivacaftor. It is unknown whether having cystic fibrosis liver disease puts people at increased risk of developing abnormal liver tests after starting elexacaftor/tezacaftor/ivacaftor.

What did you do?

We monitored changes in liver tests in adults with CF over the first 12 months after starting elexacaftor/tezacaftor/ivacaftor. We also compared whether there was any difference in changes between those with and without CF liver disease.

What did you find?

In the overall group there was a small rise in some liver tests (ALT, AST and bilirubin) 3 months after starting elexacaftor/tezacaftor/ivacaftor which did not on average increase further after

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this. These changes were mild and did not result in changes to elxacaftor/tezacaftor/ivacaftor dose for the vast majority of individuals. People with CF liver disease were not more likely to have a significant liver injury compared to those without and they did not have a greater change in liver tests compared to those without.

What does this mean and reasons for caution?

Elexacaftor/tezacaftor/ivacaftor appears to lead to a small change in some liver tests which is apparent after 3 months, though the reasons for this are not clear. Serious liver test abnormalities are rare and do not appear to be related to a diagnosis of CF liver disease. These results suggest that people with CF liver disease do not appear to be at greater risk of developing a serious liver abnormality after starting elxacaftor/tezacaftor/ivacaftor, compared to people without CF liver disease.

What's next?

Longer term follow up of changes in liver tests after starting elxacaftor/tezacaftor/ivacaftor is needed and further work to understand why a small number of people develop serious liver problems after starting elxacaftor/tezacaftor/ivacaftor.

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