

Can a personalised approach to albumin treatment improve care for patients with cirrhosis and ascites?



Human albumin is a medication given as an intravenous infusion. It is commonly used in patients with cirrhosis and ascites to help prevent complications and improve outcomes.



Researchers from MICROB-PREDICT are conducting the ALB-TRIAL to test whether a personalised approach to albumin treatment, guided by blood biomarkers, can improve care for patients with cirrhosis and ascites.



The aim is to identify which patients are most likely to benefit from albumin treatment.

1 What is cirrhosis and ascites?



Cirrhosis
(scarred liver)



Ascites
(fluid in the abdomen)

Cirrhosis is advanced scarring of the liver, which can lead to a build-up of fluid in the abdomen (ascites) and other serious complications.

Ascites can cause discomfort and increase the risk of infections, kidney problems and death.

2 What is human albumin and how is it used?



Human albumin is a protein made from donated human blood. It is given as an intravenous infusion and is commonly used in patients with cirrhosis and ascites to help maintain blood volume and prevent complications.

Current guidelines recommend albumin in certain situations, but the best way to use albumin for each individual patient is not yet clear.

3 What are the researchers doing in the ALB-TRIAL?



The ALB-TRIAL is a randomised clinical trial in patients with cirrhosis and ascites.



Researchers will measure specific biomarkers in blood to identify which patients are most likely to benefit from albumin treatment.



Participants will be randomly assigned to a personalised albumin treatment strategy or to standard care, and their health outcomes will be compared over time.

4 What do the researchers hope to find?

The trial aims to show that a personalised approach to albumin treatment can lead to better outcomes.



Fewer
infections



Better
kidney function



Fewer
hospital admissions



Improved
survival

The results will help determine whether using blood biomarkers to guide albumin treatment can improve care for patients with cirrhosis and ascites.

5 What could this mean for patients?



A personalised approach could help identify patients who are most likely to benefit from albumin treatment.



This may lead to more effective treatment, fewer complications and better quality of life.



It could also help avoid unnecessary treatment in patients who are less likely to benefit.



In the future, a personalised albumin treatment strategy could help ensure that patients receive the right treatment at the right time.

6 Is albumin already used in clinical practice?



Yes.

Albumin is already widely used in clinical practice for patients with cirrhosis and ascites, particularly in certain situations such as severe infections, kidney problems or large-volume fluid removal (paracentesis).



However, the optimal dose and timing of albumin treatment for each individual patient is still uncertain.

7 What is the bigger picture?



This trial is part of a wider effort to use biomarkers to personalise treatment and improve outcomes in patients with advanced liver disease.



The findings could help shape future guidelines and lead to more targeted and effective use of albumin, improving the care and quality of life for patients with cirrhosis and ascites.

8 About the research



Title of Publication: Personalised human albumin in patients with cirrhosis and ascites: design and rationale for the ALB-TRIAL – a randomised clinical biomarker validation trial
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