CRYOSTAT-2

EARLY CRYOPRECIPITATE IN TRAUMA

Results Newsletter Winter 2024

Queen Mary University of London

NHS Blood and Transplant

The CRYOSTAT-2 trial has successfully recruited 1604 people and completed. The results are now available and you can find a summary in this newsletter.

We would like to thank everyone who has been involved in the study and who has participated. Without your involvement we would not be able to answer this important question.

What happened in the CRYOSTAT-2 Trial?

The CRYOSTAT-2 trial wanted to find out whether giving a blood product called cryoprecipitate early following a major injury (i.e. within 90 minutes of a patient being admitted to hospital) could reduce bleeding and death. Cryoprecipitate is rich in fibrinogen, which is a blood molecule we know helps active bleeding.

In order to answer this question the CRYOSTAT-2 trial took place at 26 hospitals in the UK and US.

1604 people were randomised into the CRYOSTAT-2 trial and 1531 of these people were included in the final analysis. These patients were all 16 years or older (median age of 39 years) with major trauma haemorrhage in the emergency department. The image below shows how many of them were men and women.

Women (330)

Men (1251)

Patients were randomly assigned to receive either 3 pools of early cryoprecipitate as well as all of the standard care they receive or standard care only. This is so that the effects of the two different treatments could be compared. Standard care may include different blood products such as red blood cells, plasma, platelets and cryoprecipitate.

799 patients received the standard care with the additional 3 pools of early cryoprecipitate.

805 patients received standard care alone.

26% of patients had a severe head injury

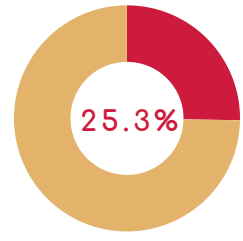
36% of patients had a penetrating injury (an injury where something breaks the skin)

Prior to hospital arrival, 43% of participants received a blood component transfusion

What were the results?

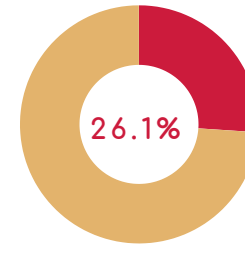
There was no difference to mortality at 28 days between the two groups. The below image shows the difference in mortality in each treatment arm with the red section showing the percentage of patients who died:

Cryoprecipitate as well as standard care



192 of 760 participants

Standard care only



201 of 771 participants

There was no difference in any safety outcome between the two groups.

There were no observed differences between study groups for transfusion requirements over 24 hours (other than cryoprecipitate units), critical care and hospital stays, destination at discharge and quality of life.

Our plan is to discuss these results at conferences to decide the next steps.

MORE INFORMATION

If you'd like to read the published results you can find them using the below link:
https://jamanetwork.com/journals/jama/article-abstract/2810756

EMAIL us with any questions:
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CRYOSTAT-2 Trial website:
https://www.nhsbt.nhs.uk/clinical-trials-unit/completed-trials-and-studies/cryostat-2/

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@CRYOSTAT_2

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