

The impact of the study

- The information from this study may **help cardiac doctors to decide how to treat patients** post heart surgery. This is important to help stop patients requiring critical care.
- The results help us to know **how much** and **when** a patient should be given steroids. People who produce a low level of cortisol may be given steroids to help protect the body. Having too much cortisol is also important to know.
- This study has shown that **frequent blood sampling is important to measure true cortisol levels**. A one-off sample taken at the top or the bottom of a pulse would not reflect the true cortisol levels in a patient and may affect treatment decisions.

For further information

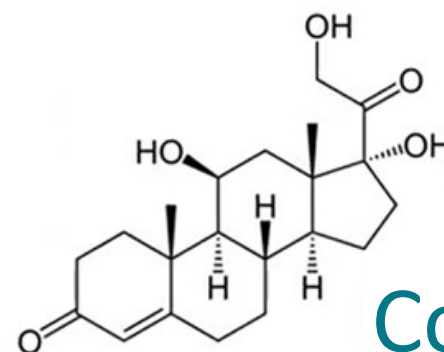
- ♦ If you have any questions about the study please contact the study team, email: **btc-mailbox@bristol.ac.uk**
- ♦ For general information on heart bypass surgery visit: <https://www.heartfoundation.org.au/recovery-and-support/heart-bypass-surgery>

Thank you for your participation in the study

Organisers and funders



FUNDED BY



Cortisol 2

Summary of the results of the CORTISOL 2 Study

THANK YOU for taking part in the CORTISOL 2 study. Without you the study would not have been possible. This leaflet contains a summary of the results of the CORTISOL 2 study.

The main aims of the CORTISOL 2 Study

We looked at patients after heart surgery who became **critically ill** (were admitted onto the Intensive Care Unit).

The aims of the study were...

- ♦ To see what happens to their cortisol levels.
- ♦ To help understand who needs extra steroids and who doesn't after heart surgery.

Design of the CORTISOL 2 Study

Cortisol is a steroid that the body produces naturally. It helps protect the body from large stressors. This is what was measured in this study.

23 people admitted to the Intensive Care Unit post heart surgery took part in the study.

Participants had small amounts of blood taken every 10 minutes for 24 hours whilst in Intensive Care.

CORTISOL Study results

We found that cortisol levels post surgery go up and down (pulsatile) like in healthy subjects but generally at higher levels.

We now know that frequent blood tests (every 10 minutes) is necessary to fully see the up and down nature of cortisol. **Taking a single blood test post-operation could be very inaccurate and therefore not helpful.**

7 patients had some cortisol results that would count as being "corticosteroid insufficient" if measured clinically as a one-off sample. (Not enough cortisol).

But the overall levels would not be considered too low.

CORTISOL Study results continued...

