

Adrenaline to improve survival in out-of-hospital cardiac arrest: the PARAMEDIC2 RCT

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Plain English summary

The PARAMEDIC2 RCT

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Plain English summary

Cardiac arrest is a medical emergency that happens when the heart suddenly stops pumping effectively. When cardiac arrest happens, awareness is lost within seconds. If emergency treatment is not started quickly, the person will die. The first treatments of cardiac arrest involve pressing on the chest, giving rescue breaths and defibrillation (electric shocks applied to the heart). If these treatments do not work, ambulance paramedics use a drug called adrenaline to try to restart the heart. Although this treatment has been used for many years, some recent research suggests that it may cause more harm than good.

In this research study, we compared the effects of giving adrenaline with the effects of not giving adrenaline to people who had a cardiac arrest in the community. The research showed that adrenaline was effective at restarting the heart, so more people survived long enough to be admitted to hospital. Thirty days later, 130 out of 4012 patients (3.2%) who received adrenaline and 94 out of 3995 (2.4%) who did not receive adrenaline were alive. However, adrenaline did not improve the number of patients who went home from hospital having made a good recovery and were able to care for themselves. The evidence suggests that adrenaline represents a poor use of NHS funds on cost-effectiveness grounds.

In a community survey, 95% of people who responded thought that long-term survival with good brain function was more important than just being alive. Further research exploring the opinions of patients and the public will help to understand the results of this research for the NHS.

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This report

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