Supraglottic airway device versus tracheal intubation in the initial airway management of out-of-hospital cardiac arrest: the AIRWAYS-2 cluster RCT

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Plain English summary

The AIRWAYS-2 cluster RCT

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Plain English summary

Background

Cardiac arrest is a serious medical emergency in which the heartbeat and breathing stop suddenly. Every year in the UK, a large number of patients (around 123 per 100,000) suffer a cardiac arrest outside hospital. Only 7–9% of these patients survive to leave hospital. The best initial treatment in cardiac arrest is cardiopulmonary resuscitation (commonly known as CPR), during which it is vital to give chest compressions and maintain a clear airway. Two main techniques are used to keep the airway clear: tracheal intubation (inserting a breathing tube into the windpipe) and a supraglottic airway device (a newer device that is inserted less deeply and sits just above the voicebox). Both techniques are used routinely by paramedics in the UK when treating a cardiac arrest, but there is no evidence about which technique is best. The AIRWAYS-2 trial aimed to find out whether or not a supraglottic airway device is better than tracheal intubation.

Who participated and what was involved?

Paramedics from four UK ambulance services were put into one of two groups at random. One group was randomly chosen to use tracheal intubation and the other group was randomly chosen to use a supraglottic airway device at all adult cardiac arrests they attended for approximately 2 years. Paramedics were able to apply their clinical judgement and use a different device if they felt that this would be best for the patient. A total of 1523 paramedics took part and enrolled 9296 patients. Following cardiac arrest, a patient's recovery was assessed as good or poor (including patients who did not survive).

What did the trial find?

A similar percentage of patients in both groups had a good recovery. There was no evidence to suggest that the supraglottic airway device was any better than tracheal intubation for treating a cardiac arrest.

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This report

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