BMJ 2014;349:g5258 doi: 10.1136/bmj.g5258 (Published 22 August 2014)

VIEWS & REVIEWS

NO HOLDS BARRED

Adrenaline in cardiac arrest: it's unethical for patients not to know

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The PARAMEDIC2 trial—a double blind, randomised placebo controlled trial of the use of adrenaline (epinephrine) in cardiac arrest out of hospital—is due to start in parts of England later this year. Such a trial is needed, as studies have shown that such use may be associated with poorer survival in the long term.[1-3] Use of adrenaline in this situation is in equipoise, so a fair test is the ethical thing to do.

Trial participants cannot give consent because the intervention is given in cardiac arrest, so the researchers make do with "opt-out consent." The circumstances are similar to those of the CRASH trial (corticosteroid randomisation after significant head injury): steroids that had for years been given in head injury were actually doing harm.[4]

Several ethicists, including Ruth Stirton and Lindsay Stirton, object to the current trial, and Ruth went on the BBC's *Newsnight* to explain why.[5 6]They claim that, for people to be able to opt out, "there needs to be an information storm" so that all potential participants will see "some information about the trial." They add, "[Only] then is it legitimate to say that anyone who has not opted out has consented to participate." But where is the consent from the thousands of other people who have cardiac arrests but do not know that the adrenaline that they receive may harm them?

Paradoxically, it seems easier to continue giving drugs that may not work, and might do harm, than to test them fairly. Atropine was dropped from use in cardiac arrest in 2010 because of a lack of evidence of its benefit.[7] It would have been simple to stop using adrenaline too, but its equipoise means that this might not be in patients' best interests.

Stirton and Stirton suggest that all patients and their families should be told retrospectively that they were included in the trial. But shouldn't every patient who experiences cardiac arrest outside the trial, and their families, be told that they have received treatment of uncertain benefit, which might have done more harm than good?

Furthermore, Stirton and Stirton propose an observational study that would not require such consent, instead of the PARAMEDIC2 experimental trial, because "there must be a body of paramedics who are not supportive of giving adrenaline, as well as a body of paramedics who are." But the justification for a poorer quality study is weak—the suggestion being that it's better for patients to be subject to treatments based merely on paramedics' personal biases.

What of the ethical duty to identify and reduce uncertainty? Many treatments currently in use have uncertain benefits and require decent trials to reduce uncertainty.[8] We need ethicists to explain that to patients.

Competing interests: I have read and understood the BMJ Group policy on declaration of interests and declare the following interests: I'm an NHS GP partner, with income partly dependent on Quality and Outcomes Framework (QOF) points. I'm a part time undergraduate tutor at the University of Glasgow. I've written a book and earned from broadcast and written freelance journalism. I'm an unpaid patron of Healthwatch. I make a monthly donation to Keep Our NHS Public. I'm a member of Medact. I'm occasionally paid for time, travel, and accommodation to give talks or have locum fees paid to allow me to give talks but never for any drug or public relations company. I was elected to the national council of the Royal College of General Practitioners in 2013.

Provenance and peer review: Commissioned; not externally peer reviewed.

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Cite this as: *BMJ* 2014;349:g5258