Patients Voices @RCoA | RCoA Royal College of Anaesthetists | CR&I Centre for Research and Improvement | NAP7 Perioperative cardiac arrest

NAP7 – what does it mean for patients?

What is NAP7?

The Seventh National Audit Project (NAP7) 'At the heart of the matter' report was published in November 2023. It presents the findings from a project aimed at studying a major complication of anaesthesia and surgery, to provide information for patients and clinicians, and ultimately to improve care.

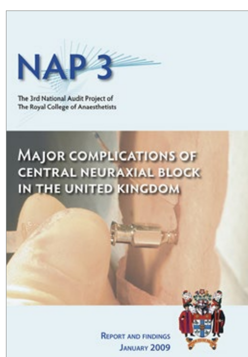
NAP7 looked in detail at **perioperative cardiac arrest** – a rare but serious event when a patient's heart stops around the time of surgery. The majority of NHS hospitals and anaesthetists across the UK, and some private hospitals, took part in NAP7 and provided information. This means that the report is based on reliable evidence.

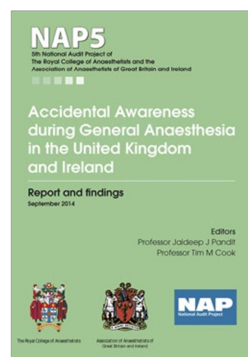
> The term 'perioperative' refers to something that happens around the time of an operation – before, during and after.
>
> You can find out more about anaesthesia, anaesthetists and perioperative care here: rcoa.ac.uk/patientinfo/anaesthesia-perioperative-care.

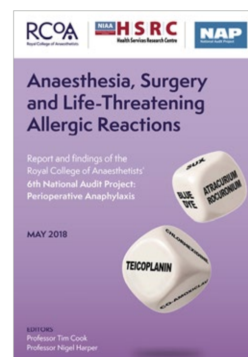
About NAPs

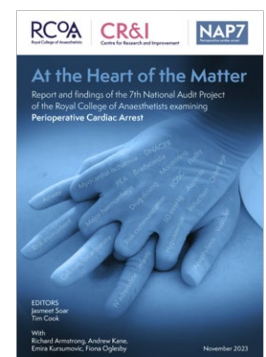
National Audit Projects are important projects led by the RCoA working with other expert organisations. NAP7 is the seventh in a series of reports. Each one collects large amounts of data from hospital anaesthetic departments on a particular topic. This information is then used to learn what can be done to improve patient care and the recommendations are shared with hospitals.

NAPs have led to significant improvements in the safety of anaesthesia. NAP7, for example, also looked at major complications associated with anaesthesia and surgery as well as studying perioperative cardiac arrest.









More detailed information on the NAPs series can be found here: rcoa.ac.uk/research/national-audit-projects.

Why was perioperative cardiac arrest selected as a topic for NAP7?

Cardiac arrest during anaesthesia is rare but can have devastating consequences for the patient and their family. It can also affect the hospital staff involved in the care of the patient.

The researchers involved in NAP7 were concerned that reporting perioperative cardiac arrests is not as consistent as for other cardiac arrests in hospital. In healthcare, if incidents are not reported there is little or no opportunity to look at the causes and to improve patient safety. NAP7 wanted to fill this gap.

What did NAP7 find?

The report found that for a healthy patient having elective (planned) anaesthesia and surgery the risk of perioperative cardiac arrest is low. It occurs in approximately 3 out of 10,000 anaesthetics overall, and in less than 2 out of 10,000 elective (planned) operations.

The risk of death from a perioperative cardiac arrest is even lower and estimated to occur in 1 out of 10,000 anaesthetics overall. It's even lower for elective and low risk surgery – just 1 in 100,000.

The risk is higher for some patients and certain types of surgery. For instance, if the patient is elderly and frail, or if the patient is considered 'high risk' due to other medical conditions. Patients who require surgery on the heart and major blood vessels are also at higher risk.

The report found that survival and recovery from perioperative cardiac arrest is higher than other types of cardiac arrests occurring in hospital. This is likely because the patient is closely monitored during and after anaesthesia and an anaesthetist is immediately available during anaesthesia and after surgery.

What improvements are needed?

The report makes many detailed recommendations for hospitals, such as:

- ensuring that all operating theatres have access to the appropriate resuscitation equipment to deal with perioperative cardiac arrest
- further improvements in how high-risk patients are identified and in planning the right care with them
- better communication with patients and their families in the aftermath of perioperative cardiac arrest
- sharing learning between anaesthetic departments and different hospitals to continually improve care for patients
- greater participation by private hospitals in national audit projects and for them to follow the same standards as NHS hospitals
- more support for the wellbeing of anaesthetists and operating theatre staff when perioperative cardiac arrest occurs.

Were patients involved in NAP7?

Yes, two patient representatives were full members of the NAP7 team. Their role was to keep the patient and their families at the heart of the project. Their experience of contributing to the report is described in Chapter 3, which can be viewed here: https://bit.ly/NAP7_Ch3.

The report also features the story of a patient who has lived experience of a perioperative cardiac arrest. You can read Emma's story here: https://bit.ly/NAP7_Ch1.

What does it mean for me as a patient and what can I do?

NAP7 is an example of how anaesthetists are driving improvements to make anaesthesia even safer for patients. But there are also things that patients can do.

The report shows that many patients requiring surgery nowadays are older, carry more weight and have a number of existing medical conditions. All of these factors increase the risks associated with anaesthesia and surgery. Information for patients on anaesthesia and risk can be found here: rcoa.ac.uk/patientinfo/risk.

There are steps that patients can take to improve their health before surgery.

The RCoA's Fitter Better Sooner toolkit (rcoa.ac.uk/fitterbettersooner) provides information on what patients can do to be better prepared for surgery, reduce their risk and improve their outcomes.

Ultimately, it's the patient who takes the risk and the report stresses the importance of Shared Decision-Making conversations. Shared Decision-Making is when patients (and/or their carers) are truly involved in decisions about their care. Anaesthetists encourage discussions between the patient and the wider healthcare team, including the surgeon, to consider risks and options, and to help them make the decision that is right for them.

You can find out more about shared decision-making here: cpoc.org.uk/shared-decision-making.

This summary has been produced by PatientsVoices@RCoA (rcoa.ac.uk/patientinfo/patientsvoices), a group of diverse people who support, advise and influence the RCoA by providing patients' perspectives on its activities.

PatientsVoices@RCoA is grateful to the NAP7 team for their commitment to the safety and wellbeing of patients and we were delighted to be asked to be part of this important project.

The full NAP7 report can be viewed here: rcoa.ac.uk/research/nap7-report.

Whilst the Royal College of Anaesthetists has endeavoured to ensure that this document is as accurate as possible at the time of publication, it can take no responsibility for matters arising from circumstances which may have changed, or information which may become available subsequently.

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