



## Patient Characteristics

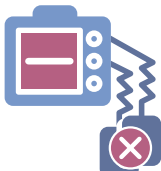
- In the last decade patients cared for by anaesthetists have become at greater risk of complications due to significant **increases in average age, rates of obesity and comorbidity**.


- Among >20,000 anaesthetics, **potentially serious complications occurred in 1 in 18 cases**. Very young age, comorbidity, frailty and emergency, complex/major or out of hours surgery was associated with increased risk. **One in three complications were cardiovascular and one in four airway-related**.




## Perioperative Cardiac Arrest


- 881 cases of perioperative cardiac arrest** were reported: an incidence of **1 in 3,000 anaesthetics**. 82% presented with a non-shockable rhythm.



## Outcomes


- Risk factors included frailty and major/complex or non-elective surgery. Highest risk specialties were **cardiac surgery, cardiology, vascular and general surgery**. Cardiac arrest in elective ASA 1-2 patients was very low at **<1 in 10,000** and deaths **<1 in 100,000**.

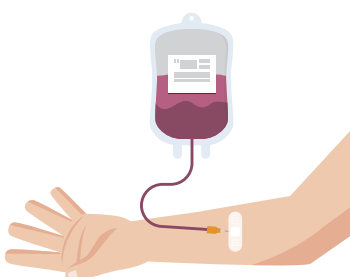

- 75% of patients survived** the initial cardiac arrest, higher than other in-hospital cardiac arrests, and **88% of patients discharged from hospital** had a good functional outcome.



## Causes


- Key factors included the **patient's underlying illness/health** in 82% of cases, **anaesthesia** in 40% and **surgery** in 35%. 31% of fatalities were judged to be due to an **inexorable process**.



- The most common causes were **major haemorrhage (17%), bradyarrhythmia (9%) and cardiac ischaemia (7%)**, but causes varied significantly by surgical specialty. Anaphylaxis was over-estimated as a cause.




## Patient Care

- A **senior anaesthetist was present in 97%** of cases and a consultant in 75% of nighttime cases.


- Care was judged **good in 76% of cases**, but **elements of poor care** before cardiac arrest were identified in **32%** of cases.


- Areas of potential improvement in anaesthesia care included preoperative **risk scoring, monitoring, drug choice and dosing** and anaesthetising **high risk patients in the operating room**.


- Almost half of anaesthetists** had recent experience of perioperative cardiac arrest and **4.5%** reported an impact on their subsequent ability to deliver patient care.

