

# Anaesthesia, Surgery, and Life-Threatening Allergic Reactions

Anaphylaxis in the operating theatre is a life-threatening drug reaction that happens suddenly, without warning and can affect anyone. Low blood pressure, impaired circulation and lack of oxygen in the lungs combine to starve the tissues of oxygen, leading to shock which in extreme cases rapidly progresses to cardiac arrest or even death. The **6th National Audit Project of the Royal College of Anaesthetists (NAP6): Perioperative Anaphylaxis** is the largest ever prospective study of anaphylaxis related to anaesthesia and surgery.

**1** **100%** of NHS hospitals took part in NAP6, which studied every case of life-threatening anaphylaxis during **3 million anaesthetics** given in the UK over a **year long** reporting period.

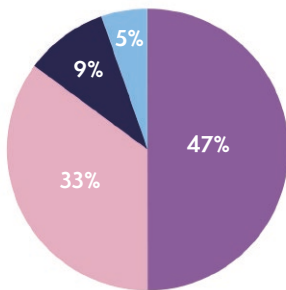


**2** The incidence of perioperative anaphylaxis was **1 in 10,000 anaesthetics**

**3** **Antibiotics** were the **most common trigger** for anaphylaxis.

The commonest triggers were

- Antibiotics (**47%**)
- Muscle relaxants (**33%**)
- Chlorhexidine (**9%**)
- Patent Blue dye (**5%**) used in some breast surgery



**4** **Actions by anaesthetists** were prompt and **>96%** of patients with life-threatening anaphylaxis **survived** the event.



**5** **Low blood pressure** was the commonest presenting feature in NAP6 and occurred in **all cases** during the event.

**6** **15%** of patients had a cardiac arrest and treatment was prompt, but **when blood pressure was very low CPR was often delayed**



**7** **Elderly patients** with cardiac disease and the **obese** were most at risk of **cardiac arrest and death**



**8** Teicoplanin is **17-fold more likely** to cause anaphylaxis than alternatives



It is regularly used for patients who are believed to be allergic to penicillin – though we know that more than **90% of these patients are not truly penicillin-allergic**. Better identification of these patients will improve safety.

**9** **Three quarters** of patients required **admission to ICU**, but most recovered quickly.



**10** **>100 days** was the **average** time taken for investigation to take place in an allergy clinic – **more specialist services are required**.



**11** Investigation was frequently imperfect and **communication to patients by anaesthetists and allergy doctors needs improvement**



**12** **One third of patients experienced harm** in some form. **Anxiety about future anaesthetics** was the commonest reported consequence.

