



Allergic Reaction in the Operating Room: Patient Information

This leaflet is intended for patients who are recovering from an allergic or anaphylactic reaction that has occurred in the operating room.

What is anaphylaxis?

Anaphylaxis is a rare but severe allergic reaction that occurs when your body develops a sensitivity to a drug or substance such as an antiseptic. Unfortunately it is not possible to predict when or if these allergic reactions may occur. It may be anything from a minor inconvenience to a serious threat to life, and requires further testing.

What are the features of anaphylaxis in the operating room?

During the anaesthetic the administration of the drug caused a sudden release of chemicals (mediators) from immune cells, which include histamine and tryptase. These and other mediators may cause a fall in blood pressure, an increase in heart rate, wheezing (like an asthma attack) and a rash. Your anaesthetist will have recognized these changes, diagnosed possible anaphylaxis, and administered appropriate treatment.

How could my immune system have become allergic?

Reactions to antiseptics and drugs given during operation are rare and cannot be predicted on the basis of family history or previous anaesthesia which was uneventful. Reactions can also occur on first exposure to a substance. Commonly you will have received the drug before and it did not result in anaphylaxis. However, behind the scenes your body may have begun to recognize the drug as foreign and formed antibodies to the substance. This is called sensitisation. Sometimes sensitisation occurs if you have previously received a similar but slightly different substance. There are also instances when we are not sure how sensitisation has occurred.

What happened next?

If the reaction has been severe it may not have been possible to start or complete your surgery. You may have been transferred from the operating room to an intensive care unit. On waking up, many patients will become aware of an itchy rash, feel somewhat “under the weather” or notice some swelling of the face or hands and feet.

The treatment for the anaphylaxis may be ongoing with intravenous medications being administered from pumps. You may also have had a special intravenous line inserted into the neck and an arterial line inserted in your wrist to measure your blood pressure continuously.

Visit by anaesthetist after surgery

Most commonly your anaesthetist will have visited you before you leave hospital to discuss the event and to provide further information. Often the anaesthetist or the surgical team will have organised blood tests whilst you are in hospital to measure the rise and fall of the substance tryptase within the blood. This may help confirm an allergic reaction.

Your anaesthetist will also provide you with a written account of what happened and the medications that may have caused it. You should keep this document in a safe place along with your copy of your hospital discharge summary. If emergency anaesthesia is required in the very near future this document will provide valuable information to the next anaesthetist.

Which drug caused the reaction?

Your anaesthetist or the surgical team will refer you to either an immunologist/allergist or an anaesthetist with an interest in allergic reactions for follow up and allergy testing. Some hospitals provide special clinics for this purpose where these types of specialists work together. Your anaesthetist will have a list of the service providers closest to your region. Once referred, the clinic will contact you to provide further advice and notifications about your clinic visit. Don't hesitate to ask about these referrals.

Because the immune cells in the body may take up to four to six weeks to recover from the reaction, a consultation will be arranged after this time. It is very important that the agent which caused the reaction be identified if possible. The follow-up clinic will review all the information available, including results of the tryptase blood tests and your previous medical and allergy history. They may also arrange other blood tests. Skin tests are used to help identify the drug which triggered the reaction.

What is skin testing?

Small amounts of the medications that you received prior to your reaction will be injected into your skin with a very fine needle, either on your back or forearm. The skin is observed carefully for the next 20 minutes. If a wheal or bleb (temporary small lump) develops and grows this is a positive reaction.

Because modern anaesthetics involve the use of a range of medicines, a number of skin tests may be required. Such tests are very safe, however facilities for resuscitation are always close to hand. The skin tests do not involve much discomfort.



Advice and notification

These tests are all used to help identify the medication you reacted to. If this has been possible, it is vital that this drug is never given to you again. It is important to note, however, that sometimes it is not possible to identify the actual medication that triggered the reaction. In this case, the doctor will advise you which other agents are most likely to be preferable for future anaesthetics.

After the testing has been done you may be advised to apply for a Medical Alert Warning bracelet that records the medications that should be avoided. The doctor who performs the skin testing will also notify your family doctor and national adverse drug reaction centres. Where possible, alerts may also be placed in the local and hospital national computerised warning systems. A letter is sent to the referring doctor and a copy is usually sent to you to keep in a safe place.

Is it safe to have another anaesthetic?

Provided the next anaesthetist has your information and proper procedures are followed, it is unlikely that anaphylaxis will occur again. Furthermore, there is no extra risk of your family members having the same reaction and they do not require testing prior to surgery and anaesthesia.

Contact Details for your Anaesthetist or Hospital/Clinic Stamp:

This document has been developed and peer reviewed by the Australian and New Zealand Anaesthetic Allergy Group and is based on expert opinion and the available published literature at the time of review. Information contained in this document is not intended to replace medical advice and any questions regarding a medical diagnosis or treatment should be directed to a medical practitioner. The development of this document is not funded by any commercial sources and is not influenced by commercial organisation.

