# Request form for suspected anaphylaxis during anaesthesia

**Immunology Lab, 1ST Floor, Laboratory Medicine and Facilities Management Building, QUEEN ELIZABETH UNIVERSITY HOSPITAL, Glasgow G51 4TF**

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**www.nhsggc.scot/inilab**

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|---|---|
| **CHI No:**<br><br>**Name:**<br><br>**DOB:** | **Hospital:**<br><br>**Location for report:**<br><br>**Consultant:**<br><br>**Bleep/Contact No:** |

**Clinical Details:**
Time of reaction:

Nature of reaction:

Suspected cause(s):

**Samples for Tryptase**

A series of 3 timed serum samples is best to 'capture' the peak tryptase level

**Mark date & time clearly on each sample bottle and form**

**Record the time interval between onset of reaction and blood test**

| | **Ideal time after onset of reaction** | **Time interval between onset of reaction and blood test** |
|---|---|---|
| **Sample 1** | Immediately after resuscitation (~30-60 minutes) | hours |
| **Sample 2** | 1-2 hours (or ASAP after this, ideally within 4 hours) | hours |
| **Sample 3** | 24 hours or later | hours |

**Separate form & sample needed if Allergy tests required**
Please be aware that false negative results have been reported on samples taken with 6 weeks of severe reactions. If testing is required, send separate form and serum sample.

**Separate forms & samples needed if Complement tests required**
If angioedema is a prominent feature, send separate form plus serum sample to Immunology C1 inhibitor levels and separate form plus serum sample to Biochemistry for C3/C4.

## Anaesthetic and other reactions

### Tryptase samples

A series of samples is requested to 'capture' the peak tryptase level (usually in first 2 hours) and the baseline for comparison and to help identify mast cell disorders. Where possible send the following samples, taking care to mark date and time on all blood bottles.

1. Immediately after resuscitation (eg~30-60mins)
2. 1-2 hours after onset (or ASAP after this, ideally within 4 hours)
3. Baseline – at least 24 hours after onset eg next day

Turnaround time is 14 days, however please contact lab by phone or email to expedite results if necessary.

External laboratories - send serum sample to Biochemistry. If not possible to separate and send within 2 days of venepuncture, freeze at –20ºC and send to Immunology next working day.

Interpretation of results

Series of results with high tryptase level returning to normal the next day usually indicates anaphylaxis, but skin testing is generally required to identify the cause. However tryptase remains normal in up to 40% of anaphylactic episodes, so normal results do not exclude anaphylaxis. If a series of tryptases has been taken consider if there is a rise from baseline of more than (baseline tryptase x 1.2)+2 µg/L. In the context of perioperative reactions this may be considered significant. A raised baseline tryptase may indicate an underlying mast cell disorder. If the baseline tryptase is >20 µg/L consider concurrent Haematology input.

### Allergy tests

IgE based tests (skin or blood) may be falsely negative within 6 weeks of acute severe reactions, therefore testing is best deferred. If immediate blood testing is required, please send a separate serum sample. Please see our website (www.nhsggc.scot/inilab) for the current specific IgE test repertoire, or discuss with Anaphylaxis service.

### Scoline Apnoea / Family History of Anaesthetic Problems

Clinical picture is of prolonged action of suxamethonium. Cholinesterase testing may be arranged with local biochemistry lab and should be delayed for 2 days after event.

### Clinic Referral (NB this form is NOT a clinic referral form)

Consider referral if anaphylactic reaction during general anaesthesia is suspected, irrespective of results. Refer West of Scotland patients to Regional Anaphylaxis Service, Floor 2 Zone 1, Office Block, Queen Elizabeth University Hospital, Glasgow, G51 4TF. Please include:

Description of the reaction and time of onset in relation to drugs given
Regular medications patient was taking before surgery
Date of any future planned surgery
Photocopy of the anaesthetic chart
Photocopy of drug charts

Further information including contact details and laboratory handbook are available at www.nhsggc.scot/inilab
NICE guidelines https://www.nice.org.uk/guidance/cg134
BSACI guidelines https://www.bsaci.org/guidelines/anaphylaxis-during-general-anaesthesia
AAGBI guidelines Anaphylaxis and allergies | Association of Anaesthetists