

Request form for suspected anaphylaxis during anaesthesia
 Immunology Lab, 1ST Floor, Laboratory Medicine and Facilities Management
 Building, QUEEN ELIZABETH UNIVERSITY HOSPITAL, Govan Road, Glasgow
 G51 4TF

Enquiries: 0141 347 8872 or ext 68872

Hospital No: Chi No: Name: Dob:	Hospital: Location for report: Consultant: Bleep/Contact No:
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Clinical Details:
 Time of reaction:
 Nature of reaction:
 Suspected cause(s):

Samples for Tryptase

A series of 3 timed 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 <u>after</u> 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 required, send separate form and clotted sample.

Separate form & samples needed if Complement tests required
 If angioedema a prominent feature, send separate form plus 2 x clotted samples for C3&C4 and C1 inhibitor levels.

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

Results are usually available within 2-4 weeks.

External laboratories - send clotted blood to Biochemistry. If not possible to separate and send within 3 days of venepuncture, freeze at –20°C 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. A raised baseline tryptase may indicate an underlying mast cell disorder.

Allergy tests

IgE based tests (skin or blood) may be negative within 6 weeks of acute severe reactions, therefore testing is best deferred. If immediate blood testing is required, please send a separate clotted sample; available allergens include suxamethonium, penicillin, amoxicillin, ampicillin, cephalexin, latex, chlorhexidine, ethylene oxide and protamine.

Angioedema / C1 inhibitor deficiency / Family History of Anaesthetic Problems

Clinical picture is of recurrent angioedema. Minor trauma may trigger local angioedema eg laryngeal oedema following intubation. This can be the presenting feature. Send 2x clotted blood to Immunology for 'C3, C4 and C1 inhibitor levels'. Known patients require pre-operative prophylaxis – contact immunology to discuss.

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 Dr M Shepherd, Regional Anaphylaxis Service, West Glasgow Ambulatory Care Hospital, Dalnair St, Glasgow, G3 8SJ. Please include:

- Description of the reaction and time of onset in relation to drugs given
- Photocopy of the anaesthetic chart
- Photocopy of drug charts

Further information including contact details and laboratory handbook are available at <http://www.nhsggc.org.uk/about-us/professional-support-sites/immunology>

NICE guidelines <https://www.nice.org.uk/guidance/cg134>

BSACI guidelines <https://www.bsaci.org/guidelines/anaphylaxis-during-general-anaesthesia>