

Key recommendations for clinical practice

- Anaphylaxis is a potentially life-threatening allergic reaction.
- Recognise anaphylaxis based on:
 - sudden onset and rapid progression of symptoms
 - **Airway and/or Breathing and/or Circulation problems**
 - skin and/or mucosal changes (flushing, urticaria, angioedema) – but these may be absent in up to 20% of cases.

The diagnosis is supported if a patient has been exposed to an allergen known to affect them.

- Treat life-threatening features, using the **Airway, Breathing, Circulation, Disability, Exposure (ABCDE)** approach.
- Adrenaline is the first-line treatment for anaphylaxis. Give intramuscular (IM) adrenaline early (in the anterolateral thigh) for **Airway/Breathing/Circulation** problems.
 - A single dose of IM adrenaline is well-tolerated and poses minimal risk to an individual having an allergic reaction. If in doubt, give IM adrenaline.
 - Repeat IM adrenaline after 5 minutes if **Airway/Breathing/Circulation** problems persist.
- Intravenous (IV) adrenaline must be used only in certain specialist settings, and only by those skilled and experienced in its use.
 - IV adrenaline infusions form the basis of treatment for refractory anaphylaxis: seek expert help early in patients whose respiratory and/or cardiovascular problems persist despite 2 doses of IM adrenaline.
- Follow the National Institute for Health and Care Excellence (NICE) guideline for the assessment and referral of patients suspected to have had anaphylaxis. Specifically:
 - All patients should be referred to a specialist clinic for allergy assessment.
 - Offer patients (or, if appropriate, their parent and/or carer) an appropriate adrenaline injector as an interim measure before the specialist allergy assessment (unless the reaction was drug-induced).
 - Patients prescribed adrenaline auto-injectors (and/or their parents/carers) must receive training in their use, and have an emergency management or action plan
- Further research is needed to better identify and treat patients at greatest risk of severe anaphylaxis.

- Anaphylaxis reactions should be reported to the UK Anaphylaxis Registry at www.anaphylaxie.net (to register, email anaphylaxis.registry@ic.ac.uk).
- Follow guidance for reporting and debriefing of adverse events.

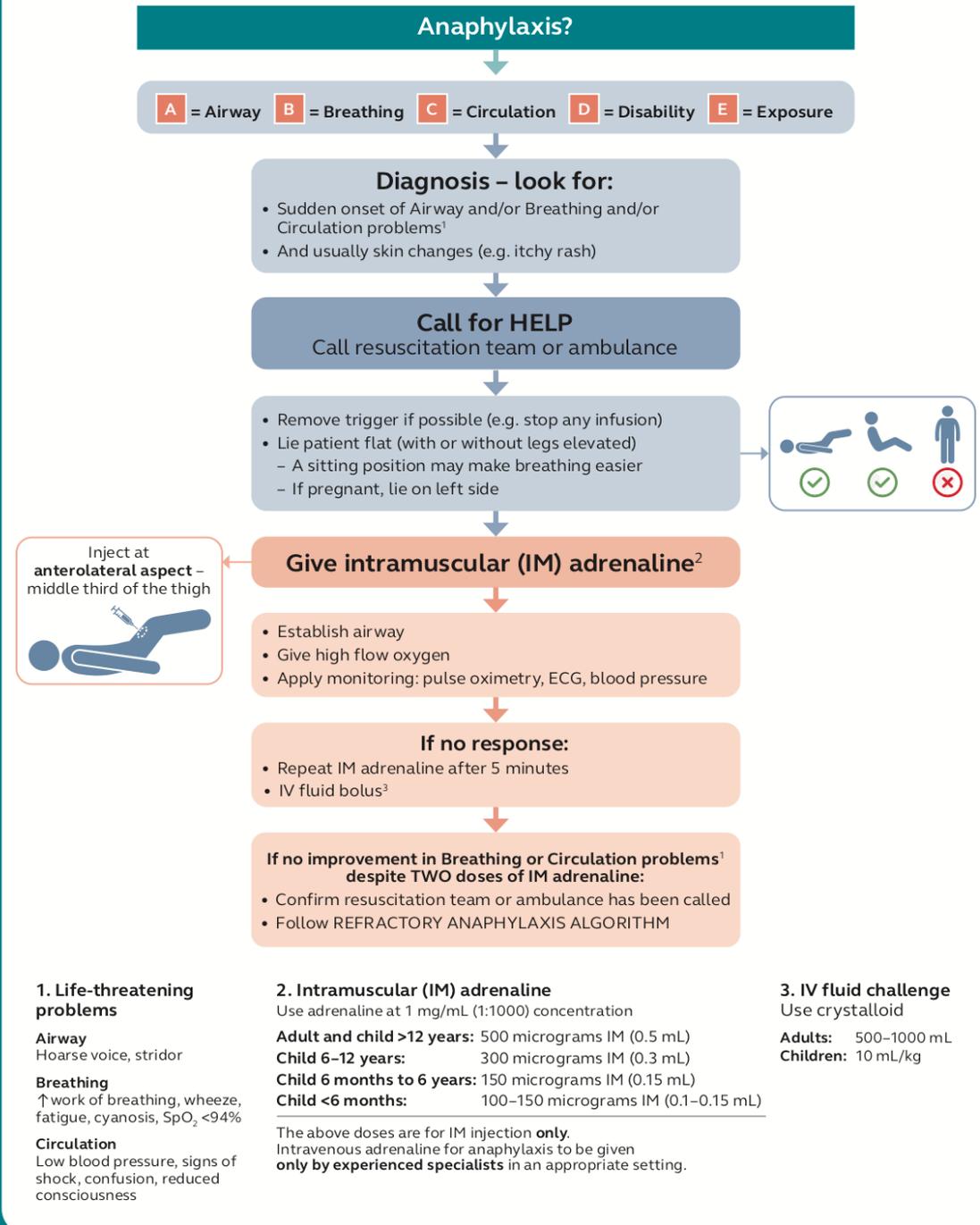
Summary of changes from previous guideline

This guideline replaces the previous guideline from Resuscitation Council UK (RCUK): Emergency treatment of anaphylactic reactions – Guidelines for healthcare providers (originally published January 2008, annotated July 2012 with links to NICE guidance).¹

- Greater emphasis on intramuscular adrenaline to treat anaphylaxis, and repeated after 5 minutes if **Airway/Breathing/Circulation** problems persist.
- A specific dose of adrenaline is now included for children below 6 months of age.
- Increased emphasis on the importance of avoiding sudden changes in posture and maintaining a supine position (or semi-recumbent position if that makes breathing easier for the patient) during treatment.
- There are 2 algorithms:
 - Initial treatment of **anaphylaxis**, with emphasis on repeating the dose of adrenaline after 5 minutes and giving an IV fluid bolus if **Airway/Breathing/Circulation** problems persist.
 - Treatment of **refractory anaphylaxis**, defined as anaphylaxis where there is no improvement in respiratory or cardiovascular symptoms despite two appropriate doses of IM adrenaline.
- IV fluids are recommended for refractory anaphylaxis, and must be given early if hypotension or shock is present.
- Antihistamines are considered a third-line intervention and should not be used to treat **Airway/Breathing/Circulation** problems during initial emergency treatment.
 - Non-sedating oral antihistamines, in preference to chlorphenamine, may be given following initial stabilisation especially in patients with persisting skin symptoms (urticaria and/or angioedema).
- Corticosteroids (e.g. hydrocortisone) are no longer advised for the routine emergency treatment of anaphylaxis.
- New guidance is offered relating to the duration of observation following anaphylaxis, and timing of discharge.

This updated guideline has been developed according to the GRADE Evidence to Decision (EtD) frameworks for adoption, adaptation, and de novo development of trustworthy recommendations (GRADE-ADOLPMENT).² The evidence tables and conclusions have been peer-reviewed and published.³

Anaphylaxis

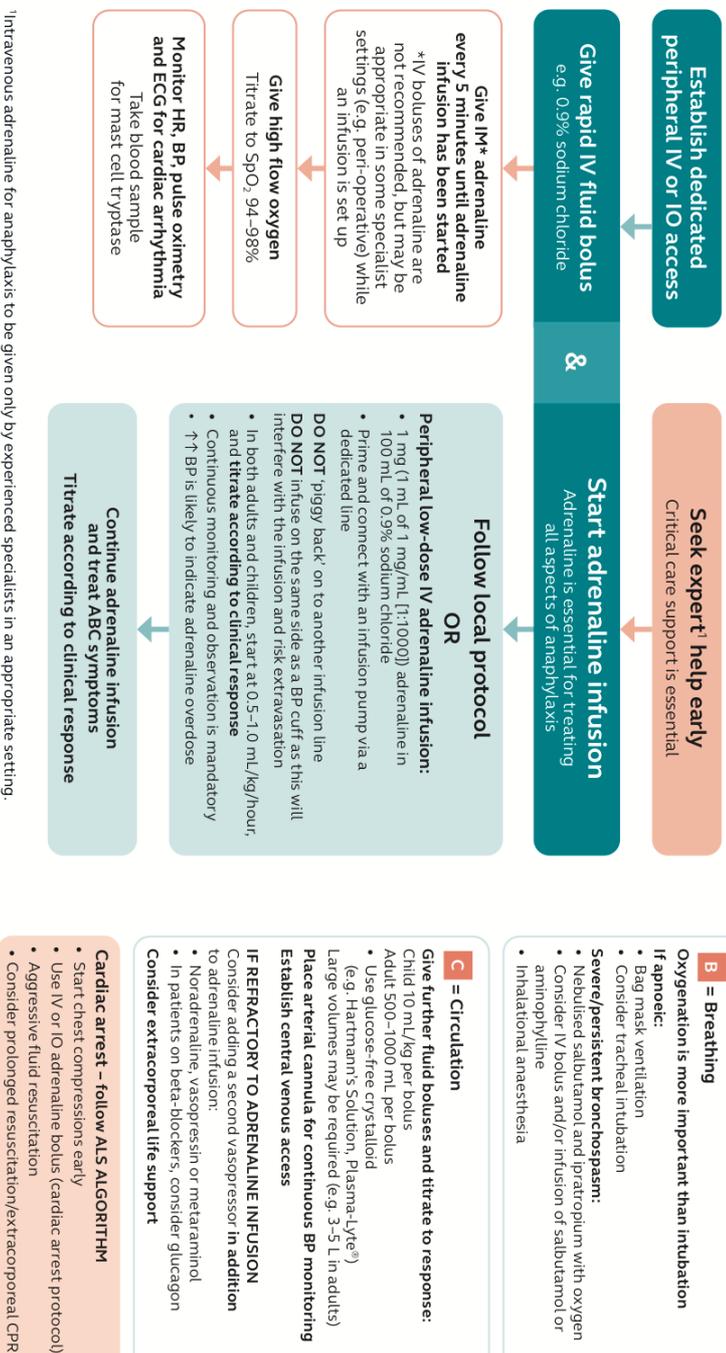


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Refractory anaphylaxis

No improvement in respiratory or cardiovascular symptoms despite 2 appropriate doses of intramuscular adrenaline



¹Intravenous adrenaline for anaphylaxis is to be given only by experienced specialists in an appropriate setting.

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<https://www.resus.org.uk/sites/default/files/2021-04/Refractory%20anaphylaxis%20algorithm%202021.pdf>