Anaphylaxis Recognition and Treatment SOP

Document details	
Document type	**Standard operating protocol**
Document name	**Anaphylaxis recognition and treatment SOP**
Document location	**Google drive - SOP**
Version	**1**
Effective from	**31 March, 2025**
Review date due	**31 March, 2026**
Owner	**Adam Fox, Stephen Till**
Prepared by	**Ozzy Aldabbagh**
Approved by, date	
Superseded documents	
Related documents	
Keywords	
Supporting documents	

Anaphylaxis Recognition and Treatment

Adapted from NHS guidance

1. Introduction

Anaphylaxis is a life-threatening systemic allergic reaction that requires immediate recognition and emergency treatment. As AllergyRhino and its partners provides allergy diagnostics and immunotherapy, staff must be fully trained to manage anaphylactic events swiftly and effectively.

---

2. Purpose

This SOP ensures that:

- All clinical staff at AllergyRhino and partner organisations can recognise and treat anaphylaxis promptly.
- Emergency treatment is administered according to current best practices.
- Staff are trained and equipped to manage anaphylactic reactions safely, whether in clinic, community, or remote care settings.

---

3. Definitions

Term	Definition
Anaphylaxis	A severe, rapid-onset, life-threatening allergic reaction involving the airway, breathing, or circulation, often with skin/mucosal involvement
ABCDE	Clinical assessment framework: Airway, Breathing, Circulation, Disability, Exposure
IM	Intramuscular injection
Adrenaline 1:1000	Emergency first-line drug for treating anaphylaxis

---

4. Responsibilities

- Clinical Leads must ensure all staff are trained in anaphylaxis recognition and treatment.

- All clinical staff must:
  - Complete mandatory anaphylaxis training.
  - Keep emergency equipment readily available.
  - Follow this SOP during and after suspected anaphylactic events.

---

5. Recognising Anaphylaxis

5.1 Common Triggers

- **Drugs**: antibiotics, NSAIDs, local anaesthetics
- **Foods**: peanuts, tree nuts, milk, eggs, sesame, fruits
- **Other**: insect venom, latex

5.2 Diagnostic Features

- **Sudden onset and rapid progression** of symptoms
- **Airway**: hoarseness, throat tightness, stridor
- **Breathing**: wheezing, shortness of breath, cyanosis
- **Circulation**: dizziness, collapse, hypotension, paleness
- **Skin/mucosa**: urticaria, angioedema (may be absent)
- **Other**: nausea, vomiting, incontinence

---

6. Treatment Protocol

If **anaphylaxis is suspected**, act immediately. Do not wait for full confirmation.

Step 1: ABCDE Assessment

- Check Airway, Breathing, Circulation
- Assess level of consciousness (Disability)
- Check for rash/swelling (Exposure)

Step 2: Call for Emergency Help

- Dial **999** and state **"anaphylaxis"**
- Request ambulance and inform them adrenaline has been or needs to be given

Step 3: Remove Allergen if Possible

- Stop suspected medication
- Remove bee sting (don't delay based on method)
- Do not encourage vomiting if ingested allergen suspected

Step 4: Patient Position

- Lay patient flat (legs elevated if hypotensive). Do not stand them up
- If breathing is difficult, allow sitting
- Pregnant patients: left lateral position

Step 5: Administer Intramuscular Adrenaline

Age	Dose (1:1000 adrenaline)	Volume (IM)
>12 years (adult)	500 micrograms	0.5 mL
6-12 years	300 micrograms	0.3 mL
6 months - 6 years	150 micrograms	0.15 mL
<6 months	100 - 150 micrograms	0.1-0.15 mL

- Inject into the **anterolateral thigh**
- Repeat every 5 minutes if symptoms persist
- If only the patient's **adrenaline auto-injector** is available, use it
- No prescription or PGD is required

Step 6: If available, administer Oxygen

- Use non-rebreather mask with reservoir bag
- Flow rate: **15 L/min**

Step 7: If available, administer IV Fluids after the second dose of IM adrenaline (if trained to do so)

- Provide a rapid IV challenge and monitor response:
  - Adults: 500–1000 mL 0.9% normal saline
  - Children: 10 mL/kg bolus
- Give further doses as necessary
- Do NOT administer adrenaline intravenously.

---

7. Equipment Required in Anaphylaxis Kit

Each AllergyRhino clinic or visiting team must have:

- Adrenaline 1:1000 ampoules (1 mg/mL) ×10
- 1 mL or 2 mL syringes ×4
- 23G blue IM needles ×4
- Printed RCUK Anaphylaxis Algorithm (see Appendix)
- Alcohol wipes, gloves, sharps bin
- Cold bag if stored in transit
- Expiry dates clearly labelled

Note: Hydrocortisone and chlorphenamine are not first-line and are not required in the emergency kit.

---

8. Post-Treatment Actions

- All patients must be **transferred to hospital** for monitoring.
- Do **not discharge** from clinic.
- Document all:
  - Signs and symptoms

- Time and dose of adrenaline and other treatment
- Suspected allergen
- Name and signature of clinician

---

9. Reporting and Learning

- Log the event in the patient's record and AllergyRhino's internal incident system.
- Complete a **post-event debrief** within 48 hours with the clinical team.
- If appropriate, conduct a **Root Cause Analysis (RCA)**.
- Report learnings to the Clinical Governance Lead.

---

10. Training

- All clinical staff must complete **annual anaphylaxis training** (in-person or eLearning).
- Emergency drills should be conducted at least **twice yearly**.

Appendix: RCUK Anaphylaxis Algorithm

Please ensure this diagram is printed and included in all kits - Anaphylaxis

Resuscitation Council UK

GUIDELINES 2021

Anaphylaxis

Anaphylaxis?

A = Airway B = Breathing C = Circulation D = Disability E = Exposure

Diagnosis – look for:
- Sudden onset of Airway and/or Breathing and/or Circulation problems[1]
- And usually skin changes (e.g. itchy rash)

Call for HELP
Call resuscitation team or ambulance

- Remove trigger if possible (e.g. stop any infusion)
- Lie patient flat (with or without legs elevated)
  - A sitting position may make breathing easier
  - If pregnant, lie on left side

Give intramuscular (IM) adrenaline[2]

Inject at **anterolateral aspect** – middle third of the thigh

- Establish airway
- Give high flow oxygen
- Apply monitoring: pulse oximetry, ECG, blood pressure

If no response:
- Repeat IM adrenaline after 5 minutes
- IV fluid bolus[3]

If no improvement in Breathing or Circulation problems[1] despite TWO doses of IM adrenaline:
- Confirm resuscitation team or ambulance has been called
- Follow REFRACTORY ANAPHYLAXIS ALGORITHM

1. Life-threatening problems

Airway
Hoarse voice, stridor

Breathing
↑work of breathing, wheeze, fatigue, cyanosis, SpO_2 <94%

Circulation
Low blood pressure, signs of shock, confusion, reduced consciousness

2. Intramuscular (IM) adrenaline
Use adrenaline at 1 mg/mL (1:1000) concentration

Adult and child >12 years:	500 micrograms IM (0.5 mL)
Child 6–12 years:	300 micrograms IM (0.3 mL)
Child 6 months to 6 years:	150 micrograms IM (0.15 mL)
Child <6 months:	100–150 micrograms IM (0.1–0.15 mL)

The above doses are for IM injection **only**.
Intravenous adrenaline for anaphylaxis to be given **only by experienced specialists** in an appropriate setting.

3. IV fluid challenge
Use crystalloid

Adults:	500–1000 mL
Children:	10 mL/kg

Appendix: References

Resuscitation Council UK (2021) Emergency treatment of anaphylactic reactions: Guidelines for healthcare providers | Resuscitation Council UK Last accessed 25.05.2021

NICE (2011) Clinical Guideline 134 Anaphylaxis: assessment to confirm an anaphylactic episode and the decision to refer after emergency treatment for a suspected anaphylactic episode https://www.nice.org.uk/guidance/cg134/evidence/anaphylaxis-full-guideline-pdf184946941 Last accessed 22.11.2020

RCN and PHE Immunisation Knowledge and Skills Competence Assessment Tool Second edition (2018)