# Practice Guidance Note for Pharmacological Therapy Policy

## Acute Management of Anaphylaxis – V03

<table>
<thead>
<tr>
<th>Date Issued</th>
<th>Planned Review</th>
<th>PPT- PGN–13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 1 – May 2015</td>
<td>May 2018</td>
<td>(Part of NTW(C)38 - Pharmacological Therapy Policy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Author/Designation</th>
<th>Medical Director</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin Crompton – Senior Clinical Trainer</td>
<td></td>
</tr>
</tbody>
</table>

### Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Contents</th>
<th>Page No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Aim</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Definition and Summary</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Legal Considerations</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Consent</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Training</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Treatment of Anaphylactic Reaction</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Adrenaline Use</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>Discharge from Hospital and Follow-up</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>Record Keeping</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>Reporting of Reactions</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>Referrals</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>Patient Education</td>
<td>9</td>
</tr>
<tr>
<td>14</td>
<td>Audit</td>
<td>9</td>
</tr>
</tbody>
</table>

### Appendices – listed separate to PGN

<table>
<thead>
<tr>
<th>Document No:</th>
<th>Description</th>
<th>Issue</th>
<th>Issue Date</th>
<th>Review date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 1</td>
<td>Adrenaline stock coverage</td>
<td>1</td>
<td>May 2015</td>
<td>May 2018</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Adrenaline administration record</td>
<td>1</td>
<td>May 2015</td>
<td>May 2018</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>Audit of Adrenaline administration</td>
<td>1</td>
<td>May 2015</td>
<td>May 2018</td>
</tr>
<tr>
<td>Appendix 4</td>
<td>Anaphylaxis Initial Treatment algorithm</td>
<td>1</td>
<td>May 2015</td>
<td>May 2018</td>
</tr>
</tbody>
</table>
1. Introduction

1.1 This Practice Guidance Note (PGN) sets out Northumberland Tyne and Wear NHS Foundation Trust (the Trust/NTW) position for management of acute anaphylaxis. This document includes Practice Guidance framework and should be read in conjunction with the Trust policies, NTW(C)01 – Resuscitation and NTW(C)05 - Consent to Examination or Treatment.

1.2 It is not the scope of the document to provide information on recognition and treatment of anaphylaxis from a training perspective. Such information will be provided within centrally delivered anaphylaxis training in conjunction to cardiopulmonary resuscitation (CPR) training. However the document will list the main training component standards.

1.3 This PGN now encompasses both the acute management of anaphylaxis and use of adrenaline within treatment and response management.

1.4 It should be noted that a patient group direction (PGD) is no longer required for NTW Trust staff to administer adrenaline to save a life.

2. Aim

2.1 The aim of this practice guidance is to develop a Trust wide approach to management of acute anaphylaxis and so has shared standards in training, recognition and management, including the use of Adrenaline.

3. Definition of Anaphylaxis and main Summary

3.1 There is no universally agreed definition for anaphylaxis and a precise definition is not important according to the Resuscitation Council UK. However the European Academy of Allergology and Clinical Immunology Nomenclature Committee 2007 proposed the following broad definition:

- ‘Anaphylaxis is a severe, life-threatening, generalised or systemic hypersensitivity reaction’

- And the Anaphylaxis Campaign 1999 defined Anaphylaxis as:

- “Anaphylaxis is the word used for serious and rapid allergic reactions usually involving more than one part of the body, which if severe enough, can kill!”

3.2 Anaphylaxis can be life-threatening and symptoms can develop quickly or be delayed in nature following contact with an allergen. Prompt treatment saves lives and NTW aim to establish an effective approach in recognition, emergency management and supporting care.
3.3 Service users having an anaphylactic reaction should be recognised and treated using the Airway, Breathing, Circulation, Disability and Exposure (ABCDE) approach.

3.4 Treatment will depend on the person’s location, the equipment and adrenaline availability and the skills of those treating the anaphylactic reaction.

3.5 Early treatment with intramuscular adrenaline the treatment of choice for people experiencing an anaphylactic reaction

3.6 All people that are suspected of having had an anaphylactic reaction should be referred to a specialist in allergy.

3.7 The UK incidence of anaphylactic reactions is rising. Despite previous guidelines the remains confusion regarding diagnosis, treatment, investigation and support and follow care and services.

3.8 NTW Trust will use the practice guidance standards from The Resuscitation Council UK’s (RCUK) and The Emergency treatment of anaphylactic reaction, Guidelines for healthcare providers January 2008, together with National Institute of Health and Care Excellence (NICE) 2012. NICE Clinical Guideline 134, December 2011 replaces the previous guidance:

- The aim being to:
  - Provide consensus of recognition and treatment
  - Emphasis on treatments that people having an anaphylactic reaction should receive
  - Less emphasis on specifying treatments according to which groups healthcare providers should give them
  - Recommendations for treatment that are simple to learn and easy to implement; appropriate to most anaphylactic reactions

3.9 Guidance and drug administration reflects Royal Pharmaceutical Society and General Pharmaceutical Council standards.

3.10 Supporting work by both Anaphylaxis Campaign www.anaphylaxis.org.uk and Allergy UK www.allergy.org have also been utilised in formulating this document.

4. Legal Considerations

4.1 Practice will reflect guidance from the Nursing and Midwifery Council under the Code of Professional Practice and Scope of Professional Practice. The General Medical Council and General Pharmaceutical Council.

4.2 Practice will reflect Resuscitation Council UK standards

5. Consent
5.1 The Department of Health states: “It is a general legal and ethical principle that valid consent must be obtained before starting treatment, physical investigation or providing personal care” (DOH). All patients/clients have a right to receive accurate information about their condition and intended treatment. It is the responsibility of individual practitioner proposing to carry out the treatment to ensure that the patient/client understands what is proposed (NMC 2002).

5.2 This PGN also reflects principles under the Human Rights Act 1998 with particular reference to:

- Article 5: The right to liberty and security of person
- Article 8: The right to privacy
- Article 10: Confidentiality

5.3 The term “consent” refers to the service user’s agreement for a health professional to provide care, or agreement to participate in education or research. Service users may indicate consent non-verbally, orally or in writing. Consent will need to be gained for the procedure, research and any educational/supervisory purpose.

5.4 For the consent to be valid the service user must have capacity to make that particular decision. The Mental Capacity Act 2005 details assessment of capacity and best interest decisions. The service user should firstly be assumed as having capacity to make decisions if the person capacity is in question an assessment must be carried out and documented. A person is unable to make a decision for themselves if they are unable to:

- Understand the information relevant to the decision
- Retain that information
- Use or weigh that information as part of the process of making the decision
- Communicate their decision (whether by talking, using sign language or any other means)

5.5 If a person does not have the capacity to consent to this procedure a ‘best interests’ decision must be made by the person carrying out the procedure. This must consider any advanced decision or advanced statement made by the person. Any decision must be in the best interests of the service user and follow the principles of the least restrictive option possible. Best interest decision must also be documented. For further advice on consent/capacity please consult the Trust’s policy NTW(C) 05 - Consent to Examination or Treatment.

5.6 At all times staff will make reference to the Mental Capacity Act and practice code in relation to medical emergency situations and interventions. Pertinent paragraphs within the code are 3.6, 5.26, 6.35, 6.37 and 9.56

-3.6 ‘Clearly, in emergency medical situations…urgent decisions will have to be made and immediate action taken in the persons best interest. In these situations, it may not
be practical or appropriate to delay the treatment while trying to help the person make their own decisions, or to consult with any known attorneys or deputies. However, even in emergency situation, healthcare staff should try to communicate with the person and keep them informed of what is happening’.

6. Training

6.1 Training will be standardised across the organisation with the lead coming from Specialist Clinical Training within Workforce and Organisational Support Department in conjunction with the Chief Pharmacist. Anaphylaxis is mandatory for all qualified nursing staff but is also available for medical staff and for any support or allied professionals that identify this training as essential for their role or working environment. The identified training will be (see appendix 4):

- Initial training for qualified nursing and medical staff
- 3 yearly updates
- Annual training for all staff working in electroconvulsive therapy
- ECT departments reflecting ECTAS standards
- Annual training for staff that provide immunizations/vaccinations
- Annual training for staff that provide specialist drug treatments

6.2 This also applies to specific provision of service such as immunisation and vaccinations.

6.3 In all training sessions course participants will complete a knowledge based assessment.

6.4 In association with anaphylaxis training staff will undergo Resuscitation training compatible to their expected roles, setting, and professional expected standard either: Basic Life Support (BLS) or Immediate Life Support (ILS).

6.5 In all case CPR training level will reflect the service user’s age range and specialist care environment. Areas that provide paediatric care services will access either paediatric BLS or ILS levels of training.

6.6 All training will be booked through Workforce and Organisational Support.

6.7 Computer based record of all training booking and attendance will be kept centrally.
6.8 Anaphylaxis training will cover:
- Epidemiology
- Causes
- Clinical presentation
- Recognition
- Differential diagnosis
- ABCDE approach
- Emergency response
- Management algorithm

Adrenaline use:
- Context and parameters of use
- Drug classification and use
- Storage
- Standardised auto injector use
- Route and safe method of administration
- Dose and frequency
- Warning and cautions
- Potential adverse reactions
- Adverse drug reaction
- Interactions with other medication
- Record keeping

7. Treatment of Anaphylactic Reaction

7.1 Diagnosis of anaphylaxis can be problematic so all those who are involved in treatment must have a systematic approach together with context and presentation. Clinical indications will focus upon failing respiratory, cardiovascular and neurological systems i.e., Airway, Breathing and Circulation treating life-threatening problems (ABCDE approach) together with skin and mucosal changes.

7.2 Anaphylaxis treatment reflects:
- Location
- Training, clinical background and skills staff/rescues
- Number of responders
- Access to equipment and Adrenaline
- Individuals medical background
- Age considerations (refer to point 7.4-7.7 re-paediatrics)

7.3 Any service user in any setting should expect the following as a minimum standard:
- Recognition that they are seriously unwell
- An early call for help either 9-999 service or 2222 'Crash Team' response
- Initial assessment of Airway, Breathing, Circulation, Disability and Exposure (ABCDE)
- Treatment of the greatest threat to life first
- Commencement of cardiopulmonary resuscitation (CPR) immediately following current guidelines if indicated
- Adrenaline therapy if indicated
- Investigations and follow up by an allergy specialist

7.4 All paediatric emergency care provision is recognised as a specialism in nature and all resuscitation training is specifically targeted to the respective age range. Anaphylaxis treatment is also specialised and focused on accessing medical emergency services.

7.5 Training on Adrenaline use for paediatrics is recognised as extremely specialised in nature and requires high degrees of training and clinical expertise. Training would be reflective of individual circumstances of the service user and clinical setting. This would need to be in conjunction to the named consultant or medical specialist providing lead direction in planned care.

7.6 Where Non-prescribed adrenaline auto-injector is used for children in medical emergency situations this must reflect the dose guidelines in appendix 1 and 4.

7.7 The anaphylaxis assessment criteria used for children reflects that of the adult but any practitioner making such assessment must be familiar with the ‘normal and abnormal’ physiological differences within younger age range compared to adults and differences in presentation such as communication and levels of interaction. Practitioners also need to be aware of differential diagnosis within younger age children, covered in anaphylaxis training sessions.
8. **Adrenaline (Epinephrine)**

8.1 **Adrenaline** is well established as the most important drug for treatment of anaphylactic reaction.

8.2 This document will reflect guidance from The British National Formulary (BNF).

8.3 Government UK Drug Safety Update Adrenaline auto-injector advice for patients from: Medicines and Healthcare Products Regulatory Agency Published: 30 May 2014
  - NICE National Institute for Health and Care Excellence and British National Formulary
  - NICE guidelines on Anaphylaxis overview (CG134) December 2011

8.2 Current legislation allows for up to 1mg of adrenaline to be given without a PGD or prescription if being used to save life. All NTW clinical areas will, as a minimum, keep 2 pre-filled adrenaline auto-injectors of the appropriate strength (see 8.7 below).

8.3 Adrenaline will be stored in the emergency grab bag. (See NTW (C) 01 for guidance on the governance arrangements for this process).

8.4 Adrenaline use will be covered in all anaphylactic training sessions

8.5 NTW has standardized adrenaline to the Emerade Auto-Injector delivery system

8.6 The Emerade is available in: 150mcg, 300mcg and 500mcg and so reflects the RCUK standards in dose identification (see appendix 1,2 and 4).
  - <6 years – 150mcg
  - 6-12 years – 300mcg
  - 12-18 years – 500mcg (300mcg if child is small or pre-pubertal)
  - Adult (over 18 yrs) – 500mcg

8.7 The Emerade auto-injector will be available in different dose range to reflect the service user’s age range within specific clinical environments.

9. **Discharge from Hospital and Follow-up**

9.1 Individuals that have had a suspected anaphylactic reaction should be treated and then observed in the general acute hospital setting for at least 6 hours and in some circumstances they should be observed for up to 24 hours within an appropriate clinical environment.
9.2 Individuals that respond well to initial treatment should be warned of the possibility of an early recurrence of symptoms and once again may need to be observed for up to 24 hours. This caution is particularly the case in the following:

- Severe reaction with slow onset caused by idiopathic anaphylaxis
- Reactions in individuals with severe asthma or with a severe asthmatic component
- Reactions with a possibility of continued absorption of allergen
- Individuals with previous history of biphasic reactions
- Individuals presenting in the evening or at night or those who may not be able to respond to any deterioration
- Individuals in areas where access to emergency services is difficult

9.3 All such decisions should be made by an experienced clinician.

9.4 Before discharge form hospital all individuals will be reviewed by senior clinician and have clear instructions to return to acute general hospital if symptoms return.

9.5 Follow up treatment may require the continued use of anti-histamine and oral steroid therapy for up to 3 days for urticaria and to decrease the chance of further reaction.

9.6 Individuals must have a plan for follow-up including contact to general practitioner and hospital consultant; this may require the consideration of an adrenaline auto-injector.

10. Record Keeping

10.1 It is important to have accurate record keeping in order to accurately identifying circumstances that reaction occurred and possible triggers. The PGN appendix 2 Record Sheet must be used in all suspected anaphylactic reactions and treatment where adrenaline was administered. If adrenaline was given as a result of a Doctor’s instructions it would be recorded in the kardex and notes.

11. Reporting of Reactions

11.1 Adverse drug reactions that include an anaphylactic reaction should be reported to the Medicine and Healthcare products Regulatory Agency (MHRA) using the Yellow Card Scheme www.mhra.gov.uk

11.2 The British National Formulary (BNF) includes copies of the yellow card at the back of each copy.
12. **Referrals**

12.1 All individuals that have had an anaphylactic reaction should be referred to an allergy clinic/specialist to identify cause and reduce risk of future reactions. The British Society for Allergy and Clinical Immunology (BSACI) website has a list of specialist clinics. [www.bsaci.org](http://www.bsaci.org)

13. **Patient Education**

13.1 Individuals need to understand the circumstances that lead to the anaphylactic reaction and what was the cause so they can manage the risk. They may require information in relation to the allergen and how to avoid it. They need to be able to recognize the signs and symptoms and when to summon help. This may require the assistance of family friends or care staff. This may involve training in areas of diet, lifestyle or management, such as auto injectors. Those at risk may need to consider wearing ‘Medic Alert’ bracelet.

13.2 Service users must be encouraged to seek urgent medical assistance when experiencing anaphylaxis and following self-administration of their adrenaline auto-injector. Information about managing severe allergies can be obtained from their allergy specialist, general practitioner, other healthcare professionals or anaphylaxis campaign.

14. **Audit**

14.1 All incidents will be reported through the Trust wide Health and Safety reporting system (see Appendix 3).

14.2 Staff will also use the Trust’s recording sheet if resuscitation has been used (see the Trust’s policy NTW(C)01 - Resuscitation).

14.3 All adverse drug reaction or identified cause of an acute anaphylactic episode must be written in the service users notes and communicated to their respective consultant, GP and all relevant care staff. The allergies box on the medicine chart must be completed to reflect the reaction.