



**Protocol For The Administration Of Adrenaline (Epinephrine) To
Individuals (Aged 16 Years And Over) In Cases Of Suspected
Anaphylactic Reactions By Non-Registered Staff Working Within NHS
Grampian**

Lead Author: Community Nursing Lead Nurse, Aberdeenshire HSCP	Consultation Group: See Page 2	Approver: Medicines Guidelines and Policies Group Authorisation: NHS Grampian
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Signature: 		Signature: 
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NHSG Identifier: MGPG/Protocol/Adrenaline/ 1617	Review Date: January 2027 Expiry Date: January 2028	Date Approved: January 2025
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**NHS Grampian have authorised this protocol to help individuals by providing
them with more convenient access to an efficient and clearly defined service
within the NHS Boards. This protocol cannot be used until Appendix 1 and 2 are
completed.**

Uncontrolled when printed

Version 1

Revision History:

Protocol that has been superseded	New protocol	
Date of change	Summary of Changes	Section heading
	N/A – New Protocol	

NHGS Identifier: MGPG/Protocol/Adrenaline/1617

Keyword(s): Protocol adrenaline epinephrine suspected anaphylactic

Policy Statement: It is the responsibility of the individual and their line managers to ensure that they work within the terms laid down in this protocol and to ensure that staff are working to the most up to date protocol. By doing so, the quality of the services offered will be maintained, and the chances of staff making erroneous decisions which may affect individual, staff or visitor safety and comfort will be reduced. Supervisory staff at all levels must ensure that staff using this protocol act within their own level of competence.

The lead author is responsible for the review of this protocol and for ensuring the protocol is updated in line with any changes in clinical practice, relevant guidelines, or new research evidence.


Review date: The review date for a protocol needs to be decided on a case-by-case basis in the interest of safety. The expiry date should not be more than 3 years, unless a change in national policy or update is required.

Document: Drafted: December 2024
 Completed: December 2024
 Approved: January 2025 (Published March 2025)
 Amended and
 re-authorised:


Organisational Authorisations

This protocol is not valid until it has had the relevant organisational authorisation.

Approved and authorised for use within NHSG by;

Medicines Guidelines and Policies Group Chair	Signature	Date Signed
Lesley Coyle		07/02/2025

Executive Approval

NHS Grampian Executive Nursing Director	Signature	Date Signed
June Brown		07/03/2025

Protocol Consultative Group

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Protocol For The Administration Of Adrenaline (Epinephrine) To Individuals (Aged 16 Years And Over) In Cases Of Suspected Anaphylactic Reactions By Non-Registered Staff Working Within NHS Grampian

Clinical indication to which this protocol applies

<p>Definition of situation/ Condition</p>	<p>The role of non-registered staff, such as Health Care Support Workers (HCSW) in the delivery of safe patient care is broadening. The development of skill mix means that many areas of care, traditionally provided by registered healthcare practitioners, may now be delegated for example as per the NHS Grampian Policy and Staff Guidance for the Administration of Medicines by Career Level 3 and 4 Health Care Support Workers.</p> <p>Administration of medicines in an emergency, such as adrenaline for suspected anaphylaxis, may be carried out by non-registered staff members who are trained, confident and competent.</p> <p>This protocol is intended for use by non-registered, healthcare staff members, within their role, e.g. treatment of suspected anaphylaxis following administration of medicine.</p> <p>This protocol will authorise appropriately trained, approved, non-registered, healthcare staff to administer adrenaline (epinephrine) by intramuscular injection (IM) to individuals (aged 16 years and over) suffering from suspected hypersensitivity and anaphylactic reactions.</p> <p>This protocol to allow administration of adrenaline would only be used where the following has been met:</p> <ul style="list-style-type: none"> • where it is deemed this may be required, e.g. following assessment and where appropriate for non-registered staff member to be undertaking the task (e.g. as per the NHS Grampian Policy and Staff Guidance for the Administration of Medicines by Career Level 3 and 4 Health Care Support Workers policy, for a task that has been risk assessed and approved by chief nurse) • all specialist competencies and ongoing training requirements of this protocol have been met (p8/9) • and the individual has been approved by their employer to operate under this protocol. <p>Individuals particularly at increased risk are those with existing hypersensitivity and immune disorders such as asthma, haemolytic anaemia, thyroiditis, systemic lupus erythematosus and rheumatoid arthritis.</p>
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	<p>This protocol should be used in conjunction with the local and Resuscitation Council (UK) Anaphylaxis Guidelines.</p> <p>It is noted that adrenaline can be administered by anyone for the purposes of saving a life. This is specified by Schedule 19 of The Human Medicines Regulations 2012. Whilst outside the definition of this protocol, this may include the administration of an adrenaline auto-injector to the individual it was prescribed for in an emergency situation.</p>
Inclusion criteria	<p>Administration of IM adrenaline (epinephrine) should be considered for individuals, aged 16 years and over, who show signs and symptoms of an anaphylactic reaction. Medical advice must be sought as soon as possible from a doctor if any individual develops any signs of hypersensitivity. If there is a delay in medical support arriving and the condition of the individual is deteriorating then an emergency ambulance must be called on (9) 999 or direct via ambulance control, or dial 2222 (hospital internal) according to local procedure, or seek urgent medical advice.</p> <p>Anaphylaxis is likely when all of the following three criteria are met:</p> <ul style="list-style-type: none"> • Sudden onset and rapid progression of symptoms. • Life-threatening Airway and/or Breathing and/or Circulation problems. • Skin and/or mucosal changes (flushing, urticaria, angioedema). <p>Note: Skin or mucosal changes alone are not a sign of anaphylaxis. Skin and mucosal changes can be subtle or absent in 10 to 20% of reactions (e.g. some patients present initially with only bronchospasm or hypotension).</p> <p>A single set of criteria will not identify all anaphylactic reactions. There are a range of signs and symptoms, none of which are entirely specific. See Appendix 3 for the Airway, Breathing, Circulation, Disability and Exposure (ABCDE) approach to assess and treat an individual which should be followed, as individuals can have an airway, breathing or circulation problem or any combination which is life threatening. See Appendix 4 for an anaphylaxis algorithm (adapted from the Resuscitation Council (UK) – Anaphylaxis Algorithm May 2021).</p>

	<p>Individuals, aged 16 years and over, displaying the previously described signs and symptoms may receive the administration of adrenaline (epinephrine). This includes those receiving treatment as:</p> <ul style="list-style-type: none"> • Hospital in-patients. • Hospital out-patients attending out-patient or diagnostic departments. • Individuals receiving care in the community, including minor injury units, GP practices, dental practices, health centres clinics, schools, pharmacies, vaccination centres, individual's own houses and other community settings. <p>Prior to the administration of the medicine, valid consent to receiving treatment under this protocol must be obtained. Consent must be in line with current NHSG consent policy.</p>
Exclusion criteria	<ul style="list-style-type: none"> • Individuals under 16 years of age. • The absence of an anaphylactic reaction. • In severe genuine anaphylaxis there are no exclusions and contra-indications are relative as adrenaline is being administered in an emergency situation. • Individuals for whom no valid consent has been received. If the individual is unable to give consent due to a life-threatening situation adrenaline (epinephrine) should be administered where treatment is judged to be in the best interests of the individual.
Cautions	There are no absolute contraindications to treatment as this product is intended for use in life-threatening emergencies.
Action if excluded from treatment	<p>Call (9) 999 Emergency services and/or refer to doctor as appropriate. If within the acute hospital setting dial 2222 (hospital internal) according to local procedure, or seek urgent medical advice. Ensure all actions/decisions are documented.</p> <p>Medical advice must be sought – refer to relevant medical practitioner.</p> <p>Document the reason for exclusion under the protocol and any action taken in the individual's appropriate clinical records.</p>
Action if treatment is declined	<p>Not considered likely however;</p> <p>If the individual is unable to give consent due to a life-threatening situation adrenaline (epinephrine) should be administered where treatment is judged to be in the best interests of the individual.</p>

	<p>Inform/refer to the relevant medical practitioner if individual/parent/carer declines treatment.</p> <p>Document that the administration was declined, the reason and advice given in appropriate clinical records.</p>
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Description of treatment available under the protocol

Name form and strength of medicine	<p>Adrenaline carried for the purposes of Emergency Treatment – this may include:</p> <p>Adrenaline (epinephrine) 1mg/1mL (1 in 1,000) solution for injection ampoules.</p> <p>Adrenaline (epinephrine) 500micrograms/0.5mL (1 in 1,000) solution for injection ampoules.</p> <p>Adrenaline (epinephrine) 500micrograms (single dose) (1 in 1,000) solution for injection (pre-filled syringe) auto-injector (stock supply).</p>
Legal status	<p>Adrenaline (epinephrine) is a Prescription-only Medicine (POM).</p> <p>Note: Exemption to legal category – POM restriction does not apply to the IM administration of up to 1mg of adrenaline injection 1 in 1000 (1mg/1mL) for the emergency treatment of anaphylaxis.</p>
Is the use out with the SmPC?	N/A
Dosage/Maximum total dose	<p>Adults (aged 16 years and above) - 500micrograms (0.5mL) of adrenaline (epinephrine) 1 in 1,000 (1mg/mL).</p> <p>Repeat the 500microgram IM adrenaline dose if there is no improvement in the individual's condition.</p> <p>Maximum number of doses: 2 doses of 500micrograms may be administered under this protocol.</p> <p>For additional information, refer to the Resuscitation Council (UK) Emergency Treatment of Anaphylactic Reactions (2021).</p>
Frequency of dose/Duration of treatment	Maximum 2 doses – up to 1mg adrenaline, can be administered under this protocol.

Maximum or minimum treatment period	N/A
Route/Method of administration	<p>Intra-muscular (IM) injection (preferably mid-point in anterolateral thigh, see diagram below). However, in an emergency where this site cannot be accessed, adrenaline can be administered into the deltoid muscle of the arm). Where safely possible you should lay the individual down and elevate their legs (as per the diagram below).</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Ideal position for administration</p> </div> <div style="text-align: center;"> <p>Preferred site of administration</p> </div> </div>
Quantity to be administered	See Dosage/Maximum total dose and Frequency of dose/Duration of treatment sections above.
Storage requirements	<p>Store at less than 25°C and protect from light.</p> <p>Do not freeze.</p>
Additional Information	N/A
Follow-up (if applicable)	<p>Individuals may need to be transferred to a high dependency facility depending on the severity of reaction and medical decision.</p> <p>Any affected hospital out-patients, individuals in the community or those attending clinics/health centres need to be transferred to a hospital.</p> <p>The medical practitioner in charge of the individual's care should be informed.</p>
Advice (Verbal)	<ul style="list-style-type: none"> Advise individual/parent/carer what to expect and of the possible side effects and their management. If conscious, prior to the administration of adrenaline (epinephrine) the individual should receive an explanation that they are having a severe reaction and that IM adrenaline (epinephrine) is going to be administered to relieve the symptoms and help reverse the reaction. If serious adverse or persistent effects occur, the individual/parent/carer should be advised to contact their GP/Accident and Emergency department/NHS24.

Advice (Written)	The Patient Information Leaflet (PIL) contained in the medicine(s) should be made available to the individual/parent/carer. Where this is unavailable, or unsuitable, sufficient information should be given in a language that they can understand.
Identifying and managing possible adverse reactions	<p>Adverse effects are extremely rare with correct doses injected intramuscularly. The adverse effects of adrenaline mainly relate to the stimulation of both alpha and beta-adrenergic receptors. The occurrence of undesirable effects depends on the sensitivity of the individual and the dose involved.</p> <p>There are no absolute contraindications to the administration of adrenaline under this protocol with any concurrent medication, as adrenaline is intended for use in a life threatening emergency.</p>
Facilities and supplies required	<p>The following are to be available at sites where the medicine is to be administered:</p> <ul style="list-style-type: none"> • Appropriate storage facilities, e.g. emergency bag. • An acceptable level of privacy to respect individual's right to confidentiality and safety. • Basic airway resuscitation equipment (e.g. bag valve mask) • Access to a working telephone. • Another competent adult, who can summon urgent emergency support if required should ideally be present. • Access to medical support (this may be via the telephone). • Approved equipment for the disposal of used materials. • Clean and tidy work areas, including access to hand washing facilities or alcohol hand gel. • A copy of this current protocol in print or electronically.

Characteristics of staff authorised to administer medicine(s) under Protocol

Staff Category	Suitably trained, non-registered, members of staff as identified by the health board, who are supporting the delivery of services, e.g. Health Care Support Workers.
Specialist competencies	<p>Suitably trained, non-registered, members of staff must only work under this protocol where they are competent to do so.</p> <p>All persons operating this protocol:</p> <ul style="list-style-type: none"> • must be authorised by name by their employer as an approved person under the current terms of this protocol before working to it

	<ul style="list-style-type: none"> • must be familiar with the product, handling and the administration process • must have undertaken appropriate training and be competent in the recognition and management of anaphylaxis • must be competent to undertake the IM administration process • must have access to the protocol and associated resources • should fulfil any additional requirements defined by local policy. <p>Employer:</p> <ul style="list-style-type: none"> • The employer is responsible for ensuring that the suitably trained non-registered member of staff have the required knowledge and skills to safely deliver the activity they are employed to provide under this protocol. • As a minimum, competence requirements stipulated in the protocol must be adhered to.
Ongoing training and competency	<p>All suitably trained non-registered members of staff operating under the protocol are responsible for ensuring they remain up to date with the administration of adrenaline and the treatment of anaphylaxis. If any training needs are identified these should be discussed with the individuals in the organisation responsible for authorising individuals to act under this protocol.</p> <p>Individuals operating under this protocol must:</p> <ul style="list-style-type: none"> • have attended basic life support training either face to face or online and keep this up to date in accordance with NHS Grampian board requirement • have undertaken NHS e-anaphylaxis training which covers all aspects of the identification and management of anaphylaxis • maintain their skills, knowledge and level of competence in this area.
Responsibilities of professional manager(s)	<p>Professional manager(s) will be responsible for;</p> <p>Ensuring that the current protocol is available to all staff providing care under this direction.</p> <p>Ensuring that staff have received adequate training in all areas relevant to this protocol and meet the requirements above.</p> <p>Maintain up to date record of all staff authorised to administer the medicine(s) specified in this direction.</p>

Documentation

Authorisation of administration	<p>Suitably trained, non-registered members of staff working can be authorised to administer the medicine specified in this protocol.</p> <p>All authorised staff are required to read the protocol and sign the Agreement to Administer Medicines Under protocol (Appendix 1).</p> <p>A Certificate of Authorisation (Appendix 2) signed by the authorising professional/manager should be supplied. This should be held in the individual staff member's records, or as agreed locally.</p>
Record of administration	<p>An electronic or paper record must be completed to allow audit of practice.</p> <ul style="list-style-type: none"> • Date and time of administration • Individuals name and CHI • Exclusion criteria, record why the medicine was not administered (if applicable) • Record that valid consent to treatment under this protocol was obtained • The name, dose, form, route (batch number, expiry date and anatomical site where appropriate for injectable medicines) of the medicine(s) administered • Advice given, including advice given if excluded or declined treatment under this protocol • Signature and name in capital letters of the individual who administered the medicine • Record of any adverse effects and the actions taken (advise individuals' GP/relevant medical practitioner). <p>Depending on the clinical setting where administration is undertaken, the information should be recorded manually or electronically, in one (or more) of the following systems, as appropriate:</p> <ul style="list-style-type: none"> • BadgerNet – Digital Maternity Notes • Child Health Information Services if appropriate • Hand-held records such as red book if appropriate • Individual's GP records if appropriate • Secondary Care Medical Notes • HEPMA • Occupational health systems • Individual service specific systems.

	<p>Local policy should be followed with respect to sharing information with the individual's General Practitioner.</p> <p>All records should be clear, legible and contemporaneous and in an easily retrievable format.</p> <p>All serious adverse events related to medicines should be reported to the MHRA via the Yellow Card Scheme or on the website at https://yellowcard.mhra.gov.uk/</p>									
Audit	All records of the medicine(s) specified in this protocol will be filed with the normal records of medicines in each practice/service.									
References	<p>Electronic Medicines Compendium http://www.medicines.org.uk</p> <table><tr><th>Medicine</th><th>Date of Revision of SmPC</th><th>Date Accessed</th></tr><tr><td>Adrenaline (epinephrine) 1mg/1mL (1 in 1,000) solution for injection ampoules (Martindale)</td><td>24th September 2019</td><td>4th February 2025</td></tr><tr><td>Adrenaline (epinephrine) 1mg/1mL Injection (1 in 1,000) for Anaphylaxis (glass prefilled syringe) (Martindale)</td><td>13th February 2020</td><td>4th February 2025</td></tr></table> <p>British National Formulary and British National Formulary for Children https://about.medicinescomplete.com/ accessed 4th February 2025</p> <p>Resuscitation Council (UK) Emergency treatment of anaphylaxis: Guidelines for healthcare providers, May 2021. https://www.resus.org.uk/media/337/download</p>	Medicine	Date of Revision of SmPC	Date Accessed	Adrenaline (epinephrine) 1mg/1mL (1 in 1,000) solution for injection ampoules (Martindale)	24 th September 2019	4 th February 2025	Adrenaline (epinephrine) 1mg/1mL Injection (1 in 1,000) for Anaphylaxis (glass prefilled syringe) (Martindale)	13 th February 2020	4 th February 2025
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Appendix 1

Agreement to Administer Medicine(s) Under Protocol

I: _____ (Insert name)

Working within: _____ e.g. Area, Practice

Agree to administer the medicine(s) contained within the following protocol:

Protocol For The Administration Of Adrenaline (Epinephrine) To Individuals (Aged 16 Years And Over) In Cases Of Suspected Anaphylactic Reactions By Non-Registered Staff Working Within NHS Grampian, Version 1

I have completed the appropriate training to enabling me to administer the medicine(s) under the above protocol. I agree not to act beyond my competence, nor out with the recommendations of the protocol.

Signed: _____

Print Name: _____

Date: _____

Role Title: _____

Appendix 2

Non-Registered Staff Authorisation to Administer Medicines Under Protocol

The Lead manager/Professional of each clinical area is responsible for maintaining records of all clinical areas where this protocol is in use, and to whom it has been disseminated.

The Senior Nurse/Professional who approves a non-registered staff to administer the medicine(s) under this protocol is responsible for ensuring that they are competent, qualified and trained to do so, and for maintaining an up-to-date record of such approved persons.

The non-registered staff member that is approved to administer the medicine(s) under this protocol is responsible for ensuring that they understand and are trained and competent to undertake the duties required. The approved person is also responsible for ensuring that administration is carried out within the terms of the protocol.

Protocol For The Administration Of Adrenaline (Epinephrine) To Individuals (Aged 16 Years And Over) In Cases Of Suspected Anaphylactic Reactions By Non-Registered Staff Working Within NHS Grampian, Version 1

Local clinical area(s) where the listed staff will operate under this protocol:

Name of Non-Registered Staff Member	Signature	Date	Name of Manager	Signature	Date

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Name of Non-Registered Staff Member	Signature	Date	Name of Manager	Signature	Date

The ABCDE Approach:

Airway

- Airway swelling, e.g. throat and tongue swelling (pharyngeal/laryngeal oedema). The individual has difficulty in breathing and swallowing and feels that the throat is closing up.
- Hoarse voice.
- Stridor – this is a high-pitched inspiratory noise caused by upper airway obstruction.

Breathing

- Increased respiratory rate.
- Shortness of breath.
- Wheeze.
- Hypoxia- which can lead to confusion/agitation.
- Cyanosis (appears blue) – this is usually a late sign.
- Individual becoming tired.

Circulation

- Signs of shock – pale, clammy.
- Increased pulse rate (tachycardia).
- Low blood pressure (hypotension) – feeling faint (dizziness) which may lead to collapse.
- Decreased conscious level or loss of consciousness.
- Anaphylaxis can cause myocardial ischaemia and electrocardiograph (ECG) changes even in individuals with normal coronary arteries.

Disability

- Airway, Breathing and Circulation problems can all alter the individual's neurological status because of decreased brain perfusion. Using the Alert, responds to Vocal stimuli, responds to Painful stimuli, or Unresponsive to all stimuli (AVPU) method of assessment can determine an individual's conscious level.
- Individuals can also have gastro-intestinal symptoms (abdominal pain, incontinence, vomiting).

Exposure

- The individual must be exposed ensuring dignity to observe for skin and/or mucosal changes. This is often the first feature and present in over [NHS Grampian Policy And Staff Guidance For The Administration Of Medicines By Career Level 3 And 4 Health Care Support Workers](#) of anaphylactic reactions.
- They can be subtle or dramatic.
- There may be just skin, just mucosal, or both skin and mucosal changes.
- There may be erythema – a patchy, or generalised, red rash.
- There may be urticaria (also called hives, nettle rash, weals or welts), which can appear anywhere on the body. The weals may be pale, pink or red, and may look like nettle stings. They can be different shapes and sizes and are often surrounded by a red flare. They are usually itchy.
- Angioedema is similar to urticaria but involves swelling of deeper tissues, most commonly in the eyelids and lips, and sometimes in the mouth and throat.

ANAPHYLAXIS CAN RESULT IN RESPIRATORY AND CARDIAC ARREST

Appendix 4 - Anaphylaxis Algorithm

