University Hospitals of Derby and Burton NHS Foundation Trust

PATIENT GROUP DIRECTION (PGD)

Administration of Adrenaline 1mg in 1ml injection (1:1000) for Anaphylaxis By Registered Staff in All Adult UHDB services

Documentation details

Reference no:	UHDB196
Version no:	1
Valid from:	16/08/2022
Review date:	16/02/2025
Expiry date:	15/08/2025

Change history

Version number	Change details	Date
1	New template – Extended for all UHDB staff on any site	

Glossary

Abbreviation	Definition

1. PGD template development (PGD Working Group)

PGD Working Group Membership (minimum requirement of consultant, pharmacist and a registered professional who can work under a PGD (or manages the staff who do). If this is a review of existing PGD, replace previous names with the individuals involved for this version

Name	Designation
James Hooley	Medicines Safety Officer (Pharmacist)
Thomas Morley	Lead Medicines Information Pharmacist (Pharmacy Resus lead)
David Jones	UHDB Resuscitation & clinical skills manager
Core Adult PGD list maintained by Medicines Safety Group.	Note: No PGD working group convened as this PGD is created by merging detail from multiple authorised PGDs in active use across UHDB which have been developed previously with nursing and medical input.

Where an antimicrobial is included, confirm the name, designation and date of the antimicrobial pharmacist who has reviewed this version

Name of antimicrobial pharmacist	Designation	Date Reviewed
N/A	-	-

2. Organisational authorisations

The PGD is not legally valid until it has had the relevant organisational authorisation.

University Hospitals of Derby & Burton NHS Foundation Trust authorises this PGD for use by the services or providers listed below:

Authorised for use by the following organisation and/or services
All UHDB staff providing UHDB services (includes UHDB staff/services undertaken on non-UHDB premises) This is a core PGD and <u>can</u> be implemented in all adult services where training and resources have been allocated by senior staff to do so (see policy and limitations below if in doubt).
Limitations to authorisation
It is the responsibility of the practitioner working under this PGD to ensure that this PGD is in place in the area they are practising at the time of use. In most cases, this is implicit when a senior manager requests the staff to undertake training and then authorises them in section 7 of this document. However, when working in alternative areas (e.g. internal bank or redeployment) it is important that the practitioner confirms with a departmental manager in the new department that the core PGDs are in-use in their area.

Organisational Authorisation (legal requirement).			
Role	**Name**	**Sign**	**Date**
Deputy Chief Pharmacist *Chief Pharmacist / Deputy*	**Matt Prior**	**Signed copy held in Pharmacy**	**16/08/2022**

Additional signatories (required as per legislation and locally agreed policy)			
Role	**Name**	**Sign**	**Date**
Medicines Safety Officer (pharmacist) *Clinical Pharmacist from PGD working group*	**James Hooley**	**Signed copy held in Pharmacy**	**13/07/2022**
Medical Director / Deputy *Doctor*	**Dr James Crampton**	**Signed copy held in Pharmacy**	**18/07/2022**
Chief Nurse / Deputy *Registered Professional representing users of the PGD*	**Garry Marsh**	**Signed copy held in Pharmacy**	**10/08/2022**

Local enquiries regarding the use of this PGD may be directed to UHDB.PGDgovernance@nhs.net

Section 7 provides a registered health professional authorisation sheet. Individual professionals must be authorised by name to work to this PGD.

3. Characteristics of staff

Qualifications and professional registration	All Divisions, Adult Areas, registered professional with current professional registration operating within their usual scope of practice. Must be a profession permitted by current legislation to practice under a patient group direction.
Initial training	- Completion of all Essential-to-role training as outlined in the UHDB PGD policy. - Individual has read and understood full content of this PGD and signed authorisation (section 7) - Completion of Medicines Management Drug Assessment
Competency assessment	Staff operating under this PGD are encouraged to review their competency using the NICE Competency Framework for health professionals using patient group directions Individuals operating under this PGD are personally responsible for ensuring they remain up to date with the use of all medicines included in the PGD - if any training needs are identified these should be discussed with either the authorising manager (section 7) or the manager within the PGD working group (section 1) so that further training can be provided as required.
Ongoing training and competency	Annual Medicines Safety Training (essential to role) Review/repeat initial training above when this PGD is revised Basic Life Support + AED + Anaphylaxis training Aseptic non-touch Technique (ANTT)
The decision to supply any medication rests with the individual registered health professional who must abide by the PGD and any associated organisation policies.	

4. Clinical condition or situation to which this PGD applies

Clinical condition or situation to which this PGD applies	Emergency management of life-threatening acute anaphylactic reactions in Adults following exposure to an allergen such as drugs, food, substance or insect bite, blood products or intravenous drug infusions.
Criteria for inclusion	Life threatening anaphylactic reactions as defined in Trust anaphylaxis guidelines and summarised in the British Resuscitation Council algorithm as below: 1 Life-threatening problems: Airway: swelling, hoarseness, stridor Breathing: rapid breathing, wheeze, fatigue, cyanosis, SpO_2 < 92%, confusion Circulation: pale, clammy, low blood pressure, faintness, drowsy/coma Anaphylaxis is likely if any of the following three scenarios are met: Scenario 1 - Sudden onset over minutes to several hours of skin and mucosal changes and sudden respiratory and/or cardiovascular symptoms and signs Scenario 2 - Symptoms and signs from two or more of the following organ systems that occur suddenly after exposure to a likely allergen for that patient: Respiratory; Cardiovascular; Skin/mucosal; Gastrointestinal Scenario 3 - Reduced blood pressure occurring over minutes to several hours after exposure to a known allergen for that patient. Adults: systolic< 90mmHg or >30% reduction from baseline
Criteria for exclusion	Patients under 16 years of age The manufacturer advises contraindication in cases of documented hypersensitivity to adrenaline. Note that all contraindications are relative in life-threatening emergencies.
Cautions including any relevant action to be taken	Diabetes: Adrenaline may cause or exacerbate hyperglycaemia, blood glucose should be monitored, particularly in diabetic patients. Repeated local administration may produce necrosis at the sites of injection. Avoid the buttocks or highly vascular areas for IM administration **Note regarding scenario 2 indication for treatment:** A patient may present with sudden onset abdominal pain and vomiting with tachycardia and hypotension, but no respiratory or skin symptoms. The differential diagnosis for this presentation is wide and hence a high index of clinical suspicion is needed and careful history taking for possible ingested allergens. **Note regarding BNF Cautions:** Cautions listed in the BNF are only for **non**-life-threatening situations.

Action to be taken if the patient is excluded	• Medical staff / arrest team should already be en route following emergency call: Refer to medical staff or prescriber on arrival for review of alternative pharmacological management. • Record reasons for exclusion in patient notes (retrospectively as soon as practicable following management of the emergency)
Action to be taken if the patient or carer declines treatment	• As above for excluded patients
Arrangements for referral for medical advice	In cases of presumed anaphylaxis/cardiac arrest, follow your local medical emergency procedures (e.g. 2222 / 3333 / 999 procedures)

5. Description of treatment

Name, strength & formulation of drug	Adrenaline 1:1000 Injection (1mg in 1ml)
Legal category	POM
Route / method of administration	Intramuscular
Indicate any off-label use (if relevant)	n/a
Dose and frequency of administration	Single dose of 0.5ml (500 micrograms) Then repeat after 5 minutes if no improvement. • Where possible monitor blood pressure, pulse and respiratory function to aid decision on repeat dosing under PGD (or to inform the medical team / paramedics on arrival)
Duration of treatment	Initial dose may be repeated at the same dose if not improving after 5 minutes *Note: 2 doses total should be sufficient in most cases to cover the time until CPR team to arrive and take over. However, if support is delayed such as awaiting a blue light response at community hospitals, then IM adrenaline can be repeated every 5 minutes if no improvement in respiratory or cardiovascular symptoms has been achieved. This is in accordance with Refractory Anaphylaxis algorithm 2021 from the Resuscitation Council UK.*
Quantity to be supplied (leave blank if PGD is administration ONLY)	n/a
Storage	Stock must be securely stored according to UHDB medicines policy and in conditions in line with SPC as detailed below: • Store in original container to protect from light • Store below 25 degrees Celsius
Drug interactions	*The following interactions have been identified in the following medicines. In the treatment of life-threatening anaphylactic reactions, continue to treat but inform medical team on arrival. Monitor heart rate and blood pressure as soon as possible without delaying initial*

	treatment: • ***Beta blockers (non-cardio selective)*** –Severe hypertension and reflex bradycardia may occur with non-selective beta-blocking drugs such as propranolol. Patients with severe anaphylaxis who are taking non-cardioselective beta-blockers may not respond to adrenaline treatment. • **Tricyclic antidepressants** such as imipramine & amitriptyline may potentiate the effects of adrenaline, especially on heart rhythm and rate. • ***MAOIs (including linezolid)*** *may increase pressor action leading to hypertension.* A detailed list of drug interactions is available in the SPC, which is available from the electronic Medicines Compendium website: www.medicines.org.uk
Identification & management of adverse reactions	Side effects associated with adrenaline's alpha and beta receptor activity may include palpitations, tachycardia, and hypertension as well as undesirable effects on the central nervous system, sweating, nausea and vomiting, respiratory difficulty, pallor, dizziness, weakness, tremor, headache, apprehension, nervousness and anxiety. Cardiac arrhythmias may follow administration of adrenaline. A detailed list of adverse reactions is available in the SPC, which is available from the electronic Medicines Compendium website: www.medicines.org.uk
Management of and reporting procedure for adverse reactions	• Healthcare professionals and patients/carers are encouraged to report suspected adverse reactions to the Medicines and Healthcare products Regulatory Agency (MHRA) using the Yellow Card reporting scheme on: https://yellowcard.mhra.gov.uk • Record all adverse drug reactions (ADRs) in the patient's medical record. Serious adverse reactions (moderate harm or above as per NRLS definition) should be reported via trust incident management system (e.g. Datix) to ensure duty of candour and learning from harm during clinical use.
Written information to be given to patient or carer	Not required for administration in emergency. If patient has questions following treatment, consider providing marketing authorisation holder's patient information leaflet (PIL) provided with the product or obtained via www.medicines.org.uk.
Patient advice / follow up treatment	Emergency medical assistance should have been sought at the outset. The medical team may manage some or all of these aspects but this must always be discussed to ensure guidelines are followed and key information is not missed. Once stabilised: Verbal advice to the patient on why drug administered, action of the drug. Inform patient of possible causes of the anaphylaxis and any further management. Work with the medical team (or prescriber) to confirm plans for ongoing management such as per the UHDB clinical guideline for anaphylaxis:

	• referral to allergy clinic if necessary (e.g. non drug related anaphylaxis) • consider whether prescription and provision of autojector is appropriate • Document full details of the clinical circumstances surrounding the anaphylactic reaction and treatment, to support allergy clinic review e.g. • Symptoms and signs. • Recorded observations (blood pressure, pulse, oxygen saturations etc) at presentation and following treatment. • Time of onset of reaction. • Circumstances immediately preceding onset of symptoms (may help identify trigger). • Treatment given
Records	For inpatients, the record of administration must be documented in the ePMA system or medicines chart used in your area. For other areas, an ePMA system should be used if in-use in your area as this will ensure all legal criteria are fulfilled and auditable. Otherwise, records can be made in the medical notes or within the patient pathway (e.g. in daycase or triage where a pathway booklet is in use) but must include the legal requirements below. Either the system holding the record, or the healthcare practitioner working under the PGD, must capture/document all of the following: • name of individual, address, date of birth and GP with whom the individual is registered (if relevant) • name of registered health professional • name of medication supplied/administered • date of supply/administration • dose, form and route of supply/administration • quantity supplied/administered • batch number and expiry date (if applicable e.g. injections and implants) • advice given, including advice given if excluded or declines treatment • details of any adverse drug reactions and actions taken • Confirm whether supplied and/or administered via Patient Group Direction (PGD) Records should be signed and dated (or a password controlled e-records). All records should be clear, legible and contemporaneous. If you are not recording in ePMA (or other electronic system which has ability to generate audit reports) then a record of all individuals receiving treatment under this PGD should also be in the clinical area for audit purposes as per UHDB PGD policy.

6. Key references

Key references	• *Electronic Medicines Compendium http://www.medicines.org.uk/* • *Electronic BNF https://bnf.nice.org.uk/* • *UHDB. Clinical Guideline - Anaphylaxis - Management of Suspected Anaphylaxis in Adults. Accessed 24/11/2021 https://derby.koha-ptfs.co.uk/cgi-bin/koha/opac-detail.pl?biblionumber=820*

7. Registered health professional authorisation sheet

PGD Name [version]: Adrenaline 1mg in 1ml injection (1:1000) for Anaphylaxis [v1.0]
PGD ref: UHDB196

Valid from: 16/08/2022 Expiry date: 15/08/2025

Before signing check that the document you have read is published on Koha or is an in-date hard-copy with all necessary authorisations signed in section 2. The Name/Version/Ref of the document you have read MUST match this authorisation form.

Registered health professional
By signing this patient group direction you are indicating that

a) You agree to and understand all content and commit to only work within this framework.
b) You have completed any core PGD e-Learning or training records on My Learning Passport or within your department.
c) You meet the staff characteristics and have completed any additional learning/competency outlined in Section 3 of this PGD.

Patient group directions do not remove inherent professional obligations or accountability.
It is the responsibility of each professional to practise only within the bounds of their own competence and professional code of conduct.

I confirm that I have read and understood the content of this Patient Group Direction and that I am willing and competent to work to it within my professional code of conduct.			
Name	**Designation**	**Signature**	**Date**

Authorising manager / Assessor

I confirm that the registered health professionals named above have declared themselves suitably trained and competent to work under this PGD. I give authorisation on behalf of University Hospitals of Derby & Burton NHS Foundation Trust for the above named health care professionals who have signed the PGD to work under it.			
Name	**Designation**	**Signature**	**Date**

Note to authorising manager

Score through unused rows in the list of registered health professionals to prevent additions post managerial authorisation.

This authorisation sheet must be retained by a manager in the clinical department where the PGD is in-use to serve as a record of those registered health professionals authorised to work under this PGD.