University Hospitals of Derby and Burton NHS Foundation Trust

PATIENT GROUP DIRECTION (PGD)

Administration of Sodium Chloride 0.9% (maintenance) Infusion By Registered UHDB Staff in Adult UHDB services

Documentation details

Reference no:	UHDB047
Version no:	1
Valid from:	10/06/2022
Review date:	10/12/2024
Expiry date:	09/06/2025

Change history

Version number	Change details	Date
1	New template – Extended for all UHDB staff on any site	14/01/2022

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)
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 can 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**
Chief Pharmacist / Deputy	Clive Newman	**Signed copy held in Pharmacy**	**10/06/2022**

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**	**06/06/2022**
Medical Director / Deputy *Doctor*	**James Crampton**	**Signed copy held in Pharmacy**	**25/05/2022**
Chief Nurse / Deputy *Registered Professional representing users of the PGD*	**Phil Bolton**	**Signed copy held in Pharmacy**	**16/05/2022**

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 - Trust IV competency
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 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	Fluid replacement (maintenance*) to continue hydration until reviewed by a prescriber. [*Separate fluid bolus PGD exists for staff in resuscitation or outreach roles with experience in advanced life support]
Criteria for inclusion	Patients over 16 years requiring maintenance fluids prior to a prescriber being available to review. To maintain patency of a vein/vascular-access device (limited to connecting to access devices the staff member is trained to manage)
Criteria for exclusion	• Previous sensitivity or intolerance to the drug or any ingredient • Impaired renal function GFR < 30ml/min • Hypernatraemia (High sodium) • Congestive heart failure • Uncontrolled hypertension • peripheral or pulmonary oedema • toxaemia of pregnancy • patients with liver failure • patients under 16 years old
Cautions including any relevant action to be taken	*Monitor whilst on infusion:* Infusion of an excessive volume may overload the circulation and precipitate heart failure (evidenced by increased breathlessness, wheezing and distended neck veins). Subcutaneous route only: Should be used cautiously on sites of previous burns or where radiotherapy has been given, because fibrosis can cause decreased absorption.
Action to be taken if the patient is excluded	• Record reasons for exclusion in patient notes • Advise patient on alternative treatment • Refer to medical staff or prescriber for review and prescribing of alternative agent if appropriate.
Action to be taken if the patient or carer declines treatment	• Document advice given • Advise patient on alternative treatment • Refer to medical staff if appropriate.
Arrangements for referral for medical advice	Contact your ward or clinic medical team in the first instance except in the event of anaphylaxis/cardiac arrest when you should follow your local medical emergency procedures (e.g. 2222 / 3333 / 999 procedures)

5. Description of treatment

Name, strength & formulation of drug	Sodium Chloride 0.9% Infusion
Legal category	*POM*

Route / method of administration	Preferred route: Intravenous Alternative route: Very occasionally the subcutaneous route may be used if: - maintaining hydration is urgent **and** - where no intravenous cannula is available or a vein for intravenous administration is difficult to site
Indicate any off-label use (if relevant)	Subcutaneous use is off-license
Dose and frequency of administration	1000ml run over 12 hours = 83ml/hour (but reassess as soon as a prescriber is available to review the patient's specific needs) If maintaining line patency, a slower rate may be initiated (e.g. KVO = 'keep vein open' settings on pumps or local procedure as long as this is slower than)
Duration of treatment	ADMINISTRATION for inpatient, outpatient, triage use: 1000ml is the total dose to provide without prescription.
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: 250, 500 and 1000 ml bags: This medicinal product does not require any special storage conditions. Available from the electronic Medicines Compendium website: www.medicines.org.uk
Drug interactions	***There are no clinically significant interactions to consider for inpatients treated for up to 12 hours until a review by a prescriber takes place.*** *In an outpatient/daycase setting, where a medical review may not take place following treatment it is worth noting additional risk of effects on sodium levels from the agents below. Ask for a medical or prescriber review if this is not already planned prior to discharge:* • Increase in sodium levels and water retention possible when saline infusions are given to patients on steroid therapy. • Medicines that increase vasopressin effects may lead to reduced water excretion and therefore hyponatraemia (low sodium): See SPC (references below). Includes: SSRIs, carbamazepine, antipsychotics, NSAIDs, desmopressin, terlipressin, oxytocin, cyclophosphamide and opioid analgesics. • Lithium: sodium and lithium clearance may be increased (lowering lithium levels) 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	Hypervolaemia: Excessive volume may overload the circulation and precipitate pulmonary oedema (evidenced by increased breathlessness, wheezing and distended neck veins). • Hospital acquired hyponatraemia • Tremor • Hypotension • Urticaria • Rash • Pruritus • Infusion site erythema, • Local pain or vein irritation, Injection site streaking, burning sensation, paraesthesia • Infection at the site of injection • Venous thrombosis or phlebitis extending from the site of injection, extravasation and hypervolemia • Pyrexia • Chills 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	Give marketing authorisation holder's patient information leaflet (PIL) provided with the product.
Patient advice / follow up treatment	Report any breathlessness or wheezing immediately to a health profiessional. Advise on common adverse effects as above and request these are highlighted to a health professional on the ward/department at the time they occur.
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/ https://www.medicines.org.uk/emc/medicine/30220* • *Electronic BNF https://bnf.nice.org.uk/ https://bnf.nice.org.uk/drug/sodium-chloride* • *NICE Medicines practice guideline "Patient Group Directions" https://www.nice.org.uk/guidance/mpg2* • *https://medusa.wales.nhs.uk*

7. Registered health professional authorisation sheet

PGD Name [version]: Adult Core - Sodium Chloride 0.9% (maintenance) infusion [v1.0]
PGD ref: UHDB047

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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.