University Hospitals of Derby and Burton
NHS Foundation Trust

PATIENT GROUP DIRECTION (PGD)

Administration of Sodium Chloride 0.9% infusion

By Senior authorised Registered Nurses In Emergency Department, Acute Medicine Unit and Same Day Emergency Care (ED/AMU/SDEC) at Queens Hospital Burton

Documentation details

Reference no:	UHDB287
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Expiry date:	02/01/2027

Change history

Version number	Change details	Date
1	Use of new UHDB template	29/11/2023

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
Dr Venkata Thungala	Consultant Emergency Medicine
James Kerr	Divisional Pharmacist
Nadine Watson	Emergency Nurse Practitioner

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	n/a	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
In Emergency Department (ED), Acute Medical Unit (AMU) and Same Day Emergency Care (SDEC) at Queens Hospital Burton
Limitations to authorisation
At the time of publication, the matron has requested authorisation be limited to Band 6 (or above) registered nurses who have been authorised in section 7 by Lead Education Nurse for ED or matron. This is to align with the antibiotic PGDs developed for sepsis management. The PGD governance group and signatories also support that the matron for acute medicine may authorise extension to other senior nurse groups if appropriate throughout the duration of this PGD (providing they still meet all criteria in section 3 – page 5). Staff who are ALS trained may want to consider authorisation to use alternative Core - Trustwide fluid bolus PGDs. A Core - Trustwide PGD is also available to support delivery of maintenance fluids.

Organisational Authorisation (legal requirement).			
Role	**Name**	**Sign**	**Date**
Medication Safety Officer *Pharmacist: Medicines Safety Officer, Chief Pharmacist or assigned deputies)*	**James Hooley**	**Signed copy held by Pharmacy**	**03/01/2024**

Additional signatories (required as per legislation and locally agreed policy)			
Role	**Name**	**Sign**	**Date**
Divisional Lead Pharmacist *Clinical Pharmacist from PGD working group*	**James Kerr**	**Signed copy held by Pharmacy**	**01/12/2023**
Lead ED Consultant *Doctor*	**Dr Venkata Thungala**	**Signed copy held by Pharmacy**	**07/12/2023**
Senior ENP *Registered Professional representing users of the PGD*	**Nadine Watson**	**Signed copy held by Pharmacy**	**11/12/2023**

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	• NMC 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. • Band 6* ED / AMU / SDEC nurse **Note: See limitations to use on page 3 above – AMBU matron may extend this to other senior staff if appropriate following an initial period with Band 6+.*
Initial training	• Completion of all Essential-to-role training as outlined in the UHDB PGD policy including core PGD training. • Individual has read and understood full content of this PGD and signed authorisation (section 7) • Completion of Medicines Management Drug Assessment • Completion of approved IV medication administration • Anaphylaxis training as part of annual life support training • Infusion Therapy Study Day • Sepsis training
Competency assessment	• The lead education nurse will act as an assessor, along with any dedicated trained staff who are experienced in this area. • 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 the either authorising manager (section 7) or the manager within the PGD working group (section 1) so that further training can be provided as required.
On-going training and competency	• Annual Medicines Safety Training (essential to role) • Organisation PGD eLearning • IV Therapy/Medication Training. • Review/repeat initial training above when this PGD is revised. • Up to date mandatory training including anaphylaxis. • Any staff found to be using this PGD incorrectly will need to re-attend the above training.
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	Patients with actual or suspected, red flag sepsis and septic shock who would benefit from fluid challenge.
Criteria for inclusion	Criteria for above group - suspicion of infection and **one** or more of the following red flags • Systolic blood pressure <90mmHg (or drop >40mmg Hg from normal) • Lactate ≥2mmols • Heart rate >130/min • Respiratory Rate ≥25 /min • Needs oxygen to keep SpO2 ≥92% (or 88% if COPD) • New confusion • responds to voice/pain or unresponsive on AVPU scale. • Suspected neutropenic sepsis or recent chemotherapy. • Non-blanching rash/mottled/ashen/cyanotic. • Not passed urine in the last 18hours or urine output <0.5ml/kg/hour
Criteria for exclusion	• Cardiac Failure • Hypertension (whilst in the emergency department) • Peripheral or pulmonary oedema • Pregnant patients • Children under the age of 18 years
Cautions including any relevant action to be taken	• History of renal impairment • If systolic blood pressure does not rise above 90mmHg • If a second bag is clinically indicated Discuss with Doctor regarding any cautions prior to administration. Document this discussion.
Action to be taken if the patient is excluded	• Discuss with ED Doctor • Discuss with the patient and advise alternative treatment. • Document in patient's notes the reason for exclusion and actions taken.
Action to be taken if the patient or carer declines treatment	• Explain to the patient the importance of treatment. • Offer alternative intervention/treatment. • Document in medical notes the reason for refusal, action taken, advise given. • Escalate to ED doctor and consider prescribing an alternative medication/treatment if needed.
Arrangements for referral for medical advice	Refer to ED Consultant or Medical team consultant on duty. Follow local emergency procedure; call 2222/3333/999 in the event of adverse reaction / anaphylaxis / cardiac arrest.

5. Description of treatment

Name, strength & formulation of drug	0.9% Sodium Chloride infusion 500mls
Legal category	Prescription-only Medicine (POM)
Route / method of administration	Intravenous infusion
Indicate any off-label use (if relevant)	Only to be used within the licensed indications
Dose and frequency of administration	**500mls**
Duration of treatment	15-30 minutes
Quantity to be supplied (leave blank if PGD is administration ONLY)	n/a
Storage	Stocks must be stored in a lockable medicine cupboard/trolley specifically reserve for such purpose according to UHDB Medicine policy and in conditions in line with SPC. • Store in the original package • Do not give if any particulates floating in the solution.
Drug interactions	None
Adverse reactions	Excessive volume may overload the circulation and precipitate pulmonary oedema (evidenced by increased breathlessness, wheezing and distended neck veins). General side effects of sodium chloride excess in the body could include: sensitivity and injection site reactions, nausea, vomiting, diarrhoea, abdominal cramps, thirst, headache, dizziness, restlessness, irritability, weakness, muscle twitching and rigidity. Frequency unknown: ○ Tremor ○ Hives (urticaria) ○ Skin rash ○ Itching (puritus) A detailed list of adverse reactions is available in the SPC, which is available from the electronic Medicines Compendium website: www.medicines.org.uk or BNF online
Management of and reporting procedure for adverse reactions	Observe site of infusion for signs of complications of administration e.g., infection, local pain or reaction, irritation, thrombosis, extravasation, and re-site cannula if necessary. Serious or unusual reaction that could conceivably be attributed to

	the drug should be reported to a Doctor. Complete and submit a yellow card form as appropriate. https://yellowcard.mhra.gov.uk Document any reaction on the patient's medical notes Complete an incident report via UHDB Trust incident management system (Datix)
Written information to be given to patient or carer	None routinely given. A patient information leaflet or summary of characteristics can be downloaded from www.medicines.org.uk if requested
Patient advice / follow up treatment	• As per sepsis 6 care bundle • If more fluids are required, refer to Doctor immediately. • Start patient on a fluid balance chart
Records	Record the following information on ePMA (Electronic Prescribing system) 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 administered. • date and time of administration • dose, form, and route of administration • quantity administered • 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 and that this was done 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 https://www.medicines.org.uk/emc/product/1871/smpc accessed online 17/08/2023 • Electronic BNF https://bnf.nice.org.uk/drugs/sodium-chloride/ accessed 17/08/2023 • https://www.medusaimg.nhs.uk/IVGuideDisplay.asp accessed 17/08/2022 • Baxter pack insert for sodium chloride 0.9% w/v Intravenous

	Infusion BP Revised February 2022 • UHDB Trust Sepsis Management and Sepsis Screening Tool • NICE Medicines practice guideline “Patient Group Directions” https://www.nice.org.uk/guidance/mpg2

7. Registered health professional authorisation sheet

PGD Name [version]: Sodium Chloride 0.9% infusion [v1] PGD ref: UHDB287
Valid from: 03/01/2024 Expiry date: 02/01/2027

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.