University Hospitals of Derby and Burton
NHS Foundation Trust

PATIENT GROUP DIRECTION (PGD)

Administration of 1% Lidocaine Injection for adults and children over 7 years

By Registered Emergency Nurse Practitioners (ENP), Emergency Care Practitioners (ECP), and Emergency Physiotherapy Practitioners (EPP) in Emergency Department at QHB and Minor Injury Units at SRP & SJ

Documentation details

Reference no:	UHDB288
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Expiry date:	02/01/2027

Change history

Version number	Change details	Date
1	Use of new UHDB template	29/11/23

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
Emergency Department at Queens Hospital Burton and Minor Injuries departments at Samuel Johnson and Sir Robert Peel community hospitals
Limitations to authorisation
This organisation does not authorise the use of this PGD by ENPs or ECPs outside of this role or clinical area.

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 Nurse with current professional registration operating within their usual scope of practice *or* • HCPC Registered Paramedic *or* • HCPC Registered Physiotherapist Completion of either University accredited module in minor illness or injury, *or* Physiotherapy post graduate MSK
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 • Anaphylaxis training as part of annual life support training • Completion of wound care training
Competency assessment	ENPs operating under this PGD are personally responsible for ensuring they remain up to date with the need for, and use of, Lidocaine. If any training needs are identified, these should be discussed with the authorising manager (section 7) or the manager within the PGD working group (section 1) so that further training can be provided as required. ENPs/ECPs/EPPs operating under this PGD must have been assessed as competent and authorised to practise (by senior signature) included on the Registered Health Professional Authorisation Sheet (section 7) Staff operating under this PGD are encouraged to review their competency using the NICE Competency Framework for health professionals using patient group directions
On-going training and competency	• Annual Medicines Safety Training (essential to role) • Organisation PGD eLearning • Review/repeat initial training above when this PGD is revised • Up to date mandatory training including anaphylaxis. • Up to date with Immediate Life Support/Resus AED training • 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	Local anaesthesia in wound management
Criteria for inclusion	Wounds that require the infiltration of a local anaesthetic to facilitate inspection, cleaning, debridement or closing of a wound
Criteria for exclusion	• Allergy or hypersensitivity to lidocaine or other amide type anaesthetic or other ingredient in preparation • Hypovolaemia • Complete heart block • Porphyria • Known history of cardiac arrhythmia • Nerve/tendon injury • Previous administration of lidocaine within 4 hours • Children under 7 years of age • Infected tissue
Cautions including any relevant action to be taken	• Diabetes • Epilepsy • Hepatic impairment • Respiratory impairment • Impaired cardiac function • Bradycardia • Pregnancy • Breastfeeding - present in milk, but small quantity • Myasthenia gravis • Severe renal impairment • Patients taking beta blockers (e.g. propranolol, atenolol) • Patients taking Cimetidine • Patients taking HIV medication (e.g. atazanavir, darunavir, lopinavir, ritonavir, fosamprenavir, saquinavir) • Shock
Action to be taken if the patient is excluded	• Discuss with ED Doctor and consider prescribing an alternative medication. • 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	Lidocaine 1% injection (10mg/ml)
Legal category	Prescription-only Medicine (POM)
Route / method of administration	Subcutaneous injection or surface infiltration **Great care must be taken to avoid accidental intravenous injection**
Indicate any off-label use (if relevant)	Only to be used within the licensed indications
Dose and frequency of administration	1-20ml of 1% (10mg/ml) lidocaine depending on weight of patient and size and number of wound sites Child 7yrs-12yrs - Max dose = 3mg/kg (equivalent to 0.3ml/kg of 1% solution Child 13years - Adult - up to 4.5mg/kg (maximum dose 200mg) Smaller amounts are often sufficient; doses should generally be reduced in children, the elderly or debilitated patients. To avoid excessive dosage in obese patients, the dose should be based on ideal body weight. Time of onset following administration = 2-5 minutes Duration of action - 1-2 hours *Source Golzari et al (2014)*
Duration of treatment	Single dose
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. • Do not store above 25 degrees C room temperature. • Store in the original package. • Protect from light
Drug interactions	• Beta-blockers e.g. Propanolol (for angina, hypertension, or other heart problems) • Calcium channel blockers e.g. verapamil (for angina and hypertension) • Diuretics • Anti-arrhythmics - e.g. amidoraone, mexiletine (medicines used to regulate the rhythm of your heart) • Cimetidine (for stomach ulcer or heartburn)

	• Anti-virals such as atazanavir, darunavir, lopinavir, ritonavir, fosamprenavir, saquinavir may also increase lidocaine serum levels, increasing the risk of adverse effects • Acetazolamide (used to reduce pressure within the eye) • Dolasetron (used to prevent/treat nausea and vomiting) • Anti-psychotics - e.g. Pimozide, Sertindole • Muscle relaxants - e.g. Suxamethonium • Opioids - e.g. fentanyl • Oral contraceptives or oral HRT A detailed list of drug interactions is available in the SPC, which is available from the electronic Medicines Compendium website: www.medicines.org.uk or BNF Online https://bnf.nice.org.uk/interactions/lidocaine/
Adverse reactions	• Allergic reaction including rash and/or itchy skin, swelling of the face • Dizziness or lightheadedeness, drowsiness, tremor or tongie going numb • Convulsions (seizures) • Blurred or double vision • Tinnitus • Hyperacusis • Increase or decrease in blood pressure • Slowing or stopping of the heart • Changes in rhythm of the heart • Difficulty in breathing • Nausea and vomiting • Pain, inflammation or numbness at the injection site after the effects of the injection should have worn off • Blueish discolouration to skin, headache, breathlessness and fatigue 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	If adverse reactions suspected/occurs: • Assess patient using ABCDE and provide medical intervention appropriately. • Hypersensitivity reactions including anaphylaxis should be treated as an emergency. Skin reaction may indicate allergy or a more serious skin reaction. • Refer to ED or Medical Consultant immediately. • Use the MHRA Yellow Card scheme to report any suspected adverse reactions. Go to: https://yellowcard.mhra.gov.uk • Document on patient's medical notes • Complete incident report via UHDB Trust incident management system (Datix)

Written information to be given to patient or carer	Appropriate wound care / injury advice sheet provided following treatment
Patient advice / follow up treatment	• Advise the anaesthetic effects will wear off in approx. 75 minutes • Avoid operating machinery for 2 hours post infiltration or until full sensation returns • Warn patients about side effects and advise regarding action to take should these develop.
Records	Record the following information on ePMA (Electronic Prescribing system) UHDB – Meditech 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 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/6277/smpc https://www.medicines.org.uk/emc/files/pil.6277.pdf accessed online 24/08/23 • Electronic BNF https://bnf.nice.org.uk/drugs/lidocaine-hydrochloride/ accessed online 24/08/23 • Lidocaine and Pain Management in the Emergency Department: A Review Article (2014) Golzari et al https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3961016/ accessed 25/08/23 • NICE Medicines practice guideline “Patient Group Directions” https://www.nice.org.uk/guidance/mpg2

7. Registered health professional authorisation sheet

PGD Name [version]: 1% Lidocaine Injection [v1] PGD ref: UHDB288
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.