University Hospitals of Derby and Burton
NHS Foundation Trust

# PATIENT GROUP DIRECTION (PGD)

## Administration of PIPERACILLIN/TAZOBACTAM powder/vial

## 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

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| Reference no: | UHDB271 |
| Version no: | 6 |
| Valid from: | 08/08/2023 |
| Review date: | 08/02/2025 |
| Expiry date: | 07/08/2025 |

## Change history

| Version number | Change details | Date |
|---|---|---|
| 6 | Use of new UHDB template | 14/6/2023 |
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## Glossary

| Abbreviation | Definition |
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## 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 |
| Divina Jose | Emergency Nurse Practitioner |
| Angelina Dyche | Antimicrobial Pharmacist |
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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 |
|---|---|---|
| Angelina Dyche | Antimicrobial Pharmacist Burton | 14/06/2023 |

## *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** |
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| 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 by a matron.<br><br>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 2 year duration of this PGD (providing they still meet all criteria in section 3 – page 5). |

| **Organisational Authorisation (legal requirement).** | | | |
|---|---|---|---|
| **Role** | **Name** | **Sign** | **Date** |
| Medicine Safety Officer<br><br>*Pharmacist: Medicines Safety Officer, Chief Pharmacist or assigned deputies)* | James Hooley | Signed copy held by Pharmacy | **08/08/2023** |

| Additional signatories (required as per legislation and locally agreed policy) | | | |
|---|---|---|---|
| **Role** | **Name** | **Sign** | **Date** |
| Antimicrobial Pharmacist<br><br>*Clinical Pharmacist from PGD working group* | **Angelina Dyche** | Signed copy held by Pharmacy | **28/06/2023** |
| Lead ED Consultant<br>*Doctor* | **Dr Venkata Thungala** | Signed copy held by Pharmacy | **07/08/2023** |
| Senior ENP<br>*Registered Professional representing users of the PGD* | **Divina Jose** | Signed copy held by Pharmacy | **22/06/2023** |

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

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| **Qualifications and professional registration** | • Band 6* ED / AMU / SDEC registered nurse<br><br>**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.<br>• Individual has read and understood full content of this PGD and signed authorisation (section 7)<br>• Completion of Medicines Management Drug Assessment<br>• Completion of approved IV medication administration<br>• Anaphylaxis training as part of yearly ILS<br>• Infusion Therapy Study Day<br>• 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<br>• Once staff have completed all training, they will have their Meditech account adjusted to enable them to document administration of the treatment<br>• Staff operating under this PGD are encouraged to review their competency using the NICE Competency Framework for health professionals using patient group directions<br>• 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. |
| **On-going training and competency** | • Annual Medicines Safety Training (essential to role)<br>• Organisation PGD eLearning<br>• IV Therapy/Medication Training.<br>• Review/repeat initial training above when this PGD is revised<br>• Up to date mandatory training including anaphylaxis.<br>• 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

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| **Clinical condition or situation to which this PGD applies** | • Patients with actual or suspected, red flag sepsis and septic shock where the source of infection is not immediately obvious |
| **Criteria for inclusion** | Adults aged 18 and over with suspicion of infection and ONE or more of the following RED flags<br>(See local Trust's Sepsis Management and Screening Tool):<br>• Systolic blood pressure <90mmHg (or drop >40mmHg from normal)<br>• Lactate ≥2mmol/L<br>• Heart rate >130/min<br>• Respiratory Rate ≥25 /min<br>• Needs oxygen to keep SpO2 ≥92% (or 88% if COPD)<br>• New confusion<br>• Responds to voice/pain or unresponsive on AVPU scale.<br>• Suspected neutropenic sepsis or recent chemotherapy.<br>• Non-blanching rash/mottled/ashen/cyanotic.<br>• Not passed urine in the last 18hours or urine output <0.5ml/kg/hour |
| **Criteria for exclusion** | • Known or suspected penicillin allergy (please refer to a prescriber **immediately** and antibiotic guidelines for further advice)<br>• History of acute severe allergic reaction to any other beta-lactam active substances (e.g., cephalosporin, monobactam or carbapenem).<br>• Current intravenous antibiotic treatment<br>• Pregnant or breast-feeding<br>• Patients under 18 years old<br>• Recent previous microbiology culture results which show resistance to piperacillin / tazobactam |
| **Cautions including any relevant action to be taken** | • If source of sepsis is known- please refer to Doctor for system specific antibiotics immediately. |
| **Action to be taken if the patient is excluded** | • Discuss with ED Doctor and consider prescribing an alternative medication.<br>• Discuss with the patient and advise alternative treatment.<br>• 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.<br>• Offer alternative intervention/treatment.<br>• Document in medical notes the reason for refusal, action taken, advice given.<br>• Escalate to ED doctor and consider prescribing an alternative medication/treatment if needed. |

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| **Arrangements for referral for medical advice** | Refer to ED Consultant or Medical team consultant on duty.<br><br>Follow local emergency procedure; call 2222/3333/999 in the event of adverse reaction / anaphylaxis / cardiac arrest. |

## 5. Description of treatment

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| **Name, strength & formulation of drug** | Piperacillin/tazobactam 4.5gram injection |
| **Legal category** | Prescription-only Medicine (POM) |
| **Route / method of administration** | Intravenous infusion for 30 minutes via infusion pump<br><br>• Reconstitute one 4.5 gram vial with 20ml of water for injection or sodium chloride 0.9%. Add to 50mls -100mls of sodium chloride and infuse over 30 minutes.<br>• The reconstitution and dilution are to be made using aseptic non-touch technique. |
| **Indicate any off-label use (if relevant)** | Only to be used within the licensed indications |
| **Dose and frequency of administration** | • Take bloods cultures prior to giving antibiotics if possible but do not delay giving antibiotics.<br>• A single STAT dose of 4.5g should be infused within 60minutes from when sepsis 6 pathway is triggered. |
| **Duration of treatment** | Maximum of ONE dose (4.5 gram/vial) only to be administered without prescription. Refer to ED/medical team for review. |
| **Quantity to be supplied (leave blank if PGD is administration ONLY)** | *n/a* |
| **Storage** | Stocks must be stored in a lockable medicine cupboard/trolley according to UHDB Medicine policy and in conditions in line with SPC.<br>• Do not store above 25 degrees C room temperature.<br>• Store in the original package.<br>• Once reconstituted, give immediately |
| **Drug interactions** | The drug interactions listed in the BNF and SPC are unlikely to be of clinical significance following a single dose only.<br><br>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 |

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| **Adverse reactions** | Hypersensitivity reactions including rashes and anaphylaxis can be fatal. The following side effects are common:<br>• Diarrhoea<br>• Pseudo-membranous colitis<br>• Candida infection<br>• Thrombocytopaenia<br>• Anaemia<br>• Insomnia<br>• Headache<br>• Abdominal pain, vomiting, constipation, nausea, dyspepsia<br>• Pyrexia<br>• Injection site reaction<br><br>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:<br>• Assess patient using ABCDE and provide medical intervention appropriately.<br>• Hypersensitivity reactions including anaphylaxis should be treated as an emergency. Skin reaction may indicate allergy or a more serious skin reaction.<br>• Stop infusion immediately and instigate symptomatic treatment following anaphylaxis procedure.<br>• Refer to ED or Medical Consultant immediately.<br>• Use the MHRA Yellow Card scheme to report any suspected adverse reactions. Go to: https://yellowcard.mhra.gov.uk<br>• Document on patient's medical notes<br>• Complete incident report via UHDB Trust incident management system (Datix) |
| **Written information to be given to patient or carer** | If required/requested, give marketing authorisation holder's patient information leaflet (PIL) provided with the product or obtained via www.medicines.org.uk |
| **Patient advice / follow up treatment** | • Verbal advice on why drug is administered, action of the drug and subsequent management of the condition.<br>• Inform the patient of the possible side effect and their management. To monitor any sensitivity reaction.<br>• Advise the patient to seek medical advice immediately in the event of an adverse reaction. |
| **Records** | Record the following information on ePMA (Electronic Prescribing system) UHDB – Meditech<br><br>Either the system holding the record, or the healthcare practitioner working under the PGD, must capture/document all of the following:<br>• name of individual, address, date of birth and GP with whom the individual is registered (if relevant)<br>• name of registered health professional |

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| | • name of medication supplied/administered.<br>• date of supply/administration<br>• dose, form, and route of supply/administration<br>• quantity supplied/administered<br>• batch number and expiry date (if applicable e.g., injections and implants)<br>• advice given, including advice given if excluded or declines treatment<br>• details of any adverse drug reactions and actions taken<br>• Confirm whether administered and that this was done via Patient Group Direction (PGD)<br><br>Records should be signed and dated (or a password-controlled e-records). All records should be clear, legible, and contemporaneous.<br><br>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

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| **Key references** | • Electronic Medicines Compendium https://www.medicines.org.uk/emc/product/8771/smpc accessed online 01/06/2023<br>• Electronic BNF https://bnf.nice.org.uk/piperacillin-with-tazobactam updated 03 February 2022 accessed online 05/10/22<br>• https://medusa.wales.nhs.uk accessed online 01/06/2023<br>• UHDB Trust Sepsis Management and Sepsis Screening Tool<br>• NICE Medicines practice guideline “Patient Group Directions” https://www.nice.org.uk/guidance/mpg2 |

## 7. Registered health professional authorisation sheet

## PGD Name [version]: QHB - ED MIU SDEC - Piperacillin/Tazobactam powder/vial [v6]

## PGD ref: UHDB271

## Valid from: 08/08/2023 Expiry date: 07/08/2025

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. | | | |
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| **Name** | **Designation** | **Signature** | **Date** |
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### 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** |
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**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.