

This Patient Group Direction (PGD) must only be used by registered pharmacists who have been named and authorised by their organisation to practice under it. The most recent and in date final signed version of the PGD should be used.

PATIENT GROUP DIRECTION (PGD)

For use in the community pharmacy extended care service

**Supply of Flucloxacillin for the treatment of Cellulitis from Infected
Insect Bites in NHS England Midlands Region**

Version Number 6.0 / 2023

Change History	
Version and Date	Change details
2.0 / 2022	Existing PGD incorporated into national template
3.0/ 2022	FINAL draft following NHSEI clinical review
4.0 / 2022	FINAL following system review
5.0 / 2023	Annual review
6.0 / 2023	FINAL PGD following system review

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PGD DEVELOPMENT GROUP

Date PGD comes into effect:	31 st March 2023
Review date	January 2024
Expiry date:	31 st March 2024



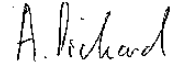
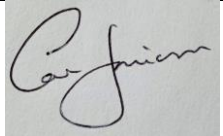
The template for this PGD has been peer reviewed by the Antimicrobial PGDs Short Life Working Group in accordance with their Terms of Reference and approved by the NHSE AMR Programme Board.

This section MUST REMAIN when a PGD is adopted by an organisation.


Name	Designation

The PGD is not legally valid until it has had the relevant organisational approval - see below.

CLINICAL AUTHORISATION OF PGD

Name	Job title and organisation	Signature	Date
Dr Jessica Sokolov	Medical Director, NHSE Midlands		14/03/2023
Richard Seal	Regional Chief Pharmacist, NHSE Midlands		10/03/2023
Andrew Pickard (Lead author)	Regional Pharmacy Advisor, NHSE Midlands		09/03/2023
Dr Conor Jamieson	Regional Antimicrobial Stewardship Lead, NHSE Midlands		10/03/2023

ORGANISATIONAL AUTHORISATION OF PGD

Name	Job title and organisation	Signature	Date
Rebecca Woods	Head of Primary Care Commissioning, NHSE Midlands		14.03.23

1. Characteristics of staff

Qualifications and professional registration	<ul style="list-style-type: none"> The community pharmacist must be registered with the General Pharmaceutical Council. The community pharmacist must be accredited by NHS England Midlands to provide the Pharmacy Extended Care (Tier 2) Service.
Training requirements	<ul style="list-style-type: none"> The community pharmacist authorised to operate under this PGD must have undertaken appropriate education and training and successfully completed the competencies to undertake clinical assessment of patient leading to diagnosis of the conditions listed in this PGD in accordance with local policy. Undertaken appropriate training and successfully completed the competencies for the identification of sepsis Undertaken appropriate training and successfully completed the competencies for safeguarding vulnerable adults and children. Individuals operating under this PGD should follow the national guidance for diagnosis and management of infected insect bites in the UK Individuals operating under this PGD must be familiar with the product and alert to changes in the Summary of Product Characteristics (SPC) The community pharmacist must provide the service in accordance with the requirements of the associated Service Specification – Pharmacy Extended Care (Tier 2) Service.
Competency assessment	<ul style="list-style-type: none"> Individuals operating under this PGD must be assessed as competent (see Appendix A) or complete a self-declaration of competence for the recognition and management of infected insect bites. Staff operating under this PGD are encouraged to review their competency using the NICE Competency Framework for health professionals using patient group directions
Ongoing training and competency	<ul style="list-style-type: none"> Individuals operating under this PGD are personally responsible for ensuring that they remain up to date with the use of all medicines and guidance included in the PGD - if any training needs are identified these should be discussed with the senior individual responsible for authorising individuals to act under the PGD (eg. superintendent pharmacist or line manager), and further training provided as required.
<p>The decision to administer/supply any medication rests with the individual registered pharmacist who must abide by the PGD and any associated organisational policies.</p>	

2. Clinical condition or situation to which this PGD applies

Clinical condition or situation to which this PGD applies	Infected insect bites with Eron Class1 cellulitis (no signs of systemic toxicity and no uncontrolled comorbidities)
First Line Treatment	Flucloxacillin is considered as first line treatment for infected insect bites.
Second Line Treatment	Clarithromycin is considered as second line treatment for infected insect bites.
Criteria for inclusion	<ul style="list-style-type: none"> • Informed consent must be obtained prior to continuing with the consultation. • Patients aged 1 year and over • Treat patients presenting with superficial infection of the skin following an insect bite with the following symptoms that are indicative of Eron Class 1 Cellulitis. • Symptoms may include; <ul style="list-style-type: none"> - Redness of skin, - Pain or tenderness to the area, - Swelling of skin, - Skin may feel hot in the area surrounding the bite - Blistering • Patient has no signs of systemic illness (see list below), • Patient has no uncontrolled co-morbidities and can be managed with oral antimicrobials. • Treatment via this PGD should only be initiated where there is clear evidence of infection, indicated by cellulitis that is present or worsening at least 24 hours after the initial bite(s).
Criteria for exclusion	<ul style="list-style-type: none"> • Patients must be excluded if consent is not given • Patients aged under one year • No clear evidence of infection. Initial swelling/inflammation around the site of the bite should be managed in accordance with self-care guidance outlined in the 'Advice to patients' section of this PGD. • Cellulitis that has progressed beyond Eron Class1 • Signs and symptoms of sepsis or systemic illness such as; <ul style="list-style-type: none"> - patches of discoloured skin indicative of haemorrhagic (purpuric) rash. - fever - decreased urination. - changes in mental ability. - problems breathing. - abnormal heart rhythm e.g. tachycardia. - chills due to fall in body temperature. - Low blood pressure, fainting or unconsciousness. - Headache - Chills - Weakness • A very large area of red, inflamed skin • Rapidly spreading erythema and fulminant sepsis seen

	<p>with necrotising fasciitis.</p> <ul style="list-style-type: none"> • If the area affected is causing numbness, tingling, or other changes in a hand, arm, leg, or foot • If the skin appears black • Facial cellulitis • Lymphangitis • Animal (dogs, cats etc.) or human bites • Patient has recently returned from a tropical or sub-tropical region and was bitten by an insect whilst there • More than two episodes of infected insect bites treated within previous 12 months • Pregnancy and breastfeeding • Immunocompromised patients • Patients already taking oral antibiotics • Moderate to severe renal and/or hepatic impairment • History of hypersensitivity to β-lactam antibiotics (e.g. penicillin, cephalosporins) or excipients, consider clarithromycin if oral antibiotic required • Previous history of flucloxacillin-associated jaundice/hepatic dysfunction • Concomitant use of medication that has a clinically significant interaction with flucloxacillin. • The following list is not exhaustive; <ul style="list-style-type: none"> - Anticoagulants - Methotrexate - Probenecid <p>THINK SEPSIS – check for signs/ symptoms using local / national tool relevant to the patients age and risk factors - Assessment Diagnosis Sepsis CKS NICE</p> <p>Please refer to SPC Home - electronic medicines compendium (emc), BNF BNF (British National Formulary) NICE or BNFC BNFC (British National Formulary for Children) NICE for full details</p>
Deferred treatment	<p>If clinically appropriate, and the individual agrees to defer treatment, the pharmacist should determine that they could be treated under the service PGDs if they do return. If the individual then returns after waiting the appropriate amount of time, the pharmacist can then supply the medication once an appropriate follow-up assessment under the PGD is undertaken. The pharmacist making the assessment may refer to the original consultation notes, but must fully reassess the individual for suitability for treatment. The supply should be recorded in the Deferred Treatment Module within PharmOutcomes.</p>
Cautions including any relevant action to be taken	<ul style="list-style-type: none"> • Pseudomembranous colitis has been reported with nearly all antibacterial agents, including flucloxacillin, and may range in severity from mild to life-threatening.

	<ul style="list-style-type: none"> • <i>Clostridioides difficile</i>-associated diarrhoea (CDAD) has been reported with use of nearly all antibacterial agents including flucloxacillin and may range in severity from mild diarrhoea to fatal colitis. Patients must be advised of the risk when commencing antibacterial agents CDAD must be considered in all patients who present with diarrhoea following antibiotic use. Careful medical history is necessary since CDAD has been reported to occur over two months after the administration of antibacterial agents. Patients with suspected CDAD must be referred to their GP for further assessment, or Emergency Department if severely unwell. • Caution is advised when flucloxacillin is administered concomitantly with paracetamol due to the increased risk of high anion gap metabolic acidosis (HAGMA). Patients at high risk for HAGMA are in particular those with severe renal impairment, sepsis or malnutrition especially if the maximum daily doses of paracetamol are used. <p>Please refer to SPC Home - electronic medicines compendium (emc) or BNF British National Formulary - NICE for full details.</p>
<p>Specific information for suspected infection to be provided</p>	<ul style="list-style-type: none"> • Initial pain and swelling as result of an insect bite should be managed with appropriate OTC pain relief such as paracetamol or ibuprofen, and the use of a cold compress (flannel or cloth cooled with cold water) over the affected area. There is little good evidence to support the use of oral antihistamines or topical corticosteroids. • Seek medical attention immediately if cellulitis worsens and/or patient becomes systemically unwell. • Provide cellulitis leaflet from British Association of Dermatologist - British Association of Dermatologists (bad.org.uk)
<p>Management of excluded clients</p>	<ul style="list-style-type: none"> • If patient meets exclusion criteria, refer to a Primary Care Clinician. The spectrum of severity may range from localised erythema in a systemically well patient to the rapidly spreading erythema and fulminant sepsis seen with necrotising fasciitis. • The urgency with which a referral needs to be made is based on the presenting symptoms following clinical examination. • A patient that has recently returned from a tropical or sub-tropical region, and was bitten by an insect whilst there must be referred to a Primary Care Clinician. • If sepsis suspected, or if patient presents with severe infection (including systemic symptoms) urgent referral to seek medical advice is required or contact 999. • Record the reason for exclusion and any action taken on PharmOutcomes.

Management of patients requiring referral	<p>If patient declines treatment or advice, ensure the following details are recorded on PharmOutcomes;</p> <ul style="list-style-type: none"> • The advice given by the clinician • Details of any referral made • The intended actions of the patient (including parent or guardian). • Discuss potential consequences of not undertaking treatment and provide safety netting advice.
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3. Description of treatment

Name, strength & formulation of drug	Flucloxacillin 250mg and 500mg capsules Flucloxacillin 125mg/5ml and 250mg/5ml oral solution (Sugar and Sugar Free formulations)
Legal category	Prescription Only Medicine (POM)
Route of administration	Oral
Off label use	Not applicable
Dose and frequency of administration	<p>Dosage is dependent on age, weight and severity of infection. Refer to cBNF and BNF.</p> <p>Usual children's dosage;</p> <ul style="list-style-type: none"> • Aged 12-23 months; 62.5mg–125mg four times a day* • Aged 2-9 years; 250mg four times a day • Aged 10-17 years; 250mg-500mg four times a day* <p><i>*Use the higher dosage in each age range unless judged necessary to use lower cBNF dose</i></p> <p>Usual adult dosage; 500mg four times a day</p> <p>Flucloxacillin should be taken at least 1 hour before, or 2 hours after meals *</p> <p>Note: In children, sugar-free versions of Flucloxacillin suspension may have a poor taste leading to reduced compliance. In discussion with parent/guardian consider sugar-containing preparation. Wherever possible, patients aged 12 years and over should be treated with solid dosage forms and suspension only reserved for those who are genuinely unable to swallow tablets / capsules.</p>
Duration of treatment	Duration of treatment is for 5 days
Quantity to be supplied	<p>Oral capsules to provides 5 days of treatment</p> <p>Oral suspension in multiples of 100ml to provide 5 days of treatment.</p>

Storage	<p>Capsules – Store in a dry place below 25°C</p> <p>Reconstituted oral suspension: Store between 2-8°C in a refrigerator and discard any remaining suspension after 7 days.</p> <p>Refer to the manufacturers Summary of Product Characteristics (SPC), which is available from the electronic Medicines Compendium website: www.medicines.org.uk and BNF.</p>
Drug interactions	<ul style="list-style-type: none"> • Probenecid and sulfapyrazone slow down the excretion of flucloxacillin by decreasing tubular secretion. • Other drugs, such as piperacillin, which are excreted via renal tubular secretion, may interfere with flucloxacillin elimination • Oral typhoid vaccine may be inactivated by flucloxacillin. Flucloxacillin reduces the excretion of methotrexate which can cause methotrexate toxicity. • There are rare cases of altered international normalised ratio (INR) in patients taking warfarin and prescribed a course of flucloxacillin. • Bacteriostatic drugs may interfere with the bactericidal action of flucloxacillin • Concomitant use with paracetamol has been associated with high anion gap metabolic acidosis, especially in patients with risk factors. <p>Please refer to SPC Home - electronic medicines compendium (emc) or BNF British National Formulary - NICE for full details.</p>
Identification & management of adverse reactions	<p>Common side effects;</p> <ul style="list-style-type: none"> - Diarrhoea - Nausea - Vomiting - Skin reactions <p>Severe adverse reactions are rare, but anaphylaxis (delayed or immediate) has been reported and requires immediate medical treatment. Please refer to SPC Home - electronic medicines compendium (emc) or BNF British National Formulary - NICE for full details. Please refer to SPC for uncommon and rare side effects</p> <p>In the event of a severe adverse reaction, the patient must be advised to stop treatment immediately and seek urgent medical advice.</p>
Management of and reporting procedure for adverse reactions	<ul style="list-style-type: none"> • Healthcare professionals and patients/carers are encouraged to report suspected adverse drug reactions (ADRs) to the Medicines and Healthcare products Regulatory Agency (MHRA) using the Yellow Card reporting scheme on: http://yellowcard.mhra.gov.uk • Record all ADRs in the patient's medical record. • It is considered good practice to notify the individual's GP in the event of an adverse reaction.

Further advice to be supplied to individuals

- If treatment via this PGD is required, provide the patient with the manufacturer's patient information leaflet and discuss as necessary.
- Provide cellulitis leaflet from British Association of Dermatologist - [British Association of Dermatologists \(bad.org.uk\)](http://British Association of Dermatologists (bad.org.uk))
- Take doses at regular six hourly intervals if possible, at least 1 hour before food or 2 hours after food and complete the course.
- Flucloxacillin capsules should be taken with a full glass of water (250ml) to reduce the risk of oesophageal pain.
- Patients should not lie down immediately after taking flucloxacillin.
- Initial pain and swelling as result of an insect bite should be managed with appropriate OTC pain relief such as paracetamol or ibuprofen, and the use of a cold compress (flannel or cloth cooled with cold water) over the affected area. There is little good evidence to support the use of oral antihistamines or topical corticosteroids.
- If the insect bite is on the leg then advise the patient to elevate the leg to reduce oedema
- Seek medical attention immediately if condition deteriorates and/or patient becomes systemically unwell
- Advise patient that if rash or other signs of hypersensitivity occur, stop taking the medicine and contact a Primary Care Clinician immediately
- Hygiene measures are important to aid healing It is recommended that the patient; - washes the affected areas with soapy water keep hands clean before and after touching the skin - avoids scratching affected areas, and keeps fingernails clean and cut short, wear cotton gloves if necessary
- If cellulitis becomes worse within 24-48 hours of treatment, seek immediate medical advice.
- If symptoms have not improved after 5 days of treatment, or if there has been a slow response to treatment, advise patient to contact their Primary Care Clinician.
- It is no longer necessary to use an extra method of contraception with the pill, patch or vaginal ring when taking flucloxacillin unless the patient experiences diarrhoea and vomiting. This change in advice comes because to date there is no evidence to prove that antibiotics (other than rifampicin or rifabutin) affect these contraceptives. This is the latest guidance from the Faculty of Sexual & Reproductive Healthcare
- FOLLOW UP – Individuals must be contacted within 7 days of the initial consultation to ascertain success of treatment, and arrange referral to an appropriate clinician if symptoms have not resolved, and the individual has not already sought additional advice.

	<p>Please refer to SPC Home - electronic medicines compendium (emc) or BNF British National Formulary - NICE for full details.</p>
<p>Records</p>	<p>In discussion with the client enter consultation details onto the relevant module within PharmOutcomes at the time of the consultation. All consultations must be entered onto PharmOutcomes on the day that the consultation takes place.</p> <p>The record itself must include the following:</p> <ul style="list-style-type: none"> • that valid informed consent was given where applicable • name of individual, address, date of birth and GP with whom the individual is registered (if relevant) • any known medication allergies • name of registered pharmacist operating under the PGD • name of medication supplied • batch number and expiry date • date of supply • dose, form and route of administration • quantity supplied • advice given, including advice given if excluded or declines treatment • details of any adverse drug reactions and actions taken • administered via Patient Group Direction (PGD) • Details of the supply must also be made in the patients (PMR) record. • All supplies of flucloxacillin must be labelled in accordance with the labelling requirements for a dispensed medicine as stated within Schedule 5 of The Medicines (Marketing Authorisations etc) Regulations 1994. No 3144 as amended. In addition to the above, the label must also state the words “Supplied under a PGD” to help with audit purposes. • Informed verbal consent should be obtained (for clients aged under 16 years, Fraser guidelines should be followed) • Electronic patient records should be retained for adults for a period of 10 years after attendance and for children until the child is 25 years old. • If the client is excluded, a record of the reason for exclusion must be documented within PharmOutcomes, and any specific advice that has been given. • In every case when a supply of flucloxacillin is made in accordance with this PGD, the pharmacist must inform the patient’s GP of the supply within two working days. This will be done through secure nhs.net email accounts via PharmOutcomes once the consultation data has been recorded within the specified module. Where no nhs.net

account is available to PharmOutcomes, the pharmacist will be informed by the system and must make alternative arrangements to send the information (within two working days)

4. Key references

Key references

Electronic BNF [BNF \(British National Formulary\) | NICE](#) and BNFC [BNFC \(British National Formulary for Children\) | NICE](#)

Clinical knowledge summaries – Cellulitis (acute) [Scenario: Management | Management | Cellulitis - acute | CKS | NICE](#)

British Association of Dermatologists – Cellulitis [British Association of Dermatologists \(bad.org.uk\)](#)

Summary of product characteristics SPC [Home - electronic medicines compendium \(emc\)](#)

NICE ANTIMICROBIAL SUMMARY GUIDANCE for infected eczema <https://www.bnf.org/news/2021/07/29/bnf-hosts-antimicrobial-summary-guidance-on-behalf-of-nice-and-phe/>

Principles of Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use <https://www.nice.org.uk/guidance/ng15>

Appendix A - Registered pharmacist authorisation sheet

Supply of Flucloxacillin for the treatment of Cellulitis from Infected Insect Bites

Version: 6.0/2023

Valid from: 31st March 2023

Expiry: 31st March 2024

Before signing this PGD, check that the document has had the necessary authorisations. Without these, this PGD is not lawfully valid.

Registered pharmacist

By signing this patient group direction you are indicating that you agree to its contents and that you will work within it.

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

I confirm that the registered pharmacists named above have declared themselves suitably trained and competent to work under this PGD. I give authorisation on behalf of _____ (insert name of organisation) for the above named pharmacists 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 pharmacists to prevent additions post managerial authorisation.

This authorisation sheet should be retained to serve as a record of those registered pharmacists authorised to work under this PGD.

Add details on how this information is to be retained according to organisation PGD policy.