



Patient Group Direction PGD213

FOR THE ADMINISTRATION OR SUPPLY OF DOXYCYCLINE

Staff Grade:	Qualified and Year Two Trainee: Advanced Paramedic Practitioners Advanced Nurse Practitioners (Urgent and Primary Care)
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Document Author(s) / Owner	
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Division / Organisation Wide	Advanced Practice (Urgent & Primary Care) only

Health Care Professionals must be HCPC or NMC registered and authorised by name under this PGD before attempting to treat any patient according to it and have signed the relevant declaration.

Before using this PGD, healthcare professionals must ensure they are working within their scope of practice and be competent in the treatment of patients identified as suitable for inclusion under this PGD.

“Your scope of practice is the limit of your knowledge, skills and experience and is made up of the activities you carry out within your professional role. As a health and care professional, you must keep within your scope of practice at all times to ensure you are practising safely, lawfully and effectively. This is likely to change over time as your knowledge, skills and experience develop.” (HCPC 2024)

Staff should not deviate from their training, guidelines and scope of practice without taking professional clinical advice. All staff are expected to maintain their fitness to practice and undertake appropriate professional development to allow them to be fit for the role in which they are practising.

1. Document Control Sheet

1.1 Key Information

Title:	Patient Group Direction PGD213
	Doxycycline
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1.2 Revision History

Version	Date	Summary of Changes	Name	Changes Marked
0.1	11/09/2024	Initial draft		N/A
0.2	30/01/2025	Clarification of CRB=1 Use of Vitamin K agonists moved from exclusions to cautions		No
1.0	26/03/2025	Updated to approved version no., guidance comments removed		Yes
1.0	01/05/2025	First issue – supersedes entry in PGD007a		Yes

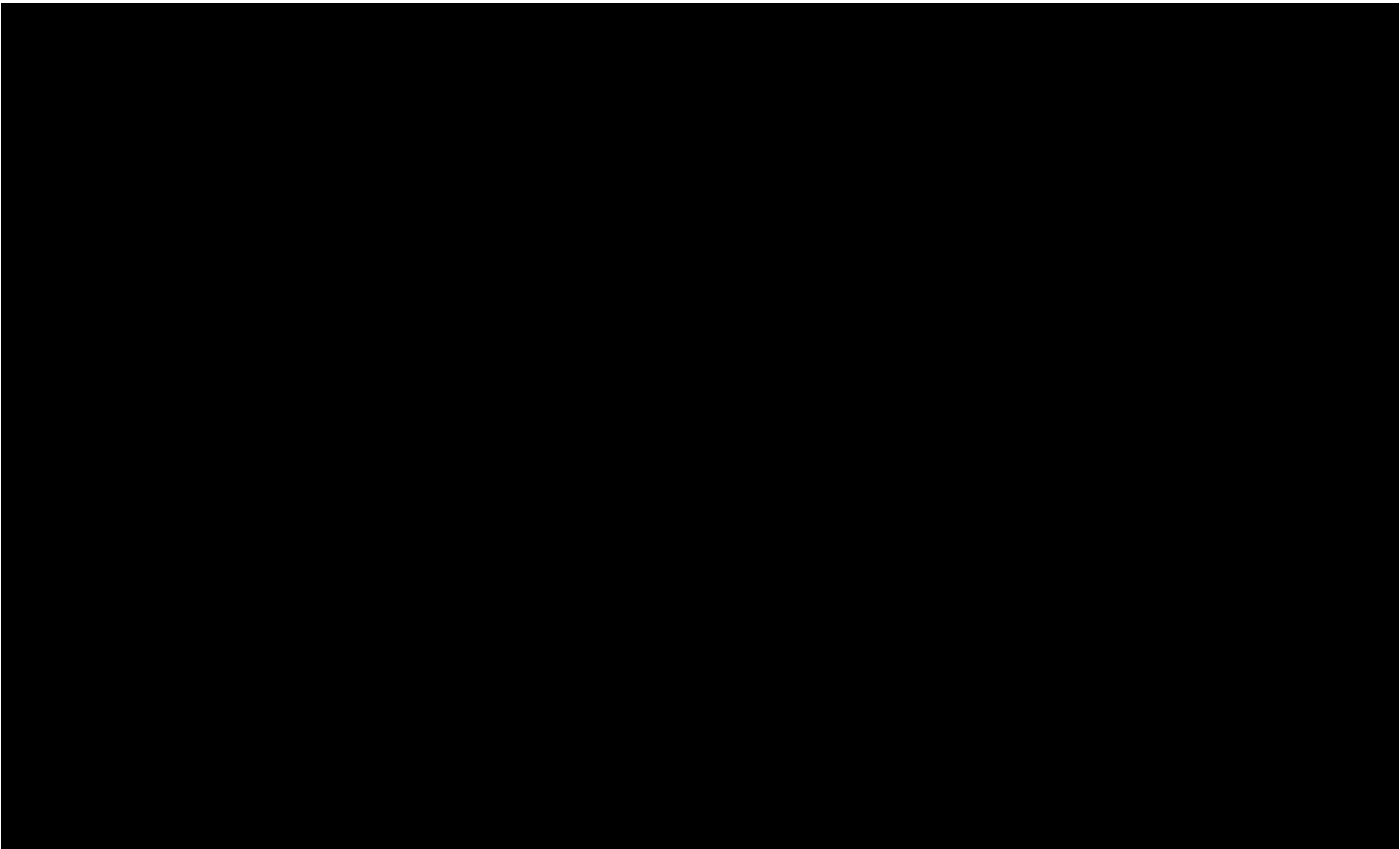
1.3 Approvals: This document requires the following approvals:

Name	Date	Version
National Advanced Practice Clinical Lead	30/01/2025	1.0
Medicines Management Group	30/01/2025	1.0
Pharmaceutical Advisor	03/03/2025	1.0
Medical Director	27/02/2025	1.0

1.4 Distribution: This document has been distributed to:

Name	Date	Version
Medicines Management Group	28/03/2025	1.0
Advanced Practice Leadership Team	28/03/2025	1.0
All Advanced Practitioners (UPC) & trainees	28/03/2025	1.0

1.5 Names and signatures of professionals drawing up the protocol



1.6 Professional / Advisory groups which have approved the protocol

Scottish Ambulance Service Medicines Management Group	Date	30/01/2025
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2. Using this PGD for Administration and/or Supply of Medicines

3. Characteristics of Staff

Qualifications required	HCPC or NMC registered, qualified and year two trainee: Advanced Paramedic Practitioners Advanced Nurse Practitioners (in Urgent and Primary Care)
Specific or additional experience / training required	Undertaken an SCQF Level 11 module in Advanced Clinical Assessment (or equivalent) which included a period of supervised practice and signed off as competent. Passed all relevant written and practical assessments and ratified by a university exam board. Familiarisation with the signs and symptoms of conditions listed in “Criteria for Inclusion” in this PGD and possible differential diagnoses. Familiarisation with the use of Doxycycline, its indications, contra-indications and other details.
Continuing training requirements	The clinician should be aware of any changes to the evidence base for treatment conditions listed in “Criteria for Inclusion” below. The individual clinician is responsible for their own CPD and for keeping up to date with the use of medicine(s) in this PGD.
Other	You must be authorised by name under the current version of this PGD before you attempt to work to it

4. Clinical Situations / Conditions to Which the Patient Group Direction Applies

Definition of conditions / situations to be treated	<p><u>Second choice</u> treatment of susceptible infections in patients with penicillin allergy:</p> <ul style="list-style-type: none"> • Acute cough / bronchitis in high-risk patients • Acute infective exacerbations of COPD¹ • Acute otitis media with otorrhoea² • Acute sinusitis or rhinosinusitis • Cellulitis, erysipelas or superficial wound infections • Community-acquired pneumonia (CAP) • Human or animal bites <p>1. consider the appropriateness of also supplying Prednisolone where required. See guidance in PGD232</p> <p>2. NICE guidance lists Clarithromycin as 2nd choice for otitis media although some health boards prefer Doxycycline</p>
Criteria for inclusion	<ul style="list-style-type: none"> • Adults 16 years and over • Appropriate safety-netting can be made <p>If using as an alternative to Amoxicillin:</p> <ul style="list-style-type: none"> • Acute cough: if systemically unwell and >80 years old with one of, or >65 years old with two of: <ul style="list-style-type: none"> ○ COPD ○ Currently taking oral steroids ○ Diabetes ○ Heart failure ○ Hospitalisation in past year ○ Immunocompromised • Acute infective exacerbation of COPD: can be used as first choice if Doxycycline <u>is known to be</u> effective for that patient • CAP: if first presentation for current infection and: <ul style="list-style-type: none"> ○ CRB65 score of 0 ○ CRB65 score of 1 on age alone <p>If using as an alternative to Co-Amoxiclav (in conjunction with Metronidazole, refer to PGD222)</p> <ul style="list-style-type: none"> • Human or animal bites if not being referred to hospital <p>If using as an alternative to Flucloxacillin:</p> <ul style="list-style-type: none"> • Eron class I cellulitis, erysipelas, and wound infections: <ul style="list-style-type: none"> ○ Afebrile ○ Erythema but no purulence in wound ○ Systemically well ○ No high-risk co-morbidities such as morbid obesity or vascular diseases • Cellulitis: secondary to native insect or arachnid bites • Impetigo: if extensive, severe or bullous • Otitis externa: if cellulitis and spread to the pinna or tragus <p>If using as an alternative to Phenoxymethylpenicillin</p> <ul style="list-style-type: none"> • Acute sinusitis / rhinosinusitis with purulent discharge and severe localised pain not resolved within 10 days, or with a high risk of complications (immunocompromised, etc.)

Criteria for exclusion

- Children under 16 years of age
- Informed non-consent
- Known allergy to Doxycycline (or any other tetracyclines) or excipients of the drug
- Use of Doxycycline in the past 7 days for any condition
- CAP with CRB65 >1, or =1 if not on age alone
- Ineffective treatment with antibiotics for the current infection*
- Pregnancy or breastfeeding
- Patients with liver failure or alcohol dependency
- Eron class II, III or IV cellulitis
- Facial, orbital, or peri-orbital cellulitis
- Skin infections where a culture swab would be required:
 - Infection not responsive to antibiotic treatment
 - Purulent wound
 - Insect or arachnid bites from overseas, or where the patient has been swimming in a pool or the sea after having been bitten
 - Open wound requiring deep cleansing and/or closure
 - Abscess or infection at recreational drug injection site
- Mild impetigo: refer to primary care for topical antibiotic treatment
- Sinusitis / rhinosinusitis when symptoms are present for <10 days
- Patients taking any of the following medicines:
 - Anti-convulsant drugs including: Carbamazepine (Tegretol), Lithium, Phenobarbital, Phenytoin, Phosphenytoin, Primidone
 - Retinoids: e.g. Acitretin, Adapalene, Alitretinoin, Tretinoin / Isotretinoin, Trifarotene
 - Heparin, Bemiparin, Dalteparin, Enoxaparin or Tinzaparin
 - Amiodarone
 - Ciclosporin
 - Flutamide or Pyrazinamide (TB drugs)
 - Isoniazid
 - Itraconazole
 - Lomitapide
 - Mercaptopurine
 - Nevirapine or Ritonavir (HIV drugs)
 - Oxymetholone
 - Quinapril
 - Rifampicin
 - Testosterone supplements
 - Voriconazole
 - Any specialist cancer drugs
- 3 days before or after taking the Oral typhoid vaccine
- Acute porphyria
- Significantly unwell patients requiring further assessment (blood tests, x-ray, etc.) or admission

* Refer patient to primary care if not referring to hospital as sputum sample or wound / throat / nasal swab may be required

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Action if patient is excluded or declines treatment	Document in ePR / patient record. Discuss alternatives with patient / carer as appropriate and advise on risks of declining treatment. Consider referral to primary or urgent care or a community pharmacy. If necessary, consider referral or transfer to a suitable receiving unit.

5. Description of Treatment (including dosage and administration)

Name, form(s) and strength(s) of medicine	Doxycycline 100mg capsules
Legal status	POM
Is the use outwith the SmPC?	No
Storage requirements	Room temperature
Route(s) / method(s) of administration	Oral capsules – may be taken with or without a drink
Dose and frequency of administration	<p>Human or animal bites (in conjunction with Metronidazole, refer also to PGD222 before supply): 100mg (one capsule) 2 times a day for 3 days</p> <p>All other indications listed in this PGD: 200mg (two capsules) initially, then from the following day 100mg (one capsule) once a day for 4 days</p>
Maximum dose and number of treatments	<p>Per notes above</p> <p>Supply may be boxes of 6 or 8 x 100mg capsules, clinicians should be aware of this when using the above guidance and supply the correct quantity (6 capsules)</p>

6. Cautions and Identification & Management of Adverse Reactions

Cautions	<p>Should be used with caution in:</p> <ul style="list-style-type: none">• Patients taking:<ul style="list-style-type: none">○ Oral antacids – do not take at the same time○ Oral iron supplements – take 2-3 hours after• Patients taking any of the anticoagulants Warfarin, Phenindione or Acenocoumarol, especially if their INR is known to be high• History of:<ul style="list-style-type: none">○ Myasthenia Gravis○ Systemic Lupus Erythematosus (SLE)
Drug interactions	<p>All drugs known to have adverse interactions with Doxycycline are exclusions to treatment under this PGD and noted above</p>
Identification and management of adverse reactions	<p>Anaphylactic reactions to Doxycycline are extremely rare and should be managed as per standard protocol / JRCALC guidance.</p> <p>Common or very common side-effects include: Angioedema, Diarrhoea, Headache, Nausea, Photosensitivity, Skin reactions, Vomiting</p> <p>Uncommon: Dizziness, Pancreatitis</p> <p>Rare or very rare: Decreased appetite, Dysphagia, Eosinophilia, Glossitis, Haemolytic anaemia, Hepatic disorders, Idiopathic intracranial hypertension, Neutropoenia, Seizures – especially in renal impairment, Severe cutaneous adverse reactions</p> <p>A detailed list of adverse reactions can be found in the product's SmPC and PIL, see references below.</p> <p>Any adverse reactions, and action taken, are to be recorded in the patient's notes and other appropriate documentation e.g.: clinical incident form, Yellow Card scheme, etc.</p>

7. Patient Advice and Documentation

Patient advice (verbal and written)	<ul style="list-style-type: none"> • Explain treatment plan and gain consent • Clinician should inform the patient / carer of the realistic timeframe for improvement of symptoms being treated • Capsules should be taken with plenty of water • Patients must be advised to avoid sunbed use or prolonged exposure to sunlight and that they may be more prone to sunburn while taking Doxycycline • Patients using an oral contraceptive should be informed that there is mixed advice whether Doxycycline affects it directly and they should consider that this is a risk. If they have the side effect of vomiting or diarrhoea this may also reduce their protection from pregnancy • Patients taking Sulfonylureas (diabetes medicine) must monitor their blood sugar and report any adverse effect to their GP or diabetes nurse • Must complete the whole course, even if feeling better • Must see medical practitioner if symptoms worsen or do not resolve within the expected timeframe • Patients taking any of the anticoagulants Warfarin, Phenindione or Acenocoumarol should inform their INR clinic of the use of Doxycycline at the next appointment • Advise to contact GP / nurse / pharmacist / out-of-hours service if unexpected side effects or adverse reactions occur • Advised to call 999 if any life-threatening side-effects occur • Patients should be given a copy of the manufacturer's Patient Information Leaflet where available or signposted to an electronic copy if not • Patients should be advised to maintain adequate hydration
Arrangements for referral to medical advice	Local arrangements apply
Additional facilities / supplies required	<p>Drinking water (if required).</p> <p>In some cases, Clarithromycin or Erythromycin <i>may</i> be suitable if the patient is excluded under this PGD (e.g. unsuitable for penicillin <u>and</u> pregnant). If so discuss with the patient's GP or a SAS prescriber.</p> <p>Doxycycline is available as 100mg dispersible tablets for patients unable to swallow capsules. It is not covered by this PGD so if required refer to the patient's GP or a SAS prescriber.</p>
Monitoring	No specific monitoring required
Follow up	If being used to treat a human or animal bite and not being referred to hospital, the patient must arrange for a review within 24-48 hours.

	Patients should be advised to follow-up with their GP if symptoms have not fully resolved by the end of the course.
Details of treatment records required	<p>The ePR, or other patient record, must contain the following:</p> <ul style="list-style-type: none"> • Name of the HCP using this PGD • Patient's name, address and date of birth. CHI number is also preferred • Name of medication and expiry date • Date and time of administration / supply • Dose, form and route of administration • For supplied medicine: <ul style="list-style-type: none"> ○ Dose and frequency to take ○ Number of items supplied • That it is administered and/or supplied under this PGD and not prescribed or via an exemption <p>The ePR, or other patient record, must also contain:</p> <ul style="list-style-type: none"> • The patient's medical and medication history • Medication and safety-netting / worsening advice given to the patient / carer <p>All records should be clear, legible and contemporaneous.</p>

8. References and Further Reading

NICE Medicines Practice Guideline MPG2: Patient group directions

[Overview](#) | [Patient group directions](#) | [Guidance](#) | [NICE](#)

General guidance on antimicrobial stewardship

[Antimicrobial stewardship](#) | [Medicines guidance](#) | [BNF](#) | [NICE](#)

Antimicrobial prescribing guidance by health board

[Antimicrobial Prescribing](#) | [Right Decisions \(scot.nhs.uk\)](#)

Doxycycline in BNF

[Doxycycline](#) | [Drugs](#) | [BNF](#) | [NICE](#)

Doxycycline on EMC

[Doxycycline 100mg capsules SmPC \(medicines.org.uk\)](#)

[Doxycycline 100mg capsules Patient Information Leaflet \(medicines.org.uk\)](#)

BNF Treatment Summaries

[Antibacterials, principles of therapy](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Chronic obstructive pulmonary disease](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Ear](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Ear infections, antibacterial therapy](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Nose infections, antibacterial therapy](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Respiratory system infections, antibacterial therapy](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Sinusitis \(acute\)](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Skin infections](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Skin infections, antibacterial therapy](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

[Tetracyclines](#) | [Treatment summaries](#) | [BNF](#) | [NICE](#)

NICE Clinical Knowledge Summaries (CKS)

[Bites - human and animal](#) | [Health topics A to Z](#) | [CKS](#) | [NICE](#)

[Cellulitis - acute](#) | [Health topics A to Z](#) | [CKS](#) | [NICE](#)

[Chest infections - adult](#) | [Health topics A to Z](#) | [CKS](#) | [NICE](#)

[Chronic obstructive pulmonary disease](#) | [Health topics A to Z](#) | [CKS](#) | [NICE](#)

[Impetigo](#) | [Health topics A to Z](#) | [CKS](#) | [NICE](#)

[Insect bites and stings](#) | [Health topics A to Z](#) | [CKS](#) | [NICE](#)

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[Otitis externa | Health topics A to Z | CKS | NICE](#)

[Otitis media - acute | Health topics A to Z | CKS | NICE](#)

[Sinusitis | Health topics A to Z | CKS | NICE](#)

NICE Clinical Guidelines

[NG79 Sinusitis \(acute\): Antimicrobial prescribing | Guidance | NICE](#)

[NG79 Sinusitis \(acute\): Visual summary \(nice.org.uk\)](#)

[NG91 Otitis media \(acute\): Antimicrobial prescribing | Guidance | NICE](#)

[NG91 Otitis media: Visual summary \(nice.org.uk\)](#)

[NG114 COPD \(acute exacerbation\): Antimicrobial prescribing | Guidance | NICE](#)

[NG114 COPD \(acute exacerbation\): Visual summary \(nice.org.uk\)](#)

[NG120 Cough \(acute\): Antimicrobial prescribing | Guidance | NICE](#)

[NG120 Cough \(acute\): Visual summary \(nice.org.uk\)](#)

[NG138 Pneumonia \(community-acquired\): Antimicrobial prescribing | Guidance | NICE](#)

[NG138 Pneumonia \(community-acquired\): Visual summary \(nice.org.uk\)](#)

[NG141 Cellulitis and erysipelas: Antimicrobial prescribing | Guidance | NICE](#)

[NG141 Cellulitis and erysipelas: Visual summary \(nice.org.uk\)](#)

[NG153 Impetigo: Antimicrobial prescribing | Guidance | NICE](#)

[NG153 Impetigo: Visual summary \(nice.org.uk\)](#)

[NG182 Insect bites and stings: Antimicrobial prescribing | Guidance | NICE](#)

[NG182 Insect bites and stings: Visual summary \(nice.org.uk\)](#)

[NG184 Human and animal bites: Antimicrobial prescribing | Guidance | NICE](#)

[NG184 Human and animal bites: Visual summary \(nice.org.uk\)](#)

[NG237 Suspected acute respiratory infection in over 16s: Assessment at first presentation and initial management | Guidance | NICE](#)