# **Prescription Only Medicines**

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#### Introduction

Podiatrists are specialised practitioners often leading in managing many pathologies of the foot and associated structures. Pathologies may include treatment of infections which may be associated with:

- Wounds
- Blisters
- Diabetic and ischaemic foot ulcers
- Ingrowing toenails
- Mycosis

This article
will examine access
to certain medicines
by HCPC registered
podiatrists and how
antibiotics fit
into current
practice.



## Podiatrist's exemptions from the Medicines Act 1968

Prescription-only medicines (POMs) usually are only accessed by medical and independent prescribers as per the Medicines Act 1968. Podiatrists have exemptions from the Medicines Act 1968, giving them access to certain POMs if they have relevant training <sup>(1)</sup>. Podiatrists also have access to a handful of medicinal pharmacy (P) products and General Sales List (GSL) products for sale and supply <sup>(1)</sup>. It is responsible that all Podiatrists keep regularly updated on the medications they sell, supply and administer, as well as those that the patients may be prescribed by a medical professional for specific pathologies such as cardiovascular disease, diabetes mellitus, renal disease etc. This is because medicines evolve and update frequently and can cause serious consequences if incorrectly supplied and administered <sup>(2; 3)</sup>. Therefore, all Podiatrists must stay current through continuing professional education (CPD) to maintain safe and effective practice <sup>(4)</sup>.

## A very short history to date of Podiatry access to medicines

Podiatrists (formally Chiropodists) had access to some medicaments and local anaesthetics in an unregulated capacity The drive of the Podiatry profession led to the approval of the Chiropodists Board to the teaching of the administration of local anaesthetics (LA), which became an important part of Podiatry training

Two legislations came into operation giving Podiatrists legal access to a handful of P and GSL products for sale and supply. Podiatrists certified in analgesics were given legal access to a small list of LA for administration

Podiatrists can train as supplementary prescribers

<1968

1968

. 1972 1968 - 1980

1981

2000

2005

**Figure 1:**A brief history
(5; 6; 7; 8; 9; 10; 11; 12; 1; 13)

The Medicines act 1968 came into effect. The legislation excluded Podiatrists from POMs

Podiatrists could access POMs via patient specific directions which were issued by a Doctor Specialist Podiatrists could access a wider rage of medicines via Patient Group Directions

## **Recognised Training**

Current podiatry training includes POMs certification. Podiatrists who do not have this training can still learn this skill through standalone approved HCPC programmes. To search post registration POM courses, please visit www.hcpc-uk.org/education/approved-programmes.

Other ways to access certain POM for supply may be through a written instruction known as a patient group direction from a medical or independent prescriber (14). Trained and HCPC registered Podiatrists who can sell /supply, and or administer certain medicines will have one or more of the HCPC annotations (**Table 1**). Further training is also recognised in supplementary and independent prescribing.

Table 1: POM Annotation (3)

Annotation:	Meaning
РОМ-А	Administration of certain POM medications such as local anaesthetic used for minor surgery of ingrowing toenails.
POM-S	The sale/supply of certain POM medications such as antibiotics for the treatment of infection
SP	Supplementary prescribing
IP	Independent prescribing

## GSL and P medicinal products Podiatrists have access to

All HCPC registered Chiropodists and Podiatrists have exemptions from restrictions on the sale and supply of GSL medicinal products if they are for external use and not veterinary products (1). Table 2 lists certain external use only P medicines. It is worth noting that P products should not exceed the strength stated and must only contain the active ingredient unless otherwise stated (1). It is therefore important for podiatrists to be aware of P products available to them.

**Table 2:** P medicines and their properties

P Medicine	Summary/Category	Indications
Potassium permanganate crystals or solution	Antiseptic, disinfectant, insecticide, miticide, and algaecide. Antimicrobial action is due to oxygen being released when it meets the compounds within the skin. It also acts as an astringent (15,16)	Infected eczema. Open and blistering wounds. Athlete's foot. Impetigo (15; 16)
Ointment of heparinoid and hyaluronidase	Heparinoid is used to provide soothing relief of superficial bruising through anti-coagulant activity. Hyaluronidase is an enzyme used to improve absorption (17: 18)	Bruises, Haematoma, Superficial thrombophlebitis (17; 18)
9% Borotannic complex	Antifungal (19)	Mycosis (19)
10% Buclosamide	Antifungal (20)	Dermatomycoses (20)
3% Chlorquinaldol	Antiseptic (discontinued) (21)	lodine alternative (21)
1% Clotrimazole	Antifungal (22)	Dermatomycoses (21)
10% Crotamiton	Antipruritic thought a cooling effect and antiparasitic through an unknown mechanism but toxic to scabies mites (23)	Pruritus caused by scabies or sunburn and eradication of scabies (22)
5% Diamthazole hydrochloride	Antifungal (Discontinued) (24)	Dermatomycoses (23)
1% Econazole nitrate	Antifungal (25)	Dermatomycoses (24)
1% Fenticlor	Antibacterial and antifungal (Discontinued) (26)	Dermatomycoses (25)
10% Glutaraldehyde	Fungicides, Antimicrobials, Bactericides. It can be used as a disinfectant (27)	Warts, particularly plantar warts <sup>(28)</sup>
1% Griseofulvin	Antifungal (29)	Dermatomycoses (29)
0.4% Hydrargaphen	Anti-Infective Agents (30)	As a biocide (29)
2% Mepyramine maleate	Antihistamine (31)	Symptomatic relief of skin irritation caused by insect stings, insect bites and nettle stings (30)
2% Miconazole nitrate	Antifungal (32)	Dermatomycoses (31)
2% Phenoxypropan-2-ol	Antibacterial agent (33)	In soaps and cosmetics (32)
20% Podophyllum resin	Crude alcohol derived from the roots of the mayapple plant: antifungal (34)	Viral warts (33)
10% Polynoxylin	Antibacterial (35)	As an antiseptic (34)
70% Pyrogallol	Acid (Discontinued) (36)	Warts and verrucae (35)
70% Salicylic acid	Acid (35)	Warts and verrucae (35)
1% Terbinafine	Antifungal (37)	Dermatomycoses (36)
0.1% Thiomersal	Mercury-based preservative with antiseptic and antifungal properties (38)	Unclear



Table 3: Injectables (POM-A) (1)

### Access to POM products for administration

HCPC registered Chiropodists or Podiatrists with POM-S annotation indicate that minimum pharmacology training and training for administering POMs have been completed. It is important to remember that:

- Access and administration shall only be during their professional practice.
- The chiropodist or podiatrist should never combine them unless they have done additional training in independent prescribing. Table 3 highlights the POM products available.

Injectable POM medicine Summary	
Adrenaline	Used for the emergency treatment of anaphylaxis
<ul> <li>Bupivacaine hydrochloride</li> <li>Levobupivacaine hydrochloride</li> <li>Mepivacaine hydrochloride</li> <li>Lidocaine hydrochloride</li> <li>Prilocaine hydrochloride</li> <li>Ropivacaine hydrochloride</li> </ul>	Local anaesthetics for minor surgery/pain relief / diagnostic injection
Bupivacaine hydrochloride with adrenaline where the maximum strength of adrenaline does not exceed 1 mg in 200 ml of bupivacaine hydrochloride	Local anaesthetics for minor surgery/pain relief / diagnostic injection
Lidocaine hydrochloride with adrenaline where the maximum strength of adrenaline does not exceed 1 mg in 200 ml of lignocaine hydrochloride	
Methylprednisolone	Anti-inflammatory steroidal medicine

## POM products for sale and supply that are available to Podiatrists

Registered HCPC Chiropodists or Podiatrists with POM-S annotation indicate a minimum training in pharmacology and sale/supply of POMs has been obtained. POM-S Podiatrists can sell or supply certain POMs via a signed order by the Podiatrist. Sale and supply must only be within the course of their professional practice. POMs must have been prepared for sale or supply in a container elsewhere than where it is sold or supplied. A list of Podiatry exemptions for topical POMs are seen in table 4 and oral POMs in table 5.

Table 4: Topical POMs for Sale and supply (POM-S)(1)

POM-A name	Summary/Category	Indications	
<ul> <li>Amorolfine hydrochloride cream where the maximum strength of the Amorolfine in the cream does not exceed 0.25 per cent by weight in weight,</li> </ul>	Antifungal (39)	Onychomycosis (39)	
<ul> <li>Amorolfine hydrochloride lacquer where the maximum strength of Amorolfine in lacquer does not exceed 5 per cent by weight in volume</li> </ul>			
Silver Sulfadiazine	Antimicrobials (40)	<ul> <li>Burn wounds</li> <li>Skin graft donor sites</li> <li>Extensive abrasions</li> <li>Short-term treatment of infected pressure sores and leg ulcers (40)</li> </ul>	
• Tioconazole 28%	Antifungals (41)	Onychomycosis (41)	
<ul> <li>Hydrocortisone, where the maximum strength of hydrocortisone in the medicinal product does not exceed 1 per cent by weight in weight.</li> </ul>	Anti-inflammatory <sup>(42)</sup>	Mild inflammatory skin disorders such as eczemas <sup>(42)</sup>	

Table 5: Oral POMs for Sale and supply (POM-S) (1)

POM-A name	Summary/Category	Indications			
Oral POMs					
Amoxicillin     Erythromycin,     Flucloxacillin	Antibiotics	Firstline management of mild to moderate cellulitis and diabetic foot infections.  May include infected: - Wounds / Blisters - Ingrowing toenails - Foot ulcers  - Secondary bacterial infections from injury or skin conditions			
Co-Codamol Co-dydramol 10/500 tablets, Codeine Phosphate	Pain	Short-term patient management, including - Acute MSK injuries - Post-operative care			

## Continuing professional development (CPD)

Using medicine in practice presents high-risk consequences if misused. Therefore, podiatrists must undertake the relevant CPD regarding these products to stay current, continue to practise safely and remain registered (3; 4). The British National Formulary (BNF) is a rigorous publication which updates frequently and allows Podiatrists to keep their knowledge of medications up to date to maintain best practices. National Institutes of Clinical Excellence (NICE) are also important, as they produce a variety of evidencebased, cost-effective recommendations to support and manage specific conditions, including infections. Other updates to be aware of are from local guidelines, professional body updates, conferences etc. The onus is still on the individual podiatrist to be aware of the current literature and changes in the context of use. It is also important to note that Podiatry exemptions are tightly controlled by legislation and can only change if the law changes; changes happen over time as the profession evolves (3).

## The use of POM-S products and infection management

Mild or local bacterial infections can arise from a break in the skin; however, this can spread and lead to the life-threatening systemic infection known as sepsis (43; 44). Registered Podiatrists with POM-S annotation on the HCPC will have access to three antibiotics: flucloxacillin, amoxicillin and erythromycin, as per current law. Access to antibiotics can aid rapid first-line management of foot infections such as cellulitis from cuts, wounds and ingrowing toenails to infections arising from diabetic foot problems (45; 46).

## Specific Guidelines to be aware of

#### National guidelines for antibiotics prescription or supply

There are two important national guidelines to help determine the prescription or supply of antibiotics: the NICE NG19 guidelines for diabetic foot problems and the NICE NG141 guidelines for cellulitis which is useful for non-diabetic patients. Both advise first-line oral antibiotics for treating bacterial infections (as long as the severity of the infection does not require intravenous antibiotics) (45; 46). The NICE NG15 for Antimicrobial stewardship recommends that local authorities and local clinical commissioning groups (CCG) provide an antimicrobial stewardship trust-wide approach. This includes local resistance monitoring and the development of local guidelines

for the prescription or supply of antibiotics <sup>(47)</sup>. This is important as local antimicrobial prescribing recommendations by the local CCG may differ from national recommendations.

The best way to find your local antimicrobial guidelines is through

#### **Local Guidance**

your local CCG website. To help find your local CCG you can search here: www.nhs.uk/Service-Search/other-services/ Clinical%20Commissioning%20Group/LocationSearch/1. Guidelines are updated frequently therefore, try to access guidelines via a webpage for the more recent update and not a browser like Google; this will prevent accidental access to archived material. Once you have found your local CCG guidelines you can find the guidance for "cellulitis and erysipelas" and for "diabetic foot infections" which can help determine which antibiotics are best for first-line management.

#### For example

The NHS Somerset CCG webpage for Infection Management maintains the most up-to-date information on managing common infections locally to Somerset: https://nhssomerset.nhs.uk/prescribing-and-medicines-management/antimicrobial/. The Somerset CCG guidelines (true as of March 2022) signpost to professionals the use of Flucloxacillin 500mg - 1g QDS for 7 days for "cellulitis and erysipelas" and for "diabetic foot infections", and has the same alternatives (Clarithromycin, Erythromycin and Doxycycline) as seen in national guidelines. However, this may not be the case in every CCG area, so local guidelines are worth checking.

#### **Guidelines on Microbiology testing**

NICE recommends microbiology testing as this plays an integral part in antimicrobial management. The UK Standards of Microbiological Investigations (UK SMI) have a set of algorithms and procedures for clinical microbiology. These include the indications and collection guidelines for taking various samples for culturing including superficial wound swabs for soft tissue infections and other tissue samples for suspected bone infection. Recommended guidelines of Podiatric interest are:

- UK SMI B 11: swabs from skin and superficial soft tissue infections
- UK SMI B 14: investigation of pus and exudates
- UK SMI B 42: investigation of bone and soft tissue associated with osteomyelitis
- UK SMI B 39: investigation of dermatological specimens for superficial mycoses

Testing should ideally be done before the supply of antimicrobials where possible unless immediate empirical antibiotics are required (47; 48). This allows the results to determine the most appropriate treatment and streamline therapy to the most affective antimicrobial for that infection (45; 49). The UK Standards of Microbiological Investigations (UK SMI) can be found here: www.gov.uk/government/collections/standards-formicrobiology-investigations-smi.

#### **Guidelines on Prophylaxis**

According to the Surgical site infections NICE guideline [NG125] and Prophylaxis against infective endocarditis NICE guidelines [CG64], states routinely prophylaxis use of antibiotics is not required for clean non-prosthetic uncomplicated surgery. People with certain

heart conditions may be more vulnerable to infective endocarditis however, prophylactic antibiotics for patients at risk from endocarditis are **not** recommended unless tissue infection is evident. Infective endocarditis is an infection of the heart lining mainly caused by bacteria entering the blood and travelling to the heart.

#### **Guidelines Summary**

Podiatrists should consider becoming familiar with relevant national and local CCG and NHS Trust guidelines when working within the NHS and independent practice. Local CCG guidelines should be available publicly so if you have problems assessing this information please get in touch with your local NICE trust for assistance. Cultures should ideally be available per NICE, UK SMI and local CGG antimicrobial guidelines. Developing a local Podiatry pathway for your department or practice are recommended for best practice well as supporting CPD. Local NHS trusts are likely to also have policies pathways and medicine management department to support your team if working in the NHS.

### **Antibiotics of Podiatric Interest**

Table 6 looks at NICE NG19 and NG141 guidelines and Podiatry POM-S and the benefits and drawbacks to be aware of. Flucloxacillin is the first line antibiotics for managing bacterial infections of the foot; it is available to Podiatrists with a POM-S annotation and is relatively safe to use in most cases. Alternatives to flucloxacillin are limited for a POM-S annotated Podiatrist. Amoxicillin is not indicated for bacterial infections of the foot unless there is specialist input. Erythromycin is an alternative option but mainly for pregnant patients and is contraindicated in patients with cardiac disease. The alternatives should be available through a PGD, supplementary or independent prescribers.

## Conclusion

As a profession, Podiatrists have come a long way and continue to evolve. With access to any medicines, including GSL, P and POMs, Podiatrists must continue to update themselves to provide safe and effective treatment.

In the case of bacterial infection, Podiatrists should be able to:

- Identify levels of infection and determine the urgency of therapy
- Identify the need for oral antibiotics (as long as the severity of the infection does not require admission for intravenous antibiotics).
- Supply antibiotics appropriately depending on medical history and as per current national and local guidelines and pathways, using microbiology testing where appropriate.
- Do not supply antibiotics prophylactically in clean uncomplicated surgery
- Be aware of associated risks, contraindications and the scope and limitations of POM-S access.
- Liaise with a medical or independent prescriber for a prescription that POM-S cannot cover.

Don't hesitate to contact your local branch or professional body if you want to know more.

Table 6: Benefits and drawbacks of antibiotics of Podiatric interest (50; 51; 52; 53; 46; 45; 48; 47; 54; 1)

Name	Podiatric Indication	Benefit	Drawbacks
Flucloxacillin	A first-choice oral antibiotic for cellulitis, erysipelas and mild-moderate diabetic foot infection	<ul> <li>Available to Podiatrists (POM-S)</li> <li>Narrow spectrum (low risk of C-Diff)</li> <li>OK in pregnancy &amp; breastfeeding</li> <li>OK (with caution) in hepatic disease</li> </ul>	<ul> <li>Avoid in patients with hypersensitivity to ß-lactam antibiotics (e.g., penicillin, cephalosporins) or excipients.</li> <li>Limited bioavailability, generally good in bone but low in joints</li> </ul>
Amoxicillin	No Podiatric induction unless specialist requests / Microbiology	<ul> <li>Available to Podiatrists (POM-S)</li> <li>OK in pregnancy and breastfeeding</li> <li>OK (with caution) in hepatic disease</li> <li>Good oral bioavailability with penetration into bone tissues &amp; joint</li> </ul>	<ul> <li>Moderate to broad-spectrum (risk of C-Diff)</li> <li>Avoid in patients with hypersensitivity to ß-lactam antibiotics (e.g., penicillin, cephalosporins) or excipients</li> <li>Not indicated for first-line diabetic foot infection or cellulitis</li> </ul>
Clarithromycin	Alternative first-choice antibiotics for penicillin allergy or if flucloxacillin is unsuitable. Indicated for cellulitis, erysipelas&mild diabetic foot infections	<ul> <li>Excellent bone penetration and oral bioavailability</li> <li>OK in cardiac disease</li> </ul>	<ul> <li>Avoid in patients with hypersensitivity to macrolides</li> <li>Not available to Podiatrists</li> <li>Avoid in pregnancy and breastfeeding</li> <li>Avoid in severe renal/hepatic impairment</li> <li>Broad-spectrum (risk of C-Diff)</li> </ul>
Erythromycin	An alternative oral antibiotic for penicillin allergy in pregnancy. Indicated for cellulitis, erysipelas and mild diabetic foot infections	<ul> <li>Available to Podiatrists (POM-S)</li> <li>OK in pregnancy and breastfeeding</li> </ul>	<ul> <li>Avoid in patients with hypersensitivity to macrolides</li> <li>Broad-spectrum (risk of C-Diff)</li> <li>Low bone penetration</li> <li>Increased risk of cardiac events in those with cardiac disease</li> </ul>
Doxycycline	Alternative first-choice antibiotics for penicillin allergy or if flucloxacillin is unsuitable. Indicated for cellulitis, erysipelas & mild diabetic foot infections.	<ul> <li>Good oral bioavailability with penetration into bone tissues&amp; joint</li> <li>OK in cardiac disease</li> <li>OK (with caution) in renal disease</li> </ul>	<ul> <li>Avoid in patients with hypersensitivity to tetracyclines</li> <li>Not available to Podiatrists</li> <li>Avoid in pregnancy and breastfeeding</li> </ul>

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