

# INTRODUCTION

The Nottingham Podiatric Surgery department is a wellestablished community-based surgical service that is dedicated to performing high-quality foot surgery on a day case basis under local anaesthetic. Being located within a community setting can have both positive and negative implications with one of the main negative issues relating to the safe, effective and timely access to medicines.

Traditionally the team has relied on a number of mechanisms to access appropriate medication. The unit has always made good use of exemptions to the Medicines Act of 1968,<sup>1</sup> latterly superseded by the Medicines Regulations 2012.<sup>2</sup> Exemptions give appropriately gualified podiatrists access to a small range of prescription only medicines which may be supplied or administered without the need for a doctor's prescription.<sup>3,4</sup> The team has also utilised Patient Group Directions (PGDs) which allow a specific medicine to be supplied or administered for a specific indication.<sup>5</sup> PGDs have unfortunately proved somewhat inflexible and difficult, at least locally, to implement. The final method used by the team to access medicines will be familiar to many podiatrists; contacting the patient's GP cap in hand to request a specific prescription. Although this method was used for many years to good effect, it was not without risk. GPs may choose to provide an alternative prescription, an alternative dose or on occasion may decide not to write a prescription at all with the inevitable consequence that surgery is cancelled and the patient subsequently referred into secondary care.

That was the status quo for many years until on 20 August 2013, when the hard work of both the College of Podiatry and Chartered Society of Physiotherapists lead to a dramatic change to medicines legislation which permitted podiatrists and physiotherapists the right to become independent prescribers (IP). The first HCPC approved university courses were available JAMES HARMER FCPodS SURGICAL FELLOW

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NOTTINGHAMSHIRE HEALTHCARE NHS FOUNDATION TRUST, DEPARTMENT OF PODIATRIC SURGERY for podiatrists from January 2014 and two of the podiatric surgeons within the department were among the first cohort of podiatrists successfully to complete the independent prescribing course and obtain annotation from the HCPC in July 2015. Following annotation, it took around four months to implement IP within the department. The majority of that time was spent waiting for the delivery of five prescription pads, one being required for each of the Clinical Commissioning Groups (CCGs) to which we provide services.

#### **METHOD**

After six months of prescribing we present our initial audit and experience of IP from a podiatric surgery prospective. Between 1 November 2015 and 30 April 2016 all prescriptions written by the two prescribers were reviewed. All prescriptions had been logged in a specific drugs register and a photocopy of the prescription was placed in the patient's notes for quality assurance purposes. The aim of the audit was to evaluate the safe and effective integration of IP into a community podiatric surgery service. The audit would be used as a baseline from which subsequent audits could be measured. The most basic outcome we wanted to measure was the number of prescriptions that had been written in the first six-month period. We wanted to ascertain to what level IP was being used within the department and how this fitted in with our existing exemptions and PGDs. A recent internal Trust survey showed that a large percentage of nurse prescribers failed to prescribe a single drug following completion of their training.<sup>6</sup> We also wanted to review the range of drugs prescribed, the reason for prescribing the drug, and whether there was an advantage to prescribing these drugs independently. By way of balance we also took the opportunity to review the extent of our reliance on PGDs and Medicines Act exemptions by reviewing relevant PASCOM-10 data for the audit period.



Figure 1. Scope of prescribing

Possibly the most important area to audit would be the safety aspect of prescribing, medicine management is a hot topic therefore being able to demonstrate that we were prescribing within our scope of practice and in accordance with regulatory guidelines would give us evidence to demonstrate safe practice.<sup>7-9</sup> As part of our safety audit we would also be looking at any prescribing errors and adverse drug reactions (ADRs) that might have put our patients at risk.

### RESULTS

A total of 60 prescriptions had been written over the initial six-month period relating to 43 surgical patients. Fourteen different drugs were prescribed ranging from eight different drug groups (Table 1 & Figure 1). Antibiotics were the most common drug group to be prescribed with half of all prescriptions coming from this group alone (Figure 1). By far and away the most common way that we accessed drugs during this six-month period was through our exemptions to the Medicines Act (Table 2).

All 43 patient notes were reviewed including the photocopied prescription form. Following this process only one minor prescribing error was identified and this related to failing to sign the prescription form. This error was resolved without incident as the prescription form was returned and then signed by the podiatrist prescriber. No serious errors were noted such as incorrect patient, incorrect drug, incorrect dose or drug miscalculations.

#### DISCUSSION

The majority of antibiotics were prescribed for suspected or proven post-operative infections. Co-amoxiclav was prescribed on 11 occasions in line with local prescribing guidelines for the management of infected diabetic foot ulcers. Four prescriptions were made for antibiotic prophylaxis when patients were allergic to both flucloxacillin and erythromycin, the two relevant antibiotics available to podiatrists via exemptions to the Medicines Act.

The next most common group of drugs prescribed was anxiolytics with diazepam being the single most commonly prescribed drug (14 prescriptions). All patients having surgery at Nottingham are asked if they feel anxious about having surgery carried out under local anaesthetic. There are two options available to anxious patients: they can either request a referral elsewhere to have the surgery carried out under general anaesthetic / intravenous sedation or we can prescribe an appropriate oral anxiolytic such as diazepam 5mg, which we have found to be sufficient to ease perioperative anxiety in the majority of patients.

Another important area of prescribing for the podiatric surgical team is venous thromboembolism (VTE). In accordance with department of health (DOH) guidelines,<sup>10</sup> all surgical patients undergo a VTE risk assessment and receive appropriate VTE prophylaxis ranging from static exercises, early mobilisation and good hydration, to graduated compression stockings to aid circulation, through to chemical prophylaxis in the form of a subcutaneous injection of low molecular weight heparins (LMWH) such as enoxaparin to help reduce the blood's ability to form a fibrin clot.<sup>11</sup> At Nottingham having the ability independently to prescribe anticoagulants means that patients receive these important, protective drugs in a more timely and effective manner, reducing impact on GP time and appointments.

Only two prescriptions were made for post-operative analgesia whilst five prescriptions were written for drugs to manage the side effects of analgesics

Drug	Number Prescribed	Percentage (%)
Naproxen	2	3.3
Clindamycin 300mg	5	8.3
Clindamycin 600mg	2	3.3
Co-amoxiclav 625mg	11	18.3
Clarithromycin 250mg	7	11.67
Lansoprazole 30mg	1	1.67
Omeprazole 40mg	2	3.3
Enoxaparin 20mg	7	11.67
Diazepam 5mg	14	23.3
Daktarin 2%	1	1.67
Flucloxacillin 500mg	4	6.67
Cyclizine 50mg	2	3.3
Co-codamol 30/500mg	1	1.67
Nefopam 30mg	1	1.67
Total	60	

Table 1. Range of drugs prescribed

or NSAIDs. Prescribing to manage side effects is a specialist area in its own right and an area that perhaps needs to be explored in greater detail to keep patients as safe and comfortable as possible during the perioperative period.

Exemptions to the Medicines Act have been fully utilised by the team and this method of accessing medicines remains the most popular. Arguably this may change in time as more of the team gain independent prescribing qualifications. A total of 860 drugs were accessed and supplied to patients via

Drug	Access/ Supply/ Administer	Total Issued
Codeine Phosphate 30mg	Exemptions	55
Co-drydamol 10/500mg	Exemptions	177
Co-codamol 8/500mg	Exemptions	10
Paracetamol 500mg	Exemptions	71
Ibuprofen 200mg	Exemptions	212
Flucloxacillin 1g	Exemptions	201
Flucloxacillin 500mg	Exemptions	34
Erythromycin 250mg	Exemptions	4
Erythromycin 1g	Exemptions	23
Amoxicillin 500mg	Exemptions	0
Depo-Medrone 40mg	Exemptions	73
	Total	860

Table 2. Drugs accessed and supplied via exemption

CLINICAL

Drug	Access/ Supply/ Administer	Total Issued
Metronidazole 400mg	PGD	0
Depo-Medrone 40mg with Lidocaine 10mg	PGD	104
Betnesol 4mg	PGD	7
MRSA Pack	PGD	0
	Total	111

 Table 3. Drugs accessed and supplied via PGD

exemptions, this is due in part to the ease of accessing these drugs from community pharmacy, and being able to supply them direct to patients on the day of surgery. This is very convenient for our patients as they do not have to pick up numerous prescriptions from the pharmacy during the perioperative period. A closer look at the drugs accessed this way illustrates that the three most commonly accessed drug groups were analgesics and NSAIDs for post-operative pain management and prophylactic antibiotics. These drugs were all supplied on the day of surgery by an appropriately trained podiatrist with POMs certification. National PASCOM data demonstrate that the combination of compound analgesics and ibuprofen are for the most part effective at managing moderate post-operative pain.

In accordance with NICE guidelines,<sup>12</sup> all patients having surgery involving

Drug	Number Prescribed
Clindamycin	2
Naproxen 500mg	18
Co-codamol 30/500mg	16
Dihydrocodeine 30mg	5
Enoxaparin 20mg	4
Tramadol 50mg	20
Diazepam 5mg	15
Co-amoxiclav 625mg	2
Nefopan 30mg	4
Codeine Phosphate 30mg	5
Ibuprofen 400mg	11
Paracetamol 500mg	17
Diclofenac 50mg	4
Morphine	1
Total	124

Table 4. Drugs prescribed by the GP

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internal fixation received a single dose of a narrow spectrum antibiotic covering the mostly likely infective organism. In our case we supplied 1g flucloxacillin or erythromycin in cases of known penicillin allergy. The difficulty comes when the patient is allergic to both antibiotics and there is no alternative appropriate antibiotic to give from the exemption list. In six months we found four patients who had this issue but as independent prescribers we were able to prescribe an appropriate alternative antibiotic for prophylaxis without troubling the patient's GP.

Currently at Nottingham we have four PGDs, including an antibiotic, two injectable steroids and the MRSA packs (See Table 3). A total of 111 drugs were accessed through PGDs during this sixmonth period; all were injectable steroids, and typically these were administered under x-ray guidance as part of a conservative treatment package.

The final and perhaps most inefficient method for accessing medicines utilised by the team was by way of requesting GP prescriptions. The podiatrist or podiatric surgeon wrote to the patient's GP requesting they prescribe a certain drug and dose on the patient's behalf. Prescribing this way relies heavily on the good will of the GP and there is no guarantee the prescription will be written. Often GPs want to see the patient before writing the prescription wasting GP time as well as inconveniencing the patient. It also creates more admin time for the podiatry team as both GP's and patients have to be chased up respectively to confirm the prescription has been written and collected before surgery. A total of 124 drugs were prescribed in this way during the audit period making GP prescriptions the second most common way that drugs were accessed (Table 4 & Figure 2). The most common drug requested from the GP was tramadol, which is a good

alternative synthetic opioid analgesic for patients who are unable to tolerate codeine-based analgesics. Podiatrist independent prescribers are able to prescribe a number of controlled drugs but currently tramadol is not one of these and the only way to access it would frustratingly be through a PGD or via the GP. This type of evidence indicating the common use of tramadol to help manage post-operative pain in patients unable to tolerate codeine may help our cause in the future to have tramadol added to the list of controlled drugs podiatrists are already able to prescribe.

For the 60 prescriptions written only three adverse drug reactions were reported and all related to gastrointestinal upset with antibiotic treatment. Two reactions followed the use of co-amoxiclav 625mg for two weeks: one patient reported vomiting and the other reported nausea. Both patients needed long-term antibiotic treatment for serious infections secondary to diabetic foot disease so their prescriptions were amended. The third reaction involved a patient reportedly allergic to both flucloxacillin and erythromycin who developed a post-operative infection and was prescribed clindamycin 300mg. After a week of taking clindamycin the patient reported severe stomach cramps, needless to say she was advised to stop taking clindamycin and an alternative antibiotic was prescribed.

#### CONCLUSION

This short audit demonstrates the safe and effective integration of IP into a community podiatric surgery team. The 60 prescriptions should not be underestimated as 43 patients received their medicines in a more timely and effective manner than would have been possible if IP had not been available. This clearly saved on GP time and appointments as well as reducing unnecessary podiatry admin time chasing





up GP prescriptions. The audit demonstrated that we had prescribed within our scope of practice and that we had acted in accordance with HCPC and Society guidelines.<sup>7-8</sup> Due to the ease and flexibility of accessing drugs through exemptions to the Medicines Act IP may never be the only way podiatrists access medicines for their patients, but we have found it can be a useful adjunct to the traditional ways we have accessed our drugs.

We believe the future for podiatry is much brighter thanks to IP. As a community podiatric surgery team our patients have benefited from IP and in the future we plan to use prescribing more to reduce reliance on GP prescribing and give us the autonomy we deserve to manage our patients independently. IP affords us the opportunity to expand our current practice to better manage complex conditions such as neuropathic pain, osteomyelitis and thromboembolic disease.

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