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Orthopaedic pharmacy

Thinking of a career in clinical pharmacy? Rachel Graham, staff editor of Hospital Pharmacist describes the clinical aspects of the work of a specialist pharmacist

Providing pharmaceutical care to patients with one (or more) of a whole range of musculoskeletal conditions is the basis of the work of an orthopaedic pharmacist. This includes patients with arthritic conditions, patients with fractures or trauma admitted through accident and emergency departments and those booked in for routine orthopaedic surgery, such as hip replacements. It also includes those who are undergoing some of the more leading-edge orthopaedic surgical procedures carried out at hospitals such as Wrightington Hospital, in Wigan — for example, the revision of hips (ie, where the original joint has moved or become infected) and replacement of knee and shoulder joints. Orthopaedic pharmacists are also involved in the prevention and treatment of osteoporosis.

This article, based on interviews with Ray Green, chief pharmacist, and Gary Masterman, musculoskeletal clinical lead pharmacist, both at Wrightington, Wigan and Leigh NHS Trust, describes what orthopaedic pharmacy involves and how the speciality looks set to develop. At

Wrightington Hospital, a 210-bedded tertiary centre that is part of an acute trust, the orthopaedic pharmacy team (which provides support across the trust) consists of four pharmacists, one technician, one student technician, two senior dispensing assistants and one pharmacy assistant. This team is relatively large for the speciality — “some orthopaedic pharmacists can find themselves essentially working in isolation,” Mr Green said.

Clinical care

Thromboprophylaxis, antibiotic cover and pain relief are the main drug therapy areas managed by the orthopaedic pharmacy team. Preventing deep vein thrombosis in patients who are undergoing orthopaedic surgery may require a different approach to that used for general surgical patients. This is because orthopaedic surgery immediately puts all patients into a high-risk category, regardless of any additional risk factors¹ and because patients are often immobilised for longer periods. There is mounting evidence that extended prophylaxis, for up to six weeks, may be required in these patients, Mr Masterman explained.² This has budgetary and management implications, particularly because newer low molecular weight heparin and pentasaccharide preparations are replacing aspirin in many institutions, including the Wrightington Hospital.

There also needs to be a different emphasis on antibiotic cover in orthopaedic patients, when compared with general surgical patients, with a greater emphasis on using antibiotics, such as sodium fusidate, that have good bone penetration. In addition, patients who are to undergo hip revision because of infection will need to receive

prophylaxis therapy of, eg, teicoplanin (intravenously) and ciprofloxacin (orally) for two weeks, followed by a further four weeks' therapy with ciprofloxacin alone. At Wrightington Hospital, full screening for methicillin-resistant *staphylococcus aureus* (MRSA) is also carried out on all patients before admission, with any patients carrying MRSA being treated before they are allowed onto the wards, Mr Masterman added.

For pain relief, however, it is the same principles of "step-up" and "step-down" analgesia followed for general surgical patients that are used for orthopaedic patients, Mr Green explained. In addition, orthopaedic pharmacists are also called on to advise about aspects of drug treatment for patients' pre-existing complaints (such as diabetes and hypertension) that are unrelated to their orthopaedic condition, he added.

When providing clinical care, orthopaedic pharmacists are part of the multidisciplinary team, Mr Green explained. For example, at Wrightington Hospital orthopaedic clinical pharmacists routinely attend consultant ward rounds and provide medicines reviews for patients on admissions and operate a pharmacy-run discharge service.³

Currently none of the orthopaedic pharmacists has trained as a supplementary prescriber. However, Mr Green said that he can see a role for pharmacist prescribing in orthopaedics, particularly if independent prescribing becomes a reality. In particular, there may well be scope, for example, for prescribing pharmacists to run rheumatology clinics.

Managerial role

One of the benefits of a career in orthopaedic pharmacy is that it provides an excellent forum for developing management skills. "It is a discrete area where people get a good experience of management," Mr Green said. The role involves, for example:

- ▶ Balancing the needs and wishes of doctors and trust managers in drawing up trust guidelines for high cost drugs and ensuring that these are followed
- ▶ Handling annual drugs budgets for

the musculoskeletal division (eg, about £1.5 to £2m at Wrightington Hospital)

- ▶ Implementing relevant National Institute for health and Clinical Excellence guidelines (NICE is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health), including those that deal with home care, an area of growing relevance to pharmacy practice
- ▶ Managing the delivery of pharmacy services to patients on both NHS and private wards at the hospital
- ▶ Managing the delivery of pharmacy services within treatment centres

Skills learnt in this role can therefore be built on by those wanting, for example, to tread the path to becoming a chief pharmacist. However, with the advent of consultant pharmacist positions, highly specialised clinical roles, the specialty also looks set to be a suitable one for those who want to retain clinical work as part of their role. Running rheumatology clinics (as mentioned above) is one clinical area that would seem suitable for consultant pharmacists. "Pharmacists not working in specialist tertiary centres might well need to work on a regional basis to get enough of a case-load," Mr Green said. He added, it would also be appropriate for consultant pharmacists working in what is a discrete clinical area to play a full part in providing services to primary care trusts and also to patients at home, by co-ordinating the provision of home care services.


Networking

As a consequence of working in fairly small teams, or even effectively in isolation in some hospitals, it is particularly important for orthopaedic pharmacists to network, Mr Green pointed out.

It was with this in mind that Mr Green set up the Senior Pharmacists Orthopaedic Network Group (known as SPONG), which held its inaugural meeting in July 2004. The idea is to provide a forum in which those who are musculoskeletal/orthopaedic specialist pharmacists, or chief pharmacists whose trust's provide specialist services of this type, get together to discuss how things

are done at their respective institutions, and thereby help decide and perpetuate good practice. The formation of an orthopaedics specialist interest group as part of the UK Clinical Pharmacy Association is also being considered, Mr Green added.

Conclusion

Orthopaedic pharmacy is an ideal choice for those wanting to pursue a career with both clinical and strategic responsibilities. That a variety of work is carried out in a discrete area also makes it a good choice for those who wish to hone their managerial skills and progress towards becoming a chief pharmacist. 

References

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