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A career as . . . an orthopaedic pharmacist

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Changes in pharmacy practice seem likely to raise the profile of some of the more specialist pharmacy careers. This article, based on interviews with Ray Green and Gary Masterman at Wrightington Hospital, Lancashire, describes the work of orthopaedic pharmacists and looks at how the role is set to develop



Providing pharmaceutical care for patients with fractures forms part of the work of an orthopaedic pharmacist

Changes in pharmacy practice, such as the planned introduction of consultant pharmacists and the possibility of pharmacists becoming independent prescribers, seem likely to bring some of the more specialist pharmacy careers into the spotlight. 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, describe what orthopaedic pharmacy involves and how the specialty looks set to develop.

Orthopaedic pharmacy

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

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at hospitals such as Wrightington Hospital — 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.

At Wrightington Hospital, a 210-bedded tertiary centre that is part of an acute trust, the orthopaedic pharmacy team (which provides pharmacy support across the trust) consists of three pharmacists (including Mr Masterman as clinical lead), one technician, one student technician, two senior dispensing assistants and one pharmacy assistant. This is not counting Mr Green, who has a particular interest in this area of practice, which accounts for about 20 per cent of the hospital's patients. This size of team is relatively large for the specialty — “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 can require a different approach than that used in normal surgical patients. This is because orthopaedic surgery imme-

diately puts all patients into a high-risk category, regardless of any additional risk factors¹ and because patients are often immobilised for longer periods of time. 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, as 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, for example, 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

Panel 1: Career history — Gary Masterman

Gary Masterman became clinical and professional lead for the musculoskeletal division at Wrightington Hospital in March 2003. Before that, he was discharge services pharmacist at Wigan Infirmary, the 700-bed acute hospital with which Wrightington Hospital merged in 2002. Mr Masterman has a postgraduate Diploma in Clinical Pharmacy from the University of

Manchester and has also completed the National Development Scheme for Senior Pharmacists at Morpeth (in 2005), a scheme that he “highly recommends to anyone”.

The opportunity to work within a reasonably small department in a defined clinical area, and thereby gain expertise both as a clinical specialist and in management, was what prompted him to take up his current post.

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, Mr Green 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 have trained as supplementary prescribers. 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.

Strategic role

Multidisciplinary working is by no means confined to the clinical pharmacy setting in orthopaedics. Mr Masterman is a member of the hospital’s musculoskeletal drugs and therapeutics committee (which itself feeds into the hospital’s main drugs and therapeutics committee). Other members include medics and representatives from the trust’s general management and finance departments.

One of Mr Masterman’s roles is to carry out pharmacoeconomic evaluations of the drugs used in the orthopaedic division of the hospital. For example, recent reports he has presented to the committee have looked at cost-versus-benefit issues associated with the drugs involved in the management of osteoporosis, such as teriparatide (National Institute for Health and Clinical Excellence [NICE]-approved) and strontium ranelate (which was not included in the recent NICE guidelines). Other work involved assessing whether more expensive drugs, such as fondaparinux, are actually cost-effective because of decreased levels of venous thromboembolism and its associated treatment costs in

the local health economy. Another report looked at the individual patient-based assessment of patients who need treatment with anti-tumour necrosis factor drugs for their rheumatoid arthritis — each patient must be assessed and followed up as the treatment costs per patient are in the region of £8,000–10,000 per year (based on MIMS prices). In carrying out these evaluations, it is also important to assess whether there are implications for other divisions at the hospital (ie, those covering medicine, surgery and emergency care, and primary and secondary care interface issues).

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 medics 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 NICE guidelines, 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 the orthopaedic’s role can therefore clearly 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, the specialty also looks set to be a highly 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 ter-

tiary centres might well need to work on a regional basis to get enough of a case-load,” Mr Green said. 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, he added.

Career pathways

Those who specialise in orthopaedic pharmacy can come from a wide variety of backgrounds. A career profile of Mr Masterman is set out in Panel 1.

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 trusts 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.

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Senior Pharmacists Orthopaedic Network Group

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