

## EDITORIAL

# Orthopaedic competence in South African junior doctors

There is a world-wide drive to provide early medical care at primary healthcare rather than specialist level. There are many sound reasons for this, but it places an enormous responsibility on the family practitioner to have a wide general knowledge of the many conditions he or she may have to diagnose and treat or refer. Orthopaedic problems ranging from backache through degenerative arthritis to minor musculoskeletal injuries form a very large part of any primary healthcare practice, and the importance of adequate orthopaedic pre-graduate training cannot be exaggerated. As orthopaedics is largely a 'hands-on' discipline, most of the practical training has traditionally taken place during the internship period. The questions are whether this provides an adequate level of competence for the recently qualified doctor, and if not what should be done to rectify matters.

Naidoo first drew attention to the poor orthopaedic skills in junior doctors in South Africa in his assessment of orthopaedic trauma referrals to a regional hospital in 2009.<sup>1</sup> The following year Dachs *et al.* tested a group of interns before their orthopaedic rotation using a standardised validated examination and reported a 91% failure rate.<sup>2</sup> In a follow-up study, reported in this issue of the *SAOJ*, the same authors tested a second group to find out if a 2-month orthopaedic internship improved the candidates' performance.<sup>3</sup> It did not. Confirmation that the miserable performance of the first group was representative was provided by a similar 94% failure rate in the second group before, and an insignificantly better 86% after, the orthopaedic rotation.

The causes of this alarming failure of orthopaedic teaching must be identified and corrected at different levels:

1. **Pre-graduate teaching.** The major issues here appear to be the time allocated to orthopaedic teaching, and the type of teaching offered. The syllabus should be fairly standardised throughout the various departments, and should not be a problem. It is important that a candidate should not be able to pass his final examination in surgery without passing orthopaedics: realistically many students will not study a subject that is not critical to qualifying.

Orthopaedic contact time for students in this country varies enormously and is probably inadequate. Dedicated orthopaedic training time in four of five South African medical schools I questioned varied from 90 to 130 hours; in the fifth it was 283 hours. This compares poorly with the 250 hours my niece receives in a graduate medical course in Britain. What may be equally important is at which point in their training students are taught, and the methods used. Integrated teaching of different but related specialities helps a student to develop the broad view of a problem essential to a good generalist.

However, teaching for instance anaesthetics and other surgical specialities together carries the risk of diluting the importance of each component speciality. It is probably better to provide a concentrated programme in each discipline and only later, after each has been mastered, teach students how they inter-relate.

When should orthopaedics be taught? Ideally in the penultimate year of training, when the student is relatively mature, and has a grounding in the basic disciplines. This should then be supplemented by a short, dedicated revision period in the final year.

Many medical schools still have a six-year MBChB programme with the final year being a student internship. This is impossible to justify given the current two-year internship plus one year community service required before full registration. That sixth year should be abandoned or put to better use.

Modern education emphasises the use of small group teaching. There is still a place for formal lectures, but this is mainly to outline the area to be covered, and provide material for self-study – so lecture notes are essential to reinforce the spoken word. As medical knowledge expands it is the lecturers' duty to digest a complex issue and give the student the basic principles to be used in practice. It is also important that any teacher should arouse his students' interest and communicate his own enthusiasm for a subject.

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One problem with interactive teaching in present-day medical classes is that the 'small groups' consist of 10 to 30 students, far too large for effective individual teaching. A second is the shortage of doctors in training hospitals with spare time to teach them in a busy clinic.

Finally we cannot ignore the students' own responsibility to study orthopaedics to the necessary level.

2. **Internship.** This must be seen as an extension of training in medical school and not a period of exploitation before HPCSA registration. The community service year is the time for a doctor to pay any debt to society, while bridging the gap to independent medical practice.

Focused training in practical orthopaedics at the start of the surgical rotation has been shown to be effective. Vermaak and Potgieter demonstrated a useful improvement in interns' knowledge of orthopaedic and general trauma management after a 10-hour introductory course at the start of their six-month surgical rotation.<sup>4</sup> Similar but expanded courses are obviously needed on a much larger scale.

Inadequate supervision and practical instruction by registrars and specialists are probably major causes of an intern's failure to benefit from his time in orthopaedics. Many peripheral hospitals do not have the staff needed to train and supervise interns. Too often an intern in a larger hospital is used as a dogsbody in the ward to take blood, write forms, etc., with little opportunity to learn from working with their seniors in theatre or the clinic.

Another serious problem is the trauma overload in all levels of hospital in this country; the result is poor exposure of interns to cold orthopaedics.

The training element of internship must be recognised and enforced at each hospital with an intern allocation.

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These disturbing findings about intern competence in orthopaedics are a serious challenge to our speciality. It is surely time for the SAOA to assess the various training and intern programmes, compare them to overseas programmes, and provide some guidance on how the problem should be tackled.

#### References

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