

Orthopaedic surgical career path – where's the plan?

Robert N Dunn*

President: South African Orthopaedic Association

*Corresponding author: robert.dunn@uct.ac.za



As I pen this piece, we are ramping up into the 4th wave of Covid with the additional stressor of the unknown impact of the Omicron variant. Much of the disruption is due not to the virus itself but to our chosen responses of lockdowns, curfews and repetitive testing. I have personally undergone eight (negative) PCR tests in November alone to allow travel, run a marathon and undergo a minor surgical procedure. A quick R8 400 wasted at R850 a local test, reaching 100 US dollars in Malawi and 88 euros in Spain! Then while lecturing in Spain, the world went crazy isolating South Africa after one of our virologists tweeted about the newest spike protein variant – without having any idea of its significance.

We get so caught up in these in-your-face 'crises' with continual re-organisation and adaptation of our professional and personal worlds that it becomes difficult to think ahead.

And a big think ahead is required.

I wrote an editorial in the SAOJ some years ago in 2015 asking whether we were oversupplying the orthopaedic surgical market.¹ I expressed my thoughts based on my perception of the situation at the time and concluded that this issue needed investigation and action. Sadly, to my knowledge, nothing has happened in this area. Recent events have reminded me of this issue. We simply take for granted that after years of orthopaedic training, at great cost to the individual and taxpayer, career opportunities will present themselves. We expect recently qualified surgeons to stay in SA and contribute to the health of our citizens, with at most a quick sojourn overseas for a fellowship.

In Cape Town alone I am aware of two surgeons struggling to find a base to practise from. This has led to friction between them and resident surgeons at the private hospitals they have approached.

We are constantly told that SA has too few doctors, and even fewer specialists. Dell et al. in 2018 reported an average of 1.63 orthopaedic surgeons per 100 000 population compared to 4 in Australia and Canada, 7.5 in USA and UK and almost 20 in Scandinavia.² Further analysis confirmed the private sector orthopaedic surgeon/population ratio to approximate the USA/UK, with the public sector starved of surgeons. To my mind, these comparisons are not like-for-like as in SA the trainees carry a massive service load as opposed to the rest of the developed world. At Groote Schuur Hospital, registrars performed 75% of the 3 147 orthopaedic surgical cases logged in 2018, and 90% of the trauma cases.³

This confirms that the registrar body is a significant contributor to service. This would add around 200 surgeons to the pool in SA. The actual number of active qualified specialists is difficult to ascertain. Dell calculated 897. The South African Orthopaedic Association (SAOA) currently has 476 full members and calculates this represents 88% of the total surgeons in the country. This

implies 540 surgeons of working age. The HPCSA iRegister offers 1 100 odd orthopaedic surgeons but running through the list, many are 'terminated', 'erased' or 'suspended'. On personally reviewing the 144 listed under Cape Town, eight were 'terminated', and 12 marked as 'active' were in fact known to me as deceased, retired or emigrated. So, we don't even have this basic data to work with.

If we take a round number of 600 orthopaedic surgeons and assume (because that's all we can do) that there is an even age distribution between 35 and 65 years, then it is about 20 per year of age, which implies 20 will retire a year. Of course, there is illness and early death to consider, but judging by the SAOA statistics this seems seldom before 65.

So, in a static market, we need 20 replacements a year.

From the CMSA FCS final pass rates, we are producing around double that per year (*Figure 1*). There has been a gradual annual increase to around 40 a year in recent times. There was only one exam in the 2020 period due to Covid, and 2021 still awaits the second semester exam. We are producing twice as many surgeons as compared to those leaving practice. Admittedly, some of these exam candidates are supernumeraries from other countries who are meant to return home. This may contribute 10–15%, but there is still an oversupply if there is no growth in market opportunities.

This is not the whole story as many surgeons continue to practise longer due to financial challenges. There is also a continued migration to the bigger cities due to local government challenges in some areas which are threatening the desired lifestyle.

So where are the opportunities? Although there are only 0.39 orthopaedic surgeons per 100 000 population in the public sector, posts remain static in many areas. In well-functioning facilities there is little turnover. There was massive emigration and movement into private in the 1990s and early 2000s resulting in relatively young surgeons being employed in the state rather than a generational

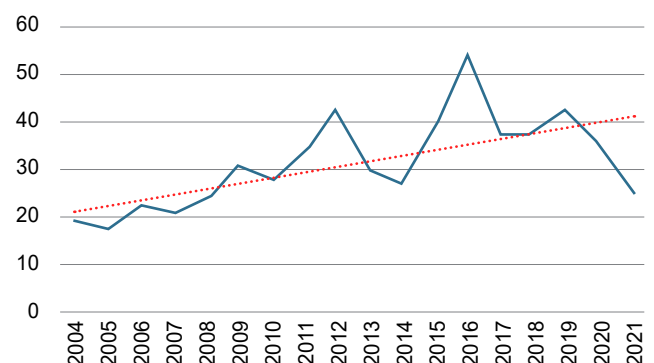


Figure 1. FCS Orth successful final candidates per year

spread. Our UCT unit has not had a consultant resignation in 10 years, and the senior staff are still 7–10 years off retirement.

On enquiring, the HODs report there are few available funded consultant posts. UKZN is an exception with 23 vacant funded posts available, four being Head of Clinical Units. Many are regional. It is unclear why this is the case and may be due to the local restrictive RWOP policy. Subspecialty posts are generally more attractive than general trauma work which is available in private at far better reimbursement levels.

Despite the dearth of specialists in the Eastern Cape for example, and vacant posts, I find that our trainees give up waiting for the prolonged local HR processes and end up taking up other options out of desperation.

Private used to be an easy entry, but this seems to currently be less so, with reduced elective work resulting in more practitioners competing for the trauma calls. The private groups do not advertise opportunities and it requires the individual to approach the hospitals. The local Physicians Advisory Boards (PABs) can be somewhat hostile with the trauma rosters sewn up limiting early earning potential of new entrants. On contacting the groups, Life confirmed only four positions available nationally. Two were in Mpumalanga and Umtata, with the other two requesting restricted practice of upper limb and sepsis management.

So where to from here?

We need to decide how many specialists are required. Some parties would like more as this may result in downward price pressure due to competition for the work and DSP contracts. I however doubt this, as specialists have a lifestyle expectation and will strive to earn to support it with volume. This leads to the so-called supply-induced demand. This will increase the total health spend, especially when you consider the costs around surgery where the surgical fee is seldom more than 10% of the total cost. This requires a realistic expectation of what the system can afford, both in public and private models. With the current economic milieu and Government's focus on primary healthcare, I do not foresee great increases in elective surgical spend.

Based on this, the number of orthopaedic surgeons required can be calculated, both nationally and regionally, accepting the realities of geographic concentrations. It is all very well to expect a surgeon to work in a remote area, but often they are limited by their partner's occupation and children's schooling requirements. These are the realities that need to influence the model.

From this the number of trainees required can be deduced along with the subspecialty needs. I suspect that this will be less than the current number of around 180–200 registrar posts, and these will need to be reduced.

The real-time public service operational requirements cannot dictate the number of trainees; rather, the priority is adequate and appropriate training. The service shortfall will need to be managed differently. This is complex but not insurmountable.

Longer-term medical officers is the obvious solution, but not only those that want to proceed to specialist status. Clinics can be supported with staff that only consult and do not operate. This model worked well in the UK when I was a fellow. Non-MBChB staff such as physiotherapists can also participate in the clinics, assessing and triaging the patients. Not every operation requires an MBChB-qualified assistant. I recall dinner with a world-renowned Irish knee surgeon, David Beverland, saying registrars just slowed him down and he preferred the use of a technician and mechanical leg support!

The public system would be far more efficient with consultants performing the bulk of the surgery. Thus, excess training posts can be converted to consultant posts. This will demand other system changes though. As registrars are passing through, keen to operate and learn, young and energetic, they can operate through

the night, with the view that it's transient and leading to the pot of gold. But this won't fly for consultants over a 20–25 year period. The reliance on late night emergency lists will need to change, with improved access to theatre lists during the day to create sustainable working careers.

We have been able to move heaven and earth to accommodate the Covid service in the public hospitals, rearranging wards and ICUs, repurposing staff and getting the job done. There is no reason why we can't reimagine a better orthopaedic service and reconstruct it to provide all of us with an acceptable and certain career path. The SAOA is probably the common ground between the role players and needs to initiate this process.

References

1. Dunn RN. Are we oversupplying the orthopaedic surgical market? *SA Orthop J.* 2015;14(1):16-17.
2. Dell AJ, Gray S, Fraser R, Held M, Dunn R. Orthopaedic surgeon density in South Africa. *World J Surg.* 2018;42(12):3849-55. <https://doi.org/10.1007/s00268-018-4709-4>.
3. Dunn C, Held M, Laubscher M, et al. Orthopaedic surgical training exposure at a South African academic hospital – is the experience diverse and in depth? Accepted for publication *SA Ortho J.* 2022;21(1):22-28. <https://doi.org/10.17159/2309-8309/2022/v21n1a3>.