

Remaining at the forefront of your career and developing new surgical skills

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Orthopaedic surgery is a complex field and orthopaedic surgeons are highly trained professionals who are able to assess and diagnose musculoskeletal problems and perform advanced surgical procedures. The field of orthopaedic surgery has expanded exponentially with the development of many subspecialties and therefore surgeons constantly need to learn and develop new skills and techniques. There has been a strong movement towards less invasive techniques with the objective of addressing clinical problems with less morbidity and shorter recovery times. A strong driver is improved health economics and patient satisfaction.

Ultrasound is becoming extensively used in both diagnostic and therapeutic roles and is used in the consulting room, emergency room and operating theatre where it has improved patient safety while inserting central lines, and improved efficacy and safety during peripheral nerve blocks. Ultrasound efficacy depends on the quality of the view and therefore investment in high quality equipment. Operator skill and experience is proportional to the service provided, making adequate training and practice essential. However, the benefits are convenient, and immediate results, with less need for more invasive and expensive investigations, improved patient comfort and no radiation exposure all contribute to a better experience and outcome for our patients. Currently some surgeons use ultrasound in their daily practice, but this is restricted by the high cost of equipment as well as time pressure during work time. Our anaesthetic colleagues are, however, using ultrasound extensively.

Endoscopic procedures are well established in orthopaedic practice but their role has expanded from the early days of knee and shoulder arthroscopy to include foot and ankle, hip and wrist, among others. The range and complexity of procedures has developed and many traditionally open procedures can be replaced by less invasive ones. Most operations are performed as day cases or at the most overnight stay procedures. With increasing pressure on healthcare systems due to patient numbers and cost this is an effective way to manage more patients in a cost-effective way.

Minimally invasive surgical (MiS) techniques are being developed and the efficacy, morbidity and healthcare costs are being assessed and evaluated.¹ There is a strong drive towards evidence-based practice and cost-effective surgery. Patients have increasing access to computers and online searches and are using these to investigate their symptoms and medical problems. Although this improves patient education, it remains the surgeon's role to direct and moderate this information and reach the appropriate diagnosis and treatment or surgery. Many patients are now requesting less invasive techniques and are searching for surgeons who have the skills to perform these procedures.

In foot and ankle practice there is a move towards minimally invasive surgery and endoscopy.² Much work has been done to develop new ways to perform procedures and study the outcomes. Healthcare systems around the world are under increasing pressure to provide better care at a lower cost. MiS is one way to do this by reducing the need for and length of hospitalisation, as well as reducing lost work time due to earlier return to work. Additionally, procedures that would otherwise be too high risk due to general health problems like diabetes with Charcot neuroarthropathy, or poor soft tissue due to burns or other trauma, can now be undertaken with a much lower risk of complications. Procedures that can be performed by MiS are calcaneal osteotomies, ankle and/or subtalar arthrodesis, hallux valgus correction, lesser metatarsal and phalangeal osteotomies, and small joint arthrodesis. Benefits are less scarring, less pain, shorter hospitalisation, faster recovery, fewer complications or wound healing problems and improved patient satisfaction. All of the above have a gathering body of evidence supporting its use.^{3,4}

It remains the surgeon's responsibility to evaluate which techniques and procedures work well in their hands. Each case must be evaluated individually and the appropriate treatment or surgery selected for each patient. The surgeon should always be open and honest about which procedures they can perform and not be pressurised by patient requests. It is essential that both conventional and newer techniques be discussed honestly with the patient as part of the informed consent process. If the patient is not happy and insists on a certain procedure, it is better to refer them to a more experienced colleague who you can perhaps assist as part of the learning process, rather than to end with an unwanted complication or suboptimal outcome.

Surgeons will learn much of the theoretical knowledge and also many operative techniques during their training years; however, due to the expansive nature of orthopaedic surgery, many of the procedures that they need to learn and master will happen after they qualify and during their career with the advancements in their field of practice.

When learning new techniques surgeons should be intentional in the process. First, they will become aware of a need or see a new technique in journal articles, congress presentations or from a colleague. Mastering the procedure involves reading publications and outcomes compared to conventional procedures. Many techniques can be viewed online, procedures can be practised on cadavers, and surgeon visitations and assisting are helpful. Surgeons should select less complicated cases to start with and gradually progress in technical difficulty.

An additional benefit of learning new skills and surgical techniques is professional development. By expanding their knowledge and surgical ability, surgeons enhance their career prospects and improve their professional reputation, thereby making themselves a more marketable product to their colleagues and patients. This increases their earning potential and improves job satisfaction. The workplace is becoming more competitive and it is both to the surgeon's benefit and those of their patients to continue to improve their skills. Additionally, learning new skills and techniques can provide a sense of accomplishment and fulfilment, which can improve their overall wellbeing.

Learning new skills and techniques requires ongoing education and training. Orthopaedic surgeons who wish to stay current in their field must invest time and resources in continuing education, including conferences, workshops and seminars, as well as in participating in online courses and webinars. Additionally, surgeons must be willing to collaborate with other healthcare professionals and participate in research to maintain a high level of practice.

This striving towards learning new skills is not without its challenges. One of the primary challenges is the cost. We must be prepared to invest time away from our busy practices and money in our professional development. Additionally, there may be a steep learning curve associated with learning new techniques, which can be time-consuming and challenging. Surgeons must balance the benefits of new techniques against the risks of the learning curve and mitigate for less optimal outcomes during this process.

One specific challenge that has developed within the South African context is the cost of overseas travel when attending congresses, surgeon visitations and training meetings. Due to changes in compliance requirements less financial support is available for South African surgeons. This increases the need for better collaboration within South Africa to establish local fellowships, facilitate surgeon visitations and courses. There are many leaders in their fields within our borders and most are prepared to assist in developing younger surgeons who wish to improve their skills.

References

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