

an apt solution

Maulik J Gandhi and Lennard Funk report on the surgical selection of arthroscopic trainees

Arthroscopy is a type of minimal access surgery with benefits such as reduced morbidity, better cosmetic results, and faster recovery. The challenges of arthroscopy differ to that of open surgery. This includes the ability to appreciate the difference of looking at a two-dimensional screen, operating with 'reversed movements', and reduced tactile feedback. It is likely other factors are significant. Even the ability to reconstruct 3-D images from pictures varies with age and cultural background.

It has been reported that a junior surgeon has to perform at least 50 procedures to master shoulder arthroscopy and that expert performance in skills takes approximately 10 years to achieve. Prior to any surgical experience, the current selection process for orthopaedic training posts relies on a combination of CV, interview, and referees' points. This has previously been shown to correlate poorly with surgical skills measured subjectively.

The need for surgical aptitude testing was recognised in the Netherlands but has been dropped due to the lack of specificity to surgery.

Aptitude testing can be used as a form of selection to differentiate individuals. This test is advantageous in situations where the actual task to be done has extreme implications if not performed correctly, or the training for the task is time-consuming and expensive. For example, simulators have long been used to identify potential pilots.

Various training options are currently available for trainees. These vary from the use of cadavers to virtual reality training models. Such tools may also be helpful in evaluating the progress of current surgical trainees. Operating on live patients would be one of the final stages of training.

Recently, an international workshop was set up with specific objectives to develop a core curriculum for objective assessment of surgical skills. It was clear that this assessment would be one small measure to support the overall competence. A simple, cost-effective system of identifying which individuals have the desired skill levels could help selection of surgical trainees. Such identification of individuals will allow a more tailored training approach. This would allow extra training to be given to those who do not quickly develop the skills required for arthroscopy until they reach the 'criterion level'. This criterion level has been suggested as the mean performance of experienced surgeons on that particular task.

Scoring well in any assessment tool that requires a one off performance does not necessarily



A student training on a shoulder arthroscopy simulator

predict potential learning. It may be that individuals have already reached their maximum learning potential for any of the skills tested by the tool, and thus have minimal capacity to improve, yet they show up as 'more trainable' compared to the other participants.

In summary, there is no scientific basis for selecting trainees from their CV, interview, or referees' report which would indicate their potential performance at arthroscopy. Aptitude testing may help in conducting a more objective selection of the candidates ready for arthroscopy from those who require longer training. ■

Maulik J Gandhi, Foundation Year 1 (PRHO), Royal Albert Edward Infirmary, Lancashire, United Kingdom

maulikjgandhi@yahoo.co.uk

Lennard Funk, Consultant Shoulder & Upper Limb Surgeon, Department of Orthopaedics and Trauma, Hope Hospital, Salford, United Kingdom
lenfunk@shoulderdoc.co.uk