

NOTSS course (non-technical skills for surgeons)

Surgical registrar *Stephen Brennan* reviews a new course designed to teach non-surgical skills

Surgical trainees across the country will all know and recognise good and bad surgeons when they see them. We all know the ones we like being in theatre with and the ones we don't.

But what is it exactly that makes them appear good? Why is it that operations for some consultants always seem to go smoothly? Even if there is a crisis in theatre, it always appears as if it was expected. Every situation is prepared for. There are never any surprises. Could it be that these consultants have perfected their non-technical skills?

What are non-technical skills?

Non-technical skills can be described as cognitive (ie, decision making) and interpersonal (ie, teamwork) skills. The Royal College of Surgeons of Edinburgh (www.rcsed.ac.uk) in conjunction with the University of Aberdeen have started to pilot a revolutionary new course called NOTSS (non-technical skills for surgeons). The basis of this course is that the analyses of adverse events in perioperative care have found that many underlying causes of failure originate from weaknesses in non-technical aspects of performance rather than a lack of technical expertise.¹ In a recent study, poor communication was found to be a causal factor in 43% of errors made during surgery.² Given time and training, anybody, within reason, could be taught how to perform an inguinal hernia. Success at that operation, however, may have nothing to do with how well you suture the mesh in place. Failure to select the patients properly; forgetting to give the prophylactic antibiotic; failure to mark the correct site; and not giving the dalteparin may land you in a lot more trouble than not tying a square knot.

The course

At a cost of £180, this one day course is run at the college by a faculty comprising clinical psychologists, consultant surgeons, and anaesthetists. There are a limited number of places, which facilitates increased participant discussion and overall better interaction than that usually encountered with a traditional lecture. The course is aimed at specialist registrars (SpRs) and consultants, and this usually provides a good mixture of personalities and range of experience. It aims to highlight the attention that should be paid to non-technical skills such as team working, leadership, situation awareness, decision making, task management, and communication. Examples of aviation and the challenges that pilots face during flight simulations are used, and these scenarios can be likened to some situations we face in the operating theatre. In one instance, for example, the pilot did not listen to his co-pilot, leading to a mid-air collision. In the same vein of thought, a surgeon who does not listen to the scrub nurse informing him or her that the correct site of surgery has not been marked, may lead to confusion once the patient has been anaesthetised.

The bigger picture

Any surgical trainee working in the NHS will be aware of the current training limitations being imposed by Modernising Medical Careers (www.mmc.nhs.uk) and the European Working Time Directive. We are all justifiably concerned that our quality of training will not be as good as that of our predecessors, and at the end of our reduced length of training we have a fear of, literally, not being able to "cut it." There is research from Edinburgh that claims that at the time of appointment, the average first year registrar will have done a total of five appendicectomies. Gone are the days when the house officer did this operation. I have worked in the past for a consultant who did 30 appendicectomies as a house officer. Quite scary really, when it is now not unheard of for a senior house officer to go through a six month period in general surgery and only perform one or two of them.

I am still a firm believer that at the end of the day it is experience that will pay dividends when faced with an unfamiliar situation in the middle of the night in the operating theatre. My eyes have been opened, however, to the fact that these non-technical skills are equally important. Having attended this course I would highly recommend it to every surgical trainee. ■

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- 1 Yule S, Flin R, Paterson-Brown S, Maran N. Non-technical skills for surgeons in the operating room: a review of the literature. *Surgery* 2006;139:140-9.
- 2 Gawande AA, Zinner MJ, Studdert DM, Brennan TA. Analysis of errors reported by surgeons at three teaching hospitals. *Surgery* 2003;133:614-21.

