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Safety and simulation

Editorial for June 2014 issue of *The Clinical Teacher* Michael Ross

I vividly remember being asked, initially as a medical student and then as a junior doctor, to perform clinical procedures for the first time on real patients. In this way I learned to insert an intravenous cannula, perform a lumbar puncture and tap a pleural effusion, amongst many other things. ‘*See one, do one, teach one*’, was a phrase frequently repeated by my senior colleagues, and now seems to epitomise how we were expected to learn most of the skills required for practice. The Oxford Handbook of Clinical Medicine protruded from the white coat pocket of every medical student and junior doctor, and was the default reference text when faced with unfamiliar situations and no available senior colleague.¹ In my well-thumbed copy, the instructions on how to pass a nasogastric tube begin by stating, “*Nurses are the experts and will ask you (who may have never passed one before) to do so only when they fail. Proceed as follows: 1. Don a plastic apron and observe the nurse having one more attempt. This will give you a rough idea of how it is done – she may even succeed. 2. Tell the patient what you want to do and take a new, cool (hence less flexible) tube. 3. Lubricate it with jelly (lignocaine) and place it in the nostril...*” (p96).

So what has changed? Well, rather a lot actually. Whilst these brief instructions specify the plastic apron, there is no mention of hand-washing or gloves. As Leung and colleagues highlight in this issue, hand-washing has been shown to be a very simple and effective way of reducing hospital acquired infections, but is often forgotten.² There are also no instructions to be open and honest with the nurse (who, incidentally, is assumed to be female), or to discuss the situation more fully with the team and together consider alternative options, such as to call for more senior help or delay passing the nasogastric tube until a more appropriate time. There is no instruction to seek informed consent from the patient, after explaining to them that you have never undertaken this procedure before. Simply telling the patient what you want to do isn’t good enough anymore – if it ever was. In fact, there is no indication at all in these brief instructions that junior doctors need to be aware of their limitations, to have an understanding of the situation which allows them to consider alternatives beyond the task in hand, and to avoid doing anything which they feel could be unsafe and put patients at risk.

Much has been learned about patient safety in the two decades since these instructions were written, and a number of articles in this issue explore some of this literature, highlighting ways in which the additional risks posed by healthcare professionals in training can be minimised. Cameron and colleagues review the literature on factors affecting medical student preparedness for practice after graduation.³ There is also an article highlighting the importance of local induction programmes,⁴ and another exploring one of many new ways to

help engage students in active learning with their peers.⁵ Brown and colleagues draw on experience of assessing doctors with performance issues to define 'insight', and identify other prerequisites for safe and effective clinical practice.⁶ Jones and colleagues highlight that adverse events in surgery, and many other areas of practice, can often be related to shortcomings in 'non-technical skills' or 'human factors', such as communication, situation awareness, decision-making, teamworking and leadership.⁷ They describe a compulsory course for junior surgical trainees to help address these shortcomings, designed to sit alongside competency-based training and simulation in 'technical skills'. Hamaoui and colleagues expand on the use of simulation to help students and trainees learn surgical skills in a low-risk and low-pressure environment, allowing them to practise, make mistakes, and develop their abilities in teamworking and communication.⁸ Similarly, Jarvis and Ker highlight that simulation-based training can also be useful to fully-qualified practitioners in continuing professional development, or training for new roles.⁹

Contrary to the impression sometimes given, simulation-based training does not always have to involve complex and very expensive equipment, operated by highly-trained technophiles. Simulation is really all about the simple goal of helping clinicians learn to assess situations, make decisions and undertake tasks in a safe environment before they have to do them in real clinical practice, where getting things wrong may have serious consequences for patients. The simulation 'equipment' can be as simple as a role-play scenario, with or without actors and a video camera. With a bit of imagination, and perhaps some help from the internet, it is even possible to make something as complicated as a laparoscopic simulator at home, as described in a previous issue of *The Clinical Teacher*.¹⁰ Lindon-Morris and Laidlaw, however, highlight that clinical teachers leading the simulation training must be careful to minimise the anxiety and public self-awareness which can sometimes be felt by participants.¹¹ Along with new methods of teaching, learning and assessment, therefore, come new expectations of clinical teachers. Some of these new expectations, and ways in which they might be addressed, are explored in four related articles on teacher development in this issue.¹²⁻¹⁵

Hospital doctors in the UK no-longer wear white coats or long ties, because of the potential risk to patient safety from hospital-acquired infections, and debate is ongoing as to whether these should be banned in other countries.¹⁶ Guidance and policies relating to informed consent, communication, teamworking, 'whistle-blowing' and other aspects of safe clinical practice, have also evolved considerably over the past two decades, and are reflected in newer editions of textbooks such as the Oxford Handbook.¹⁷ In a similar way, there is a need for more high-quality research which identifies those clinical teaching methods and approaches which best prepare healthcare professionals for safe and effective practice, and also identifies those which are out-dated and potentially put patients at risk. This journal will continue to publish ground-breaking original research on clinical teaching, along with reviews and examples of good practice, both as 'Original Articles' and as shorter 'Insights'. Further details of these, other manuscript types and standards for research and publication ethics, can be found in our new 'Guidelines for authors' on *The Clinical Teacher* website. So if

you are engaged in research in this area, or have other experiences and insights you are willing to share, have a look at the guidelines and get writing – we look forward to hearing from you!

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