Anaesthetists: still the airway experts?

Any Australian and New Zealand College of Anaesthetists trainee who takes the time to study their College arms and crest will find the supporter on the left to be Andreas Vesalius, the first person to record the use of artificial ventilation to sustain life. Unwittingly, did he become the first airway expert? Although anaesthesia has developed greatly since the times of Vesalius, the principle of an unobstructed conduit to allow for ventilation remains unchanged. As anaesthesia developed as a specialty with the introduction of neuromuscular blockade and endotracheal intubation, anaesthetists rapidly became the experts in airway management. However, the introduction of supraglottic airway devices in the late 1980s and a renaissance of regional anaesthesia, partly due to newer techniques allowing for easier and more anatomically accurate placement of local anaesthetic agents, has seen a change in airway management.

In their well-organised study of trainee airway exposure published in this issue, Smith et al demonstrate no significant change in airway exposure over the last decade, but describe a change in casemix. Their findings reassuringly suggest that their trainees continue to obtain satisfactory airway experience. This is in contrast to other studies that have shown decreased or limited exposure. Nevertheless, their identified lack of obstetric airway experience and its possible consequences is of concern. Moreover, as no two training institutions are identical, each institution will have to consider the amount of airway experience their trainees obtain.

The need to ensure safe working hours (which should be encouraged) and the increased time spent outside the operating room environment in areas such as pain services and pre-admission clinics, combined with external pressures to increase the specialty workforce by increasing the number of trainees, will all impact on the ability to acquire and refine technical skills during training. Fortunately, we have the relative luxury of five years of specialty training in which to master these skills.

Do anaesthesia trainees still need the high numbers of airway exposures that were seen in the past to gain competence? Defining competency in any skill continues to be a concern for those involved in medical education. Although encouraged by several training organisations, logbooks may not be the answer, as they record experience (which may include low success rates or high complication rates related to poor technique) rather than competence. As with any skill acquisition, there will be different timeframes for development of competence. There is no ‘one-size-fits-all’ approach for training and competence. Any assessment process requires reliability and validity, and the process for formal assessment of airway skills requires specific assessment criteria. The relatively low incidence of difficult airways, where anaesthetists have always been seen as the experts, makes this assessment even more difficult. As the Australian and New Zealand College of Anaesthetists reviews its curriculum and moves to more workplace-based assessment, should specific guidelines and assessment tools for airway competence be considered? We don’t know how many attempts Vesalius had with his bellows before he achieved success.

With the introduction of new intubation technologies such as video-laryngoscopes, exposure to traditional laryngoscopic techniques may further decrease. This may be of significance as video-laryngoscopes have become the devices of first choice by some anaesthetists for the potentially difficult airway. While the number of airway devices to which a trainee is exposed should not be rationed, it is important for trainees to ensure that they gain competency in those techniques that will become a part of their long-term anaesthesia practice. Who would have predicted the rapid change in airway practice that occurred with the introduction of supraglottic airways? Can we expect a similar change with the introduction of video-laryngoscopes?

Like all medical specialties, anaesthesia will continue to evolve and develop, but the ability to manage both the straightforward and the difficult airway will always be a core skill of anaesthetists. It is the challenge and responsibility of current training programs to ensure that airway competency is maintained in the face of the requirement to gain an ever-increasing number of skills competencies within a limited time frame and with limited resources; and of trainees to ensure that they are competent...
as they enter specialist practice. If Vesalius were to have chosen anaesthesia as his profession and were practising anaesthesia today, we would hope that not only would he be holding bellows in his hands, but also that he would be familiar with other current devices for airway management, and that he would be competent in the use of all of them, and more importantly, still be the airway expert.

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REFERENCES