training guidelines, we calculate 27 fibreoptic intubations would need to be carried out by just the trainees annually to achieve 'competence', let alone maintenance of skill by trainees or consultants. In fact, just 17 fibreoptic intubations were performed last year, even though routine Ear, Nose and Throat and Maxillofacial surgery is undertaken at our hospital. Six of these procedures were performed out-of-hours and so were not 'taught' episodes. We have no reason to believe our practice differs significantly from similarly-sized hospitals.

If videolaryngoscopy becomes increasingly used for managing the unanticipated difficult airway, how are trainees expected to learn and maintain skill in fibreoptic intubation? Some hospitals practice the technique on patients who could be managed with conventional laryngoscopy [2], although the ethics of this have been challenged [3]. Dedicated airway programs, combining simulation and clinical training, have been proposed [4], as have 'practice on your peers' workshops. If the profession decides to abandon fibreoptic bronchoscopy altogether, as Ahmad and Bailey suggest, then curriculums, protocols and training programs will need to accommodate this change in practice to ensure we continue to deliver optimal airway management.

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No external funding and no conflicts of interest declared. Previously posted on the *Anaesthesia* correspondence website: www.anaesthesiacorrespondence.com

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doi:10.1111/anae.13434

Time to abandon fibreoptic intubation? Not yet

Compared to fibreoptic intubation, Lee et al. found that Trachway™ (Biotronic Instrument Enterprise Ltd., Tai-Chung, Taiwan)-assisted tracheal intubation was faster and technically easier in patients with limited mouth opening [1]. Ahmad and Bailey extrapolated these limited findings to support the proposal that awake fibreoptic intubation should be abandoned in favour of 'asleep' videolaryngoscopy [2], but we disagree with their assertion for several reasons.

Ahmad and Bailey present findings from a questionnaire of trainees in North American internal medicine intensive care fellowships as evidence suggesting that training and provider performance is inadequate [3]. However, these findings are not unexpected, because advanced airway procedures are commonly performed by anaesthesia services in North American institutions, and not internal medicine physicians.

Lee et al. wisely excluded patients with risk factors for difficult bag-mask ventilation, since failure to ventilate the lungs of a patient who has received neuromuscular blockers and has limited mouth opening would be an extremely dangerous situation. Since anaesthetists' ability to predict failed bag-mask ventilation/tracheal intubation scenarios with any reasonable certainty remains imprecise, we suggest proceeding cautiously [4, 5]. For cases with anticipated difficulty, the ASA Task Force and Difficult Airway Society [6] recommend awake techniques retaining spontaneous ventilation. Awake videolaryngoscopy is useful, but when blade insertion or navigation through the airway is impossible, competency with a flexible endoscopic technique remains essential.

Awake flexible endoscopic airway management remains the gold standard in patients at high risk of airway management difficulty, particularly secondary to abnormal anatomy and/or predictors of difficult bag mask ventilation. Instead of abandoning this technique, we encourage further development of competency and confidence in the performance of this unparalleled approach to safe management of the complex airway.

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No external funding and no conflicts of interest declared. Previously posted on the *Anaesthesia* correspondence website: www.anaesthesiacorrespondence.com

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doi:10.1111/anae.13435

Abandoning awake fibreoptic bronchoscopy – a reply

We were pleased, but not entirely surprised, at the responses generated by our recent editorial [1]. We are sorry if we gave Schechtman et al. the impression that, based on the results of the study by Lee et al. [2], we were suddenly convinced that fibreoptic intubation was no longer a viable option in airway management. Rather, we decided to use the study as a board from which to dive into the swimming pool of debate, which is why we posed the title as a question rather than a statement.

Contrary to Morris' assertion that 'it is an easy technique and most people have the skills for success, but it is the confidence that they lack' we believe that awake fibreoptic intubation (AFOI) is *not* an easy technique to master and most *do not* have the requisite skills for success, which is precisely why they lack the confidence.

We agree with both Ward and Bell and Beatty that the opportunities for training and retaining competence in awake fibreoptic intubation are limited in the UK and this is due to a combination of factors that include: a reduction in training hours; the increasingly widespread adoption of alternative devices such as videolaryngoscopes; employment of oxygenation techniques such as transnasal humidified rapid-insufflation ventilator exchange (THRIVE) [3] that improve the safety of patients during intubation attempts; and the increased use of sugammadex to quickly reverse the effects of neuromuscular blockade when rocuronium has been administered. Bell and Beatty point out that 27 fibreoptic intubations are thought to be required to achieve competence, yet only 17 were performed in their hospital the previous year. Even in our unit where approximately 17 AFOIs are performed each month, there are still not enough cases for all our anaesthetists to gain or retain competence in this procedure.

The overall lack of suitable 'natural' human difficult airway cases can lead to ethical issues; whilst asleep oral fibreoptic intubation performed in a patient whose trachea would otherwise be intubated orally in a standard fashion for, say, a laparotomy, may be acceptable, an awake nasal fibreoptic intubation performed in an elective patient with a simulated difficult airway (by the placement of a hard cervical collar, for example) who is scheduled for an elective hernia repair might well be viewed as unethical. This is where we feel sure many anaesthetists differ in their views; the enthusiasts would argue that this sort of training is justified whilst others would be aghast at the idea. Simulation is useful, but not the complete answer, it largely addresses fibrescope handling skills. Topicalisation of the airway, oxygenation techniques, positioning of the patient and skillful sedation techniques are an important part of an AFOI and also need to be learnt.

Heidegger states that we wish to discredit fibreoptic intubation. We don't, we merely wanted to generate discussion. He criticises the methodology of Lee et al. and we will leave the authors themselves to comment on the details of their study. He also argues that, because all national airway societies recommend fibreoptic intubation as a 'gold standard' for managing the difficult airway, that anaesthetists

