Non-technical skills and recruitment of anaesthesia trainees

Editor—There are several flaws in Gales paper on testing non-technical skills for recruitment of anaesthesia trainees, most of which have been recognized in a similar work in industry and are acknowledged by the authors. The most fundamental problem with their methodology is ‘restriction in range’. The authors tested 224 candidates, appointed 68 and rejected 156. They followed up the 68 selected candidates but have no idea if the 156 they rejected performed worse in the subsequent years (selection test valid) or better (selection test flawed) than those they appointed. The authors note that this is a recognized limitation of ‘selection research’. Medicine is, however, probably the one career where all the rejected candidates could be followed up moderately easily (the Deanery would have information as to where they all ended up, and if they stayed in anaesthesia they would all have had ITAs and ARCPs and all could have consented to sharing this information with the researchers whether selected or not). I am a firm believer in the value of non-technical skills in anaesthesia and applaud the authors for taking the first small step in investigating if they can usefully be assessed as part of the selection process for trainees. This study, however, does not validate the selection process used, which should not be rolled out. No similar studies should be undertaken without provision for assessment of rejected candidates.

Conflict of interest

C.M.F. is a Human Factors advocate with the Clinical Human Factors Group.

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Reply from the authors†

Editor—We thank Dr Frerk for his comments and interest in our article on the assessment of non-technical skills within a selection centre for recruitment of trainees to anaesthesia. The correlational analysis adopted in the present study is a standard approach in selection research which establishes the existence of a trend for candidates scoring higher in the selection process to score higher in subsequent workplace-based assessments. In line with this standard approach, we made statistical corrections for restriction of range. Unfortunately, not all candidates offered posts actually accept them, so whether unappointed candidates perform better or worse is a criterion which is too one-dimensional to judge methods of selection to postgraduate medical training. It is therefore perfectly possible that unappointed candidates will ‘perform better’ in the future than those who were appointed.

Currently, there is no validated metric within anaesthesia which is able to reliably differentiate between clinical performances of trainees in a standardized way across multiple Deaneries. The clinical evaluation exercise (mini-CEX or A-CEX) has shown more difference in scores due to rater variation and case specificity than trainee performance in a comprehensive national evaluation in New Zealand. Furthermore, the A-CEX adopted in its present form by the Royal College of Anaesthetists in the UK gives a PASS/FAIL outcome for trainees but lacks an overall score which can differentiate between graded performances. For these reasons, we established two methods of following up appointed applicants in the study within our region:

A speciality-specific standardized in-theatre assessment using key index cases and a scoring metric to assess non-technical skills in the workplace, and
A score derived from consultant assessments which were part of a standardized process for collating ARCP reports.

Following up all applicants who were unappointed using these two methods would not have been possible since ARCP forms were not nationally standardized in this way, and we were not aware of other Deaneries in the UK collating in-theatre assessments in a similar fashion. Applicants appointed to specialities outside anaesthesia would have had a diverse array of performance measures made within a variety of posts.

Our study goes further than any other study of selection to anaesthesia, of which there are precious few, to establish an evidence base for the methods used in terms of quantifying the reliability and acceptability of the assessment process plus its predictive validity during training. Within the study limitations, it provides a scientific basis for discussion and ongoing development. We would encourage opportunities for future research in this area with the adoption of a standardized metric able to differentiate between performance of trainees in a standardized way across multiple Deaneries and units of application.

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None declared.

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Reply from the authors

Editor—We thank Professor Cattano and colleagues for their comments on our study.1 While we accept that patient safety is paramount during any invasive procedure, we do not feel this is necessarily achieved by the use of the laryngeal mask airway (LMA) during percutaneous dilatational tracheostomy. The risk of difficult airway management is high in the general critical care population with difficult intubation described in 8–12%2 3 and severe life-threatening complications in up to 28%.3 Additionally, in our patient cohort, there was an over-representation of head and neck and upper gastrointestinal surgical patients, at higher risk of difficult intubation and gastric aspiration, respectively. Consequently, it is our opinion that maximum patient safety is achieved not with the LMA but utilizing the definitive airway that is in situ at the start of the procedure. We feel that this opinion is borne out by the results presented within our paper.1

With respect to the utility and safety of the Percutwist technique, we have no direct experience. We believe, however, our paper has more than adequately demonstrated the safety profile of the single tapered dilator technique in our patient population.

Conflict of interest

None declared.

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