

EDITORIAL VIEW

Assessment of procedural skills in anesthesiology trainees: changing trends

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SUMMARY

In this brief article, the author highlights the important issue of assessment of procedural skills in anesthesiology trainees and stresses on the need to adopt the currently recommended assessment method of direct observation of procedural skills (DOPS) into the local training programmes, to enhance patient safety by ensuring adequate attainment of skills.

Key words: Education; Clinical skills; Direct observation of procedural skills; DOPS

Citation: Ahmed A. Assessment of procedural skills in anesthesiology trainees: changing trends. *Anaesth, Pain & Intensive Care* 2014;18(2):135-136

The trainees of a residency programme represent the future of that specialty. It is, therefore, absolutely essential that the teachers and trainers of the specialty do their utmost to provide high quality training. Some of the most important requirements for maintenance of high training standards are up-to-date curricula with regular reviews, state-of-the-art teaching and learning methods and robust assessment strategies. All these must be combined with regular programme evaluation to strictly maintain the training standards. In this editorial I would like to draw the readers' attention to the important issue of assessment of procedural skills in anesthesiology trainees and stress on the need to adopt the currently recommended assessment methods in the local training programmes.

The revolutionary progress in information technology and the advent of social media has been instrumental in an increased public awareness of healthcare related issues, which in turn has led to greater accountability of healthcare professionals. The exponential increase in healthcare related litigation lawsuits in the recent past has very rightly led to an increased focus on patient safety in clinical practice. As a by-product of increased public awareness, the patients can no more be used as guinea pigs for learning practical procedures and attaining expertise in their performance, and both of these important aspects of clinical learning have emerged as major challenges in anesthesia practice.¹ Anesthesiologists perform a number of complex clinical tasks during their routine work which the trainee is expected to learn during his / her training. The learning is

based upon a multiple level strategy, e.g. observation only, assistance and observation, expert assisted performance, observed performance and independent performance. The trainers have the important responsibility of deciding when their trainees can be allowed to perform the various procedures independently, while ensuring patient safety. If adequate expertise is not achieved, the consequences could be devastating for the patient as well as for the anesthesiologist. This emphasizes the need for a thorough assessment system for ensuring competence in procedural skills.²

Assessment of trainees' knowledge, judgment and communication skills, etc. is routinely undertaken by written, oral and objective structured clinical examinations [OSCE].³ It is not reasonable to ensure expertise in procedural skills by using any of these assessment strategies. Procedural skills have historically been assessed by maintaining logbooks and through subjective assessment by supervisors without well-defined criteria. Quite often senior colleagues or supervisors fill out assessment forms retrospectively at the end of a rotation. This type of assessment is unreliable, especially for procedural skills, as it does not capture the level of competence achieved for each step of a procedure.²

The Royal College of Anaesthetists (UK) recommends the use of direct observation of procedural skills (DOPS) for assessment of procedures performed on actual patients.⁴ Current evidence depicts DOPS to be the gold standard

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for assessment of procedural skills using validated checklists and global rating scales.² Further work is being carried out to evaluate the role of simulators in assessment of complex procedural skills. Objective checklists and global rating scales have been formulated for various procedures performed by anesthesiologists. Both generic and procedure-specific DOPS forms are being used for regular assessments of trainees.⁴

Our trainees are the future of our specialty. It is imperative upon us to provide adequate training to them, while ensuring patient safety. The author recommends that the anesthesiology training programmes of Pakistan should incorporate DOPS as a regular assessment tool for all procedural skills. As beginners, anesthesiology trainees learn and practice intravenous cannulation and endotracheal intubation. As they proceed further in their training they are taught skills like central venous and intra-arterial cannulation, subarachnoid and epidural blocks, peripheral nerve blocks and many other complex procedural skills. With further advances in technology, anesthesiologists have broadened their scope of work and they now perform vascular and regional anesthesia techniques under ultrasound guidance with more precision and safety, thus increasing the number of skills that the trainees have to master.

Mere observation and retrospective feedback at the end

of a two to three month rotation cannot reliably assess competence in performance of these complex tasks. An understanding of this limitation of the historical methods of assessment and an increasing focus towards enhancement of patient safety has led to the concept of competency based training and assessment.^{5,6} Goals of assessment, as defined by Kathirgamanathan, are to provide evidence of competence and to determine fitness for professional practice.⁶ These goals can best be fulfilled through workplace based assessment; DOPS represents one aspect of workplace based assessment.^{2,4} Its time that we elaborate on all the components of workplace based assessment and the faculty of every programme starts working on formulating and validating procedure-specific DOPS assessment tools or adopt already validated tools and begin their implementation, while they are supervising a trainee during their routine work. However, faculty training is essential before DOPS could be successfully implemented and this highlights the role of departments of educational development in all university hospitals.

In conclusion, as stated by Cuschieri and colleagues,⁷ assessment of trainees is a form of quality assurance for the future. Development of objective and feasible assessment tools for evaluation of procedural skills and their integration into training programs are the need of the day.

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