ISCP INTERCOLLEGIATE SURGICAL CURRICULUM PROGRAMME

Guidance on the revised PBA/DOPS global scale

The procedure-based assessment (PBA) is one of a number of assessments *for* learning within the surgical curriculum, aimed at helping the trainee learn through constructive trainer feedback. The PBA assesses the knowledge, skills and behaviour competencies associated with performing an advanced interventional procedure in real workplace or simulated practice. Studies have shown that the PBA has demonstrated good overall validity, acceptability and reliability[1].

The PBA has three principal components:

i) a series of competencies, which can be rated as *satisfactory* or *development required* and which cover:

- pre-operative planning and preparation
- exposure and closure
- intra-operative technique
- post-operative management.

These help to prompt:

ii) the trainer's feedback and
iii) the trainer's global rating, which summarises overall competence in terms of how much supervision the trainee required on that occasion.

The standard of the PBA is set at the level of certification and, therefore, the highest global rating reflects the level of independent practice. It will be normal for trainees to gain higher level ratings as they improve practice and gain experience through each stage of training. The trainee's PBA global ratings and logbook of operative experience can be correlated to help gauge the trainee's training trajectory.

To provide information to guide learning, it should be routine that a debriefing takes place as soon as possible after an operation on which a PBA is to be carried out. Trainer comments are essential and, while scores are valued by some trainees and trainers for pin-pointing learning needs, they risk distracting from the formative purpose. Global ratings given by experts have, however, been shown to have good reliability and predictive ability[2]. The PBA global rating employs word descriptors, rather than scores, and these are intended to be self-explanatory so that the trainer has enough detail to make a decision without referring to a separate guide and the trainee has more information to look back on. Because of this detail, descriptors are more likely to be used consistently across different trainers than scores, which can be interpreted more widely.

Rationale for the change

ISCP feedback from trainers and trainees provide valuable information about the use of the assessment instruments for ongoing curriculum review and development. In relation to the PBA, these demonstrated that the 4-point global scale was thought to be too coarse, resulting in trainees getting ratings of 2 or 3 for the majority of their training and making it difficult to demonstrate progression. It was also difficult to award a level 4 when no complications occurred.

The ISCP Assessment Group, serving as a task group under the ISCP Management Committee, held a workshop in March 2015 to review the PBA. Participants providing expert input included educationalists, surgical-educators, patient/lay representatives, trainees, trainers and the Confederation of Postgraduate Schools of Surgery (CoPSS), amongst whom there was experience of using, researching and developing the PBA. There was consensus for the following changes:

- Expanded trainer feedback section, placed at the start to emphasise its importance
- Alignment with the WHO Safety Checklist
- Removal of the *Consent* section, which should be assessed separately
- Enhanced global scaling, to include a) and b) subdivisions of each of the four levels to discriminate better between levels of performance. This was also applied to the Direct Observation of Procedural Skills (DOPS) assessment.

The choice of the expanded global scale was informed by the pilot of the Generic Operative Supervised Learning Event (GOSLE) in Trauma and Orthopaedic Surgery. The GOSLE had been developed from work within the specialty's Training Standards Committee, drawing on GMC guidance that suggested that formative assessments should include more narrative commentary and remove scores[3]. Feedback from the pilot, using structured questionnaires, made a direct comparison between PBAs and GOSLEs for the same procedure and demonstrated that the GOSLE rating scale could aid trainer judgements both about assisting in surgery at the junior level and about dealing with problems and gaining in fluency and confidence at the senior level. Level 1 a/b competencies were worded in a more positive way and the levels mapped more clearly to five of the six logbook levels: *Observed (O); Assisting (A); Supervised - trainer scrubbed / unscrubbed (S-TS) / (S-TU);* and *Performed (P).*

Revised levels

Levels 1-4 in the new scale equate to the previous scale but can be chosen as a) or b) to make a clearer statement about performance on that occasion.

Original Global Scale		**Revised Global Scale**	
Level 0	Insufficient evidence observed to support a summary judgement	Level 0	Insufficient evidence observed to support a summary judgement
Level 1	Unable to perform the procedure, or part observed, under supervision	Level 1a	Able to assist with guidance (was not familiar with all steps of procedure)
		Level 1b	Able to assist without guidance (knew all steps of procedure and anticipated next move)
Level 2	Able to perform the procedure, or part observed, under supervision	Level 2a	Guidance required for most/all of the procedure (or part performed)
		Level 2b	Guidance or intervention required for key steps only
Level 3	Able to perform the procedure with minimum supervision (needed occasional help)	Level 3a	Procedure performed with minimal guidance or intervention (needed occasional help)
		Level 3b	Procedure performed competently without guidance or intervention but lacked confidence
Level 4	Competent to perform the procedure unsupervised (could deal with complications that arose)	Level 4a	Procedure performed confidently to a high standard without any guidance or intervention
		Level 4b	As 4a and was able to anticipate, avoid and/or deal with common problems/complications

Further work on the PBA

Compared with other WBAs, the PBA contains the greatest number of 'tick boxes'. A future revision of the PBA will provide a greatly reduced form with a single rating per section, while allowing the associated competencies to remain visible. As a result, the rating of individual competencies will only apply to the procedure-specific intra-operative element. A rating of *development required* will require supporting written commentary.

References

1. Marriott J, Purdie H, Crossley J, Beard JD. Evaluation of procedure-based assessment for assessing trainees' skills in the operating theatre. The British journal of surgery. 2011; **98**(3): 450-7.

2. Regehr, G., MacRae, H., Reznick, R. K., & Szalay, D. (1998). Comparing the psychometric properties of checklists and global rating scales for assessing performance on an OSCE-format examination. *Academic Medicine*, *73*(9), 993-7.

3. General Medical Council. Learning and assessment in the clinical environment: the way forward. London: GMC, 2011