Teaching on the run tips 9: in-training assessment

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Setting

Every few weeks produces yet another assessment form to fill out on the junior medical officer, student or registrar. It becomes a bit of a blur and you default to ticking the boxes down the middle of the form. They're all pretty bright — maybe putting in more effort wouldn't make much difference to the result anyway?

Medical schools, clinical colleges and other groups are committed to improving the measurement of trainees' clinical skills by using specific assessments such as OSCEs (objective structured clinical examinations),[1,2] simulated patients,[1] mini-short cases[3] or portfolios[1,2] (the latter a collection of evidence of ability, such as supervisor reports, audit of procedures or publications). However, as Miller has noted,[4] "no single assessment method can provide all the data required for judgement of anything so complex as the delivery of professional services by a successful physician". Most of us contribute by assessing trainees as they work with us — so-called "in-training assessment".[2,5,6] Our judgments are based on observing their performance (how they are "doing" the job) — ie, the highest level of Miller's four-level clinical assessment pyramid[4,5] (see "Tips 6"[7]).

What we need to judge is broad — covering clinical competence, communication and professional skills. Unless we plan in advance, we could find ourselves lost at the end of a 12-week attachment, not really sure how well trainees are doing in these areas. Although there are many problems with the reliability of in-training assessments,[2,6] they are extensively used and there are strategies for improving their reliability.

How do we measure performance?[5]

There are several ways to measure performance:
- Outcomes — eg, patient outcomes. However, this is difficult, as many factors influence patient outcomes.
- Process — eg, how well trainees have carried out a task, communicated, assessed a patient or written in the notes.
- Volume — eg, how many procedures the trainee has done.

In most circumstances, we measure performance based on how well trainees are working (ie, the "process", as noted above), which is feasible and simple. Measuring patient outcomes or volume of work is more difficult.

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Challenges with in-training assessment[6,8]

- As raters, we aren't very good at being objective. Comparing results across examiners shows we tend to be either "hawks" (marking hard) or "doves" (marking easily).
- We tend not to distinguish between items — if trainees perform well in one area, we tend to assess them well in other areas (the "halo" effect).
- Personality traits (eg, extroversion, introversion) or poor command of English may have either a positive or negative impact on our assessment, irrespective of the trainee's ability.
- If we do the trainee assessment long after the actual training period has taken place, we tend to mark towards the mean.
- Interaction with the trainee is important. If you are both the teacher and assessor, marks tend to be higher.

How can we improve?[8-10]

- Be familiar with the outcomes expected for trainees — in clinical competence, communication and professionalism.
- Turn these outcomes into observable behaviours:
  - *Clinical competence* — observe trainees doing an examination or taking a history, test their knowledge, review the inpatient notes or discharge summaries;
  - *Communication* — observe trainees speaking to patients, and require them to present to you;
  - *Professional skills* — note punctuality, time-management skills, whether trainees can cope with responsibility and whether they are interested in learning.
- Set expectations at the beginning of the rotation. Get trainees to take some responsibility for the assessment, such as bringing case notes for discussion.
- Find "assessable moments", such as on rounds, in which trainees examine or talk to the patients and you watch. Write down your thoughts at the time and accumulate results across the term.[9]
- Assess *multiple events* during the training period, to make assessment more reliable.[2,9]
- Involve *multiple people* — ask other doctors, nurses or patients for their opinions ("360° assessment").[8,10]

Feedback

Perhaps more important than the assessment per se is using the information we have gathered to give feedback (such as in appraisal). In assessment, although rating by means of a global score ("overall pass", "borderline" or "fail") works well,[6] junior medical officers also want detailed feedback, not simply broad comments like "overall, you are very good".

Self-assessment

It is useful to encourage a habit of self-assessment.[11] Children tend to overestimate their abilities, whereas adults underestimate their own abilities. Poor students often overestimate their abilities.

Take-home message

When considering in-training assessment

- Consider assessable moments, looking at clinical competence, communication and professionalism.
- Assess multiple events by multiple people.
- Note down what you thought at the time — otherwise you will forget.
- Give feedback — that is what junior medical officers want.

However, if feedback is given, a side effect is that we get better at our self-assessment. So, before giving your feedback, ask trainees to fill in the assessment form before *you* do (self-assessment), or ask how they feel they are going.

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References

1 Holmboe ES, Hawkins RE. Methods for evaluating the clinical competence of residents in internal medicine. A review. *Ann Intern Med* 1998; 129: 42-48.
2 Wass V, van der Vleuten C, Shatzer J, Jones R. Assessment of clinical competence. *Lancet* 2001; 357: 945-949.
3 Norcini JJ, Blank LL, Duffy D, Fortna GS. The mini-CEX: a method for assessing clinical skills. *Ann Intern Med* 2003; 138: 476-481.
4 Miller GE. The assessment of clinical skills/competence/performance. *Acad Med* 1990; 65 (9 Suppl): S63-S67.
5 Norcini JJ. Work based assessment. *BMJ* 2003; 326: 753-755.
6 Turnbull J, Van Barneveld C. Assessment of clinical performance: in-training assessment. In: Norman GR, van der Vleuten CPM, Newble DI, editors. International handbook of research in medical education. Dordrecht, Netherlands: Kluwer Academic Publishers, 2002: 793-810.
7 Lake FR, Hamdorf JM. Teaching on the run tips 6: determining competence. *Med J Aust* 2004; 181: 502-503.
8 Turnbull J, Gray J, MacFadyen J. Improving in-training evaluation programs. *J Gen Intern Med* 1998: 317-323.
9 Turnbull J, MacFadyen J, van Barneveld C, Norman G. Clinical work sampling. A new approach to the problem of in-training evaluation. *J Gen Intern Med* 2000; 15: 556-561.
10 Wilkinson J, Benjamin A, Wade W. Assessing the performance of doctors in training. *BMJ* 2003; 327: s91-s92.
11 Evans AW, McKenna C, Oliver M. Self-assessment in medical practice. *J R Soc Med* 2002; 95: 511-513.

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