TEACHING ON THE RUN

Teaching on the run tips: doctors as teachers

Fiona R Lake

Setting
The new intern and registrar are about to commence. The students are also starting soon. These days, the hospital is pushing you to do more for the junior medical officers, the clinical colleges' forms are getting longer, and the medical school has not only changed its course but increased the intake of students. You like teaching, but it is stressful fitting it in with your other duties. Looking around, you realise there are some good teachers. You wonder what they do that you don't.

There is a tradition for doctors to teach their colleagues and students. The Hippocratic oath states, in part, that the duties of a doctor are "...to teach them this art, if they want to learn it, without fee or indenture". Sharing expertise is regarded as a rewarding and enjoyable aspect of medicine. But it is becoming harder. The task is to maintain our teaching commitments while improving the quality of teaching and keeping it rewarding and enjoyable.

Problems

Lack of time. With increased patient and administrative loads, the single most important factor clinicians cite is lack of time. The fact that there are fewer patients to teach on, shorter hospital stays and sicker patients also contributes to the problem. These pressures are unlikely to lessen.

Lack of knowledge. Clinicians need to increase their knowledge about how to motivate the learner, assess competence, give constructive feedback, teach multiple trainee levels at the same time and deal with competing demands of patient care and education.

Lack of training. Most of us who teach have never been taught how to teach, supervise or assess students, junior doctors or trainees.

Criticism of teaching. Although we do our best to teach, we are told we do it poorly. Evidence suggests, even today, that there is still teaching by humiliation and sarcasm, teaching that is variable and unpredictable, and poor supervision and assessment, with little feedback. A recent inquiry into the clinical services at a tertiary hospital in Western Australia noted poor supervision and training and recommended all senior doctors should partake in "train the trainer"-type courses.

Lack of rewards. Material rewards and recognition for the teaching we do are poor.

To cope with these challenges, we as teachers, need knowledge and skills to teach effectively in the clinical setting "on the run".

Solutions

Teachers' goals
Research confirms that the performance of students, as measured by knowledge and skills assessments, is directly related to the prowess of their teachers. Good teachers are recognised not only by their teaching abilities (organisation and clarity of presentation, enthusiasm and stimulation of interest, group interaction skills) but also by their "doctoring" qualities (competence, clinical knowledge, analytic ability, professionalism) and their supervisory skills.

The goals of an effective clinical teacher are:

- to provide a clinician role model: being knowledgeable, competent, caring and professional;
- to be a supervisor: giving direction in patient care when required; providing feedback; involving trainees, junior medical officers and students in clinical care;
- to provide support: mentoring, caring, showing an interest, and providing advice about careers;
- to be a dynamic teacher: planning, motivating, understanding the relevance for learners, and identifying learner needs.

The teacher–learner relationship has an enormous impact on the quality of teaching and learning, with interpersonal variables accounting for half the variance in teaching effectiveness.

The learning cycle
Junior doctors learn while caring for patients. Mistakes may occur and clinical decisions could sometimes be better. As teachers, we need to anticipate mistakes, minimise them, and, when they occur, ensure that a supportive environment allows junior doctors to reflect on their practice and learn from it, rather than feel blamed. A framework for thinking about how students, junior doctors or trainees learn and how we can help them learn — either in a discrete session or

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Take-home message

Effective clinical teachers of students, junior doctors and specialty trainees
- are good clinicians;
- understand basic educational principles and have the skills to apply these in practice.

A particular teaching tip may not suit all circumstances or all people — each of us has our own style. Different learners have different needs, and different circumstances require different actions. Therefore, we need a wide range of skills, together with flexibility in applying them at different times. So …
- evaluate your own teaching;
- try new methods as suggested in this series and elsewhere, and evaluate their effectiveness;
- get feedback from others, and try again.

Evidence suggests we can improve!

Competing interests

None identified.

References


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TEACHING ON THE RUN

Teaching on the run tips 2: educational guides for teaching in a clinical setting

Setting
You are a specialist in a teaching hospital. The unit is busy and you think there is a wealth of clinical material. You can’t seem to get the junior medical officers motivated to learn on the unit. They don’t seem interested in the discussions on the round. You’ve heard about building a good educational environment — but what does this mean?

IN THE CLINICAL SETTING we want to enhance the learning of students, junior doctors and trainees to help them be better doctors, but not increase the time we spend making that happen. Junior doctors are adults who want to learn. If we feel that learning is not progressing as it should, we need to consider whether the style in which we teach and the style in which junior doctors like to learn are matched and whether the clinical setting is conducive to learning.

Adult learning
Adult learning principles are not “evidence based”, but rather, as suggested by Malcolm Knowles, should be regarded as “models of assumption about learning”. If you ask yourself or the junior doctors to think back over what have been the best learning situations, and why, the following ideas are likely to surface:

- **Personal motivation.** Are junior doctors interested and eager to learn (internal motivation) or do they want to learn simply to pass an exam (external motivation)?
- **Meaningful topic.** Is the topic relevant to junior doctors’ current work or future plans? Have you made it clear why it is important?
- **Experience-centred focus.** Is learning linked to the work junior doctors are doing and based on the care they are giving patients?
- **Appropriate level of knowledge.** Is learning pitched at the correct level for junior doctors’ stage of training?
- **Clear goals.** Have you articulated the outcomes for the session/attachment/year so that everyone knows where you are heading?

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- **Active involvement.** Do junior doctors have the opportunity to be actively involved in the learning process, to influence the outcomes and process?
- **Regular feedback.** Do junior doctors know how they are going? Have you told them what they are doing well, as well as what areas could be improved (positive critique)?
- **Time for reflection.** Have you given junior doctors time and encouragement to reflect on the subject and their performance (self-assessment)?

Shifting from thinking about what you want to teach to what junior doctors want to learn (eg, asking what areas they are unclear about) shifts you from a teacher-centred to a learner-centred approach.

**Adults like to have an input into their learning**

Knowing the learners
Learning is about creating knowledge based on integrating new information with old, an active process that challenges the learner’s prior knowledge. As the learner progresses, there is often a shift from being dependent (where the learner needs substantial input and direction) to being interested (where the learner needs some guidance) to being self-directed (where the learner takes personal responsibility for his or her own learning). Our teaching style needs to take into account junior doctors’ prior knowledge and their stage of learning (Box).  

Expecting a struggling junior doctor to define his or her own needs, or presenting a mini-lecture to a mature and enquiring registrar, will demotivate both. Nevertheless, a degree of mismatch can challenge a learner and be a good thing. Shifting teaching styles from authoritarian (telling students what to learn) to delegating (getting them to tell us what they need to know) shifts the workload away from us and makes teaching and learning more fun. On the other hand, we all like to learn in different ways at different times — sometimes a didactic presentation is all we want.

**As teachers, we need to be flexible to suit the learners and the circumstances**

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*Adapted from Grow.
Take-home message
In considering how to enhance learning in the clinical setting, ask yourself the following questions:
- Have I considered how junior doctors like to learn?
- What is my students' motivation? Is the topic meaningful, pitched at the correct level and with clear goals? Is there active involvement, regular feedback, and time for reflection?
- Does my teaching style match my students' learning stage?
- Is the environment supportive of learning?

Educational environment
Not all "moments" in the clinical setting are good teaching moments, and to enhance the moments requires you to consider the following:*
- Are the learners (or you) distracted by other duties, time constraints, tiredness, or hunger?
- Is the location busy, noisy, too public or uncomfortable?
- What is the atmosphere? Do the learners feel comfortable to demonstrate their lack of knowledge and ask questions or are they fearful of being humiliated?
- Do the learners feel as though they belong? Do they believe that their opinion is valued?

- Do the patients know what is expected? Have they agreed to be involved? Is their dignity respected?

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References

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TEACHING can be thought of as a planned learning activity. Clinicians think teaching "on the run" in the clinical setting can't be planned. But given that we know we will be teaching, we know we are going to be busy, and we know the topics that recur, we can plan. With experience from seeing many patients, we build up "teaching scripts" on common topics (such as ventricular tachycardia) related to diagnosis, management, social circumstances and so forth. We can draw on these, in the context of assessing the patient, to guide us in covering the essential points. This can be in a 5-minute grabbed moment, a 30-minute interactive tutorial or a 1-hour lecture, as appropriate.

Peyton and colleagues have described a method for planning any teaching event based on a triad of concepts:
- Set: what you need to think about beforehand;
- Dialogue: what happens during the event; and
- Closure: how you finish off.

Some aspects of Set can be decided during the planning stage, but others occur as you are starting your session. The essentials of Set include being clear about the desired learning outcomes, which should be specific and achievable in the time available. They should be relevant and important for the learner and pitched at the right level. Remember the principles of adult learning discussed in our "Tips 2" article. Consider the environment and whether the seating, the room and the teaching "props" are adequate. Ensure that there is privacy, that the patient is suitable, and that the learners are not tired or distracted by other work. Think about the roles of the patient and learner. Tell learners what teaching method will be used and what is expected of them.

Dialogue is the crucial part of the learning experience and involves interaction between the learner and the teacher. Given that the attention span of an adult is 10–15 minutes, varying your delivery in longer sessions (eg, by including a learner activity or case study in the middle of a tutorial) can significantly increase factual recall in learners. The essentials of Dialogue include delivering the content in a stimulating way to make it engaging. Use eye contact, address people by their names, and ask questions to keep them involved. Questioning also allows you to check understanding.

In the Closure, provide a summary with the take-home message and links to topics for self-directed or future learning (as not everything can be covered in the time available), and make sure you finish on time.

Remember that sometimes, when you or the learners are too busy, it isn't worth trying to teach. Delay teaching for a time when you and they are all able to concentrate, but don't delay it forever.

Stop and think! How could you apply Set, Dialogue and Closure next time you teach?

Reflective teaching
Improvements in your teaching can only occur if you reflect on how each encounter went. You can do this in simple ways.
- Ask yourself, How did that go? What went well? If you did it again tomorrow, what would you change to make it better? Think through how well you did with Set, Dialogue and Closure. Too often we rush on to our next busy task and never do this, then find ourselves doing the same thing year after year.
- Ask the learners for feedback:
  - Verbal. Ask them what they thought went well and what could be improved;
  - Written. Ask them to write down any points that were not clear, then collect and read the comments to find out what they are still confused about. Also ask learners to fill in an evaluation form.
- Review the learners' progress. Next time, do they remember the lessons learnt, and did they perform well in assessments?
- Ask a colleague to observe your teaching and provide feedback in a structured way.

Take-home message
When you next teach "on the run":
- Consider the concepts of Set, Dialogue and Closure in planning teaching sessions;
- During a session, vary your methods to keep learners engaged.
- After a session, make time to reflect on or ask "What went well?" and "What could be improved?"
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References

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Teaching on the run tips 4: teaching with patients

Fiona R Lake and Gerard Ryan

Setting
You usually see your patients and then teach outside their room. You do this because you worry that the junior medical officer or student might come up with something that will upset the patient. But recent reports suggest your concern may be unfounded.

There should be no teaching without the patient for a text, and the best teaching is often that taught by the patient himself.¹

This advice by William Osler, at the beginning of the 20th century, has been continually handed down since then. Osler’s style wouldn’t be acceptable today, with large rounds, and consent rarely obtained from the patient. Now, simulation is being used for teaching, but teaching that involves patients remains invaluable. Teaching with the patient rather than about the patient should be considered vital for students, junior medical officers and registrars to learn the practice of medicine.

Benefits of teaching with the patient
Patients like to be included in the teaching process. Case presentations by junior staff at the bedside significantly increase the time doctors spend with patients, and such patients are more likely to be satisfied with their inpatient stay². They prefer having students present their history in front of them than outside the door.³

Teaching with patients also allows the domains of learning to be integrated through teaching, observation and role modelling.⁴,⁵ These domains include:

• Clinical (knowledge, decisions, skills)
• Professionalism (ethics, teamwork)
• Communication (with patients, families and other staff).⁵

Teaching with the patient incorporates adult learning principles, as it is meaningful, relevant to work, and allows active involvement (see “Tips 2⁻⁶”).

Downsides of teaching with the patient
Patients may be adversely affected by teaching in their presence if their rights are not respected,⁴,⁷ or if the teacher fails to recognise that patients may have conditions not appropriate to be discussed in front of a group.⁷

The patient’s perception as to the competence of the junior medical officer or registrar may be harmed by negative feedback that senior clinicians give in front of the patient. Remember that the doctors in training are the ones the patient sees on a daily basis.

In some instances, the patient may be upset and confused by the discussion.²,⁷

Patients want to be asked for consent beforehand and to be introduced to people. They appreciate an approachable tutor, clear explanations, the opportunity to ask questions, and the feeling that their feedback is valuable.²,⁴

How to teach with patients in the clinical setting
Plan your teaching using the “Set, Dialogue and Closure” framework (see “Tips 3⁻⁸”). Important factors in teaching with patients include choosing the correct patient, obtaining consent, and explaining the patient’s role.

Structure your dialogue using methods described such as the “One-minute teacher” and SNAPPS (see below). These have been shown to significantly increase learners’ motivation, their involvement in decision-making, evaluation of their knowledge, and provision of feedback.⁹,¹⁰

Aids to teaching with patients
The “one-minute teacher”
The “one-minute teacher” uses five steps to direct the learner’s focus to a key aspect of a case, and the clinician teaches around that issue. Feedback is explicitly given (a step we often omit when busy). The clinician:

• Asks the learner to outline his or her diagnosis or management plan;
• Questions the learner for reasoning;
• Teaches general rules (take-home points);
• Provides feedback on what was done well; and
• Corrects errors and suggests what could be improved.

SNAPPS
In the “SNAPPS” approach,¹⁰ the learner:

• Summarises the case;
• Narrows the differential diagnosis;
• Analyses the differential diagnosis;
• Probes (asks the teacher about areas not understood);
• Plans management; and
• Selects an issue for self-directed learning.

SNAPPS makes learners do most of the work, through justifying their thinking and exploring what they don’t know (rather than questioning them on what they do know!). A pilot study of SNAPPS showed that learners were more actively involved and readily came up with questions, whereas in more traditional interactions they rarely did. The teachers were relieved of having to think up questions and, instead, could respond to the learner.¹⁰

Before you try out the “one-minute teacher” or SNAPPS, orient your learners so they know what to do and expect.

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Take-home message

When teaching with patients, remember that:
- Patients like being involved in teaching sessions (as long as their rights and wishes are respected).
- Teaching with patients incorporates adult learning principles, in that it is meaningful, relevant to work, and allows active involvement.
- Good communication with patients is important: ask for their consent, ensure understanding, and ask for questions and feedback.
- Teaching methods like the “one-minute teacher” or SNAPPS can make teaching and learning more efficient.

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References


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Teaching on the run tips 5: teaching a skill

Fiona R Lake and Jeffrey M Hamdorf

Setting

You are a registrar with a new intern who has had little experience with arterial puncture for blood gas analysis. You show her how to do one, then suggest she’ll get practice when on call that night. She could even show the medical student how to do them, so he can help out.

Junior doctors need to have the skills to competently perform a wide range of procedures, and inability to do so is an important stressor for a new doctor. Skills may range from carrying out practical tasks (intravenous cannulation), to examining patients (cranial nerve examination), to communicating well (breaking bad news). Teachers rated practical skills teaching 11th in a list of educational themes they felt they needed instruction on, whereas junior medical officers ranked it 5th, suggesting that we don’t teach as well as we think we do.

How are skills learnt?

Simulated patients, videos, manikins, computers and virtual reality technology are increasingly being used to ensure that trainees learn skills in a safe environment, receive feedback, and reach a certain level of competence before they use the skills on patients.

The first trainee year is critical for learning many of these skills. Skills centres are playing an increasing role these days, but the challenge is to make sure that laboratory-learnt skills are safely implemented in the workplace. Abundant opportunities arise during work that learners are eager to be involved with. As practising clinicians, part of our teaching role is to decide whether junior staff can safely carry out procedures on patients under our care.

Skills require more than performing tasks. They include:
- Knowledge (indications, contraindications, complications and their prevention);
- Skill (preparation, technique, dexterity); and
- Communication (consent, comfort and dignity of patients; realising when to get help).

How are skills learned on the job? The “see one, do one, teach one” approach is limited, often failing to teach the skill properly or to check whether the trainee can perform the skill.

A four-step approach to teaching skills

One way of teaching skills, suggested by Rodney Peyton of the Royal College of Surgeons, uses four steps:
- **Demonstration.** Trainer demonstrates at normal speed, without commentary.
- **Deconstruction.** Trainer demonstrates while describing steps.
- **Comprehension.** Trainer demonstrates while learner describes steps.
- **Performance.** Learner demonstrates while learner describes steps.

This four-step approach ensures that the teacher breaks the process into manageable steps, asks the learner to vocalise the steps, and provides repetition to reinforce the learning and correct mistakes.

Session structure

In applying Peyton’s model, consider the structure of the session, as described in “Tips 3.”
- **Set.** Have you made assumptions about the learners’ basic knowledge (“You know that, don’t you?”). Consider their orientation: are they sitting beside you or opposite (mirror image)? Are they left- or right-handed? Can they see?
- **Dialogue.** Have you broken the procedure into clear steps? Is the task too large to learn at once? Are you giving positive feedback (what they did well, what they could improve? Have you corrected mistakes? Avoid talking too much — either giving too much detail (trying to cover too much in one sitting) or chatting about something else (worried they are bored).
- **Closure.** Can they do it? Do you need to explain how the procedure may differ under different circumstances?

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TEACHING ON THE RUN

Take-home message
- Teaching a skill involves knowledge (indications, contraindications, complications and prevention); skill (dexterity, performance); and communication (consent, dignity, realising when to get help).
- When teaching a skill, consider using or adapting a four-step approach.
- Consider the structure of your teaching session: set (prior learning, orientation), dialogue (manageable steps), and closure (application to other settings).

Application in practice
Rarely are four patients lined up to allow you to take someone through the four steps one after the other. However, each step adds an important component. How can the model be adapted to reality?
- Step 1 should be demonstrated with a real patient. It is important to allow the learner to identify with a competent performance.
- Steps 2 and 3 can be done theoretically or with the equipment, away from the patient.
- Steps 1 and 2 can be repeated in a larger group (eg, with a video), then steps 3 and 4 can be done in small groups.
- Steps should be done in more than one sitting.

Consider the way you currently teach a skill and think about what the four-step approach may add

Practice makes perfect
By following the four-step approach, the trainee has shifted from being "consciously incompetent" (realising they can’t do it) to being "consciously competent" (being able to do it with great thought) (Box). Only with repeated practice will he or she be able to perform satisfactorily in a variety of situations.

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References

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Teaching on the run tips 6: determining competence

Fiona R Lake and Jeffrey M Hamdorf

Setting

On the round you review a patient who needs long-term intravenous antibiotics. Your registrar says she will put in a “PIC” (percutaneous intravenous catheter) later that day. As you wander off, you wonder how good she is at putting in a PIC line. You wonder who taught her, as you know you didn’t and, indeed, it is many years since you have done one.

Doctors in training need to practise to improve, and, whether we like it or not, practice often involves patients. While learning, it is possible that errors will occur. It is our responsibility as senior doctors to ensure that our trainees provide safe and good care and receive support in the learning environment. At a certain point, we also need to decide whether they are good enough to work alone. This involves assessing knowledge, skills, communication skills and professional behaviour. Often we rely on our “gut feeling” about whether they are capable. Is this sufficient? The focus of this teaching tips article is on how to decide when trainees are capable of carrying out procedural skills on patients.

Skills training

It is important to consider what skills you expect your junior doctor or trainee to perform either independently or under your observation, to let them know and to give them training when needed. As many hospitals or training programs now have structured training for common simple skills (eg, suturing) and extensive training and testing of competency for infrequently performed but life-saving skills (eg, intubation), it is initially important to find out what training junior doctors have had in such skills.

Framework for clinical assessment

A basic framework for determining clinical competence is shown in Box 1. The four stages move from “knowing” (awareness) up to “doing” (performance). For clinicians who assess junior staff, competence can be viewed as what these staff do in controlled situations, whereas performance is what they actually do when unsupervised. As described in “Tips 5-6”, trainees should not only demonstrate technical competence, but also be able to articulate the indications, contraindications and risks of a procedure, and be able to communicate these details to patients and know when to seek assistance. A trainee may be competent to insert a PIC line in a simulated setting, but, to perform well, he or she needs to be able to cope with a variety of situations (eg, patients who are obese, thin, well, unwell, agitated, or receiving anticoagulants) and know when to call for help.

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As clinicians, we are usually called upon to determine competence (can they do it safely in a supervised environment?) or performance (are they safe to do it alone?) while they work with us. How can we do this?

Methods of assessment

Methods that can be used to assess skills include objective, structured clinical examinations, simulated and virtual settings, and “on-the-job” assessment. Each medical school, medical board, hospital and college uses its own range of tools and uses different methods for different levels (Box 1). Being competent doesn’t guarantee good performance. Knowing that trainees passed their medical school course or progressed from internship doesn’t mean they can safely care for patients without supervision.

A review of the reliability or validity of these methods of assessment is beyond the scope of this article, but no single method can provide all the data required for deciding something as complex as whether a trainee is capable of delivering professional services.

Tips for assessing competence and performance in the clinical setting

- Think about assessable moments. Structure work and teaching so you can observe behaviour.
- Gather information from multiple sources. Observe often and ask others (colleagues, registrars, nurses, patients).
- Ask trainees how they think they are going.
TEACHING ON THE RUN

Take-home message
In determining whether a trainee is safe to carry out procedures on your patient:
• Know what you would expect at each level of training.
• Decide whether you are determining competence (can the trainee do it safely in a supervised environment?) or performance (is he or she safe to do it alone?).
• In the clinical setting, observe often and ask others.
• Provide constructive feedback and further training when needed.

• Tell trainees how they performed, offering timely and constructive feedback and supporting them when things don’t go well.
• Use a simple rating scale (Box 2) to guide your assessment as to whether further training is required.
• Get trainees to describe and demonstrate. This will allow you to determine their weaknesses (Box 2).

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References

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Teaching on the run tips 7: effective use of questions

Fiona R Lake, Alistair W Vickery and Gerard Ryan

Setting
When teaching in the clinical setting, you often quiz students, the junior medical officer and registrar on patients they present. Sometimes it works well; sometimes it makes the trainees clam up, sometimes you are not sure if it is hitting the mark and wonder what they have learned. You wonder whether there are ways to make questioning more effective.

Your students and trainees learn better when they are involved in the teaching episode, and an effective way to involve them is to ask questions. By using questions you are able to:
• stimulate and engage learners;
• find out their learning needs and knowledge level, so that what you teach them is relevant and pitched at an appropriate level;
• promote higher-order thinking (ie, clinical reasoning);
• monitor how learners are progressing; and
• encourage reflection.

Types of questions
When using questions to test knowledge, we should recognise the concept of a hierarchy of knowledge, from low level (facts) to high level (synthesis and analysis) (Box). The kind of questions used — whether “closed” (ie, requiring a single correct answer) or “open” (requiring the learner to combine pieces of information and formulate an answer) — pitches the discussion at different levels. Questions used should be appropriate to the learner's level of knowledge. However, we should be attempting to promote thinking in all, from the medical student to the registrar.

Promoting higher-order thinking and reasoning
When teaching, clinicians often ask questions aimed at elucidating low level knowledge. In 1933, John Dewey, one of the most influential thinkers on education in the 20th century, proposed that thinking and problem-solving occurred not when answering a question posed by a teacher, but when attempting to solve a problem important to the learner. We learn more from what we “don't know” than what we “do know”. So shifting from asking “What is the cause of …?” to “What are you uncertain about?” moves away from simple factual recall and promotes thinking. A strategy to introduce this approach is SNAPPS, as described in “Tips 4”, in which the learner probes the teacher about the learner's areas of uncertainty.

Other types of questions
When questioning a student, involve others by deflecting back to the group to promote thinking (“What do the rest of you think?”). Use questions to clarify points (“Can you explain that again?”) and encourage students to elaborate (“Can you expand on that?”).

Good habits when questioning
• Use the learner's name.
• Use the “pose, pause, pounce” technique — pose a question to the group, pause long enough for all the group to consider the answer, then direct it to someone at random.
• Spread the questions around to involve everyone — don't let a few dominate. Start at one end, then the other, and randomly move to the middle. It keeps learners engaged.
• Remember that questioning can be intimidating. Provide a supportive atmosphere by being friendly, by encouraging questions and making it clear that any response is acceptable (nothing is “too stupid”).
• When you ask a question, don't get embarrassed by the silence that follows and rush to rephrase it or answer it yourself. Just pause, and they will get embarrassed before you do.
• Expect the unexpected. Brief the patient and learners first, because you don't want to upset patients with an unexpected answer (“cancer”) or embarrass learners if they don't know.
• Remember the principle espoused by David Pencheon, a UK public health doctor: the three most important words in education are “I don't know”, whether they come from the teacher or the learner.
Coping with different levels of learners
In the clinical setting, groups often include students, junior doctors and registrars. The challenge is to involve them all, but teach each at his or her appropriate level. Set the ground rules first, so everyone knows what is expected of them. The most junior learners may be asked to focus on interpreting the history or clinical signs, the most senior on applying evidence-based therapy. Avoid asking a more junior person a question their senior couldn’t answer. Deflect questions from junior staff onto seniors. Get the registrar to explain to the students his or her reasoning.

Acknowledgements
We would like to thank the teachers and participants in Teaching on the Run courses for their input, and the Medical Training Review Panel, Australian Department of Health and Ageing, for funding support.

Competing interests
None identified.

References

Take-home message
When using questions:
• Be aware that the type of question asked (“open” or “closed”) pitches it at certain levels.
• Promote thinking and problem-solving by focusing on what learners don’t know (areas of uncertainty) rather than what they do know (factual recall).
• Use names, and then “pose, pause, pounce”.
• Clarify, elaborate and deflect.
• Establish a supportive environment in which everyone can say “I don’t know”, even the teacher.
• Remember that these principles also apply to other settings such as tutorials.10


(Received 4 Nov 2004, accepted 15 Dec 2004)
Teaching on the run tips 8: assessment and appraisal

Fiona R Lake and Gerard Ryan

Setting

The hospital and the colleges keep sending forms for you to complete about your junior staff. They are variously titled “Assessment”, “Appraisal” or “Evaluation”, but they all look the same. You are confused by the terms and the purpose of the forms and are unsure about how to accurately complete them.

Doctors find the terms “assessment”, “appraisal” and “evaluation” difficult and confusing. This is understandable given that there are no agreed definitions and the terms are commonly used interchangeably. As supervisors, we are asked to make judgements on the suitability of junior staff for medical registration, entry into vocational training programs or receiving the fellowship of a clinical college. In short, we are asked to assess junior staff. Clinicians also have roles as teachers and supervisors/mentors.1 As junior doctors both learn and are assessed on the job, they require feedback about their progress in learning outcomes and about their strengths and weaknesses, so that they can plan how to improve. All these processes are integrally linked, as shown by the learning cycle (“Tips 1”).1 Poor understanding of their role in assessing junior doctors’ performance may cause problems for some doctors. Furthermore, many of us have never been appraised or received feedback on how we are doing, yet we are expected to do it for our junior staff.

Definitions

The following are some working definitions to help clinicians understand the roles and processes:2-6

Assessment: a judgement about how someone’s performance meets defined criteria. The standards are usually set by external bodies (eg, medical boards or colleges), and the result of the assessment will affect progress of trainees in their career. It is also known as “summative” assessment.

This means your recommendation to the hospital, medical board or college allows it to decide, “Yes, the trainee can progress to the next stage” or “No, the trainee has not satisfied the criteria”.

Formative” assessment mimics the summative, but the purpose is to “inform” the learner of his or her progress before the summative assessment. Along with the quality of your observations, essential ingredients for accurate assessment are the explicit learning outcomes, which must be clearly stated. The assessment forms used should list the learning outcomes and provide a scale to help assessment.

Appraisal: a process that is primarily educational and developmental, in that it reviews current performance and develops plans to address the learning needs of an individual. It is jointly developed by the trainer and trainee and should be seen as confidential and non-threatening.

This involves you and the trainee having a discussion about your respective impressions of how the training is going, giving your advice, and jointly developing a plan on how to address any problems.

Although similar to a formative assessment, appraisal is usually much broader, including not only criteria that might be listed on the assessment form, but other things such as personal progress, career interests, and how the trainee is coping with the workload, study and family life. Appraisal is a key role of a good supervisor. Giving feedback on how junior doctors are doing and helping them to address concerns increase the likelihood that they will pass their assessment and feel fulfilled in professional life.

Evaluation: the trainee’s judgement of the trainer (clinician) or program (hospital, unit).

This gives the trainee the opportunity to tell you how good the training program was, enabling you to change and improve your practice.

If you really want to know how good you have been as a supervisor, evaluation should be collected, preferably anonymously, at a time that is separate from when you are giving feedback. A clinician who asks, “Why don’t you tell me how you’ve found the training program and then I’ll tell you how you’ve performed” won’t elicit much meaningful information.

Conflicts2

As clinicians, we appraise and assess the same trainee. The information on which both are based, gathered while we work with the trainee, is the same. It might not be in the candidate’s best interests to reveal in an assessment confidential information gathered during an appraisal. On the other hand, a trainee needs to be honest, open and capable of self-assessment in order to benefit from appraisal. Most of the time there is little conflict between the processes of appraisal and assessment, as our trainees are keen to improve, but occasionally a conflict may arise. For instance, the clinician may be torn between the wish to support and the need to fail a poorly performing trainee, or may be unable to develop a good supervising relationship, which in turn may prejudice the
Take-home message

- Assessment is making a judgement about someone's performance, using defined criteria.
- Appraisal is an educational process jointly carried out by the trainer and trainee to review progress and plan educational needs.
- Evaluation is the learner's judgement of the trainer (clinician) or program (hospital, unit).
- If conflicts between the clinician's roles as an assessor and appraiser arise, external help should be sought.

Assessment. In such circumstances, we should recognise the conflict and call for external help from, for example, a director of clinical training.

Key features of good in-training assessment and appraisal are:

- Clear outcomes and criteria
- Appropriate timing
- Accurate evidence
- Learner input
- Constructive, regular feedback

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Competing interests

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References


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Teaching on the run tips 9: in-training assessment

Fiona R Lake

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,3 mini-short cases4 or portfolios4,5 (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 assessments".3,5,6 Our judgments are based on observing their performance (how they are "doing" the job) — it, the highest level of Miller's four-level clinical assessment pyramid4,5 (see "Tips 6"!)

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,3,5 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.

Challenges with in-training assessment4,8

• 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, extraversion, 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?3,10

• 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.
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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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Competing interests

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References


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Teaching on the run tips 10: giving feedback

Alistair W Vickery and Fiona R Lake

Setting

Your intern presents three cases on the ward round. You are nearing the middle of the term and you have time before the afternoon clinic to give some informal feedback as to how she went on those cases and how the term is progressing.

Giving trainees feedback means letting them know, in a timely and ongoing way, how they are performing. Providing feedback is an essential part of training junior doctors.1-4 Most trainees welcome the opportunity to discuss their strengths and areas for improvement. Feedback should encourage self-reflection, raise self-awareness and help students plan for future learning and practice. Medical students and junior medical officers report that feedback doesn’t occur frequently enough and that it is not always conveyed effectively.5 In contrast, teachers feel they give more feedback than learners claim to receive.6 Perhaps we can do better. The Confederation of Postgraduate Medical Education Councils recommended in 2001 that effective feedback should be given to students and junior doctors as a strategy for preventing distress.7

Feedback may be formal or informal. Formal feedback is planned as part of appraisal and assessment1,4 and occurs episodically (eg, at the middle and end of a rotation). It may cover specific areas or outcomes as set down by the hospital or a clinical college. Informal feedback should be given on a daily basis in relation to specific events (eg, managing a case or doing a procedure). Indeed, daily feedback should be part of the culture of our hospitals and other sites of training.

Ensuring good feedback requires:1-4
- Adequate time;
- Clear goals and outcomes — so you know what you are appraising or assessing;
- Direct observation of learners — so you know how well they are doing; and
- Skills in giving positive and negative feedback — so you are an effective facilitator of junior doctors’ development.

Positive critique8

Positive critique, in which the trainee is asked to speak first, is a powerful framework for giving feedback (Box). This approach, while not avoiding negative feedback, emphasises the positive and encourages self-reflection. Often the positive critique approach is easier on the supervisor, as the trainee may bring up areas of concern first, so you can agree rather than break the bad news! A mismatch in trainer/trainee understanding revealed by feedback raises flags as to trainees’ insights.

Principles of the positive critique3,7

As a supervisor, you should:
- ask the trainee what went well;
- list the tasks you thought the trainee did well;
- ask the trainee what could be improved; and
- add any other things you think could be improved.

Best practice

As outlined in “Tips 8”,4 when giving feedback, make sure you cover all important areas of professional competence (knowledge, skills, communication, attitudes) and collect good data (from multiple people on multiple occasions) on which to base your feedback. Feedback should not skim across the surface task. Good feedback should:

- Be timely. Give feedback soon after an event and as regularly as possible (preferably daily or weekly). Waiting till the end of a rotation is too late. Don’t give feedback at times when you or the trainee are tired or emotionally charged.
- Be specific. Trainees want the specifics, rather than a global “overall, you are doing fine”.
- Be constructive. Help provide solutions for areas of weakness. The positive critique, which looks at “what can be improved” rather than “what is wrong”, encourages looking for solutions.
- Be in an appropriate setting. Positive feedback is effective when highlighted in the presence of peers or patients. Constructive criticism should be, given in private — an office or some neutral territory where you are undisturbed is ideal. Phones should be off the hook, mobiles and pagers turned off.
- Allow the trainee input. Trainees should be given the chance to comment on the fairness of the feedback and to provide explanations.
- Involve attentive listening.
- Focus on the positive.
  - Avoid jokes, hyperbole or personal remarks (concentrate on the act or behaviour, not the person).
  - Try not to dampen positive feedback by qualifying it with a negative statement (“I was very happy with your presentation, Sharon, BUT …”,”Overall, James, we are pleased with your performance, HOWEVER …”).

Impact of feedback

Using regular feedback to encourage, enthuse and correct learning8 improves outcomes and helps to define goals. A survey of junior doctors on interactions with their supervisors showed that when feedback (especially when given in a positive fashion) was an integral part of the solution it was more likely to be associated with
a positive view of medicine as a career and junior doctors having confidence in themselves as doctors. And remember, it is not just poorly performing doctors who want feedback — good doctors want to know how to be even better.

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Competing interests
None identified.
TEACHING ON THE RUN

Teaching on the run tips 11: the junior doctor in difficulty

Fiona R Lake and Gerard Ryan

Setting

Your junior medical officer (JMO) has been with you for 5 of his 10 weeks and you are not happy with how things are going. He is disorganised on ward rounds, makes few chart notes and often doesn’t have a grasp of patients’ problems, leaving things mostly to the registrar. This is his fourth term and he should be performing better. You think it’s time for a chat.

Working as a junior doctor is stressful — 25% of interns show signs of “burnout” and 25% are mildly depressed.14 Senior doctors, as their teachers and supervisors, are in an ideal position to care for JMOs.5 While a small proportion (3%–7%) of JMOs in training programs are “difficult” or “problem” doctors who require the intervention of someone in authority,16 a higher proportion of JMOs are simply unable to cope with the stress of the job and exhibit signs of being “in difficulty”, “stressed” or “distressed”.1246

Helping the “JMO in difficulty” has important flow-on effects, such as optimising patient safety and care, reducing self-harm of doctors and reducing the number of doctors who drop out of medicine.2 Despite these benefits, consultants (and registrars) often avoid addressing the problems because they:
• Are embarrassed, lack the skills, and fear it may expose their own inadequacies;
• Don’t like upsetting people;
• Believe it will only make matters worse;
• Fear reprisals through legal action against their judgement; and/or
• Fear they have no time to deal with the problem because they are already overstretched.

However, it is incumbent on senior clinical staff to play a major role in managing problems and preventing poor outcomes. Indeed, it is part of their obligation to the profession.

A framework for approaching a JMO who you think may have a problem is to ask yourself the following questions:
• Is there a problem and, if so, what is it?
• What are the underlying causes?
• What is the best way to manage the problem, and what documentation is needed?

Is there a problem and, if so, what is it?

Most junior doctors in difficulty are identified either through direct observation (82%), such as poor presentations in the clinical setting, or critical incidents (59%), such as inappropriate prescribing or failure to organise investigations.18 The most important first step is to be sure that there really is a problem. Observe and gather information confidentially from all relevant sources: previous supervisors, the Director of Clinical Training, and at some stage, the trainee. Doctors who have significant problems are usually identified through what appears to be insufficient knowledge (48%), poor clinical judgement (44%), inefficient use of time (44%), poor communication (39%) and/or unethical behaviour (15%).18 It is important to recognise that there may be self-denial and that stressed doctors who are performing adequately may not admit to problems unless asked in a supportive environment.

What are the underlying causes?

When someone is performing poorly, contributing factors (and therefore solutions) are usually multiple (Box). It may be difficult to be sure of the cause(s). As it is essential to ensure the JMO is treated fairly and confidentially, particularly if sharing information may have an impact on assessment, the ideal time to deal with the problem is while the JMO is working with you.

Ask yourself, Am I supporting my trainee?

Have I ever given feedback? How is the team working?

Factors that may contribute to poor performance in JMOs12579

Personal factors*
• Stress (eg, relating to career concerns, poor self-esteem, relationship or financial problems) is frequent.
• Medical/psychiatric factors. About 25% of interns are mildly depressed.
• Substance abuse. In one study, 12.6% of JMOs were misusing alcohol, based on the CAGE1 questions, but consultants only suspected it in 1%.
• Cultural differences. Doctors from a different culture are at high risk of having difficulties.
• Poor communication skills.
• Lack of clinical knowledge (this is relatively uncommon).

Supervisor or system factors
• Receiving no feedback or support, or being given responsibilities beyond their level of competence.
• Interpersonal problems (eg, in dealing with the registrar, in breaking bad news to patients).
• Overwork (hours, intensity, menial tasks, conflicting demands).
• Exposure to patients with serious illness and death, often for the first time — especially patients of their own age.

* Remember the “Bs” (blues, birds/blokes, banks, babies, booze, bilingual background), T CAGE = Cutting down, Annoyed by criticism, Guilty about drinking, Eye-opener drinks.19

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Take-home message
For the junior medical officer (JMO) in difficulty:
• Define early whether there is a problem and the nature of the problem.
• Consider underlying causes — personal factors (the "Bs") or institutional (supervisor or system) factors.
• When having a chat, make it confidential, let the JMO speak first, and agree on a plan.
• Provide frequent follow-up and feedback.

* Blues, birds/blokes, banks, babies, boozes, bilingual background.

What is the best way to manage the problem, and what documentation is needed?
The best way to help doctors in difficulty depends on the underlying problem. Management may range from support, change of attachment, or time off, to referral to a general practitioner or psychiatrist. It is important to separate the roles of "therapist" and "supervisor" and ensure that appropriate referral occurs. For major problems, the Director of Clinical Training should provide supervisors with support. Early intervention, involving information gathering and discussion with the JMO, is essential. Documentation may be necessary, even if it remains confidential and may only be used if called upon later.

The "quiet chat" — discussing the problem with the JMO
The critical intervention of having a private discussion with the JMO (see “Tips 10”*) requires:
• Setting aside time in a confidential setting;
• Getting the JMO to speak first (positive critique);
• Defining the issues involved (are they important, measurable, reproducible?);
• Determining the remediable cause(s);
• Agreeing on an action plan; and

• Monitoring outcomes and following up with frequent feedback.

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Competing Interests
None identified.

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6 The student and the junior doctor in distress — "our duty of care". Proceedings of a conference of the Confederation of Postgraduate Medical Education Councils; 2001 Jul 19-20, Adelaide, Australia.
8 Yao DC, Wright SM. National survey of internal medicine residency program directors regarding problem residents. JAMA 2000; 284: 1099-1104.

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6 The student and the junior doctor in distress — "our duty of care". Proceedings of a conference of the Confederation of Postgraduate Medical Education Councils; 2001 Jul 19-20, Adelaide, Australia.
8 Yao DC, Wright SM. National survey of internal medicine residency program directors regarding problem residents. JAMA 2000; 284: 1099-1104.

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Setting
The new junior medical officer is arriving next week. You have just been to a workshop about planning for JMO learning during clinical attachments and feel enthused about applying what you learned to her 3-month attachment with you. This also means you will be well prepared for the accreditation visit.

A term working in a clinical unit, whether in the community or in a hospital, is a great learning opportunity for junior medical officers (JMOs). Increasing the amount of teaching in the clinical setting, improving teaching methods and providing feedback can improve a JMO’s experience. Previous “teaching on the run” tips have focused on single teaching episodes, but it is also important to have an overall plan for what should be achieved during the attachment.

Planning learning during a clinical attachment (Box)
Outcomes
What will the JMO learn? Define what you want him or her to know or be able to do by the end of the attachment. Writing outcomes isn’t about narrowing down learning and ignoring unexpected topics that may arise, but rather about organizing learning. Outcomes need to be:

- Specific. Each outcome should be clearly defined, important and relevant;
- Achievable. Outcomes should involve areas JMOs are likely to be exposed to, at a level appropriate for their training. Avoid listing too many outcomes;
- Measurable. By observing or testing, you should be able to determine at the end of term whether the JMO has achieved specific outcomes.

Outcomes should cover all areas important to being a doctor, such as knowledge, skills, communication and professional behaviour. Ensure that trainees have input into topics, and include any areas of particular interest or areas in which they are deficient.

Take-home message
When planning learning for a clinical attachment:

- Use a framework that defines outcomes; methods of teaching and learning; appraisal (with feedback) and assessment.
- Ensure the desired outcomes are specific, achievable and measurable.
- Use all available resources and settings.
- Set aside a formal time for teaching.

Methods
How will the JMO learn? Learning on the job means that teachers should be teaching and giving feedback on a continual basis. One of the biggest complaints from JMOs is the lack of formal teaching, so some time should be set aside to provide this on a regular basis. Use a variety of methods and encourage input from JMOs themselves. Ensure your program complements rather than duplicates hospital tutorials.

Appraisal and assessment
Remember to give feedback to JMOs at the time they complete a task, such as after a case presentation.

Assessment may be a formal requirement of your hospital or the medical colleges. Remember the criteria on which JMOs are being assessed and find “assessable moments” to observe their performance.

Much of this may be happening now — but is it organised?

Strategies to make it work
Gordon et al advise that a strategic approach is needed to implement a learning plan in the clinical environment. (“Strategy” comes from the Greek strategos — an approach to battle!)

Orientation
Meet the JMO within the first few days and inform him or her of the learning plan during the attachment. Also issue written material. A good orientation covers:

- The JMOs clinical duties;
- The plan for appraisal and assessment during the attachment;
- Administrative information (rosters, key contact people, meetings);
- A summary of how you expect the JMO to contribute to the teaching program; and
- An outline of how you and other staff will help the JMO with service work and learning.

Seizing the moment
Your regular contact with the JMO and opportunities for teaching usually revolve around cases in the practice, clinics or ward. Relate these cases to training outcomes, using cases notes, discharge...
**TEACHING ON THE RUN**

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<thead>
<tr>
<th>OUTCOMES</th>
<th>METHODS</th>
<th>APPRAISAL AND ASSESSMENT</th>
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<tbody>
<tr>
<td><strong>Clinical (knowledge)</strong></td>
<td>Ward work</td>
<td>Data: inpatient presentations, outpatient cases</td>
</tr>
<tr>
<td>Causes and investigation of common respiratory presentations (shortness of breath, chest pain, cough with or without sputum, haemoptysis)</td>
<td>Departmental tutorials (JMO-led, case-based)</td>
<td>Feedback:</td>
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<tr>
<td></td>
<td>Check JMO hospital tutorial program for relevant topics (eg, respiratory failure and pulmonary embolism)</td>
<td>Regular (with each case)</td>
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<tr>
<td><strong>Clinical (practical skill)</strong></td>
<td>Demonstrations by asthma nurse educator</td>
<td>Mid-term appraisal</td>
</tr>
<tr>
<td>Aerosol therapy (techniques, educating patients on use)</td>
<td>Hospital orientation session</td>
<td>End-of-term assessment</td>
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<td>Departmental manual</td>
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<td><strong>Communication (with patients or colleagues)</strong></td>
<td>Departmental orientation</td>
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<td>Ability to write concise and accurate discharge summaries</td>
<td>Departmental orientation</td>
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<tr>
<td><strong>Professional</strong></td>
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<td>Attendance to duties, punctuality, time management</td>
<td>Internet-based tutorials, texts and guides (eg, <a href="http://www.woolcock.org.au/teaching/teaching3.htm">www.woolcock.org.au/teaching/teaching3.htm</a>)</td>
<td>Data: observation and feedback from registrar</td>
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<td></td>
<td>Session with respiratory technician measuring own lung function and performing spirometry</td>
<td>Feedback: mid-term appraisal (more often if required)</td>
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<tr>
<td>Interpretation of basic lung function test reports</td>
<td>Reporting lung function tests on current inpatients</td>
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<td></td>
<td>Participation in weekly reporting sessions with registrar when possible</td>
<td>Consultant feedback on inpatient reports</td>
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<tr>
<td><strong>Individual learning needs</strong></td>
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<td>Technician feedback on spirometry measurements</td>
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*JMO = junior medical officer.*

Summaries, letters and drug charts as the basis for discussion. Debriefing after recent challenges can be a powerful learning exercise. Remember to give feedback at these times and gather information for the end-of-term assessment.

**Sharing the work**

Recruit others with expertise relevant to the learning outcomes (eg, nurse educators, laboratory staff, radiologists). Involve the JMO in any program by allocating topics for him or her to present. There is an increasing amount of relevant Internet-based material that you could use.

Evaluate the teaching at the end of the term. Ask JMOs what was useful for their learning and what could be improved.

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Teaching on the run tips 13: being a good supervisor — preventing problems

Fiona R Lake and Gerard Ryan

Setting
You bump into a junior medical officer you know. She looks tired and harassed. She has been working long hours and spent much of the previous evening sorting out a sick patient without getting help from anyone. She felt she had made some mistakes. You wonder whether the JMO in your unit has ever been in the same situation.

Work in medicine has many stressors.1,2 Failing to cope well with these stressors can lead to emotional exhaustion and burnout.1,2 Junior medical officers (JMOs) who can’t cope with stress make significantly more errors.3 This leads to increased costs as a result of JMO absenteeism and litigation by patients against hospitals because of suboptimal care.3,5 As outlined in “Tips 11”, the causes of poor performance may lie with the person, the system, or the supervisor.5 Supervision is often perceived to be inadequate by JMOs and lack of supervisors one of their greatest stressors.7

The concept of supervision is more global than clinicians providing episodes of help with patient care, teaching at ward rounds or performing at outpatient clinics or in operating rooms.8 It means planning to ensure that JMOs provide high-quality patient care all the time, that the term in a clinical service provides a good professional experience for them, and that potential problems are anticipated and prevented.9-10

What are the qualities of a good supervisor?2,8-10
A good supervisor:
• Ensures that he or she and the JMO are clear about their respective roles and responsibilities for the term, particularly with regard to patient care (see below).
• Informs the JMO how supervision will occur — that time will be set aside to observe the JMO’s performance.
• Provides feedback in a positive way. Unless weaknesses are tackled in a clear, unambiguous way, JMOs won’t get the message.
• Makes time to get to know the JMO as a person, as someone who has a life outside medicine as well. It can be interesting and impressive to learn what JMOs can do, along with letting them learn something of your own life.
• Recognises that there are power factors (eg, age, gender, sexuality, race) that may influence the relationship. If this causes a problem that can’t be satisfactorily resolved, a different supervisor should be found for the JMO.

Another way of considering the qualities of a good supervisor is to examine the factors that are associated with a happy JMO (Box).

Supervising patient care8-11
When it comes to supervising patient care, you should:
• Be available. Check that the JMO knows how to contact you at all times.
• Be approachable to discuss problems. Don’t give JMOs a hard time — be empathetic, respectful, supportive, focused and practical.
• Be aware of the type of environment in which the JMO is working. Supervision is harder when JMOs work in circumstances in which they are isolated in patient care (eg, an outpatient or community setting) compared with the ward setting, where there may be a range of people who can offer advice. You may need to take more time to ensure care is appropriate.
• Directly observe the JMO carrying out patient care. For example, allow the JMO to lead the interaction with patients on rounds, set aside one clinic every 3 months in which you sit in with the JMO, or watch the JMO perform procedures. Those who are more often observed and observe their seniors gain skills more rapidly.
• Think where mistakes often occur in your unit and watch out for these (eg, check medication charts for prescribing errors, which are common).
• Handle any errors made with a no-blame approach, exploring all contributing factors and discussing how to prevent a similar problem next time. Turn the experience into a good learning opportunity.
• Recognise that errors often occur out of hours. Ensure that your unit has out-of-hours cover and that communication is good (not “Ring me when there is a problem” but “Feel free to ring me at any time”).

Ask your JMO, “Have you ever felt out of your depth and unable to get help?”

Impact of good supervision
Evidence shows that following these principles of good supervision has a positive impact on patient outcomes6,12 and JMO learning.2 When there is more supervision, patient satisfaction is higher, there are less patient-reported problems with care, and lower death rates occur in areas such as surgery and anaesthesia. The effect is greater when the trainee is less experienced and the cases more complex.8 Good supervision reduces JMO stress and increases learning.2 JMOs don’t mind working long hours as long as they receive good support.9

Mentoring
Many of us have had mentors at various stages of our lives. Mentoring overlaps with supervision, but has some specific differ-

What makes a happy junior medical officer?2,4,5,7,8
• Being supported, especially out of hours
• Being given responsibility for patient care
• Good teamwork
• Receiving feedback
• Having a supportive learning environment
• Being stimulated to learn
• Having a supervisor take a personal interest in him or her
**TEACHING ON THE RUN**

**Take-home message**

- Good supervision improves patient outcomes, reduces the stress on junior medical officers (JMOs) and increases JMO learning.
- A good supervisor clarifies what is expected of both parties and ensures good communication on training and personal issues.
- When supervising patient care, clinicians should ensure that JMOs feel supported and have someone to contact at all times. They should directly observe work and be on the lookout to prevent common JMO errors.
- A mentor is ideally not the supervisor or a person involved in assessment, but someone chosen by the JMO to mentor over a long period.

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