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# Clinical teacher training

## Maximising the 'ad hoc' teaching encounter

Classically, the patient is absent when the learner makes an 'ad hoc' corridor enquiry of their supervisor. This teaching encounter challenges the supervisor to ensure that the educational benefit is not limited by the brevity of the encounter. Focusing on some of the critical steps or teaching skills involved in the learning process increases the efficiency and effectiveness of this type of teaching encounter. Educationalists have provided models to optimise this fleeting corridor enquiry. This article presents a range of scripted clinical teaching scenarios that demonstrate the sound educational theory and principles underlying one such model – the 'one minute preceptor' or 'five step microskills model' of clinical teaching.

**Clinical teaching takes place in many settings and takes many forms, both in the presence and absence of a patient. Lake and Ryan<sup>1</sup> have provided practical tips for planning a teaching episode 'on the run'.**

The ad hoc corridor enquiry is likely to be the most common of all clinical teaching encounters. This teaching encounter provides a professional challenge to the clinical supervisor to ensure that the opportunity, if utilised, is not limited by the brevity of the encounter.

Without specific training in educational methods, clinical teachers may be less efficient and effective in their teaching. Growing demand for clinical teaching means there is a need to demonstrate strategies for efficient and effective teacher training in the ambulatory setting.

The steps typically taken in the traditional model (TM) of the ad hoc enquiry are summarised in *Table 1*.

Ad hoc clinical teaching tends to be patient centred, with most of the learner-teacher interaction focusing on patient care issues rather than the learner's educational needs. Case presentation by the learner may take half of the time, enquiry by the clinical teacher regarding patient data takes up another quarter of the time, and discussion of the case and plan for patient care utilises the remaining time.<sup>3</sup>

The enquiry phase in this model is diagnosis driven, as the clinical teacher gathers the information needed to correctly diagnose the patient's condition. The learning encounter ranges from 3–6 minutes and typically contains little teaching and virtually no feedback.<sup>3</sup> The clinical teacher discovers little about the learner's understanding of the patient's problem.

The 'one minute preceptor' (OMP) model<sup>4</sup> of the ad hoc enquiry is learner centred, and in contrast to the TM, consists of five specific microskills (*Table 1*).

### What the literature shows

The OMP model is based on principles of adult learning and has gradually gained acceptance, both in the literature and the clinical setting, as a time efficient and effective teaching strategy.<sup>5,6</sup> It has also undergone progressive evaluation.

When first described, the authors reported on a follow up survey of 36 faculty members 4 years after participating in the training seminar.<sup>4</sup> Ninety percent reported using material from the workshop in more than 90% of teaching encounters. However, this study did not measure the use of the microskills in teaching, and it was not known if increasing the use of those microskills improved student perception of their mentors' overall teaching skills.

A controlled trial found a 3 hour teaching improvement course to be effective in improving residents' teaching skills and attitudes toward teaching, but the study was not randomised.<sup>7</sup>

Furney et al<sup>8</sup> conducted the first study using an experimental design to assess the efficiency and effectiveness of the OMP in the ambulatory setting. Using a randomised, controlled trial with the OMP as a brief intervention, they were able to observe improvements within each microskill except 'teaching general rules'. This may be explained by the fact that they were novice teachers (residents in this study).

The greatest impact was seen in those microskills that address 'asking for a commitment', 'motivated me to do outside reading' (self directed learning) and 'providing feedback'. Satisfaction questionnaires demonstrated that training residents to use the model improved student rating of residents' teaching skills. On the measure of resident satisfaction with the OMP model, 87% of the intervention group rated the model useful or very useful. Overcoming the lack of feedback, one of the most persistent and difficult

**Table 1. Ad hoc teaching encounter models**

<b>Traditional model<sup>2</sup></b>	<b>One minute preceptor microskills<sup>4</sup></b>
1. Direct attention toward patient care issues	1. Get a commitment (allows the learner to create a personal formulation of the clinical situation)
2. Ask low level questions	2. Probe for supporting evidence (helps the teacher and learner identify what the learner does and does not know)
3. Give mini lectures to students	3. Teach general rules (teaches the learner common 'take home points' that can be used in future cases, aimed where possible at an area of weakness for the learner)
4. Provide little or no feedback	4. Reinforce what was done correctly (provides positive feedback that builds professional self esteem, especially reinforcing the positive impact the action has on others)
	5. Correct mistakes (provides constructive feedback with feasible recommendations for improvement)

problems in clinical education, was particularly valuable.

Salerno et al<sup>9</sup> used audiotapes of OMP teaching encounters and surveys of teacher and learner satisfaction. They demonstrated increased use of the five microskills and, in particular, both increased use of feedback and feedback that was more likely to be specific. Teachers also reported that learning encounters were more successful and that they were better at letting students reach their own conclusions, at evaluating learners and at creating plans for postencounter learning.

Two recent studies have provided a comparison between the TM and the OMP models of teaching during the ad hoc encounter. Irby et al<sup>10</sup> demonstrated that those using the TM were more likely to teach generic skills such as history taking, presentation skills and risk factors. On the other hand, those using the OMP were more likely to teach about the illness as a broader differential diagnosis, further diagnostic tests and the natural presentation of disease. The OMP

model shifted teaching points away from generic skills toward disease specific teaching.

Aagaard et al<sup>11</sup> compared the effectiveness of the OMP with that of the traditional teaching model. Clinical teachers using the OMP model were equally or better able to correctly diagnose patients' medical problems compared with those using the TM. They received more patient care information in the same amount of time and were also able to assess students' abilities and knowledge to a greater extent than those using the TM. The OMP was rated as more efficient and more effective in the ambulatory setting.

### **Clinical application of the OMP model**

While educationalists have provided theoretical models such as the OMP to optimise the ad hoc corridor enquiry, there is a need for working clinical examples.

### **Scripted case scenarios for applying the OMP**

These OMP microskills (Table 1) can be used to enhance typical ad hoc teaching encounters:

- making a diagnosis (*Case scenario 1*)
- undertaking a work up (investigation) (*Case scenario 2*), and
- instituting a therapeutic plan (*Case scenario 3*).

In probing for supporting evidence, the clinical teacher is better able to diagnose the patient and determine the learner's understanding of the case. The clinical teacher can then make a targeted teaching point before providing both positive and corrective feedback.

When reinforcing what was done correctly (Table 1, microskill 4) it is possible to indicate how that course of action would influence management. For example, in *Case scenario 1*, the teacher might say, 'Management may differ, depending on the baby's age. For newborns, management of mild forms of cradle cap involves simply rinsing the scalp with warm olive oil, which is left for a few minutes, then gently combing the area, where the scales can be easily removed. For the older child, hydrocortisone alone or in

### **Case scenario 1 – Making a diagnosis (baby aged 8 weeks with a scalp rash)**

<b>Microskill 1</b>	Get a commitment	'What do you think is going on with this baby?' or 'What do you think the diagnosis is?'
<b>Microskill 2</b>	Probe for supporting evidence	'What are the features that support this diagnosis?' or 'What were the major findings that led you to this diagnosis?' or 'What else did you consider?'
<b>Microskill 3</b>	Teach general rules	'If this baby had impetigo of the scalp and folliculitis, there would be no greasy dandruff and the lesions are usually localised'
<b>Microskill 4</b>	Reinforce what was done correctly	'When considering that diagnosis you appropriately considered the patient's age'
<b>Microskill 5</b>	Correct mistakes	'You could be right that this rash is due to impetigo. However, the use of antibiotics in an 8 week old baby is not desirable, if that was not the case'

**Case scenario 2 – Undertaking a work up (ECG of a woman aged 62 years presenting with palpitations)**

<b>Microskill 1</b>	Get a commitment	'What rhythm do you think this ECG shows?'
<b>Microskill 2</b>	Probe for supporting evidence	'What are the features that led you to that diagnosis?'
<b>Microskill 3</b>	Teach general rules	'If the patient had ventricular tachycardia/atrial fibrillation the ECG would show...'
<b>Microskill 4</b>	Reinforce what was done correctly	'Your approach to reading an ECG was logical and will minimise the risk of missing a diagnosis'
<b>Microskill 5</b>	Correct mistakes	'It was reassuring that you picked up the arrhythmia. However, other ECG abnormalities may coexist and this warrants always completing the basis steps when interpreting an ECG'

**Case scenario 3 – Reviewing a therapeutic plan (a well man aged 56 years with persisting borderline fasting blood lipids and sugar levels, having been advised of lifestyle interventions [dietary and physical activity] 6 months earlier)**

<b>Microskill 1</b>	Get a commitment	'Why do you think this patient has been noncompliant?'
<b>Microskill 2</b>	Probe for supporting evidence	'What factors did you take into account?'
<b>Microskill 3</b>	Teach general rules	'If the patient has not achieved their goals over a 6 month period, perhaps they should be seen monthly, at which time their understanding and progress could be reviewed'
<b>Microskill 4</b>	Reinforce what was done correctly	'Your sensitivity to the patient's reluctance to start pharmacotherapy will contribute to improving his compliance to the dietary and activity advice'
<b>Microskill 5</b>	Correct mistakes	'You are right, this man's results are most likely due to noncompliance. However, with the ongoing need for him to provide care for his terminally ill wife, it is still unlikely that he will achieve the desired outcomes at this stage without pharmacotherapy'

combination with salicylic acid can be applied gently. This may give good results'.

Constructive feedback (microskill 5) should only be provided after reinforcement of what was done correctly. For example, in *Case scenario 2*, 'The ECG is valuable for indicating an acute event as you have suggested. However, you will have many opportunities to learn more about ECGs; focus on the basics at this stage. Learn basic arrhythmias, how atrial and ventricular hypertrophy affects the ECG and how potassium affects the T wave. Build up on the basic properties of the ECG rather than trying to learn to 'read' a clinical ECG in an acute event'.

## Discussion

The ad hoc teaching encounter can be a time efficient, effective and educationally sound teaching strategy for the ambulatory setting.

The typical case scenarios demonstrate that this is a most suitable model for the ad hoc corridor consultation, whether for questions about diagnoses, undertaking work ups or instituting a therapeutic plan.

The OMP model begins with open ended

questions that force the learner to reveal, along with patient care information, their process of thinking. This type of teaching requires a deliberate effort to ensure the teaching moment is fully capitalised. The ad hoc teaching encounter is the most underestimated, yet probably provides the most unique teaching opportunity.

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