COMMENTARY

Watching anaesthetists work: using the professional judgement of consultants to assess the developing clinical competence of trainees†

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One of the responsibilities of a consultant is to identify the clinical competence of trainees by observing them at work. The attributes of clinical competence in anaesthesia were defined by interviewing a group of consultants and trainees. Observation of practice was believed to be important in monitoring competence and the supervising consultants all believed that they could recognize competent performance. The account of the structure of observation provided by the anaesthetists is used as the basis of advice on how to conduct an assessment of trainees’ developing professionalism by use of the specialist’s professional judgement.

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Valid and reliable methodology for assessing the knowledge and skill of doctors is available in most fields of medicine.1 Less work has been done on possible means of assessing their performance in the total professional task. Clinical outcome is a poor measure of professional effectiveness because it is affected indirectly by so many factors other than the performance of the doctor.2 In addition, unsophisticated decision-making and clumsy practice may not much alter the ultimate outcome for the patient. Clinical practice can be evaluated by observation even though to date there has been little advice as to how such observations should be made.3 The need to develop methods of integrated observation of clinical encounters is being recognized as an important facet of the assessment of performance.4 The purpose of this work was to examine how specialists assess the total professional performance of anaesthetic trainees and to derive a procedure to systematize these methods. Such observations often break down performance into its component parts. Although at a technical level this might be a defensible approach, at the level of professional performance a clinician integrates a range of technical, professional and judgemental skills. It is the integration that marks professional performance and this study is designed to address this directly.

There are a number of reasons why the competence of a doctor in the conduct of clinical practice is difficult to assess.

1. Clinical reasoning takes place entirely in the doctor’s mind and cannot be directly observed. The ‘know how’ of experts constitutes part of what Michael Polanyi described as tacit knowledge.5 Tacit knowledge is only seen when an expert uses it. Even then, how the expert calls it up and how he wields it is often inexplicable, even to the expert. The objective of this investigation was to discover how doctors use their professional judgement to monitor another doctor’s actions.

2. Clinical questions cannot be framed specifically. In order to construct a traditional test of competence it is necessary to put a question which is sufficiently narrow for there to be a suitably specific answer. Unfortunately it is difficult to frame clinical questions. Can professional judgement be used to interpret the quality of a doctor’s decisions without framing specific questions?

3. There is no agreement about what clinical outcomes are acceptable. There are also few unequivocally correct answers to clinical problems. Even superficially straightforward decision-making demands an expert balancing of factors part of which is the expert’s judgement as to what is acceptable in terms of outcome.

†This paper is accompanied by Editorial II.
Table 1 Membership of the working group

<table>
<thead>
<tr>
<th>Membership of the working group</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultants</td>
<td>12</td>
</tr>
<tr>
<td>Regional Advisors</td>
<td>1</td>
</tr>
<tr>
<td>Deputy Regional Advisors</td>
<td>4</td>
</tr>
<tr>
<td>College tutors</td>
<td>1</td>
</tr>
<tr>
<td>Officers of Schools of Anaesthesia</td>
<td>4</td>
</tr>
<tr>
<td>Consultants without special responsibility in education</td>
<td>2</td>
</tr>
<tr>
<td>Trainees</td>
<td>4</td>
</tr>
<tr>
<td>Senior Registrars</td>
<td>2</td>
</tr>
<tr>
<td>Senior House Officers</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

Method
An expert panel of 16 consultant and trainee anaesthetists met to analyse systematically the assessment of competence by observing practice. The members were drawn from nine Deaneries, worked in a wide range of anaesthetic subspecialties and had a variety of interests in education (Table 1).

The overall approach to data gathering was use of the focused group interview,6 whereby specific tasks are set for subgroups, and reporting occurs in the plenary with a lead interviewer putting specific questions to the group to encourage discussion and evaluation of ideas as they develop. In this instance, a format for the structured discussion was prepared before the meeting and a number of questions were used to direct the enquiry. Examples of situations that frequently arise during supervision and assessment were used as prompts but the framework allowed members to follow their own direction of analysis. For the initial discussion of each topic the members were divided into three subgroups. The organizers listened to the discussions and led the consensus debriefings. The discussions were not tape-recorded but key remarks and ideas were noted verbatim. All the notes and jottings the members made were kept and examined.

The participants were asked to give an account of the methods used by consultant anaesthetists to evaluate the clinical competence of trainees. These methods were then examined for their suitability for use as part of a formal practice observation.

In this way five issues were explored:
(1) How do consultant anaesthetists currently assess trainees by practice observation?
(2) Can practice observation form the basis of a valid judgement of trainees’ competence?
(3) What methods are used by consultant anaesthetists to recognize competent behaviour?
(4) Can observation of practice be standardized?
(5) Is it possible to recognize levels of professional competence appropriate to particular stages of training?

Results
The group addressed the issues with enthusiasm and the approach was systematic. The subdivision of the group of participants allowed an internal check on reliability of the conclusions and the similarity of views suggested such reliability. The congruity of the views of consultants and trainees also suggested validity of the findings. This paper presents the collated and consensus view of the participants. This view is presented as the first stage in a process of developing and testing an assessment of anaesthetists’ professional practice by observation of the integrated performance.

How consultant anaesthetists currently assess trainees by observing practice and if observation of practice can form the basis of a valid judgement of trainees’ competence
The participants spontaneously combined the first two issues presented for discussion. They were asked to think about how they assessed the competence of a trainee whom they had not met previously. The group agreed that recognition of competence was not based on a single piece of evidence but depended on several concurrent pieces of evidence. This is known as triangulation.7 8 Four sources of evidence were described: interrogation of the trainee, documentary evidence, interrogation of third parties and observation of the trainee.

Consultants described the sources that influenced their decisions but had no formal framework for organizing the process. They did not know how they decided to weigh strengths against weaknesses, and were even less clear about how they finally came to a course of action. The process of professional judgement of professional performance is extremely complex and influences are dynamic and interdependent.

The group reported, however, that they used observation of practice in the everyday service evaluation of trainees. When asked directly, ‘Can you recognize competence by watching?’, all consultants and all trainees said they knew they could. One consultant said:

‘It’s what we do. We do it all the time. If you want to know if they’re any good, you watch what they do.’

It was the belief of these specialists and trainees that the safety of their practice depended on the fact that consultants can tell whether trainees are safe simply by watching them. This skill was, they believed, part of their professional repertoire. Everyone agreed that they would not be happy to supervise a trainee who had not been observed working. They were all happy to accept the observation of their colleagues and would not necessarily personally review the performance of each trainee that they were called upon to supervise.

Interrogating the trainee: briefing
Consultants described how they question a trainee who is new to them. The approach is relatively structured. Trainees are asked about past experience, particularly about its length and content and the amount of supervision. Consultants
place a lot of reliance on the fact that a trainee has had previous experience in a relevant area.

Trainees are asked directly what they think they are capable of doing and what supervision they think they need. The consultants felt that a trainee with previous experience of a type of work would understand more clearly where they would need further direct supervision. The consultant will then explain what they expect the trainee to do independently and in what circumstances they must ask for advice. They then ask the trainee whether they are happy with this. In this exchange the trainee and consultant are negotiating their work relationship, and ensuring patient safety and adequate ongoing supervision.

Documentary evidence
There is a variety of written evidence available to a consultant that can help to find the level of competence of a trainee. The employment record of the trainee is useful, as is the evidence of the variety of experience they have had. All trainees must keep a log of patients they anaesthetize and a summary of this will list their experience. The consultants did not find logbooks very helpful and the view was expressed that searching the logbook was too time consuming. A proper summary was not readily available to the working consultants when they needed it.

Most rotations make use of trainee assessment sheets, which consultants complete. These, or a summary, should move to a new hospital with the trainee and be available via the college tutor. No one referred to these. When asked about them directly the consultants agreed that the systems for filling in and circulating such forms were so poor that the information was not available to them when they needed it.

The examination success of the trainee was significant. In the words of one participant:

‘If they have passed the primary I feel I can rely on them to look behind events to see what is causing them ... the physiology ... I think that leads to a safe approach.’

Another opinion was:

‘It shows they have done some hard work, that they’re serious about what they do. It’s about attitude and I think if they have concentrated on one area (the books) they will probably have concentrated on another (the practice).’

Interrogation of third parties: vicarious observation
Consultants describe gathering evidence about trainees’ abilities from third parties. There is a lot of reliance on informal discussions between consultants. A few participants worked in hospitals where trainees were discussed as part of the departmental business meeting and all consultants agreed that they talked about trainees informally and in particular let colleagues know when they were doubtful about a trainee’s abilities. Consultants also noted the remarks of surgeons, nurses, midwives and other knowledgeable observers.

Observation of practice
Having decided what to expect of the trainee, the consultant then observes them working and attempts to confirm this opinion. Consultants made particular reference to what they called the ‘attitude’ of the trainee. With further discussion it emerged that by this they meant the trainee’s general approach to work:

‘I like to see if they shape up. I like to see them organizing themselves and getting everything sorted out.’

Consultants had a very clear idea of assessment by observation and they described what appeared to be a well-established routine that was common to most of them. Providing structured supervision seems to be part of the professionalism of consultant anaesthetists.

Reviewing
The group described a process of review that followed the observation of practice. In general, debriefing seems to be undeveloped. It is usually limited to the consultant renegotiating the working arrangements with trainees in the light of what they have seen. It does not routinely include feedback to the trainee that might be helpful in their development.

The trainee’s view
The trainees in the group understood supervision in the same terms as the consultants. The senior registrars applied similar systems themselves when they supervised more junior trainees. Trainees recognized the stages the supervisor went through in orientating to a trainee and the trainees coparated in this process. These trainees were firmly of the opinion that their consultants monitored their experience and abilities and made active decisions on supervision. The preoccupation of the trainee was with convincing the consultant that they (the trainee) should be allowed to progress in independent practice:

‘I like to get on, to do new things and have more responsibility. It’s sometimes difficult because I want to try something myself but I know I have to tell my consultant and then they tell me what to do. It’s difficult to check without getting help.’

This and similar observations by trainees shows that they believe the consultant is engaged in an active process of supervising what they do. They see that it is their responsibility to call for assistance, but they do not describe a supervision process that only reacts to a request for help.

Trainees were as concerned as consultants to get the level of supervision right:

‘I don’t want my consultant to get the wrong idea about me. I don’t want to impress him with my competence and then find myself asked to do things I can’t do. When I need help I need help!’

Again there is the theme of co-operation in making assessments.
What methods do consultant anaesthetists use to recognize competent behaviour?

The consultants believed they already used practice observation successfully to judge the professional competence of trainees. They were able to describe factors that they believed helped make such assessments valid and reliable.

Multiple observations on multiple occasions

All participants felt that single observations of trainees were inadequate for making a good assessment. All agreed that repeated observation by different observers in different situations was required both for fairness and for reliability.

‘I don’t think you should make your mind up about a trainee at the end of one list and even if I am worried about them after I’ve seen them a few times I like to ask around to see if other people agree with me.’

This approach has support in the instrument literature. Several participants proposed the view that trainees have a complex mosaic of abilities and that the level of competence in one area cannot be predicted from competence in another.

‘I have a trainee who is very good in most areas but doesn’t communicate properly with surgeons. He gives good anaesthetics but he doesn’t seem to see that sometimes he has to let the surgeon know what’s going on. I don’t know whether this really affects the way things go but the surgeons do complain that he keeps them in the dark.’

The consultants were concerned about the problem of being able to make consistent observations of a trainee. Departmental work practices usually made that difficult and there was a feeling that this stopped them doing the job of sizing up a trainee as well as they might.

Patterns of trainee behaviour

Supervisors described patterns of behaviour that keep recurring in trainees. They believed that such patterns could help them recognize trainees with problems. They see professional traits that can lead to difficulty.

‘Some trainees don’t adapt to circumstances. They tell you what their plan is and then they stick with it even when they have good evidence that they should change tack. Sometimes they are slow to respond. They keep trying a treatment that has failed while they should be thinking of something new.’

‘They focus on the figures. They are always adjusting things when overall it’s OK and the patient needs leaving alone. They are worst when they come from an ITU term.’

‘Sometimes they don’t see what’s happening. It’s quite clear that things have changed. You can tell from across the theatre that the relaxant is wearing off. The trainee is paying attention but they don’t notice.’

It seemed that patterns of inappropriate behaviour were more recognizable than patterns of good behaviour, which is a vital point for any system of assessment based on observation.

Active observation

Another issue on which there was general agreement was that simple observation was not enough. One consultant said:

‘I get the trainee to tell me what they intend to do. I then discuss some ground rules, some limits, within which I will not interfere. Then I watch how it goes. If the thing doesn’t go as he planned I try and decide if that’s because things got out of control. I don’t interfere if I can avoid it.’

With this technique the supervisor was comparing observed behaviour with expected behaviour and then trying to draw conclusions about the degree of control the trainee was exerting. This briefing process also allows the supervisor to discover whether the trainee has anticipated likely problems and whether they have contingency plans for such difficulties if they arise.

Supervisors would like their trainees to explain their actions as they go along. This is not a natural thing to do, so the consultant falls back on asking the trainee questions. Questions are pitched at the levels of analysis, synthesis and evaluation:

‘What’s going on there? ’ ‘Why do you do that? ’ ‘What would you do if ...? ’ ‘Is there an alternative approach?’

The consultants ask questions whenever they feel the trainee may not be acting rationally.

Observation of critical events

Another point made by all participants was that watching a trainee’s behaviour in the face of certain key events could help the supervisor make good judgements about competence. Good consultant teachers will pay attention to the trainee at these times.

‘I do anaesthetics for neurosurgery. The trainee should be paying ... have taken good measures to keep the ICP down at key times. He should be watching the blood pressure when the surgeon starts to drill the head. If he’s not watching I can see that easily.’

Where there are guidelines for dealing with critical events they form a framework for observation. If the trainee is not observing the rules he may not know or understand them.

The methods used by consultant anaesthetists to recognize competent behaviour

There was immediate agreement that consultants could easily recognize lack of competence when this was bad enough to lead to irregularities in the conduct of anaesthesia. Lack of skill would be easy to see. Lack of knowledge or poor judgement would lead to incorrect actions. Incompetence is easier to see than competence. The incompetent anaesthetist would make clinical judgements that the consultant observer found irrational.

The group believed that some trainees were just competent enough to keep the anaesthetic progressing satisfactorily but had problems that led to a constant risk of complications; then the trainee was not really in control. A lot of discussion centred on this problem and how a situation that is out of control can be spotted. Consultants felt that they were able to see evidence of latent incompetence.
‘Sometimes a trainee pays a great deal of attention to the monitors and stops paying attention to the patient, they are not paying any attention to what the surgeon is doing— even when important things are happening. I feel that this sort of behaviour is inappropriate.

‘It’s sometimes easy to predict that there may be going to be a problem and the prudent thing is perhaps to take some precaution such as drawing up drugs or checking that blood is available. I feel uneasy if the trainee isn’t seeing potential problems.’

‘Even when things are really on an even keel a trainee may be doing something that shows you he still feels very insecure ... He may be checking the tubes of the ventilator and fiddling with it at a time when I can’t see any cause for concern. If he thinks there’s a problem when there isn’t one, what is he going to do when things go wrong? Will he notice?’

*Trainees admit to problems*

It was recognized by both consultants and trainees that the trainees themselves play a role in monitoring their own competence. The supervisors expect the trainee to tell them when they are unsure of what to do and they say that they keep asking the trainee if they are in control. The trainees similarly believed that they should always tell their consultant when they were unsure of themselves.

*A disordered approach to anaesthesia*

Several participants expressed the belief that messy, untidy practice that looks disorganized often indicates that the trainee has lost control of the situation.

‘If they are worrying about the airway or the blood pressure, they forget to keep moving forward with other things like changing the i.v. bag. If things seem to be going to pot I think the registrar has got his mind on a problem. I may not be able to see it because it’s not a real problem but it’s a good clue to start looking for where he’s concentrating.’

There was agreement amongst the consultants that competent practice was recognizable as orderly and progressive. There would always be evidence of control and the anaesthesia and surgery would be moving forward together towards a conclusion. Trainees would show a variety of qualities in their practice and many of these could be observed and recorded as part of an assessment. It was felt that competent practice would include vigilance and appropriate, timely adjustments to the conduct of anaesthesia.

A theme that recurred was how control can be lost and matters can be running out of control without any change in the patient’s vital signs.

‘If the patient has bled unexpectedly the anaesthetist should have a plan. He should have fixed to get some blood ready, even if it’s not needed yet. Maybe the crunch will come if they bleed again. Even if they don’t he’s still been incompetent if he’s not got ready for it. Competent people always have a safety net. They have always planned a way out. Sometimes they get upset about the bleeding and you can see them fiddling with the drip or sending the ODA for a central line ... but they forget to get blood. That’s disorganized. That’s incompetence.’

Another consultant pointed out that competence depended on the challenge presented:

‘An experienced reg. might do well all the time if you just watch. We’d expect him to handle a cardiac arrest but we will never know unless one happens and it usually won’t. Watching in theatre can never be the full test but I really think you can tell pretty well who won’t cope with the emergency if you watch them enough.’

Experienced supervisors looked for signs of impending disaster in matters of general conduct. Once again this showed a high degree of sophistication in the way supervisors make judgements about learners. The demeanour of the anaesthetist would also help to indicate whether he was in control. Anger and argument might indicate poor communication skills but could also be a sign that the trainee was feeling stressed.

*Can observation of practice be standardized?*

The group was asked to compile a list of the features that characterize good professional practice. Knowledge and skill were rapidly identified as being different from the other qualities. This was not surprising, as they are entire fields of learning as defined by conventional taxonomies of learning objectives. The group did not feel that testing knowledge was appropriate to a theatre assessment. Knowledge could be measured better by other means such as multiple choice questions (MCQs) and objectively structured clinical examinations (OSCEs). It was agreed that observation would reveal whether a trainee’s decisions were consistently based on a secure foundation of knowledge. The question to be considered in watching trainees work is not if they know all about the issues but if their decisions show appropriate use of knowledge and understanding. This aspect of knowledge was very important to observation of practice.

Similarly it was felt that skills could be tested by observation but that such testing should be separate from the overall competence-testing under discussion. Testing of skills was felt to call for a structured observation either at work or by simulation with the tasks being broken into their components. This disrupted normal working patterns so that concurrent assessment of overall judgement would be impossible. Sixteen attributes of competent practice were defined by the team. These are

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Anticipation</th>
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<tbody>
<tr>
<td>Skill</td>
<td>Organization</td>
</tr>
<tr>
<td>Perception</td>
<td>Flexibility</td>
</tr>
<tr>
<td>Confidence</td>
<td>Responsiveness</td>
</tr>
<tr>
<td>Prudence</td>
<td>Good manner</td>
</tr>
<tr>
<td>Vigilance</td>
<td>Assertiveness</td>
</tr>
<tr>
<td>Fluency</td>
<td>Good management</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>Good communication</td>
</tr>
</tbody>
</table>

Table 2 The qualities on which competent practice is based
<table>
<thead>
<tr>
<th>Quality and definition</th>
<th>Lack of necessary quality of behaviour</th>
<th>Appropriate behaviour</th>
<th>Over-expression of the quality of behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledgeability: appropriate understanding</td>
<td>Ignorant: decisions are not based on sound understanding; holds mistaken opinions of facts</td>
<td>Practice is based on a sound understanding of principles and facts</td>
<td>[not recognized]</td>
</tr>
<tr>
<td>Skill: assurance in performing practical tasks</td>
<td>Unskilful: clumsy; ham-fisted; rough; will undertake procedures without having attained expertise</td>
<td>Shows fluency and expertise in performing practical procedures</td>
<td>[not recognized as a problem]</td>
</tr>
<tr>
<td>Perceptiveness: noticing events as they occur</td>
<td>Unobservant: shows delay in noting important events and understanding their significance</td>
<td>Notices important events immediately and realizes their significance</td>
<td>Lacks discrimination in perception; notices minor events and over-emphasizes their significance</td>
</tr>
<tr>
<td>Confidence: the assurance with which work is conducted</td>
<td>Under-confident: reluctant to perform tasks within his competence because of lack of understanding of his own abilities</td>
<td>Assesses situations and having identified the necessary abilities to carry out a task and compared them with his own, will carry on if appropriate</td>
<td>Over-confident: attempts tasks beyond his capability by failing to match his own abilities to those required by the clinical situation</td>
</tr>
<tr>
<td>Prudence: taking care</td>
<td>Reckless: proceeds directly to action without thoroughly evaluating the situation</td>
<td>Evaluates situations with assurance, identifies hazards, draws up escape routes and institutes prompt action when indicated; knows his own limits</td>
<td>Over-cautious: fails to take appropriate action because of inaccurate perception of relative risk</td>
</tr>
<tr>
<td>Vigilance: keeping alert for problems</td>
<td>Inattentive: does not observe clinical problems often enough; does not notice when problems may be arising; slow to respond to signs of trouble; unobservant; easily distracted</td>
<td>Regularly reassesses the clinical situation; always alert to the possibility of difficulty; notices problems swiftly</td>
<td>Over-watchful: over-attentive to inconsequential detail; pernickety; too fussy; allows the search for problems to hinder the progress of anaesthesia and surgery</td>
</tr>
<tr>
<td>Anticipation: thinking and planning ahead</td>
<td>No anticipation: does not plan for impending problems; does not see the possibility of trouble until it arrives; does not look ahead to anticipate events; often surprised by events</td>
<td>Realistically evaluates impending difficulties; looks ahead and anticipates the consequences of present events</td>
<td>Sees too much; constantly and unrealistically expects serious problems; always on the edge of his seat</td>
</tr>
<tr>
<td>Flexibility: being prepared to change a planned course of actions when necessary</td>
<td>Rigid: does not change plans when presented with evidence that demands this</td>
<td>Constantly re-evaluates decisions as new evidence is presented</td>
<td>Changeable: keeps changing his mind without good reason</td>
</tr>
<tr>
<td>Responsiveness: sensitivity to what is going on around</td>
<td>Unresponsive: does not respond appropriately to situations or communications; seems isolated from events; not part of the team</td>
<td>Takes note of what is going on in the operating theatre; integrates properly into the theatre team; attends to what is happening and acts when needed</td>
<td>Always fiddling: responds to all communication, relevant or not; easily distracted; wants to do everyone’s job as well as his own</td>
</tr>
<tr>
<td>Fluency: progression and continuity of decision-making and practical procedures</td>
<td>Hesitant: having decided on a course of action the trainee is hesitant in carrying it out; a vague vacillating performance; dithering</td>
<td>The work makes consistent smooth, careful progress; skilful; dexterous</td>
<td>Showy: skilful and slick at the expense of care and caution; a showman</td>
</tr>
<tr>
<td>Decisiveness: ability to take timely, purposeful action</td>
<td>Indecisive: cannot make up his mind; slow to respond to cues because he cannot decide on a line of action</td>
<td>Makes good decisions after proper consideration of alternatives</td>
<td>Quickly proceeds to action without full consideration; jumps to the first course of action that occurs to him</td>
</tr>
<tr>
<td>Communicativeness: ability to articulate ideas and intentions to others</td>
<td>Poor communication: fails to communicate even when the clinical situation demands it; conveys muddled information</td>
<td>Identifies priorities in communication; conveys information in a relevant, clear and concise way</td>
<td>Over-voluble: communicates everything; distracts colleagues from their tasks by inappropriately offering information</td>
</tr>
</tbody>
</table>
Assessing competence of trainees

Table 3 Cont.

Quality and definition

<table>
<thead>
<tr>
<th>Trait</th>
<th>Lack of necessary quality of behaviour</th>
<th>Over-expression of the quality of behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization: ability to maintain system and order</td>
<td>Disorganized; rushes about without making progress; no system; jumbled, muddled.</td>
<td>Egotistical about organization; rigid organization in minute detail; gets bogged down in planning</td>
</tr>
<tr>
<td>Manage conflict of personal relationships during work</td>
<td>Under-assertive; bossy, domineering; more concerned with keeping other people out of his way than working to get a good job done</td>
<td>Over-assertive; bossy, disruptive; aggressive; more concerned with keeping other people out of his way than working to get a good job done</td>
</tr>
<tr>
<td>Assertiveness: ability to take the lead</td>
<td>Under-assertive; bossy, domineering; more concerned with keeping other people out of his way than working to get a good job done</td>
<td>Over-assertive; bossy, disruptive; aggressive; more concerned with keeping other people out of his way than working to get a good job done</td>
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</tbody>
</table>

The consultants did not claim that their current practice was as structured as this format, indeed for the most part they were not able to explain what factors they used in coming to their judgements. Nonetheless, this list of behaviours was felt to encompass all the attributes of practice about which it would be possible to make a judgement by watching a doctor work, and about which judgements can be made in one way or another. All the consultants used some or all of these methods of making observations.

Is it possible to recognize levels of competence appropriate to particular stages of training?

The group felt that the general nature of the assessment meant that the statements defining level of competence were determined by the experience of the trainee. They dismissed the idea of ‘bench-marks’ of performance that were relevant to stages of training. The participants all believed that consultants knew what standard to expect of a trainee relative to their experience. They believed that the checklist of behaviours could be applied at any stage of training with equal validity. The list of qualities was considered to be general enough to allow the scheme to be applied to a variety of tasks and in a variety of situations.

A strategy for assessment

It is now possible to put together a strategy for making a professional judgement of a trainee anaesthetist. There are a number of elements in the process (see Table 4).

1. The consultant should discuss the work with the trainee. The trainee should be asked to summarize what he intends to do. The consultant should give consideration to whether the trainee has planned the work properly and whether he has foreseen any difficulties. The trainee’s intentions are a framework against which to judge any decisions he makes. The consultant should ask the trainee if there are aspects of the work about which they are not happy. The trainee and consultant should agree the circumstances in which the consultant will intervene. Such intervention does not invalidate the assessment.
(2) The work is observed. Particular attention is paid to the trainee’s method when approaching the times of high work intensity. These times, when there are predictable episodes of clinical decision and judgement, provide good opportunities for assessment. The consultant notes examples of good and bad practice during the work. At the end of the session these are then used as the basis for discussion with the trainee.

(3) The trainee should be asked to explain what he is doing as he goes along. This allows a better analysis of his decision-making.

(4) Consultants should ask probing questions from time to time. These should be directed at the skills of synthesis and evaluation. Trainees should be asked to explain their reasons whenever they have deviated from their plan.

(5) At the end of the work the trainee should be asked to provide an analysis of how things went and a self-assessment. The consultant should discuss the work and provide feedback. They should discuss the examples of good and bad practice that were noted.

(6) Finally the consultant should evaluate the trainee by selecting the phrase from each category that best describes his or her performance. In doing this all the various phases of the assessment should be integrated. As an alternative the trainee could be asked to provide a self-assessment which takes account of the guidance and comments of the consultants. If this were done the consultant would be able to see whether his feedback had been understood and incorporated into the trainee’s self-evaluation.

**Discussion**

There is a tradition, unchanged in its essentials for many decades, of making judgements about trainees and monitoring their progress by watching them work. That there has been no consistent criticism of the work of trainee specialists or of the quality of new consultants suggests that this process is effective and safe. Criticism is, however, directed at the lack of supervision of the trainees and the assumption is implicit that supervision by consultants will raise the quality of the trainees’ work.\(^{(10)}\) The in-service assessment of trainees is currently part of the professionalism of consultants and is fundamental to the processes of clinical medical education and anaesthetists have been urged to avoid competency approaches to the assessment of performance.\(^{(11,12)}\) However, a new vocabulary and assessment framework need to be developed to recognize and incorporate professional judgement as an acceptable part of formal assessment.

It has long been recognized that the views and opinions of master practitioners are an invaluable resource in designing education in their field. The wide use of the Delphi technique bears testament to this. The difficulty lies in obtaining a consensus from experts. The basis of all group technique is that if two heads are better than one then many heads will be even better. Natural group processes allow the development of ideas between individuals of the group. The consultants co-operating with this study were chosen for their wide variety of clinical backgrounds and their experience as teachers and supervisors. They described supervision and assessment in similar terms and believed that it depended upon the same professional judgement that they used when caring for patients.

This investigation confirmed that the process by which consultants develop their opinion of a trainee’s competence is complex, drawing evidence from many sources. It has workings which are probably specialty-specific, and which require to be analysed from the inside by those who are skilled in such decision-making.\(^{(13)}\) Specialist doctors must themselves develop the methodology for in-service assessment by practice observation.\(^{(14)}\)

Consultants do regularly assess the competence of trainees by watching them at work. They believe that their observations are reliable and valid. They believe that the capacity to assess by observation is part of their professionalism. No participant expressed any concern that they could not make proper assessments of trainees. All the consultant members of the group readily distinguished between tests of knowledge, tests of skill and observations of competence in practice. Professional competence could be assessed in service as part of the professional judgement of the supervising consultant. This group of consultants said that they knew what to expect of a trainee at a given stage of training and that this knowledge was a learned component of their professionalism.

Consultants largely ignore the existing documentary evidence of trainees’ competence. They reported that they did not use assessment reports and logbooks as evidence of competence in their routine supervision of trainees. They did place great reliance on their ability to make judgements about trainees through supervision. The consultants described a mechanism they use when supervising which helps them to understand what the trainee is doing (see ‘A strategy for assessment’ above).

This process was not formal and it did not appear that the consultants put these elements together as a structured observation, nor did they use them all in any particular supervision. The consultants described other procedures that they recognized for increasing the effectiveness of their observations such as watching more carefully at times when the trainee should be responding to predictable problems and noting examples of poor practice. They also recognized patterns of behaviour that suggested the trainee was losing control. An example of this is seen when trainees concentrate on one part of the anaesthetic
to the exclusion of others. These elements of structure and organization can be combined to provide a more effective framework for the formal observation of practice.

It is not helpful to the trainee if the consultant cannot explain what is good or bad about their practice. Nor will such a judgement carry weight in the formal process of reviewing training. In recognizing 16 qualities that are common to all practice and which describe all its features, the group provided a framework which can be used to analyse observations. Anaesthetists identified 16 qualities that were displayed in the conduct of competent practice. It is probable that different specialties would generate somewhat different lists. It is not suggested that these qualities of practice make equal contribution to overall competence and there will be many alternative, valid ways of analysing practice. How might such a listing be used in an assessment? If a trainee performs satisfactorily this should be recorded without comment. If the consultant judges that a trainee has failed to perform adequately he or she should decide which of the attributes of competent practice they failed to satisfy. This helps the consultant make constructive feedback and will help the trainee to understand the nature of the criticism that the consultant is making.

In-service assessment by professional observation is a promising development. It formalizes existing workplace-based assessment and has the potential to improve the general structure of teaching supervision. A necessary next step is the submission of large numbers of trainees to this sort of assessment by their supervising consultants during the course of their normal work. This will help to establish the validity and reliability of observations. It is fruitless to compare the consultant’s professional judgement of the trainee with any other current assessment as it is unique in focusing principally on the trainee’s ‘know how’ and professionalism. In so doing it directs assessment away from conventional educational measure-ment and makes the consultant’s hard-won clinical competence the arbiter of that of the trainee.

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