Achieving independence: a decision-making framework for doctors in training

Philip Berry

Philip Berry
MBChB MRCP,
Medical Registrar,
Royal Free
Hospital, London

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ABSTRACT – Postgraduate medical training presents many instances in which a junior doctor must decide whether it is appropriate to proceed without the advice, supervision or practical assistance of a senior. These decisions, vital to the development of any doctor, are commonly made in the context of providing medical treatment to acutely unwell patients or undertaking practical procedures. The major factors requiring reflection before making the decision to proceed or request help may be separated into patient-centred and physician-centred categories: the patient's right to choose who treats them, the patient's safety, the physician's assessment of their own competence and the physician's personal comfort. The relevance of each of these factors is explored in the context of two scenarios. In this way a simple framework to assist junior doctors in considering the risks and benefits of their intended actions is presented.

KEY WORDS: competence, learning, medical ethics, patient choice, procedure, risk, stress, supervision

Gaining experience by meeting challenges

The development of a physician in training is marked by a series of clinical and ethical challenges, the negotiation of which leads to an accumulation of experience.[1,2] These challenges demand decisions, and in making these trainees must ask themselves whether they can tackle the situation alone, or whether they should seek help. General Medical Council guidance regarding good medical practice emphasises the duty to 'recognise and work within the limits of your competence'.[3] Choosing to proceed alone therefore requires rigorous assessment. If the decision is made, pulling the trainee outside their previous comfort zone, and proves to have been well made a significant step towards independence as a physician will have been taken.

The question arises, in a profession where poor decisions may have direct clinical repercussions for patients – should a trainee ever make such a decision without absolute surety? The easy answer is that if a trainee doctor is not sure what the right decision is, they should consult with a senior. The obligation to 'seek help and support without hesitation' is emphasised in the Generic Curriculum for Medical Specialties published by the Federation of the Royal Colleges of Physicians.[4] However, trainees are bound to hesitate before seeking help, except in the most extreme clinical situations, and the careful assessment of risk and benefit that takes place during this brief period of reflection is an important part of professional development.

Few if any trainees will have received systematic advice to help them in approaching these situations. Guidance tends to occur at a personal level, according to circumstances. A senior may supervise the insertion of several central venous catheters and, satisfied that competence has been achieved, say, 'Good, next time you can go ahead on your own'. This process depends on the development of a relationship between trainer and trainee. Such relationships are less likely to occur with current rota structures. Without the continuity that consistent teamwork provides, it is harder for senior doctors to monitor progression and provide feedback.

For these reasons, a framework to provide a foundation on which to tackle such decisions is proposed. Established practitioners are likely to recognise within the framework the very tests and considerations that they have been applying for years. However, in giving these factors structure, it is hoped that they can be integrated into new trainees' mental approach at an earlier stage.

A framework for approaching decisions

Four factors requiring consideration are explored in the context of two clinical scenarios. The first two factors are examined from the patient's point of view – the patient's right of choice as to who treats them, and an objective assessment of patient safety. The second two are examined from the doctor's perspective – an assessment of their own competence in relation to the proposed treatment or procedure, and their personal comfort. These factors have been chosen after personal reflection and observation of trainees during my career as a registrar.

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Clinical management – scenario

At 04:00 a 76-year-old patient is admitted to accident and emergency (A&E) with fever, obtundation and hypotension (75/40 mmHg). He clearly has septic shock, and the source appears to be an indwelling catheter inserted on account of neuropathic bladder dysfunction. The A&E sister asks the trainee if she would like the registrar to attend, given the critical condition. The trainee, yet to assess the patient, must decide if it is appropriate to initiate treatment on her own.

Patient choice. In A&E there is very little opportunity for patients to express a preference, the prevailing atmosphere being one of barely contained demand. Patients express gratitude for being seen more frequently than consternation that their first contact is with the most junior member of the team. However, this endemic culture of necessity should not be the justification for a clear disparity between patient preference and treating doctor. On this occasion, it would seem very reasonable for the junior doctor to make an initial assessment provided that the patient is not put at risk, according to the other factors in the framework.

Patient safety. The patient is in an unsafe situation, and requires urgent treatment, namely fluid resuscitation in the first instance. However, his clinical presentation is within the boundaries of problem solving that would be expected of a junior doctor. Assuming the diagnosis is correct (other potential causes of hypotension requiring exclusion), his chance of stabilising and reaching safety would not necessarily be increased by the presence of a more senior doctor. If the diagnosis is clear, and the trainee knows what the management should be, it is acceptable to proceed even if she has not treated a patient with this problem before. If the patient does not improve after initial management, and the lengthening period of hypoperfusion appears to be putting him at risk of further organ dysfunction, a more senior review is required. When the demands of the condition develop beyond the trainee's expertise (eg central venous access, vasopressors, liason with intensive care), the patient's safety will definitely be increased by the presence of a more experienced doctor. The trainee must therefore decide at the outset what clinical criteria will prompt her to call for help, and heed them when they are fulfilled.

Personal competence. It is vital that the realisation by the trainee that she cannot make a diagnosis and form a treatment plan is arrived at within minutes, and that 'trial and error' is avoided. In reaching this conclusion it is acceptable to take a focused history, examine the patient, and form a differential diagnosis. However, if a differential diagnosis cannot be made with some confidence, the trainee must have sufficient self awareness to recognise this and to ask for help. To be the judge of one's own ability and knowledge may be a tall order, and it is probably not possible to provide a fail-safe mechanism to ensure that lack of competence is recognised. Nevertheless, when symptoms and signs begin to form a recognisable pattern doctors know that a diagnosis is not far away. The absence of any recognisable pattern is likely to predict a failure of diagnosis, and any treatment plan will therefore be based on guesswork. If this is the case, senior assistance should be sought at an early stage. Having taken the decision to initiate treatment, it is equally important to know when the limit of competency has been reached; here consideration of patient safety merges with personal competence and might lead to a request for help, for example:

> *I'm sure he is septic, due to X, Y and Z. I've given one and a half litres of fluid, but the blood pressure is still 85/50. He is oliguric, his arterial lactate is 4. I think that he may need central access, an arterial line and admission to intensive care, perhaps for vasopressor support. I'm getting out of my depth now, can you come down?*

Personal comfort. Managing the critically ill patient is not a comfortable experience, but it is a highly stimulating one. In deciding whether to proceed in the management of this patient, the trainee must decide if the discomfiture felt is due to being genuinely bewildered as to the diagnosis and management, or due to the stress that results from assessing a patient amid alarming monitors, in an atmosphere of anxiety and tension. Although the nursing staff, and the doctor herself, may be reassured by the presence of a senior colleague, it is reasonable to continue unaided if the way forward is clear, and can be explained logically to the overseeing casualty sister, charge nurse or relatives. However, although she may be satisfied having considered patient safety and personal competence, it is unwise to ignore the feelings of fellow medical staff and relatives if their continued anxiety leads to increased levels of tension.

Practical procedures – scenario

In the second scenario these four factors will be explored in relation to a practical procedure, highlighting a different set of concerns.

A specialty trainee year (ST)2 physician is asked to assess a patient in acute respiratory distress. Examination reveals a large effusion, confirmed by an X-ray which shows displacement of the mediastinum from the affected side. The required treatment is clear – a chest drain needs to be inserted. The trainee, however, has only performed one before under close supervision. He calls the registrar who is busy in the resuscitation bay downstairs. The ST2 explains he has done one before, 'How did it go?' asks the registrar. 'Fine.' 'Are you happy to do this one?', asks the registrar.

Patient choice. The patient, if given the choice of operator, would probably choose the registrar. However, it is not always possible to have the most experienced operator perform a procedure, and it is acceptable for a more junior doctor to proceed if adequately trained. Should the trainee tell the patient that he has done only one before? Although the absolute numbers sound alarmingly small, they are probably not helpful in denoting a level of competence. A formal mechanism exists in directly observed procedure forms, however postgraduate curricula do not dictate that specific numbers should be undertaken before independence is achieved.

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Patient safety. To wait for the registrar risks further deterioration, and with it the risk of mechanical ventilation or cardiovascular compromise. To proceed as an inexperienced operator brings with it a higher risk of complications. Although the patient is unwell, a period of assessment may inform the trainee as to the rate of deterioration, whether respiratory fatigue is setting in, or, by blood gas analysis, if carbon dioxide retention is occurring. If a period of continued compensation seems likely, it may be reasonable to wait for the registrar. If the patient is on the verge of collapse, it may be justifiable to alert the registrar, ask him to attend as soon as possible, but start the procedure, assuming the trainee's assessment of their own competence meets the standards according to the next factor in the framework.

Personal competence. In the end, the trainee must decide, notwithstanding the risk:benefit ratio:

> *Can I actually do this? Do I know the anatomy? Do I know how to anaesthetise the skin, make the cut, blunt dissect the tissues, identify and pierce the pleura, insert the drain, connect it to the underwater seal and secure it?*

If the answer is yes, and he can visualise each stage, it may be time to take the step. Although it might concern the patient or their relatives if they saw the trainee doing it, it is sometimes wise to 'revise' the procedure privately, by reading the relevant page in a handbook, drawing a figure or imagining each stage clearly.

A similar question arises to that encountered in the first scenario – how can a trainee make an objective assessment of their own practical skills? This requires rigorous detachment from competing instincts, including the perceived need to progress quickly through training, and a natural reluctance in many individuals to ask for help. Such detachment comes from honesty, and a 'patient first, safety first' approach.

Personal comfort. Fear of failure and of doing harm may actually impair manual performance and can greatly affect the patient. It is not acceptable, even if the competence is there, to display doubt, indecision and nervousness before an ill patient. The trainee must therefore be sure that they can communicate confidence by their words and actions. Achieving this may require the creation of a veneer; it may be necessary for the trainee to act very differently to how he feels. This is an aspect of professionalism that is well recognised and accepted.[5] If the tension between external appearances and internal feeling is so great however that the trainee cannot reconcile the two and function without distraction or a feeling of dishonesty, this may be an indicator that the time is not right to proceed.

Discussion

The framework proposed here ensures that the most important factors relating to the decision whether to proceed are considered. Patient safety and personal competence appear the most salient, patient choice and doctor comfort being perhaps 'softer' considerations. However, failure to weigh any of these considerations may lead to ill-judged decisions. These factors are derived from a commonsense approach to problem solving in medicine, however the structure of the framework may provide the trainee with a justification not to proceed in certain difficult circumstances.

If, in a situation where a trainee feels that they are expected to proceed unaided, one or more of the factors described here is found to be wanting, a rational argument can be formed with which to explain why the presence of a senior is required. This may assist the trainer in finding a more constructive solution, directed at the particular factors in doubt. In this way the training opportunity may be maximised rather than the task being completed by the registrar without further thought being given to why the junior member of the team did not feel confident or comfortable enough to do it.

Finally, it must be emphasised that this model has not been validated. It is proposed to focus trainees' minds on relevant considerations, and may be of benefit to students entering clinical training and pre-registration foundation year doctors.

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