To do or not to do: Teaching the skill of deciding what to do in the face of uncertainty

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Background
The management of uncertainty is a core general practice skill best learnt in clinical practice.

Objective
This article outlines strategies a general practice supervisor can implement to help registrars acquire the skills of managing and coping with uncertainty.

Discussion
The medical education literature recommends supervisors being explicit about the different paradigm operating in primary care and normalising the existence and tolerance of uncertainty. Fundamental consultation skills used in the management of uncertainty should be demonstrated. These include shared decision making, safety netting and arranging follow-up. During teaching sessions, problem cases can be explored using Murtagh's diagnostic model to develop clinical reasoning and avoid missing important diagnoses. This paper introduces a model to explore uncertainty by considering management options, easily remembered as the '3Rs': review; refer; and Rx (treat). This model complements the diagnostic model and reflects that a general practitioner must still decide what to do when a diagnosis cannot be made.

If to some problems we can attach a formal diagnosis, that's a bonus: what we must always do for every problem diagnosed or not, is decide what to do about it.

– Roger Neighbour, *The inner consultation*[1]

The management of undifferentiated presentations is a defining feature of general practice.[2] A general practitioner (GP) is expected to distinguish serious disease from the myriad presentations that 'walk through the door' while efficiently managing health resources. Not surprisingly, a patient's journey in primary care frequently concludes without a formal diagnosis being made.[3] Deciding what to do in the face of uncertainty is the 'art' or 'special technique' of general practice.[1,4]

The skill of managing uncertainty is difficult to define. There is no universal definition of clinical uncertainty[5] and little empirical evidence in the literature to deconstruct the skill of managing uncertainty into constituent behaviours.[6] The assessment rubric used in the final RACGP Fellowship assessment has only three criteria for the competency of managing uncertainty, including the self-evident descriptor that it is the ability to recognise 'when to act and when to defer doing so'.[7] In this regard, the management of uncertainty, like professionalism, is a 'soft' skill elusively defined as being known when it is seen.

Despite the skill of management of uncertainty being difficult to define and assess, there is extensive literature devoted to describing how it is best learnt and taught.

Aim

In this article, the current approaches described in the literature for how a GP supervisor should teach their registrar the management of uncertainty are summarised. A novel method developed by the author from his personal experience as a GP supervisor is then introduced.

Supervisor approaches to teaching the management of uncertainty

A summary of these approaches is provided in Box 1.

Make explicit the different paradigm operating in primary care

For registrars, the transition from working in hospitals to working in general practice involves a fundamental shift in their approach to uncertainty. They are asked to adopt a patient-centred approach in an environment where serious disease is unlikely and a 'wait-and-see' strategy is feasible. This is in stark contrast to

Box 1. Supervisor approaches to teaching the management of uncertainty

- Make explicit the different paradigm operating in primary care
- Normalise uncertainty
- Demonstrate shared decision making
- Encourage safety netting and follow-up
- Explore uncertainty by considering diagnostic options
- Explore uncertainty by considering management options

the investigation-based pursuit of immediate diagnostic certainty in hospital medicine. Without an appreciation of the different paradigm operating in primary care, a registrar might view the general practice approach to the management of undifferentiated presentations as 'full of shortcuts' and 'inferior medicine',[8,9] and consequently disregard their supervisor's recommendations.[10]

To overcome this risk, a supervisor should make explicit the assumptions underlying primary care decisions, and reveal how the paradigms of primary and secondary care are philosophically and practically different.[11] One approach to the management of uncertainty should not be seen as superior to the other, but rather that each is appropriate for the context.[12]

A readily available opportunity for a supervisor to demonstrate this difference is when comparing the approaches to test ordering. In hospital care, the pre-test probability of disease is higher, and tests might appropriately be ordered to rule out a diagnosis. In primary care, when the pre-test probability of disease is low, adopting the same approach is unwise practice.[13–15] A positive result is more likely to be a false positive. The patient is also exposed to the risk of the test coincidentally uncovering abnormalities that ultimately turn out to be meaningless, so-called 'incidentalomas'. Compared to these harms of test ordering in a low pre-test probability environment, the benefit of confirming the absence of an already unlikely diagnosis is minimal. Discussing the negative consequences of a false-positive result for the patient, or the wasteful and often distressing investigative cascade that follows a coincidental result, can be a salient lesson for the registrar.

Normalise uncertainty

Despite uncertainty being a common feature of clinical practice, the culture of medicine is to place value on certainty and focus on how to reduce uncertainty rather than how to tolerate or manage it.[5] In this environment it is unsurprising that anxiety about clinical uncertainty has been linked to GP registrar burnout[16] and increased healthcare costs.[17] Fear of litigation can lead to overcautious prescribing, investigations and referrals.[18] Supervisors should normalise the presence of uncertainty and view discussions of the registrar's uncertain cases as an opportunity to help them develop a sustainable model of practice. Collegiate reflection on challenging cases has been found to help primary care physicians deal with, and learn from, managing uncertainty.[19]

It can be difficult for registrars to share their uncertainties, particularly if they perceive this will cause them to lose credibility in the supervisor's eyes. To overcome this registrar reticence, supervisors are encouraged to expose their own uncertainties first. Such normalisation of uncertainty or 'intellectual candour' encourages the registrar to reciprocate.[20] Furthermore, there is an opportunity in such reflections to demonstrate that uncertainty in primary care does not arise from biomedical considerations alone. A GP is as likely to be uncertain about decisions due to an appreciation of psychosocial and cultural factors impacting on choices in the patient's care.[21,22]

Demonstrate shared decision making

Consistent with the patient-centred ethos of primary care, GPs often manage uncertainty by sharing the decision with the patient. A shared decision is made after uncovering the patient's ideas, concerns and expectations, and the doctor revealing the clinical reasoning and the management options they are considering.[23]

GP supervisors frequently have an opportunity to demonstrate the skill of shared decision making when called by their registrar into a consultation to help manage a patient. The 'thinking aloud' strategy recommended to avoid undermining the patient–registrar relationship in ad hoc supervisory interactions[24] is also the stage of the 'doctor revealing clinical reasoning and management options' in shared decision making. Frequently the patient feels invited to share their own thoughts at this time, and a shared decision naturally follows. Even when a diagnosis cannot be made, there might be patient concerns uncovered by thinking aloud that a GP can confidently rule out. This 'saying what it is not' technique has been described as having 'uncertainty without being uncertain'[25] and is a useful approach a GP registrar might not have encountered previously.

Shared decision making is not universally applicable when managing uncertainty. It is not always possible to reach an agreed decision and registrars need support in learning how to manage unreasonable or unsafe patient expectations.[26] A patient might not be willing to share decision-making responsibility with the clinician either because they have not yet built trust in the clinician's capacity or because they wish the clinician to take full responsibility.[27] In teaching sessions, the thoughts and emotions involved in the choice of whether to adopt a shared decision-making approach are fertile topics for discussion.

Encourage safety netting and follow-up

Safety netting is a well-known skill used at the conclusion of a consultation to manage uncertainty and ensure patient safety.[1] When discussing cases, a supervisor should question their registrar about intended safety net conversations.

The arrangement of follow-up consultations is another method used to reduce risk when managing uncertainty. Registrars are reported to frequently be unfamiliar with the practice of follow-up consultations.[28] The registrar might be concerned about the inconvenience or cost impost to the patient of a review appointment. Supervisors should be alert to this risk and normalise the practice of follow-up, particularly in the face of uncertainty. Discussions about the appropriate use of telehealth or telephone consultations and billing strategies for follow-up appointments might ameliorate a registrar's reluctance to organise follow-up.

Explore uncertainty by considering diagnostic options

Registrars frequently bring problem cases to discuss during teaching sessions.[29] The management of uncertain situations can be

explored using Murtagh's diagnostic model (Table 1).[30] The questions in this model about not-to-be-missed and frequently missed diagnoses are designed to promote safe management of uncertainty. The answers can also be used to inform safety netting instructions.

The use of this model allows the supervisor to share their 'cautionary tales', 'illness scripts', 'management scripts' and 'key features' that aid the development of clinical reasoning and safe patient care.[31]

Explore uncertainty by considering management options

Frequently in primary care, it is not possible to achieve a diagnosis.[1] Management decisions still must be made; they are not beholden to a diagnosis. The author has found the use of a strategy – dubbed the 3Rs of uncertainty – that considers the management options when confronted with uncertainty to be a method that complements Murtagh's diagnostic model. As presented in Table 2, a supervisor can consider the following three options with a registrar to manage uncertainty: review; refer; and Rx (treat).

The review option is listed first because most 'uncertain' problems resolve with time. It is also the default option if it is not possible to think of referral or treatment options that will clearly advance the situation. Review is often accompanied by reassurance – another 'R'. Although it is possible to select more than one of the three management options, a sequential approach that allows further time to pass is usually best. An illustration of how the 3Rs might be worked through by a supervisor with their registrar is provided in Box 2.

Table 1. Exploring diagnostic options using Murtagh's safe diagnostic model[30]

1. What is the probability diagnosis?
2. What serious disorders must not be missed?
3. What conditions are often missed (the pitfalls)?
4. Could this patient have one of the 'masquerades' in medical practice?
5. Is this patient trying to tell me something else?

Table 2. Exploring management options: The 3Rs

1. Review (and reassure)
• Is a wait-and-see strategy safe?
• If so, what follow-up and safety-net instructions should be given?
• What reassurance can be given at this stage?
2. Refer
• Pathology or imaging: What tests would be informative?
• Which non-GP specialist could assist?
• Which allied health practitioner could assist?
3. Rx (treat)
• What treatment could be considered (including non-pharmacological)?[32]
• Could a response to treatment aid a diagnosis?

GP, general practitioner.

Conclusion

A registrar learns the GP skill of managing uncertainty through observing and being observed by their supervisor, and reflecting on the diagnostic and management decisions made. It is not a skill that is learnt well through reading or didactic teaching. The importance of work-based learning in acquisition of the skill is a strong argument for the retention of the apprenticeship model of GP training.

A GP supervisor should normalise the presence of uncertainty and reveal the different paradigm for the management of uncertainty that operates in primary care. Well-described primary care consultation skills such as shared decision making, safety netting and follow-up can be demonstrated and encouraged by a GP supervisor.

Discussions about uncertain cases help a registrar to learn to 'think like a GP thinks' and provide support that helps prevent registrar burnout. Murtagh's diagnostic model improves clinical reasoning and reduces the risk of missing important conditions. A strategy of exploring the 3Rs of management complements Murtagh's diagnostic review and helps a registrar learn how to decide what to do in the face of uncertainty. Even when the diagnosis is not certain, a decision about what to do next must be made.

Box 2. An example of the 3Rs of managing uncertainty

GPT2 registrar Holly asks her supervisor, Sandeep, to assist her with the management of Brad, a male patient aged 45 years, who attends with chest pain. Brad describes the pain as intermittent and brief, and he has no risk factors for ischaemic heart disease. Although Holly is reasonably certain the chest pain is not from a significant cause, she has requested a second opinion.

After hearing Holly's presentation, Sandeep uses 'thinking aloud' to expose his clinical reasoning to Holly and Brad and indicate why the history features make a cardiac cause of the pain unlikely. Brad is relieved, because this was his main concern. Holly and Sandeep then discuss, in front of Brad, the 3Rs of management options, as follows:

- **Review:** Sandeep and Holly agree that this appears to be a safe option and Brad can be given safety net instructions to help him recognise cardiac pain.
- **Referral:** Holly identifies high-sensitive troponin and exercise echocardiogram as referral options that she has used in similar circumstances in hospital care. Sandeep advises against this path because the low pre-test probability and poor test specificity would cause most positive results from these tests in this situation to be false positives. Because the most likely cause of the pain is musculoskeletal in origin, they agree that referral to a physiotherapist is an option.
- **Rx (treat):** Beyond simple analgesics, Holly and Sandeep could not identify any other pharmacological or non-pharmacological treatment options.

A shared decision is reached by Holly and Sandeep with Brad to select the review option.

A telephone consultation is booked for Brad with Holly in three days' time. At this consultation, in the absence of any new features, the subsequent step would be referral to a physiotherapist.

Key points

- GP supervisors have an important role in helping GP registrars learn how to manage uncertainty.
- Supervisors should expose the distinctive paradigm underlying decision making in primary care.
- Useful consultation skills that are used to manage uncertainty include shared decision making, safety netting and follow-up.

- Uncertainty can be explored by considering both diagnostic and management options.
- The management options to consider are the 3Rs: review; refer; and Rx (treat).

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