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Holding of risk in medicine must evolve through all stages of the medical career.

A discussion paper for the medical profession

Understanding risk, holding risk and explaining risk to patients and the public is central to being a doctor and is part of a doctor's professional identity and responsibility. All of medicine involves balancing two or more risks and benefits to the health and welfare of patients, aiming for the best likely outcome. This may include advising a patient on the risk of a major operation or medical treatment with significant side effects against the risk of no treatment and a disease progressing. It might be judging the benefits of admitting to hospital against the benefits of staying at home. It may be prioritising who should be given an appointment with a GP or outpatient clinic, deciding who can be discharged from hospital, or the risk-benefit of initiating lifelong treatment versus watchful waiting. Often potentially serious clinical decisions need to be made without all the information to hand, and this requires a degree of experience, confidence in decision making and always a willingness to review a decision in the light of new knowledge or a change in patients' preferences. These are often major decisions with potentially life-threatening or life-altering outcomes, and part of holding risk is accepting that even when this is done with great skill and judgement, things will not always turn out well.

Doctors regularly balance very serious risks from early in their careers that are more potentially life-changing than most other highly trained (and often highly paid) professions. This includes individual risk but also the consideration of risks at a community or population level including for the best allocation of constrained resources across medical and public health systems. Doctors also need to understand how their patients perceive risk. Different patients presented with the same risk-benefit information will come to different decisions based on many factors, including previous personal experiences and their own risk preferences and desired outcomes. The risk-benefit balance will change as medicine evolves, and part of the role of being a doctor is to keep up to date with evidence and how this influences the evolution of risk-benefit decisions.

The view of the authors is that as a profession we are much less systematic in our approach to risk held at various stages of a medical career than to the accumulation of medical knowledge and technical skills, and that this has, arguably, got worse over the last two decades. If we accept this thesis we need to improve our approach to risk holding in training and career progression. Holding and balancing risk is a difficult learned and experiential skill that often does not come easily especially when outcomes could be serious or the risks are finely balanced. Done badly it harms patients: this is why we need to recognise and manage it proactively.

Holding risk is a learned skill.

As we progress through medical training and careers we accumulate new knowledge, skills and experience. Over the last few decades this has become more structured with educational standards set by the General Medical Council (GMC) and led largely by the medical schools for pre-registration student training, and the Academy of Medical Royal Colleges (AoMRC) and related medical Royal Colleges and faculties for postgraduate training. As a result, it is possible to have a reasonable understanding of the level of technical knowledge expected at different stages of training, and to assess doctors against an expected benchmark of knowledge and skills for their speciality and stage of career. This includes medical students, doctors in training, SAS doctors, consultants and GPs. The same is not true for risk-holding where expectations are much less clear.

Learning how to balance, hold and communicate risk when making decisions is essential for the optimal advice to, and management of, patients individually, and the system as a whole. Often

doctors who are competent in their knowledge and skills facilitate decision making and hold risk without the explicit realisation that they are doing so. This varies by professional discipline and examples of different risk-based decisions include: a GP deciding who to refer to specialists or who to visit at home; an ED or AMU doctor deciding who to admit to hospital; a surgeon and anaesthetist supporting a patient to decide their optimum individualised treatment option; decisions of discharge when there is a black alert. The most seemingly risk-averse decision, including deferring a decision until more information is available, is often not the one that is in the individual patient's best interest - it may, for example, lead to excess treatment, unnecessary admission to hospital, delayed discharge, or a disease progressing whilst the doctor waits to make a decision on the 'best' option. Risk decisions taken because of fear of public criticism, regulatory discipline or litigation can lead to over-investigation or over-treatment, which carry risks to the patient and can put pressure on other parts of the system. The probability of formal censure for clinical decisions is often perceived as being higher than it is.

Doctors have to operate within the system and adjust their approach to balancing risk in response to external factors, including the changing expectations of patients, to optimise patient safety and clinical outcomes. Decisions about admission and discharge have to take account of issues such as winter and other wider system pressures where multiple patients may be affected.

Learning how to hold risk in a way which optimises patient outcomes is something that takes time and should be incrementally taught and supported, with more focus at transition periods of career progression.

If suddenly on the first day of becoming a new foundation doctor, speciality trainee, GP or consultant, a doctor is expected to make decisions that hold a substantially greater level of risk than the day before, that is a failure of the system, stressful for the individual doctor and, most importantly, potentially unsafe for patients. Mitigation, through recognition and appropriate safeguards such as increased support at points in role transition, should be an important aspect of post-graduate training. More important in the long run is to ensure that wherever possible risk-holding increases gradually over the early stages of a career rather than in sudden steps.

There is a need for the individual to have awareness of the risk that they are holding. This is necessarily more difficult for those early in their careers who have less experience and may not have sufficient knowledge to assess the risk accurately. This is especially true in the area of diagnosis.

Risk may be mitigated by sharing information and discussing potential courses of action with others, especially those with more or different experience. This may be a more senior clinician or a clinician from a different discipline or sub-discipline. Discussing the risk-benefit with patients so they understand the issues and can choose between realistic options is also essential. At a point, however, a decision needs to be made, and delaying a risk decision to share it with other professionals may not always be in the best interests of patients.

Holding risk varies across professions, contexts and individuals.

There is a significant difference in the level and type of risk holding between primary and secondary care. Undifferentiated illness presentations constitute a significant proportion of GP workload. There usually is no rapid access to blood test or radiology results, and there may be no-one else of suitable experience available to ask for a second opinion. As general practice teams have expanded, GPs find themselves supervising and therefore holding the risk for many other professionals such as pharmacists, physiotherapists, mental health workers, nurses and paramedics, as well as holding

their own. Secondary care has wider support mechanisms such as diagnostic facilities, but pre-selects for sicker patients. In all settings doctors are holding risk with and for their patients.

In general, the more senior a doctor in their career, the more risk they should be expecting, and expected, to hold and the more complex the risk balancing they need to be able to undertake. Doctors early in their careers need to understand the risks associated with clinical decision making but should not be expected to hold major risk, or at least should always have senior colleagues readily available who are able to support or take difficult risk-based decisions. It is unsafe for patients both where too inexperienced a doctor is expected to take or advise on major or difficult risk-based decisions, and where senior doctors fail to take responsibility for risk within the system. However, exporting all significant decision-making to senior doctors leads to overload for the clinician, failure to adequately train doctors earlier in their career who are then not ready to take on risk management when they reach seniority, and may lead to reduced productivity overall.

Personal factors such as physical and mental fatigue can alter perceptions and management of risk and doctors should be supported in recognising and managing the impact this can have on decision making and patient safety.

Doctors are generally expected, and able, to hold a higher level of risk than similarly experienced healthcare workers. While it will often be the case that a very senior nurse or paramedic might appropriately hold much more risk than a newly qualified doctor based on their experience, a relatively junior doctor will, and should, hold risk on behalf of the clinical team where appropriate, including taking accountability for these decisions. A newly qualified doctor should be prepared to hold a greater level of risk than a newly qualified nurse, and a senior doctor should be prepared to hold significantly more risk than a senior nurse who is highly competent and experienced. Within healthcare, doctors have always been the profession which has been expected by the public and other professions to be the final risk holders based on training and experience. Indeed, they are one of the professions expected to hold some of the greatest levels of risk in society in a way which maximises benefit for patients, both individually and system wide. It is therefore essential doctors are appropriately trained to do this.

Areas we need to improve or have lost clarity as a profession.

The level at which risk is held in training has shifted over the last 3 decades, and, in particular, higher risk decisions, and accountability for these, have moved to later in training. This may or may not be a good thing, and is different in different disciplines, but it has not been systematically planned for or made explicit. The result is a very patchy approach to risk holding and decision making across career paths in different parts of the medical system.

The concepts of ‘holding risk’ in the context of Primary or Secondary Care settings, the pros and cons of over investigating, over diagnosis and over treatment need to be a much clearer theme in medical training.

No clear guidance exists on the level of risk doctors in training should be expected to hold or not hold, in the way it is clear on the technical competencies and clinical knowledge that should have been obtained by a level of training. There is no clear focus on risk management in trainees’ work-based portfolios or appraisals. It is also not clear to trainers, who may remove the holding of risk from doctors in training inappropriately – essentially making decisions for them, thus preventing or slowing their professional development. A doctor holding either too much, or too little, risk for their level of experience is not being the best professional they can be on behalf of their patients.

There are differences in the types and level of risk holding between disciplines. A practical example of this is the approach to discharges at times of hospital pressure. Doctors who are both on acute medical rotas and medical specialities often have a different understanding of balancing the risk in the system between admissions and discharges than those who solely look after subspeciality cases. However, the principle of being capable of holding more complex risks at increasing levels of seniority holds across all specialities.

The current perception (rightly or not) by many new consultants is that there is a very substantial and sudden step up in the decision and risk holding responsibility between being an experienced resident doctor and being a new consultant. This is possibly an unintended consequence of the shift to consultant-led care over the last decade with consultants taking decisions which would previously have been taken by senior registrars. The reasons for this were understandable, as laid out in "The Benefits of Consultant Delivered Care" (2012, AoMRC) but the unintended consequence has been that decisions, and their associated risks, have been taken away from many resident doctors, making it more difficult to acquire experience of this gradually over the early years of their work as a doctor. It may also reflect the removal of the safety net of a defined more senior member of the team to seek guidance from. There is no ideal view on where risk should be held in training and the correct balance between senior speciality trainees and consultants or established GPs – but a series of smaller increases in risk holding over training and career is safer, and better, than a small number of very big steps. It is important for doctors at all stages of their career to understand their boundaries of knowledge, skill and responsibility. They also need to learn from and be supported when an 'adverse' or unexpected outcome occurs.

We have arguably lost clarity on the expectations between doctors and other health professions on who holds risk and how this is transferred or shared, including where the ultimate responsibility for decisions made by team members may lie. It is still accepted implicitly that doctors will, for clinical, and many non-clinical, decisions be the ultimate risk holders especially for complex decisions and in diagnosing and treating patients who present with undifferentiated symptoms and signs – sometimes based on evolving evidence – and patients with multiple morbidities. Other professions such as nurses and paramedics have however accepted much more risk, generally based on specific training and seniority, over the last decades. Knowing when the risk should lie with or be passed to a doctor, and what level of doctor, helps everybody and should be a shared view between professions.

Proposed actions.

As a profession, we should aim to map risk-holding expectations for different stages of a doctor's career path. There will be useful generic examples which will apply across all disciplines. There will also be specific examples relevant to different disciplines and crafts, so an overall map and then sub-maps would aid clarity.

Other industries and professions outside healthcare such as aviation manage uncertainty and considerable risks. We should learn from these industries where elements of practice might be transferable to doctors and other healthcare professionals. There will always be significant residual risk in many medical decisions and it is important this is understood by all including employing organisations and public commentators; risk can be managed down but not eliminated.

We should be as systematic at teaching the theory and training in the practicalities of holding, communicating and mitigating risk as we are for acquiring knowledge in diagnostic, procedural and other skills. It is perfectly possible both to teach and assess risk, as other areas of medicine but currently we largely do not.

We need to make it clear that holding risk is an integral part of a doctor's role, and that holding risk appropriately for the doctor's stage of career is an essential part of their development and training. We also need to reduce fear of litigation or disciplinary action (and the negative effects this has) through training and understanding of the need to hold risk and how best to do this safely with patients. Shared decision making with patients is the correct approach medically and fosters shared responsibility. Doctors need however to accept they carry risk as part of their professional responsibility.

We argue that the next step is a case for mapping risk holding in medicine at various stages of training and career against other health professions and members of the multidisciplinary team such as nurses, physiotherapists, paramedics, midwives, pharmacists and others. This would help make clear when risk may or should be shifted to doctors as part of their professional contribution, and when it should not. This could only be done as a joint endeavour with the professions involved, and taking into account their level of experience. The first priority for the medical profession should however be doing this for doctors in their various specialities and disciplines.

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