“I’m just not quite sure, so I’ll admit them”: Junior and middle grade doctor’s perceptions of how they tolerate the uncertainty associated with admission and discharge decisions in the Emergency Department.

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Short summary with key findings and conclusions

Rationale

A low tolerance for uncertainty amongst ED doctors has been associated with liberal approaches to admission and testing and negative psychological consequences such as burnout.

Aim

Use an existing model of uncertainty tolerance (Hillen et al., 2017) to explore how junior and middle grade doctors experience uncertainty in EDs, focusing on how uncertain admission and discharge decisions are responded to and the factors which doctors perceive to influence how they manage such cases. The findings will support the development of an intervention to enhance uncertainty tolerance (UT) surrounding patient management decisions.

Key findings

Where is uncertainty coming from?

- This study identified a range of uncertain stimuli associated with admission and discharge decision-making. These could be categorised into uncertainty as a result of probability (unpredictable future outcomes), ambiguity (lack of credibility, conflicting information and insufficient information) and complexity (multiplicity in cause and effect, conditional relationships and the need to integrate multiple cues).

How do ED doctors respond to uncertainty?

- Behavioural responses to this uncertainty depended on how reducible the uncertainty was perceived to be. Source-focused responses which generally served the purpose of seeking information (e.g. eliciting medical history and asking specialists), were in response to reducible uncertainty such as ambiguity and complexity. Responses focused on mitigating the consequences of

uncertainty, such as safety netting at discharge, were generally in response to unpredictable future outcomes.
- Doctors did not perceive any emotional response to uncertain admission decisions due to a general perception that hospitals are safe places. In contrast, worry, fear and discomfort were associated with discharging patients. Worry and fear were primarily responses to the unpredictability of symptom progression, particularly when consequences could be severe.

What influences these responses?

- A wide range of factors were identified which influence responses to uncertainty and ultimately, whether a patient is admitted or discharged. Factors were organised into categories including *patient characteristics, individual characteristics of the doctor, social factors, cultural factors, situational characteristics and organisational factors* with some promoting uncertainty management and others, regardless of how tolerant of uncertainty the doctor perceived themselves to be, hindering effective uncertainty management and generally, resulting in unnecessary admission.
- The influence of clinical experience on uncertainty tolerance was particularly emphasised. Uncertainty tolerance was perceived to increase throughout a doctor's career, primarily due to a growing acceptance that uncertainty is inevitable in EDs and a realisation that providing holistic treatment and definitive diagnoses is sometimes not possible and also, not an expectation in emergency medicine.

Conclusions

- That individual doctors' uncertainty tolerance depends on what they have experienced at work and develops over time, suggests uncertainty tolerance is, at least partially, trait-dependent. However, the differences between junior and more senior doctors are mitigated by contextual factors. For example, where workload is high or safety-netting structures are reduced at night time, it is sometimes not possible for senior doctors to reduce or tolerate uncertainty. This suggests that in the context of decision-making in the ED, uncertainty tolerance is informed by both trait- and state-based influences.
- In the context of admission and discharge decisions in the ED, uncertainty tolerance *constitutes* the thoughts and feelings in response to uncertainty (e.g. discomfort) whilst the downstream outcomes (e.g. decisions to admit) are driven by thoughts and feelings and therefore a *result* of uncertainty tolerance.
- Despite a need for further research about which contextual factors would have greatest effect, this study suggests value in ensuring ED doctors can engage in consequence-focused behaviours when patients are deemed safe for discharge and a need for clinical education to address uncertainty directly.

Hillen, M. A., Gutheil, C. M., Strout, T. D., Smets, E. M., & Han, P. K. (2017). Tolerance of uncertainty: Conceptual analysis, integrative model, and implications for healthcare. *Social Science & Medicine*, *180*, 62-75. https://www.sciencedirect.com/science/article/pii/S0277953617301703