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OPINION

Emotional Analgesia and the Decline of Rational Decision Making in Emergency Medicine

Daniel Stewart

Department of Emergency Medicine, Dubbo Health Service, Dubbo, New South Wales, Australia

Correspondence: Daniel Stewart (daniel.stewart@health.nsw.gov.au)

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ABSTRACT

Emergency Medicine is a cognitive specialty because its core deliverable is accurate choice under uncertainty. Pauker and Kassirer's threshold model describes how rational decisions are made when information is incomplete, yet contemporary practice has drifted away from this framework. Rapid assessment protocols and the routine use of non-specific investigations create the appearance of efficiency but displace the cognitive work that produces clinical judgement. These practices reinforce relief-seeking decision making—behaviour that reduces internal discomfort rather than diagnostic uncertainty. CRP exemplifies this pattern: it generates data that feels objective but rarely changes management and instead reinforces dependence on testing. If Emergency Medicine wants to produce threshold-based decision makers, then training environments must deliberately restore conditions that require probabilistic reasoning, articulate pre-test probabilities and withhold low-utility investigations. Otherwise, the specialty will continue to select for and reproduce relief-seeking behaviour.

Emergency Medicine (EM) is a cognitive specialty because its primary deliverable is accurate decisions amid uncertainty and within the context of an environment characterised by acuity, high decision density and time pressure [1]. How those decisions are made matters, and the field has generated a substantial body of research to understand what drives accuracy in this environment [2–4].

If we accept that accurate decision making is the central skill of EM, the next challenge is training clinicians to do it. If we want junior clinicians to become accurate decision makers in this environment we must define the decision process we expect them to use. Without a clear model of good decision making, we cannot realistically train someone to achieve it.

In their seminal work, Pauker and Kassirer [5] provided exactly such a model, describing how clinicians should decide when to act and when to withhold action based on probability and consequence. They defined two thresholds that determine when testing or treatment is rational:

1. *The testing threshold*: the probability is low enough that neither testing nor treatment is justified.
2. *The test-treatment threshold*: the probability is high enough that treatment should proceed without testing.

This threshold model is not just a theory; it is the framework emergency physicians should use to make decisions and it is the framework we should use to train the next generation.

Most readers will recognise the process even if they have never read the original paper. Threshold decision making follows a well-established sequence:

1. Estimate the pre-test probability.

2. Weigh the benefits and risks of testing or treatment.
3. Act only if the expected utility of acting exceeds the expected utility of not acting.

This probabilistic, threshold-driven approach improves diagnostic accuracy and prevents over-investigation, overtreatment and over-diagnosis. It also promotes rational use of resources.

Yet despite this well-established framework, contemporary EM has drifted away from it, even though this remains the core cognitive skill required to function effectively in our system.

Front-of-house models have normalised ordering pre-selected investigation suites based on presenting complaint category rather than probability estimates or clinical reasoning. This protocolisation may improve the appearance of efficiency in the pursuit of shorter length of stay, but the evidence for these models of care is both inconsistent and limited, and further research is needed before widespread implementation is justifiable [6, 7].

Alongside this, suites of non-specific investigations have become routine in the front-end of Emergency Department (ED) care. Tests such as ESR, D-dimer and respiratory virus panels are now commonly ordered on the basis of presenting complaint category alone. They generate numbers, but not decisions. They may increase the amount of information available, but most of that information is non-instrumental [8, 9]—noise masquerading as data. The results are predictable. Overtesting leads to overdiagnosis, and clinicians are diverted down low- or no-value diagnostic pathways.

Non-instrumental testing persists not because it improves decision making, but because it temporarily relieves the discomfort of uncertainty. Rather than develop the much-needed skill of probabilistic reasoning, what is reinforced is a different pattern entirely—'relief-seeking' decision making.

Relief-seeking decision making is the pattern in which the clinician acts to reduce their own internal discomfort in the face of uncertainty. This behaviour emerges because clinicians are drawn to actions that relieve internal tension, whether that tension arises from the absence of numerical data, concern they may be criticised for not ordering a test, or from an inability to tolerate ambiguity long enough for a rational decision to form.

Routinely ordering C-reactive protein (CRP) tests is the clearest example of this phenomenon. It produces a number that feels objective and therefore soothing, but in most undifferentiated adult ED presentations it does not change what happens next [10]. In these contexts, CRP is not information, it is emotional analgesia. When it aligns with the desired narrative the behaviour is reinforced; when it contradicts it, the discord is rapidly forgotten.

The uncomfortable implication is that any department that permits routine use of CRP in undifferentiated presentations is not training threshold-based decision makers; it is training relief-seeking decision makers.

The central concern is not the unnecessary test itself, but the thinking it displaces. Threshold decision makers must learn to tolerate uncertainty long enough for a rational choice to form. CRP removes that experience, and nothing trains tolerance of uncertainty like having to sit with it.

If we want emergency physicians who can tolerate uncertainty without flinching, we must restore the conditions that support threshold-based choices. We must also actively design systems that discourage relief-seeking decisions. Order sets should be abolished so that every investigation requires a deliberate choice, and senior clinicians must model uncertainty tolerance explicitly on the floor. Access to non-specific investigations should be restricted and require consultant approval to order. Before approval is granted, the requesting clinician should articulate the estimated probability of disease and how the proposed test result would change management.

By submitting clinical reasoning processes to scrutiny and evaluation, we can restore the learning environment that produces threshold-based decision makers.

The core deliverable of EM is accurate choice under uncertainty. If we want to preserve and foster that skill, we must create training environments that require it, and not allow those environments to be undermined by systems and cultures that promote relief-seeking behaviours.

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Conflicts of Interest

The author declares no conflicts of interest.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

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