

NEWS

'More than 80%' of diagnostic errors deemed preventable

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A perspective piece in the *Medical Journal of Australia* claims some form of diagnostic error occurs in up to one in seven clinical encounters.



An estimated 140,000 cases of diagnostic error occur in Australia each year.

And most are preventable, according to the authors.

The *Medical Journal of Australia* (MJA) [perspective](#) was penned by Professor Ian Scott, Director of Internal Medicine and Clinical Epidemiology at Princess Alexandra Hospital, and Associate Professor Carmel Crock, Emergency Department Director at the Royal Victorian Eye and Ear Hospital.

They claim an estimated [140,000 cases](#) of diagnostic error occur in Australia each year. Of those cases, 21,000 are of serious harm, and result in 2000–4000 deaths.

So what is the cause?

Knowledge deficits were only found to contribute to less than 5% of diagnostic errors. Rather, the evidence points to various cognitive factors, including biases.

'Cognitive factors in clinician decision-making are primary or contributory causes of more than 75% of diagnostic errors, with system errors (eg missed communication or follow-up of a laboratory test result) being less frequent,' the authors wrote.

'Failure to formulate an adequate differential diagnosis and overconfidence in incorrect diagnoses are major

contributors.'

While intuitive thinking may be the preferred reasoning mode, the authors argue that heuristics – using mental shortcuts or rules of thumb – can be misapplied due to cognitive bias.

'Emotions, fatigue, distractions, peer opinions, and cultural norms can also further impair cognitive fidelity,' the authors wrote.

When it comes to general practice, almost one in two malpractice claims against GPs involves a diagnostic error.

Yet evidence suggests that up to 40% of first-contact primary care consultations involving a diagnostic question do not yield a definite answer.

'In such situations, clinicians may feel pressured to prematurely commit to a diagnosis in order to activate management plans and demonstrate competence,' the authors hypothesise.

RACGP Expert Committee – Quality Care (REC–QC) member Dr Michael Tam told *newsGP* a way to avoid such a scenario is to be comfortable with 'sitting with uncertainty'. He says this appears to be easier the more experienced a doctor is, or the better they know the patient.

'Certainly sometimes it can feel like [GPs] are worried that the patient's going to think "I'm waffling on, I don't know what's going on" and so they may feel pressured to give a label,' Dr Tam said.

'If [a patient] comes with a relatively undifferentiated illness, it wouldn't actually be reasonable to ascribe a diagnostic label to it, simply because there is no way that you would know for sure.

'It could be a range of possibilities, but sometimes that range of possibilities is quite broad and, really, the diagnosis is more "I'm reasonably comfortable it's not a number of things, but what it actually is, is unclear".

'If the diagnosis is unclear, then don't rush it. Very often we can manage patients quite well without having a diagnostic label.'

When pressed for time, Dr Tam says it is more likely people will be inclined to rely on intuition, rather than think analytically. While this may work better for senior GPs, he agrees that it increases the likelihood for error.

Depending on the context, Dr Tam advises GPs not to feel restricted by the consultation time, and to make use of telehealth.

'I might need to structure a follow-up appointment at a particular time, rather than ask a person to come back if something happens. Or, if things are a higher risk and I'm concerned about an individual's adaptive capacity, I might give them a phone call in a day or so to see what's happening,' he said.

'Having those structures in place will allow that management of that risk. When someone presents the second or third time, often with some evolution of the clinical picture, the diagnosis is clearer.'

But what if a diagnostic error occurs?

The *MJA* authors note that clinical culture often discourages disclosure of diagnostic errors, and the topic is 'largely neglected' within professional training curricula and organisational quality and safety programs.

Dr Tam believes this is largely dependent on the set-up and culture of individual clinics.

'Let's say I'm working as a solo GP; I'm not going to have another person to discuss a potential clinical error with at least within my own four walls. And speaking to another GP who works locally; if I don't have a very strong, friendly relationship with that person, there's a perceived threat that you're revealing a vulnerability about yourself,' he said.

'Within certain group practices where we do work as a team, where there are regular team meetings in which you discuss challenging cases or cases where things have gone wrong – where there is an expectation for that to occur and when that occurs it's not people having a go at each other, but the focus is actually on peer support and improving quality of care – that can be very beneficial.'

'We're humans, we will make errors. Making the error ... is actually not the end point. Really, the issue is what happens because of it.'

The *MJA* authors claim taking a thorough patient history and performing an adequate physical examination can yield the correct diagnosis in 'more than 80% of cases', while failure to enact them contributes to '40% of missed diagnoses'.

To reduce cognitive errors, they propose the implementation of several strategies, including:

- engaging in lectures, seminars, group discussions, and interactive videos
- diagnostic checklists, particularly differential diagnoses
- cognitive forcing strategies that require clinicians to consciously slow their thinking and systematically evaluate all potential alternatives
- deliberate practice, which actively engages clinicians in solving diagnostic mysteries
- metacognition, which involves clinicians considering their thinking and reflecting on past diagnoses
- seeking second opinions on diagnoses
- following up over time, asking patients and colleagues to report errors, and implementing protocols for identifying those errors
- acknowledging, explaining and sharing diagnostic uncertainty with patients.

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