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MEDIA RELEASE

DIAGNOSTIC ERROR OCCURS IN ONE IN SEVEN CLINICAL ENCOUNTERS

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SOME form of diagnostic error occurs in up to one in seven clinical encounters, and most are preventable, according to the authors of a Perspective published online today by the *Medical Journal of Australia*.

Professor Ian Scott, Director of Internal Medicine and Clinical Epidemiology at Princess Alexandra Hospital in Brisbane and the University of Queensland, and Associate Professor Carmel Crock, Director of Emergency Department at the Royal Victorian Eye and Ear Hospital, wrote that in Australia, an estimated 140 000 cases of diagnostic error occur each year, with 21 000 cases of serious harm and 2000–4000 deaths. Almost one in two malpractice claims against general practitioners involves diagnostic error.

“More than 80% of diagnostic errors are deemed preventable,” they wrote.

“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”

Scott and Crock recommended several strategies for reducing cognitive errors:

- Lectures, seminars, group discussions, and interactive videos can all improve knowledge of cognitive biases and debiasing strategies, broaden differential diagnosis, and enhance reasoning processes;
- Diagnostic checklists, particularly differential diagnosis checklists;
- Cognitive forcing strategies -- any form of disciplined thinking, require clinicians to consciously slow their thinking and systematically evaluate all potential alternatives and mimics before finalising a diagnosis;
- Deliberate practice actively engages clinicians in solving diagnostic conundrums (real or vignette) and verbalising their reasoning (“thinking out loud”) as the case unfolds;
- Metacognition involves clinicians thinking about their thinking and reflecting on past diagnoses and appropriate use of heuristics;
- Seeking second opinions on one’s diagnoses from one’s clinical peers can increase diagnostic accuracy by as much as a third;
- Following up patients over time, asking patients and colleagues to report errors, and implementing protocols for identifying errors (eg, trigger tools within electronic medical records for identifying unexpected adverse events or unplanned readmissions, or systematic identification of errors within mortality and morbidity meetings) all provide information on final outcomes, thus checking the accuracy of initial diagnoses;
- Computer-assisted diagnosis in various forms can improve diagnostic performance;
- Acknowledging, explaining and sharing diagnostic uncertainty with patients helps to protect clinicians from rushing to ill-considered diagnoses.

“Despite limitations in current research, the scale and harm of diagnostic error obliges clinicians to consider adopting preventive strategies that have reasonable face validity, are easily implementable in workplaces, and target individual decision making,” Scott and Crock concluded.

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