

## Reducing Diagnostic Error in Australian Emergency Departments Using a Behavioural Approach

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**Abstract :** Diagnostic error rates in healthcare are approximately 10% of cases. Diagnostic errors can cause patient harm due to inappropriate, inadequate or delayed treatment, and such errors contribute heavily to medical liability claims globally. Therefore, addressing diagnostic error is a high priority. In most cases, diagnostic errors are the result of faulty information synthesis rather than lack of knowledge. Specifically, the majority of diagnostic errors involve cognitive factors, and in particular, cognitive biases. Emergency Departments are an environment with heightened risk of diagnostic error due to time and resource pressures, a frequently chaotic environment, and patients arriving undifferentiated and with minimal context. This project aimed to develop a behavioural, evidence-informed intervention to reduce diagnostic error in Emergency Departments through co-design with emergency physicians, insurers, researchers, hospital managers, citizens and consumer representatives. The Forum Process was utilised to address this aim. This involves convening a small (4 - 6 member) expert panel to guide a focused literature and practice review; convening of a 10 - 12 person citizens panel to gather perspectives of laypeople, including those affected by misdiagnoses; and a 18 - 22 person structured stakeholder dialogue bringing together representatives of the aforementioned stakeholder groups. The process not only provides in-depth analysis of the problem and associated behaviours, but brings together expertise and insight to facilitate identification of a behaviour change intervention. Informed by the literature and practice review, the Citizens Panel focused on eliciting the values and concerns of those affected or potentially affected by diagnostic error. Citizens were comfortable with diagnostic uncertainty if doctors were honest with them. They also emphasised the importance of open communication between doctors and patients and their families. Citizens expect more consistent standards across the state and better access for both patients and their doctors to patient health information to avoid time-consuming re-taking of long patient histories and medication regimes when re-presenting at Emergency Departments and to reduce the risk of unintentional omissions. The structured Stakeholder Dialogue focused on identifying a feasible behavioural intervention to review diagnoses in Emergency Departments. This needed to consider the role of cognitive bias in medical decision-making; contextual factors (in Victoria, there is a legislated 4-hour maximum time between ED triage and discharge / hospital admission); resource availability; and the need to ensure the intervention could work in large metropolitan as well as small rural and regional ED settings across Victoria. The identified behavioural intervention will be piloted in approximately ten hospital EDs across Victoria, Australia. This presentation will detail the findings of all review and consultation activities, describe the behavioural intervention developed and present results of the pilot trial.

**Keywords :** behavioural intervention, cognitive bias, decision-making, diagnostic error

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