An e-Delphi study to obtain expert consensus on the level of risk associated with preventable e-prescribing events.

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Abstract

Objectives We aim to seek expert opinion and gain consensus on the risks associated with a range of prescribing scenarios, preventable using e-prescribing systems, to inform the development of a simulation tool to evaluate the risk and safety of e-prescribing systems (ePRaSE). Methods We conducted a two-round eDelphi survey where expert participants were asked to score pre-designed prescribing scenarios using a five-point Likert scale to ascertain the likelihood of occurrence of the prescribing event, likelihood of occurrence of harm and the severity of the harm. Results Twenty four experts consented to participate with fifteen participants and thirteen participants completing rounds 1 and 2 respectively. Experts agreed on the level of risk associated with 136 out of 178 clinical scenarios with 131 scenarios categorised as high or extreme risk. Discussion We identified 131 extreme or high-risk prescribing scenarios that may be prevented using e-prescribing clinical decision support. The prescribing scenarios represent a variety of categories, with drug-disease contraindications, being the most frequent representing 37 (27%) scenarios and antimicrobial agents being the most common drug class representing 28 (21%) of the scenarios. Conclusion Our eDelphi study has achieved expert consensus on the risk associated with a range of clinical scenarios with most of the scenarios categorised as extreme or high risk. These prescribing scenarios represent the breadth of preventable prescribing error categories involving both basic and advanced clinical decision support. We will use the findings of this study to inform the development of the e-prescribing risk and safety evaluation tool.

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