EDITORIAL

Guidelines: innovation needed to overcome barriers to use

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Medical information continues to increase at an accelerating rate, and there are challenges with keeping up to date with this information which can be conflicting at times. This can be exacerbated in specialities such as general practice, where a GP must have good working knowledge of about 160 conditions to manage 85% of presentations, as shown in an Australian study.[1] Clinical guidelines can be helpful in this context and have the capacity to assist decision making, reduce variation in care and support quality improvement activities.[2] They do not replace clinical judgement. Instead, their application must be individualised to each patient, as they may not be appropriate for all patients.

Despite the stated benefits of guidelines, they are underused. Cardiovascular disease is a clear case in point. Over one million Australians have cardiovascular disease, and 25% of deaths in Australia in 2019 were related to this condition.[3] National clinical guidelines exist to facilitate primary and secondary prevention, yet only about half of all people with established cardiovascular disease are prescribed guideline-recommended treatments.[4] This number is even lower for those at high cardiovascular risk who are yet to have their first cardiac event.[4]

It is evident that the provision of guidelines on their own is not enough to change practice. While significant amounts of time, effort and money often underpin guideline development, these are not always mirrored by an investment in implementation, which is influenced by factors related to patients, politics, health organisations and clinicians.[5] In the Australian general practice setting, some of these factors that make guidelines difficult to use at the point of care include:

- the application of disease-specific clinical guidelines in the context of multimorbidity
- a lack of alignment between guidelines and funding mechanisms, such as the Pharmaceutical Benefits Scheme
- the development of some guidelines relying on health foundations and colleges that may have limited funding for updates and implementation, in contrast to countries like the United Kingdom with centralised, government-funded guidelines
- multiple guidelines for the same condition that have conflicting recommendations
- a lack of trust in guidelines where there are apparent conflicts of interest
- the applicability of guidelines to local primary care settings
- the costs of accessing subscription-based clinical guidelines
- the housing of guidelines and clinical resources on different platforms and websites
- variations in the format and length of guidelines.

Recognising the challenges in applying guidelines into practice has seen the introduction of more user-friendly flow diagrams and primary care-specific abbreviated guidelines by some groups. Some examples include the Kidney Health Australia Chronic Kidney Disease Management Handbook[6] and summaries in the Therapeutic Guidelines.[7] The implementation of these guidelines could be further realised by harnessing innovation to progress from the passive publication of guidelines to active clinical decision support. This is likely to achieve benefits by moving away from the reliance on clinicians making the decision to search for information to the active provision of key information at the point of care.

Australian general practices were early adopters of electronic medical records in the 1990s, with near universal computerisation by 2006.[8] The data recorded can be harnessed to facilitate personalised clinical decision support and translate research and clinical guidelines into practice. Concerns have been raised about limitations associated with the suboptimal quality of data entry in electronic medical records. However, there is an opportunity to develop methods that account for this and to motivate changes in recording behaviour to standardise data entry if the tools have clinical value.[9]

Electronic clinical decision support can assist the performance of health professionals,[10,11] and is more likely to be effective if the advice is provided automatically, on a screen, with patient-specific suggestions, and in combination with other strategies such as the involvement of key opinion leaders and use of educational sessions.[12] This may be facilitated by the development of a community of practice, in which knowledge can cross boundaries between general practices and health services, promoting the standardisation of practice and facilitating innovation.[13]

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The Royal Australian College of General Practitioners has released a position statement on electronic clinical decision support, identifying opportunities to facilitate the incorporation of treatment guidelines and recommendations, and to improve efficiency through the provision of information that incorporates safety and cost benefits.[14] Clinical decision support features prominently in the government's 10-year primary care plan, with a longer-term aim that 'Clinical decision support tools are supporting best practice in prescribing, point-of-care testing, requests for pathology and diagnostic imaging, safe use of medicines, genomics and virtual care technologies'.[15] The key to achieving this vision is the development of standards and software interoperability.

While standards and interoperability are important to provide a strong foundation, the development and implementation of electronic clinical decision support needs investment that extends beyond technical development and focuses on the needs of end users and implementation. A suboptimal design would lead to alerts being overridden, ignored or misinterpreted and can disrupt workflow, resulting in increases in consultation time, cognitive load and physical fatigue.[16] Successful development and implementation will depend on partnerships between clinicians, researchers, guideline developers and the medical software industry, so that any tools that are developed incorporate guidelines that are endorsed and trusted in a way that optimises usability in practice.

Nearly 85% of Australians consult a GP at least annually.[17] Personalised, evidence-based care can optimise their health outcomes, and GPs may benefit from access to the technology and information that can support them to provide this. Trusted guidelines incorporated into the workflow as part of smart clinical decision support may be one piece of the puzzle to achieve this. It will be important to evaluate the impact of such tools on patient outcomes. The 10-year primary care plan provides an opportunity to transform active, embedded clinical decision support from aspiration to reality. ≺

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