

Building capacity for development and implementation of clinical practice guidelines

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Robust, reliable and transparent methodologies are necessary to ensure that clinical practice guidelines (CPGs) meet international criteria. In South Africa (SA) and other low- and middle-income countries, upskilling and training of individuals in the processes of CPG development is needed. Since *de novo* CPG development is time-consuming and expensive, new emerging CPG-development approaches (adopting, contextualising, adapting and updating existing good-quality CPGs) are potentially more appropriate for our context. These emerging CPG-development methods are either not included or sparsely covered in existing training opportunities. The SA Guidelines Excellence (SAGE) team has responded innovatively to the need for CPG training in SA. We have revised an existing SA course and developed an online, open-access CPG-development toolkit. This Guideline Toolkit is a comprehensive guideline resource designed to assist individuals who are interested in knowing how to develop CPGs. Findings from the SAGE project can now be implemented with this innovative CPG training programme. This level of CPG capacity development has the potential to influence CPG knowledge, development, practices and uptake by clinicians, managers, academics and policy-makers around the country.

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Robust, reliable and transparent methodologies must be followed to ensure that clinical practice guidelines (CPGs) meet international criteria. Over the past few years, leading international guideline groups have made significant strides in refining and describing the rigour required when developing good-quality CPGs.^[1] These quality standards require the inclusion of a diverse team of stakeholders.^[2] However, these stakeholders often have varying backgrounds, limited experience in CPG development and limited competency in determining the strength of the body of evidence and how this underpins recommendations. Within our context and in other low- and middle-income countries, upskilling and training individuals in the processes of CPG development is crucial to facilitate uniformity and quality in how CPGs are developed, written and implemented. In addition, training an increasing number of individuals in CPG-development skills will build capacity in CPG development, which will continue to advance progress to standardising practices of care.

One of the main goals of the South Africa Guidelines Excellence (SAGE) project^[3] is capacity building in developing, implementing and evaluating training for best-practice training modules regarding CPG activities. To understand the international landscape in CPG training, the SAGE team conducted a review of all CPG courses currently being conducted globally. We found that CPG training courses, albeit limited, are mostly delivered by universities (as component courses of professional degrees) and professional groups (as short courses). In addition, groups dedicated to CPG activities (such as the Guideline International Networks) have published information about CPG development on their websites, which provides some guidance.

Our assessment of CPG courses also showed that all currently available courses focus on developing *de novo* (new) guidelines.^[1] The focus of the course content includes identifying a topic or condition of

interest, searching for the evidence, appraising the evidence, synthesising the evidence and formulating recommendations. Since *de novo* CPG development is time-consuming and expensive, there are new emerging CPG-development approaches (adopting, contextualising, adapting, and updating existing good-quality CPGs^[4]) that are potentially more appropriate in low- and middle-income settings, where there is a need for practical and efficient evidence translation rather than recreating the wheel of evidence synthesis. These emerging CPG-development methods, as well as other important topics linked to CPGs, such as updating and implementation, are either not included or sparsely covered in existing training opportunities.

The SAGE team has responded innovatively to the need for CPG training in South Africa (SA), as well as to addressing the gaps in currently available training courses. Using an already-available CPG module offered as part of the Masters in Clinical Epidemiology at Stellenbosch University (www.sun.ac.za/clinpepi), we have transformed the content of this module. The main outcomes of the module (which is also registered as a short course) are shown in Table 1.

There is currently no available standard set of requirements and training for planning, conducting and evaluating CPG courses. We also found in our assessment of existing courses that the duration and delivery of CPG courses varied considerably.^[4] CPG courses were delivered in different formats, such as face-to-face, in online sessions and in group discussions. Our course uses adult learning strategies delivered in a blended mode of contact and e-learning platforms. The course is presented over one semester, and participants have the option of completing the course based on attendance or on competence, in which case all assessments must be completed.

We have further enhanced the SA course by developing an online, open-access CPG-development toolkit.^[5] This Guideline Toolkit

Table 1. Main outcomes of clinical-practice-guideline module objectives

1. Outline principles of evidence-based healthcare and study designs
2. Describe principles and different methods of evidence-based clinical-guideline development (*de novo* and alternative methods)
3. Critically appraise clinical guidelines using rapid and complex tools
4. Outline principles of grading the quality of evidence to inform clinical-guideline development
5. Discuss approaches in moving from evidence to recommendations
6. Understand concepts in writing recommendations
7. Outline principles of implementation of clinical guidelines including consideration of stakeholders, and barriers and facilitators to successful guideline implementation
8. Develop a plan for implementation of a clinical guideline using appropriate strategies
9. Outline methods of monitoring and evaluating a clinical guideline

(<https://guidelinetoolkit.org.za/>) is a comprehensive guideline resource designed to assist individuals who are interested in learning how to develop CPGs. Presented in a user-friendly manner, this online toolkit facilitates access to relevant available global resources to support each of the processes involved in guideline writing. This toolkit includes a decision-making algorithm to assist users in making a decision on which CPG approach should be followed (i.e. *de novo* development or alternative methods such as adopting, adapting and/or contextualising). Descriptions and resources for each of these CPG methods are hosted on the site.

Conclusion

Project SAGE has provided a unique opportunity in SA to research CPG processes and outcomes. Findings from the project are now able to be implemented in this innovative CPG training programme, which has the potential to influence CPG knowledge, practices and uptake by clinicians, managers, academics and policy-makers around the country.

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1. Schünemann R, Brożek H, Guyatt G, Oxman A, eds. GRADE Handbook: Handbook for Grading the Quality of Evidence and the Strength of Recommendations using the GRADE Approach. Hamilton, Canada: The Grade Working Group, 2013.
2. Grimmer K, Dizon JM, Louw Q, Kredt T, Young T, Machingaidze S. South African Guidelines Excellence (SAGE): Efficient, effective and unbiased clinical practice guideline teams. *S Afr Med J* 2016;106(5):26-27. <https://doi.org/10.7196/SAMJ.2016.v106i5.10770>
3. South African Medical Research Council. South African Guideline Excellence Project. <http://www.mrc.ac.za/cochrane/sage.htm> (accessed March 2017).
4. Dizon JMR, Ochodo E, Young T, et al. A review of teaching and learning strategies and existing CPG courses for effective training in clinical practice guideline development approaches. Presented at the Guidelines International Network (GIN) Conference, 26 - 30 September, Philadelphia, USA, 2016.
5. SAGE Project. SAGE – Guideline Toolkit. <https://guidelinetoolkit.org.za/> (accessed 23 March 2017).

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