COCHRANE CORNER

South African Guidelines Excellence (SAGE): Adopt, adapt, or contextualise?

J M Dizon,^{1,2} PhD, MSPT, BSPT; K Grimmer,^{3,4} PhD, MMedSc, LMusA, BPt, Cert Health Economics; Q Louw,⁴ PhD, MASP, BSc (Physio); T Kredo,⁵ MMed (Clin Pharm), MB ChB, Dip HIV Man; T Young,^{1,5} PhD, MMed, FCPHM, MB ChB; S Machingaidze,^{5,6} MPH, BSc Hons, BSc

- ¹ Centre for Evidence-Based Health Care, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa
- ² Center for Health Research and Movement Science, University of Santo Tomas, Manila, Philippines
- ³ International Centre for Allied Health Evidence, City East Campus, University of South Australia, Adelaide, Australia
- ⁴ Department of Physiotherapy, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa
- ⁵ Cochrane South Africa, South African Medical Research Council, Cape Town, South Africa
- ⁶ European and Developing Countries Clinical Trial Partnership, Cape Town, South Africa

Corresponding author: J M Dizon (dizonj@sun.ac.za)

Clinical practice guideline (CPG) activities must be planned carefully for efficient use of available resources and evidence-based implementation. *De novo* development of CPGs may sometimes 'recreate the wheel' and delay implementation. Three innovative alternatives to *de novo* CPG development (adopt, contextualise or adapt) are outlined, which have greater potential than *de novo* development to best use the limited available resources, personnel and time in settings such as South Africa.

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Clinical practice guidelines (CPGs) assist policymakers, managers, clinicians and patients to make evidence-informed health-care decisions. [1] Most CPGs have been developed by reputable internationally recognised groups with established methods, and experienced multidisciplinary teams (methodologists and content experts). [2-5] They are generally based in higher-income countries and focus on their healthcare priorities and systems. [6]

As more low- and middle-income countries (LMICs) use CPGs to improve healthcare practices, policymakers, managers and clinicians can draw on existing CPGs. However, these may be of questionable relevance to local settings (nature of practice, resources available, etc.) and local health priorities (country-specific priorities such as HIV or TB in Africa). Consequently, CPG groups in these countries may opt to develop *de novo* locally relevant CPGs, rather than considering how they could efficiently 'localise' existing CPGs.

Developing *de novo* guidelines is expensive and time-consuming and requires CPG knowledge, skills and expertise, which are limited in LMICs, including South Africa (SA).^[7] The need for evidence-informed and cost-efficient healthcare is urgent, and CPGs produced for local needs in these countries may have compromised quality and credibility and fail to meet international reporting standards for CPGs.^[8] We have previously examined critical components of good-quality CPGs,^[9] the potential of dedicated projects

such as South African Guidelines Excellence (SAGE) to better understand the development, implementation and use of CPGs in SA primary care settings,^[10] and the construction and management of effective, efficient and outcome-focused CPG teams.^[11] An alternative approach to CPG development is proposed that involves adopting, contextualising or adapting existing CPGs to suit local purposes. We outline four steps for determining the need for developing *de novo* CPGs, or identifying an alternative (Fig. 1).

Step 1. Establish the CPG condition, target patient group and endusers

Identify the condition, and the characteristics of patients for whom guidance is needed and who will use the CPG.

Step 2. Identify existing CPGs

Search reputable guideline sources for relevant CPGs. Several guideline sites allow free access to full CPGs developed for a range of conditions. Useful CPG resources can be accessed at http://www.mrc.ac.za/cochrane/SAGEResources.pdf

Step 3. Screen the CPGs and decide whether *de novo* development is necessary

Check whether the CPG was published within the past 5 years and is of good quality using standardised tools^[12-13] such as AGREE II^[14] or the iCAHE tool.^[15]

- (a) If a CPG is outdated or of poor quality, an update is recommended using formal de novo methods. [1,16]
- (b) If a CPG is current and of good quality, it is justifiable to use it and decide whether to adopt, contextualise or adapt the recommendations.

Step 4. Consider whether to adopt, adapt or contextualise

Step 4.1 Adopt

Decide to *adopt* if the CPG has recommendations that are relevant and applicable



Fig. 1. Steps in determining the need for CPG de novo development and other CPG approaches.

to local needs and settings. CPG adoption is a method where CPGs produced elsewhere are used as is, and directly implemented into practice. [17] Countries with the same patient types, health systems and resources should be able to adopt and implement such CPG recommendations.

Step 4.2 Contextualise

Decide to contextualise if the CPG has recommendations relevant to local needs; however, consideration of local context issues is required prior to implementation. CPG contextualisation is a method where recommendations from CPGs produced elsewhere can be adopted; however, additional information is required to address local $contexts.^{\tiny{[17-18]}}$

Current good-quality CPGs for many conditions, such as chronic pain, should be applicable to patients in most settings. The challenge is to contextualise (localise the evidence to fit local contexts), [19] e.g. high-quality CPGs for chronic pain commonly recommend that patients should participate in individualised exercise programmes to improve function, [18-20] which is relevant to chronic pain patients internationally. However, this may be difficult to implement in many SA communities, as trained exercise instructors, exercise equipment or safe exercise spaces may not be available. To implement this CPG recommendation, contextualisation is therefore required (find a secure community space, and use mats, towels, and kitchen items for weights), and regular group/community exercise programmes may be implemented as alternative strategies.

Step 4.3 Adapt

Decide to adapt if CPG recommendations are unachievable in local circumstances, and new evidence must be added to make them relevant to local conditions and therefore implementable. CPG adaptation is a method where recommendations are taken from CPGs produced elsewhere but amended to include local research evidence and expert group consensus. [15] In adapting, a process of layering the evidence underpinning recommendations from existing CPGs with additional local evidence is used. For example, if drug A, which is recommended in high-quality CPGs for patients with acute stroke, is not available in a country (not registered, too expensive, cannot be safely stored, etc.) and instead drug B is locally available, affordable, with locally tested evidence and with equivalent benefits to drug A, the CPG recommendation could be adapted to suggest that drug B could be used.

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- 1. Schünemann HJ, Wiercioch W, Etxeandia I, et al. Guidelines 2.0: Systematic development of a comprehensive checklist for a successful guideline enterprise. Can Med Assoc J 2014;186(3):E123-E142. ://dx.doi.org/10.1503/cmai.131237
- National Institute for Health and Care Excellence. http://www.nice.org.uk/ (accessed 26 April 2016).
- Scottish Intercollegiate Guidelines Network. http://www.sign.ac.uk/ (accessed 26 April 2016). National Health and Medical Research Council. http://www.nhmrc.gov.au/ (accessed 26 April 2016).
- World Health Organization. http://www.who.int/publications/guidelines/en/ (accessed 26 April 2016). 6. Birbeck G, Wiysonge C, Mills E, Frenk J, Xiao-Nong Z, Jha P. Global health: The importance of
- evidence-based medicine. BMC Med 2013;11:223. http://dx.doi.org/10.1186/1741-7015-11-223
 7. Kredo T, Gerritsen A, van Heerden J, et al. Clinical practice guidelines within the Southern African development community: A descriptive study of the quality of guideline development and concordance with best evidence for five priority diseases. Health Res Pol Syst 2012;10(1):1-13. http:// dx.doi.org/10.1186/1478-4505-10-1
- 8. Machingaidze S, Zani B, Abrams A, et al. Quality and Reporting Standards of South African Primary
- Care Clinical Practice Guidelines. J Clin Epidemiol 2016 (in press).

 9. Machingaidze S, Kredo T, Young T, Louw Q, Grimmer K. South African Guidelines Excellence $(SAGE): Clinical\ practice\ guidelines-quality\ and\ credibility.\ S\ Afr\ Med\ J\ 2015; 105(9): 743-745.\ http://dx.doi.org/10.7196/SAMJnew.7697$
- 10. Kredo T, Machingaidze S, Louw Q, Young T, Grimmer K. South African Guidelines Excellence (SAGE): What's in a name? S Afr Med J 2016;106(1):18-20. http://dx.doi.org/10.
- Grimmer K. Louw Q, Kredo T, Young T, Machingaidze S, Dizon JMR. South African Guidelines Excellence (SAGE): Efficient, effective and unbiased clinical practice guideline teams. S Afr Med J 2016;106(5):440-441. http://dx.doi.org/10.7196/SAMJ.2016.v106i5.10770
- 12. Grimmer K, Machingaidze S, Dizon JMR, Kredo T, Louw Q, Young T. South African clinical practice guidelines quality measured with complex and rapid appraisal instruments. BMC Res Notes 2016;9:244. http://dx.doi.org/10.1186/s13104-016-2053-z
- 13. Siering U, Eikermann M, Hausner E, et al. Appraisal tools for clinical practice guidelines: A systematic review. PLoS One 2013;8:e82915. http://dx.doi.org/10.1371/journal.pone.00
- AGREE Organization. http://www.agreetrust.org/agree-ii/ (accessed 26 April 2016).
 Grimmer K, Dizon J, Milanese S. Efficient clinical evaluation of guideline quality: Development and testing of a new tool, BMC Res Notes 2014;14(63):1-10, http://dx.doi.org/10.1186/1471-2288-14-6
- 16. Gambito E, Gonzalez-Suarez CB, Grimmer K, et al. Updating contextualized clinical practice guidelines on stroke rehabilitation and low back pain management using a novel assessment framework that standardizes decisions. BMC Res Notes 2015;8(643):1-12. $\frac{1}{12} \frac{1}{12} \frac{1$
- 17. Dizon JMR, Machingaidze S, Grimmer K. To adopt, to adapt, or to contextualise? The big question in clinical practice guideline development. BMC Res Notes 2016:9:442. http://dx.doi.org/10.1186/s13104-
- 18. Gonzalez-Suarez C, Grimmer-Somers K, Dizon JM, et al. Contextualising Western guidelines for stroke and low back pain to a developing country (Philippines): An innovative approach to putting evidence into practice efficiently. J Healthc Leadersh 2012;4:141-146. http://dx.doi.org/10.2147/JHL.S35370
- 19. Eisenberg IM, Globalize the evidence, localize the decision: Evidence-based medicine and international diversity. Health Aff 2002;21(3):166-168. http://dx.doi.org/10.1377/hlthaff.21.3.166
- 20. Hooten WM, Timming R, Belgrade M, et al. Institute for Clinical Systems Improvement: Assessment and Management of Chronic Pain. Updated November 2013. https://www.icsi.org/_asset/b ChronicPain.pdf (accessed 26 April 2016).

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