Development of Health Guidelines for the Kingdom of Saudi Arabia

Project Overview

A collaboration between the Ministry of Health (MoH) of the Kingdom of Saudi Arabia (KSA), through the Saudi Centre for Evidence Based Health Care (EBHC), and McMaster University, Department of Clinical Epidemiology and Biostatistics and the MacGRADE Centre. The project is a continuation of the initiative to establish a program of rigorous adaptation and development of health care guidelines introduced in 2013.

The ultimate goal of the project is to provide guidance for health care providers in priority areas, assist them in evidence-based clinical decision-making, and reduce variability in clinical practice across the KSA.

Objective: To develop health care guidelines on 12 clinical topics for the KSA healthcare setting.

Guideline Topics:

1. Prevention of venous thromboembolism (VTE) in nonsurgical patients
2. Prevention of VTE in surgical patients
3. Management of eclampsia
4. Management of pre-eclampsia
5. Screening for hypertension
6. Management of ST-elevation myocardial infarction
7. Screening for colon cancer
8. Management of obesity/overweight in adults
9. Management of breast lump
10. Migraine diagnosis and treatment
11. Management of thalassemia – treatment of iron overload and supplementation
12. Management of sickle cell anemia – acute and chronic

Groups, Roles and Responsibilities:

McMaster Guideline Working Group: Methodology team supporting the guideline development process, consisting of researchers with background in clinical and other health sciences with formal training in methods and experience in guideline development. Guideline leaders from the team will work with the Saudi Expert panels to produce the guidelines.

Saudi Centre for EBHC: Coordination team responsible for project management, facilitating the guideline development work and communication between McMaster guideline leaders and Saudi Expert panels.
**Saudi Expert Panels:** Content experts serving as guideline panelists, responsible for prioritization of clinical questions that will be addressed in the guideline, providing input on evidence applicable to the KSA healthcare setting and contextual factors for guideline adaptation, and participation in a final panel meeting to formulate guideline recommendations.

**Updated Project Timeline:**

<table>
<thead>
<tr>
<th>Month</th>
<th>Task</th>
<th>Steps in orange are tasks to be completed by panel members</th>
<th>Estimate of time needed for panel member to complete task</th>
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<tbody>
<tr>
<td>June</td>
<td>Panel selection</td>
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<td></td>
<td>Introduction to McMaster guideline leaders</td>
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<td>Introductory Presentation for panels</td>
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<tr>
<td>July &amp; August</td>
<td>Complete clinical question prioritization survey</td>
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<td>Declaration of potential conflicts of interest (COI) (online survey)</td>
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<td>Agreement on final questions selected for guideline</td>
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<td>September</td>
<td>Start updating the evidence</td>
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<td></td>
<td>Searching for evidence specific to local context (e.g. baseline risks, values and preferences, resource use)</td>
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<td>October</td>
<td>Panel training – using evidence profiles, Evidence-to-Decision framework, formulating and rating the strength of recommendations</td>
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<td>2 hr</td>
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<td>Panel input on known local studies and data</td>
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<tr>
<td>November</td>
<td>Preparation of GRADE evidence profiles</td>
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<td>Preparation of GRADE Evidence-to-Decision (EtD) tables</td>
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<td>December</td>
<td>Final workshop and in-person panel meetings to formulate recommendations (December 15-18)</td>
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<td>Drafting the guideline report</td>
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<td>January</td>
<td>Panel review and feedback on draft guideline</td>
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<td></td>
<td>External peer review</td>
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<td>Panel approval of final guideline</td>
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<td>Delivery of final guideline (January 31st)</td>
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**Process, Methodology and Steps:**

Project will follow methodology outlined in the *Saudi Arabian Handbook for Healthcare Guideline Development*. The process used for developing the guidelines will be that of ‘adolopment’.

Ad-o-lopment = Adaptation + Adoption + Development

The process begins with identifying existing evidence syntheses, including systematic reviews, health technology assessments (HTAs), and evidence reports, which may have been produced to support previous guidelines and address specific health care and clinical questions.

Guideline panels will prioritize and select on average 10-15 questions for the KSA guideline (may be fewer for some guidelines) from the existing evidence syntheses and original guidelines that have been identified for the 12 clinical topics prioritized by MoH stakeholders.
The McMaster guideline working group will work on updating the evidence syntheses by searching the most recent literature. We will also search the literature for studies and data relevant to the local Saudi healthcare setting (e.g. disease baseline risks, patients’ values and preferences, economic data), and solicit this information from panel members. The GRADE approach will be used to summarize the evidence, rate its quality, and present the summary in GRADE evidence tables (called Evidence Profiles and Summary of Findings tables) for each clinical question addressed in the guideline. Guideline panel members will review the evidence summaries prior to a final panel meeting. The GRADE/DECIDE Evidence-to-Decision framework (developed through the DECIDE collaboration) will be used to move from the evidence to the formulation of recommendations and rating of the strength of the recommendations in the panel meeting. Training on the GRADE approach for guideline development will be provided to panel members.

How original guidelines and evidence syntheses were selected as a starting point:

The McMaster guideline working group searched for eligible guidelines and evidence syntheses to use as a starting point for the development of the KSA guidelines based on the following criteria:

- Provide evidence summaries that are transparent evidence syntheses (e.g. systematic reviews) to allow for the production of GRADE evidence tables.
- Use transparent criteria for moving from evidence to recommendations
- Ideally, use transparent recommendation and grading methodology
- Recently published (last 4-5 years)

Note: Simple narrative summaries of the evidence used for some guidelines, without reporting of the estimates of effects of interventions/treatments on patient-important outcomes and no clear link between evidence and recommendations, do not quality as eligible evidence syntheses to use as a starting point for the KSA guidelines project.

First Steps:

Panel members will be introduced to the McMaster guideline leader(s) for their guideline. The guideline leaders will prepare online question prioritization surveys that will be sent by email to panel members (emails will come from the Saudi Centre for EBHC).

Panel members will rate the importance of each question for the KSA healthcare setting on a scale of 1-9 (least important - most important), focusing on the patients’ perspectives (e.g. taking into consideration the impact that the eventual recommendations for the question may have on outcomes important for patients, such as mortality, morbidity, and quality of life). In the rating, panel members will consider the relative importance of the questions relative to each other. It is important to consider the relative importance to differentiate the questions for prioritization (e.g. rating all questions a 9 will not be helpful for prioritization).

The McMaster guideline leaders will analyze the survey results and present the proposed set of questions to be included in the guideline for panel approval. Once the questions are selected and approved, it will not be possible to modify or add questions to the guideline later in the project.

Panel members will also declare potential Conflicts-of-Interest (COI) in the online survey, using a standardized form adopted from the World Health Organization.
**Additional Resources for Saudi Expert Panels:**


2. Published 2013-2014 Clinical Practice Guidelines

3. Read about the GRADE approach:


4. View the training videos on the KSA project webpage