

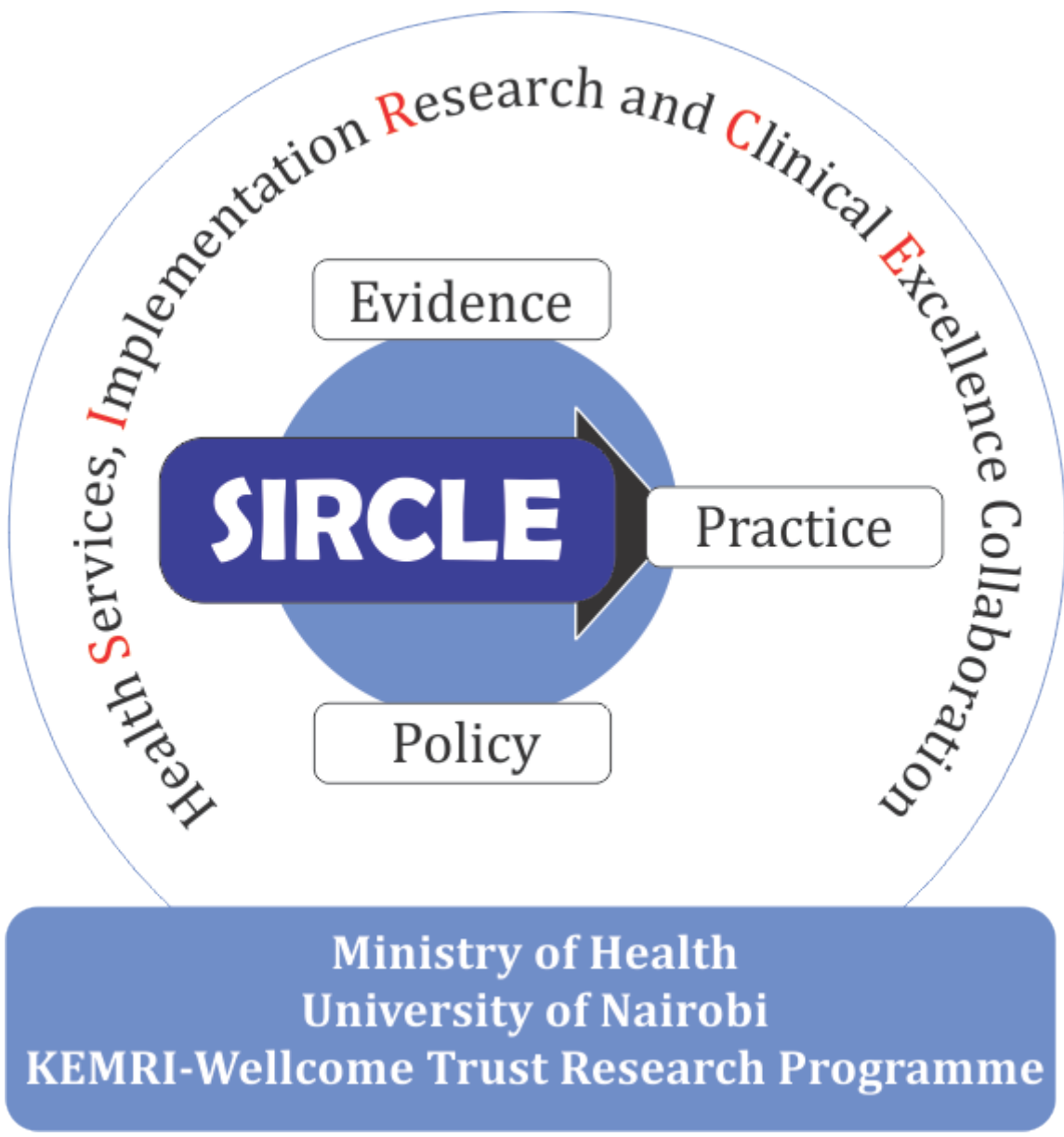


# Using the GRADE approach to develop guidelines in low-income countries: view of guideline panelists in Kenya

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## Background

In Kenya, as in many low-income countries, clinical guidelines are formulated through direct adoption or adaptation of global guidance. However, Kenya has used the GRADE approach since 2010 to formulate evidence-informed paediatric recommendations. We report on the experience in the 2013 guideline development process.

The GRADE (Grading of Recommendations; Assessment, Development and Evaluation) approach is a rigorous set of methods for developing evidence-informed recommendations [1]. The approach promotes; i) systematic evaluation of the available evidence, ii) an explicit link between evidence and recommendations, and iii) a transparent process. The World Health Organization (WHO) and many other guideline groups and professional organizations

## METHODS

### Guideline development

The Kenya Paediatric Association convened guideline panels for three priority topics:



- Prior to the panel meetings, researchers prepared evidence summaries for each of the topics. These were provided to the panelists one month before the meeting.
- During the meeting, the lead author of the review presented the findings with draft assessments of the quality of evidence and answered detailed questions.
- The panels debated the overall quality of evidence until this was agreed.
- The panels, guided by the panel chairs and methodologists, then followed the DECIDE framework for moving from evidence to recommendations.  
*DECIDE framework - costs, acceptability and preferences (staff+patients), Balance of benefits and risks, and feasibility.*
- The panels debated the potential recommendations until consensus was achieved facilitated by open voting.

### Participant experience evaluation

Six months after, we invited panelists for in-depth interviews. All interviews were audio-recorded, transcribed, and analyzed using a framework analysis approach.

MG coded the transcripts then combined related codes, through an iterative process of content analysis in regular discussion with DS, to form the main themes. Our analysis focused on allowing themes to emerge from the data and we circulated the first draft of themes to interviewees to check authenticity and completeness of reporting.

You can read more at <http://www.idoc-africa.org>

## RESULTS

### Outcome of participant experience evaluation

<b>Theme 1: National context is important</b> Knowledge and understanding of the national context were considered essential to effective national policy making. Participants felt that greater involvement of diverse national policymakers in global guideline processes would improve the usefulness of global recommendations.
<b>Theme 2: Debating the evidence increases confidence</b> Participants linked clear understanding of the evidence with improved confidence that the right recommendations had been made, and greater confidence to explain and justify the recommendations to colleagues and patients.
<b>Theme 3: Panel engagement strengthens ownership of the recommendations</b> Ownership of recommendations was considered important by many to ensure effective dissemination and implementation. Representation on the guideline panel was considered an important way to ensure ownership, and this principle was applied to both national and global guidelines.
<b>Theme 4: Mixed views on capacity for wider adoption</b> The GRADE approach was valued for its transparency and methodological rigor. Some, including those in higher positions, felt that this process should be adopted more widely in Kenya, and were convinced that this was an improvement on the current national process. Funding and time were the main factors hindering the feasibility of the process.
<b>Theme 5: Implementation is the weakest link</b> Dissemination and implementation were viewed as the weak links in effecting policy change. Participants gave examples of recommendations made years before that remained unimplemented, and noted that global policy often moved too quickly for countries to keep up.

### Outcome of the guideline meeting

Summary of panel judgments and recommendations						
Question	Evidence summary	Quality of evidence	Panel judgments			Panel Recommendation
			Balance of benefits and harms	Resource requirements	Feasibility	
<b>Rapid fluid bolus versus maintenance fluids for children with febrile illness and signs of impaired circulation.</b>	Fluid bolus increases mortality (1 study, 3,076 participants) [6]	High	Harms outweigh the benefits	Relatively small	No major concerns.	Bolus fluids should not be given to febrile children without signs of severely impaired circulation.
<b>Rapid fluid bolus versus maintenance fluids for children with febrile illness and signs of severely impaired circulation.</b>	Fluid bolus may increase mortality (1 study, 65 participants) [6]	Low	Benefits and harms finely balanced	Relatively small	No major concerns.	Consider cautious bolus fluids (20mls/kg over 1-2 hours) for febrile children with signs of severely impaired circulation.
<b>Hydroxyurea versus placebo for children with severe sickle cell disease.</b>	Hydroxyurea may reduce hospitalizations	Low	Benefits probably outweigh harms.	Probably not small	Probably feasible: where minimum monitoring conditions are available.	Consider hydroxyurea (20 mg/kg/day) for children with severe sickle cell disease.
	Hydroxyurea may reduce painful episodes	Moderate				
	Hydroxyurea associated with mild to moderate neutropenia (1 study, 193 participants) [7]	Low				
<b>Chlorhexidine versus dry cord care for preventing neonatal sepsis in facility based deliveries</b>	Chlorhexidine probably reduces mortality Chlorhexidine probably reduces omphalitis and sepsis (3 studies, 36,326 participants)	Moderate Moderate	Benefits clearly outweigh harms	Relatively small	No major concerns.	Apply chlorhexidine immediately after birth and daily until cord separates

## CONCLUSION

There is enthusiasm for rigorous, context-specific, decision-making among policy makers in Kenya, but raises concerns about the technical capacity and resources required for wider adoption of this approach.

Our evaluation of the participant experience reveals high value in local de novo guideline development processes as a deliberative process that incorporates multidisciplinary discussion of the evidence in addition to contextual issues that affect implementation.

The value of this deliberative process emerged from the feeling of ownership that those involved gained and their ability to explain the recommendation to colleagues to help in dissemination and change management.

Local evidence or evidence from countries with similar priorities and challenges is also highly valued over indirect evidence. Research organizations in Kenya and other African countries should be at the frontline of generating this evidence.