The development of a conceptual guideline implementability tool (GUIDE-IT): A qualitative study of guideline developer and end-user perceptions

Monika Kastner, PhD
Li Ka Shing Knowledge Institute of St. Michael’s Hospital, University of Toronto

Guidelines International Network (GIN) Conference
Chicago, August 27, 2010
Background

• Clinical practice guidelines (CPGs) can facilitate the implementation of evidence into practice – not consistently achieved
• The relationship between the perceived characteristics of CPGs and their uptake in practice is not clearly understood
  • Lack of usability testing of guidelines may be one contributing factor to poor uptake
Background

• We conducted a realist review to determine:
  • The intrinsic attributes of guidelines that impact uptake
  • Gain a multidisciplinary perspective of the concept of “implementability”
Preliminary Framework of Implementability

- **Wording**
  - (Simplicity, Clarity, Actionability, Framing)

- **Values**
  - (Flexibility)

- **Context**
  - (Feasibility)

- **Presentation**
  - (Style, Format)

- **Evidence**
  - (Evidence-use, Risk-benefit)

- **Guideline Implementability**

- **Uptake**
Objectives

- To validate the core set of guideline attributes found in the realist review
- To better understand the difference in perceptions between guideline developers and end users about guideline implementability
- To determine what components should be included in a guideline implementability tool (GUIDE-IT)
**Methods: Qualitative Study Design**

**PHASE 1:** Establish collaboration with a guideline development group

Formed a relationship with C-CHANGE group, who provided draft recommendations

**PHASE 2:** Interviews and Focus Groups: End users

**PHASE 3:** Participant observation and Focus Groups: Developers

**PHASE 4:** Focus Groups: Mixed group of developers and end-users
Objectives: PHASE 2

• To reveal guideline attributes perceived as facilitators and barriers to implementation

• To elicit feedback from family physicians on draft recommendations developed by C-CHANGE

• To reveal possible components of a guideline implementability tool
Methods – PHASE 2

Sampling & Population

• **Guideline developers**: Harmonized cardiovascular guidelines development group - C-CHANGE

• **Guideline end-users**: Academic and community family physicians

Interview & Focus Group Sessions - 3 parts:

• Semi-structured, open-ended questions

• Feedback on contentious guideline recommendations provided by C-CHANGE

• Ideas for building a guideline implementability tool
Methods – PHASE 2

Analysis

- Interviews and focus group sessions: audio-taped and transcribed verbatim
- Transcripts analyzed independently by 2 investigators using Nvivo 8, guided by grounded theory methodology
For persons with diabetes and normal urinary albumin excretion and without chronic kidney disease, with BP ≥130/80 mm Hg, despite lifestyle interventions: Any of the following medications (listed in alphabetical order) is recommended, with special consideration to ACE inhibitors and ARBs given their additional renal benefits [Grade D, Consensus, for the special consideration to ACE inhibitors and ARBs]: ACE inhibitor [Grade A, Level 1A (19)]; ARB [Grade A, Level 1A (20)]; Grade B, Level 2, for non-left ventricular hypertrophy (20)]; DHP CCB [Grade B, Level 2 (22)]; Thiazide-like diuretic [Grade A, Level 1A (22)]; If the above drugs are contraindicated or cannot be tolerated, a cardioselective beta blocker [Grade B, Level 2 (21)] or non-DHP CCB [Grade B, Level 2 (23)] can be substituted; Additional antihypertensive drugs should be used if target BP levels are not achieved with standard-dose monotherapy [Grade C, Level 3 (12,22)]; Add-on drugs should be chosen from the first-line choices listed above [Grade D, Consensus].
Reactions to example recommendation:

- “Confusing, wordy, unclear…”
- “I need another degree to be able to understand this”
- “Second line and I am already stopping…”
- “I don’t know what they are actually suggesting…”

Suggestions for improvement:

- Bullets for all sections
- Flow diagram
- Put into logical order
- Recommend only those that are based on strong evidence
3 main themes of guideline end user perceptions:

1. Features that are important to include in guidelines
2. Facilitators and barriers to guideline use
3. Suggested components to include in a guideline implementability tool
Theme 1: Features that are important to include in guidelines

- Clear statements on diagnosis (targets, population), and management (clear decision tree)
- Quickly accessible
- Structured approach
- Comprehensive
- “Boiled down”
- Clear-cut instructions about what to do
- Summary lines
<table>
<thead>
<tr>
<th>Theme</th>
<th>Facilitators</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wording</strong></td>
<td>• Simple, clear, well articulated, boiled down</td>
<td>• Too many clauses, too long, too much information</td>
</tr>
<tr>
<td></td>
<td>• In the language of physicians</td>
<td>• Open, narrative form</td>
</tr>
<tr>
<td></td>
<td>• Provides exceptions and how to deal with them</td>
<td></td>
</tr>
<tr>
<td><strong>Evidence</strong></td>
<td>• States quality of evidence</td>
<td>• If not indicated or doesn’t fit in with new evidence; what to do with mid-level evidence</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>• Bullet-point summaries</td>
<td>• User-interface</td>
</tr>
<tr>
<td></td>
<td>• Easy to navigate</td>
<td></td>
</tr>
<tr>
<td><strong>Feasibility</strong></td>
<td>• Practical and cost efficient</td>
<td>• Time</td>
</tr>
<tr>
<td><strong>Development</strong></td>
<td>• Trustworthy</td>
<td>• Written by people not involved in primary care</td>
</tr>
<tr>
<td></td>
<td>• Reviewed by front-liners</td>
<td></td>
</tr>
<tr>
<td><strong>Guideline as a whole</strong></td>
<td>• Accessible, up-to-date</td>
<td>• Out of date</td>
</tr>
<tr>
<td></td>
<td>• Flexible</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Validated</td>
<td></td>
</tr>
</tbody>
</table>
Theme 3: Components to include in an implementability tool

- Include end-users (i.e., family physicians) in the development process
- Provide guidance on dissecting and improving recommendations
- How should end-users be engaged in the process?
  - Convene a working group of family physicians
  - Provide an online/electronic platform to involve individual family physicians
  - Provide CME credits as incentive for involvement
  - Barrier would be time and resources of physicians
Conceptual design of the Guideline Implementability Tool (GUIDE-IT)

- Engage end-users in the guideline development process – target both developers AND providers
- Use during guideline development, at the stage where recommendations have been developed and evidence-linked but not yet finalized
- Sequential components
Conceptual design of a guideline implementability tool (GUIDE-IT)

1. Process for appraising and improving recommendations
   - Target: Developers

2. Facilitating the involvement of guideline end-users
   - Target: Developers and End-users

3. Tool for assessing the implementability of recommendations and generating suggestions for improvement
   - Target: End users

4. Process for determining how end user assessments in Step 3 could be used to revise the final recommendations
   - Target: Developers
Conclusions of PHASE 2

• Revealed perceptions of guideline end-users about attributes of guideline implementability
  • Guidelines recommendations need to be clear, quickly accessible, “boiled down” and logically structured

• Resulting attribute themes confirmed attribute clusters in our preliminary framework
  • Wording (simple, clear); Evidence (stated and linked); Format (structure), Feasibility

• Provided feedback to build a conceptual design of GUIDE-IT
  • The importance of establishing a working relationship between guideline developers and end users
Next steps

• Conducting the remaining 2 phases of the qualitative study to build the GUIDE-IT prototype

• Conduct a usability evaluation of the prototype to ensure that it meets all end user needs and to determine:
  • Which guideline attributes are the most feasible to change during the guideline development process
  • Which attributes have the greatest potential for improving recommendations
ACKNOWLEDGEMENTS

KT Canada Collaborators:
Onil Bhattacharyya - Li Ka Shing Knowledge Institute
Merrick Zwarenstein - Sunnybrook Health Sciences
Sharon Straus - Li Ka Shing Knowledge Institute
Jeremy Grimshaw - Ottawa Health Research Institute
Ian Graham - Ottawa Health Research Institute
Andreas Laupacis - Li Ka Shing Knowledge Institute
Elizabeth Estey - Li Ka Shing Knowledge Institute
Laure Perrier - Li Ka Shing Knowledge Institute

Questions ??