


Assessing Implementability of Recommendations & Guidelines

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care

Overview

- Background
 - Guidelines must be implemented to impact health outcomes
 - Appraising and addressing potential barriers to implementation can improve implementability
- Topics
 - Explore the GuideLine Implementability Appraisal (GLIA) Tool
 - eGLIA online tool
 - Describe NHLBI activities and learnings in our effort to improve implementability of recommendations
- Learning Objectives
 - Attendees will recognize and describe potential impact of implementability assessment



Institute of Medicine, March 2011

Clinical Practice Guidelines We Can Trust

- **Standard 6: Articulation of recommendations**
 - 6.1 Recommendations should be articulated in a standardized form detailing precisely what the recommended action is and under what circumstances it should be performed.
 - 6.2 Strong recommendations should be worded so that compliance with the recommendation(s) can be evaluated.
- To help the Expert Panels (EPs) and Work Groups (WGs) address these standards, the Implementation Science Work Group (ISWG) undertook implementability appraisal.

Assessing Implementability

- GuideLine Implementability Appraisal (GLIA) Tool
 - Shiffman, et al, Yale Center for Medical Informatics
 - Purpose:
 - Expose potential barriers to implementation
 - Not Pass/Fail
 - 30 Questions in 9 Dimensions
 - <http://gem.med.yale.edu/eglia2>

GLIA Dimensions

- Global Considerations
- Executability
- Decidability
- Validity
- Flexibility
- Effect on Process of Care
- Measurability
- Novelty/Innovation
- Computability

Example GLIA Questions: Decidability

- Would the guideline's intended audience consistently determine whether each condition in the recommendation has been satisfied?
 - Is each and every condition described clearly enough so that reasonable practitioners would agree when the recommendation should be applied?
- Are all reasonable combinations of conditions addressed?
- If this recommendation contains more than one condition, is the logical relationship (ANDs and ORs) between conditions clear?

Decidability Example

- From JNC 7
 - “The classification (of HTN) is based on the average of 2 or more properly measured, seated BP readings on each of 2 or more office visits.”
 - Minimum or maximum time interval?
 - Last readings, any 2 readings, or all readings in the interval?
 - Average versus majority of BP readings over the threshold?
 - Different number of readings for different thresholds?

Decidability Example

- From Kaiser Permanente
 - Undiagnosed HTN, in people without comorbidities
 - No diagnosis code for HTN on Problem List, AND
 - (The last 1 BP is >189 systolic or >109 diastolic, OR
 - The last 2 BPs recorded (on separate days) within the past 36 months are >159 systolic or >99 diastolic, OR
 - Two of the last 3 BPs recorded (on separate days) within the past 36 months are >139 systolic or >89 diastolic)

How to Get GLIA

<http://nutmeg.med.yale.edu>



GLIA

GuideLine Implementability Appraisal

Current Version: 2.0

GEM

COGS

eGLIA

Links

The objective of GLIA is to provide a tool for the appraisal of the implementability of clinical guidelines. Implementability refers to a set of guideline characteristics that predict potential challenges to effective implementation. In addition to a series of questions that inquire about global aspects of a guideline's implementability, the instrument explores the following dimensions of individual recommendations:

- Executability
- Decidability
- Validity
- Flexibility
- Effect On Process Of Care
- Measurability
- Novelty/Innovation
- Computability

In 2011 we revised the GLIA instrument creating GLIA 2.0 based on user feedback. The revised instrument clarifies several questions, reorders the dimensions for a more logical flow, and streamlines the appraisal process.

A discussion of the original development of GLIA has been published in **BMC Medical Informatics and Decision Making** at *The GuideLine Implementability Appraisal (GLIA): development of an instrument to identify obstacles to guideline implementation*.

eGLIA Appraiser Interfaces

GLIA

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All Questions Answered



All Questions Not Answered

eGLIA 2.0 Test for JNC

Global Dimension



Rec	Executability	Decidability	Validity	Flexibility	Effect On Process Of Care	Measurability	Novelty/Innovation	Computability
1								
2								

eGLIA Appraiser Interfaces

Project: eGLIA 2.0 Test for JNC

Recommendation 1: Thiazide-type diuretics should be used as initial therapy for most patients with hypertension, either alone or in combination with 1 of the other classes (ACE inhibitors, ARBs, B-blockers, CCBs) demonstrated to be beneficial in randomized controlled outcome trials.

Decidability - precisely under what conditions (e.g., age, gender, clinical findings, laboratory results) to do something

Question

Appraisal

Comments

12 Would the guideline's intended audience consistently determine whether each condition in the recommendation has been satisfied? *That is, is each and every condition described clearly enough so that reasonable practitioners would agree when the recommendation should be applied?*

- Yes No
 NA ?
 Reset

Define "most patients."
When should a clinician choose combination therapy over monotherapy?

13 Are all reasonable combinations of conditions addressed?

- Yes No
 NA ?
 Reset

Are there conditions that would lead a clinician to prefer combination therapy?

14 If this recommendation contains more than one condition, is the logical relationship (ANDs and ORs) between conditions clear?

- Yes No
 NA ?
 Reset

eGLIA Administrator Interfaces Reconciliation

Recommendation Rec 1: This is a test of the R...
when there are multiple lines?

...ating options? How does the text appear

Question	Totals	Decision	Final Comments
10 Is the recommended action (what to do) stated specifically and unambiguously? <i>That is, would the intended audience execute the action in a consistent way?</i>	Yes: 1 No: 0 NA: 0 q: 0	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA <input type="radio"/> Clear	Final comments, after adjudication.
11 Is sufficient detail provided or referenced (about how to do it) to allow the intended audience to perform the recommended action.	Yes: 0 No: 1 NA: 0 q: 0	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA <input type="radio"/> Clear	Final comments, after adjudication.

At first recommendation

At first dimension [Main Menu](#) [Next Dimension](#)

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eGLIA Administrator Interfaces



GLIA

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Reconcile Appraisals for Testing with ATP 3

Global Dimension

—

Rec	Executability	Decidability	Validity	Flexibility	Effect On Process Of Care	Measurability	Novelty/Innovation	Computability
Rec 1	✓	✓	✓	✓	—	—	—	—
2. Don't do this	—	—	—	—	—	—	—	—
3. Don't do this either.	—	—	—	—	—	—	—	—
4. Third Don't Do This	—	—	—	—	—	—	—	—
5. How do you get big text blo	—	—	—	—	—	—	—	—
123456789012345678901234567890	—	—	—	—	—	—	—	—

View Reports

View Summary Report

View Detailed Report

Detailed Report As Excel Spreadsheet

Export Reports

eGLIA Detailed Report

Executability

Question	Tally	Comments	Final Decision
10) Is the recommended action (what to do) stated specifically and unambiguously? <i>That is, would the intended audience execute the action in a consistent way?</i>	Yes: 1 No: 0 NA: 0 q: 0	Chan(yes): Appraiser comments are attributed.	Final Evaluation: no Final comments, after adjudication.
11) Is sufficient detail provided or referenced (about how to do it) to allow the intended audience to perform the recommended action.	Yes: 0 No: 1 NA: 0 q: 0	Chan(no): Appraiser comments are attributed.	Final Evaluation: no Final comments, after adjudication.

Decidability

GLIA Training Processes

- Training sessions were designed to help EPs and WGs recognize potential barriers to implementation, and write more implementable guidelines
- Implementation Science Work Group (ISWG) performed GLIA appraisals on the draft guideline reports
 - During Expert Peer and Federal Partners review period
 - Appraisals completed in 2 weeks

GLIA Implementation Processes

- Examples of implementability issues:
 - Evidence statements and “talking points” presented as recommendations
 - Use of terms such as “consider, should be encouraged, use caution, might be reasonable”
 - Discordance between language and stated strength of recommendation
 - Inconsistency of thresholds and terms used within a guideline
 - Applicability of assessment or treatment recommendations in specific subgroups
- EPs & WGs considered GLIA appraisal findings when they revised their reports

Implementability Appraisal Summary

- EPs and WGs were trained in GLIA processes, which helped them write more implementable guidelines
- GLIA appraisals were carried out during Expert Peer and Federal Partners review period
 - Five appraisals completed, with no impact on overall guideline development timelines
 - Feedback on GLIA appraisals has been positive
 - Appraisal findings used to revise reports
- Implementable guidelines are necessary, but insufficient to ensure guideline adoption, implementation and adherence, and to improve health outcomes

Implementability Appraisal

Next Steps

- Infrastructure built into IT platform to support any sort of questionnaire or evaluation tool, applied at any level of the document
 - Cochrane Risk of Bias at individual study and outcome level
 - GRADE at body of evidence and recommendation level
 - AMSTAR at systematic review level
 - GLIA at recommendation and guideline level
 - AGREE II at guideline level

Assessing Implementability of Guidelines



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