Introduction to living guidelines and recommendations

Special session at GES2017: From living systematic reviews to living recommendations
Per Olav Vandvik, on behalf of MAGIC and wonderful Evidence Ecosystem actors

Declaration of interests
Major challenges with EBM, systematic reviews and guidelines but also great advances in standards, methods and tools.
The challenge of keeping guidelines up to date

The validity of recommendations from clinical guidelines: a survival analysis

Laura Martínez García MD MPH, Andrea Juliana Sanabria MD MPH, Elvira García Álvarez MD MPH, Maria Mar Trujillo-Martín MSc PhD, Itziar Etxeandia-Ikobaltzeta PharmD, Anna Kotzeva MD MPH, David Rigau MD, Arturo Louro-González MD, Leticia Barajas-Nava MD PhD, Petra Díaz del Campo PhD, María-Dolors Estrada MD PhD, Ivan Solà MSc, Javier Gracia MD MPH, Flavia Salcedo-Fernandez MD, Jennifer Lawson BSc MLIS, R. Brian Haynes MD PhD, Pablo Alonso-Coello MD PhD; for the Updating Guidelines Working Group*
Some ongoing efforts to improve updating of guidelines

G-I-N updating working group

• Systematic reviews: need to improve terms, methods, processes and tools
• Tool for updating (UpPriority)
• Updating Glossary
• Updating Database (methods repository)
• Updating technologies: SR of studies of “tools” to update SRs or CGs
• Reporting of updated guidelines
  – Checklist (CheckUp)
  – Communication strategies
• KDIGO Methods Committee report
  ❖ GRADE, NICE, AHRQ, KP, ACCP
• Living guidelines? In an emerging digital and trustworthy evidence ecosystem?
When do guidelines need updating? And what is a living guideline?

• The appropriate question is: when to update the recommendation?
• The appropriate answer: as soon as new impactful evidence becomes available for that recommendation

Elie Akl at LSR symposium Cochrane Seoul 2016

• Moving to dynamic updating of individual recommendations, rather than full updating of the entire guideline (irrelevant entity?)

• Living guidelines: “Targeted recommendations are updated continually in the face of new information that warrants a substantial change in practice”

ACCP 2011, as applied in KDIGO methods report
KDIGO on the value of technology and tools

Ideally, guidelines should be updated dynamically when new evidence indicates a need for a substantive change in the guideline based on a priori criteria. This dynamic updating (sometimes referred to as a living guideline model) can be facilitated with the use of integrated electronic platforms that allow updating of specific recommendations. This report summarizes consensus-based recommendations from a panel of guideline methodology professionals on how to keep KDIGO guidelines up to date.

*Kidney International* (2016) **89**, 753–760; [http://dx.doi.org/10.1016/j.kint.2015.11.028](http://dx.doi.org/10.1016/j.kint.2015.11.028)
Can technology help? Platforms and tools ready for use (e.g., www.magicapp.org)
Joining forces to solve problems in the Evidence Ecosystem

Cochrane and MAGIC announce partnership

Cochrane and MAGIC are delighted to announce the launch of an official partnership, aimed at supporting and further strengthening the use of health evidence within the context of a digital and trustworthy evidence ecosystem for health care.

MAGIC (formally known as the MAking GRADE the Irresistible Choice (MAGIC) organization) is a non-profit research and innovation programme set up to make evidence summaries and recommendations that work for clinicians at the point of care and to facilitate shared decision-making with patients. Established in 2010, the MAGIC project has, among a number of other initiatives, developed the MAGICapp, a web-based platform for preparing guidelines using structured data systems and validated methods.
LSR and LGR: part of a bigger picture

The Digital and Trustworthy Evidence Ecosystem

**Synthesize evidence**
Relevant, structured and living systematic reviews

**Produce evidence**
More relevant and higher quality primary research, real world evidence and big data

**Evaluate and improve practice**
Recording real world evidence in structured EHRs and registries, linked to evidence production

**Implement evidence**
Trustworthy evidence and guidelines for CDS in EHRs and quality improvement initiatives, linked to evaluation of care and production of new evidence

**Disseminate evidence**
Trustworthy, well disseminated and living clinical practice guidelines

**Disseminate evidence to patients**
Trustworthy evidence for shared and personalized decisions, in living decision aids, linked to living guidelines

11/29/2017
How can guideline panels rapidly update and disseminate recommendations: people, methods, processes and tools
Overcoming organizational hurdles in a collaborative network.
BMJ Rapid Recommendations, triggered by new evidence

Editorials
Introduction to BMJ Rapid Recommendations
BMJ 2016; 354 doi: http://dx.doi.org/10.1136/bmj.i5191 (Published 28 September 2016)
Cite this as: BMJ 2016;354:i5191

HOW WE MAKE A RAPID REC

Rapid Recommendations process step by step (with target times)

Step 1: Monitor and identify potentially practice changing evidence

Step 2: Executive + chair triggers process and RapidRecs panel (day 7)

Step 3: Systematic reviews created by separate teams (day 45)

Step 4: RapidRecs created in MAGICapp and as synopsis paper (day 60)

Step 5: RapidRecs + reviews submitted for peer review (day 60)

Step 6: RapidRecs and reviews disseminated globally (day 90)
Step 1: Monitoring of new studies through McMaster PLUS

Critical Appraisal Filters

Clinical Relevance Filters

~20 articles per clinician

Up to 99.9% Noise Reduction

~2,600 articles per year

+ 45,000 articles screened per year

To-Be-Reviewed Studies

<table>
<thead>
<tr>
<th>#</th>
<th>Study</th>
<th>Review</th>
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<tbody>
<tr>
<td>1</td>
<td>Effect of Deutetrabenzine on Chorea Among Patients With Huntington Disease: A Randomized Clinical Trial. JAMA. 2016 Jul 5;316(40-50). First author: Frank S</td>
<td>Review</td>
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<tr>
<td>2</td>
<td>Effects of Moderate and Vigorous Exercise on Nonalcoholic Fatty Liver Disease: A Randomized Clinical Trial. JAMA Intern Med. 2016 Aug 1;176(10):1074-82. First author: Zhang HJ</td>
<td>Review</td>
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<td>3</td>
<td>Cryoballoon or radiofrequency ablation for symptomatic paroxysmal atrial fibrillation: reinvention, rehospitalization, and quality-of-life outcomes in the FIRE AND ICE trial. Eur Heart J. 2016 Jul 5; First author: Kuck KH</td>
<td>Review</td>
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A recent example, illustrating challenges for living systematic reviews and guideline recommendations
Online digitally structured and multilayered guideline
Living or dead? How to communicate update to users?
Questions?