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Challenges in developing recommendations for medical tests:

In-depth interviews with guideline developers

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SEVENTH FRAMEWORK PROGRAMME

The DECIDE project has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under Grant Agreement no 258583



Developing evidence-based recommendations for medical tests



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Phase 1

Understand

- Systematic review of current methodologies
Implementation Science 2013;8:78
- **In-depth interviews**
- Applying GRADE to DTA Cochrane Reviews
JCE 2014;67:760-8


Phase 2


Enhance current strategies and/or **fill gaps**

- **Clinical pathway tool**
- Interactive SoF table (GRADE)
- Framework to move from evidence to decisions on tests (GRADE)

Phase 3

User test and refine strategies via an iterative process (testing in real guidelines)





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DECIDE Challenges with evidence for medical tests: background

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- Usually no direct estimate of the effect on health outcomes
 - Indirect estimates: accuracy data (e.g. sens and spec)
 - Link these to 'downstream' health consequences
 - E.g. over-treatment of FP, delayed treatment of FN
- Studies usually not comparative or contextual

P.M. Bossuyt and K. McCaffery, MDM, 2009


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DECIDE The interviews

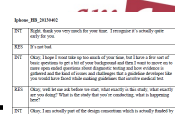
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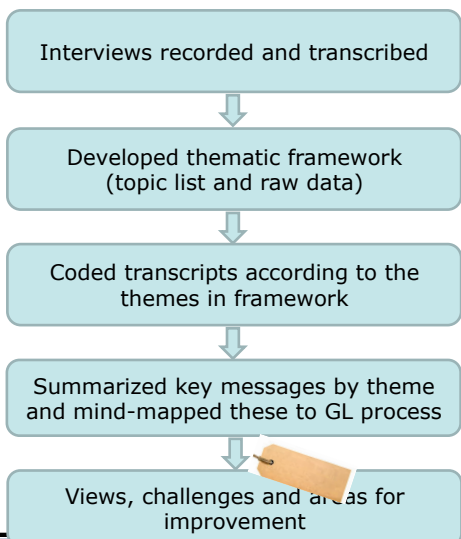
- 17 semi-structured in-depth interviews
 - Question: How do you develop EB recommendations for medical tests and what are the challenges?
 - Topic list (e.g. process, outcomes, evidence types, GRADE)
- Face-to face or telephone; mean duration 1.5 hours
- Interviewees varied in nationality, clinical field, type of organization and experience level

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Data collection and analysis



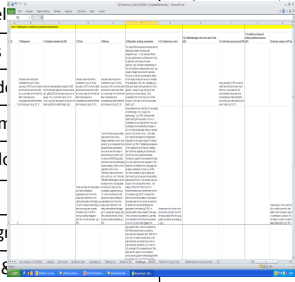
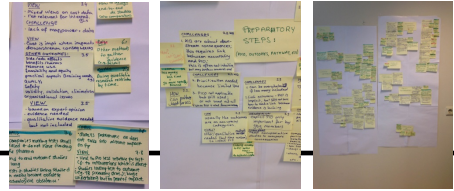



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graph TD
    A[Interviews recorded and transcribed] --> B[Developed thematic framework (topic list and raw data)]
    B --> C[Coded transcripts according to the themes in framework]
    C --> D[Summarized key messages by theme and mind-mapped these to GL process]
    D --> E[Views, challenges and areas for improvement]
            
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Thematic framework

1. Background of interviewee
2. Guideline development
3. Evidence types
4. Appraising evidence
5. Making recommendations
6. Areas for development
7. Challenges
8. GRADE for diagnosis
9. Dissemination & implementation







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Results (1)

Focus on DTA or health outcomes?




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- Different views, discordant messages

- All agree: taking into account health outcomes is important; *but:*
 - When: ranging from ‘in key questions’ to ‘at the end of the process’
 - How: ranging from ‘expert opinion’ to ‘statistical modeling’
 - Why: only DTA because evidence on health outcomes is lacking

- Challenges (amongst others)
 - Hard to get funding for research on health outcomes
 - Evaluating effect on health outcomes requires different expertise




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Results (1)



Focus on DTA or health outcomes?




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“Diagnostic test accuracy is not the same as patient health. It took me several years (...) but I think I've got it now! Diagnostics accuracy is just sort of one piece and there's so much really that goes into this process what the impact on patient health might be. So, what we present as outcomes are proxy measures for patient health primarily with understanding that there are all these other sort of steps and the cascade that we're not providing much information about and so it's an inference.”

“There is no direct link between accuracy data and PIOs, so looking at it is a waste of time. Models need assumptions and the assumptions cannot be proved, so it's very uncertain. We don't want to accept this uncertainty; we think it's better to give some pressure on the community to perform such [direct evidence] studies.”





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Results (1)

Focus on DTA or health outcomes?





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“What it means to use this test is coming out more towards the end...in the beginning we're looking for test accuracy then in the end they want to know what does this mean for the patient and for me as a clinician?”


“Key questions are focussed on diagnostic validity of the test but recently we started extending this to include the impact of the use of the test (or not) on the patient management.”

“QoL is usually an outcome included in the guideline, however we find no such evidence. You really end up with a big bulk of information on diagnostic accuracy and the rest it's really sparse”

“RCTs are looked for if the question includes a clinical outcome, if its purely a diagnostic question than accuracy evidence is enough”





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Results (2)

Needed: resources, guidance, training




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- Concordant messages
- Making GL is labor extensive, resources are limited
 - Number of questions that can be addressed
 - Extensiveness of the search (types of evidence)
- Interpreting results from DTA studies can be difficult for the guideline panel
 - Relatively new methodology
 - Less experience compared to therapeutic interventions
- Types of expertise in the guideline panel - role of the methodologist





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Results (2)

Needed: resources, guidance, training



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“The (diagnostic) methodology is still not fully worked out and for that reason often not easily captured or understood by people who are not deeply involved in evidence based diagnostics”

“We don’t have enough resources to have a fully-fledged systematic review done properly by an independent body (...). The GRADE approach is a strong methodology but extremely resource intensive. It would only work if a (GRADE) methodologist could do the evidence review and appraisal.”

“They (guideline panels) really don’t capture the essence of diagnostics because it’s not properly taught in medical schools“

“For most of us this is a labor of love, we are extremely underfunded for the work we do.”

“Clinicians do not like a too structured process. They find formal appraisal form for study quality too tedious.”

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Conclusions



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- Importance of health outcomes is acknowledged, but different views on methods
- Making recommendations on MT is labor intensive
- Methodological expertise and training of guideline panel members is needed



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