O3_A2_A_Scientific Evidence Guideline Methodology

How are topics for new clinical practice guidelines selected?

Developing effective CPGs starts with identifying topics that are relevant to patients, clinicians, and healthcare providers, whilst avoiding industry influence. Topics can be important either because they are common in clinical practice, cause premature death or reduce quality of life, or because there is uncertainty around optimal care (1)

The experts included in the project identifies relevant new topics by consulting members of their group and representatives of the National Societies via surveys as well as providing the opportunity to send us unsolicited suggest topics through electronic forms (emails). The prioritisation is based on consensus or majority vote.

How is the guideline developed?

Determining which questions and which outcomes

One of the first tasks for the guideline development group is to identify which questions need answering to arrive at a particular recommendation (2). Questions typically include identification of risk factors for a condition, accuracy of diagnostic tests, benefits and harms of various treatment options, importance of prognostic factors etc. At this stage, the group defines what outcomes are informative (e.g. health-outcomes such as death and dialysis versus surrogate outcomes such as laboratory values) and what minimal clinical difference is important (2).

Framing questions for systematic review

Effective searching requires questions to be formulated specifically so that they can guide construction of electronic database search strategies. A well accepted way to achieve this is by addressing each part of the acronym PICO(M).

- P – population or patient group: what specific (sub)group of patients does this recommendation apply to?
- I – intervention: what are the treatments or tests or risk factors being considered?
- C – comparator or control: what are the main alternatives?
- O – outcome: what are the outcomes that matter to patients and hence will drive our decision-making? What is their relative importance compared to each other?
- M – methodology: what study design is most valid to answer the question?

Systematic Search and Study Selection

For each question, the key components of a systematic search include selecting which types of studies answer the question and searching multiple databases to identify evidence (e.g. Cochrane Library, Medline) (3). As systematic search procedures require specific information management skills, they are planned, reviewed and conducted by the Methods Support Team.

This project has been funded with support from the European Commission.

Data Extraction

For each included study, relevant data on study design, patient characteristics and outcomes are extracted for the reliability of results (4).

The process of generating recommendations

Recommendations are founded on the reliability of the evidence for benefits and harms of alternative management strategies. Consequently, in moving from reviewing the evidence from individual studies to making a recommendation, the guideline group needs to sequentially assess the quality of the 'body of evidence' (i.e., all studies together) for all predetermined outcomes (2).

For questions that cannot reasonably be answered by a systematic review of the evidence, but for which advice could still be quite helpful in practice, the guideline group allows a separate 'not graded' category of guidance for clinical care, indicating that it is not supported by systematically synthesised evidence.

Imbedding implementation in the guideline: the GLIA tool

Recommendations often fail to reach implementation in clinical practice. ERBP has decided to focus on improving the implement ability of guidelines in daily care.

As a first step, the guideline group aims to optimize the wording of recommendations before sending out the guideline for review. For this purpose, we integrated the GuideLine Implement ability Appraisal (GLIA) instrument into the guideline development process (5). This tool primarily enables structured evaluation of factors such as executable (is it clear from the statement exactly what to do) and decidability (exactly under what conditions) of preliminary recommendations. In addition, the tool is designed to highlight other problems potentially hampering implementation, e.g. recommendations being inconsistent with clinicians' existing beliefs or patients' expectations.

How guidelines are kept up to date?

The guideline group aims to update guidelines at least every five years. In addition, for each guideline, the development group's chair is asked to monitor peer-review published research and signal the need for updating as new evidence arises.

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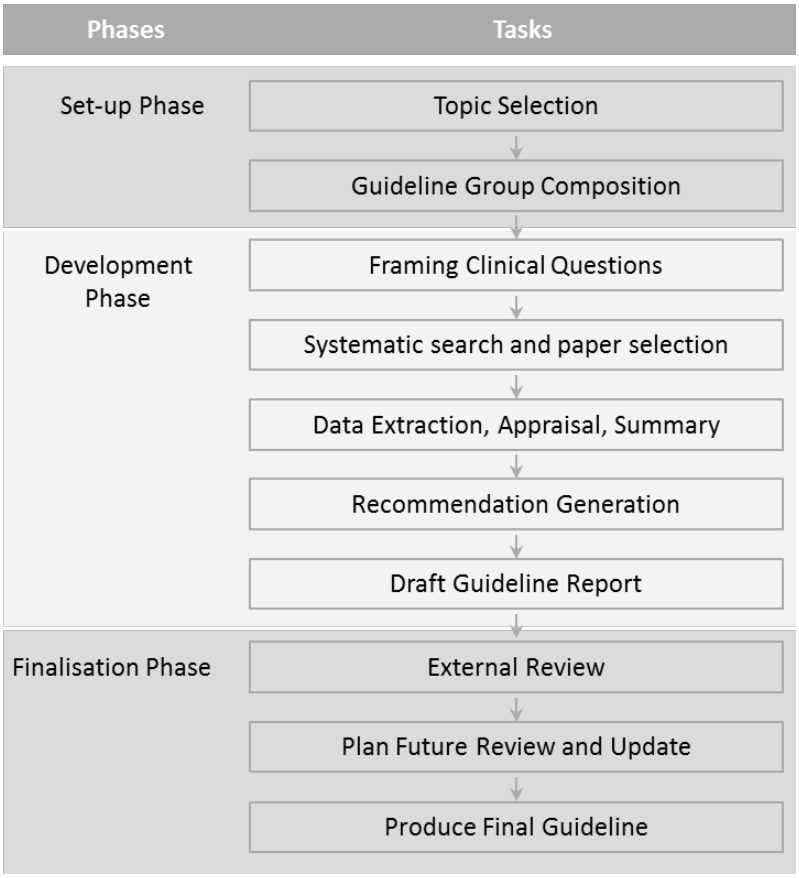
Figure 1. Guideline Development Process



from Nagler 2014(6)

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