



# BENCHMARKING THE GUIDELINE DEVELOPMENT PROCESS: a foundation for joint activities

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Scottish Intercollegiate Guidelines Network



CoCanCPG Symposium  
European Network on Clinical Guidelines Development



# Benchmarking and CoCanCPG

- Improve collaboration between cancer CPG developers
- Reduce duplication of effort
- 17 partners from 11 countries - varying processes and terminology
- Mutual learning
- Identification of possibilities for collaboration
- Development, sustainable coordination and implementation of joint activities



# Benchmarking - Aims

- Define standards for shareable steps of CPG development
  - Base for setting up joint activities
  - Improve internal organisation processes
- Clustering of expertise
  - Define the priorities/plans for trans-national activities
  - Sharing knowledge of procedures and management/learning from each other
  - Inform subsequent CoCanCPG work packages
- “Benchmarking” process validation
  - possible application to other processes



# Benchmarking - Method

Management input (CoCanPMT) - reviewed  
and validated by NSC

1. Identify the key **shareable** processes
2. Define the standards/benchmarks
3. Individual external analysis
4. Individual internal analysis
5. Collective analysis of results



# Guideline Development Processes

Topic selection

Constitution of multidisciplinary working group

Literature search

Critical appraisal / systematic review

Formulation of recommendations

External review

Dissemination

Publication

Monitoring to identify needed updates



# Key Shareable Processes



Topic selection

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Literature search

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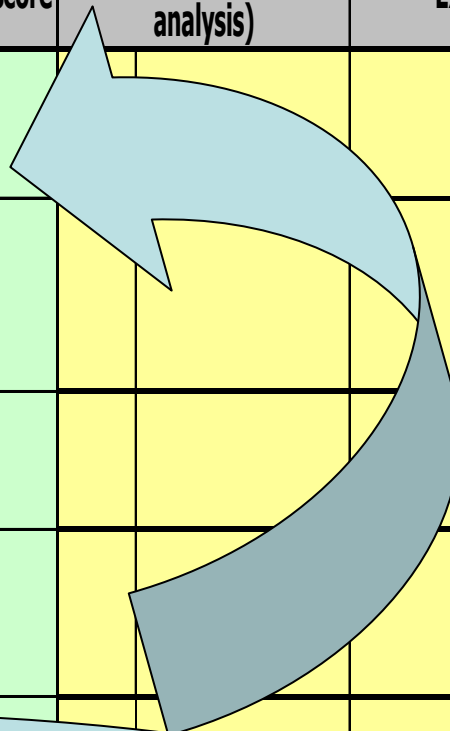
# Defining the Benchmarks

- Meeting/teleconferences
- Agreed draft
- Peer review and comments from international CPG specialists and CoCanCPG members
- All comments reviewed, discussed and incorporated by WP4
- Supporting materials and glossary
- Validated by CoCanCPG NSC



# Individual External Analysis

Step	Standard	External score	Internal score (self analysis)	Explanations
<b>Set key questions</b>	Structured key clinical questions are formulated using e.g. the PICO format			
	Structured key clinical questions are formulated with input from clinical experts			
<b>Define selection criteria for studies</b>	Selection criteria are defined <i>a priori</i> for each key clinical question			
<b>Develop a search strategy for each key question</b>	The search strategy is developed by qualified information specialists			
	The search strategy is developed by qualified information specialists			



**1 = A current and well-documented practice**  
**2 = Partially applied**  
**3 = Not yet applied**  
**4= No information available**



# Individual Internal (Self) Analysis



Step	Standard	External score	Internal score (self analysis)		Explanations
Set key questions	Structured key clinical questions are formulated using e.g. the PICO format				
	Structured key clinical questions are formulated with input from clinical experts				

**1 = A current and well-documented practice**  
**2 = Partially applied**  
**3 = Not yet applied**

**Reasons 1**

**2** a = process of improvement is ongoing  
 b = process of improvement is planned  
 c = lack of funding  
 d = reaching standard is not feasible/compatible with the organisational context  
 e = other reasons

**3** a = process of improvement is planned  
 b = lack of funding  
 c = reaching standard is not feasible/compatible with the organisational context  
 d = other reasons





# RESULTS

## 27 Standards

- Literature searching (8)
- Selecting the evidence (4)
- Critical appraisal (5)
- Synthesising the evidence (4)
- Monitoring of new evidence (6)



# Standards: Literature Searching

- Structured key clinical questions are formulated using e.g. the PICO format
- Structured key questions are formulated with input from clinical experts
- Selection criteria are defined *a priori* for each key clinical question
- The search strategy is developed by qualified information specialists with clinician input



# Standards: Literature Searching

- The search strategy is carried out by a qualified information specialist
- A range of bibliographic sources/ databases are used (at least 2 databases including Medline) to reduce bias
- Bibliographic sources/ databases used are documented
- Search strategies are documented in a reproducible way



# Standards: Selecting the Evidence

- Previously defined selection criteria are used to select studies
- Results of selection process are documented
- List of papers to be included is reviewed by clinical experts
- Any further papers excluded are documented



# Standards: Critical Appraisal

- Critical appraisal is based on full text of selected papers
- Pre-defined documented appraisal criteria, specific to the study type (i.e. check list / grid), are used
- Critical appraisal is done by persons trained in critical appraisal techniques
- Each study is appraised by a minimum of 2 persons independently
- Results of appraisal are explicitly documented



# Standards: Synthesising the Evidence

- Data is extracted using a standardised format, e.g. evidence table
- Pre-defined documented levels of evidence are used
- There is appropriate clinical expert input into summarising the evidence-base and in defining levels of evidence
- Evidence summary and levels of evidence are documented



# Standards: Monitoring of New Evidence

- There is a documented system for monitoring new evidence
- The system includes a documented process to update the strategies of monitoring of new evidence
- Literature search is performed at predefined intervals appropriate to the disease area and guideline topic (maximum 3 years)
- Literature search uses a predefined strategy
- Literature monitoring is conducted by a qualified information specialist
- The results of search for new evidence are documented



# Results - Collective Analysis

## Concordance of Internal and External Analysis

- Internal rating lower than external
  - 5 / 435 (1.1%)
- Internal rating higher than external
  - 112 / 435 (25.7%)
- Internal rating higher where external rating  $\neq$  “No information”: 29 / 435 (6.7%)
- Internal and external ratings agree
  - 318 / 435 (73.1%)



# Collective Analysis - Results

## External Analysis: No Information



External rating = No information available:  
117 of 435 benchmarks applied (26.9%)

Each study is appraised by a minimum of 2 persons independently	9
The search strategy is developed with clinician input	8
List of papers to be included is reviewed by clinical experts	8
Any further papers excluded are documented	8
Critical appraisal is based on full text of selected papers	8
Monitoring: The results of the search for new evidence are documented	8
The search strategy is developed by qualified information specialists	7





# Collective Analysis - Results

## Main Conclusions



### Overall performance

- > 70 % concordance shows there is validity to the method
- 25% organisations Internal > External
- Most organisations were planning or implementing improvements

### Significant patterns

- Standards with lowest achievement:
  - o Formulating structured key questions (7)
  - o Documentation of excluded papers (6)
  - o Studies appraised by 2 people (6)
  - o Monitoring system updated (11) and lowest achievement overall



# Collective Analysis - Results

## Main Conclusions (2)



### Reasons for not achieving benchmark

- Only 5 quoted lack of funding - ? Scoring
- Not feasible/Not compatible with organisation context (17) ? actionable
- No information vs done but not documented



# Value Added to CoCanCPG

- Discovery of common practices and shared challenges
- Firm basis for joint activities and sharing of expertise
- Identification of areas for development of methodologies and organisations
- Improved communication / shared language
- Helped to build trust among partners

