SSAI Clinical Guideline developement method

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6th Obstetric Anaesthesia Programme

The Scandinavian Society of Anaesthesiology and Intensive Care Medicine

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One of many learning objectives

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Advanced Obstetric Anaesthesia Training Programme 2019-2021

Academic competencies	
The trainee is expected to continuously read and critically evaluate the scientific literature in the field of obstetric anaesthesia.	Journal club Group
To be able to complete a research project (based on for example an investigational project, an audit, case reports or a literature review)	Research project Evaluation of guidelines
To be able to write guidelines/standards	Report of educational activities in portfolio
To be able to run Journal Clubs and organise local meetings comprising the different professions in obstetrical activity	
To act as a competent teacher of obstetric analgesia and anaesthesia	

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The aim of this guideline task is to

1. Train international group work
2. Provide the participants with an understanding of the development of guidelines
3. Make the participants able to evaluate the quality of guidelines
4. Make the participants familiar with the GRADE system

The aim is not to make a finished guideline.

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Your experience ?

- Guideline development ?
- GRADE method ?

- Did you read the papers ?

- G. Guyatt *et al.*, “GRADE guidelines: 1. Introduction—GRADE evidence profiles and summary of findings tables,” *J. Clin. Epidemiol.*, vol. 64, no. 4, pp. 383–394, Apr. 2011.
- [2] G. H. Guyatt *et al.*, “GRADE guidelines: 2. Framing the question and deciding on important outcomes,” *J. Clin. Epidemiol.*, vol. 64, no. 4, pp. 395–400, Apr. 2011.

Why do I have to learn this???

1. You will become experts i obstetric anaesthesia
2. You have a responsibility for obstetric anaesthesia

    1. In your hospital
    2. In your country
    3. In Scandinavia

Therefore, learning the method used to develop evidence based clinical guidelines is part of the SSAI Obstetric Anaesthesia program

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Clinical guideline ??

Recommendations for clinicians about the care of patients with specific conditions.

Based upon the best available research evidence and practice experience

Three Parts:

1. Clinical question
2. Systematic review of the evidence of a clinical question,
3. Recommendations

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Examples of Clinical Practice Guidelines

- Local guidelines in your department
- National guidelines
- Scandinavian guidelines
- International guidelines

Guideline update February 2018

Published guidelines

Area	Task force	Task force leader	Guideline	Year
Intensive Care	Acute circulatory failure	Morten Hylander Møller	Scandinavian clinical practice guideline on choice of inotropic agent for patients with acute circulatory failure	2018
Intensive Care	Acute circulatory failure	Morten Hylander Møller	Scandinavian clinical practice guideline on choice of vasopressor for patients with acute circulatory failure	2016
Prehospital Care	-	Mårten Sandberg	Scandinavian clinical practice guideline on pre-hospital airway management	2016
Intensive Care	Acute respiratory failure	Jon Henrik Laake	Scandinavian clinical practice guideline on fluid and drug therapy in adults with acute respiratory distress syndrome	2016

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SSAI guidelines in preparation

Scheduled SSAI guidelines

Suggestions for future guidelines

Guidelines

The SSAI Clinical Practice Committee is devoted to define and publish clinical guidelines to be implemented and used by all Scandinavian Anaesthesiologists and Intensivists.

The GRADE methodology is used in preparing the guidelines and an outline of the work-flow for preparing SSAI guidelines can be found here.

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SSAI Clinical Practice Committee – guideline work flow v2

The following document outlines key steps (Figure 1) in the development and/or endorsement of Scandinavian SSAI clinical practice guidelines.

2A. Proposal for a new SSAI clinical practice guideline?

The SSAI Clinical Practice Committee will assist in appointing national SSAI members to the guideline task force group, including selection of a task force leader.

Ideally, all five Scandinavian countries should be represented in the task force group.

The task force group will be sanctioned by the SSAI Board.

Importantly, task force members should accept and want to adhere to standards for preparing trustworthy clinical practice guidelines (GRADE [1]).

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3. Outline the clinical research question

Explicitly outline the clinical research question [2].

4. Formulate PICOs

Explicitly define

1) the **P**opulation of interest, including relevant subgroups
2) the **I**ntervention under scrutiny
3) the **C**omparator
4) relevant patient-important **O**utcomes [2]

Importantly, exclusively patient-important (clinically relevant) outcome measures should be included [3]. Potential benefits as well as potential harms should be assessed.

Table 1 Clinical and PICO questions used to assess evidence relevant to this guideline statement.

	PICO question			
Clinical question	Population (P)	Intervention (I)	Comparator (C)	Outcomes (O)
1. Should crystalloid or colloid solutions be used for resuscitation of acutely ill patients with circulatory failure?	Adult acutely ill patients: • General ICU patients • Sepsis • Trauma • Burn injury	Crystalloid solutions*	Colloid solutions • HES • Albumin • Gelatin	Mortality at longest follow-up Use of renal replacement therapy Acute kidney injury Bleeding Serious adverse events Length of hospital stay

*cluding isotonic saline or balanced salt solutions including Ringer's or Hartman's.

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Acta Anaesthesiologica Scandinavica **59** (2015) 274–285

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5. Search for literature

Systematically search for recently updated high-quality systematic reviews (answering the clinical research question), e.g. in Medline, Cochrane Library and Embase. If no systematic reviews are available, search for randomized controlled trials, and secondarily observational studies.

7. Assess the quality of evidence using GRADE

Use the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system for assessing the quality of evidence/the confidence in the effect-estimates from "high" to "very low" (Figure 3)[1].

In brief, downgrade the quality of evidence for:

1) risk of bias, including lack of blinding, or early termination of studies [4]
2) inconsistency (unexplained heterogeneity) [5]
3) indirectness (including other patient populations or use of surrogate outcomes) [6]
4) imprecision (wide confidence interval around the effect estimate) [7]
5) publication bias [8]

In rare cases the quality of evidence can be up-graded [9].

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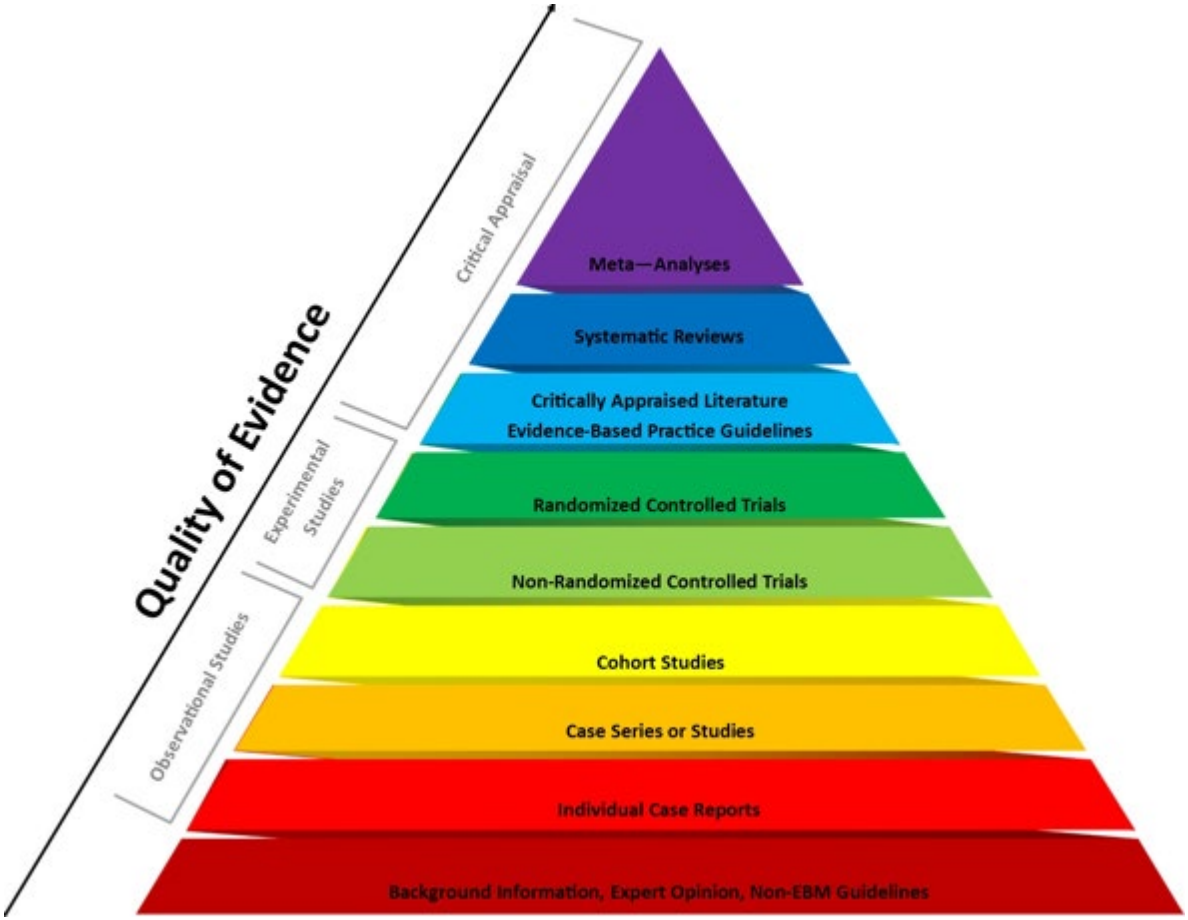
Quality of evidence



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8. Move from evidence to recommendations

When moving from evidence to recommendations, four factors should be considered:

1) benefits and harms
2) quality of evidence
3) values and preferences (of patients or their proxies)
4) cost considerations

GRADE classifies recommendations as “strong” when virtually all informed patients would choose the recommended management strategy. “Weak” recommendations apply when fully informed patients would choose different management strategies, and reflects a close call between benefits and harms, uncertainty regarding treatment effects, questionable cost-effectiveness, or variability in values and preferences [1,10].

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What is GRADE?

Grading of **R**ecommandations, **A**ssessment, **D**evelopement and **E**valuation

A transparent and structured process for developing and presenting evidence summaries and for carrying out the steps involved in developing recommendations

- **GRADE specifies**:
  - Approach to framing the question (PICO)
  - Choosing the outcomes of interest and rating their importance
  - Evaluating the evidence
  - Arrive at recommendations

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Schematic view of GRADE

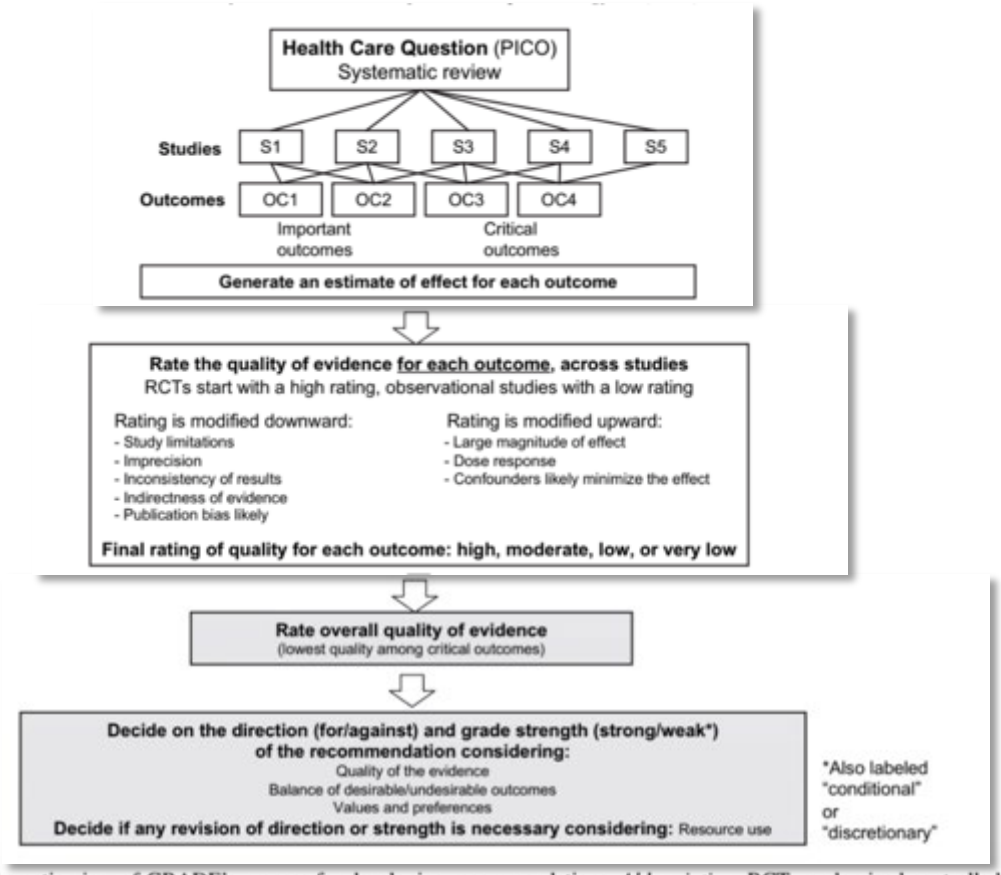
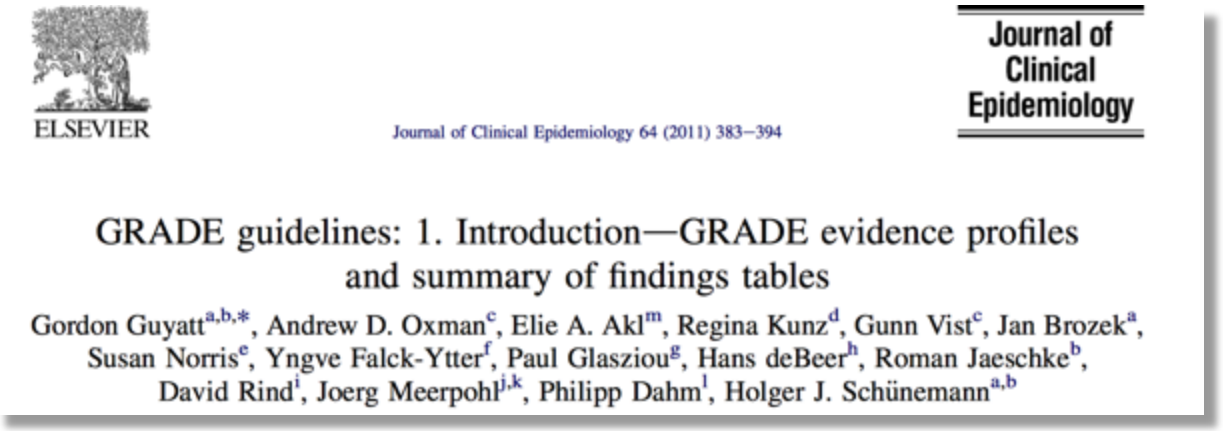


Fig. 1. Schematic view of GRADE's process for developing recommendations. *Abbreviation*: RCT, randomized controlled trials.

How do I get started ????



ELSEVIER

Journal of Clinical Epidemiology 64 (2011) 383–394

Journal of Clinical Epidemiology

GRADE guidelines: 1. Introduction—GRADE evidence profiles and summary of findings tables

Gordon Guyatt[a,b,*], Andrew D. Oxman[c], Elie A. Akl[m], Regina Kunz[d], Gunn Vist[c], Jan Brozek[a], Susan Norris[e], Yngve Falck-Ytter[f], Paul Glasziou[g], Hans deBeer[h], Roman Jaeschke[b], David Rind[i], Joerg Meerpohl[j,k], Philipp Dahm[l], Holger J. Schünemann[a,b]

GRADE guidelines: 2. Framing the question and deciding on important outcomes

Gordon H. Guyatt[a,*], Andrew D. Oxman[b], Regina Kunz[c], David Atkins[d], Jan Brozek[a], Gunn Vist[b], Philip Alderson[e], Paul Glasziou[f], Yngve Falck-Ytter[g], Holger J. Schünemann[a]

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[f]*Bond University, Gold Coast, Australia*
[g]*Division of Gastroenterology, Case and VA Medical Center, Case Western Reserve University, Cleveland, OH, USA*

Accepted 23 September 2010

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The guideline task

- The guideline task run from now until we meet in Helsinki, Jan 2021
- You will work in international groups
- Each group will have 2 mentors from the faculty
- Document with a detailed description of the task

IMPORTANT

Each group must

1. Study and present a theoretical topic in Copenhagen, May 2020
2. Study and use the GRADE method to answer a clinical question. Present the final guideline work in Helsinki, January 2021

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SSAI guideline task groups

A	B	C	D
SSAI mentor: Lone Joanna	SSAI mentor: Elin Johanna	SSAI mentor: Kim Sibba	SSAI mentor: Antti Anette
Elina (S) Anna (S) Sanna (F) Leila (F) Jorunn (N)	Camilla (S) Peter (S) Jarno (F) Mette (DK) Gjertrud (N)	Sanna (S) Arfat (UAE) Andreas (DK) Cristina (S) Susanna (F)	Lars (S) Ruaa (S) Laura-Maria (S) Emma (F) Kim (DK) Patricia (DK)

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The tasks for the groups

The theoretical topic:

- The groups must **study a theoretical topic** and present it for the rest of the group. The presentation must include examples from the papers you are using to answer your clinical question

Guideline work:

- The groups must ask a **clinical question (PICO)** and use the **GRADE method** to make a recommendation.

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The theoretical topics

Presentation: Copenhagen 2020, 15 min oral

- **Group A**: Publication Bias + Study Limitations.
- **Group B**: Imprecision.
- **Group C**: Inconsistency.
- **Group D**: Indirectness + Rating up

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The theoretical topics - material

Litterature:

- G. H. Guyatt *et al.*, “GRADE guidelines: 5. Rating the quality of evidence—**publication bias**,” *J. Clin. Epidemiol.*, vol. 64, no. 12, pp. 1277–1282, Dec. 2011.
- G. H. Guyatt *et al.*, “GRADE guidelines: 4. Rating the quality of evidence—**study limitations (risk of bias**),” *J. Clin. Epidemiol.*, vol. 64, no. 4, pp. 407–415, Apr. 2011.
- G. H. Guyatt *et al.*, “GRADE guidelines 6. Rating the quality of evidence—**imprecision**,” *J. Clin. Epidemiol.*, vol. 64, no. 12, pp. 1283–1293, Dec. 2011.
- G. H. Guyatt *et al.*, “GRADE guidelines: 7. Rating the quality of evidence—**inconsistency**,” *J. Clin. Epidemiol.*, vol. 64, no. 12, pp. 1294–1302, Dec. 2011.
- G. H. Guyatt *et al.*, “GRADE guidelines: 8. Rating the quality of evidence—**indirectness**,” *J. Clin. Epidemiol.*, vol. 64, no. 12, pp. 1303–1310, Dec. 2011.
- G. H. Guyatt *et al.*, “GRADE guidelines: 9. **Rating up the quality of evidence**,” *J. Clin. Epidemiol.*, vol. 64, no. 12, pp. 1311–1316, Dec. 2011.

Homepage

- https://training.cochrane.org/grade-approach

The guideline work

Presentation: Helsinki 2021, 15 min oral and in writing in the form of an abstract.

The overall topic: General anaesthesia for emergency c-section

The different topics to be addressed in clinical questions:

- **Group A**: Awareness
- **Group B**: Opioids in general anaesthesia
- **Group C**: Airway management
- **Group D**: Neuromuscular blocking agent

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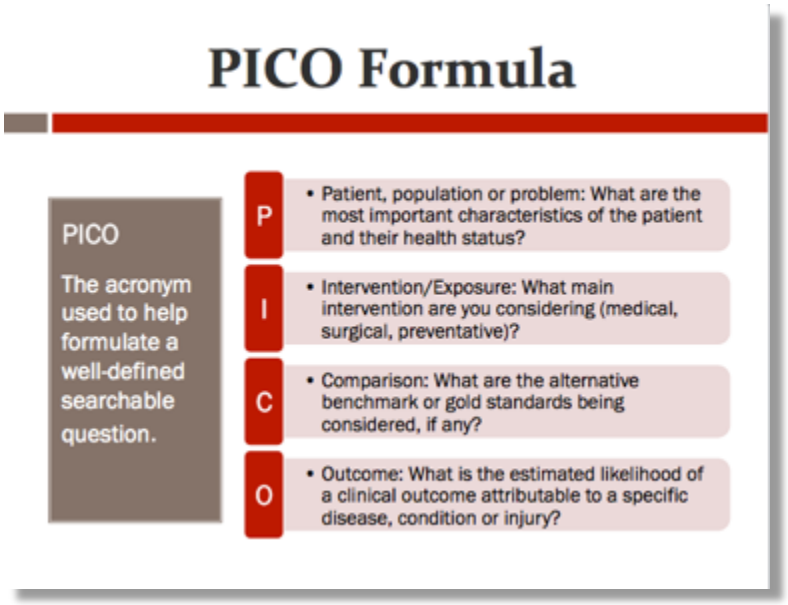
Generating a PICO about your topic and making the recommendation

Groupwork task:

1. All groups must generate **one** PICO about their topic. Starting today.

2. All groups must find the best evidence (max 4-5 papers - that is one paper per person in the group) to make the final recommendation.



Group work on Iceland tomorrow morning

1. Get to know each other
2. Choose team leader
3. Find out who has access to Pubmed
4. Choose a platform (Dropbox, Google Drive etc.)
5. Choose ref handling program (Mendeley) and make a group in Mendeley
6. Develop the PICO. To frame the PICO study ref [2]
7. Agree on deadlines – plan homework – plan groupwork
8. If you have the time: Start searching best evidence (**OBS : one paper per group member)**

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Overall time schedule

- **Iceland, Sept 2019:**
  - Get your theoretical topic. Start groupwork on clinical question
- *Homework*:
  - Study the theoretical topic. Search literature to answer the clinical question (PICO) (one paper pr. group member)
- **London, Nov 2019**:
  - Discuss progression of groupwork. Discuss the evidence. Discuss and plan the presentation in Copenhagen.
- *Homework*:
  - Plan the presentation in Copenhagen. Find best evidence.
- **Copenhagen May 2020:**
  - Oral presentation of theoretical topic. Groupwork about evidence profile and summary of findings. Plan and discuss presentation and abstract.
- *Homework:*
  - Study evidence, develop EP and SoF. Make abstract and prepare oral presentation
- **Helsinki January 2021:**
  - Presentation of Guideline**.**

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Description of the task

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How will this be a succes?

1. Designate a team leader
2. Make a detailed time schedule before you leave this castle (all groups).
3. Be a good team member - ALWAYS answer your colleagues email and do your part of the task
4. Find a platform (drop box, google, etc.) where you can store your documents and communicate

We are all busy -

not doing your task makes the job harder for your colleagues!

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To do - before you leave Iceland

Teams:

- Make detailed time schedules
- Decide on a platform where you can store documents and how to communicate
- Consensus on Ref. manager system e.g. Mendeley (mendeley.com)

Team leader:

- Make sure all team members understand their task
- Make sure you have each others email

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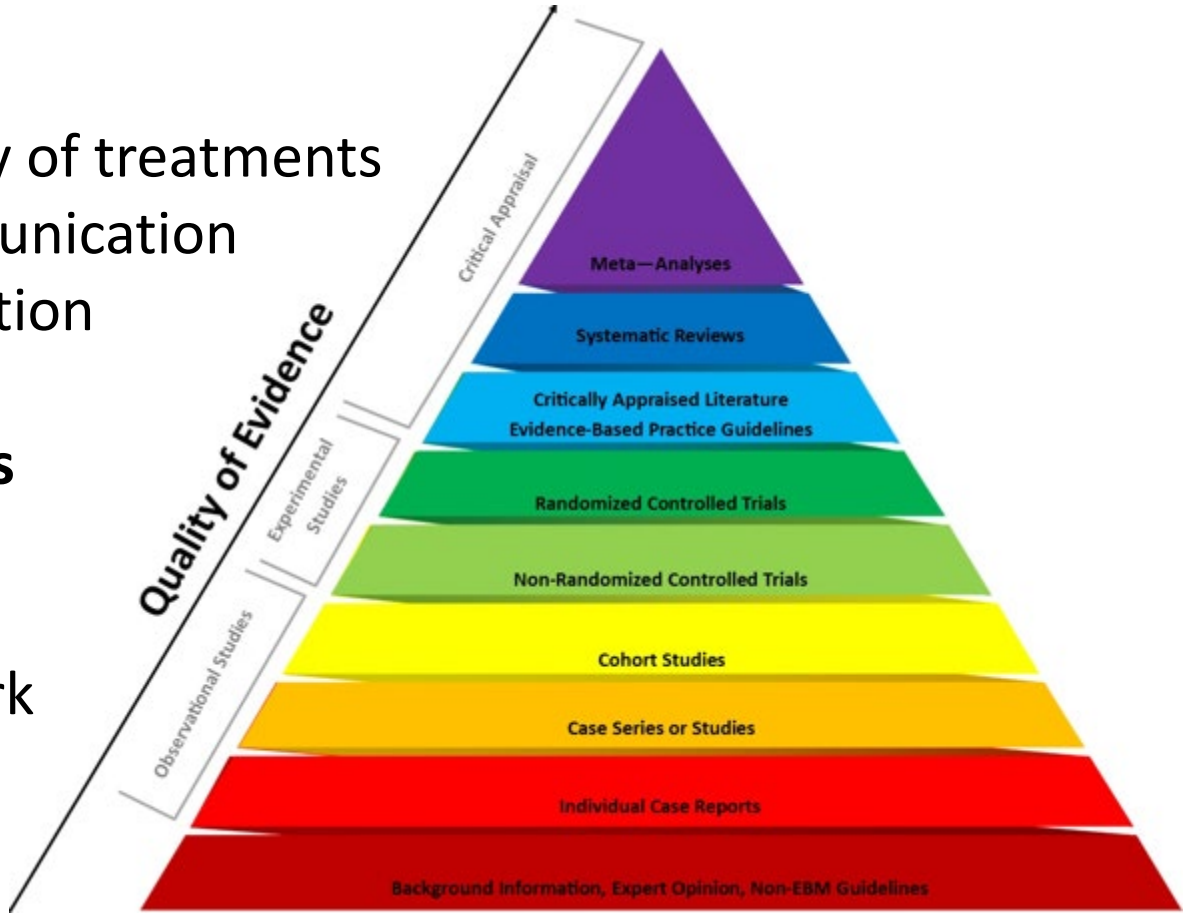
Remember

- **Guidelines may**
  - improve quality of treatments
  - improve communication
  - Improve education

- **Making Guidelines**
  - It is inspiring
  - You will learn
  - You will network



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Task for the upcoming coffee-break:

1. Meet your colleagues in the team
2. Talk to each other
3. Share your experiences with guideline work, PICO, GRADE.
4. Enjoy the coffee

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