



# IMPLEMENTING EVIDENCE- BASED MEDICINE (EBM) IN DAY-TO-DAY PRACTICE: THE 6th STEP.

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# THE 6th STEP

## ● Background:

In teaching the standard 5-step approach of EBM we noticed a growing hesitance to accept this strategy the further students or physicians advanced in their experience.

# THE 6th STEP

## ● Aims:

- First, the hesitance to accept the strategy of EBM has to be reduced.
- Second, the growing individual experience has to be integrated into the process of evidence-based decision making.
- Third, it has to be confirmed that the integration of EBM influenced the outcome of health care services.

# THE 6th STEP

## ● Methods (Bressanone Model):

- Physicians were asked to select a low eff clinical problem (either low effectiveness or low efficiency) from their day-to-day-practice.
- ... and to suggest two or more alternative solutions.
- The standard EBM program including the additional step is applied in the clinical practice teaching program. (Additional step: providing a formal answer to the clinical question based on own current knowledge, i.e. internal evidence = suggested alternative solution)

# THE 6 STEPS

- 1 Transforming the clinical problem into a 4-part clinical question
- 2 **Answering this question based on your internal evidence only**
- 3 Searching for and finding external evidence
- 4 Critically appraising the found external evidence
- 5 Integrating the critically appraised external evidence into the existing internal evidence and making a final decision
- 6 Evaluating the outcome

# THE 6 STEPS

- 1 Transforming the clinical problem into a 4-part clinical question
- 2 **Answering this question based on your internal evidence only**
- 3 Searching for and finding external evidence
- 4 Critically appraising the found external evidence
- 5 **Integrating the critically appraised external evidence into the existing internal evidence and MAKING A FINAL DECISION (based on a new version of internal evidence)**
- 6 Evaluating the outcome

# THE 6th STEP

## ● Results (first & second aim):

- The collective experience concerning this additional step was very positive
  - Students/physicians could integrate their (present) knowledge I.e. their internal evidence
  - They felt to be accepted
  - Their knowledge was recognized as important part of the decision making process
  - They were motivated to accept the rules of the game
  - They used the rules of the game to compare their internal evidence with the available external evidence

# THE 6th STEP

## ● Results (third aim):

### ● Questions #1

- Are the following preoperative tests needed in ASA 1-2 patients aged 2-65 years (ECG, Chest X-ray, AST / ALT, Hb, Leukocytes, Platelets, Creatinine, Urea)

### ● External evidence

- 1 HTA, 1 system. review, 1 guideline, 4 others
  - Bressanone: 1 HTA, 4 others
  - Ulm: 1 systematic review
  - Munich: 1 system. review, 1 guideline



# THE 6th STEP

## ● Results (third aim):

### ● Questions #2

- Are the consequences with and without positive Troponin I test different in patients with acute chest pain?

### ● External evidence

- 1 systematic review, 14 papers
  - Bressanone: 9 papers
  - Ulm: 1 system. review, 5 papers
  - Munich: 1 systematic review

# THE 6th STEP

## ● Results (third aim):

### ● Questions #3

- Shall we recommend breast feeding in women with hepatitis C?

### ● External evidence

- 22 papers

- Bressanone: 19 papers
- Ulm: 3 papers
- Munich: 3 papers

# THE 6th STEP

- Discussion (related to practice)
  - The experience from day-to-day practice confirms the effectiveness and efficiency as experienced in teaching
    - German medical students
    - German doctors
    - Italian (Alto adige/Südtirol) doctors
    - Canadian pharmacy students

# THE 6th STEP

## Discussion (related to research)

- 1 Transforming the clinical problem into a 4-part clinical question
- 2 **Answering this question based on your internal evidence only**
- 3 Searching for and finding external evidence
- 4 Critically appraising the found external evidence
- 5 **Integrating the critically appraised external evidence into the existing internal evidence and MAKING A FINAL DECISION (based on a new version of internal evidence)**
- 6 Evaluating the outcome

# THE 6th STEP

- Discussion  
(related to EBM / EBHC teachers and developers)

● ... have a little bit of fun