

Is Geriatrics still out of the EBM movement?

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Objectives:

- 1. Assess the challenges of conducting and interpreting research in geriatric population.
- 2. Evaluate the applicability of EBM in geriatrics

Case:

- An **80 years** old **man** consults you because he has been noticing elevated **BP** on many occasions **150 /90**.
- He showed you recent lab tests: ***FBS of 125 and HbA1c 6.5%***. Otherwise, normal CBC, renal, thyroid and liver tests. You noticed TC = 237, HDL = 50, ***LDL = 152***, Trigl =146 mg/dl.

Case : Q1: Do we have evidence from research to treat elderly patients?

- Geriatric population has been classically excluded from research, especially the clinical trials which provide the best evidence.
- Exclusion may be:
 - Direct: upper limit for age in the inclusion criteria,
 - Indirect: excluding participants with certain conditions that are highly prevalent in elderly (low glomerular filtration rate, polymedication, cognitive impairment and dementia).
- This leads to low generalizability of the results of studies to the geriatric population.

Case : 80 yrs HTN

- JNC- 8 (2014) recommended that systolic BP goal in patients aged ≥ 60 be relaxed to < 150 mmHg.
- HYVET study (NEJM 2008): patients ≥ 80 (mean : 84) active treatment (144 mmHg) compared to placebo significantly reduced mortality and CV events.
- What about newer evidence? \rightarrow SPRINT (2016):

SPRINT: Intensive treatment of hypertension to a SBP < 120 mmHg in patients \geq 75 yrs (JAMA 2016; 315:2672-83)

- Mean age = 80
- 62% Men
- Median follow-up = 38 months

- Inclusion: Medium high/ CV risk identified by previous CV events (except stroke), high Framingham score, or age \geq 75 yrs
- Exclusion: Diabetes, recent heart failure.

SPRINT: RCT randomization to intensive treatment (goal 120 mmHg) vs standard goal 140 mmHg)

- NNT = 83 to prevent 1 death over 3.3 years
- Hypotension (NNH = 100), syncope (NNH = 200), electrolyte imbalance (NNH = 125), acute kidney injury (NNH = 59)
- *Note: automated measurement average of 3 measurements → add 7- 10 mm Hg for equivalent measurement in clinical practice*

Case:

- You opted for a follow up on BP without treatment, after discussion with the patient.
- The patient is still worried about his BP, but you told him we're following the evidence and the guidelines.
- You found a lot of controversy about statines in primary prevention to start > 75 , but you opted for a statin.
- Patient asked you about aspirin? And a treatment for his pre- diabetes? Need for vitamins?...

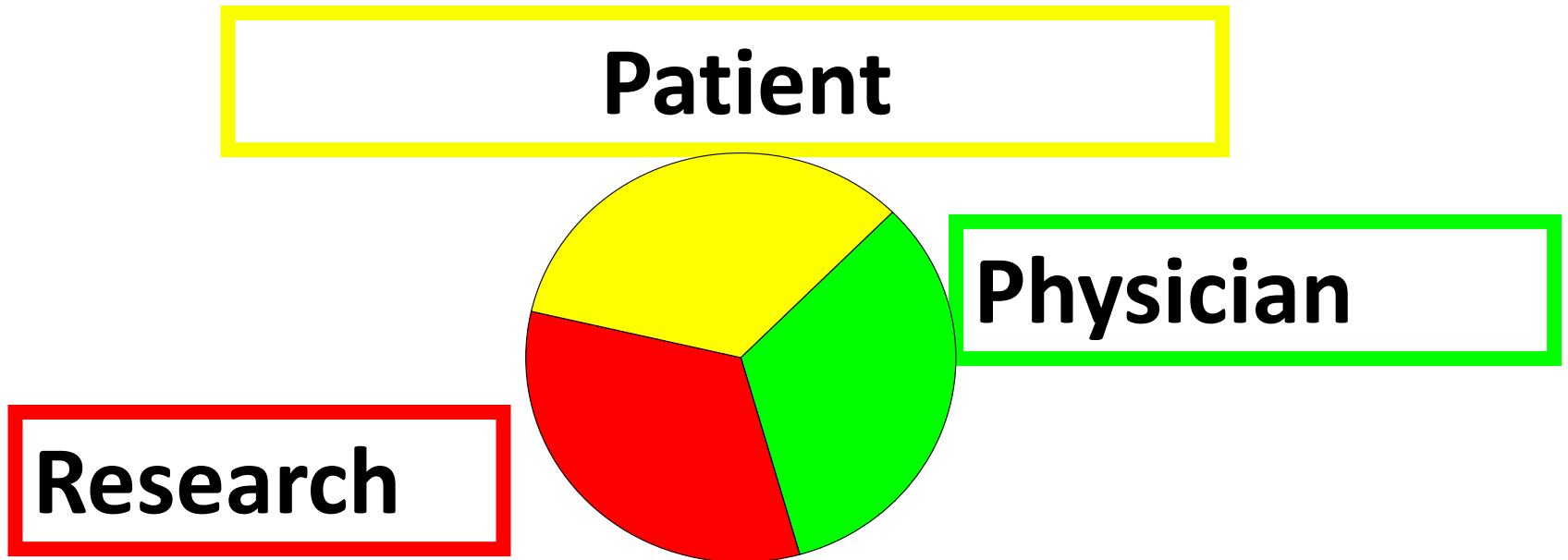
Multiple interventions/ Polymedication

- When considering interventions in elderly, keep in mind that in general they are **not synergistic**. (*HOPE 3 – NEJM 2016*: statines have consistent 25% relative reduction of baseline risk, with without hypertensive drugs)

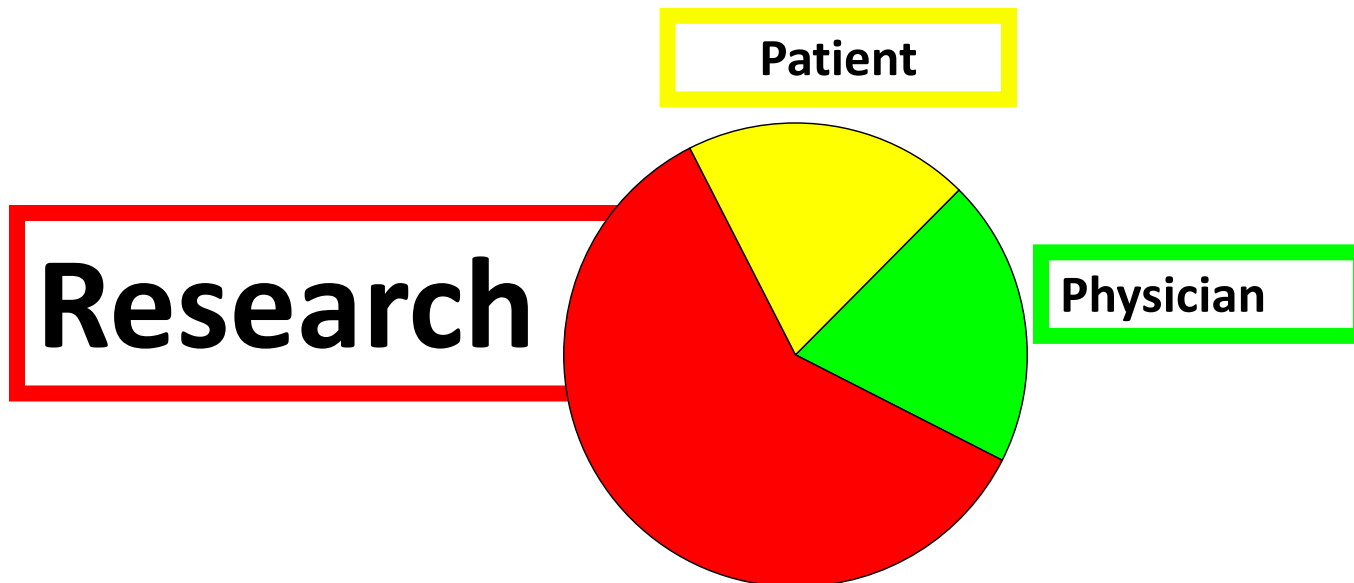
Is it only the problem of research /evidence?

- Nowadays, we have more research trials including or limited to elderly.
- Generalizability of research results may still be lower in geriatrics due to selection bias.
- We need more pragmatic RCTs including patients similar to our practice.
- Conclusion: Research in geriatrics has its limitations, but ***EBM is more than research.***

EBM is about decision making:
“clinical jazz”



EBM dehumanizing Medicine/ average patient/ worshiping numbers and p-values/ Guidelines above mindlines/Dismissing qualitative values...?:



What's wrong with EBM: Bad quality of research?

- Pharmaceutical influence +++
- (EBM: a movement in crisis, journals are secret arms for big pharma, EBM manifesto...)

What's wrong with EBM: Bad application in clinical practice:

- Formalisation of the evidence:
 - Unjustifiable standardisation
 - Ossified in protocols (example: tight glycemic control)
 - Biblical significance

(Timmermans and Berg)

- Patient's perspective: dismissed in favor of an average effect on a sample or a column of QALYs
- Decision trees to include patient's perspective proven impossible.
- De- skills practitioners losing the ability to customise and personalise care

All these drawbacks may make us
reverse the question:

- Has EBM movement evolved enough to embrace the holistic Geriatrics spirit?

Conclusions:

- Pay attention to exclusion criteria when reading research in geriatrics
- Statistical and clinical significance should not be considered biblical significance: Avoid dogmatism. EBM ≠ new religion.
- Don't apply all evidence (?) based interventions on a single patient! Effects are generally not synergistic. Avoid polymedication.
- Applying EBM in geriatrics means more than critical reading of articles. It is mainly well trained physicians ready to pay close attention to a patient's history and preferences.

Suggested Readings: an article:

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The screenshot shows a PDF viewer window titled "EBM geriatrics- Netherlands j med 2015.pdf - Adobe Acrobat Pro". The interface includes a menu bar (File, Edit, View, Window, Help), a toolbar with various icons, and a navigation pane on the left. The main content area displays the title page of an article. At the top, it says "The Netherlands Journal of Medicine". Below that, the word "REVIEW" is centered. The main title is "Evidence-based medicine in older patients: how can we do better?". The authors listed are S.P. Mooijaart^{1,3*}, K. Broekhuizen^{1,3}, S. Trompet¹, A.J.M. de Craen¹, J. Gussekloo², A. Oleksik¹, D. van Heemst¹, G.J. Blauw¹, and M. Muller¹. At the bottom, the departments are listed: ¹Departments of Gerontology and Geriatrics, ²Public Health and Primary Care, Leiden University Medical Center, Leiden, the Netherlands, ³Institute for Evidence-Based Medicine in Old Age (IEMO), Leiden, the Netherlands, *corresponding author: tel.: +31(0)71-5266640, fax: +31(0)71-5248945, email: s.p.mooijaart@lumc.nl. A tooltip in the top right corner of the PDF viewer says "Click on Tools, Sign, and Comment to access additional features."

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The Netherlands Journal of Medicine

REVIEW

Evidence-based medicine in older patients: how can we do better?

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Suggested Readings: A book

