

The World-Wide Evidence Based Practice Agenda

Proof, Power, Prestige & Cash

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41st Biennial Convention

Sigma Theta Tau International

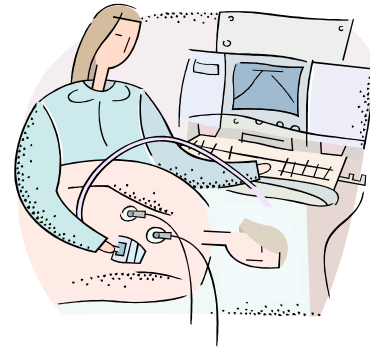
October 29, 2011

Global Evidence-Based Practice Strategies



Objectives

1. Describe the roots of evidence based practice (EBP) and the impact on culture & health care
2. Identify five sure pathways for ethical evidence based practice using the ANA Code of Ethics.



Evidence Based Practice (EBP)

... a problem solving approach to clinical care using the best evidence from well designed studies, clinician expertise, and patient values and preferences.....
provided in a context of caring, EBP leads to the best clinical decision making and outcomes for patients and families....

Fineout-Overholt E, Melnyk BM, Schultz A. Transforming health care from the inside out: advancing evidence-based practice in the 21st century. J Prof Nurs. 2005; 21(6): 335-344.

Origins of EBP

- Archie Cochrane – Pioneer Evidence Based Medicine (EBM)- 1979
- Rise of the information age
- Shift from **opinion, experience, precedent** to **science & evidence** to guide clinical decisions.



Clarke JB. Evidence based practice: a retrograde step? The importance of pluralism in evidence generation for the practice of health care. J Clin Nurs. 1999;8:89-94.

Evidence Based Medicine

- Successfully brought the benefits of research to large populations
- Significant reductions in mortality & morbidity in disease & treatment
- “Replaced” expert, experience & pathophysiological relationship based medicine.
- A powerful pathway for nearly all drug development & application over the past 60 years.

Wilson K. Evidence based medicine- the good the bad and the ugly. J Eval Clin Prac. 2010;16: 398-400.

Bryan-Brown C & Dracup K. Evidence-based pandemonium. Am J Crit Care. 2004;13:10-12.

Change of Emphasis Nurse Knowing

- Empirical
- Ethical
- Personal
- Aesthetic



Carper B. Fundamental patterns of knowing in nursing. Adv Nurs Science. 1978; 1: 13-23.

Myths of EBP

- Solves problems quickly
- Safest option
- Best value for the money
- Interventions & outcomes are **measureable**
- Best path to solve clinical problems
- A simple, logical process for critical thinking & decision making.



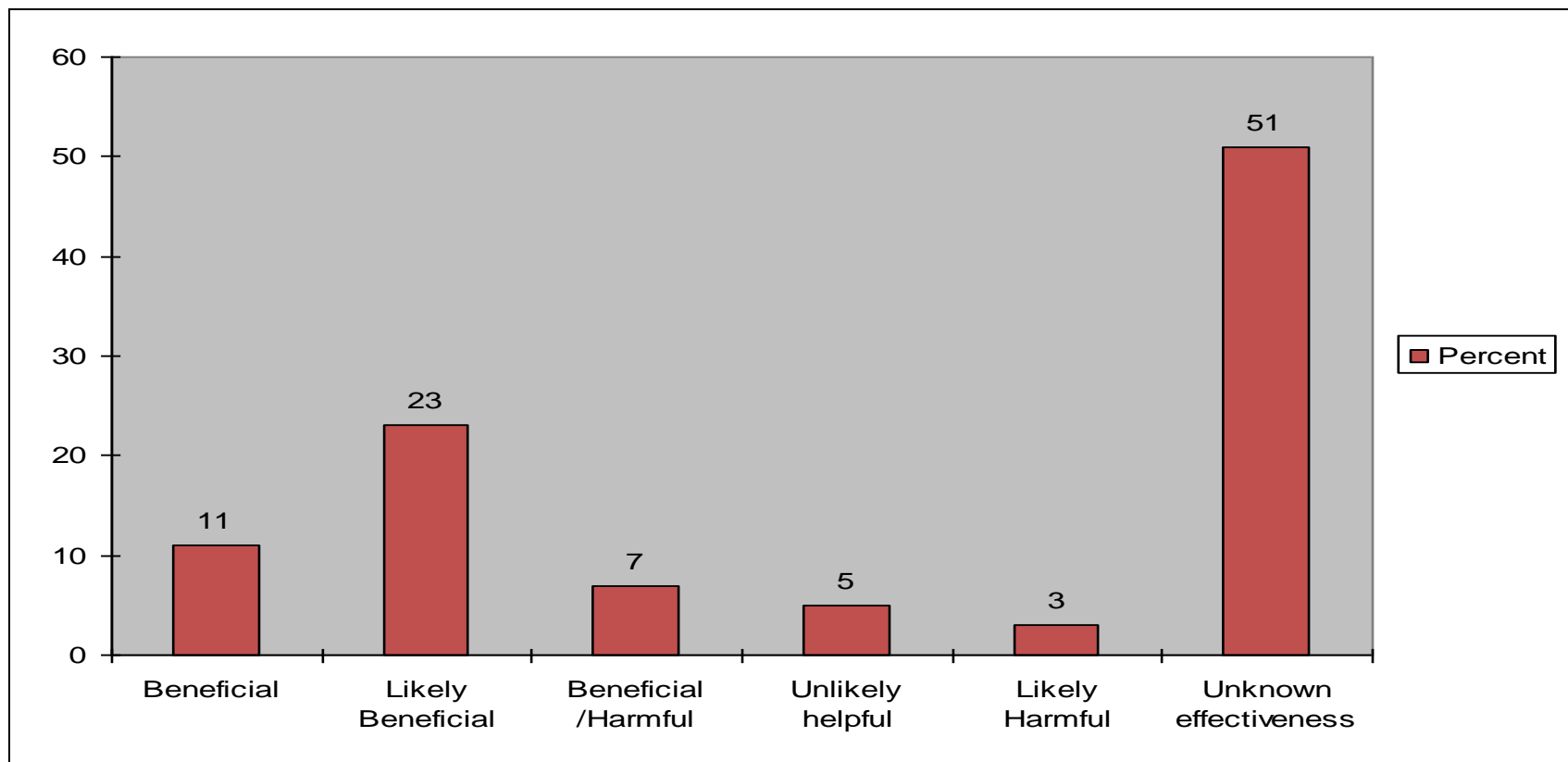
Clarke JB. Evidence based practice: a retrograde step? The importance of pluralism in evidence generation for the practice of health care. J Clin Nurs. 1999;8:89-94.

Kerridge I, Lowe M, Henry D. Ethics and evidence based medicine. BMJ. 1998;316:1151-1153.

Evidence Base for 3000 Interventions

Clinical Evidence. British Medical Journal. Available at:

<http://clinicalevidence.bmj.com/ceweb/about/knowledge.jsp>. Accessed October 12, 2011



Criticisms of EBP

1. Many question in nursing **cannot** be answered via experimental design.
2. Nursing requires a **wide range** of evidence not obtainable from RCT.
3. EBP does **not** account for the nature of healing.
4. Patients are **not** biological machines.
5. Evidence is **never** free of prejudice or error.
6. Interventions based on probabilities without accounting for circumstances, pathophysiology, physiology & history is **dangerous** care.

Clarke JB. Evidence based practice: a retrograde step? The importance of pluralism in evidence generation for the practice of health care. J Clin Nurs. 1999;8:89-94.

Wilson K. Evidence based medicine- the good the bad and the ugly. J Eval Clin Prac. 2010;16: 398-400.

Kanwar M, Brar N, Khatib R, Fakih MG. Misdiagnosis of community acquired pneumonia and inappropriate utilization of antibiotics: side effects of the 4-hour antibiotic rule. Chest. 2007;13(6): 1865-1869.

Criticisms of EBP

- 7. Association does **not** mean causation.
- 8. Precision is **not** validity.
- 9. The usefulness of any evidence is equal to:
relevance **X** validity
work & resources & benefit

Mayer D. Evidence based medicine. Epilepsia. 2006; 47(Supple 1): 3-5.

Hidden Outcomes of EBP

- “Medicalization” of life
- Evidence perceived as truth & use is quality care
- Condition + Intervention= Outcome ($<.05$)
- Nurse/Patient relationship changed to Provider/Consumer
- Decreasing confidence in provider judgment
- Less toleration of error, adverse & unpredicted natural biological variation

Saarni SI, Gylling HA. Evidence based medicine guidelines: a solution to rationing or politics disguised as science. J Med Ethics. 2004;30:171-175.

Barriers to EBP

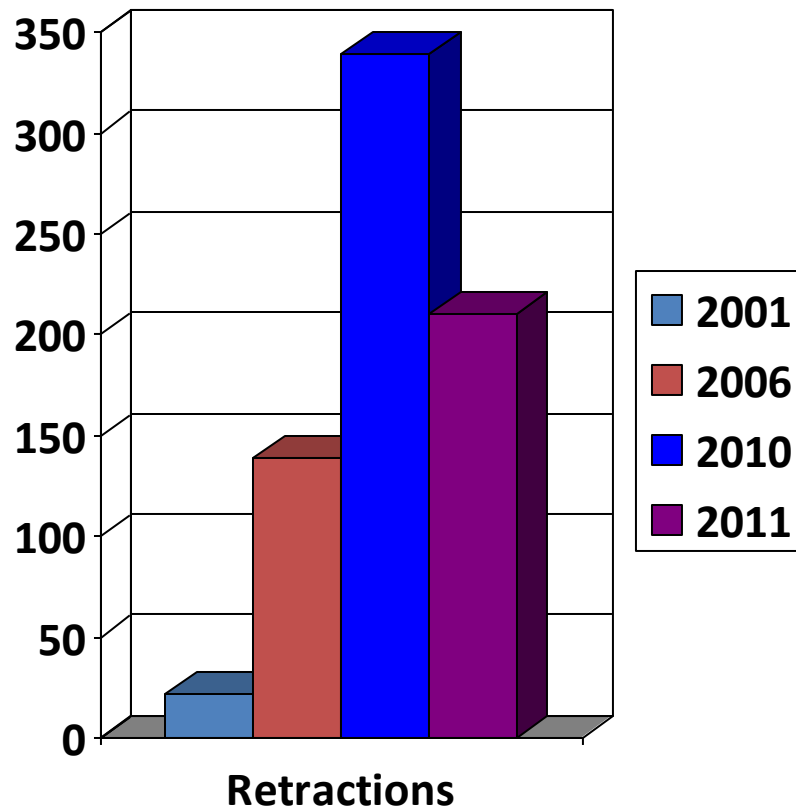


- HCO lack **dynamic** systems & access to disseminate evidence
- Significant numbers of clinical nurses lack competency to **synthesize** & **evaluate** & **judge** evidence for clinical problems (*application is not the problem!*)
- Applied evidence within order sets, policies, procedures & clinical guidelines is **poorly structured** & discourages nurses to **think through** the consequences of applying evidence.

Sitzia J. Barrier to research utilisation: the clinical setting and nurses themselves. Int Crit Care Nurs. 2002;18:230-234.

Kerridge I, Lowe M, Henry D. Ethics and evidence based medicine. BMJ. 1998;316:1151-1153.

Erosion of Truth & Trust Since 2001



Number of retracted
papers has increased
15 fold



*Naik G. Mistakes in Scientific Studies
Surge. WSJ.com. August 10, 2011*

Increasing Erosion of Truth & Trust in Science

Andrew Wakefield

Naoyuki Nakao

Naik G. Mistakes in Scientific Studies Surge.

WSJ.com. August 10, 2011

Scott Reuben

O'Malley P. A Case of Scientific Misconduct.

Clin Nurs Spec. 2009; 23(5): 265-267

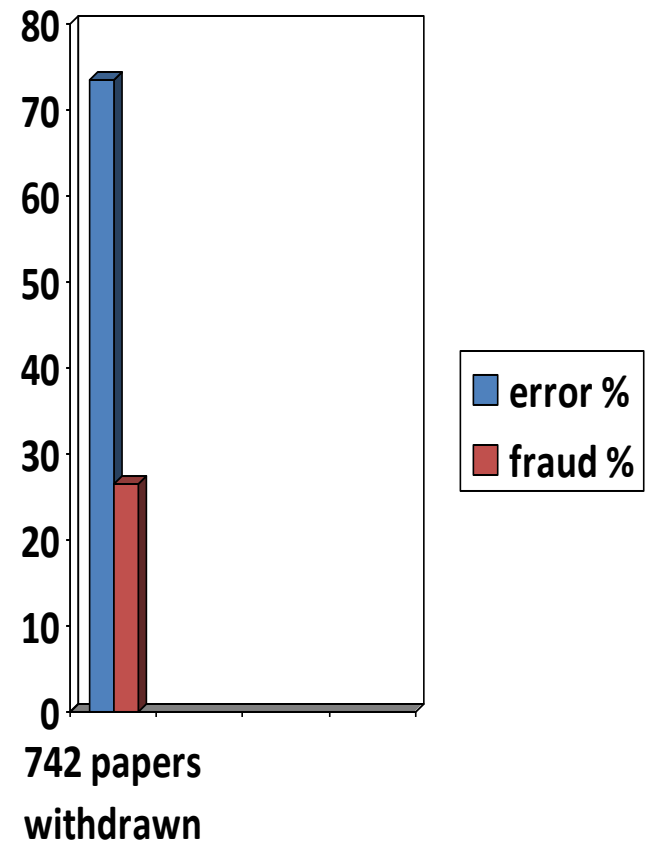
Hwang Woo Suk

Jan Hendrikschon

Jon Sudbo

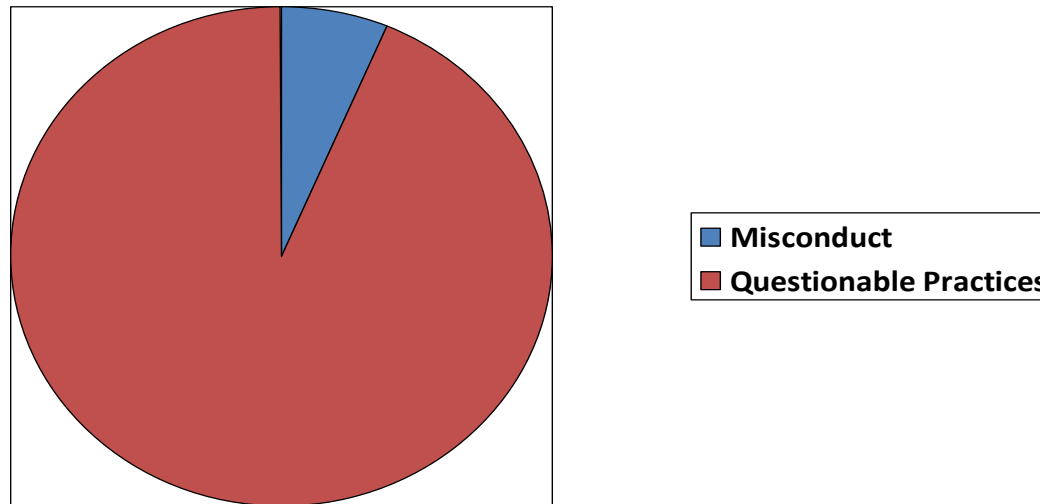
Eric Poehlman

Katavic V. Special issue: responsible writing in science, responsible conduct of research: do we need training in fraud science? 2010; 20(3): 288-94.



There is probably **a lot**
of undiscovered fraudulent research.

Fanelli D. How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. 2009; PLoS One:4:e5738.



Dark Side of EBP



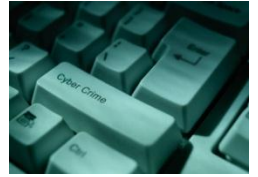
How to **A**chieve positive **R**esults without actually
Lying to **O**vercome the **T**ruth [Harlot]

HARLOTplc: an amalgamation of the world's oldest professions. D.Sackett & A. Oxman. BMJ. 2003;327:1442.

Fabrication, **F**alsification, **P**lagiarism [FFP]

Katavic V. Special issue: responsible writing in science, responsible conduct of research: do we need training in fraud science? 2010; 20(3): 288-94.

Questionable Practices



- Report only the impressive relative risk reduction while **suppressing** the **unimpressive** *absolute risk reduction & actual numbers needed to treat*.
- Provide experimental patients **additional treatments** with known efficacy to treat co-morbidities & improve study results
- **Concoct** invalid inflated event rates especially among control patients

D.Sackett & A. Oxman. HARLOTplc: an amalgamation of the world's oldest professions. BMJ. 2003;327:1442.

Fanelli D. How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. 2009; PLoS One:4:e5738.

Dark Side EBP



- ▶ **SAFE**- *Say anything for money (paid experts to generate guidelines, write editorials, be keynote speakers, referee for key journals)*
- ▶ **SCUM**- *Sick Celebrities for Use in the Media (Hire stars, athletes and washed out politicians for talk shows, gossip magazines, to promote the product)*

D.Sackett & A. Oxman. HARLOTplc: an amalgamation of the world's oldest professions. BMJ. 2003;327:1442.

Fanelli D. How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. 2009; PLoS One:4:e5738.

Farthing M. Authors & publication practices. Science & Engineering Ethics. 2006; 12(1): 41-52.

Dark Side EBP



- **FYP**-*Foundation in Your Pocket (build beautiful headquarters & conference centers for health foundations)*
- **BOSS**- *Bureau of Secret Surveillance (buy confidential information from pharmacists to know who is prescribing what)*
- **SOW**- *Save/Sacrifice Our Workers (threaten to move the product development & production to another country)*

D.Sackett & A. Oxman. HARLOTplc: an amalgamation of the world's oldest professions. BMJ. 2003;327:1442.

Dark Side EBP



- **SHARKS** – *Striking Horror and Retreat through Killer Solicitors (Really good lawyers to threaten drug review boards with frivolous but expensive lawsuits to suppress negative health technology assessment till sales targets are met)*

D.Sackett & A. Oxman. HARLOTplc: an amalgamation of the world's oldest professions. BMJ. 2003;327:1442.

Fanelli D. How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. 2009; PLoS One:4:e5738.

Dark Side EBP



SALAMI-how to Succeed in Academic Life Advice and Mentoring Institute (*how to pad your vitae, exploit your staffs and slice your research findings into a minimum of one paper published per enrolled subject*). Always overstate the significance of the findings.

D.Sackett & A. Oxman. HARLOTplc: an amalgamation of the world's oldest professions. BMJ. 2003;327:1442.

Fanelli D. How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. 2009; PLoS One:4:e5738.

Farthing M. Authors & publication practices. Science & Engineering Ethics. 2006; 12(1): 41-52.

Dark Side EBP



RATS- *Research Administration Teams*

1. Find patients that can survive the immediate toxicity of the drug before inclusion in analysis.
2. If a significant number of patients are experiencing negative events, these outcomes will be excluded from analysis

D.Sackett & A. Oxman. HARLOTplc: an amalgamation of the world's oldest professions. BMJ. 2003;327:1442.

Fanelli D. How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. 2009; PLoS One:4:e5738.

Farthing M. Authors & publication practices. Science & Engineering Ethics. 2006; 12(1): 41-52.



Dark Side EBP



GSWS - *Ghost Writers in the Sky*

- *Once the data is “cooked”, write the paper and report only favorable results.*
- *Randomize sentence presentation to camouflage plagiarism*
- *Bury unfavorable results since patients, clinicians, regulators and the public can't be hurt by what they don't know.*

HARLOTplc: an amalgamation of the world's oldest professions. D.Sackett & A. Oxman. BMJ. 2003;327:1442.

Fanelli D. How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. 2009; PLoS One:4:e5738.

Farthing M. Authors & publication practices. Science & Engineering Ethics. 2006; 12(1): 41-52.

Future EBP

Statistics can say whatever you want but not necessarily WHY?



Improving EBP for the Future



1. Provide evidence of ethical research processes (COI & bias)
2. Eliminate unnecessary research
3. Education & training in **READING, INTERPRETING, JUDGING & APPLYING** evidence
4. Prospective agreement for publication regardless of findings to stop data concealment
5. Reduce emphasis for volume(# of projects) over quality (adherence to ethics & standards)
6. Stop unconditional acceptance of evidence

Wilmshurst P. How sound is the evidence in the era of evidence based medicine? J Foren Psych. 2001;12(2): 255-259.

Farthing M Authors & publication practices. Science & Engineering Ethics. 2006; 12(1): 41-52.

Perspectives

- There is **no** evidence that EBM provides a greater benefit than traditional care.
- The replacement traditional care with evidence application based on favorable meta-analysis **as the final arbitrator** has created new legal, ethical and governmental powers that overshadow practice & has created new consumer needs.



Berrios GE. On evidence based medicine. Editorial. Novedades. Available at: <http://www.psicoevidencias.es/Novedades>. Accessed September 29, 2011

Perspectives

- EBP as the primary model to **quantify, cost, govern** and **evaluate** care renders the clinician-patient relationship into a “thing” stripped of all **therapeutic power** & along with the dynamics of **healing** & **meaning**.
- Patient **outcomes** are becoming a function of **enacted probabilities** rather than the result of expert & compassionate nursing care.
- The “**supermarket**” of best evidence for sale – the public increasingly is being **led** that healing can occur outside the clinician-patient relationship .

Berrios GE. On evidence based medicine. Editorial. Novedades. Available at: <http://www.psicoevidencias.es/Novedades>. Accessed September 29, 2011

What if?

Health care was **liberated** from probability based statistics which leads to incorrect diagnosis, the wrong evidence application and increased need for testing to refute or confirm “successful” evidence application?



Helgason CM, Jobe TH. Principled versus statistical thinking in diagnosis and treatment of stroke. Curr Tx Op Card Med. 2010;12:292-296.

Maybe?

- Evidence is a **tool** that requires judgment & assessment **before** application
- Since nursing is a human interaction with potentially infinite responses, RCT should **not** be perceived as the GOLD standard for evidence
- No one type of evidence should secure a position of **domination** over another.
- A more uniform & transparent process to evaluate evidence would help nurses and HCO to understand the **limitations** of EBP.
- Guidelines are **not rules**
- All guidelines are **evidence** based, **opinion** based and **bias** based.

Clarke JB. Evidence based practice: a retrograde step? The importance of pluralism in evidence generation for the practice of health care. J Clin Nurs. 1999;8:89-94.

Powers J. Practice guidelines: belief, criticism and probability. Arch Int Med. 2011; 171(1): 15-17.

Evidence Based Practice is a gift with ethical wrappings



Christiansen C, Lou JQ. Ethical considerations related to evidence based practice. Am J Occup Ther. 2001;55(3): 345-349.

Nursing's Treasures to Navigate EBP

- ANA Code of Ethics
- 5 Nursing Ethics
 - Autonomy
 - Beneficence
 - Non-maleficence
 - Justice
 - Veracity



***ANA Code of Ethics with Interpretive Statements. Available at:
<http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses/Code-of-Ethics.aspx>***

Case study

Tobin MJ. Counterpoint: evidence based medicine lacks a sound scientific base. Chest. 2008; 133(5): 1071-1074





Conclusions

- Evidence based nursing practice must be based first on **knowing***, **nursing assessment**, then **competency, experience & intuition**.
- Use of evidence is a function of patient & nurse **autonomy** influenced by **resources** and **circumstances, values** and **goals**.
- Evidence based nursing practice **takes place in relationship** supported by the **ANA Code of Ethics**.

***Knowing**: Anatomy, physiology, pathophysiology, pharmacology, microbiology, & evidence evaluation, aesthetics & personal knowledge

Questions?

Further information:

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