



# EBSCO Health

## The Case Against Just “Googling it” for Medical Evidence

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# The Case Against Just “Googling it” for Medical Evidence

## Agenda



- Introduction
- Clinician Behavior - POC Questions
- The Problem
  - Search Engine Use: Prevalence; Issues
- The Solution
  - Pre-appraised evidence
  - Evidence-based healthcare pyramid 5.0 model
- Nursing Reference Center Plus and Dynamic Health Overview
- Conclusion

# The Case Against Just “Googling it” for Medical Evidence

Introduction



# Just Google It!

*What to do if dog ate chocolate*

*Closest drug store*

*Best movies by rating*

*Best restaurants in Baltimore inner harbor*

*Seacoast NH events summer*

*Why can't I get this song out of my head*

*Natural wood cleaner*

*dan Fogelberg auld lang syne lyrics*

*Natural leather cleaner*

*Boston theater venues*

*Grocery delivery service Seacoast NH*

*Natural treatment for carpenter ants*

*Case against GMO foods*

**U2 street with no name lyrics**

**Best thrift shops Baltimore**

# The Case Against Just “Googling it” for Medical Evidence

Clinician Behavior - POC Questions



# The Case Against Just “Googling it” for Medical Evidence

## Clinician Behavior - POC Questions

1 Question /  
2 patients seen

(Del Fiol, Workman, Gorman,  
2014)



> 50% =  
unanswered,  
perhaps due to  
information  
overload

(Miller, as cited in Clarke  
et al., 2013).

Del Fiol, G., Workman, T.E., Gorman, P.N. (2014). Clinical Questions Raised by Clinicians at the Point of Care - A Systematic Review. *JAMA Internal Medicine*. 174(5): 710-718.

Clarke, M. A., et al. (2013). Information needs and information-seeking behaviour analysis of primary care physicians and nurses: a literature review. *Health Information & Libraries Journal*. 30: 178–190.

# The Case Against Just “Googling it” for Medical Evidence

Clinician Behavior - POC Questions – Internet Use



# The Case Against Just “Googling it” for Medical Evidence

## Potential Impact

### Information:

- Unreliable
- Not valid
- Not current
- Biased
- Not comprehensive

No new information  
(Unanswered Questions)



### Care :

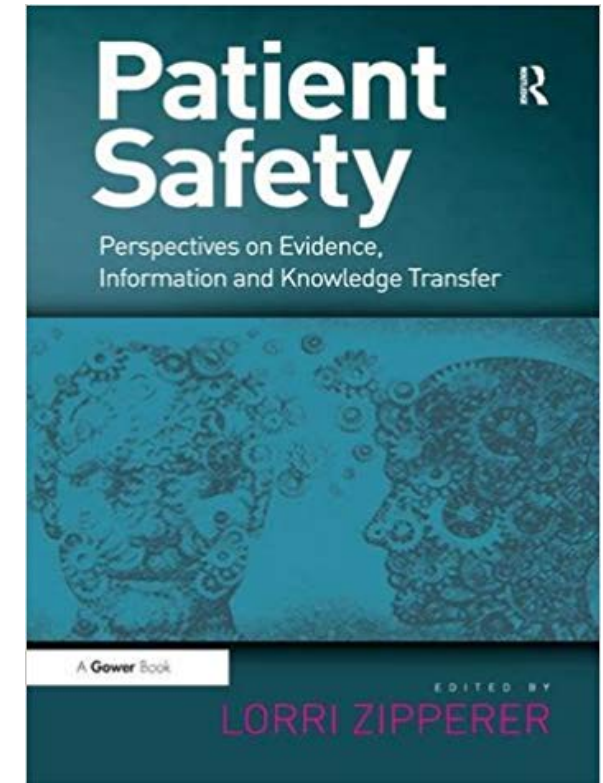
- Potentially delayed
- Inappropriate
- Error prone
- Potentially fatal



# The Case Against Just “Googling it” for Medical Evidence

Impact - Knowledge Gaps can lead to devastating results

- Ellen Roche case
  - System failures
  - Researcher/PI failure
    - “The project PI was criticized for not conducting a more comprehensive literature search for previously published articles on hexamethonium and pulmonary toxicity.” (Zipperer, 2014)
    - “An evidence discovery failure had occurred.” (Zipperer, 2014)



Zipperer L. (2014). *Patient safety: perspectives on evidence, information and knowledge transfer*. Burlington, VT: Ashgate Publishing Company.

# The Case Against Just “Googling it” for Medical Evidence

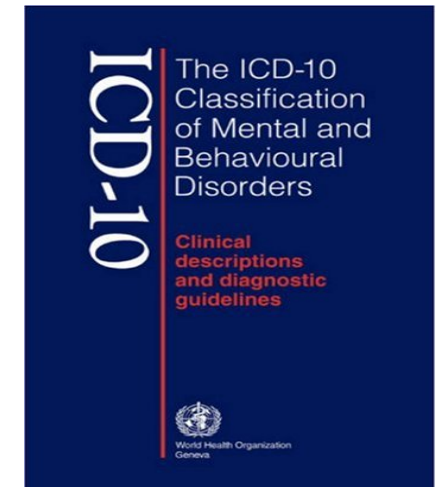
Search Engine Issues



# The Case Against Just “Googling it” for Medical Evidence

## Search Engine Issues

- Lack of universal word/phrase meaning (medical context)
  - ICD-10 or MeSH
- Result list sequence can be slanted due to favoritism
  - 2017 European Union case
    - Could medical results be slanted, then?
- Another European Union case?



# The Case Against Just “Googling it” for Medical Evidence

## Information Deluge

- Information overload
  - “occurs when information received becomes more of a hindrance rather than a help when the information is potentially useful” (Bawden et al, as cited in Clarke et al., 2013, p. 180).
- Possible effects
  - “failing to process some of the inputs, processing information incorrectly, delaying the processing of information, accepting lower-quality information and giving up the search for needed information“ (Miller as cited in Clarke et al., 2013, p. 180)



Clarke, M. A., et al. (2013). Information needs and information-seeking behaviour analysis of primary care physicians and nurses: a literature review. *Health Information & Libraries Journal*. 30: 178–190.

# The Case Against Just “Googling it” for Medical Evidence

## Source Credibility

- How to judge information credibility? (reliable, valid, current, free from bias, and with appropriate scope and depth coverage).
- Website assessment guides for healthcare information
  - DISCERN Instrument (Charnock, 1998)
  - HONcode (Health on the Net Foundation [HON])
  - eHealth Code of Ethics (Rippen & Risk, 2000)
  - General Assessment and Content Assessment questionnaires (Saleem, 2010)
- *How can these guides be used in < 3 minutes?*



# The Case Against Just “Googling it” for Medical Evidence

## Source Credibility

- Accrediting organizations – HONcode
- Principles (*Short Version*)



1. Authority
2. Complementarity
3. Privacy
4. Attribution
5. Justifiability
6. Transparency
7. Financial disclosure
8. Advertising

Complete statements are available on each principle: <http://www.hon.ch/HONcode/Pro/Conduct.html>.

Boyer, C. (2013). *When the quality of health information matters: health on the net is the quality standard for information you can trust.*

Health on the Net Foundation. <https://www.hon.ch/Global/pdf/TrustworthyOct2006.pdf>

# The Case Against Just “Googling it” for Medical Evidence

## The Solution

- Pre-appraised evidence
- Evidence-based healthcare pyramid 5.0 model



# The Case Against Just “Googling it” for Medical Evidence

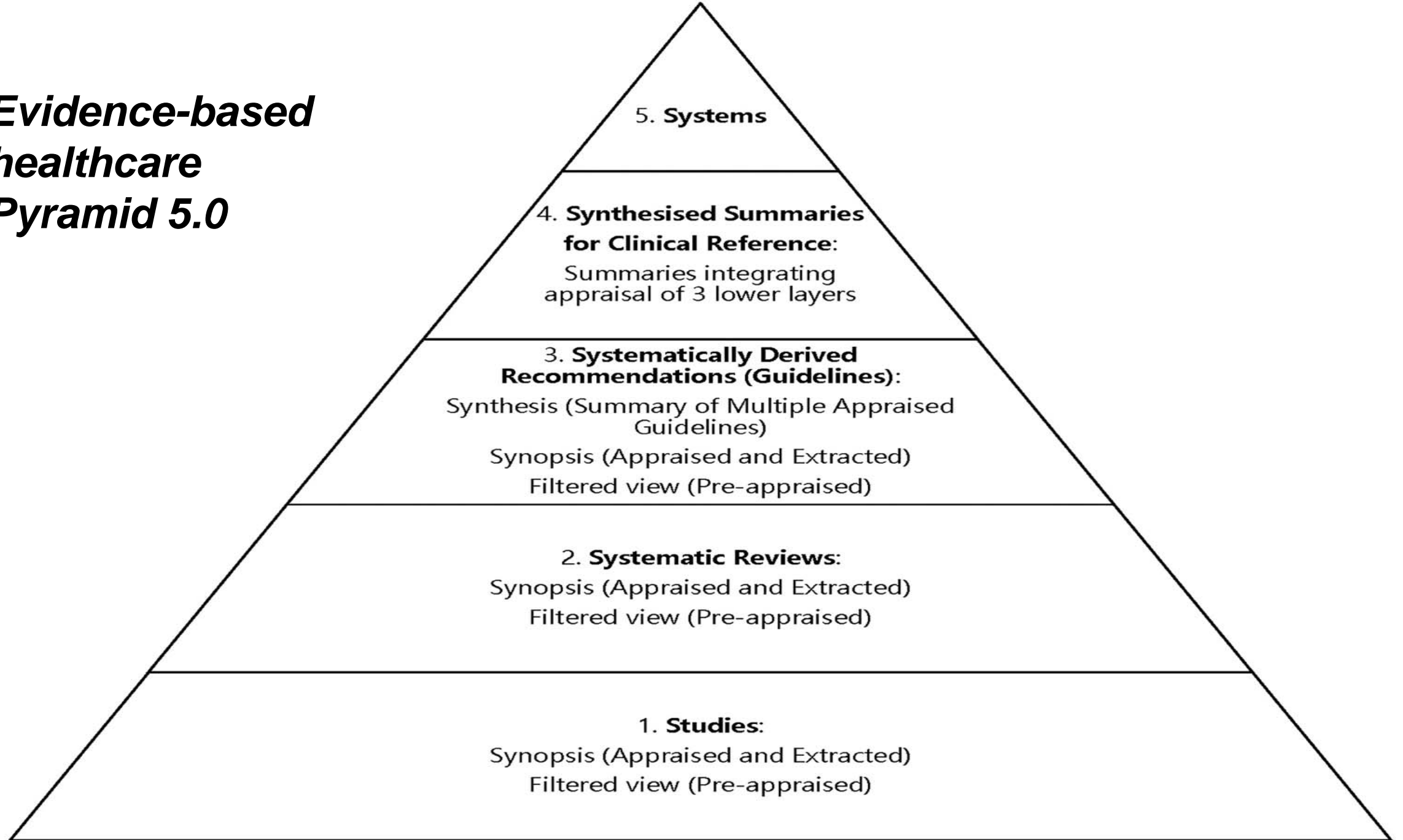
## The Solution: Pre-appraised Evidence

- What does the term *pre-appraisal* mean?
  - Refers to resources that "have undergone a **filtering process** to include only those studies that are of **higher quality** and are **regularly updated** so that the evidence we access through these resources is **current**." (DiCenso, Bayley and Haynes, 2009).
  - EBSCO Health POC products contain this pre-appraised information.

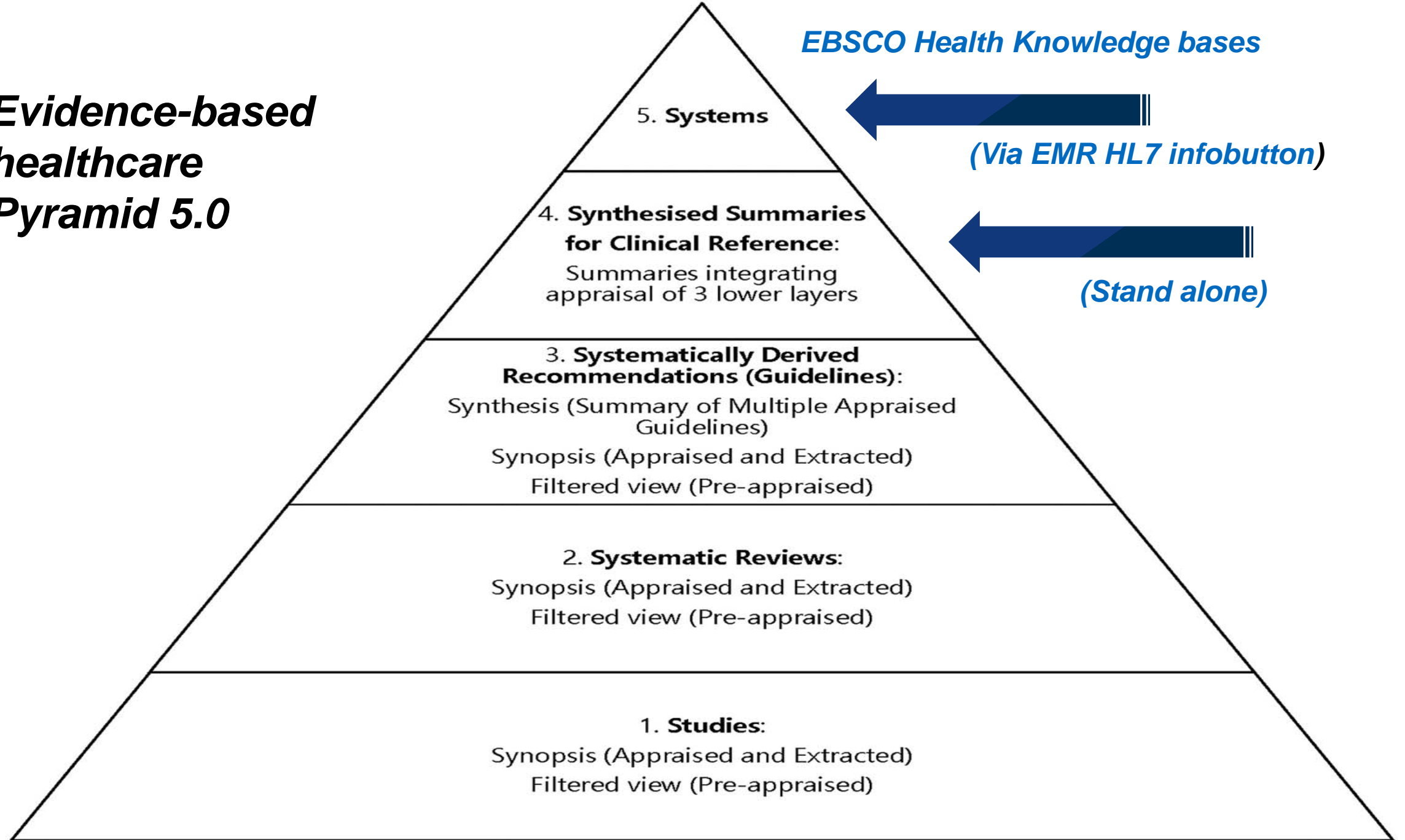
DiCenso, A., Bayley, L., Haynes, R. B. (2009a). ACP Journal Club. Editorial: Accessing preappraised evidence: fine-tuning the 5S model into a 6S model. *Annals of Internal medicine*. 151 (6): JC3-2, JC3-3.



# ***Evidence-based healthcare Pyramid 5.0***



# Evidence-based healthcare Pyramid 5.0



# Evidence-Based Methodology



**Identify** the Evidence



**Select** the Best



**Critically** Appraise



**Objectively** Report



**Synthesize** the Evidence



**Report** Conclusions and Make Recommendations



**Adjust** Conclusions When New Evidence is Published

# The Case Against Just “Googling it” for Medical Evidence

*Nursing Reference Center Plus  
Dynamic Health*

Overview



## Created by a world-class team of nurses who:

- are experts in their particular fields
- select the best and most appropriate evidence
- confirm the clinical applicability of content
- peer review topics



# POC Nursing Information Needs Fall Into Two Main Categories

## “Decision Support”

Fast answers to clinical questions at or before the point of care

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### Resources:

- Synthesis evidence-based content on disease & conditions, drugs, procedure, leadership topics, risk management
- Care Plans
- Core Measures
- Videos & Images
- Continuing Education Modules
- Books

## “Skills”

Developing and tracking nursing and allied health skills and competencies

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### Resources:

- Actionable clinical skills content and corresponding checklist (for evaluation) that seamlessly integrate into a hospital’s learning management system.





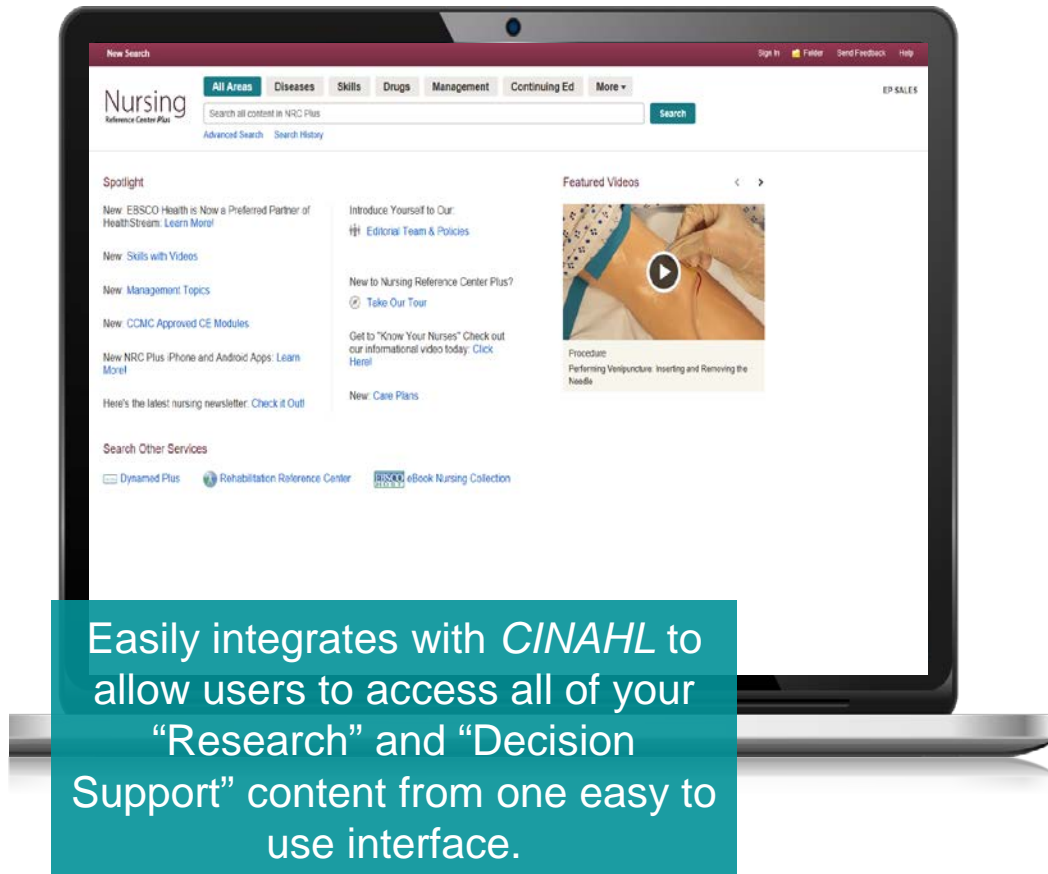
# EBSCO Health Offers a Complete POC Nursing Solution

“Decision Support”

Nursing Reference Center™  
*Plus*

“Skills”

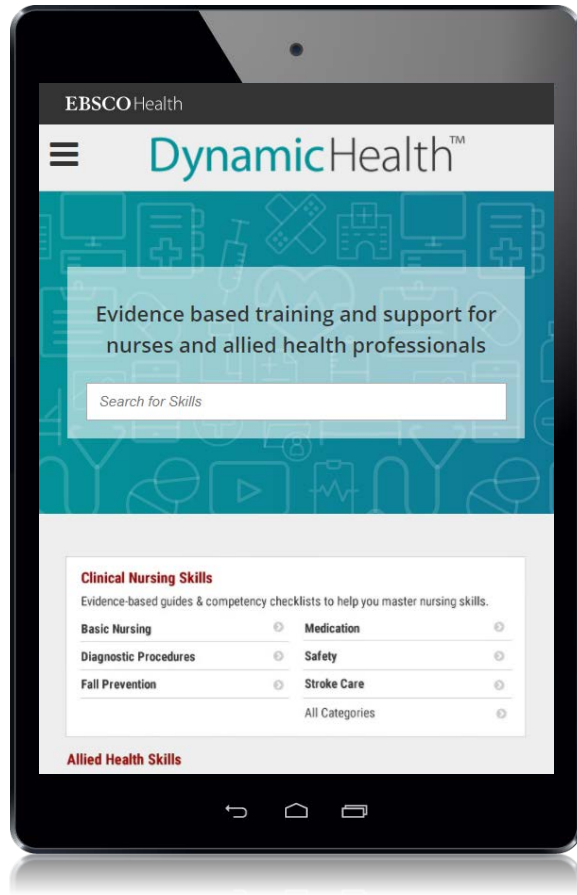
DynamicHealth™



- Designed by nurses for nurses, to aid in decision support at the point of care
- Evidence-Based Care Sheets Covering: disease and conditions, drugs, procedure, leadership topics, risk management
- Care Plans
- Core Measures
- Videos & Images
- Continuing Education Modules
- Books

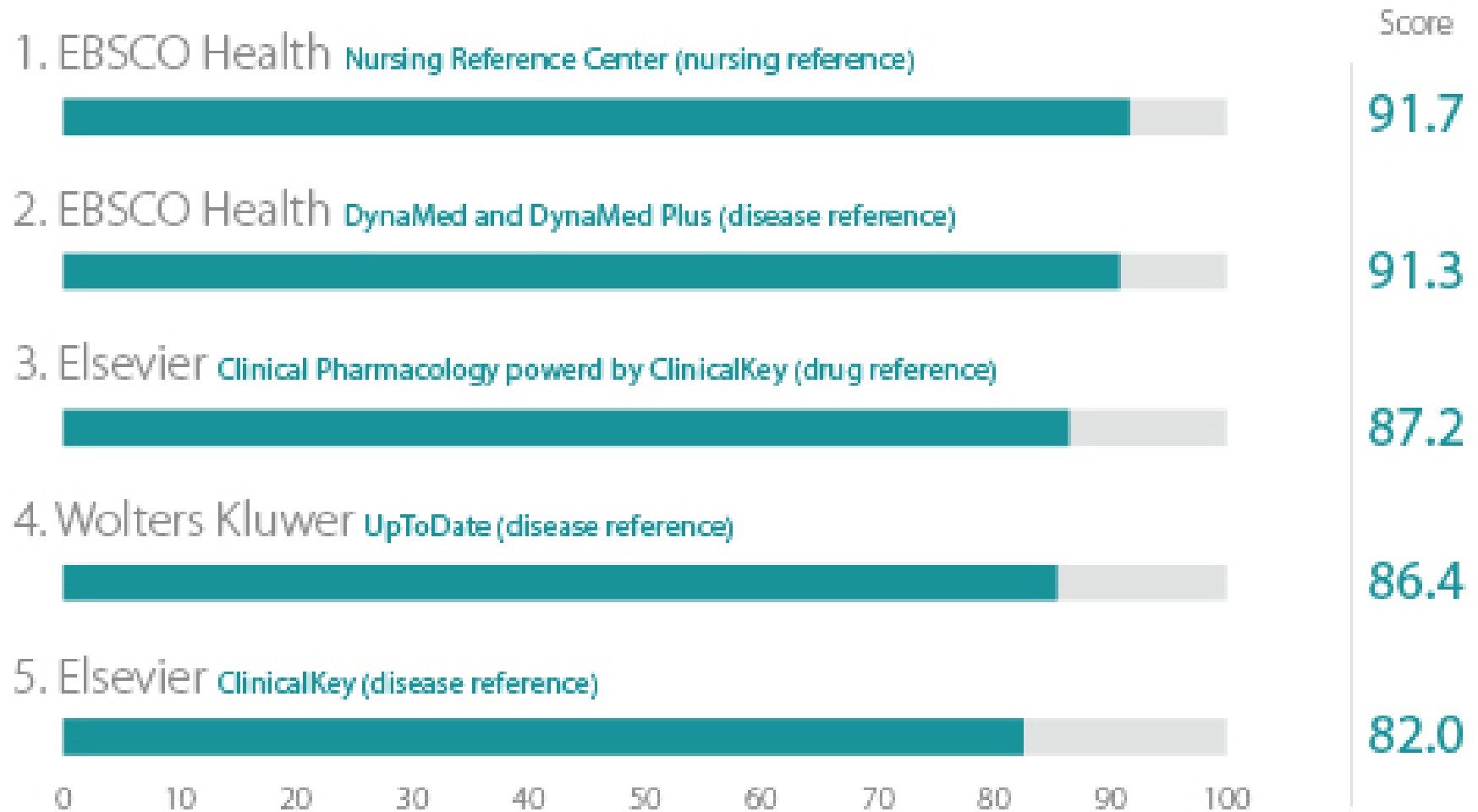


# Skills | DynamicHealth™



- Cutting-edge, evidence-based skills resource designed to help develop and track nurses' and allied health professionals' competencies
- More than 2,000 topics covering nursing, transcultural care, patient instruction and allied health
- Skills include videos and images to address the needs of busy clinicians and visual learners
- Each skill offers a corresponding checklist
- Seamless integration into any learning management system

## How do Clinical Decision Support—Point of Care Clinical Reference solutions compare?



# The EBSCO Health Complete Nursing Solution in Action



Dawn  
Director of  
Patient Care

## “Decision Support”

Nursing <sup>Reference Center™</sup>  
*Plus*

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### Scenario:

Dawn uses the care plans, care sheets, and reference materials for policy and procedure creation

## “Skills”

DynamicHealth™

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### Scenario:

Dawn is focused on integrating Dynamic Health Skills into the LMS to track the entire nursing staff’s competencies

# The EBSCO Health Complete Nursing Solution in Action



Gayatri  
Preceptor

## “Decision Support”

Nursing <sup>Reference Center™</sup>  
*Plus*

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**Scenario:**  
Gayatri works in the ER and has a patient with a rare condition. She reviews the quick lesson on the condition to get up to speed

## “Skills”

DynamicHealth™

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**Scenario:**  
Gayatri uses the checklist to evaluate her trainees she is also assigned skills in the LMS to track her annual competencies

# The EBSCO Health Complete Nursing Solution in Action



Luis  
New RN

## “Decision Support”

Nursing Reference Center™  
**Plus**

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### Scenario:

Luis goes into Nursing Reference Center Plus to look up information on disease, conditions and drugs he isn't familiar with

## “Skills”

DynamicHealth™

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### Scenario:

Luis uses the videos and images for quick visual refreshers and is often assigned skills through the LMS to track his competencies

*Nursing Reference Center Plus*  
and *Dynamic Health* integrate  
with all of the major EHRs  
including:

InterSystems  
**TRAKCARE™**

**Lorenzo**  
Electronic Patient Record (EPR)

 **Cerner™**

 **GE Healthcare**

**Epic**

**MEDITECH**  
Medical Information Technology, Inc.

**MCKESSON**

**NEXTGEN**  
HEALTHCARE INFORMATION SYSTEMS

 **Allscripts®**

# The Case Against Just “Googling it” for Medical Evidence

Conclusion





# EBSCO Health

## Thank You

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