



1° NUTRITION RESEARCH WORKSHOP

Come riconoscere, interpretare ed applicare le moderne evidenze scientifiche

GIOVEDÌ 9 GIUGNO 2022

Come (non) usare la letteratura medica

Giorgio Bedogni



Obiettivo

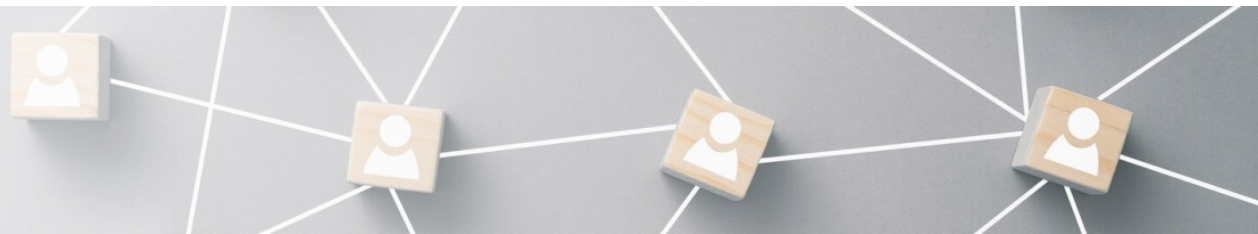
- Instradare il principiante verso una consultazione efficace ed efficiente della letteratura medica



Cosa è la letteratura medica?

- “Medical literature is the scientific literature of medicine: articles in journals and texts in books devoted to the field of medicine”

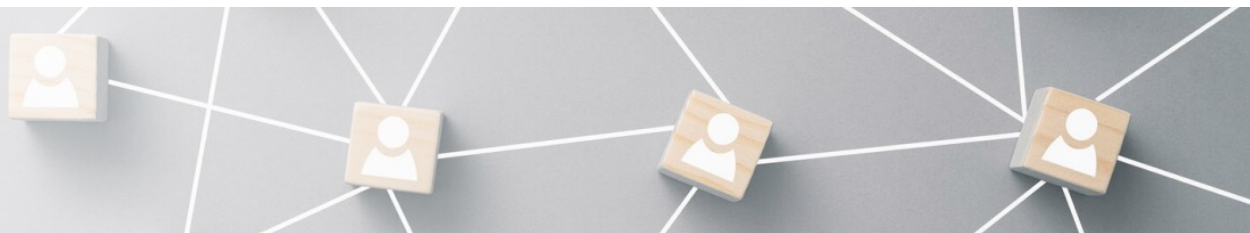
https://en.wikipedia.org/wiki/Medical_literature



Solo letteratura “scientifica”?

“Teachers of literature, novelists, storytellers, and patients who have written about their illnesses have become collaborators at our medical centers in teaching health professionals the skills needed to listen to narratives of illness, to understand what they mean, to attain rich and accurate interpretations of these stories, and to grasp the plights of patients in all their complexity”

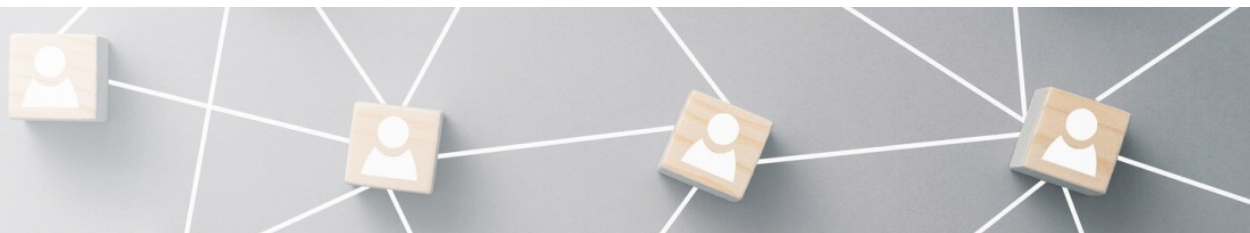
Charon R. *Narrative medicine: Honoring the stories of illness*. Oxford University Press; 2008.



Solo per oggi

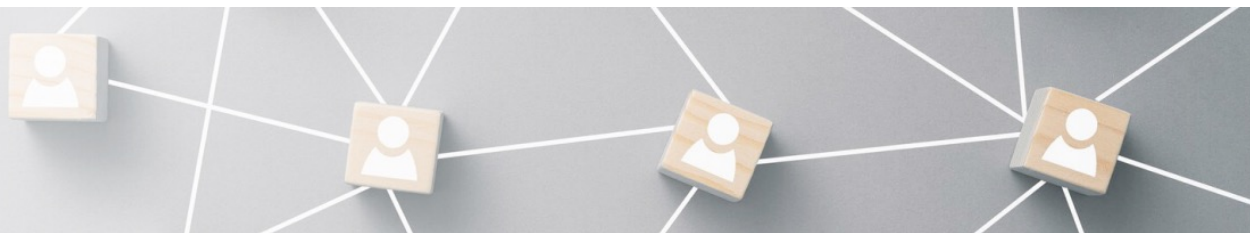
- Medical literature is the scientific literature of medicine: articles in journals and texts in books devoted to the field of medicine.

https://en.wikipedia.org/wiki/Medical_literature

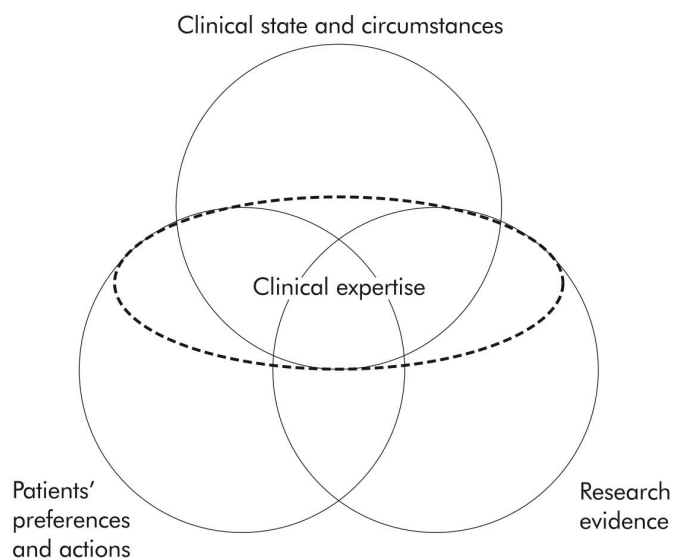


A cosa serve la letteratura medica?

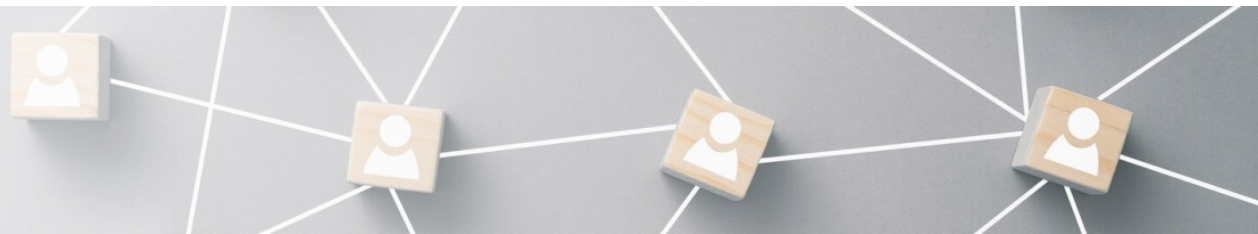
- A fornirci l'“evidenza”



Cosa è l'evidence-based practice (EBP)?



Haynes RB et al. ACP J Club. 2002;136:A11-4



Cosa è l'evidenza?

“Clinically relevant research... especially patient-centered clinical research”

Straus SE et al. Evidence-based Medicine.

Elsevier: 2018, page 1.

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le moderne evidenze scientifiche

GIOVEDÌ 9 GIUGNO 2022

practice applications

PRESIDENT'S PAGE

Evidence-Based Practice: A Core Competency for Dietetics

In all areas of health care, professionals are increasingly turning to evidence-based practice to both improve the quality of the health care they provide and to manage ever-escalating costs. Evidence-based practice, defined as the reliance on the best available science as the basis for practice decisions, has emerged as a major core competency for dietetics professionals in all practice settings and specialties.

Evidence-based practice uses the best available evidence, the results of peer-reviewed scientific studies, whenever possible, and, when the science is lacking, expert opinion and experience. The momentum behind the move toward evidence-based practice is strong: state and federal government agencies, professional associations, purchasers of health care, and regulatory organizations all increasingly demand that care delivery be based on evidence-based practice guidelines. We find strong support for an evidence-based approach in the commitment of these organizations to quality and performance improvement, and agreement that care delivered by health professionals *must* contribute to positive outcomes for the client, organization, and service purchaser.

ACHIEVING ADA'S MISSION

To achieve ADA's mission of "leading the future of dietetics," all dietetics professionals need to engage in evidence-based practice. When all practitioners are actively involved in using evidence-based practice guidelines and protocols, we are in a much better position to deliver the state-of-the-art care and service our patients and clients expect and deserve.

More importantly, if we lack evidence to support our practice decisions, how can the dietetics profession achieve the goals we have set for ourselves to be the preferred supplier of food, nutrition, and health services? Dietetics must rapidly become a truly evidence-based practice profession,



Susan H. Laramée

utilizing a systematic, standardized care process such as ADA's Nutrition Care Process and Model (1) and carefully evaluating outcomes. If we fail to move to an evidence-based practice, we likely will find ourselves locked out of opportunities we have worked so hard to create, including jobs, recognition, and compensation.

RESOURCES AND TOOLS

ADA is working hard to create resources and tools for our members to help us gain the skills and knowledge we need to truly have an evidenced-based profession. In just the past year we have seen:

- Appointment of the Evidence-Based Practice Committee, a joint committee of the House of Delegates and Board of Directors, to oversee the development of evidence-based guides for practice and evidence analysis projects. This committee will work closely with the Quality Management and Research teams and the Dietetic Practice Groups and be supported by ADA staff from the Policy Initiatives and Advocacy, Governance, and Scientific Affairs and Research teams.
- Introduction of the online Evidence Analysis Library at last October's Food & Nutrition Conference & Expo, which is available through ADA's member-only Web site and has received nearly 20,000 user ses-

sions and over 44,000 page views since its introduction.

- Member training in evidence analysis and evidence-based grading under the direction of ADA's Scientific Affairs and Research Team.
- Development and funding of a 5-year effort to support evidence-based practice that includes educating members on the use of the Nutrition Care Process and Model, approved by the House of Delegates in 2003, with incorporation into all ADA programs. It also includes development of a standardized language for nutrition diagnosis and interventions. This ongoing work is directed by the Standardized Language Task Force.
- Comprehensive integration of evidence-based practice throughout ADA's program of work, to include building evidence-based practice skills into education curricula, assisting members with development of evidence-based practice skills, and building evidence-based guidelines and the Nutrition Care Process and Model into all practice materials, publications, and training.

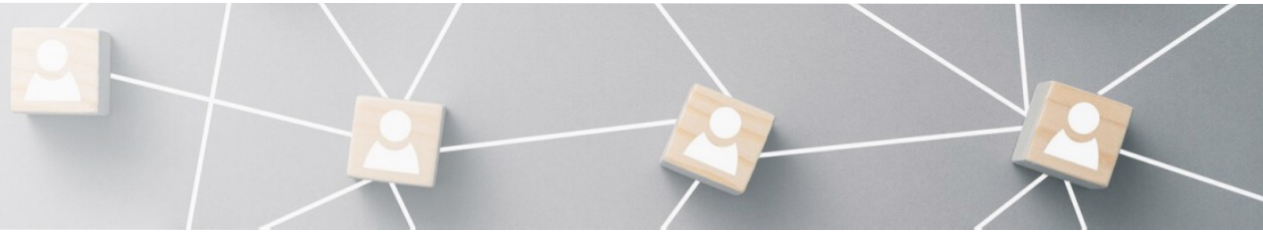
LEADING THE WAY

Be part of our exciting adventure as ADA continues to lead the way in evidence-based practice in food, nutrition, and health. Evidence-based practice is nothing more or less than the future of dietetics. It is a skill all dietetics professionals need to acquire and use, as it becomes the core competency for practice in the 21st century.

—Susan H. Laramée,
MS, RD, LDN, FADA
ADAPresident@eatright.org
doi: 10.1016/j.jada.2005.01.031

Reference

1. Lacey K, Pritchett E. Nutrition Care Process and Model: ADA adopts road map to quality care and outcomes management. *J Am Diet Assoc.* 2003;103:1061-1072.



EBP (ex EBM)

November 4, 1992

Evidence-Based Medicine

A New Approach to Teaching the Practice of Medicine

Gordon Guyatt, MD, MSc; John Cairns, MD; David Churchill, MD, MSc; et al

» **Author Affiliations**

JAMA. 1992;268(17):2420-2425. doi:10.1001/jama.1992.03490170092032

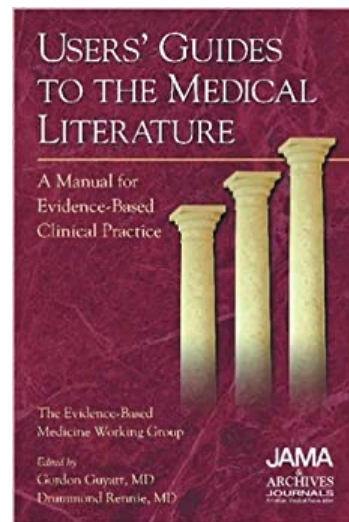


JAMA users' guides to the medical literature - 1993

- “Medical practice is constantly changing. The rate of change is accelerating, and physicians can be forgiven if they often find it dizzying. How can physicians learn about new information and innovations, and decide how (if at all) they should modify their practice?”

Guyatt GH, Rennie D. Users' guides to the medical literature. JAMA. 1993;270:2096.

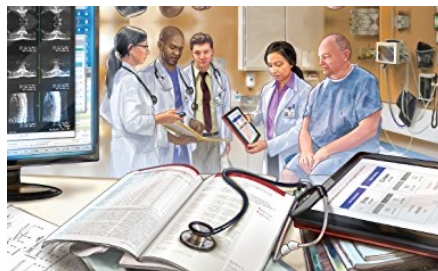
JAMA guides - 2002



“This book grew out of a series of 25 articles published in JAMA between 1993 and 2000”

Guyatt G, Rennie, D. Users' guides to the medical literature: a manual for evidence-based clinical practice. Chicago IL: AMA Press; 2002

JAMA guides - 2014



3rd EDITION

Users' Guides to the Medical Literature

A MANUAL FOR EVIDENCE-BASED CLINICAL PRACTICE

Gordon Guyatt, MD
Drummond Rennie, MD
Maureen O. Meade, MD
Deborah J. Cook, MD



JAMAEvidence



3rd EDITION

Users' Guides to the Medical Literature

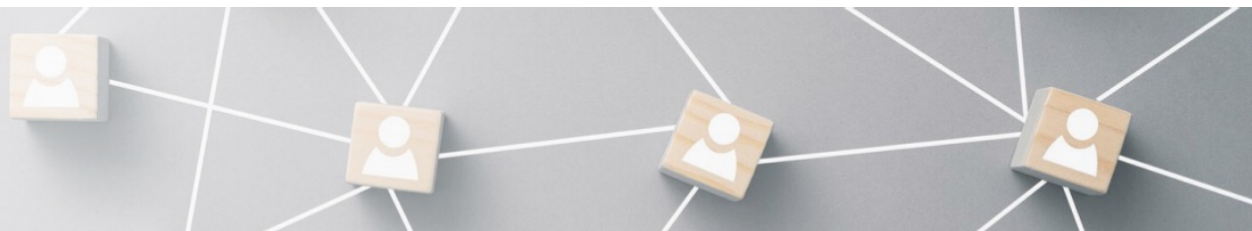
ESSENTIALS OF EVIDENCE-BASED CLINICAL PRACTICE

Gordon Guyatt, MD
Drummond Rennie, MD
Maureen O. Meade, MD
Deborah J. Cook, MD



JAMAEvidence

Guyatt G et al. Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice, 3E. New York: McGraw-Hill Education; 2014:697.



Users' Guide to the Medical Literature

Explore the foundations of evidence-based medicine with JAMA's Users' Guide to the Medical Literature collection. Learn to understand and interpret clinical research!

[+ Add to My Interests](#)

Publication

All

Article Type

All Article Types

Filter By Keyword

How to Use and Interpret the Results of a Platform Trial: Users' Guide to the Medical Literature

JAMA | Review | January 4, 2022 |

This Users' Guide to the Medical Literature describes the fundamental concepts of platform trials and master protocols and reviews issues in the conduct and interpretation of these studies.

Research, Methods, Statistics

[Full Text](#) | [PDF](#) | [CME & MOC](#)

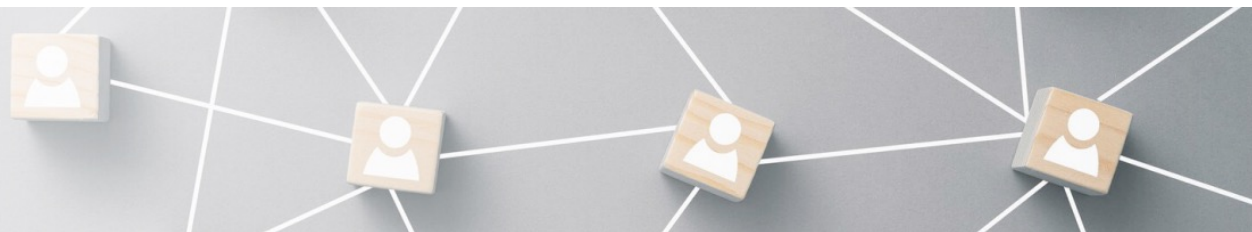
[P](#) [CME](#)

How to Interpret and Use a Clinical Practice Guideline or Recommendation: Users' Guides to the Medical Literature

JAMA | Review | October 19, 2021 |

This Users' Guide to the Medical Literature provides suggestions for understanding guideline methods and recommendations for clinicians seeking direction in evaluating clinical practice guidelines for potential use in their practice.

Guidelines



Core curriculum EBP

Consensus Statement | Medical Education



June 22, 2018

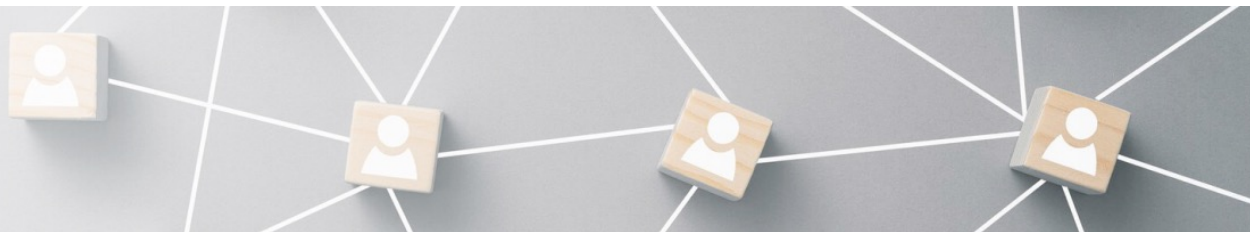
Core Competencies in Evidence-Based Practice for Health Professionals

Consensus Statement Based on a Systematic
Review and Delphi Survey

Loai Albarqouni, MD, MSc¹; Tammy Hoffmann, PhD¹; Sharon Straus, MD, MSc^{2,3}; et al

» [Author Affiliations](#) | [Article Information](#)

JAMA Netw Open. 2018;1(2):e180281. doi:10.1001/jamanetworkopen.2018.0281



Core curriculum EBP

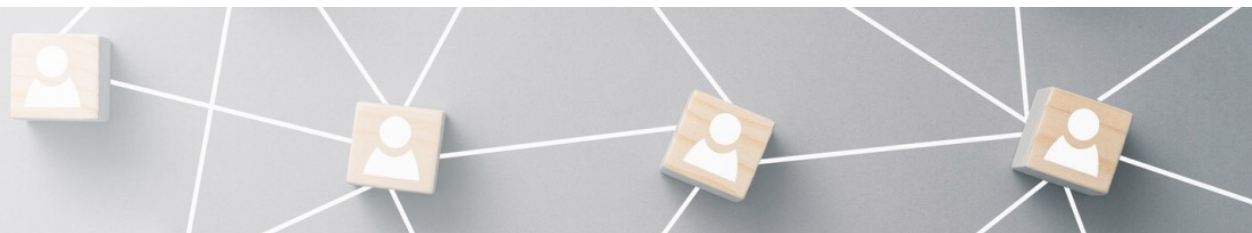
evidence
open access journal published by the GIMBE Foundation

Guidelines & Standards

Evidence-based Practice: le competenze *core* per tutti i professionisti sanitari

Loai Albarqouni^{1*}, Tammy Hoffmann¹, Sharon Straus², Nina Rydland Olsen³, Taryn Young⁴, Dragan Ilic⁵, Terrence Shaneyfelt⁶,
R. Brian Haynes⁷, Gordon Guyatt⁷, Paul Glasziou¹

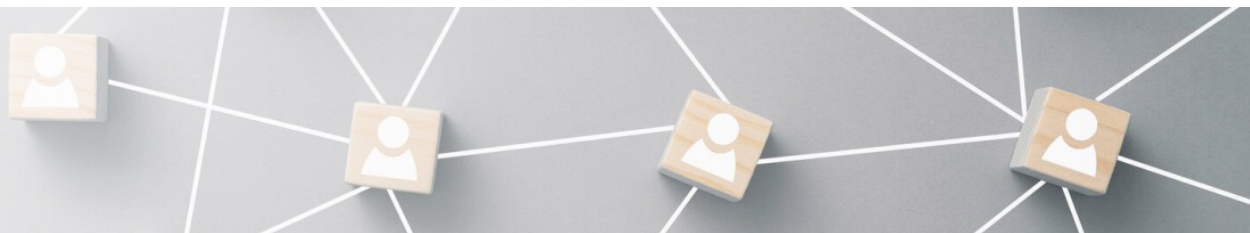
¹Bond University, Australia, ²University of Toronto, Canada, ³Western Norway University of Applied Sciences, Norvegia, ⁴Stellenbosch University, Sud Africa, ⁵Monash University, Australia, ⁶University of Alabama, USA, ⁷McMaster University, Canada



Handbook

Competenze core per l'EVIDENCE-BASED PRACTICE





Core competencies - domains

1. Introductory – impara alcuni concetti generali
2. Ask – formula la domanda
3. Acquire – ricerca l'evidenza
4. Appraise and interpret – valuta e interpreta l'evidenza
5. Apply – applica l'evidenza
6. Evaluate – valuta la tua performance

10.1001/jamanetworkopen.2018.0281



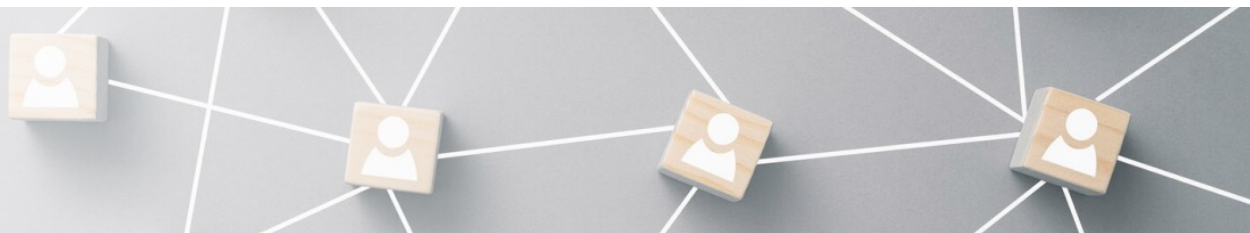
Core competencies: an eagle's perspective





Obiettivo (memento)

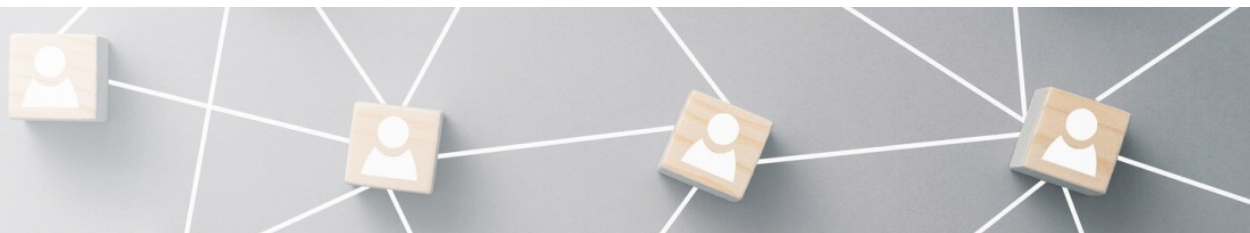
- Instradare il principiante verso una consultazione efficace ed efficiente dell'evidenza



Core competencies - domains

1. Introductory – impara alcuni concetti generali
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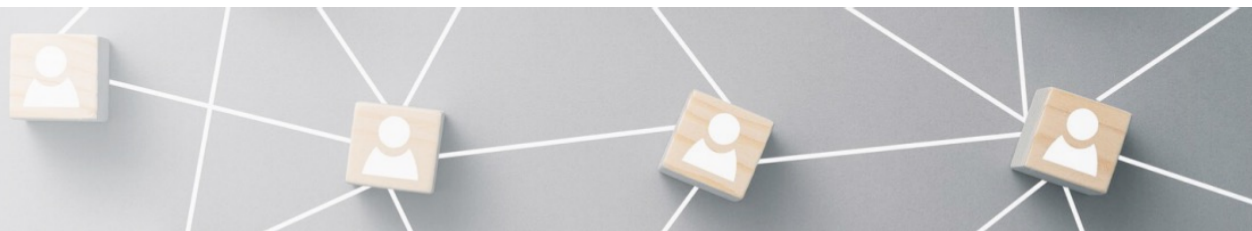
10.1001/jamanetworkopen.2018.0281



Core competencies - domains

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10.1001/jamanetworkopen.2018.0281



1. Ask

1.1 Explain the difference between the types of questions that cannot typically be answered by research (background questions) and those that can (foreground questions)^a

1.2 Identify different types of clinical questions, such as questions about treatment, diagnosis, prognosis, and etiology^a

1.3 Convert clinical questions into structured, answerable clinical questions using PICO^a

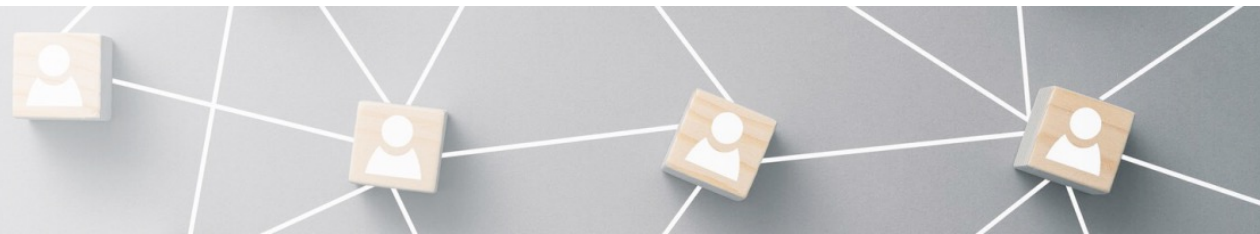
This competency includes

Recognize the importance of and strategies for identifying and prioritizing uncertainties or knowledge gaps in practice

Understand the rationale for using structured clinical questions

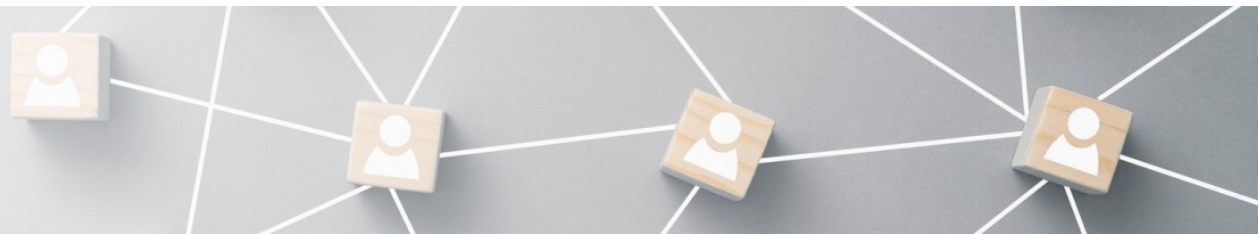
Identify the elements of PICO questions and use variations of it when appropriate (eg, PICOT, PO, PECO–Exposure) to structure answerable clinical questions

10.1001/jamanetworkopen.2018.0281



Ask-formula la domanda

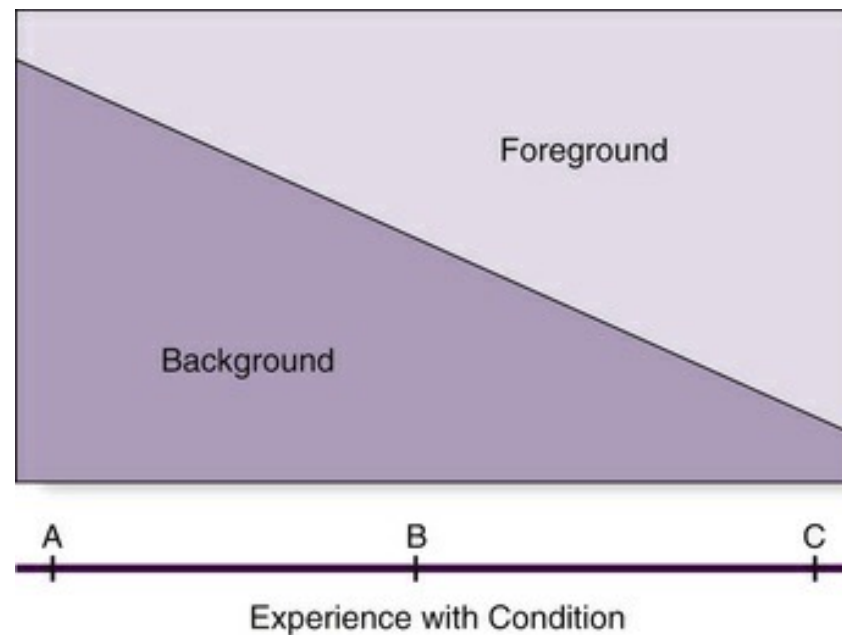
- Distingui foreground e background questions
- Distingui i tipi di domanda clinica
- Formula la domanda clinica in maniera sistematica



Ask-formula la domanda

- **Distingui foreground e background questions**
- Distingui i tipi di domanda clinica
- Formula la domanda clinica in maniera sistematica

Background vs. foreground

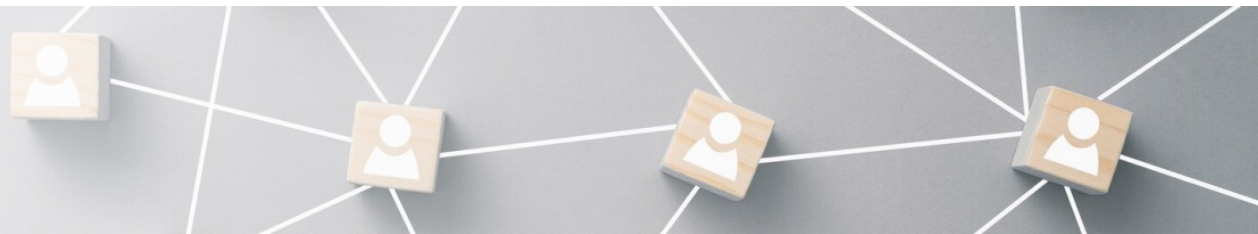


Straus SE et al. Evidence-based Medicine.
Edinburgh: Churchill-Livingstone, 2018.



Ask-formula la domanda

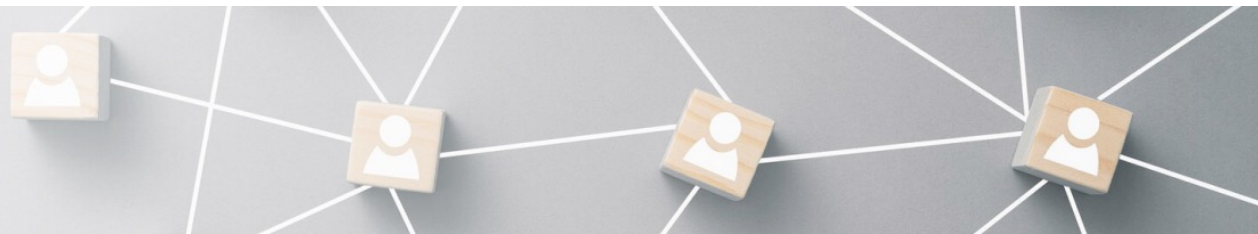
- Distingui foreground e background questions
- **Distingui i tipi di domanda clinica**
- Formula la domanda clinica in maniera sistematica



Tipi di domanda clinica

- Therapy
- Diagnosis and screening
- Prognosis
- Harm/Etiology

Straus SE et al. Evidence-based Medicine.
Edinburgh: Churchill-Livingstone, 2018.



Ask-formula la domanda

- Distingui foreground e background questions
- Distingui i tipi di domanda clinica
- **Formula la domanda clinica in maniera sistematica**



PICO (Foreground/Therapy)

- Population (Patient / Problem)
- Intervention
- Comparison
- Outcome

R_x Educational Prescription

Patient's Name _____ Learner: *Giorgio*

3-part Clinical Question

Target Disorder:
*malattia infiammatoria cronica intestinale
presente con sindrome dell'intestino irrita-
bile o altro disordine funzionale del
tratto gastroenterico*

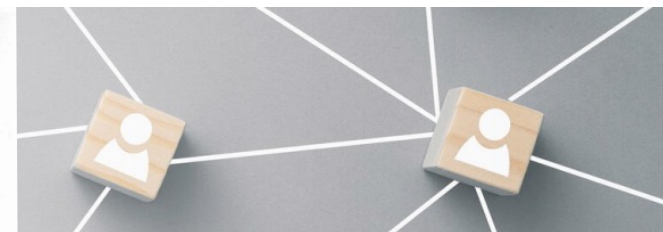
Intervention (+/- comparison):
low FODMAP diet / standard o placebo

Outcome:
*modifica dei sintomi funzionali
gastrointestinali*

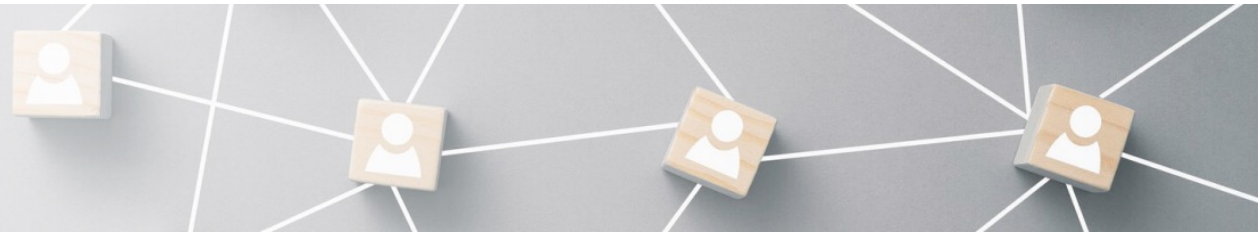
Date and place to be filled:
09.06.2022 Workshop ASAND

Presentations will cover:

1. search strategy;
2. search results;
3. the validity of this evidence;
4. the importance of this valid evidence;
5. can this valid, important evidence be applied to your patient;
6. your evaluation of this process.



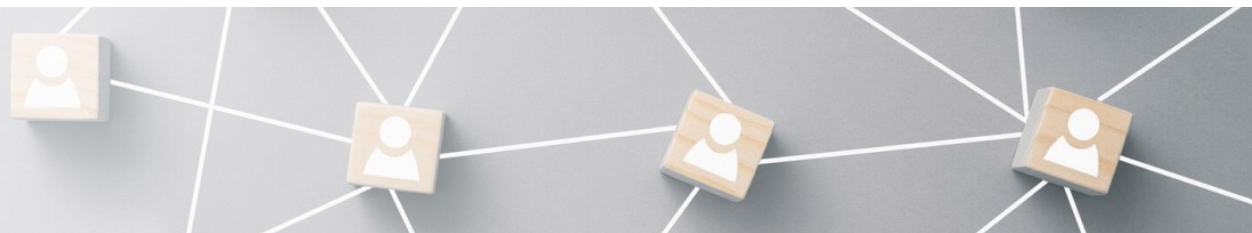
Grammatikopoulou MG et al.
Nutrients. 2020;12:E3648.
10.3390/nu12123648



PICO's family - Farhad Shokrane, UCL (2016)

- PECODR for structure of journal abstract (E for Exposure, D for Duration, R for Results) (Dawes 2007)
- PEICO(S) for Qualitative research question formulation (Howell 2010)
- PICOC (C for Context) (Petticrew and Roberts 2005)
- PICOS (S for Study design) for Systematic review question formulation (Centre for Reviews and Dissemination 2008; Methley 2014) or searching (Costantino 2015)
- PICOT (T for Time-frame) in structuring a research question for better reporting quality of RCTs (Rios et al 2010; Fineout-Overholt and Johnson 2005)
- PICOTS/PICOT-SD (T for Time, S for Setting, SD for Study Design) for searching (AHRQ 2012)
- EPICOT+ (E for Evidence, T for Time-frame) to formulate research recommendations (Brown et al 2006)
- PICOTT (Type of question and the best Type of study design to answer that particular question (Schardt et al 2007)
- PIPOH (P for targeted Professionals, H for healthcare setting/context (ADAPTE Collaboration 2009)
- PESICO (Person, Environments, Stakeholders, Intervention, Comparison, Outcomes) in Augmentative and Alternative Communication (Schlosser et al 2007)
- PICo (Population, phenomenon of Interest, Context) for qualitative reviews (Joanna Briggs Institute 2011; Stern 2014)
- PS (P for Population, S for Situation) to answer a qualitative question (DiCenso et al 2005)

<http://dx.doi.org/10.13140/RG.2.2.35019.23841>



Core competencies - domains

1. Introductory – impara alcuni concetti generali
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3. **Acquire – ricerca l'evidenza**
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10.1001/jamanetworkopen.2018.0281



2. Acquire

2.1 Outline the **different major categories of sources of research information**, including biomedical research databases or databases of filtered or preappraised evidence or resources^a

This competency includes

Outline the **advantages of using filtered or preappraised evidence sources and recognize relevant resources**

Indicate the differences between the **hierarchy of evidence**, level of processing of evidence, and **types of evidence-based medicine resources**^a

2.2 Construct and carry out an appropriate search strategy for clinical questions^a

This competency includes

Know where to look first to address a clinical question

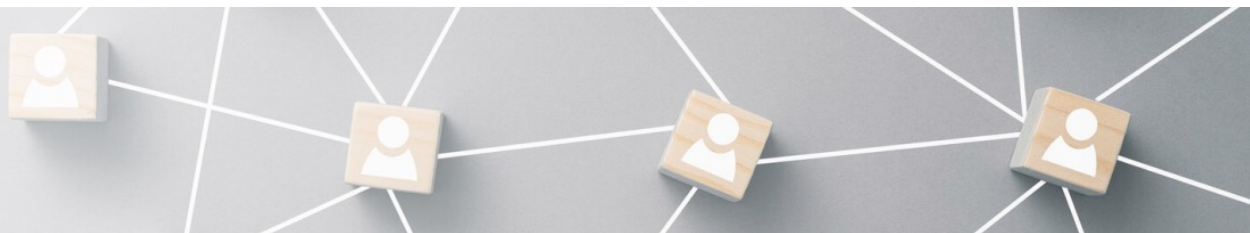
When necessary, construct a search strategy that reflects the purpose of the search^a

Apply a general search strategy including the use of search terms, and the role of Boolean operators; truncation; and search filters for more efficient searches^a

2.3 State the differences in broad topics covered by the major research databases

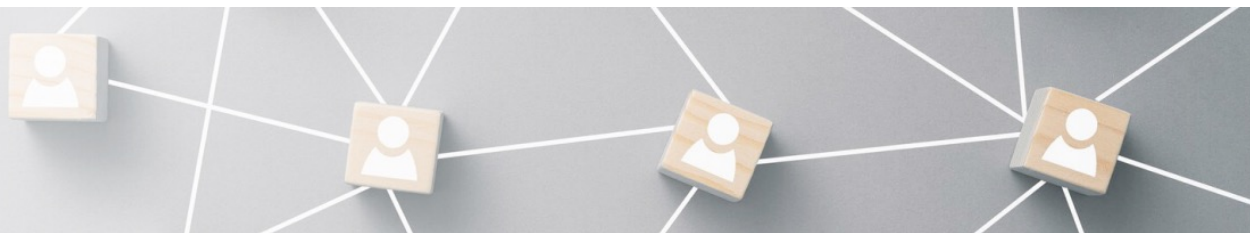
2.4 Outline strategies to obtain the full text of articles and other evidence resources^a

10.1001/jamanetworkopen.2018.0281



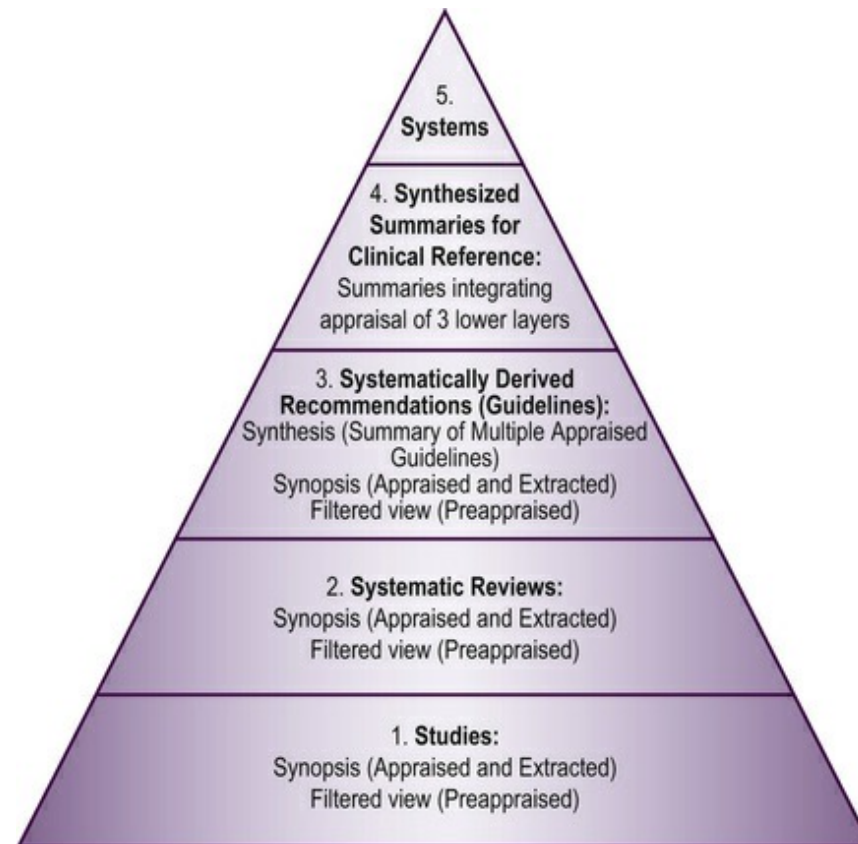
Acquire-cerca e aquisisci l'evidenza

- Conosci le fonti di evidenza pre-valutata (“pre-appraised”) e i loro vantaggi
- Conosci la gerarchia dell'evidenza per ogni tipo di studio



Acquire-cerca e aquisisci l'evidenza

- **Conosci le fonti di evidenza pre-valutata (“pre-appraised”) e i loro vantaggi**
- **Conosci la gerarchia dell'evidenza per ogni tipo di studio**



Straus SE et al. Evidence-based Medicine.
Edinburgh: Churchill-Livingstone, 2018.



Effects of vitamin D supplementation on musculoskeletal health: a systematic review, meta-analysis, and trial sequential analysis

Mark J Bolland, Andrew Grey, Alison Avenell

Lancet Diabetes Endocrinol 2018

Published Online

October 4, 2018

[http://dx.doi.org/10.1016/](http://dx.doi.org/10.1016/S2213-8587(18)30265-1)

[S2213-8587\(18\)30265-1](http://dx.doi.org/10.1016/S2213-8587(18)30265-1)

«Pre-appraised»

Therapeutics

Vitamin D does not prevent fractures and falls

10.1136/bmjebm-2018-111129



Carl Heneghan,¹ Kamal R Mahtani²

¹Primary Care Health Sciences, University of Oxford, Oxford, UK,

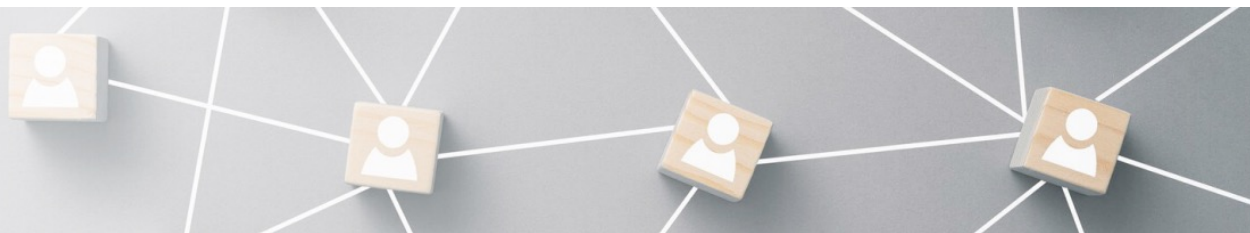
²Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

Correspondence to: Professor Carl Heneghan, Primary Care Health Sciences, University of Oxford, Oxford OX2 6GG, UK; carl.heneghan@phc.ox.ac.uk

EBM Verdict

EBM Verdict on: effects of vitamin D supplementation on musculoskeletal health: a systematic review, meta-analysis, and trial sequential analysis. *Lancet Diabetes Endocrinol* 2018;6(11):847–58. doi: 10.1016/S2213-8587(18)30265-1.

► Current evidence does not justify routinely recommending vitamin D supplements to prevent fractures or falls in adults. Further evidence is unlikely to affect this result and guidelines should be amended to reflect this new evidence.



Acquire - cerca e aquisisci l'evidenza

- Conosci le fonti di evidenza pre-valutata (“pre-appraised”) e i loro vantaggi
- **Conosci la gerarchia dell'evidenza per ogni tipo di studio**

Tipi (principali) di studi clinici

Epidemiology series

An overview of clinical research: the lay of the land

David A Grimes, Kenneth F Schulz



Grimes DA, Schulz KF. Lancet. 2002;359:57-61.
10.1016/S0140-6736(02)07283-5

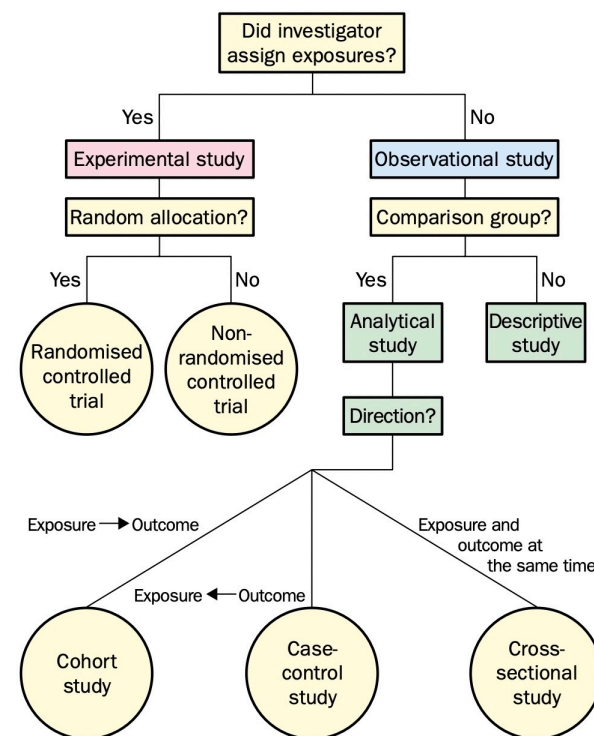


Figure 1: Algorithm for classification of types of clinical research

Gerarchia degli studi di trattamento

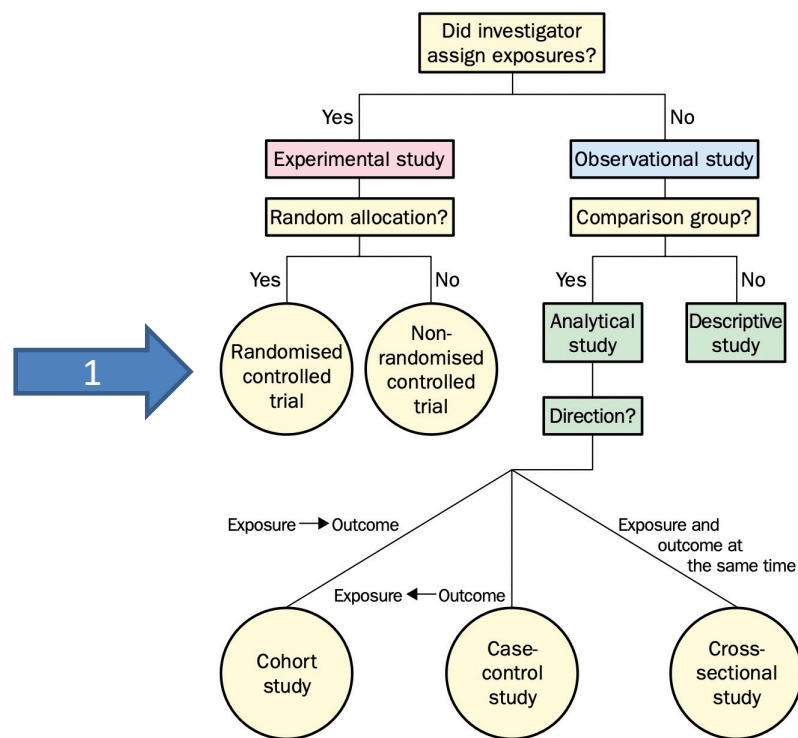
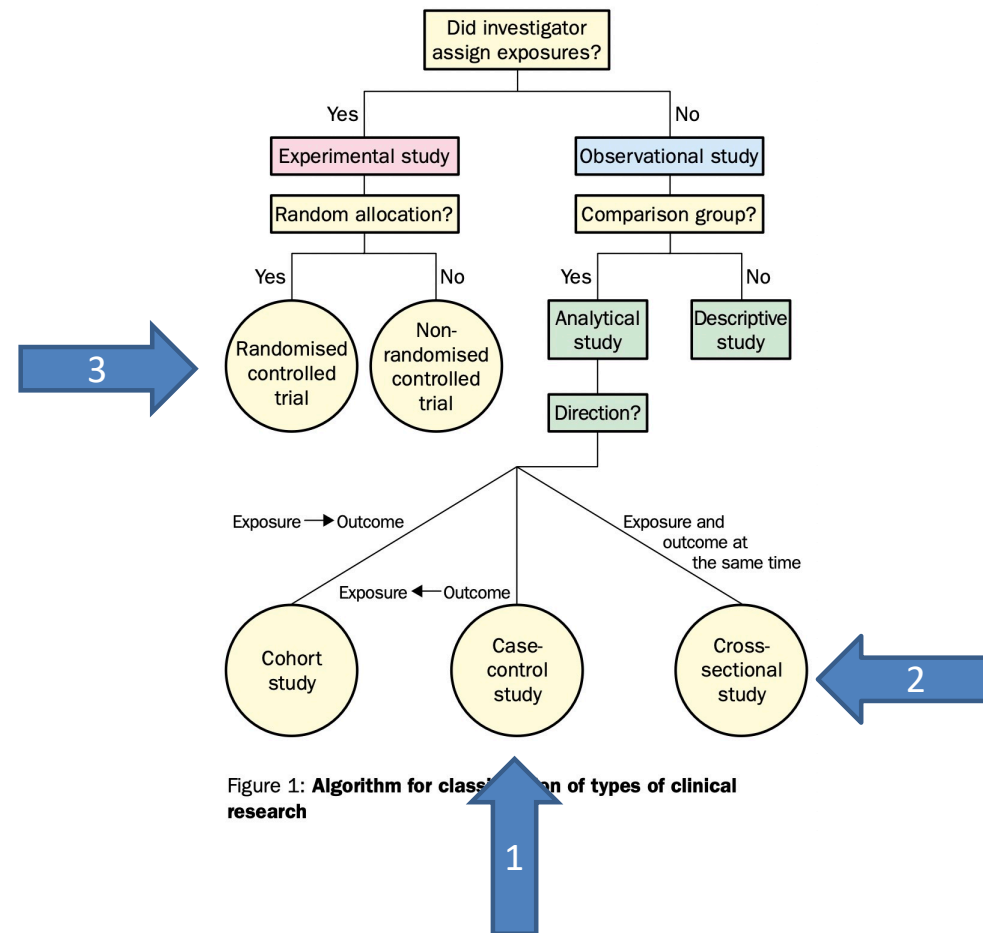


Figure 1: **Algorithm for classification of types of clinical research**

Gerarchia degli studi di diagnosi e screening



Gerarchia degli studi di prognosi

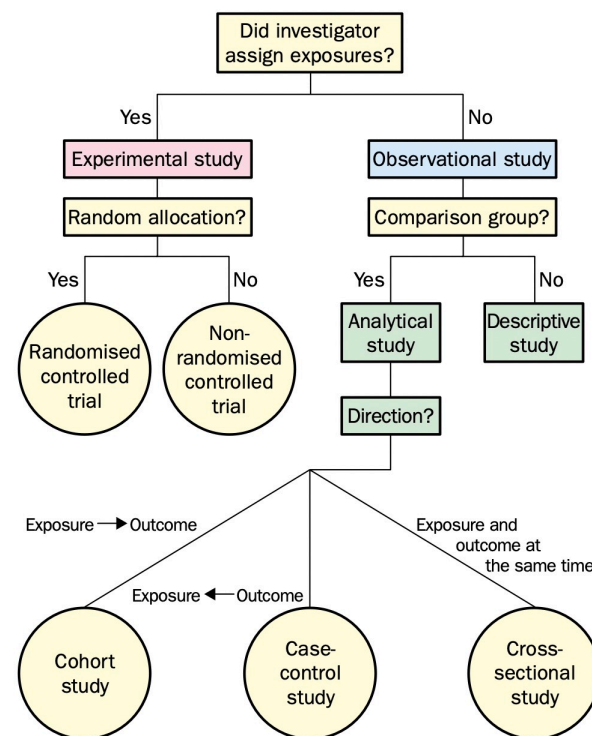
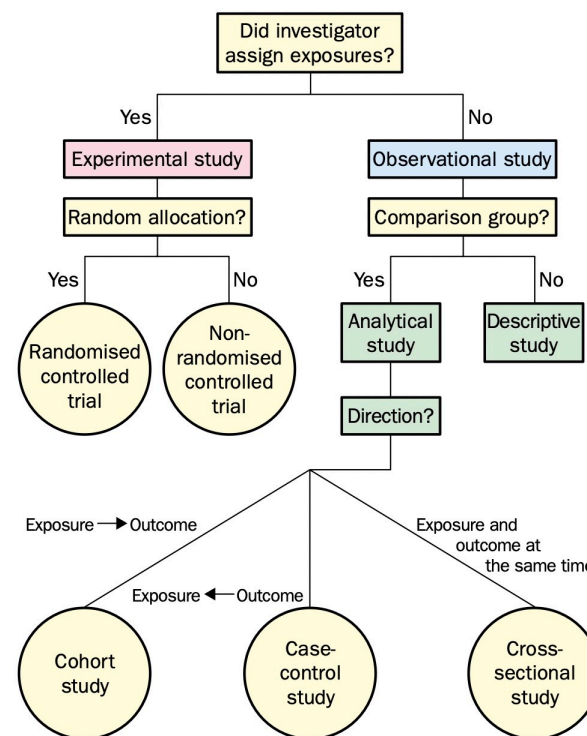
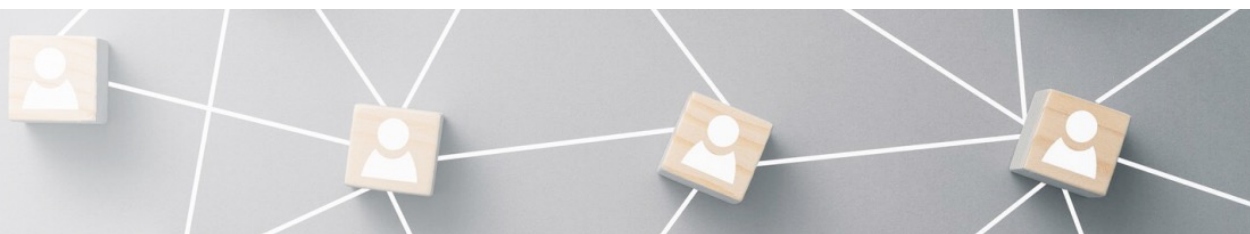


Figure 1: **Algorithm for classification of types of clinical research**

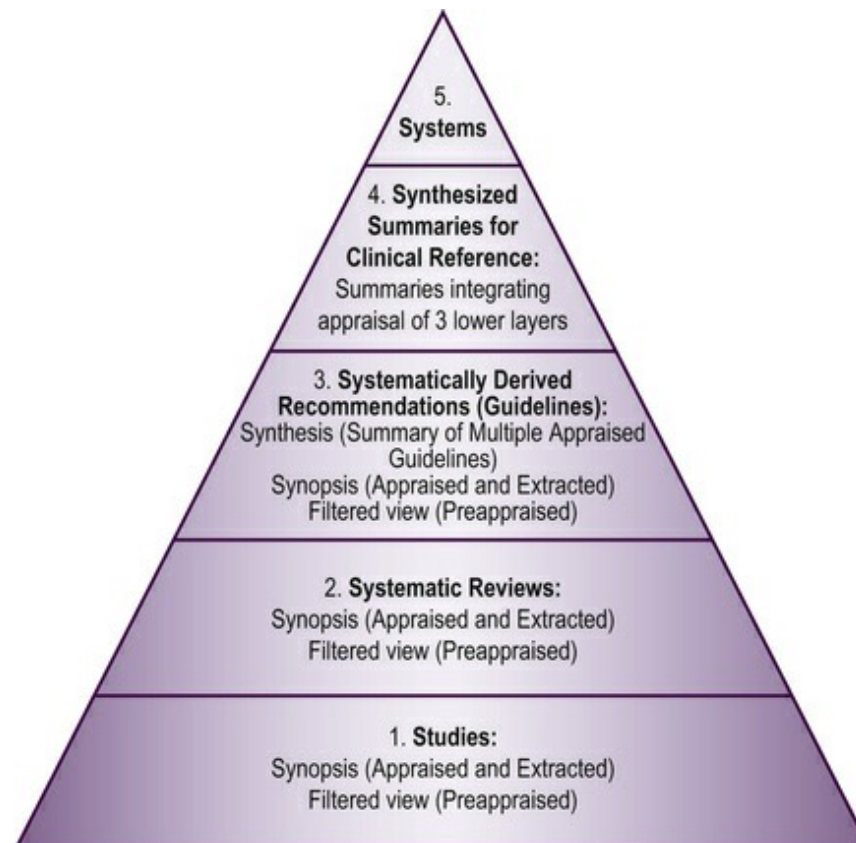
Gerarchia degli studi di eziologia



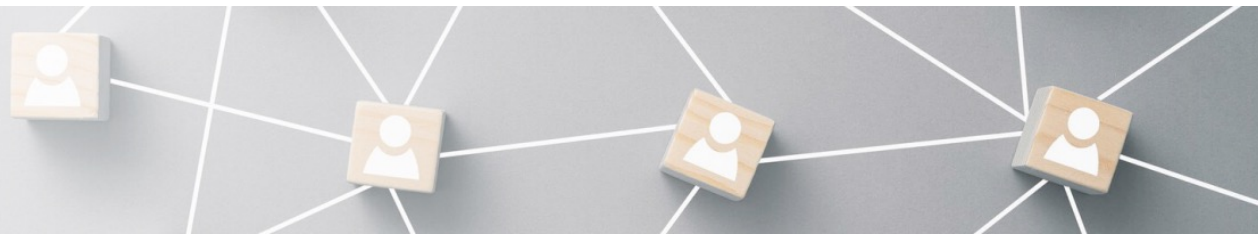
2 - Coorti
parallele

Figure 1: Algorithm for classification of types of clinical research

1



Straus SE et al. Evidence-based Medicine.
Edinburgh: Churchill-Livingstone, 2018.



Memento - 1S

- “Trying to keep current with the knoweldge base that is pertinent to your clinical practice by reading full-text journal is an hopeless task”

Straus SE et al. Evidence-based Medicine.
Edinburgh: Churchill-Livingstone, 2018.

Memento - 2S

THE
MILBANK QUARTERLY
A MULTIDISCIPLINARY JOURNAL OF POPULATION HEALTH AND HEALTH POLICY

Original Investigation

The Mass Production of Redundant, Misleading, and Conflicted Systematic Reviews and Meta-analyses

JOHN P.A. IOANNIDIS

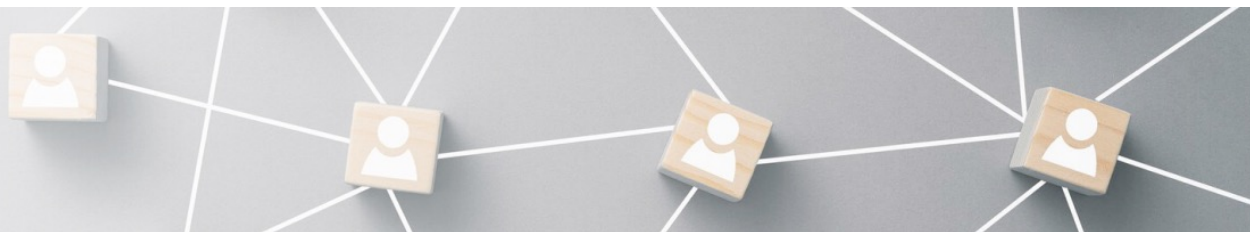
*Stanford University School of Medicine; Stanford University School of
Humanities and Sciences; Meta-Research Innovation Center at Stanford
(METRICS), Stanford University*

Policy Points:

- Currently, there is massive production of unnecessary, misleading, and conflicted systematic reviews and meta-analyses. Instead of promoting evidence-based medicine and health care, **these instruments often serve mostly as easily produced publishable units or marketing tools.**
- Suboptimal systematic reviews and meta-analyses **can be harmful given the major prestige and influence these types of studies have acquired.**
- The publication of systematic reviews and meta-analyses should be realigned to remove biases and vested interests and to integrate them better with the primary production of evidence.

The Milbank Quarterly, Vol. 94, No. 3, 2016 (pp. 485-514)

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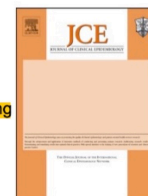


Memento - 2S

Journal Pre-proof

Most healthcare interventions tested in Cochrane Reviews **are not effective according to high quality evidence**: a systematic review and meta-analysis

Jeremy Howick, PhD, Despina Koletsis, DDS, MSc, Dr. med. dent., MSc DLSHTM, PGCHEd, John P.A. Ioannidis, MD, DSc, Professor, Dr. Claire Madigan, PhD, Nikolaos Pantis, PhD, Professor, Dr. Martin Loef, PhD, Harald Walach, PhD, Professor, Sebastian Sauer, PhD, Professor, Jos Kleijnen, PhD, Professor, Dr. Jadbinder Seehra, Ms. Tess Johnson, Stefan Schmidt, PhD, Professor



PII: S0895-4356(22)00100-7

DOI: <https://doi.org/10.1016/j.jclinepi.2022.04.017>

Reference: JCE 10816

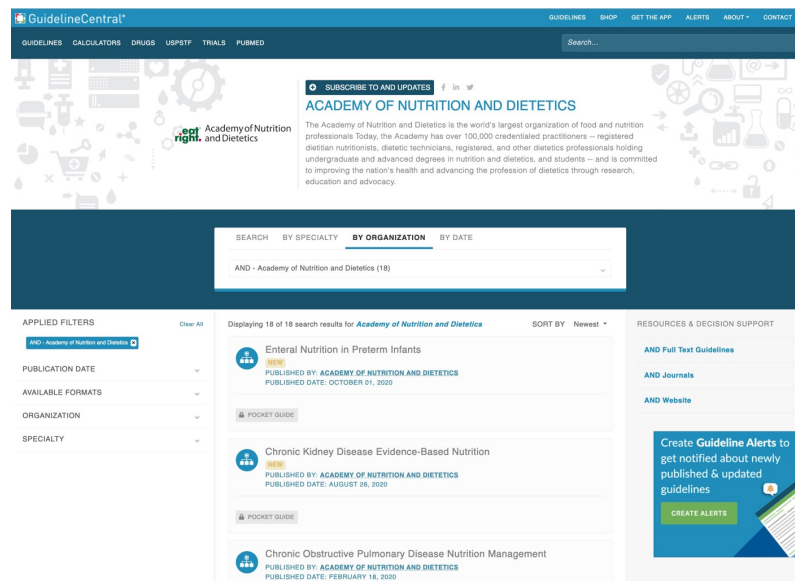
To appear in: *Journal of Clinical Epidemiology*

Received Date: 24 January 2022

Revised Date: 25 March 2022

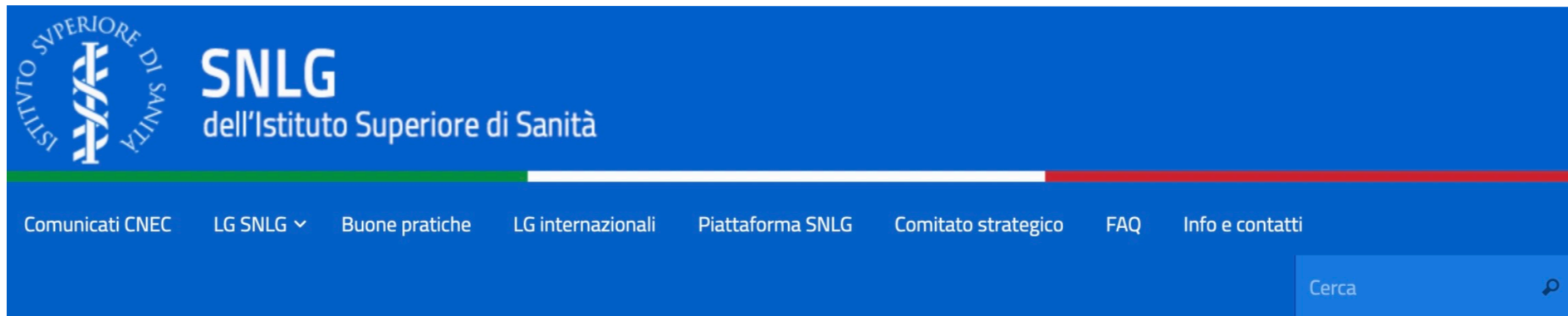
Accepted Date: 12 April 2022

Memento - 3S

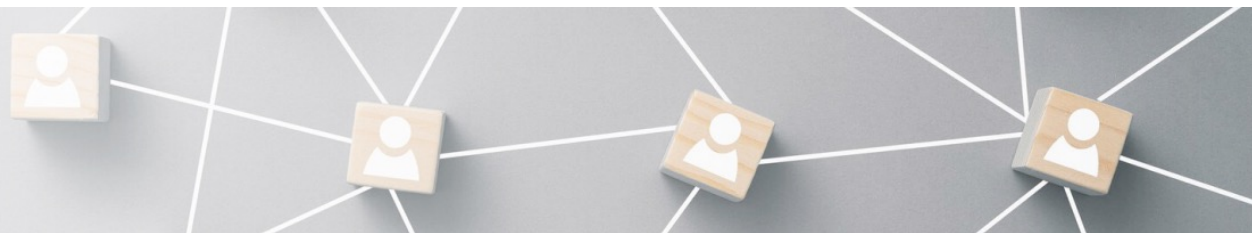


<https://www.guidelinecentral.com/guidelines/AND/>

Memento - 3S



<https://snlg.iss.it/>



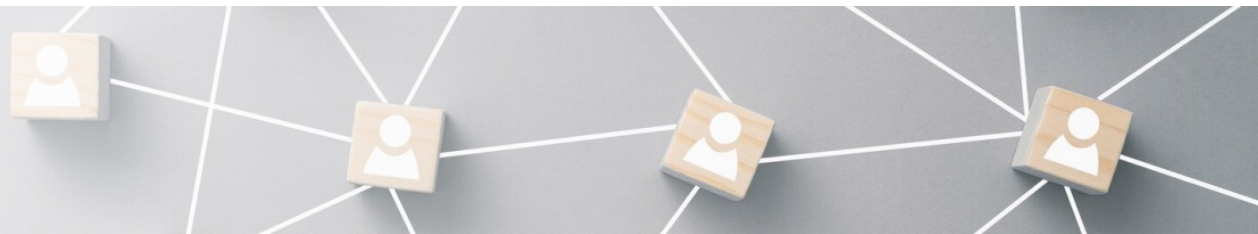
Memento - generale

- Chiedete aiuto a colleghi più esperti
- I più esperti di tutti nella ricerca bibliografica sono i “librarians”



Core competencies: an eagle's perspective





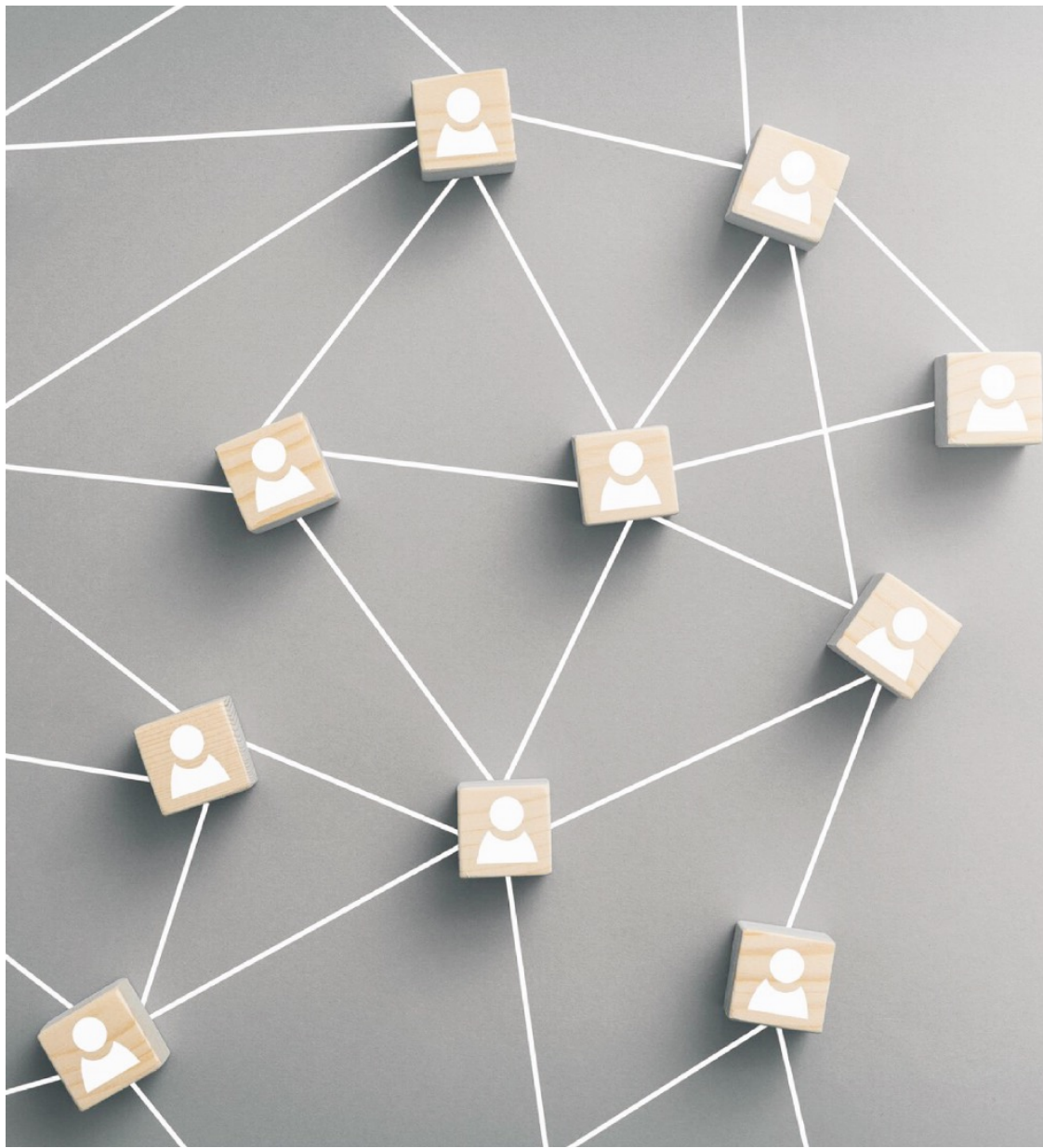
Cosa porto a casa?

- Segui un approccio strutturato per la crescita della tua conoscenza a servizio della persona*

*Che tu ti riconosca o meno in questa definizione:

“A fellow human being whose concern for patients is actuated by the joy of serving”

 Lown B. *The lost art of healing: practicing compassion in medicine*. New York: Ballantine Books; 1999.



1° NUTRITION RESEARCH WORKSHOP

**Come riconoscere, interpretare ed
applicare le moderne evidenze scientifiche**

GIOVEDÌ 9 GIUGNO 2022

Grazie per l'attenzione!