

SEARCHING THE LITERATURE



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Ref: Greenhalgh T *“How to Read a Paper-the basics of evidence-based medicine”* 3rd Ed, 2006, Blackwell Pub.

INTRODUCTION

- We should question all we do. Is there evidence for its effectiveness? Why are we doing it?
- 20 million medical articles available
- Most clinicians have no idea about how to go about accessing clinical literature
- Three levels of reading: Browsing; Reading for information; Reading for research

WHY DO WE SEARCH?

- Curious to know the answer to a clinical question
- To find an article that you have previously read
- Research-Systematic Review / Meta-analysis eg for MD / PhD or to try and definitively find an answer
- To influence protocol / policy formation

HIERARCHY OF EVIDENCE

Systematic
reviews of RCTs

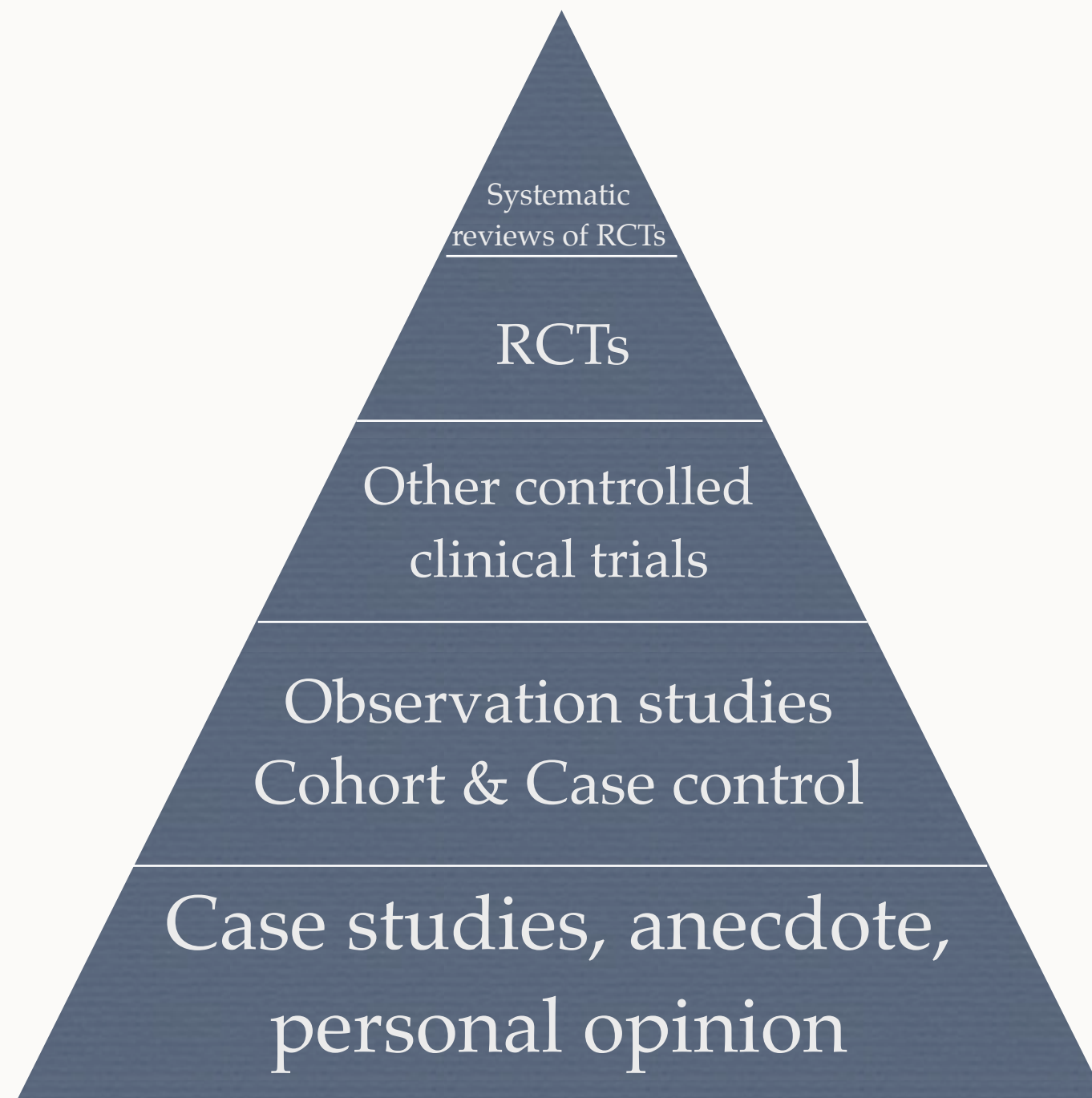
RCTs

Other controlled
clinical trials

Observation studies
Cohort & Case control

Case studies, anecdote,
personal opinion

HIERARCHY OF EVIDENCE



MEDLINE

- 5000 journals, 70 countries, 15 million records, but not ALL, esp. psychology, sociology, OT, physio, non-clinical pharmacology
- Same material, various access, eg Pubmed / Ovid
- Search articles in two main ways:
 - By any word in the record
 - By a controlled thesaurus or MeSH (**M**edical **S**ubject **H**eading)-more consistently the same concept

OTHER DATABASES

- AMED (Allied and Complementary Medicine)
- CINAHL (nursing and allied health from 1983)
- Current contents search
- Embase (pharmacology)
- HealthSTAR (1975-2002); journals, books, chapters, technical reports on health services, admin, tech, financial, policy, planning etc
- PsycInfo (American Psychology Association)
- SCOPUS (14000 science / tech / medical journals / patents)

GOOGLE

- Also Google Scholar
- In common use, and effective search tool
- Can get huge numbers of hits though
- Need to be discerning in the results and where they come from

BOOLEAN?

Boolean |'bʊ:liən|

adjective

denoting a system of algebraic notation used to represent logical propositions, esp. in computing and electronics.

noun Computing

a binary variable, having two possible values called “true” and “false.”

ORIGIN mid 19th cent.: from the name of G. **Boole** + **-an** .

- Basis for searching systematically
- Operator “OR” tends to increase your capture volume, but less likely to miss articles
- Operator “AND” narrows down the search, more specific but could miss articles

FILTERS

- Also known as 'limits' in Ovid
- Helpful in selecting better evidence from a large amount of dross. Less if little evidence out there.
- Eg randomised controlled trials

PRE-APPRAISED DATABASES

- Cochrane Controlled Clinical Trials Register (>4000 peer-reviewed systematic reviews)
- BESTBets
- Evidence-Based Cardiology / Eye care / Medicine etc
- Health Technology Assessment (HTA) database

SYNTHESISED EVIDENCE

- Cochrane Database of Systematic Reviews (CDSR)
- Database of Abstracts or Reviews of Effectiveness (DARE)
- National Guideline Clearinghouse
- National Institute for Health and Clinical Excellence (NICE)
- Clinical Evidence books, PIER, Evidence-Based On-Call

MISC. SOURCES

- Reference searching of good articles / chapters
- UK National Research Register
- Talk to people in that area of expertise
- Grey literature (unpublished, theses, reports from conferences etc)
- CHAIN

OVID SEARCH FIELD LABEL EXAMPLES

Syntax	Meaning	Example
.ab.	Word in abstract	epilepsy.ab.
.au.	Author	smith-r.au.
.jn.	Journal	lancet.jn.
.me.	single word, as MeSH term	ulcer.me.
.sh.	Exact MeSH heading	lung neoplasm.sh.
.ti.	Word in title	epilepsy.ti.
.tw.	Word in Title / Abstract	epilepsy.tw.
.mp.	title / abstract / registry word or MeSH	anorexia nervosa.ui.
.yr.	Year of Publication	87.yr.

SEARCH FOR ARTICLE “Cross sectional survey of cervical cancer screening in women with learning disability” IN BMJ

- cervical cancer.ti. AND survey.ti. AND learning disability.ti. AND BMJ.jn.
- TRY IT now

THREE PART QUESTION

- All clinical questions should be made into a 'three part question'
- Needs to be very narrow, otherwise too many articles will be found
- Many examples on BESTBets website

RSI IN A&E BY A&E DRS

- Three part question: In A&E are [emergency medicine clinicians] [safe and effective] in performing [rapid sequence induction]
- {exp Intubation, Intratracheal/ OR (rapid sequence induction).mp OR rsi.mp OR intubation.mp OR (crash induction).mp OR airway management.mp} AND {exp Medical Staff, Hospital/ or exp Emergency Medical Services/ or exp Emergency Service, Hospital/ or (emergency department).mp OR A&E.mp OR (accident and emergency).mp OR casualty.mp} AND {safety.mp. or exp SAFETY/ OR efficacy.mp OR complications.mp OR success.mp}
- TRY IT now

THEN WHAT?

- Need to wade through the titles to select those are relevant to the question
- Then get the actual papers and critically appraise them for quality, applicability etc: this is another large topic on its own, but go [here](#) for more info.



