



icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIE
NATIONAL INSTITUTE OF
EPIDEMIOLOGY

Literature review

Dr. P. Ganeshkumar
MD

HEALTH RESEARCH FUNDAMENTALS

nie.gov.in

Why perform literature review?



HEALTH RESEARCH FUNDAMENTALS

nie.gov.in



Lit review : Not just a summary



Information seeking

Scan the literature efficiently using manual or computerized methods to identify a set of potentially useful articles and books



Critical appraisal

the ability to apply principles of analysis to identify those studies which are unbiased and valid.



icmr

NATIONAL INSTITUTE OF EPIDEMIOLOGY

nie.gov.in

HEALTH RESEARCH FUNDAMENTALS

Lit review: Organized search

Organize information
relate it to the research question



Identify lacunae
As appears in the literature



Synthesize results
summary of what is and isn't known



Develop questions for further research



icmr

NATIONAL INSTITUTE OF EPIDEMIOLOGY

nie.gov.in

HEALTH RESEARCH FUNDAMENTALS

Information retrieval

identifying, within a large document collection, a subset of documents whose content is most relevant to user's need



Database organization
(database management)

Structure of query
(user defined)



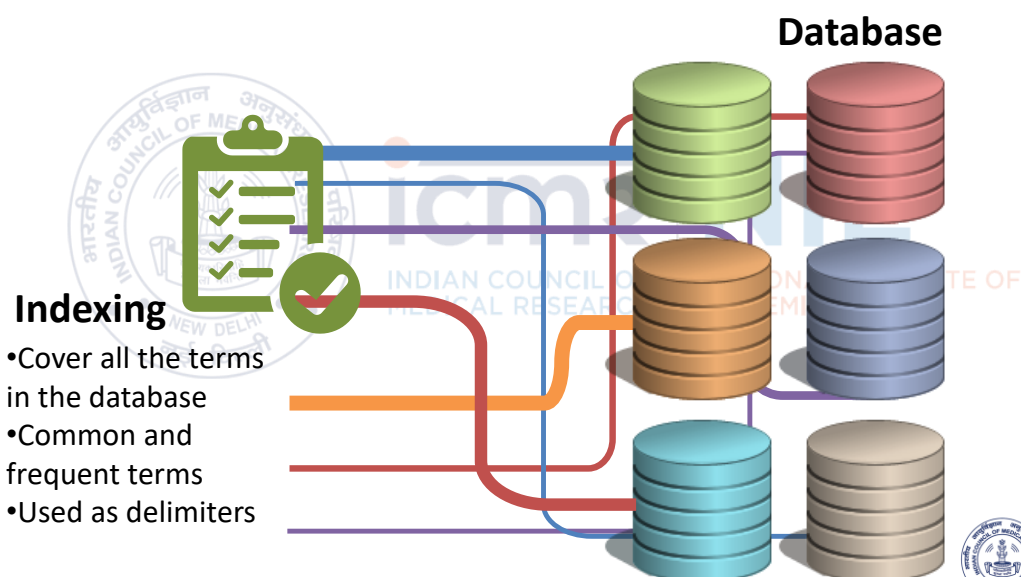
icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIE
NATIONAL INSTITUTE OF
EPIDEMIOLOGY

nie.gov.in

HEALTH RESEARCH FUNDAMENTALS

Database structure and management



icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIE
NATIONAL INSTITUTE OF
EPIDEMIOLOGY

nie.gov.in

HEALTH RESEARCH FUNDAMENTALS

Appropriate place to search

Systematic reviews/
Meta-analysis / EBMs
•Cochrane Library
•Map of Medicine etc

General info

- HON certified sites
- Web Search Engines – Google

Specific query

- PubMed / Scopus / Google Scholar database etc

Archived full text articles

- Free Open Access
- Fee Based – From Libraries

HEALTH RESEARCH FUNDAMENTALS

nie.gov.in



ICMR
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIE
NATIONAL INSTITUTE OF
EPIDEMIOLOGY

Pubmed (<http://www.ncbi.nlm.nih.gov/pubmed>)



PubMed

PubMed comprises more than 25 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.

PubMed COMMONS



Featured comment - Nov 24

Specialty vs. comprehensive: Journal club @GeriMedJC summarizes discussion of care for patients with hip fractures. 1.usa.gov/13ubTM

Using PubMed

[PubMed Quick Start Guide](#)

[Full Text Articles](#)

[PubMed FAQs](#)

[PubMed Tutorials](#)

[New and Noteworthy](#)

PubMed Tools

[PubMed Mobile](#)

[Single Citation Matcher](#)

[Batch Citation Matcher](#)

[Clinical Queries](#)

[Topic](#)

More Resources

[MeSH Database](#)

[Journals in NCBI Databases](#)

[Clinical Trials](#)

[PubMed Central](#)

MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus used for indexing articles for PubMed.

HEALTH RESEARCH FUNDAMENTALS

nie.gov.in

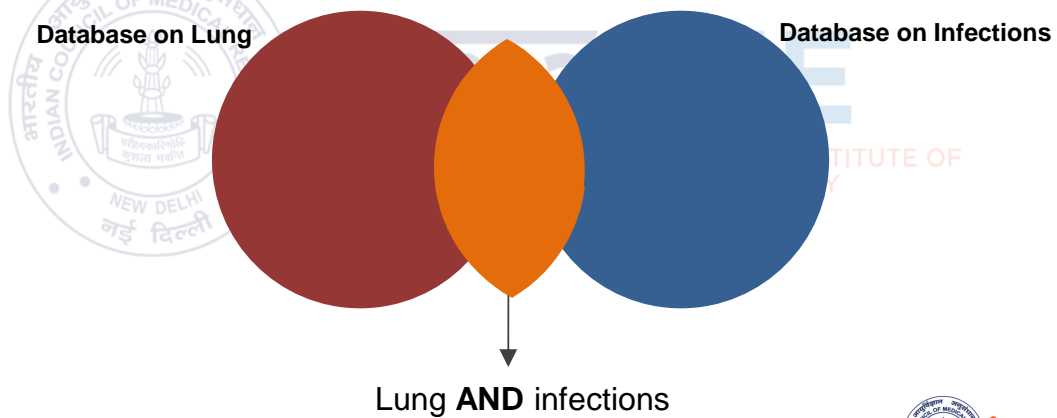


ICMR
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIE
NATIONAL INSTITUTE OF
EPIDEMIOLOGY

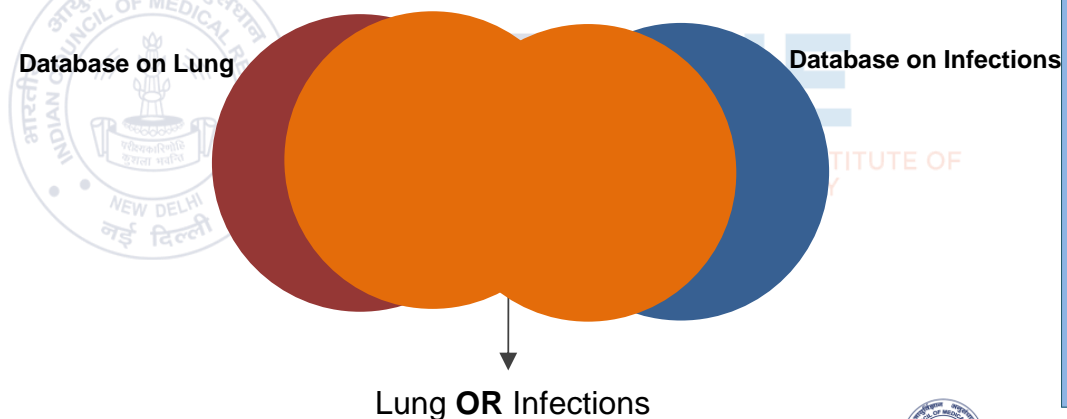
Searching a database

- Boolean query: AND/OR/NOT



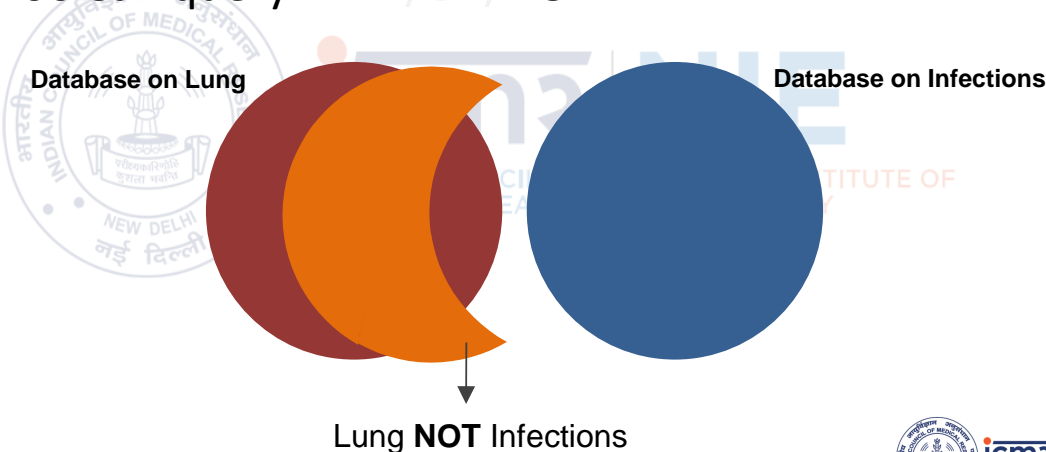
Searching a database

- Boolean query: AND/OR/NOT



Searching a database

- Boolean query: AND/OR/ NOT



NCBI Resources How To

PubMed.gov

US National Library of Medicine
National Institutes of Health

Search results

Items: 1 to 20 of 720174

Article types
Clinical Trial
Review
Customize ...

Text availability
Abstract

Summary 20 per page Sort by Most Recent

NCBI Resources How To

PubMed.gov

US National Library of Medicine
National Institutes of Health

Search results

Items: 1 to 20 of 1772812

Article types
Clinical Trial

Text availability
Abstract

Summary 20 per page Sort by Most Recent

NCBI Resources How To

PubMed.gov

US National Library of Medicine
National Institutes of Health

Search results

Items: 1 to 20 of 82066

Article types
Clinical Trial
Review
Customize ...

Text availability
Abstract

Summary 20 per page Sort by Most Recent

NCBI Resources How To

PubMed.gov

US National Library of Medicine
National Institutes of Health

Search results

Items: 1 to 20 of 638108

Article types
Clinical Trial
Review
Customize ...

Text availability
Abstract

Summary 20 per page Sort by Most Recent

NCBI Resources How To

PubMed.gov

US National Library of Medicine
National Institutes of Health

Search results

Items: 1 to 20 of 2410920

Article types
Clinical Trial
Review
Customize ...

Text availability
Abstract

Summary 20 per page Sort by Most Recent

Searching Pubmed : Boolean query



Selecting studies :for Literature review



Example table of literature

Citation	Design	Objectives	Study population	Sample size	Measurable outcome & results	Authors Conclusion

Chronologically placed
RECENT

PAST





Writing a literature review

- Purpose of review
- Organization of review
- Basis for ordering
- Most important to least
- Earliest to most recent

1 Introduction

2 Empirical literature

3 Summary

- Includes quality studies relevant to topic
- Explain each study using paraphrasing rather than direct quotes
- Scholarly, but brief, critique of study's strengths and weaknesses

Concise presentation of the research knowledge about a selected topic—what is known and not known

Ethical Issues

Content from studies - presented honestly and - not distorted

Weaknesses of a study - addressed ; not necessary to be highly critical

Sources should be accurately documented



icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIE
NATIONAL INSTITUTE OF
EPIDEMIOLOGY

icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIE
NATIONAL INSTITUTE OF
EPIDEMIOLOGY

Thank you
