

# Literature Review

## Literature Search Using PubMed

## Literature Search Using CBL, DMR

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# Learning Objectives

At the end of this lecture, you will be able to:

1. Understand literature review and literature search
2. Identify various sources of data for your studies
3. Use PubMed to access international scientific literature
4. Use Central Biomedical Library of Department of Medical Research to access local scientific literature

# What is a Literature Review

- Not

- Just a summary of sources
- A group of broad, unrelated sources
- A compilation of everything that has been written on a particular topic
- Literature criticism or a book review

# Literature Review

A literature review is an integrated analysis  
of scholarly writings that are related directly  
to  
your research question.

# Why is literature search important?

1. To identify **major themes, concepts** and researchers on a topic
2. To explain the **background of research** on a topic
3. To demonstrate why a topic is **significant** to a subject area
4. To discover **relationships** between research studies/ideas
5. To identify **critical gaps** and points of **disagreement**
6. To discuss **further research questions** that logically come out of the previous studies.

# Literature Review – Steps

- Step 1. Define your research question
- Step 2. Decide on the **scope** of your review
- Step 3. Select the **databases** you will use to conduct your search
- Step 4. Conduct your search and find the literature. Keep **track of your search**
- Step 5. **Review** the literature

**Topic**

**LITERATURE SEARCH**

**WHAT**

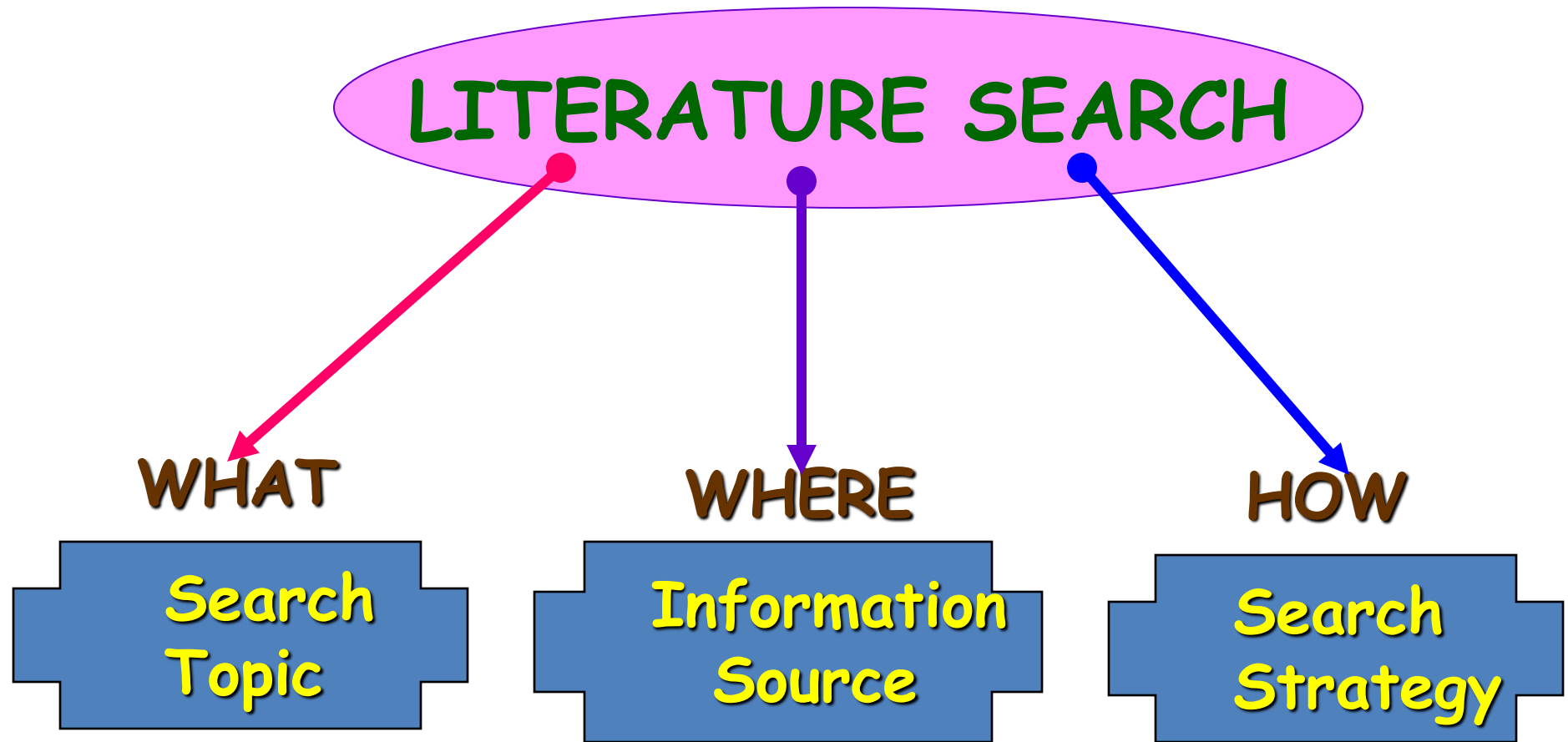
**Search  
Topic**

**WHERE**

**Information  
Source**

**HOW**

**Search  
Strategy**



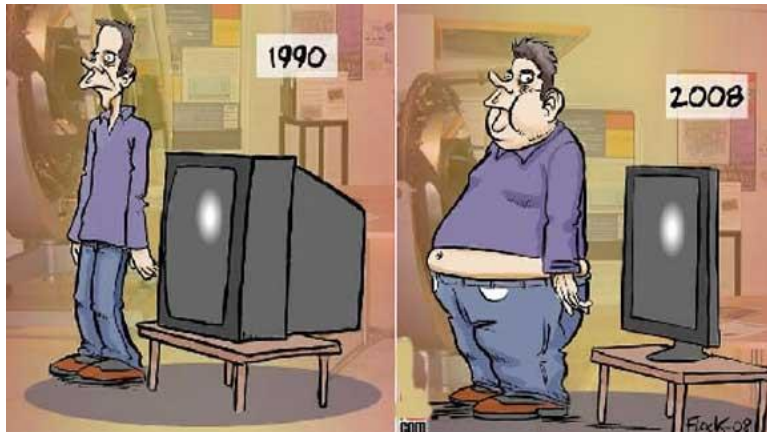
**What is the single *most important aspect* of a  
framing a research study?**

**The Research Question !**



# How are these questions different?

- Does watching TV cause obesity?



- In school children, is increased TV viewing ( $>4$  hours/day) associated with an increased incidence of obesity as measured using body mass index, compared to moderate TV viewing ( $<1$  hour/day)?

# How to frame a research question?

## PICOT

- **Population / problem**
- **Intervention / issue of interest**
- **Comparison**
- **Outcome**
- **Time frame (*need not always be specified*)**

**± study design**

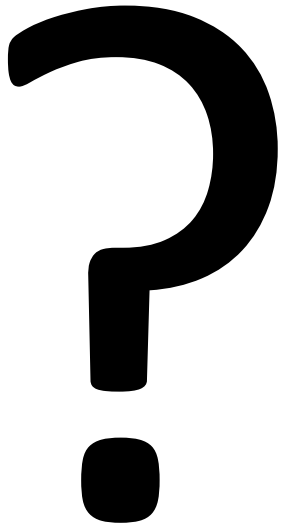
# PICOT

- P**      **The Populations: Who is the population and what problem is being addressed?**
- I**      **The interventions (or exposures): What is the intervention or exposure?**
- C**      **The comparison: What is the comparison group (if applicable)?**
- O**      **The outcomes: What is the outcome(s) or endpoint?**
- T**      **The time frame: Duration of intervention or a reasonable follow-up time period in which outcome is expected to occur**

# Example

- In school children (P), is increased TV viewing (>4 hours/day) (C) associated with an increased incidence of obesity (O) as measured using body mass index, compared to moderate TV viewing (<1 hour/day) (C)?

What is your research Questions?  
Apply PICOT in your research  
Questions



# Different Types of Information

<b>Print format</b> (Library Catalogue: Index, Abstracts, Bibliography, Union List)	<b>Published</b> Books, Journals  <b>Unpublished</b> Reports, Proceedings, Research Paper, Theses, FL, etc.
<b>Electronic format</b> (use with Computer )	<ul style="list-style-type: none"><li>•CDs</li><li>•Databases, Software,</li><li>•Internet, Websites....</li></ul>

# Comparing Sources

Source	Strengths	Weaknesses
<b>Published data</b>	<ul style="list-style-type: none"><li>• Original sources for studies on different diseases &amp; systematic reviews</li><li>• Peer review means that papers must meet some standard of quality (quality of peer review depends on journal)</li></ul>	<ul style="list-style-type: none"><li>• Can be difficult to find the most important articles</li><li>• Articles are of varying quality</li><li>• Single studies can contradict each other</li></ul>

# Where to Search

Data source	Where to search
<b>Published data (journal articles)</b>	<ul style="list-style-type: none"><li>• PubMed and other bibliographic databases</li><li>• Google &amp; Google Scholar</li></ul>
<b>Unpublished data</b>	<ul style="list-style-type: none"><li>• Google (authoritative reports)</li><li>• Weekly, quarterly, or annual data reports from MoH</li><li>• Regional / district health office data or databases</li><li>• Websites of local NGOs or health organizations</li></ul>



# How to Search PubMed Using four Principles:

# What is PubMed?

- Searchable database of ~27 million scientific journal articles
- <https://www.ncbi.nlm.nih.gov/pubmed/>

The screenshot shows the PubMed website interface. At the top, there's a navigation bar with 'NCBI', 'Resources', and 'How To' links. The main header features the 'PubMed.gov' logo, the text 'US National Library of Medicine National Institutes of Health', a search bar with 'PubMed' entered, and a 'Search' button. Below the header, there's a large banner for 'PubMed' stating it comprises more than 26 million citations. To the right of the banner is a 'PubMed Commons' section with a 'Featured comment' about chronic kidney disease. Below the banner, there are three columns of links: 'Using PubMed' (including Quick Start Guide, Full Text Articles, FAQs, Tutorials, and New and Noteworthy), 'PubMed Tools' (including Mobile, Single Citation Matcher, Batch Citation Matcher, Clinical Queries, and Topic-Specific Queries), and 'More Resources' (including MeSH Database, Journals in NCBI Databases, Clinical Trials, E-Utilities (API), and LinkOut). At the bottom, there's a footer with 'You are here: NCBI > Literature > PubMed', a 'Write to the Help Desk' link, and several sections: 'GETTING STARTED' (Education, Help Manual, Handbook, Training & Tutorials, Submit Data), 'RESOURCES' (Chemicals & Bioassays, Data & Software, DNA & RNA, Domains & Structures, Genes & Expression, Genetics & Medicine, Genomes & Maps, Homology, Literature, Proteins, Sequence Analysis, Taxonomy, Variation), 'POPULAR' (PubMed, Bookshelf, PubMed Central, PubMed Health, BLAST, Nucleotide, Genome, SNP, Gene, Protein, PubChem), 'FEATURED' (Genetic Testing Registry, PubMed Health, GenBank, Reference Sequences, Gene Expression Omnibus, Map Viewer, Human Genome, Mouse Genome, Influenza Virus, Primer-BLAST, Sequence Read Archive), and 'NCBI INFORMATION' (About NCBI, Research at NCBI, NCBI News, NCBI FTP Site, NCBI on Facebook, NCBI on Twitter, NCBI on YouTube). The footer also includes the National Center for Biotechnology Information address and a link to 'Policies and Guidelines | Contact'.

# How Does PubMed Work?

“search terms” typed into the search box return scientific articles related to the terms

The screenshot displays the PubMed website interface. At the top, there is a navigation bar with links for "NCBI", "Resources", and "How To". The main header features the "PubMed.gov" logo, the text "US National Library of Medicine National Institutes of Health", and a search bar with the text "PubMed" and a "Search" button. Below the search bar, there is a "PubMed Commons" section with a featured comment about assessing the risk of chronic kidney disease. The main content area is divided into three columns: "Using PubMed" (with links to Quick Start Guide, Full Text Articles, FAQs, Tutorials, and New and Noteworthy), "PubMed Tools" (with links to Mobile, Single Citation Matcher, Batch Citation Matcher, Clinical Queries, and Topic-Specific Queries), and "More Resources" (with links to MeSH Database, Journals in NCBI Databases, Clinical Trials, E-Utilities (API), and LinkOut). The footer contains a "You are here" breadcrumb trail, a "Write to the Help Desk" link, and several sections of links: "GETTING STARTED", "RESOURCES", "POPULAR", "FEATURED", and "NCBI INFORMATION".

NCBI Resources How To Sign in to NCBI

PubMed.gov  
US National Library of Medicine  
National Institutes of Health

PubMed

Advanced

Search

Help

**PubMed**

PubMed comprises more than 26 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 - May 3  
Assessing risk of chronic kidney disease with proton pump inhibitor use: Journal club @NephJC summarizes discussion. [1.usa.gov/1T4B711](http://1.usa.gov/1T4B711)

**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-Specific Queries](#)

**More Resources**

[MeSH Database](#)

[Journals in NCBI Databases](#)

[Clinical Trials](#)

[E-Utilities \(API\)](#)

[LinkOut](#)

You are here: NCBI > Literature > PubMed

Write to the Help Desk

**GETTING STARTED**

[NCBI Education](#)

[NCBI Help Manual](#)

[NCBI Handbook](#)

[Training & Tutorials](#)

[Submit Data](#)

**RESOURCES**

[Chemicals & Bioassays](#)

[Data & Software](#)

[DNA & RNA](#)

[Domains & Structures](#)

[Genes & Expression](#)

[Genetics & Medicine](#)

[Genomes & Maps](#)

[Homology](#)

[Literature](#)

[Proteins](#)

[Sequence Analysis](#)

[Taxonomy](#)

[Variation](#)

**POPULAR**

[PubMed](#)

[Bookshelf](#)

[PubMed Central](#)

[PubMed Health](#)

[BLAST](#)

[Nucleotide](#)

[Genome](#)

[SNP](#)

[Gene](#)

[Protein](#)

[PubChem](#)

**FEATURED**

[Genetic Testing Registry](#)

[PubMed Health](#)

[GenBank](#)

[Reference Sequences](#)

[Gene Expression Omnibus](#)

[Map Viewer](#)

[Human Genome](#)

[Mouse Genome](#)

[Influenza Virus](#)

[Primer-BLAST](#)

[Sequence Read Archive](#)

**NCBI INFORMATION**

[About NCBI](#)

[Research at NCBI](#)

[NCBI News](#)

[NCBI FTP Site](#)

[NCBI on Facebook](#)

[NCBI on Twitter](#)

[NCBI on YouTube](#)

National Center for Biotechnology Information, U.S. National Library of Medicine  
8600 Rockville Pike, Bethesda MD, 20894 USA  
[Policies and Guidelines](#) | [Contact](#)

USA.gov

# Principles of searching PubMed

# THINK OF PUBMED AS A LARGE CONTAINER



And imagine that every sheet  
of paper is a PubMed “record”

# TODAY PUBMED HAS

## Search results

Items: 1 to 20 of 26260459

<< First < Prev Page 1 of 1313023 Next > Last >>

☐ [Can the Knobe Effect Be Explained Away? Methodological Controversies in the Study of the](#)

1. [Relationship Between Intentionality and Morality](#)

Cova F, Lantian A, Boudesseul J.

Pers Soc Psychol Bull. 2016 Jul 15. pii: 0146167216656356. [Epub ahead of print]

PMID: 27424330

[Similar articles](#)

☐ [Timely individual audit and feedback significantly improves transfusion bundle compliance-a](#)

2. [comparative study](#)

Borgert M, Binnekade J, Paulus F, Goossens A, Vroom M, Dongelmans D.

Int J Qual Health Care. 2016 Jul 15. [Epub ahead of print]

PMID: 27424329

[Similar articles](#)

☐ [Inter-professional clinical handover in post-anaesthetic care units: tools to improve quality and](#)

3. [safety](#)

Redley B, Bucknall TK, Evans S, Botti M.

Int J Qual Health Care. 2016 Jul 15. [Epub ahead of print]

PMID: 27424328

[Similar articles](#)

Over 28 million records

• Each record contains words like

- Asthma
- Cataract
- Salbutamol
- Glucocorticoids
- Adults
- Children
- Socioeconomic factors
- Quality of life

# SEARCH

How To ☒

PubMed

asthma



RSS

Save search

Advanced

**Display Settings:** ☒ Summary, 20 per page, Sorted by Recently Added

**Send to:** ☒

**Results: 1 to 20 of 64762**

<< First < Prev Page  of 3239 Next > Last >>

- ☐ [Spink5 And Adrb2 Haplotypes Are Risk Factors For \*\*Asthma\*\* In Mexican Pediatric Patients.](#)
  1. Martínez-Aguilar N, Del Río-Navarro B, Navarro-Olivero F, García-Ortíz H, González Jiménez-Morales S.  
**J Asthma.** 2014 Sep 18:1-23. [Epub ahead of print]  
PMID: 25233048 [PubMed - as supplied by publisher]  
[Related citations](#)
- ☐ [Validation Of A Questionnaire Against Clinical Assessment In The Diagnosis Of \*\*Asthma\*\* In Schoolchildren.](#)
  2. Hansen TE, Evjenth B, Holt J.  
**J Asthma.** 2014 Sep 18:1-25. [Epub ahead of print]  
PMID: 25233047 [PubMed - as supplied by publisher]  
[Related citations](#)
- ☐ [Th1/Th2 cytokine pattern in Arab children with severe \*\*asthma\*\*.](#)
  3. Al-Daghri NM, Alokail MS, Draz HM, Abd-Alrahman SH, Yakout SM, Clerici M.  
**Int J Clin Exp Med.** 2014 Aug 15;7(8):2286-91. eCollection 2014.  
PMID: 25232422 [PubMed]  
[Related citations](#)

This record – contains the word asthma and is about Asthma



Chronic Dis Inj Can. 2013 Sep;33(4):267-76.

## Methodology of the 2009 Survey on Living with Chronic Diseases in Canada--hypertension component.

[Article in English, French]

Bienek AS<sup>1</sup>, Gee ME, Nolan RP, Kaczorowski J, Campbell NR, Bancej C, Gwadry-Sridhar F, Robitaille C, Walker RL, Dai S.

### Author information

Abstract in English, French

Open/close author information list

**INTRODUCTION:** The Survey on Living with Chronic Diseases in Canada--hypertension component (SLCDC-H) is a 20-minute cross-sectional telephone survey on hypertension diagnosis and management. Sampled from the 2008 Canadian Community Health Survey (CCHS), the SLCDC-H includes Canadians (aged  $\geq 20$  years) with self-reported hypertension from the ten provinces.

**METHODS:** The questionnaire was developed by Delphi technique, externally reviewed and qualitatively tested. Statistics Canada performed sampling strategies, recruitment, data collection and processing. Proportions were weighted to represent the Canadian population, and 95% confidence intervals (CIs) were derived by bootstrap method.

**RESULTS:** Compared with the CCHS population reporting hypertension, the SLCDC-H mean age: 61.2 years, 95% CI: 60.8-61.6; CCHS mean age: 62.2 years, 95% CI: 61.8-62.5), has CI: 49.7%-54.2%; CCHS: 47.5%, 95% CI: 46.1%-48.9%) and has fewer respondents (SLCDC-H: 80.9%-84.1%; CCHS: 88.6%, 95% CI: 87.7%-89.6%).

It only CONTAINS the word asthma

SLCDC-H mean age:  
SLCDC-H: 52.0%, 95%  
CI: 50.5%-53.5%, 95% CI:

**CONCLUSION:** Overall, the 2009 SLCDC-H represents its source population and provides novel, comprehensive data on the diagnosis and management of hypertension. The survey has been adapted to other chronic conditions--diabetes, asthma/chronic obstructive pulmonary disease and neurological conditions. The questionnaire is available on the Statistics Canada website; descriptive results have been disseminated by the Public Health Agency of Canada.

**KEYWORDS:** Canadian Community Health Survey; chronic disease; data collection; epidemiological survey; health surveys; hypertension; questionnaires



# PRINCIPLE I (WORD SEARCH)

When you search for a term, PubMed looks for records that **contain** your search term

- In the bibliographical details & Abstract  
NOT
- In the full text



# **SO HOW CAN WE GET RESULTS “ABOUT OUR TERMS”?**

Introducing “Tags” that describe result records

## Results: 3

☐ [A cost analysis is premature.](#)

1. Alverson BK, Ralston S, Garber M.  
Pediatrics. 2011 Feb;127(2):e513-4; author reply e515-6. doi: 10.1542/peds.2010-3630A. No abstract available.  
PMID: 21285330 [PubMed - indexed for MEDLINE] **Free Article**  
[Related citations](#)

This is tagged with

- Bronchiolitis
- Cost Analysis
- Dexamethasone

☐ [Clinical problem-solving. Search for the complication.](#)

2. Salamon F, Hirsch R, Tur-Kaspa R, Kramer MR.  
N Engl J Med. 2006 Mar 2;354(9):957-63. No abstract available.  
PMID: 16510750 [PubMed - indexed for MEDLINE]  
[Related citations](#)

This is tagged with

- Bronchiolitis
- Fever of unknown origin
- Pulmonary Tuberculosis

☐ [More self reliance in patients and fewer antibiotics: still room for improvement.](#)

3. van Weel C.  
BMJ. 2002 Jan 12;324(7329):94. No abstract available.  
PMID: 11808533 [PubMed - indexed for MEDLINE]  
[Related citations](#)

This is tagged with

- Bronchiolitis
- Physician patient relations

NOW HOW ON EARTH DID I  
KNOW THAT???

## Results: 3

Click this title

☐ [A cost analysis is premature.](#)

1. Alverson BK, Ralston S, Garber M.  
Pediatrics. 2011 Feb;127(2):e513-4; author reply e515-6. doi: 10.1542/peds.2010-3630A. No abstract available.  
PMID: 21285330 [PubMed - indexed for MEDLINE] **Free Article**  
[Related citations](#)

☐ [Clinical problem-solving. Search for the complication.](#)

2. Salamon F, Hirsch R, Tur-Kaspa R, Kramer MR.  
N Engl J Med. 2006 Mar 2;354(9):957-63. No abstract available.  
PMID: 16510750 [PubMed - indexed for MEDLINE]  
[Related citations](#)

☐ [More self reliance in patients and fewer antibiotics: still room for improvement.](#)

3. van Weel C.  
BMJ. 2002 Jan 12;324(7329):94. No abstract available.  
PMID: 11808533 [PubMed - indexed for MEDLINE]  
[Related citations](#)

[Pediatrics](#). 2011 Feb;127(2):e513-4; author reply e515-6. doi: 10.1542/peds.2010-3630A.

## A cost analysis is premature.

[Alverson BK](#), [Ralston S](#), [Garber M](#).

### Comment on

Cost-effectiveness of epinephrine and dexamethasone in children with bronchiolitis. [[Pediatrics](#). 2010]

PMID: 21285330 [[PubMed - indexed for MEDLINE](#)] [Free full text](#)



**These are the tags**



**Tags are added to most records in PubMed to “describe the article”**

Publication Types, MeSH Terms, Substances



[Pediatrics](#). 2011 Feb;127(2):e513-4; author reply e515-6. doi: 10.1542/peds.2010-3630A.

## A cost analysis is premature.

[Alverson BK](#), [Ralston S](#), [Garber M](#).

### Comment on

Cost-effectiveness of epinephrine and dexamethasone in children with bronchiolitis. [[Pediatrics](#). 2010]

PMID: 21285330 [[PubMed](#) - indexed for MEDLINE] **Free full text**



### Publication Types, MeSH Terms, Substances

#### Publication Types

[Comment](#)

[Letter](#)

#### MeSH Terms

[Bronchiolitis/drug therapy](#)

[Bronchiolitis/economics\\*](#)

[Bronchodilator Agents/administration & dosage](#)

[Bronchodilator Agents/economics](#)

[Costs and Cost Analysis](#)

[Dexamethasone/administration & dosage](#)

[Dexamethasone/economics](#)

[Humans](#)

[Nebulizers and Vaporizers/economics](#)

[Randomized Controlled Trials as Topic/economics](#)

[Time Factors](#)

This article is about:

-Drug treatment OF bronchiolitis

-Economics OF bronchiolitis

Stars indicate that these topics have a Major coverage in the article



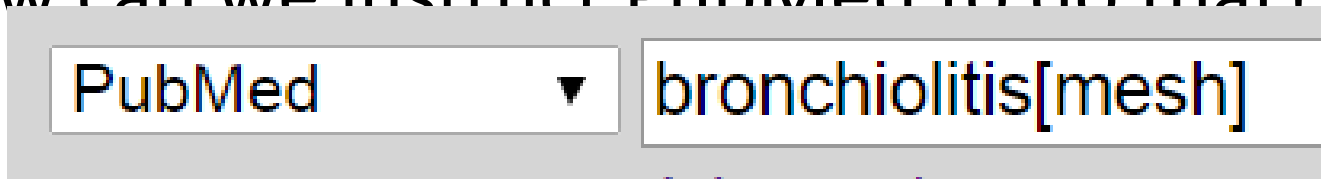
# WHAT IS MESH?

- Full form: Medical Subject Headings:
- MeSH terms: A collection of standard terms
  - Terms from this collection are used to “tag” or describe every article record
  - Tagging done by: Professional “Indexers”

SO HOW DO WE SEARCH USING  
MESH TERMS?

# SEARCH – SPECIAL METHOD

- We can tell PubMed
  - Search for records that contain the word Bronchiolitis
  - In the list of Mesh terms
- How can we instruct PubMed to do that?



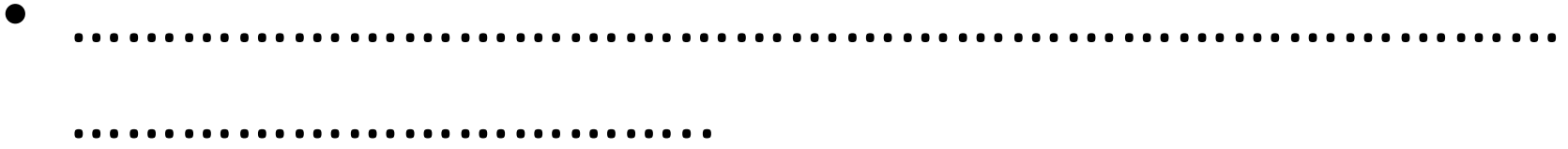
# TYPES OF MESH SEARCHES

Bronchiolitis[mesh]	42336
Bronchiolitis/etiology[mesh]	22430
Bronchiolitis[major]	33571
Bronchiolitis/etiology[major]	12284

# PRINCIPLE II

Standardized, specific keywords  
are tagged to most PubMed  
records

**And if we search using these  
tags, we get relevant results**



# WHAT IF I WANT TO SEARCH

For articles

- By an author
- In a specific journal
- From a specific institution

# SEARCH IN FIELDS

Just as you learned: **bronchiolitis[mesh]**

## Publication Types, MeSH Terms, Substances

### Publication Types

Comment

Letter

### MeSH Terms

Bronchiolitis/drug therapy

Bronchiolitis/economics\*

Bronchodilator Agents/administration & dosage

Bronchodilator Agents/economics

Costs and Cost Analysis

Dexamethasone/administration & dosage

Dexamethasone/economics



- You can search for your term (word or number) in the other 'fields / areas' of a record

Asthma IN the Title

Airway Inflammation after Bronchial Thermoplasty for Severe Asthma.

Denner DR, Doeing DC, Hogarth DK, Dugan K, Naureckas ET, White SR.

Ann Am Thorac Soc. 2015 Sep;12(9):1302-9. doi: 10.1513/AnnalsATS.201502-082OC.

PMID: 26230374

2015 – as Date

1302 as Page No

White as the Author

# FIELD SEARCH – “CHEST”

If you search as

You will find your term in the

Chest[TI]

Title

Chest[tiab]

Title or abstract or both areas

Chest[Jour]

Journal title

# CHEST[TI]

PubMed



Chest[ti]

Create RSS

Create alert

Advanced

- ☐ [Assessment of Cardiac Device Position on Supine \*\*Chest\*\* Radiograph in the ICU: Introduction and Applicability of the Aortic Valve Location Ratio.](#)  
Ouweneel DM, Sjauw KD, Wiegerinck EM, Hirsch A, Baan J Jr, de Mol BA, Lagrand WK, Planken RN, Henriques JP.  
Crit Care Med. 2016 Jul 15. [Epub ahead of print]  
PMID: 27441908  
[Similar articles](#)
- ☐ [Meet TOM - the world's first open \*\*chest\*\* paediatric/adult manikin.](#)  
2. Dix A.  
Nurs Stand. 2016 Jul 20;30(47):22-5. doi: 10.7748/ns.30.47.22.s23.  
PMID: 27440343  
[Similar articles](#)
- ☐ [Multi-Institutional Evaluation of Digital Tomosynthesis, Dual-Energy Radiography, and Conventional \*\*Chest\*\* Radiography for the Detection and Management of Pulmonary Nodules.](#)  
3. Dobbins JT 3rd, McAdams HP, Sabol JM, Chakraborty DP, Kazerooni EA, Reddy GP, Vikgren J, Båth M.  
Radiology. 2016 Jul 19:150497. [Epub ahead of print]  
PMID: 27439324

# CHEST[TIAB]

ASAIO J. 2016 Aug 22. [Epub ahead of print]

## Active Clearance of Chest Tubes Reduces Re-exploration for Bleeding After Ventricular Assist Device Implantation.

Maltais S<sup>1</sup>, Davis ME, Haglund NA, Perrault L, Kushwaha SS, Stulak JM, Boyle EM.

### Author information

<sup>1</sup>Department of Cardiac Surgery and <sup>2</sup>Cardiology, Mayo Clinic College of Medicine, Rochester, MN; <sup>3</sup>Department of Surgery, Duke University Medical Center, Durham, North Carolina; <sup>4</sup>Division of Cardiovascular Medicine and <sup>5</sup>Department of Cardiac Surgery, Vanderbilt University Medical Center, Nashville TN; <sup>6</sup>Montreal Heart Institute, Montreal, Canada, and <sup>7</sup>Department of Thoracic Surgery, St. Charles Medical Center, Bend, OR.

### Abstract

Chest tubes are utilized to evacuate shed blood after left ventricular assist device (LVAD) implantation, however, they can become clogged, leading to retained blood. We implemented a protocol for active tube clearance (ATC) of chest tubes to determine if this might reduce interventions for retained blood. 252 patients underwent LVAD implantation. 77 had conventional chest tube drainage (Group 1), whereas 175 patients had ATC (Group 2). A univariate and multivariate analysis adjusting for the use of conventional sternotomy (CS) and minimally invasive left thoracotomy (MILT) was performed. Univariate analysis revealed a 65% reduction in re-exploration (43% to 15%,  $p < 0.001$ ), and a 82% reduction in DSC (34 to 6%,  $p < 0.001$ ). In a sub-analysis of CS only, there continued to be statistically significant 53% reduction in re-exploration (45% vs 21%,  $p = 0.0011$ ), and 77% reduction in Delayed Sternal Closure (DSC) (35% vs 8%,  $p < 0.001$ ) in group 2. Using a logistic regression model adjusting for CS vs MILT, there was a significant reduction in re-exploration (OR 0.44 [CI 0.23 - 0.85],  $p = 0.014$ ) and DSC (OR 0.20 [CI 0.08 - 0.46],  $p < 0.001$ ) in group 2. Actively maintaining chest tube patency after LVAD implantation significantly reduces re-exploration and DSC. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially.

# CHEST[JOUR]

PubMed ▼

chest[jour]

Create RSS

Create alert

Advanced

## Search results

Items: 1 to 20 of 32234

<< First

< Prev

Page

1

of 1612

Next >

Last >>

- ☐ [Response.](#)
  1. Kaplan D, Rondina MT.  
**Chest**. 2016 Apr;149(4):1107-8. No abstract available.  
PMID: 27512739  
[Similar articles](#)
- ☐ [Familial Chronic Thromboembolic Pulmonary Hypertension.](#)
  2. Desmarais J, Elliott CG.  
**Chest**. 2016 Apr;149(4):e99-e101. doi: 10.1016/j.chest.2015.09.017.  
PMID: 27055719  
[Similar articles](#)
- ☐ [Bronchial Artery Pseudoaneurysm With Major Hemorrhage After Bronchial Thermoplasty.](#)
  3. Nguyen DV, Murin S.  
**Chest**. 2016 Apr;149(4):e95-7. doi: 10.1016/j.chest.2015.09.016.  
PMID: 27055718  
[Similar articles](#)

# FIELD SEARCH

If you search as

You will find your term in the

Chest[TI]

Title

Chest[tiab]

Title + abstract

Chest[Jour]

Journal title

Chest[Au]

Author

Chest[AD]

Author's address

Chest[MeSH]

List of Mesh terms

Chest

ALL AREAS (except the full text)

143[page]

Page number

2016[pdat]

Date/Year

# FIELD SEARCH

If you search as

Numbers retrieved

Chest[TI]	27540
Chest[tiab]	130262
Chest[Jour]	31481
Chest[Au]	1
Chest[AD]	9598
Chest[MeSH]	42593

Chest	240782
-------	--------

# PRINCIPLE III

**You can search for a term  
in specific FIELDS (areas)  
of a Bibliographic record**

**(In specific contexts)**





# HOW DO WE COMBINE SEARCH TERMS?

I want to find records in PubMed

- About both asthma as well as bronchitis
- Articles by White in Thorax in 2015

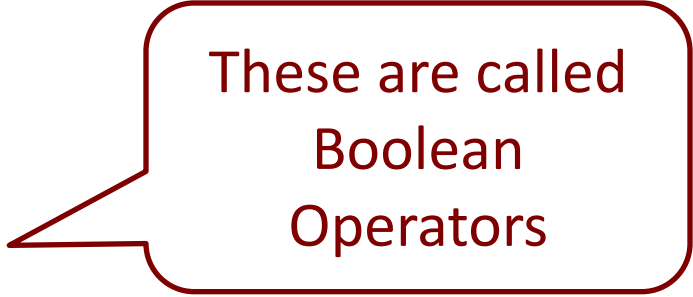
# WRONG METHODS

- Prevalence of Asthma and Bronchitis in India

# RIGHT METHODS

Combine search terms with

- AND
- OR
- NOT



These are called  
Boolean  
Operators

All in capitals

# BOOLEAN OPERATORS

Asthma

**Results: 100**

Asthma AND Bronchitis

**Results:  $< / = 100$ .**  
They **MUST** contain both terms together

Asthma OR Bronchitis


Asthma NOT Bronchitis

**Results:  $> / = 100$ .**  
Every record contains a minimum one term

**Results:  $< 100$ .**  
They will contain Asthma but not Bronchitis

# EXERCISE


PubMed ▼ asthma

 RSS [Save search](#) [Advanced](#)

[Display Settings:](#) ☒ Summary, 20 per page, Sorted by Recently Added

**Results: 10**

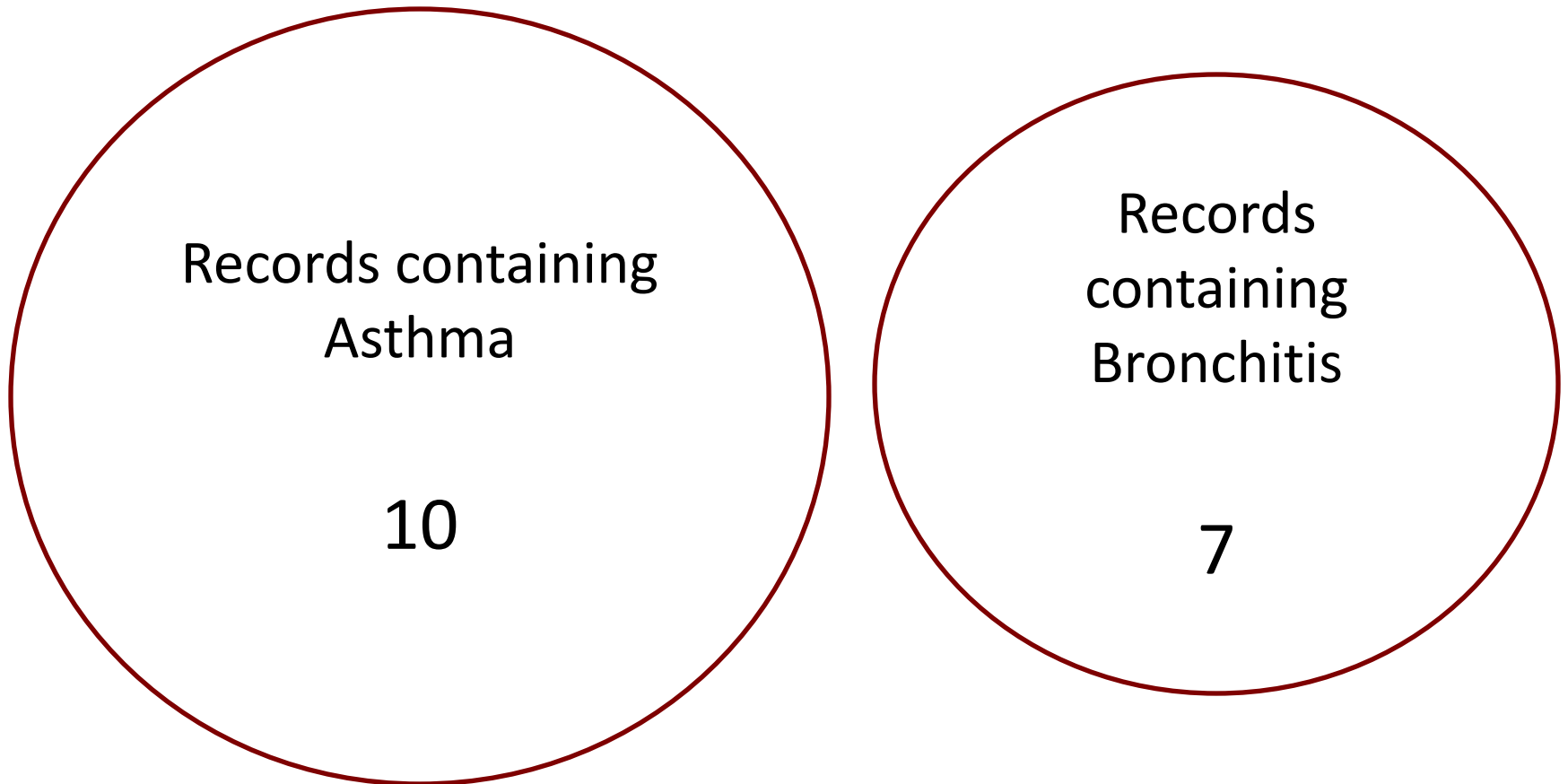
PubMed ▼ bronchitis

 RSS [Save search](#) [Advanced](#)

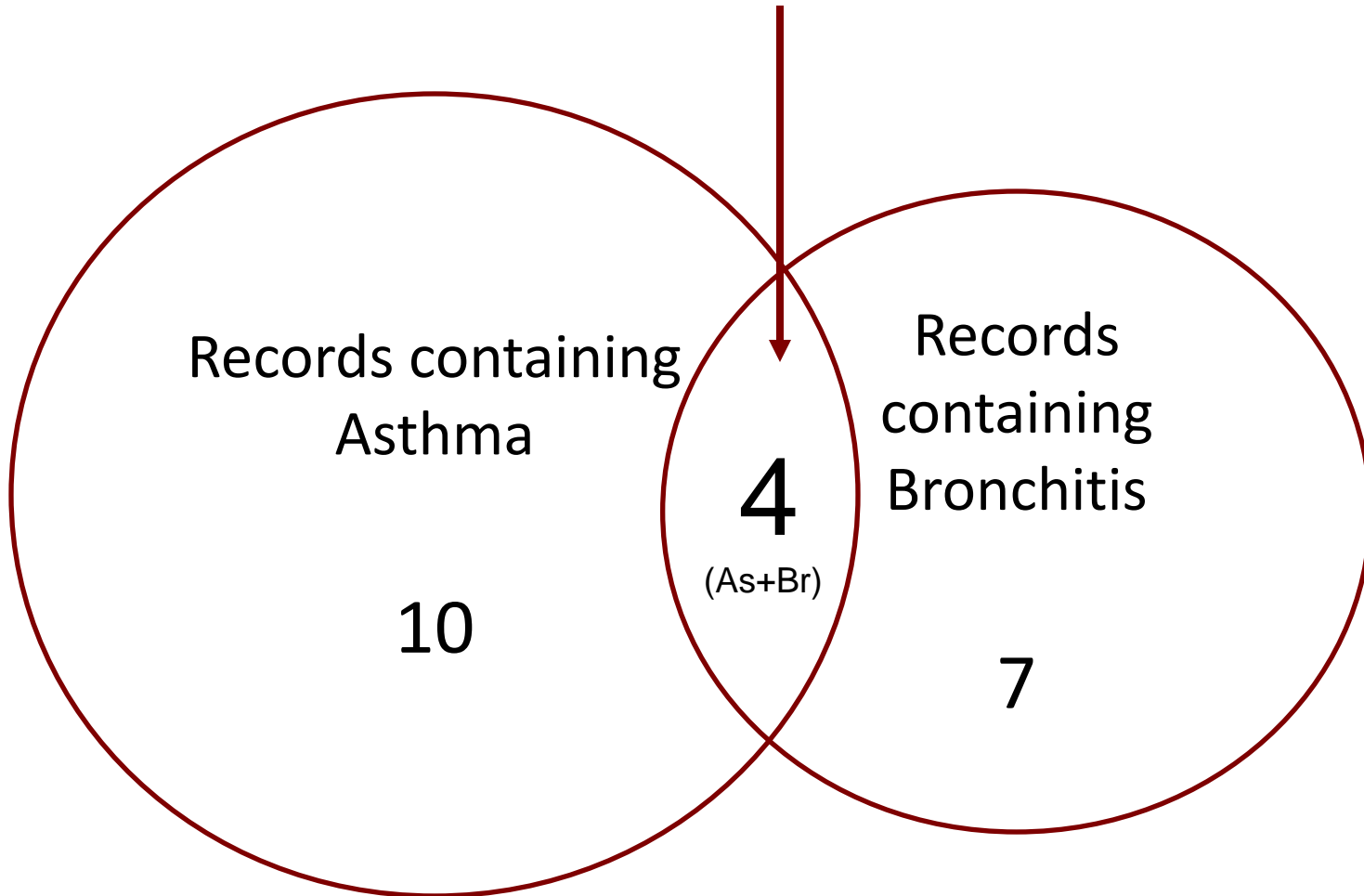
[Display Settings:](#) ☒ Summary, 20 per page, Sorted by Recently Added

**Results: 7**

# RESULTS

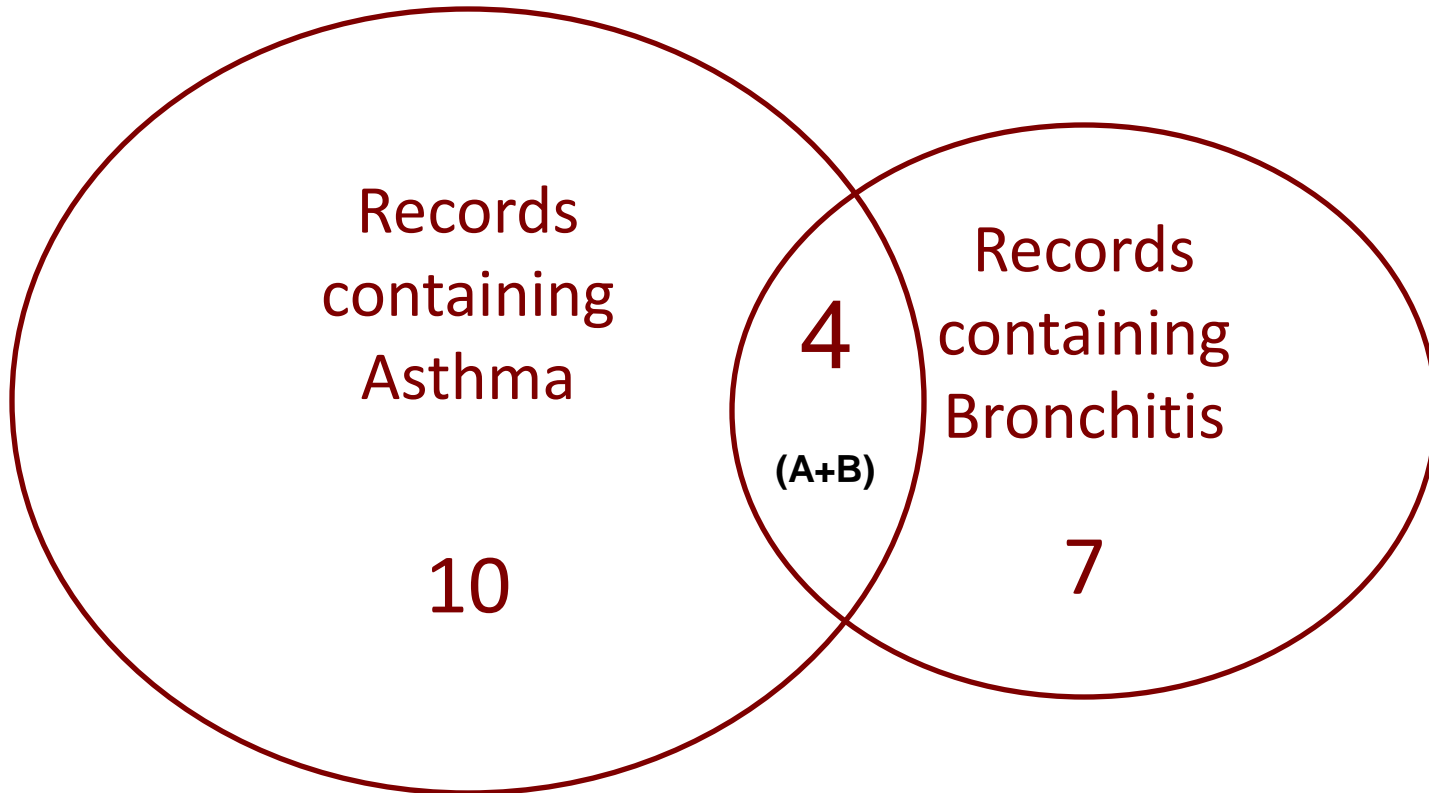


# ASTHMA AND BRONCHITIS



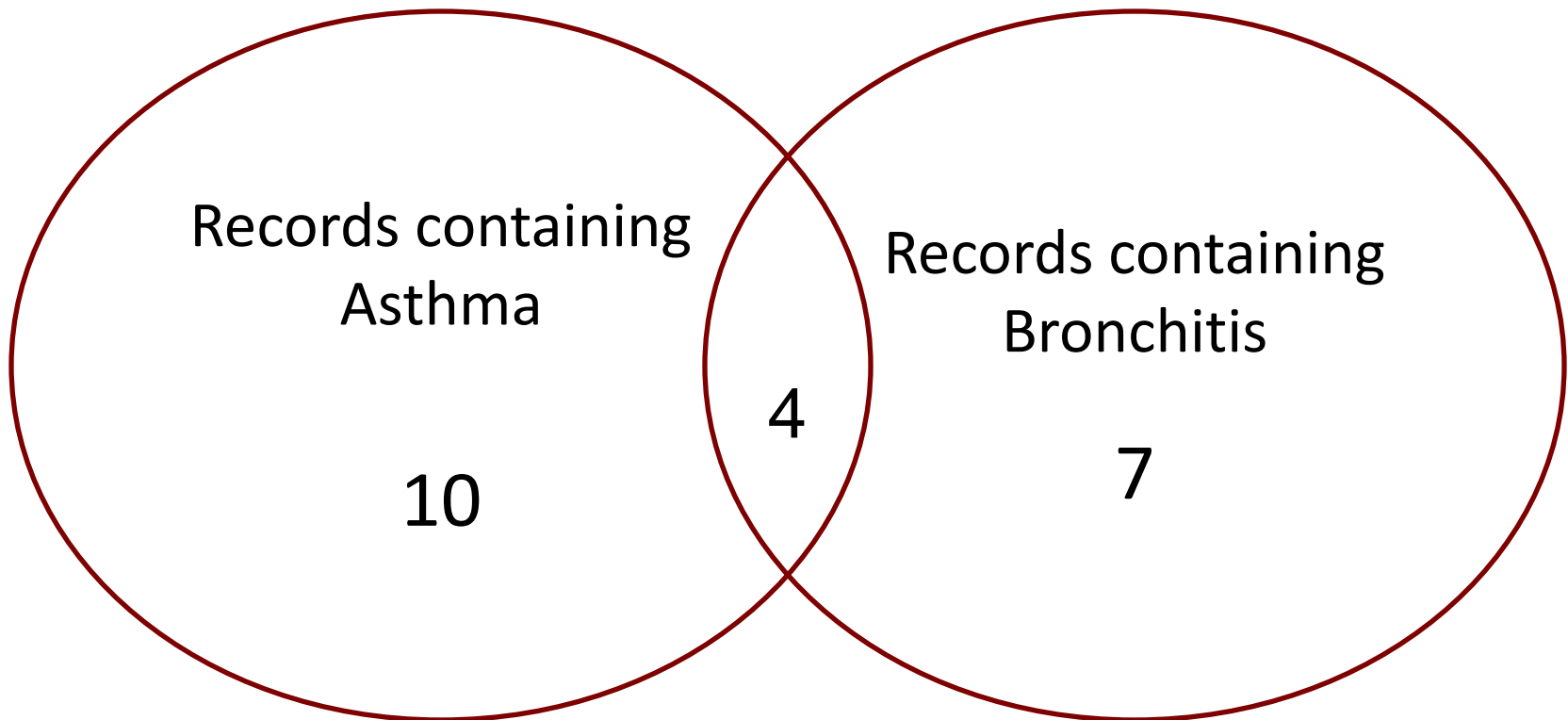


# ASTHMA OR BRONCHITIS



$$10 + 7 - 4 = 13$$

# ASTHMA NOT BRONCHITIS



$$10 - 4 = 6$$

# PRINCIPLE IV

When you combine two or more search terms,  
Use “Boolean Operators”

AND	<u>Contains terms together</u> Less results
OR	<u>Contains</u> at least one term More results
NOT	<u>Contains</u> first term, and <u>does not contain</u> the rest Less results

# ORAL EXERCISES

# PRINCIPLES III & IV

## (Fields & Boolean)

My HoD told me to read up articles by Prof Kim,  
in the Journal JAMA:

Kim[AU] AND JAMA[jour]

# PRINCIPLES III & IV

## (Fields & Boolean)

I want to quickly read up something on  
Eosinophilia in Asthma & Bronchitis

Eosinophilia[TI] AND Asthma[ti] AND Bronchitis[ti]

**Search results**

**Items: 3**

# EXPAND THE SEARCH

Eosinophilia[TIAB] AND Asthma[tiab] AND Bronchitis[tiab]

**Search results**

**Items: 7**

# EXPAND FURTHER

Eosinophilia[TI] AND Asthma[ti] OR Bronchitis[ti]

Eosinophilia [ti]

Asthma[ti]

**OR**

Bronchitis[ti]



# CORRECTING THE STRATEGY

Method – 1

Change the order of the search terms

Bronchitis[ti] OR Asthma[ti] AND Eosinophilia[TI]

# CHANGED ORDER

Bronchitis[ti] OR asthma[ti] AND eosinophilia[ti]

Bronchitis[ti]  
Asthma[ti]

**AND**

Eosinophilia [ti]

*(And automatically)  
Asthma[ti] as well as  
Bronchitis[ti]*

- Every record result will contain:

## FINAL RESULTS

Bronchitis[ti]

Asthma[ti]

Eosinophilia[TI]

# METHOD - 2

Eosinophilia[TI] AND (Asthma[ti] OR Bronchitis[ti])

Eosinophilia [ti]

**AND**

Asthma[ti]  
Bronchitis[ti]

## METHOD - 2

Every result record will contain

Eosinophilia [ti]

Asthma[ti]

Bronchitis[ti]

## METHOD - 3

(Eosinophilia[TI] AND Asthma[ti]) OR (Eosinophilia[ti] AND Bronchitis[ti])

Eosinophilia [ti]  
Asthma[ti]

**OR**

Eosinophilia[ti]  
Bronchitis[ti]

# FINAL RESULT

Eosinophilia [ti]

Asthma[ti]

Bronchitis[ti]

# RECAP – FOUR PRINCIPLES

1. Keyword search – results **contain** the term/s
2. Thesaurus (MeSH) search – results are **about** our term/s
3. Contextual searches – search in specific fields
4. Combine searches with Boolean operators



# YOUR PAST AND PRESENT: COMPARE...

- Treatment of asthma in children
- Asthma[ti] AND treatment[ti] AND children[ti]
- Asthma[tiab] AND treatment[tiab] AND children[tiab]
- Asthma/therapy[mesh] AND child[mesh]

# What if My Search Doesn't Return Enough / Relevant Results?

- May be few articles on your topic!
- Consider alternate search terms
  - Try different word endings, including plurals
  - Account for US and UK spelling or terminology
  - Include full name for abbreviations

## Examples

- 1) Motorcycles: motorbikes
- 2) Helmets: protection
- 3) Deaths: morbidity, mortality, injuries, road safety
- 4) Reduction: reduce, reducing, decrease, eliminate, prevent

# Evaluating Search Results

# Evaluating Search Results



- Does the article address specific content?
- Does the article address the needs of the target audience (i.e. health, economic, or social evidence)?

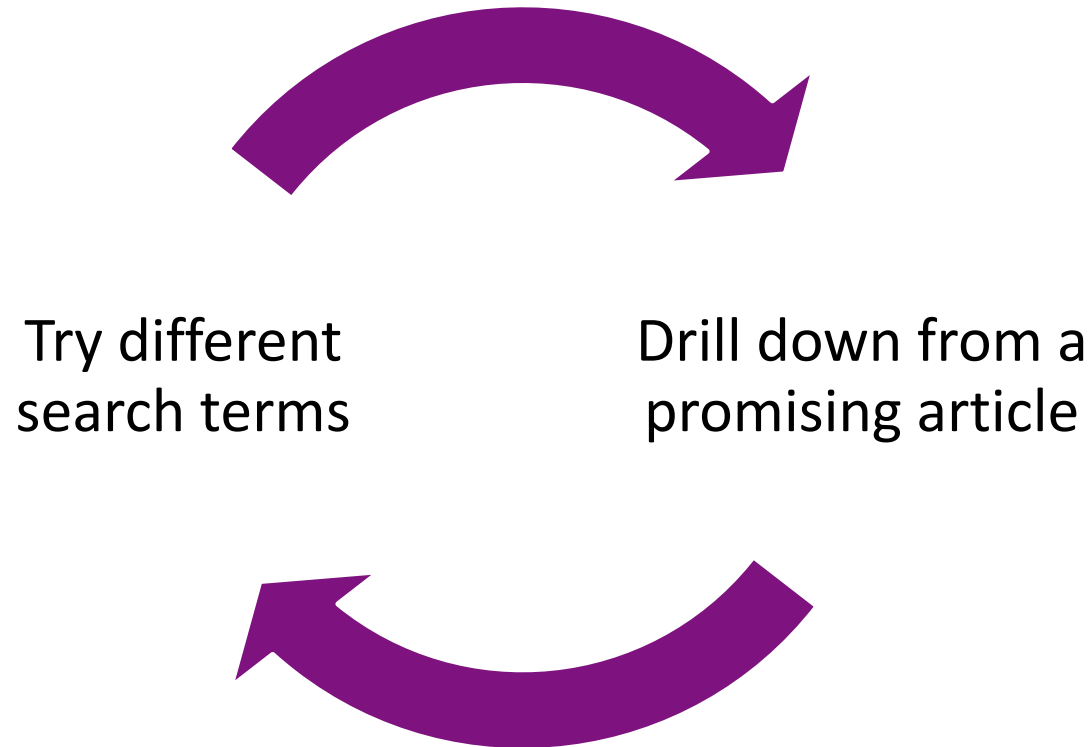
# Evaluating Search Results

**B**

Evaluate the  
quality of  
evidence

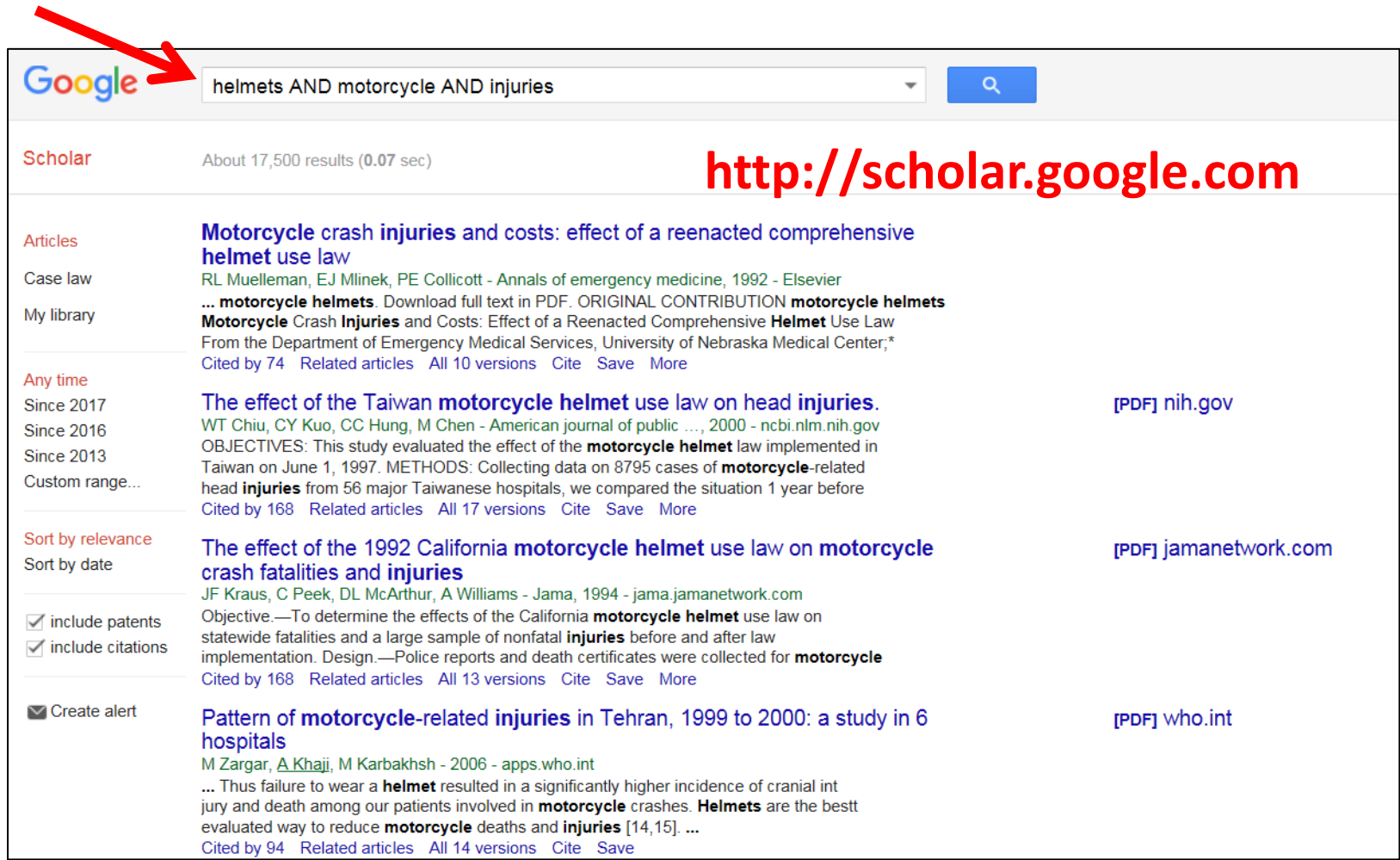
- **Systematic review**
- **Randomized controlled trial**
- **Experimental study**
- **Cohort or case-control analytic study**
- **Multiple time series**
- **Reports of experts**
- **Descriptive studies**
- **Case reports**

# Searching is an Iterative Process



# How to Search Google Scholar and Google

# Searching with Google Scholar



The screenshot shows the Google Scholar interface. At the top, the Google logo is on the left, and a search bar contains the text "helmets AND motorcycle AND injuries". A red arrow points to the Google logo. To the right of the search bar is a blue search button with a magnifying glass icon. Below the search bar, the word "Scholar" is on the left, and "About 17,500 results (0.07 sec)" is in the center. On the right side of this section, the URL "http://scholar.google.com" is displayed in red. The main content area shows a list of search results. On the left side of this area, there are filters: "Articles", "Case law", "My library", "Any time" (with options "Since 2017", "Since 2016", "Since 2013", and "Custom range..."), "Sort by relevance" (with "Sort by date" as an option), checkboxes for "include patents" and "include citations", and a "Create alert" button. The search results list includes three entries, each with a title, authors, publication details, and a PDF link. The first entry is "Motorcycle crash injuries and costs: effect of a reenacted comprehensive helmet use law" by RL Muelleman, EJ Mlinek, and PE Collicott, published in Annals of emergency medicine in 1992. The second entry is "The effect of the Taiwan motorcycle helmet use law on head injuries" by WT Chiu, CY Kuo, CC Hung, and M Chen, published in the American journal of public health in 2000. The third entry is "The effect of the 1992 California motorcycle helmet use law on motorcycle crash fatalities and injuries" by JF Kraus, C Peek, DL McArthur, and A Williams, published in the Journal of the American Medical Association in 1994. The fourth entry is "Pattern of motorcycle-related injuries in Tehran, 1999 to 2000: a study in 6 hospitals" by M Zargar, A Khaji, and M Karbakhsh, published in the International Journal of Injury Prevention and Public Health in 2006.

Google

helmets AND motorcycle AND injuries

Scholar About 17,500 results (0.07 sec)

<http://scholar.google.com>

Articles

Case law

My library

Any time

Since 2017

Since 2016

Since 2013

Custom range...

Sort by relevance

Sort by date

☒ include patents

☒ include citations

☒ Create alert

**Motorcycle crash injuries and costs: effect of a reenacted comprehensive helmet use law**

RL Muelleman, EJ Mlinek, PE Collicott - Annals of emergency medicine, 1992 - Elsevier

... **motorcycle helmets**. Download full text in PDF. ORIGINAL CONTRIBUTION **motorcycle helmets**

**Motorcycle Crash Injuries and Costs: Effect of a Reenacted Comprehensive Helmet Use Law**

From the Department of Emergency Medical Services, University of Nebraska Medical Center,\*

Cited by 74 Related articles All 10 versions Cite Save More

**The effect of the Taiwan motorcycle helmet use law on head injuries.**

WT Chiu, CY Kuo, CC Hung, M Chen - American journal of public ..., 2000 - ncbi.nlm.nih.gov

OBJECTIVES: This study evaluated the effect of the **motorcycle helmet** law implemented in Taiwan on June 1, 1997. METHODS: Collecting data on 8795 cases of **motorcycle**-related head **injuries** from 56 major Taiwanese hospitals, we compared the situation 1 year before

Cited by 168 Related articles All 17 versions Cite Save More

**The effect of the 1992 California motorcycle helmet use law on motorcycle crash fatalities and injuries**

JF Kraus, C Peek, DL McArthur, A Williams - Jama, 1994 - jama.jamanetwork.com

Objective.—To determine the effects of the California **motorcycle helmet** use law on statewide fatalities and a large sample of nonfatal **injuries** before and after law implementation. Design.—Police reports and death certificates were collected for **motorcycle**

Cited by 168 Related articles All 13 versions Cite Save More

**Pattern of motorcycle-related injuries in Tehran, 1999 to 2000: a study in 6 hospitals**

M Zargar, A Khaji, M Karbakhsh - 2006 - apps.who.int

... Thus failure to wear a **helmet** resulted in a significantly higher incidence of cranial int jury and death among our patients involved in **motorcycle** crashes. **Helmets** are the bestt evaluated way to reduce **motorcycle** deaths and **injuries** [14,15]. ...

Cited by 94 Related articles All 14 versions Cite Save

[PDF] nih.gov

[PDF] jamanetwork.com

[PDF] who.int



# Searching with Google Scholar

Google Scholar About 17,500 results (0.07 sec)

**Articles**

Case law

My library

**Any time**

Since 2017

Since 2016

Since 2013

Custom range...

**Sort by relevance**

Sort by date

☒ include patents

☒ include citations

☒ Create alert

**Motorcycle crash injuries and costs: effect of a reenacted comprehensive helmet use law**  
RL Muelleman, EJ Mlinek, PE Collicott - Annals of emergency medicine, 1992 - Elsevier  
... **motorcycle helmets**. Download full text in PDF. ORIGINAL CONTRIBUTION **motorcycle helmets Motorcycle Crash Injuries** and Costs: Effect of a Reenacted Comprehensive **Helmet Use Law** From the Department of Emergency Medical Services, University of Nebraska Medical Center,\*  
Cited by 74 Related articles All 10 versions Cite Save More

**The effect of the Taiwan motorcycle helmet use law on head injuries.**  
WT Chiu, CY Kuo, CC Hung, M Chen - American journal of public ..., 2000 - ncbi.nlm.nih.gov  
OBJECTIVES: This study evaluated the effect of the **motorcycle helmet** law implemented in Taiwan on June 1, 1997. METHODS: Collecting data on 8795 cases of **motorcycle**-related head **injuries** from 56 major Taiwanese hospitals, we compared the situation 1 year before  
Cited by 168 Related articles All 17 versions Cite Save More

**The effect of the 1992 California motorcycle helmet use law on motorcycle crash fatalities and injuries**  
JF Kraus, C Peek, DL McArthur, A Williams - Jama, 1994 - jama.jamanetwork.com  
Objective.—To determine the effects of the California **motorcycle helmet** use law on statewide fatalities and a large sample of nonfatal **injuries** before and after law implementation. Design.—Police reports and death certificates were collected for **motorcycle**  
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M Zargar, A Khaji, M Karbakhsh - 2006 - apps.who.int  
... Thus failure to wear a **helmet** resulted in a significantly higher incidence of cranial injury and death among our patients involved in **motorcycle** crashes. **Helmets** are the best evaluated way to reduce **motorcycle** deaths and **injuries** [14,15]. ...  
Cited by 94 Related articles All 14 versions Cite Save

[PDF] nih.gov

[PDF] jamanetwork.com

[PDF] who.int

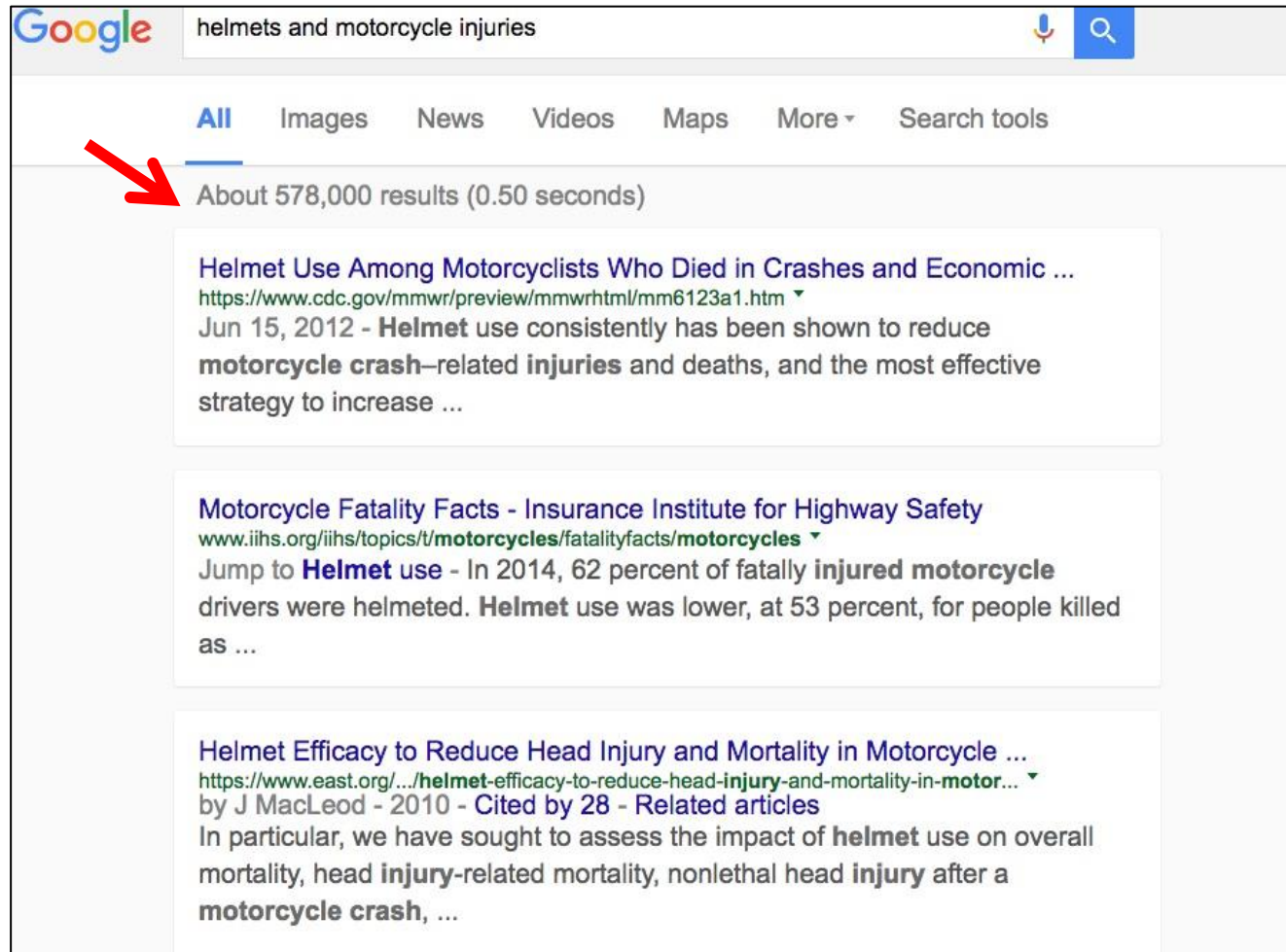
# Google Scholar Search Tips

- Use quote marks to search for all words of a phrase together (e.g. "Papua New Guinea")
- Use UPPERCASE for Boolean terms (AND, OR)
- To find newer articles, try the following options in the left sidebar:
  - click "Since Year" to show recently published papers;
  - click "Sort by date" to show just the new additions, sorted by date;
  - click the envelope icon to have new results periodically delivered by email

# Try Searching Google Scholar!

- <http://scholar.google.com>
- For help and handy tips, check out:  
<https://scholar.google.com/intl/en/scholar/help.html>

# Searching with Google



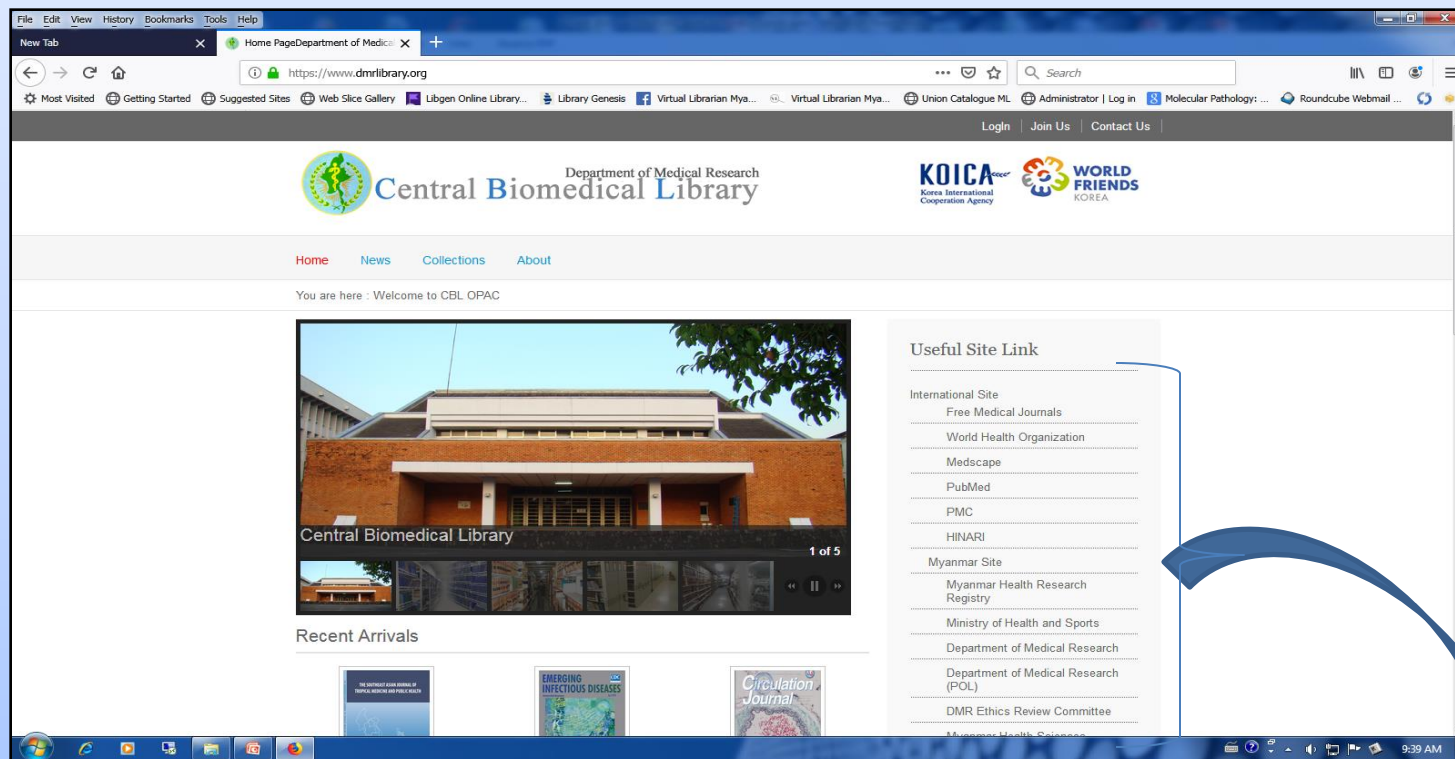
The screenshot shows a Google search interface. The search bar at the top contains the text "helmets and motorcycle injuries". Below the search bar, the "All" tab is selected and highlighted with a red arrow. The search results show "About 578,000 results (0.50 seconds)". Three search results are displayed:

- Helmet Use Among Motorcyclists Who Died in Crashes and Economic ...**  
<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6123a1.htm>  
Jun 15, 2012 - **Helmet** use consistently has been shown to reduce **motorcycle crash**-related **injuries** and deaths, and the most effective strategy to increase ...
- Motorcycle Fatality Facts - Insurance Institute for Highway Safety**  
[www.iihs.org/iihs/topics/t/motorcycles/fatalityfacts/motorcycles](http://www.iihs.org/iihs/topics/t/motorcycles/fatalityfacts/motorcycles)  
Jump to **Helmet** use - In 2014, 62 percent of fatally **injured motorcycle** drivers were helmeted. **Helmet** use was lower, at 53 percent, for people killed as ...
- Helmet Efficacy to Reduce Head Injury and Mortality in Motorcycle ...**  
<https://www.east.org/.../helmet-efficacy-to-reduce-head-injury-and-mortality-in-motor...>  
by J MacLeod - 2010 - Cited by 28 - Related articles  
In particular, we have sought to assess the impact of **helmet** use on overall mortality, head **injury**-related mortality, nonlethal head **injury** after a **motorcycle crash**, ...

# Finding the Full Article Online

- Google Scholar often has a pdf version
- WHO/ HINARI open access scheme:
  - <http://www.who.int/hinari/en/>
- Open repositories
  - MSF: <http://fieldresearch.msf.org/msf/handle/10144/10833>
- ResearchGate
  - <http://www.researchgate.net/>
- Email the corresponding author
- Work with your mentor

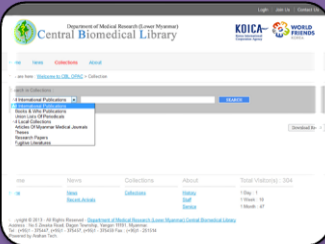
# CBL Website <http://www.dmrlibrary.org>



Useful site link - Myanmar site and International site

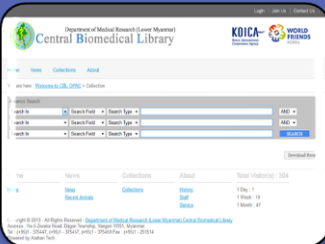
# How to use CBL Website?

## <http://www.dmrlibrary.org>



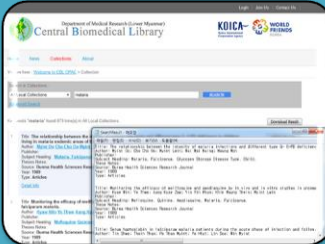
### Quick Search

- To Select a category
- To put a searching Keyword



### Advanced Search

- To choice category, field and operator
- User can combine 3-Keyword



### Download Result

- User can download searching result to file
- If you are member in CBL website, User can make my list.

# dmrlibrary.org - Quick search

## Local collection - Author- Khin Saw Aye-125

The image shows two screenshots from the dmrlibrary.org website. The left screenshot displays the search results for the keyword "khin saw aye", showing 125 results. The right screenshot shows the details for a specific book, ID 42920, which is a research paper by Aung Kyaw Kyaw, Shine Thura Naing, Thida Thein Thein Htwe, Tu Tu Mar, Thida Aung, Tin Moe Khaing, Khin Saw Aye & Kyaw Zin Thant. An orange arrow points from the search results to the book details page.

**Search Results (Left Screenshot):**

Key words "khin saw aye" found 125 time(s) in All Local Collections.

1. Class No: [redacted]  
Accession No: [redacted]  
Author: [Aung Kyaw Kyaw](#), [Shine Thura Naing](#), [Thida Thein Thein Htwe](#), [Tu Tu Mar](#), [Thida Aung](#), [Tin Moe Khaing](#), [Khin Saw Aye](#) & [Kyaw Zin Thant](#)  
Title: Active screening of inapparent dengue virus infection among monastic school students in Mandalay in 2018  
Source: 47th Myanmar Health Research Congress. 2019: P45  
Theses Notes:  
Publisher: [DMR](#)  
Year: 2019  
Subject Heading:  
Type: Research Papers  
Shelf Location:  
[Detail Info](#)

2. Class No: [redacted]  
Accession No: [redacted]  
Author: [Aung Kyaw Kyaw](#), [Shine Thura Naing](#), [Thida Thein Thein Htwe](#), [Tu Tu Mar](#), [Thida Aung](#), [Tin Moe Khaing](#), [Khin Saw Aye](#) & [Kyaw Zin Thant](#)  
Title: Evaluation of the commercially available three dengue rapid diagnostic test kits for the detection of dengue virus infection at the point-of-care in Myanmar  
Source: 47th Myanmar Health Research Congress. 2019: P48  
Theses Notes:  
Publisher: [DMR](#)  
Year: 2019  
Subject Heading:

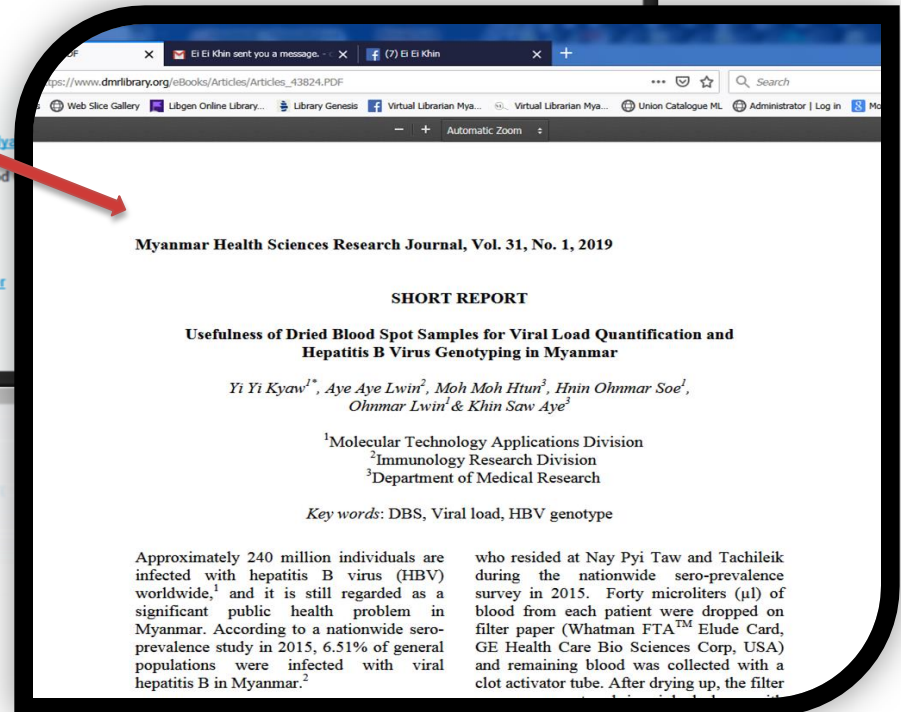
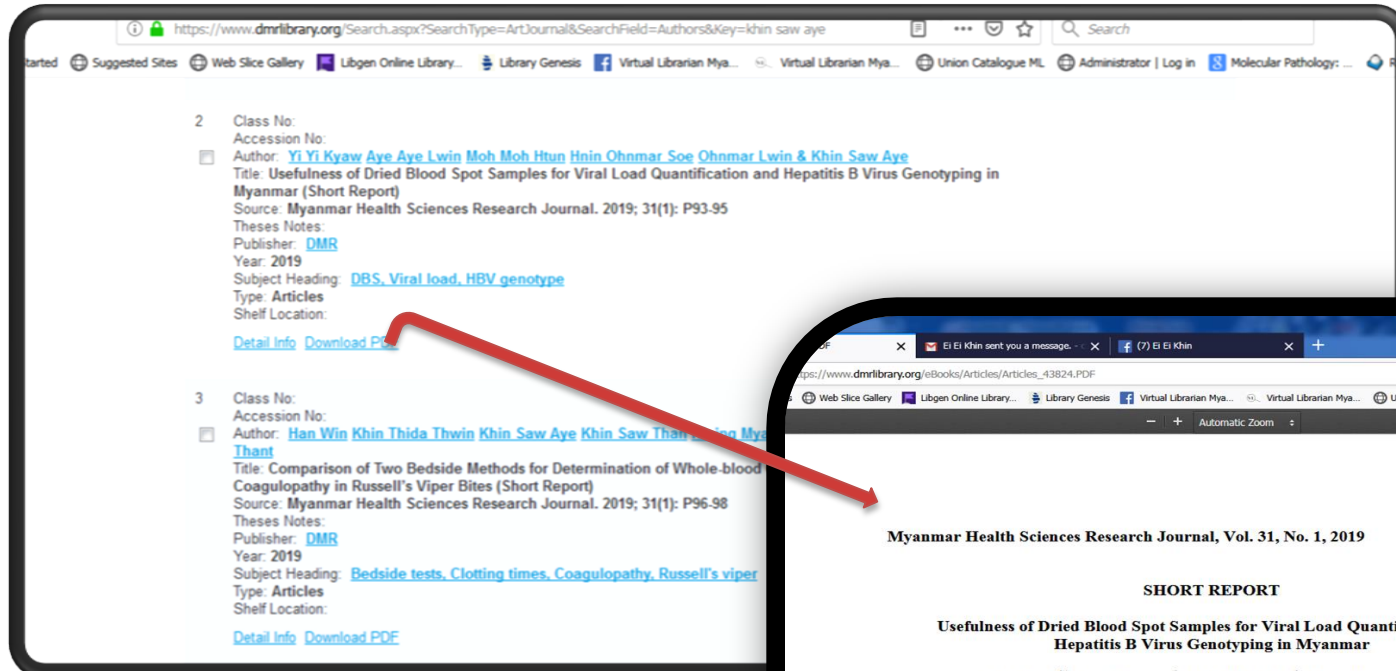
**Book Details (Right Screenshot):**

Book ID : 42920  
Accession No : [redacted]  
Class No : [redacted]  
Author : Aung Kyaw Kyaw; Shine Thura Naing; Thida; Thein Thein Htwe; Tu Tu Mar; Thida Aung; Tin Moe Khaing; Khin Saw Aye & Kyaw Zin Thant  
Title : Active screening of inapparent dengue virus infection among monastic school students in Mandalay in 2018  
Source : 47th Myanmar Health Research Congress. 2019: P45  
Abstract : Inapparent dengue infection (DENI) is defined as a dengue virus (DENV) infection with no clinical manifestations or mild symptoms which is not associated to visit to a health care provider or an absence from school or work due to illness. A School- and Laboratory-based cross sectional descriptive study was conducted to find out the burden of inapparent dengue virus in Mandalay at the peak dengue season of 2018. Total 420 students who had no history of visiting a hospital or clinic within 6 months were recruited from three selected Monastic Education Schools. Single phase serum samples were collected and DENV genome was checked by one step Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) and anti DENV IgM and IgG Antibodies were determined using IgM/IgG capture ELISA (Panbio, Australia). Among 420 students, 38 students (9.0%, 95%CI 6.4-12.2%) were confirmed as recent inapparent DENI infection which showed positive on either RT-PCR or anti DENV IgM. The inapparent DENV infection rate at Salay Monastic School, Kantetkone Monastic School and Phaungdawoo Monastic School were 2.5% (95% CI 0.5-7.2%), 11.1% (95%CI 5.7-19.1%) and 11.8% (95% CI 7.7-12.1%) respectively. Dengue Virus serotype-1 (DENV-1) was detected in six students. Thirty one out of 38 (81.6%) laboratory confirmed inapparent DENI infected students were primary infection and 7/38 (18.4%) were secondary infection. Most of the affected children belonged to 9-14 years age group. In conclusion, this study explored the high prevalence of inapparent dengue infection rate at urban area, Mandalay during 2018 and highlighted that the rate of primary infection among inapparent DENV infected children was high.

MeSH :  
Dissertation :  
Illustration :



# Download pdf



# Download Result

The screenshot shows a web browser window with the URL <https://www.dmlibrary.org/Search.aspx?SearchType=AllLocal&SearchField=Authors&Key=khin saw aye>. The search results indicate that the key words "khin saw aye" were found 131 time(s) in All Local Collections. A blue arrow points from the "Download Result" button to a Notepad window titled "SearchResult.txt - Notepad".

The Notepad window displays the following text:

```
Subject Heading:
These Notes:
Source: 47th Myanmar Health Research Congress. 2019: P45
Year: 2019
Type: Research Papers
Shelf Location:

No: 2
Accession No:
Class No:
Title: Evaluation the commercially available three dengue rapi
Author: Aung Kyaw Kyaw; Shine Thura Naing; Kyaw Ko Ko Htet; Th
Publisher: DMR
Subject Heading:
These Notes:
Source: 47th Myanmar Health Research Congress. 2019: P48
Year: 2019
Type: Research Papers
Shelf Location:

No: 3
Accession No:
Class No:
Title: Molecular characterization of multidrug-resistant Beiji
Author: Lai Lai San; Khin Saw Aye; Nan Aye Thida Oo; Mu Mu Shw
```

The background web page shows a list of search results. The first result is for Class No. 1, Accession No. Aung Kyaw Kyaw Shine Thura Naing, Khin Saw Aye & Kyaw Zin. The title is "Active screening of inapparent dengue virus infection in Myanmar". The source is "47th Myanmar Health Research Congress. 2019: P45". The publisher is "DMR". The year is "2019". The subject heading is "Research Papers". The shelf location is "Shelf Location: ". A "Detail Info" link is provided.

The second result is for Class No. 2, Accession No. Aung Kyaw Kyaw Shine Thura Naing, Win Thi Tar Khin Saw Aye & Kyaw Zin. The title is "Evaluation the commercially available three dengue rapid diagnostic tests in Myanmar". The source is "47th Myanmar Health Research Congress. 2019: P48". The publisher is "DMR". The year is "2019". The subject heading is "Research Papers". The shelf location is "Shelf Location: ". A "Detail Info" link is provided.

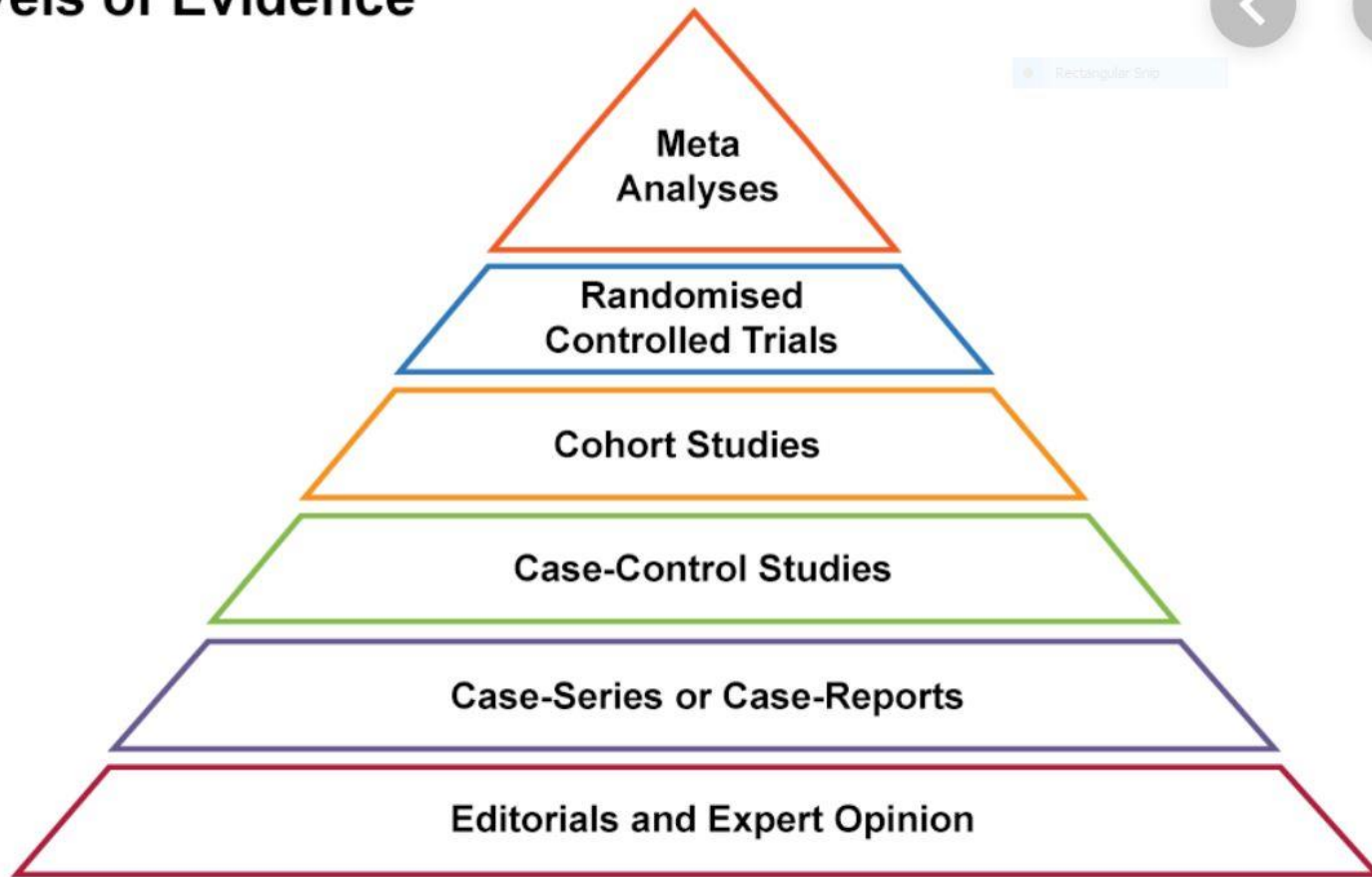
The third result is for Class No. 3, Accession No. Lai Lai San Khin Saw Aye, Gordon Yasuhiko Suzuki & Chie Naing. The title is "Molecular characterization of multidrug-resistant Beijing genotype of dengue virus in Myanmar". The source is "47th Myanmar Health Research Congress. 2019: P48". The publisher is "DMR". The year is "2019". The subject heading is "Research Papers". The shelf location is "Shelf Location: ". A "Detail Info" link is provided.

# Level of Evidence

## Levels of Evidence



Rectangular Snip



# Keep Track of Your Evidence Materials

- Constantly and consistently organize your evidence materials
  - At minimum, track the author, title, journal, and date
  - Bulleted list of key findings that are relevant for you!
  - Also helpful to keep the web address, if possible
- Use a references management system
  - Free systems are available online – e.g. Mendeley (<https://www.mendeley.com/>)
  - Subscription services offer high usability and portability – e.g. Refworks (<https://www.refworks.com/>)

Thank You