



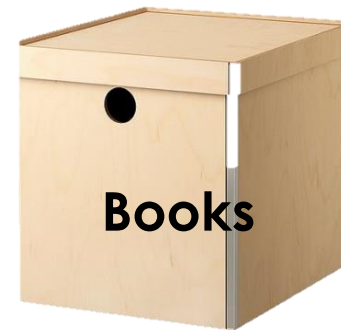
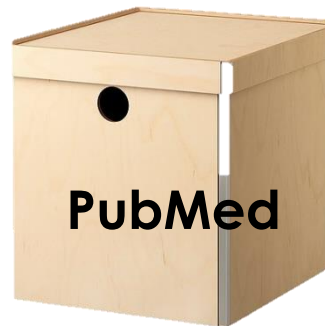
Searching for the Evidence

Nora A.Kalagi, MSc

If u have a
Clinical
Question,
where do you
usually go to
find answers?



If you have limited time where would you search first?



Case

A 64 year old obese male who has tried many ways to lose weight presents with a newspaper article about 'fat-blazer' (chitosan). He asks for your advice.



**In obese patients, does chitosan,
compared to a placebo, decrease
weight?**

Outcome

Weight Loss

**Now convert this PICO question
to a search strategy**



**Burn your
traditional
textbooks**

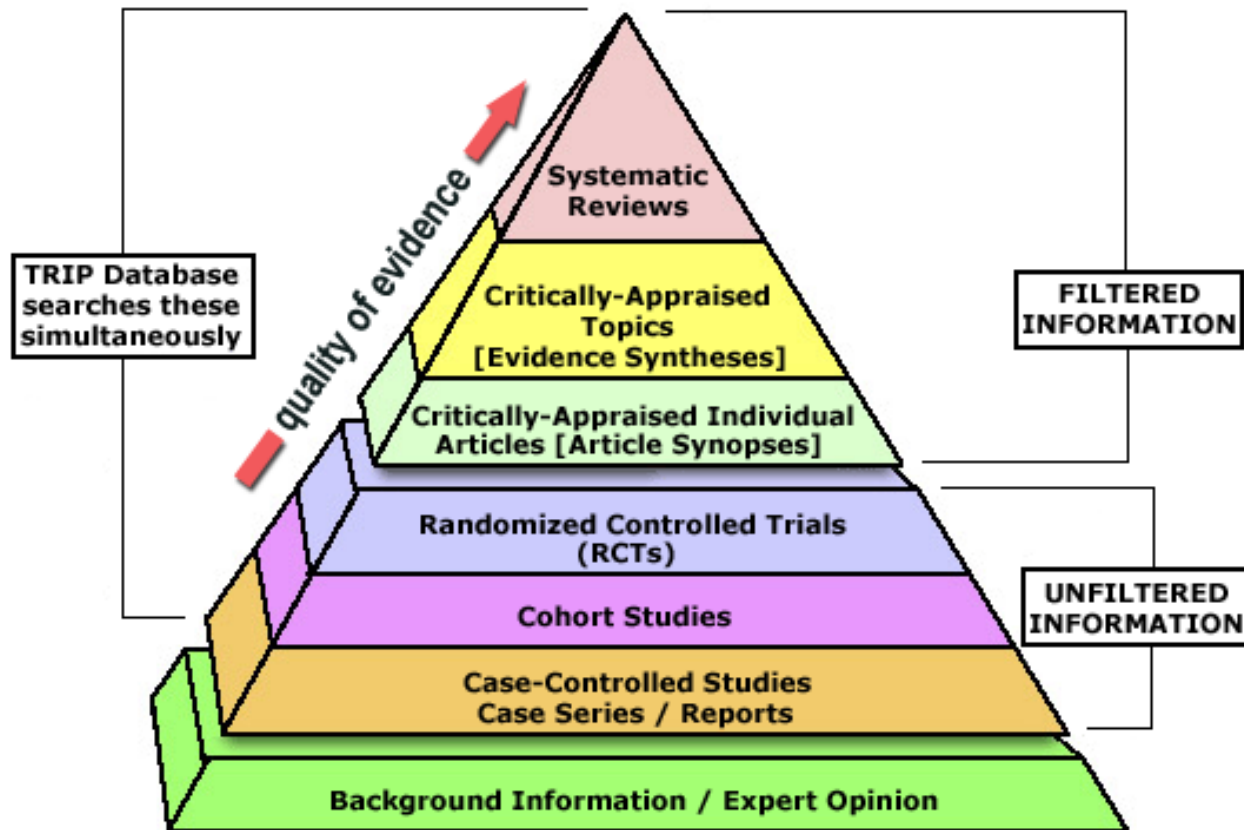


Use EBM databases !

EBM

- **Evidence-based medicine (EBM), Evidence-based health care (EBHC) Evidence-based practice (EBP)**
- “The conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients”.
- “The integration of best research evidence with clinical expertise and patient values”.

EBM Recourses



EBM databases



- ACP Journal Club
- Evidence-based medicine textbooks
- DARE
- Cochrane database of Systematic Review
- PubMed Systematic review (clinical queries)
- TRIP (Turning Research into Practice)



THE COCHRANE LIBRARY

Independent high-quality evidence for health care decision making

ACP Journal Club	
March/April 1997 Volume 125 • Number 2	
Linking Research to Practice in Internal Medicine	
Published Bimonthly by the American College of Physicians	■ THERAPEUTICS
	Lowering LDL cholesterol levels reduced total coronary events in patients with acute MI and average cholesterol levels 29 Aspirin use did not increase mortality or mortality rates in acute heart failure 30 Meta-analysis: Mortality is reduced when fibrinolytic therapy is started soon after the onset of MI symptoms 31 Hemiflex was no more effective than unfractionated heparin for acute MI 32 Statins reduced death in MI more than heparin or 40 hours but not at 30 days 33 Meta-analysis: 8-blockers improve prognosis in dilated cardiomyopathy 34 Meta-analysis: Thrombolytic therapy increases the risk for early death and intracranial hemorrhage after acute ischemic stroke 35 Meta-analysis: Migraine relief reduces NSAID-induced gastrointestinal mucosal injury 36 Meta-analysis: Piroxicam improves healing in musculoskeletal disorders 37 Meta-analysis: Intravenous nitroglycerin improves symptoms in CAD 38 Review: Aspirin is an effective for acute heart failure 39 Highly variable quality of evidence for the use of NSAIDs 40 Valproic acid reduced bleeding in patients with hemophilia 41 Subcutaneous heparin reduced adverse events in elderly MI patients 42
	■ DIAGNOSIS
	2-point blood glucose (DVT) in patients hospitalized for stroke rehabilitation 43 CSP protein 130 and 131 were specific for diagnosing Crohn's disease 44 Biomarkers 14-3-3 was a sensitive test for Crohn's disease 45 Meta-analysis: Glycylated hemoglobin levels are useful for diagnosing diabetes 46
	■ PROGNOSIS
	Ischemic stroke with accompanying atrial fibrillation was associated with reduced survival and functional status 47
	■ ETIOLOGY
	LDL particle size was smaller in CAD, but other lipid parameters were stronger predictors of CAD 48 High serum level for anti-LDL particle size was an independent risk factor for MI in men 49 Low cholesterol levels were associated with suicide in men 50
	■ ECONOMICS
	Low-dose aspirin might be more cost-effective for peroperative prevention of DVT 51 Cost effectiveness of prevention in the secondary prevention of CAD in men varied with the risk profile of the patient 52 Invasive therapy costed 16 and was cost-effective for BDM 53
	Other Articles Noted
	Glossary 54
	Contents 55
	Purpose and Procedure A-1
	Editorial : Translating evidence into practice A-1
	Developing evidence-based clinical policy A-14
	ACPEL JOURNAL CLUBS: 1997-1998 A-14



- ◉ Evidence based clinical practice guidelines
- ◉ Evidence based text books
- ◉ ACP PIER (physician information and education resources)
- ◉ First consult
- ◉ Clinical Evidence
- ◉ UpToDate
- ◉ DynaMed

CMA INFOBASE
clinical practice guidelines

*Clinical
Practice
Guidelines*



National Guideline Clearinghouse
www.guideline.gov

PubMed

- A free resource that is developed and maintained by the National Center for Biotechnology Information (NCBI), at the U.S. National Library of Medicine (NLM), located at the National Institutes of Health
- PubMed comprises over 21 million citations for biomedical literature from MEDLINE, life science journals, and online books



What is special about?

- Updated annually to reflect current terminology usage.
- Using MeSH database to search easily and Limits
- Provides Clinical Query tool for systematic review searching
- Boolean operators can be used to gather, differentiate and specify information
- Provides Original articles published about a particular focused question
- Available for your smartphones

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Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use [PubMed](#) directly.

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Display citations filtered to a specific clinical study category and scope. These search filters were developed by [Haynes RB et al.](#) See more [filter information](#).

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Display citations for systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines. See [filter information](#) or additional [related sources](#).

Medical Genetics

Display citations pertaining to topics in medical genetics. See more [filter information](#).



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Trip Database

- ***Turning Research Into Practice***
- Trip is a clinical search engine designed to allow users to quickly and easily find and use high-quality research evidence to support their practice and/or care.
- Has been online since 1997
- 70% of users are clinicians and 30% non-clinicians



What is Special about ?

- ***“Find evidence fast”***
- searching across other content types including images, videos, patient information leaflets, educational courses and news.
- Provide brief summaries of results and implications of single high quality studies
- Updated once per month (typically around the middle of the month).
- Provides ***“PICO easy to use searching”***



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You can also:

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 search terms

Search

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 PICO search

 Advanced search

All of these words:

☐ Title only ☒ Anywhere in the document

Proximity 

This exact phrase:

☐ Title only ☐ Anywhere in the document

Start year:

(Inclusive)

Any of these words:

☐ Title only ☒ Anywhere in the document

Excluding these words:

☐ Title only ☒ Anywhere in the document

End year:

(Inclusive)

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⌘ PICO Search

PICO is a novel approach of allowing users to conduct a focussed search based on a structured clinical question [Learn more at cebm.net](#)

There are 4 elements and not all are compulsory, but the more you use the more focussed the results. We use a contingency search to reduce information overload, [click here](#) for further details.

Population:

Intervention:

Comparison:

Outcome:

Search

Medscape

- Medscape from WebMD offers specialists, primary care physicians, and other health professionals the Web's most integrated medical information and educational tools.
- More than 125 medical journals and textbooks
- The result is a medical Web site rich in content, broad in appeal, and high in quality.



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**Tragedy in Boston:
Nursing Students Get
Unexpected
Education**
*Medscape Medical News,
April 19, 2013*



**New Concussion
Guidelines: An
Analysis**
*Medscape Neurology,
April 17, 2013*



**Medication
Nonadherence: It's
Not Limited to
Psychiatry**
*Medscape Psychiatry,
April 15, 2013*

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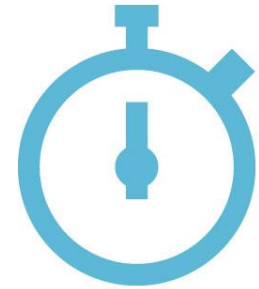


SUMsearch

- Simultaneously searches for original studies, systematic reviews, and practice guidelines from multiple sources.
- Searches for studies are revised up to 6 times as needed, while guidelines and systematic reviews may be revised once each.
- Results from PubMed, Dare, and NGC are merged and sorted
- "Medical SmartSearch" in 1998, moved to SUMSearch 2 in 2010

SUMSearch
Medical search

SUMSearch is *always up-to-date*



- Fast
- Search strategies are validated
- Automated summaries and markers of article quality are provided
- Guidelines from PubMed and National Guidelines Clearinghouse are merged into one list sorted by year of publication
- Systematic reviews from DARE and PubMed are merged into one list and sorted by year of publication.

Search MEDLINE, DARE, and NGC for:

Aspirin AND Clopidogrel x

Connect search terms with 'AND'.

Focus: ☐ Intervention ☐ Diagnosis ☒ None
 Age: ☐ Adult ☐ Pediatrics ☒ Either
 Human only: ☒ English only: ☐ Require abstracts: ☒
 Max # iterations: ☐ 5 ☒ 6 [Explain](#)
 Target # of original studies: ☒ 20 ☐ 50 [Explain](#)

MeSH - Submit Query - Please click once.

Keep up:

Physician's First Watch (free access)

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18T15:48:50-07:00)
- [Antibiotic Development 'Alarmingly Slow' \(g](#)
- [Newborn Pulse Oximetry Screening: A Tale](#)
07:00)
- [Featured in Journal Watch: Continuing Statir](#)
[Sepsis](#) (posted 2013-04-18T15:48:50-07:00)

Original studies

Systematic reviews

Guidelines

21 found after 6 searches:

1. Use of clopidogrel with or without aspirin in patients taking oral anticoagulant therapy and undergoing percutaneous coronary intervention: an open-label, randomised, controlled trial.

Lancet 2013;381:9872. PMID: [23415013](#) , doi: [10.1016/S0140-6736\(12\)62177-1](#). [Cite](#)

Conclusion: 11 (3·9%) patients receiving double therapy required at least one blood transfusion, compared with 27 (9·5%) patients in the triple-therapy group (odds ratio from Kaplan-Meier curve 0·39, 95% CI 0·17-0·84, p=0·011).

Impact/quality: Accompanied by [editorial](#); *

2. Effects of clopidogrel added to aspirin in patients with recent lacunar stroke.

N Engl J Med 2012;367:9. PMID: [22931315](#) , doi: [10.1056/NEJMoa1204133](#). [Cite](#)

Conclusion: Among patients with recent lacunar strokes, the addition of clopidogrel to aspirin did not significantly reduce the risk of recurrent stroke and did significantly increase the risk of bleeding and death. (Funded by the National Institute of Neurological Disorders and Stroke and others; SPS3 ClinicalTrials.gov number, NCT00059306.).

[Show evidence search details](#)
(access to earlier iterations If
results displayed are too
restrictive)

UpToDate

- ◉ evidence-based, physician-authored clinical decision support resource which clinicians trust to make the right point-of-care decisions.
- ◉ Provide an outline of management options for a given health issue.
- ◉ Summaries incorporate the highest quality and most synthesized sources of research evidence.



Why UpToDate?

- Topics are viewed more than 18 million times per month
- 90% success to find your answer
- Provides drugs monograph by Searching through Lexicomp®
- Access via Academic digital library (KSU)
- Available for your smartphones

Search Results for "aspirin"

Click related term for **aspirin**: [antiplatelet agents](#), [nonselective nonsteroidal antiinflammatory drugs](#)

All Topics

Adult

Pediatric

Patient

Graphics

- Aspirin: Drug information
- Aspirin: Pediatric drug information
- Aspirin: Patient drug information
- Launch Lexi-Interact™ Drug Interactions Program
- Nonresponse and resistance to aspirin
- Benefits and risks of aspirin in secondary and primary prevention of cardiovascular disease
- Aspirin in the primary prevention of cardiovascular disease and cancer
- Salicylate (aspirin) poisoning in adults
- Aspirin: Mechanism of action, major toxicities, and use in rheumatic diseases
- Salicylate poisoning in children and adolescents
- Aspirin exacerbated respiratory disease
- Aspirin exacerbated respiratory disease: NSAID challenge and desensitization
- Approach to the long-term survivor of colorectal cancer
- Antiplatelet therapy for secondary prevention of stroke

TOPIC OUTLINE

Brand Names: U.S.

Brand Names: Canada

Pharmacologic Category

Dosing: Adult

Dosing: Pediatric

Dosing: Geriatric

Dosing: Renal Impairment

Dosing: Hepatic Impairment

Dosage Forms: U.S.

Generic Equivalent Available: U.S.

Administration

Use

Use - Unlabeled

Medication Safety Issues

Adverse Reactions Significant

Contraindications

Warnings/Precautions

Metabolism/Transport Effects

Drug Interactions

Ethanol/Nutrition/Herb Interactions

Pregnancy Implications

Aspirin: Drug information Lexicomp®

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(For additional information see "Aspirin: Patient drug information" and see "Aspirin: Pediatric drug information")

For abbreviations and symbols that may be used in Lexicomp ([show table](#))

Brand Names: U.S. Ascriptin® Maximum Strength [OTC]; Ascriptin® Regular Strength [OTC]; Aspercin [OTC]; Aspergum® [OTC]; Aspir-low [OTC]; Aspirtab [OTC]; Bayer® Aspirin Extra Strength [OTC]; Bayer® Aspirin Regimen Adult Low Strength [OTC]; Bayer® Aspirin Regimen Children's [OTC]; Bayer® Aspirin Regimen Regular Strength [OTC]; Bayer® Genuine Aspirin [OTC]; Bayer® Plus Extra Strength [OTC]; Bayer® Women's Low Dose Aspirin [OTC]; Buffasal [OTC]; Bufferin® Extra Strength [OTC]; Bufferin® [OTC]; Buffinol [OTC]; Ecotrin® Arthritis Strength [OTC]; Ecotrin® Low Strength [OTC]; Ecotrin® [OTC]; Halfprin® [OTC]; St Joseph® Adult Aspirin [OTC]; Tri-Buffered Aspirin [OTC]

Brand Names: Canada Asaphen; Asaphen E.C.; Entrophen®; Novasen; Praxis ASA EC 81 Mg Daily Dose

Pharmacologic Category Antiplatelet Agent; Salicylate

Dosing: Adult **Note:** For most cardiovascular uses, typical maintenance dosing of aspirin is 81 mg once daily.

Acute coronary syndrome (ST-segment elevation myocardial infarction [STEMI], unstable angina (UA)/non-ST-segment elevation myocardial infarction [NSTEMI]): Oral: Initial: 162-325 mg given on presentation (patient should chew nonenteric-coated aspirin especially if not taking before presentation); for patients unable to take oral, may use rectal suppository (300 mg). Maintenance (secondary prevention): 75-162 mg once daily indefinitely (Anderson, 2007; Antman, 2004). **Note:** When aspirin is used with ticagrelor, the recommended maintenance dose of aspirin is 81 mg/day (Jneid, 2012).

UA/NSTEMI: Concomitant antiplatelet therapy (Jneid, 2012):

If invasive strategy chosen: Aspirin is recommended in combination with either clopidogrel, ticagrelor, (or prasugrel if at the time of PCI) or an I.V. GP IIb/IIIa inhibitor (if given before PCI, eptifibatide and tirofiban are preferred agents).

If noninvasive strategy chosen: Aspirin is recommended in combination with clopidogrel or ticagrelor.

