# Literature search

WORKSHOP 1: How to Design and Publish Your Research Idea

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## Outline

- Sources of information;
- Searching techniques;
- Building a search strategy;
- Assessing search results for relevance and reliability;
- Handling search results.

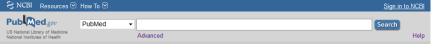
Sources of information

Bibliographic databases:

• full-text search (repositories).

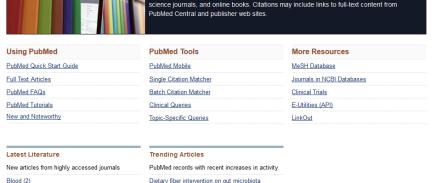
Advantages	Disadvantages
<ul> <li>normalized metadata;</li> <li>author's keywords + terms from controlled vocabularies;</li> <li>advanced search;</li> <li>refinement filters;</li> <li>search history;</li> <li>saving search queries;</li> <li>exporting search results.</li> </ul>	<ul> <li>limited coverage;</li> <li>no full-text</li> <li>access costs (Scopus, WoS, Embase, Cochrane Library)</li> </ul>
Full-text databases (publishers' platforms) and	
full-text search	<ul> <li>limited coverage;</li> <li>limited search options;</li> <li>it is not always possible to export search results.</li> </ul>
Search engines: EBSCO Discovery	
search across multiple sources	<ul><li>varying metadata quality in the covered sources</li><li>searching is not always straightforward.</li></ul>
Search engines: Google Scholar	
wide coverage	<ul><li>coverage is not systematic;</li><li>not suitable for structured searching.</li></ul>
Repositories and aggregators	
<ul><li>content beyond journal articles</li><li>content in local languages</li></ul>	limited coverage

• not suitable for structured searching.



PubMed comprises more than 28 million citations for biomedical literature from MEDLINE, life

**PubMed** 



 search engine relying on multiple bibliographic databases (primarily MEDLINE);

composition in healthy adults: a systematic review

- provided by the National Center for Biotechnology Information (NCBI);
- · abstract-level metadata with links to full text;
- more than 29 million records, since 1966 (some resources back to 1809) and more than 14 million links to full text, nearly 4 million free-to-read.
- Free (no subscription);

Cochrane Database Syst Rev (10)

## **PubMed**

#### **Tutorials**

- https://www.nlm.nih.gov/bsd/disted/pubmedtutorial/cover.html
- Conducting a literature search using PubMed
- Basic Searching in PubMed
- Searching PubMed Like an Expert: Selecting Keywords
- How to combine search lines in PubMed
- Searching PubMed Like An Expert: Using AND and OR; Finding Highly Related Articles
- Searching PubMed Like an Expert: Using MeSH Terms
- Creating a systematic review search in Pubmed
- Save Searches and Set E-mail Alerts

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- Search > 2.3 million conference abstracts
- Search using Emtree: >
   75,000 preferred terms.
   32,000 for drugs and
   chemicals and over 3,000
   for medical devices
- Unlimited email alerts
- Unlimited saved searches

Price depends on company size and usage

**Contact Sales** 

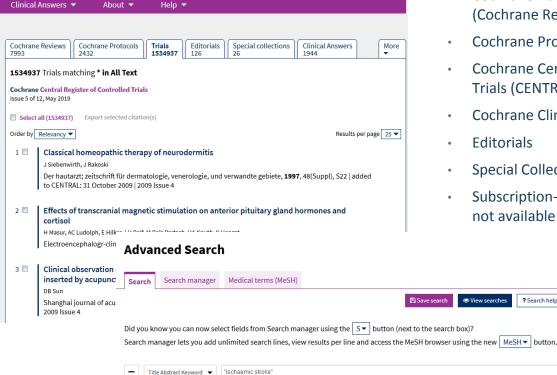


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Cochrane Reviews ▼ Trials -Filter your results Year Year first published 2018 ...... 91670 2015 ...... 93749 **Custom Range:** to yyyy уууу Clear Date Date added to CENTRAL trials database The last 3 months ...... 225749 The last 6 months ...... 247508

The last 9 months ...... 268609



Title Abstract Keyword ▼

(Word variations have been searched)

X Clear all

magnetic stimul\*

Y Search limits

- Cochrane Database of Systematic Reviews (Cochrane Reviews)
- Cochrane Protocols
- Cochrane Central Register of Controlled Trials (CENTRAL)
- Cochrane Clinical Answers

? Search help

Q Run search

**Editorials** 

View searches

Send to search manager

- Special Collections
- Subscription-based (some content is free), not available through KoBSON Subscription

available through subscription (KoBSON);

nabavku

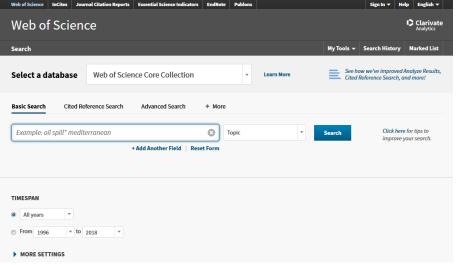
- Elsevier's bibliographic and citation database launched in 2004;
- abstract-level metadata with links to full text;
- nearly 70 million records, nearly 23000 serial titles + 15000 books;
- 26% Health sciences, 17% Life sciences (full coverage of MEDLINE).

# Scopus

#### **Tutorials**

- https://blog.scopus.com/posts/6-simple-searchtips-lessons-learned-from-the-scopus-webinar
- Scopus: search tips to make your research more effective
- Searching with Scopus
- Scopus Advanced Search
- Scopus Database: Save Searches and Create Alerts

https://www.scopus.com



- Available through subscription
- Bibliographic and citation service currently owned by Clarivate Analytics; enables access to multiple databases;
- abstract-level metadata with links to full text
- since 1900 (KoBSON subscription since 1996)

## Web of Science

https://clarivate.libguides.com/woscc/searchtips

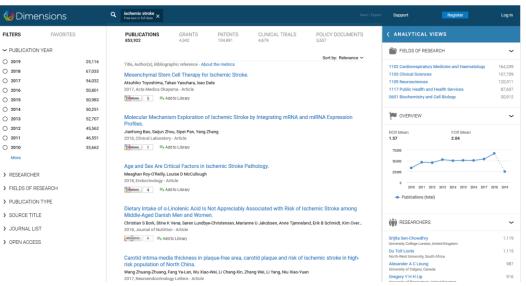
#### Videos:

- Web of Science Search Tips
- Web of Science Advanced Search
- Web of Science Saving Your Search and Setting Alerts
- https://www.youtube.com/results?search\_query=web+ of+science+searching

http://apps.webofknowledge.com/



#### https://www.dimensions.ai

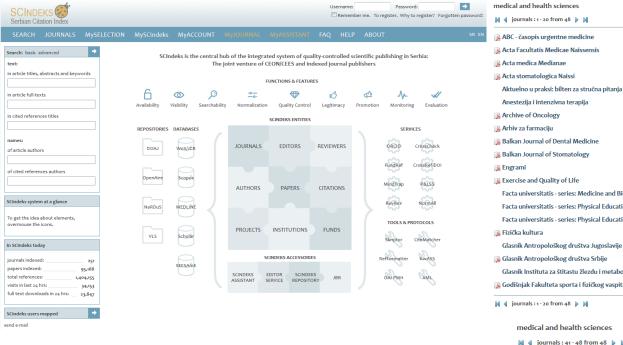


## **Dimensions**

- project by Digital Science launched in January 2018;
- basically a bibliographic and citation database which integrates funding data, clinical trials, patents, altmetrics;
- abstract-level with links to full text;
- Freemium: the basic functionalities, including publication search, are free (https://app.dimensions.ai/discover/publication);
- The free version is not suitable for complex searches.

### Help:

https://dimensions.freshdesk.com/support/solutions/folders/23000029956



- a bibliographic and citation database (as well as a publishing platform)
- More than 40 Serbian journals dealing with medicine and heath sciences
- Basic and advanced search

| journals: 21 - 40 from 48 | | Multidisciplinary Journal Multidisciplinary Journal Inspirium ■ Journal Resuscitatio Balcanica Materia medica Medicinski časopis Aktuelno u praksi: bilten za stručna pitanja u fizičkoj kulturi Medicinski glasnik Instituta za štitastu žlezdu i metabolizam "Zlatibor" Medicinski glasnik Specijalne bolnice za bolesti štitaste žlezde i bolesti metabolizma 'Zlatibo Medicinski podmladak Medicinski pregled Medicus Naučni časopis urgentne medicine - Halo 194 Naučni časopis urgentne medicine - Halo 94 Opšta medicina Facta universitatis - series: Medicine and Biology PONS - medicinski časopis Facta universitatis - series: Physical Education Praxis medica Facta universitatis - series: Physical Education and Sport Psihijatrija danas Racionalna terapija Sanamed Serbian Journal of Anesthesia and Intensive Therapy Glasnik Instituta za štitastu žlezdu i metabolizam "Zlatibor' Serbian Journal of Experimental and Clinical Research Godišnjak Fakulteta sporta i fizičkog vaspitanja | journals: 21 - 40 from 48 | | journals: 41 - 48 from 48 | Serbian Sestrinska reč Srpski arhiv za celokupno lekarstvo Stomatološki glasnik Srbije

Stomatološki informator

Zdravstvena zaštita

| journals: 41 - 48 from 48 | |

TIMS. Acta
Vojnosanitetski pregled

Timočki medicinski glasnik

medical and health sciences

# Serbian Citation Index SCIndeks

Help: http://scindeks.ceon.rs/help/en/index.html



neuropathy	Select a Field (optional) ▼	Search
AND +	Select a Field (optional) ▼	Clear ?
AND +	Select a Field (optional) ▼	+-

## **EBSCO Discovery**

Sea	rch Options		
C	choose a discipline to search		
	Disciplines ?		
	Agriculture & Agribusiness	Consumer Health	■ Information Technology
	Anatomy & Physiology	□ Dance	☐ Language & Linguistics
	Anthropology	Dentistry	Law
	Applied Sciences	Diplomacy & International Relations	Library & Information Science
	Architecture	Drama & Theater Arts	Life Sciences
	Arts & Entertainment	Earth & Atmospheric Sciences	Literature & Writing

Available through:

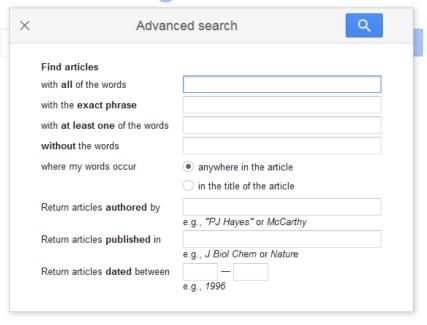
http://kobson.nb.rs/kobson.82.html

**Tutorials:** 

http://support.ebsco.com/help/index.php?help\_topic\_id=1361

- subscription-based search engine available through KoBSON
- searches all resources subscribed through KoBSON (all publishers) + Open Access resources
- Basic search + Advanced search + filters
- saved searches and alerts

# Google Scholar



- search engine;
- does not have a transparent selection policy;
- links to full text;
- searches metadata and full text from Open Access repositories and websites.

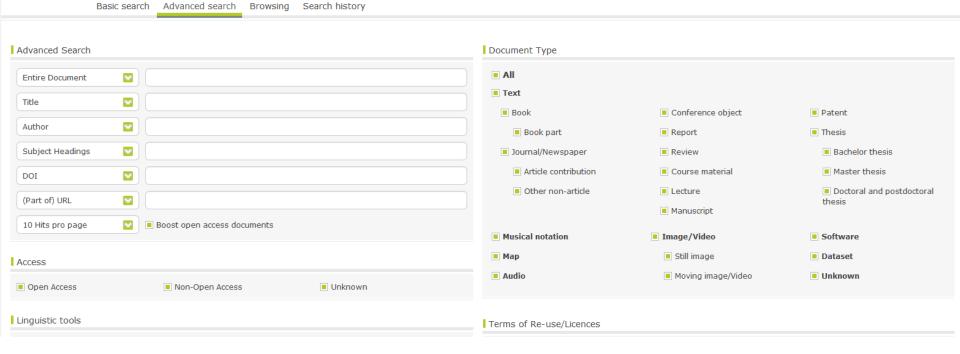
### **Tutorials:**

- Google Scholar: A quick guide to effective searching
- Using Google's Advanced Search









https://www.base-search.net/Search/Advanced



Search scholarly works

Q

Advanced Search

## **PUBLICATIONS**



## **PREPRINTS**



## **SOURCES**



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http://www.dart-europe.eu

Searching techniques

# Types of search

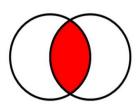
Basic/Simple search – one or more search terms are entered in the search field (unstructured query).

Advanced search or Expert search – multiple search criteria are combined using multiple search fields and operators; complex query relaying on field tags, Boolean and proximity operators, phrase searching and truncation.

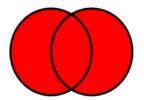
## Advanced search

- Structured databases should be searched using structured queries;
- Boolean operators, proximity operators, truncation, terms enclosed in double quotation marks;
- Limiting search to specific fields of metadata;
- Refinement filters;
- Search history and saved searches.

## Boolean operators

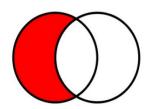


AND both terms must be found in each item. Narrows the search.



OR

either term (or both) must be found in returned documents. Broadens the search.



NOT or AND NOT (depending on the search engine) – the first term is searched, then any records containing the term after the NOT operator are subtracted from the results. Narrows the search.

# Proximity operators

• A character or word used to limit search results to those in which search terms are placed within a specific number of words in the content.

## **Scopus**

- w/x, e.g. TITLE-ABS-KEY (transcranial W/5 stimulation)
- PRE/x, e.g. TITLE-ABS-KEY (e.g. transcranial PRE/3 stimulation)

## **Web of Science**

- NEAR/x, e.g. TS=(transcranial NEAR/4 stimulation)
- Not supported in PubMed



- Broadening search to include various word endings: cerebrovascular\* searches for cerevrovascular, cerebrovascularisation, cerebrovascularization, cerebrovascularly
- Truncation symbol \*
- To be applied with caution, as it may result in an excessive number of irrelevant variants, esp. if the root of the word is short or common.
- PubMed searches for the first 600 variations and some relevant variants may be omitted.
- PubMed supports only right-hand truncation.
- Web of Science and Scopus support both left- and right-hand truncation.



stroke OR stroke' OR stroke' OR stroke's OR stroke, OR stroke119 OR stroke123 OR stroke2 OR stroke2000 OR stroke2010 OR stroke34 OR stroke4carers OR stroke's OR strokea OR strokeaetiology OR strokeaha OR strokeand OR strokebeijing OR strokecarecontents OR strokecenter OR strokecentre OR strokechecklist OR strokeclose OR strokect OR strokectacomputed OR strokectcomputed OR strokectomy OR stroked OR strokedepartment OR strokedepressive OR strokedge OR strokediagnostik OR strokedoc OR strokedrabbade OR strokeearly OR strokeed OR strokeelicited OR strokeenh OR strokeenheten OR strokefall OR strokefobrebyggande OR strokefoundation OR strokefree OR strokefrom OR strokehip OR strokein OR strokeinduced OR strokelets OR strokelike OR strokelink OR strokelocated OR strokemerci OR strokemethods OR strokemobile OR stroken OR strokenational OR strokenet OR strokengine OR strokengine's OR strokenomics OR strokenomics' OR strokepatienter OR strokepatients OR strokepharmacogenomics OR strokeplane OR strokeprevention OR strokeprofylax OR strokeprofylaxen OR strokeproject OR strokeprone OR stroker OR strokerehab OR strokerehabilitation OR strokerehabilitering OR strokerisk OR strokers OR strokerwin OR strokes OR strokes' OR strokes1 OR strokesafe OR strokesand OR strokesektionen OR strokesfuture OR strokesich OR strokeskydd OR strokesmin OR strokestop OR strokestra OR strokestudygz OR strokethree OR stroketool OR stroketrials OR strokeun OR strokeunit OR strokevan OR strokevard OR strokevarden OR strokevia OR strokevision OR strokevolume OR strokevolumedon OR strokevolumes OR strokewidth OR strokework OP strokezero

## Searching for a specific phrase

- Enclose the search string in "" to search for a specific phrase
- Supported in most search engines
- In PubMed, double quotation marks are used even with single-word terms to avoid term mapping.



- Improvement in creativity after transcranial random noise stimulation (tRNS) over the left dorsolateral
- prefrontal cortex.

Peña J, Sampedro A, Ibarretxe-Bilbao N, Zubiaurre-Elorza L, Ojeda N. Sci Rep. 2019 May 8:9(1):7116. doi: 10.1038/s41598-019-43626-4.

PMID: 31068654 Free Article

Similar articles

- [Interest of transcranial stimulation in pelvic and perineal disorders].
- Vacher P, Charlanes A, Chesnel C, Pagès A, Malot C, Le Breton F, Amarenco G, Manceau P. Prog Urol. 2019 Apr 26. pii: S1166-7087(19)30077-6. doi: 10.1016/j.purol.2019.03.001. [Epub ahead of print] French. PMID: 31036483 Similar articles
- Intermittent theta burst stimulation enhances upper limb motor function in patients with chronic stroke:
- a pilot randomized controlled trial.

Chen YJ, Huang YZ, Chen CY, Chen CL, Chen HC, Wu CY, Lin KC, Chang TL. BMC Neurol. 2019 Apr 25:19(1):69. doi: 10.1186/s12883-019-1302-x.

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Similar articles

- Uncertainty Modulates the Effect of Transcranial Stimulation Over the Right Dorsolateral Prefrontal
- Cortex on Decision-Making Under Threat.

Pan J, Zhu C, Li J.

Front Neurosci. 2019 Apr 2;13:305. doi: 10.3389/fnins.2019.00305. eCollection 2019.

PMID: 31001076 Free PMC Article

Similar articles

## Terms from controlled vocabularies

- In bibliographic databases, the metadata describing publications are enriched with terms from controlled vocabularies;
- In PubMed, MeSH terms are used.

## PubMed adds MeSH terms to the query:

neuropathy treatment

is automatically translated in PubMed as

neuropathy[All Fields] AND ("therapy"[Subheading] OR "therapy"[All Fields] OR "treatment"[All Fields] OR "therapeutics"[MeSH Terms] OR "therapeutics"[All Fields]

### MeSH Terms [MH]

The NLM <u>Medical Subject Headings</u> controlled vocabulary of biomedical terms that is used to describe the subject of each journal article in MEDLINE. MeSH contains approximately 26 thousand terms and is updated annually to reflect changes in medicine and medical terminology. MeSH terms are arranged hierarchically by subject categories with more specific terms arranged beneath broader terms. PubMed allows you to view this hierarchy and select terms for searching in the <u>MeSH</u> Database.



#### Medical Subject Headings 2019

## https://meshb.nlm.nih.gov

The files are updated each week day Monday-Friday by 8AM EST Search MeSH. **Exact Match** All Fragments Any Fragment All Terms Main Heading (Descriptor) Terms Results per Page: 20 ▼ Qualifier Terms Supplementary Concept Record Terms MeSH Unique ID Search in all Supplementary Concept Record Fields Heading Mapped To Indexing Information Pain MeSH Descriptor Data 2019 Pharmacological Action Search Related Registry and CAS Registry/EC Number/UNII Code (RN Related Registry Search Details Qualifiers MeSH Tree Structures Concepts CAS Registry/EC Number/UNII Code (RN) Search in all Free Text Fields MeSH Heading Pain Annotation C23.888.592.612 ScopeNote Tree Number(s) SCR Note F02.830.816.444 G11.561.790.444 Unique ID D010146 Annotation general; note specifics including precoordinated locational pain terms like ABDOMINAL PAIN; CHEST PAIN, etc.; / diag: consider also PAIN MEASUREMENT but PAIN / diag is probably PAIN / etiol; / physiopathol; PAIN THRESHOLD is also available; congenital absence of pain = PAIN SENSITIVITY, CONGENITAL: differentiate from PAIN PERCEPTION which takes place in the brain Scope Note An unpleasant sensation induced by noxious stimuli which are detected by NERVE ENDINGS of NOCICEPTIVE NEURONS. Entry Term(s) Ache Pain, Burning Pain, Crushing Pain, Migratory Pain, Radiating Pain, Splitting Suffering, Physical See Also Analgesia Analgesics Hyperalgesia Pain Insensitivity, Congenital Palliative Care Entry Combination therapy:Pain Management Date Established 1966/01/01 Date of Entry 1999/01/01 Revision Date 2017/06/20

Neuromuscular Manifestations [C23.888.592.608] • Orthostatic Intolerance [C23.888.592.610] Pain [C23.888.592.612] Abdominal Pain [C23.888.592.612.054] • Acute Pain [C23.888.592.612.081] Arthralgia [C23.888.592.612.094] • Back Pain [C23.888.592.612.107] • Breakthrough Pain [C23.888.592.612.191] Cancer Pain [C23.888.592.612.212] Chest Pain [C23.888.592.612.233] 3 Chronic Pain [C23.888.592.612.274] Earache [C23.888.592.612.302] Eye Pain [C23.888.592.612.316] Facial Pain [C23.888.592.612.330] • Flank Pain [C23.888.592.612.386] Glossalgia [C23.888.592.612.414] Headache [C23.888.592.612.441] • Labor Pain [C23.888.592.612.451] Mastodynia [C23.888.592.612.530] Metatarsalgia [C23.888.592.612.540] • Musculoskeletal Pain [C23.888.592.612.547] • Neck Pain [C23.888.592.612.553] Neuralgia [C23.888.592.612.664] • Nociceptive Pain [C23.888.592.612.720] • Pain, Intractable [C23.888.592.612.776] Pain, Postoperative [C23.888.592.612.832] • Pain, Procedural [C23.888.592.612.860] Pain, Referred [C23.888.592.612.888] Pelvic Pain [C23.888.592.612.944] • Renal Colic [C23.888.592.612.972] Paralysis [C23.888.592.636] •

Paresis [C23.888.592.643] •

## Advanced search

Publisher

Secondary Source ID

Subject - Personal Name

Supplementary Concept Text Word Title

Genomes & Maps



Refresh index

You Tube Tutorial PubMed Advanced Search Builder Use the builder below to create your search <u>Edit</u> Builder All Fields Show index list Builder AND ▼ All Fields Show index list MeSH Terms AND ▼ Search or Add to history Investigator AND ▼ Investigator - Full Journal Language diabetes Hide index list Location ID AND ▼ History MeSH Major Topic Previous 200 diabetes complications (120508) There is r MeSH Subheading AND diabetes complications/analysis (10657) Next 200 MeSH Terms diabetes complications/anatomy and histology (10780) OR Other Term diabetes complications/blood (9266) Pagination diabetes complications/cerebrospinal fluid (46) NOT Pharmacological Action diabetes complications/chemically induced (1109) Literature Publication Type

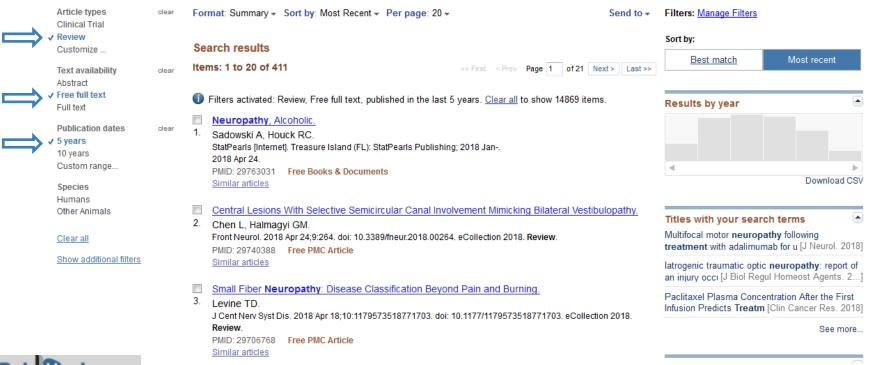
diabetes complications/classification (955)

diabetes complications/diagnosis (16678)

diabetes complications/congenital (8)

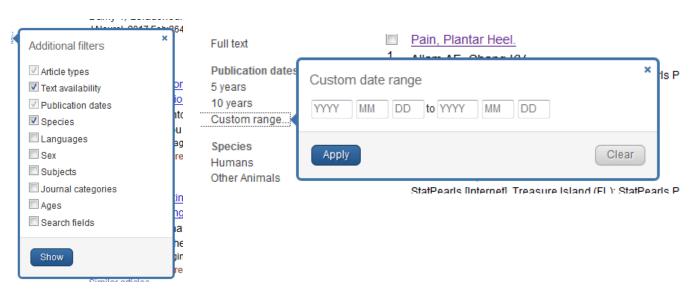
diabetes complications/complications (13441)

## Applying filters to narrow the search





## Applying filters



 Unlike Scopus and the Web of Science, PubMed filters do not support the "exclude" option.





- Formulating the (answerable) research question;
- Identifying the key concepts;
- Developing search terms (free-text terms and controlledvocabulary terms);
- Performing the search using advanced search techniques.

# Formulating the question

## Various models for clinical questions

- PICO (Patient, Population; Intervention (or Exposure); Comparison (or Control); Outcome) – for quantitative studies;
- SPICE (Setting, Perspective, Intervention, Comparison, Evaluation) for qualitative studies;
- SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type) – for qualitative and mixed studies;
- PEO (Population and their problems, Exposure, Outcomes)
- Useful but not necessary. A simple concept table identifying the key concepts may also be used.

## PICO model

Question: How does the utilization of non-pharmacologic pain management techniques affect pain outcomes in pediatric patients during acute procedures?

Population	Pediatric patients undergoing acute painful procedures
Intervention	Non-pharmacologic pain management such as cold and vibration.
Comparison	Procedures preformed with no pain intervention
Outcome	Decreased acute procedure related pain and stress

Source: <a href="https://www.pennstatehershey.org/documents/1699942/10895543/GN2015July\_PedsNonPharmPain/">https://www.pennstatehershey.org/documents/1699942/10895543/GN2015July\_PedsNonPharmPain/</a>

# Concept table

Is animal-assisted therapy more effective than music therapy in managing aggressive behaviour in elderly people with dementia?

Concept 1	Concept 2	Concept 3	Concept 4
Dementia	Animal- assisted therapy	Music therapy	Aggressive behaviour

#### Source:

https://utas.libguides.com/SystematicReviews/PhrasesWildcardsProximity

Concept 1	Concept 2	Concept 3	Concept 4
Dementia [tw] Alzheimer [tw] Huntington* [tw] Kluver [tw] Lewy [tw] Dementia [mh]	Animal-assisted therapy [tw] Animal-assisted activit* [tw] Animal-assisted intervention* [tw] Animal therapy [tw] Pet therapy [tw] Dog therapy [tw]] Dog-assisted therapy [tw] Canine-assisted therapy [tw] Pet-facilitated therapy [tw] Aquarium [tw] Animal Assisted Therapy [mh:noexp] Pets [mh] Dogs [mh] Cats [mh] Birds [mh:noexp] Bonding, Human-Pet [mh] Animals, Domestic [mh:noexp]	Music therapy [tw] Music* [tw] Singing [tw] Sing [tw] Auditory stimulat* [tw] Music [mh] Music Therapy [mh] Acoustic Stimulation [mh] Singing [mh]	Aggression [tw] Neuropsychiatric [tw] Apathy inventory [tw] Cornell scale [tw] Cohen Mansfield [tw] BEHAVE-AD [tw] CERAD-BRSD [tw] Behavior* [tw] Behaviour* [tw] Aggression [mh] Personality inventory [mh] Psychomotor agitation [mh]

# Searching

- Perform a separate search for each concept using the identified terms;
- The terms associated with a concept are connected with the operator OR;
- Combine the searches using search history;
- Individual searchers are connected with the operator AND;
- Refine your search using filters. Try to use filters as little as possible (make refinements part of your search strategy).

((transcranial magnetic stimulation[MeSH Terms] OR transcranial direct current stimulation[MeSH Terms] OR deep brain stimulation[MeSH Terms] OR noninvasive brain stimulat\* OR NIBs OR tDCS OR rTMS OR neurostimulat\* OR transcranial magnetic stimulat\* OR transcranial direct current stimulat\* OR deep brain stimulat\*)) AND (cerebrovascular insult\*[All Fields] OR cerebral vascular insult\*[All Fields] OR cerebrovascular accident\*[All Fields] OR cerebral vascular accident\* [All Fields] OR brain attack\* [All Fields] OR hemorrhagic stroke\*[All Fields] OR ischemic stroke\*[All Fields] OR stroke [All Fields] OR cva [All Fields] OR CVAs[All Fields] OR stroke[MeSH Terms])

Edit Clear

# Builder All Fields transcranial magnetic stimulation[MeSH Terms] OR transcranial direct current stimulation[I Show index list AND All Fields cerebrovascular insult\*[All Fields] OR cerebral vascular insult\*[All Fields] OR cerebrovascul Show index list AND All Fields Show index list Search or Add to history

History

Save in My NCBI

Combining queries from the search history using Boolean operators

Download history Clear history

Search	Add to builder	Query	Items found	Time
<u>#36</u>	<u>Add</u>	Search transcranial magnetic stimulation[MeSH Terms] OR transcranial direct current stimulation[MeSH Terms] OR deep brain stimulation[MeSH Terms] OR noninvasive brain stimulat* OR NIBs OR tDCS OR rTMS OR neurostimulat* OR transcranial magnetic stimulat* OR transcranial direct current stimulat* OR deep brain stimulat*	<u>31747</u>	17:12:5
#28	Add AND in builder OR in builder	Search cerebrovascular insult*[All Fields] OR cerebral vascular insult*[All Fields] OR r accident*[All Fields] OR cerebral vascular accident* [All Fields] OR brain attack* hemorrhagic stroke*[All Fields] OR ischemic stroke*[All Fields] OR stroke [All Fields] Fields] OR cva [All Fields] OR CVAs[All Fields] OR stroke[MeSH Terms]	<u>310916</u>	16:41:3
#29	Delete from hist Show search re Show search de	sults elds] OR "cerebrovascular accidents"[All Fields] OR "cerebral vascular accident"[All ebral vascular accidents"[All Fields] OR "brain attack"[All Fields] OR "brain	310913	16:41:04

e"[All Fields] OR "ischemic strokes"[All Fields] OR "stroke"[All Fields] OR

Assessing search results for relevance and reliability

# Assessing search results

Different approaches, depending on the purpose of search

## **Users:**

- Prefer recent publications;
- Focus on the first page of results;
- Assess relevance based on titles;
- Take into account the authors' and journal's prestige.

# Assessing search results

- Assess the relevance to your research problem (e.g. by screening titles for the PICO elements or concepts from the concept table).
- Test the strengths and weaknesses of methods used and arguments presented.
- Check the relationship to other studies.

## Also:

- check where the retrieved articles have been cited (and in which context);
- check any comments and discussions, if available, especially in PubPeer and other platforms for post-publication peer review;
- Check the <u>Retraction Watch Database</u>.

## PubPeer

Platform for scholarly discussion and post-publication peer review

Home / Publications

Anaesthesia (2017) - 7 Comments

Some discussion here:

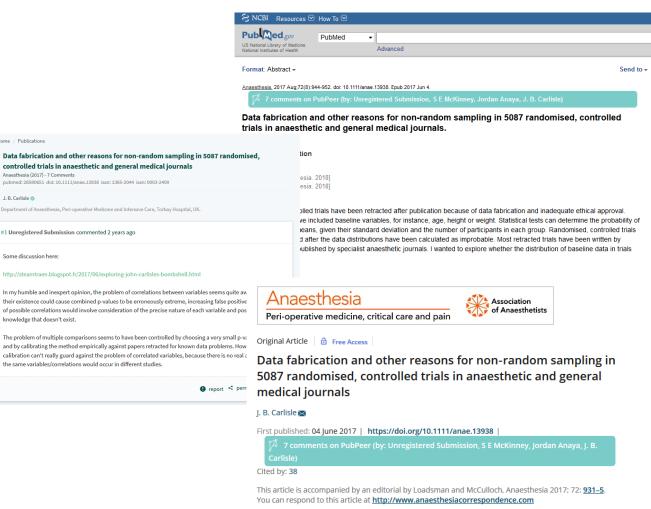
knowledge that doesn't exist

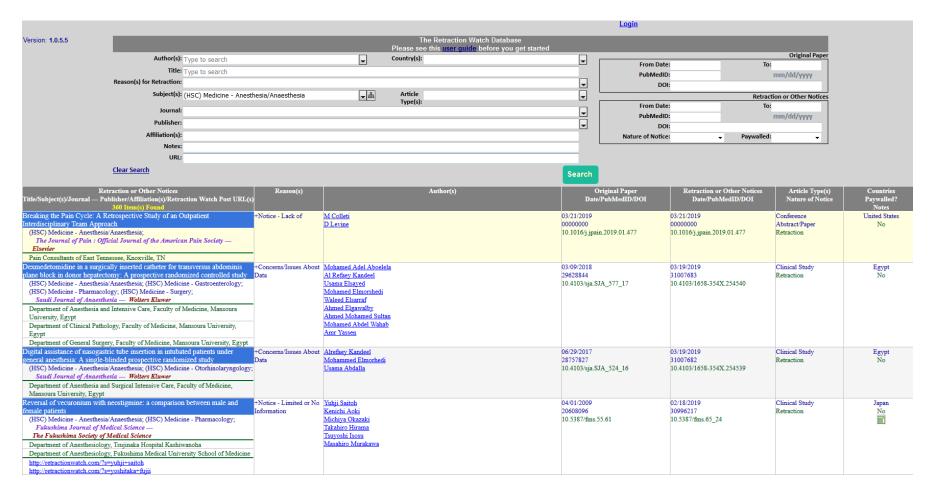
pubmed; 28580651 doi: 10.1111/anae.13938 issn; 1365-2044 issn; 0003-2409

#1 Unregistered Submission commented 2 years ago

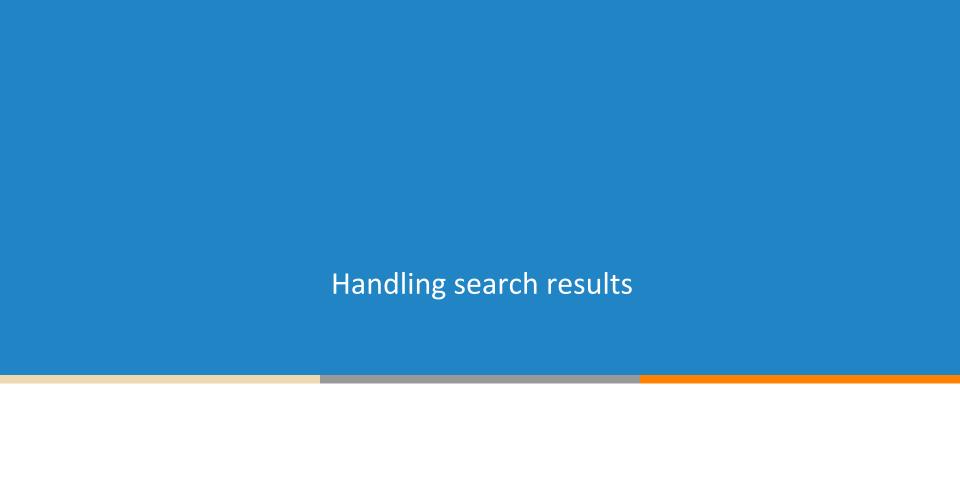
the same variables/correlations would occur in different studies.

- Anyone may comment any article in the database (basically. articles that have a DOI) anonymously; comments are moderated.
- Many comments report statistical errors, plagiarism, image manipulation, duplicate publication, etc.
- Some comments initiate a fruitful discussion.
- If installed, a plug-in marks articles commented on PubPeer when they appear in your browser; the green band links to comments in PubPeer.



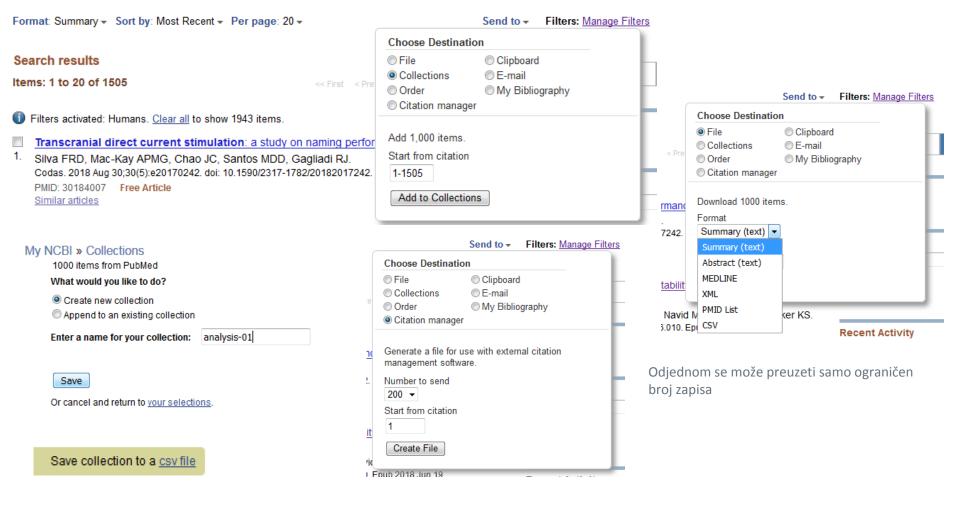


Database of retractions maintained by the team behind the blog Retraction Watch



# **Exporting search results**

- PubMed, Scopus and the Web of Science allow users to export the metadata od retrieved articles in a number of formats;
- The exported metadata may be imported in reference managers (Zotero, Mendeley, EndNote, etc.) or Excel and similar programs.



# Questions?

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