How to publish a research paper in a major biomedical journal

Practical – Searching biomedical literature

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What do we search for?

- Overview of literature for a certain topic.

Example:
Mortality in a cohort of war veterans.

How?

- Just take a good and in-depth PubMed search, right?

Wrong!

Just a PubMed search?

Some facts

- A systematic review showed that only 30% - 80% of all known published randomized trials were identifiable using MEDLINE,
- In 2005, Wilkins et al. ran an experiment: they performed a search for common family medicine diagnoses in different databases and came up with less than 5% of overlap in the results,
- More recently, Michaleff et al. rated PubMed on the third and EMBASE on the fourth rank of databases when it comes to searching for randomized controlled trials in the field of physiotherapy. They ranked the Cochrane Central Register of Controlled Trials (CENTRAL) first and a physiotherapy-specific database (Pedro) second.

- *Dickersin K, Scherer R, Lefebvre C. Identifying relevant studies for systematic reviews. BMJ 1994; 309: 1286-1291.*
- *Wilkins T, Gillies RA and Davies K. EMBASE versus MEDLINE for family medicine searches: can MEDLINE searches find the forest or a tree? Canadian Family Physician. 2005;51(6):848-9.*
- *Michaleff ZA, Costa LO, Moseley AM, Maher CG, Elkins MR, Herbert RD, et al. CENTRAL, PEDro, PubMed, and EMBASE are the most comprehensive databases indexing randomized controlled trials of physical therapy interventions. Physical therapy. 2011;91(2):190-7.*

Aim

- To identify as much available literature references regarding a specific topic as possible, by use of a focused, pre-defined and unbiased search strategy.

Approach

- Select database(s) to search,
- Clearly define the topic,
- Perform the search,
- Organize the results (references).

Databases

PubMed

Basic Facts
More than 29 million citations for biomedical literature from MEDLINE, life science journals, and online books
More than 5600 journals
1946 to present with some older material
Indexed with NLM Medical Subject Headings (MeSH)
MeSH is updated once a year
Free access via PubMed

Databases

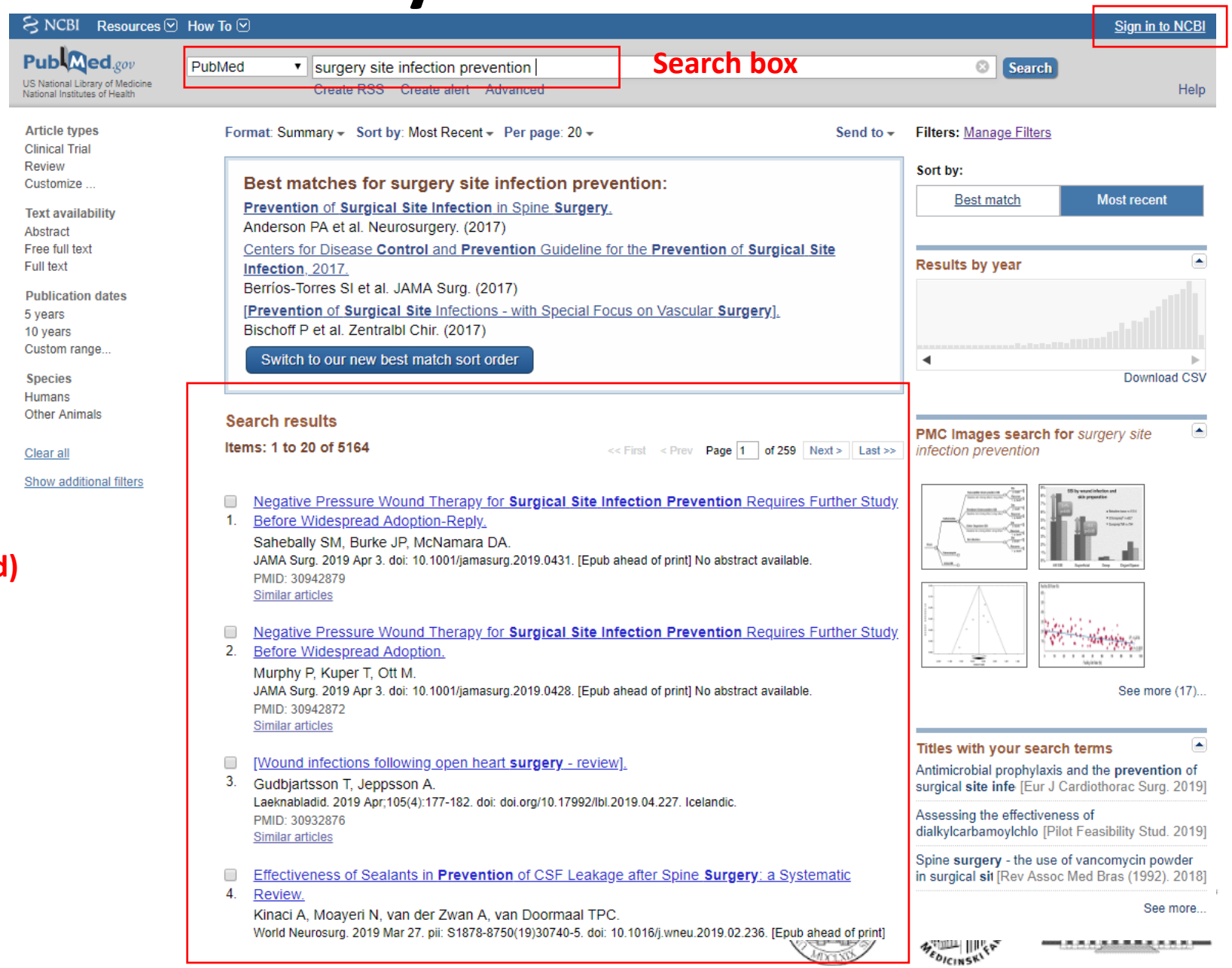
PubMed

- https://www.ncbi.nlm.nih.gov/pubmed/

or

- Just type „pubmed” into address bar or Google search

PubMed Basic Layout



Left sidebar
(filters; fixed)

Right sidebar
(„Discovery bar"; not fixed)

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Best practices

- Be specific (all terms),
- No punctuation, quotes, asterisks,
- No Boolean operators (AND/OR/NOT),
- Capitalization does not matter.

Initial search (example)

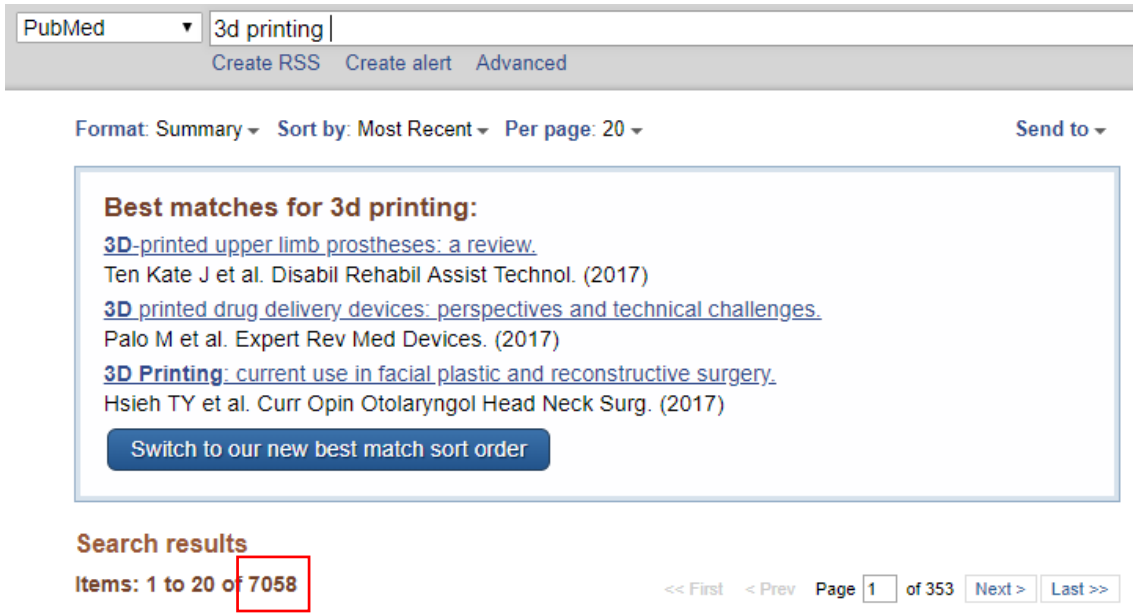
- 3d printing

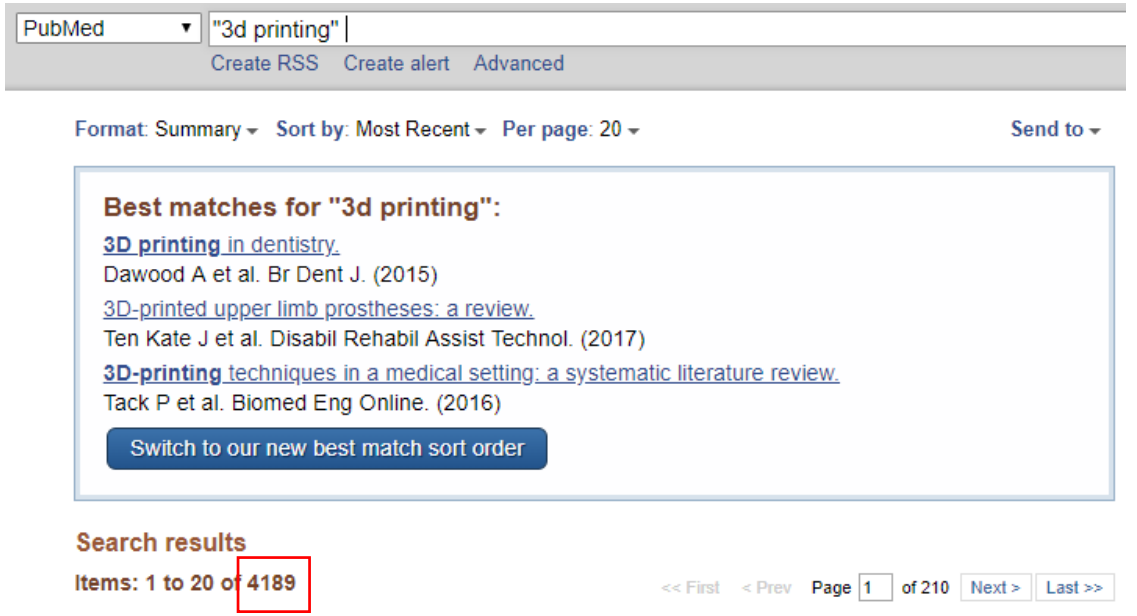
or

- „3d printing”

??

Search - Example





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Search - Example

Search Details

Query Translation:

```
"printing, three-dimensional"[MeSH Terms] OR ("printing"[All
Fields] AND "three-dimensional"[All Fields]) OR "three-
dimensional printing"[All Fields] OR ("3d"[All Fields] AND
"printing"[All Fields]) OR "3d printing"[All Fields]
```

Search | URL

Result:

7058

vs.

Search Details

Query Translation:

```
"3d printing"[All Fields]
```

Search | URL

Result:

4189

Search is translated and mapped to terms.
Mapping synonyms.
Accounting for variations in language.
More comprehensive search without quotes.

vs.

Search for the exact match.




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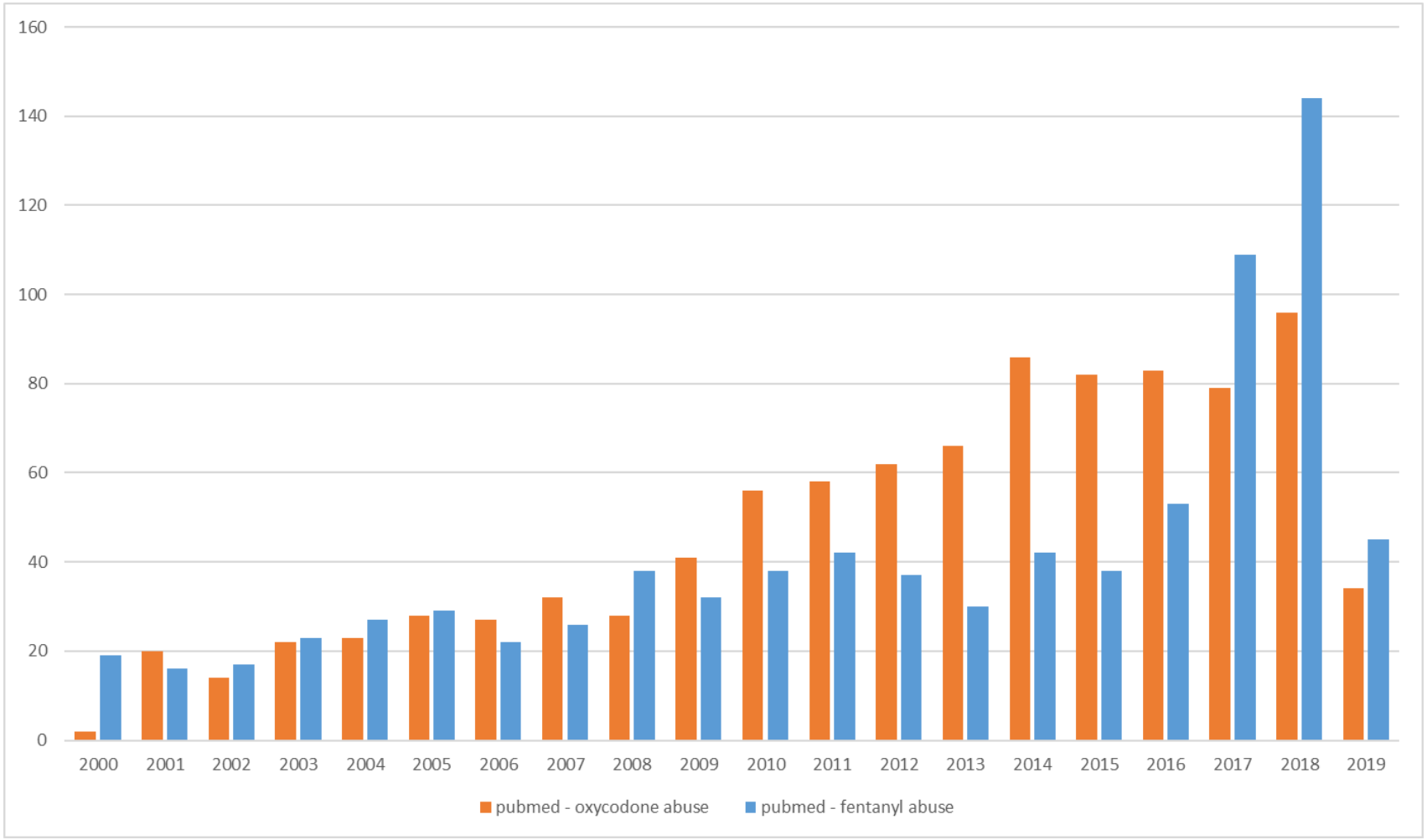
Search - Example

Search - Example



Anatomy of a citation

Fields

All citations contain basic citation information, submitted by the publisher:

- Journal information
- Article information
- Author/Affiliation
- Abstract
- Author key words

Anatomy of a citation

Additional information (also by the publisher):

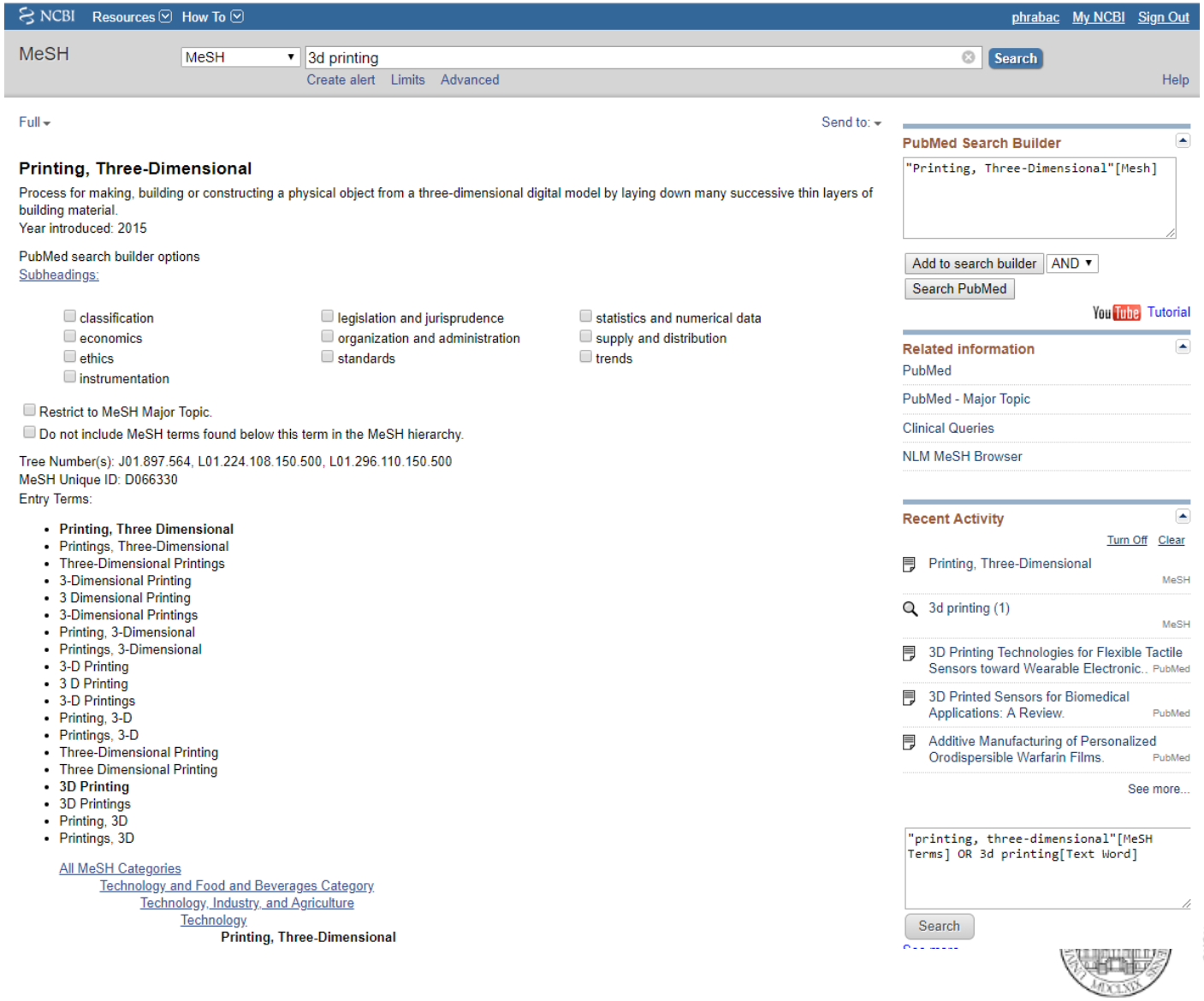
- Links to full text when available
- Grants data
- Databank information
- Links to other NCBI databases like ClinicalTrials.gov, Gene, MedGen, ClinVar

NLM also adds MeSH terms (Medical Subject Headings) to citations that are in the MEDLINE subset of PubMed.

MeSH

- MeSH terms are added by the NLM
- MeSH is a controlled vocabulary,
- Contains of biomedical terms,
- Describes the citations (literature in general),
- It is hierarchical.

Search - Example



Search is translated and mapped to terms.
Mapping synonyms.
Accounting for variations in language.
More comprehensive search without quotes.

= 3.212 references

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How?

- Just take a precise MeSH search and that's it, right?

Wrong!

A MEDLINE Record

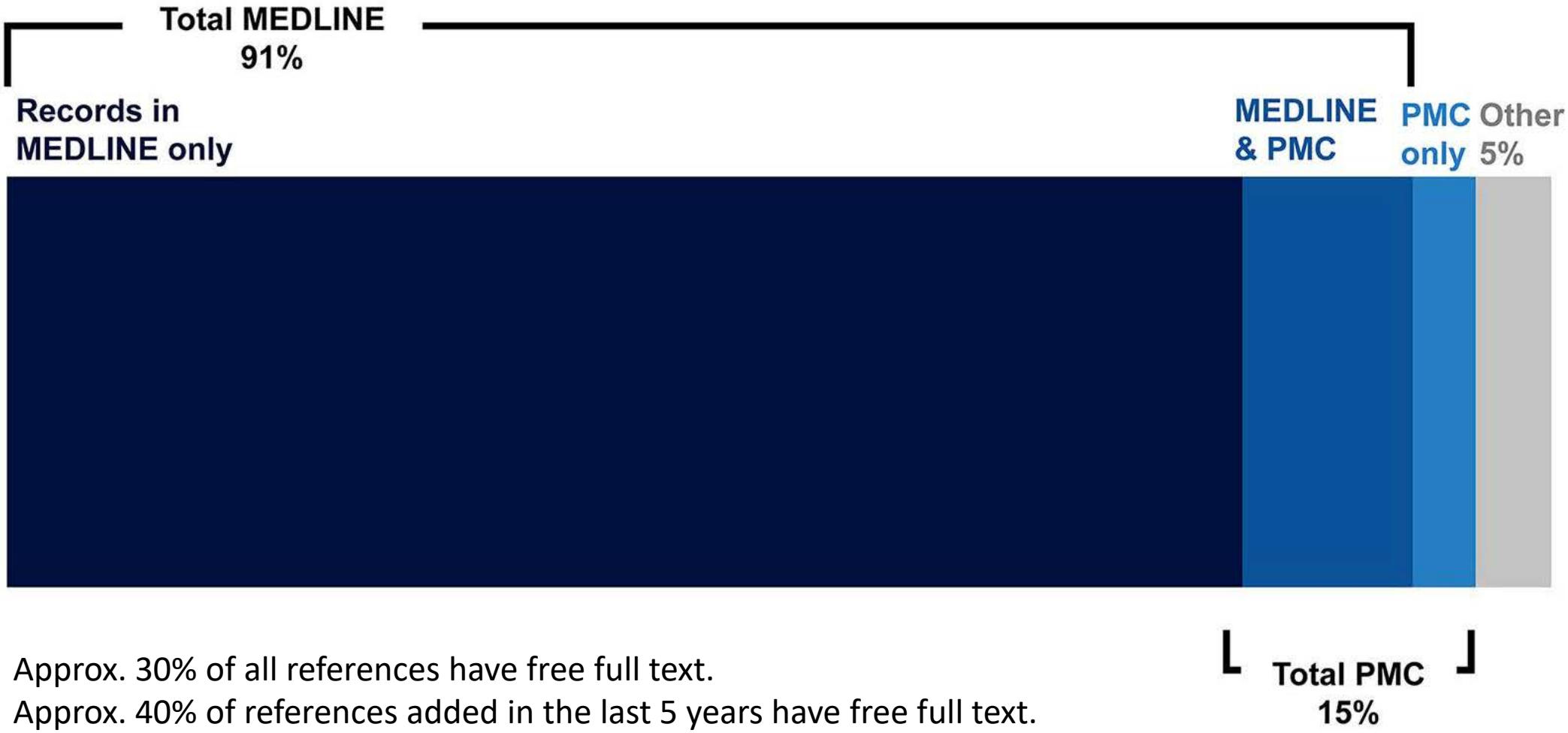
- MeSH terms are added to the record by subject matter experts during a process called “MEDLINE indexing”,
- 5,600 journals are currently indexed for MEDLINE,
- Journals undergo a vigorous screening process,
- MEDLINE Journals are recommended by the Literature Selection Technical Review Committee (LSTRC).



MEDLINE vs. Non-MEDLINE

MEDLINE	Non-MEDLINE
• Article Title • Authors • Abstract • Citation Information • Supplemental Information • MeSH Headings	• Article Title • Authors • Abstract • Citation Information • Supplemental Information

Structure of citations



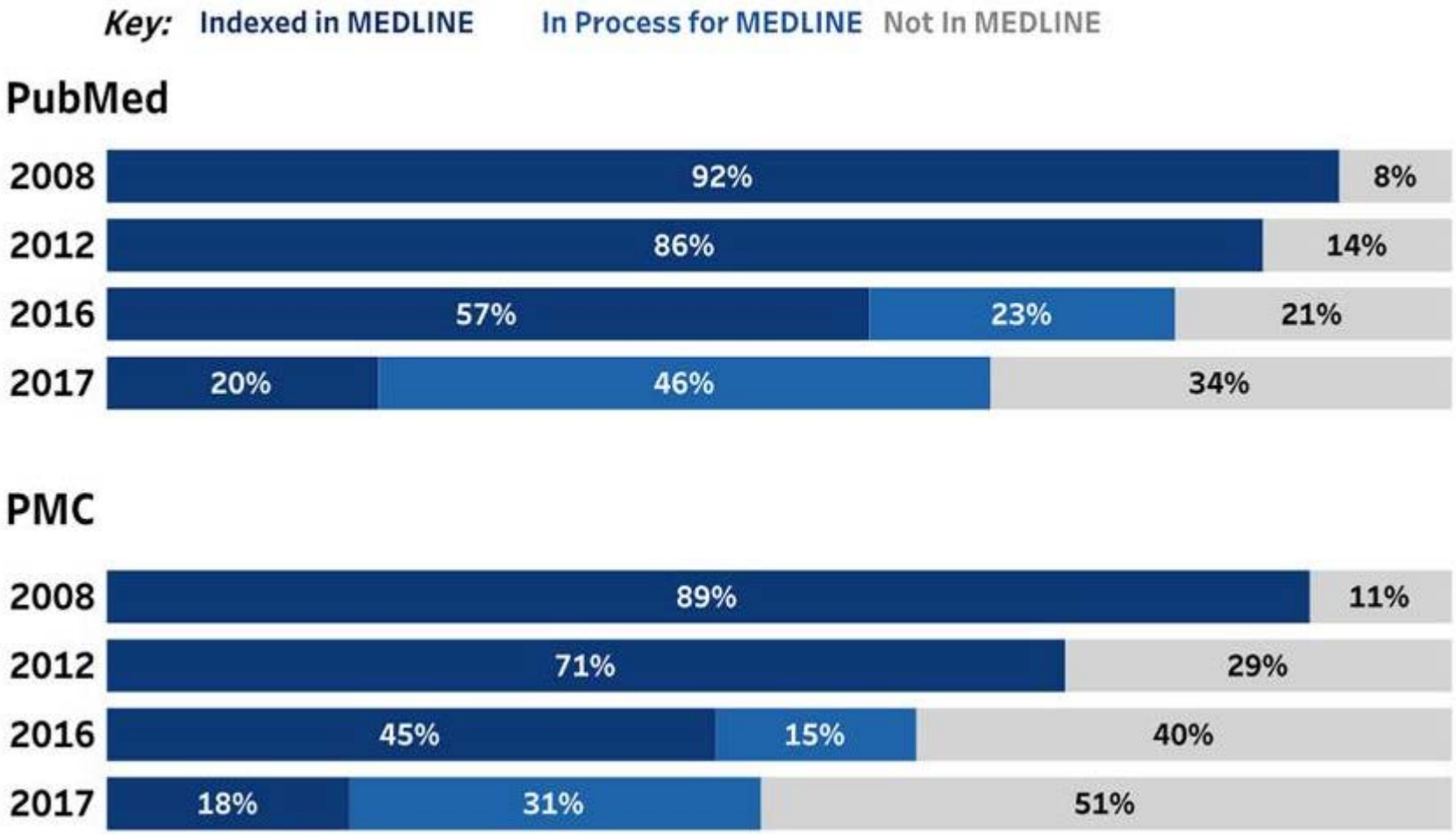
Approx. 30% of all references have free full text.
Approx. 40% of references added in the last 5 years have free full text.

PMC – Published results of research sponsored by NIH must be available to the public.

Williamson PO, Minter CIJ. Exploring PubMed as a reliable resource for scholarly communications services. J Med Libr Assoc. 2019 Jan;107(1):16-29.

MEDLINE-indexing

of new records in PubMed and PMC by year



Williamson PO, Minter CIJ. Exploring PubMed as a reliable resource for scholarly communications services. J Med Libr Assoc. 2019 Jan;107(1):16-29.

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Search – Example

ALS nutrition.

Possible approaches:

- **amyotrophic lateral sclerosis nutrition** in search box,
- **"Amyotrophic Lateral Sclerosis"**[Mesh] **nutrition.**

Searching

Pitfalls

Example: ALS nutrition

Mapping:

- MeSH (explicitly) or
- PubMed?

- Missing citations?

"Amyotrophic Lateral Sclerosis"[Mesh] nutrition

1. Taste changes in amyotrophic lateral sclerosis and effects on quality of life.
Tarlarini C, Greco LC, Lizio A, Gerardi F, Sansone VA, Lunetta C.
Neurol Sci. 2019 Feb;40(2):399-404. doi: 10.1007/s10072-018-3672-z. Epub 2018 Dec 4.
PMID: 30515604
Similar articles

2. Serum irisin is upregulated in patients affected by amyotrophic lateral sclerosis and correlates with functional and metabolic status.
Lunetta C, Lizio A, Tremolizzo L, Ruscica M, Macchi C, Riva N, Weydt P, Corradi E, Magni P, Sansone V.
J Neurol. 2018 Dec;265(12):3001-3008. doi: 10.1007/s00415-018-9093-3. Epub 2018 Oct 22.
PMID: 30350189
Similar articles

3. [Nutritional management of amyotrophic lateral sclerosis: summary of recommendations].
Del Olmo García MªD, Virgili Casas N, Cantón Blanco A, Lozano Fuster FM, Wanden-Berghe C, Avilés V, Ashbaugh Enguídanos R, Ferrero López I, Molina Soria JB, Montejo González JC, Bretón Lesmes I, Álvarez Hernández J, Moreno Villares JM, Senpe GTÉS.
Nutr Hosp. 2018 Oct 8;35(5):1243-1251. doi: 10.20960/nh.2162. Review. Spanish. No abstract available.
PMID: 30307310 Free Article
Similar articles

4. Swim Training Modulates Skeletal Muscle Energy Metabolism, Oxidative Stress, and Mitochondrial Cholesterol Content in Amyotrophic Lateral Sclerosis Mice.
Flis DJ, Dzik K, Kaczor JJ, Halon-Golabek M, Antosiewicz J, Wieckowski MR, Ziolkowski W.
Oxid Med Cell Longev. 2018 Apr 11;2018:5940748. doi: 10.1155/2018/5940748. eCollection 2018.
PMID: 29849903 Free PMC Article
Similar articles

5. The increasing importance of environmental conditions in amyotrophic lateral sclerosis.
Riancho J, Bosque-Varela P, Perez-Pereda S, Povedano M, de Munaín AL, Santurtun A.
Int J Biometeorol. 2018 Aug;62(8):1361-1374. doi: 10.1007/s00484-018-1550-2. Epub 2018 Apr 30. Review.
PMID: 29713861
Similar articles

6. Possible etiology and treatment of amyotrophic lateral sclerosis.
Holecek V, Rokyta R.
Neuro Endocrinol Lett. 2018 Feb;38(8):528-531. Review.
PMID: 29504729
Similar articles

7. Riluzole and other prognostic factors in ALS: a population-based registry study in Italy.
Mandrioli J, Malerba SA, Beghi E, Fini N, Fasano A, Zucchi E, De Pasqua S, Guidi C, Terlizzi E, Sette E, Ravasio A, Casmiro M, Salvi F, Liguori R, Zinno L, Handouk Y, Rizzi R, Borghi A, Rinaldi R, Medici D, Santangelo M, Granieri E, Mussuto V, Aiello M, Ferro S, Vinceti M; ERRALS Group.
J Neurol. 2018 Apr;265(4):817-827. doi: 10.1007/s00415-018-8778-y. Epub 2018 Feb 5.
PMID: 29404735
Similar articles

8. Percutaneous endoscopic gastrostomy with and without jejunal extension in patients with amyotrophic lateral sclerosis.
Kirstein MM, Körner S, Schneider A, Manns MP, Petri S, Voigtländer T.
Eur J Gastroenterol Hepatol. 2018 Mar;30(3):257-262. doi: 10.1097/MEG.0000000000001054.
PMID: 29324589
Similar articles

9. Dietary intake and zinc status in amyotrophic lateral sclerosis patients.
Lopes da Silva HF, Brito ANA, Freitas EPS, Dourado MET Jr, Sena-Evangelista KCM, Leite Lais L.
Nutr Hosp. 2017 Oct 27;34(5):1361-1367. doi: 10.20960/nh.1004.
PMID: 29280652 Free Article
Similar articles

amyotrophic lateral sclerosis nutrition

1. Prediagnostic plasma metabolomics and the risk of amyotrophic lateral sclerosis.
Bjornevik K, Zhang Z, O'Reilly ÉJ, Berry JD, Clish CB, Deik A, Jeanfavre S, Kato I, Kelly RS, Kolonel LN, Liang L, Marchand LL, McCullough ML, Paganoni S, Pierce KA, Schwarzschild MA, Shadyab AH, Wactawski-Wende J, Wang DD, Wang Y, Manson JE, Ascherio A.
Neurology. 2019 Mar 29. pii: 10.1212/WNL.0000000000007401. doi: 10.1212/WNL.0000000000007401. [Epub ahead of print]
PMID: 30926684
Similar articles

2. Prognostic significance of body weight variation after diagnosis in ALS: a single-centre prospective cohort study.
Shimizu T, Nakayama Y, Matsuda C, Haraguchi M, Bokuda K, Ishikawa-Takata K, Kawata A, Isozaki E.
J Neurol. 2019 Mar 13. doi: 10.1007/s00415-019-09276-2. [Epub ahead of print]
PMID: 30868220
Similar articles

3. Physicians' attitudes toward end-of-life decisions in amyotrophic lateral sclerosis.
Thurn T, Borasio GD, Chiò A, Galvin M, McDermott CJ, Mora G, Sermeus W, Winkler AS, Anneser J.
Amyotroph Lateral Scler Frontotemporal Degener. 2019 Feb 21:1-8. doi: 10.1080/21678421.2018.1536154. [Epub ahead of print]
PMID: 30789031
Similar articles

4. Application of quercetin in neurological disorders: from nutrition to nanomedicine.
Amanzadeh E, Esmaeili A, Rahgozar S, Nourbakhshnia M.
Rev Neurosci. 2019 Feb 12. pii: /j/revneuro.ahead-of-print/revneuro-2018-0080/revneuro-2018-0080.xml. doi: 10.1515/revneuro-2018-0080. [Epub ahead of print]
PMID: 30753166
Similar articles

5. The Relevancy of Data Regarding the Metabolism of Iron to Our Understanding of Deregulated Mechanisms in ALS: Hypotheses and Pitfalls.
Petillon C, Hergesheimer R, Puy H, Corcia P, Vourc'h P, Andres C, Karim Z, Blasco H.
Front Neurosci. 2019 Jan 15;12:1031. doi: 10.3389/fnins.2018.01031. eCollection 2018. Review.
PMID: 30697143 Free PMC Article
Similar articles

6. Swim Training Modulates Mouse Skeletal Muscle Energy Metabolism and Ameliorates Reduction in Grip Strength in a Mouse Model of Amyotrophic Lateral Sclerosis.
Flis DJ, Dzik K, Kaczor JJ, Cieminski K, Halon-Golabek M, Antosiewicz J, Wieckowski MR, Ziolkowski W.
Int J Mol Sci. 2019 Jan 9;20(2). pii: E233. doi: 10.3390/ijms20020233.
PMID: 30634386 Free PMC Article
Similar articles

7. Early weight loss in amyotrophic lateral sclerosis: outcome relevance and clinical correlates in a population-based cohort.
Moglia C, Calvo A, Grassano M, Canosa A, Manera U, D'Ovidio F, Bombaci A, Bersano E, Mazzini L, Mora G, Chiò A; Piemonte and Valle d'Aosta Register for ALS (PARALS).
J Neurol Neurosurg Psychiatry. 2019 Jan 10. pii: jnnp-2018-319611. doi: 10.1136/jnnp-2018-319611. [Epub ahead of print]
PMID: 30630957
Similar articles

8. β-N-methylamino-L-alanine (BMAA) suppresses cell cycle progression of non-neuronal cells.
Okamoto S, Esumi S, Hamaguchi-Hamada K, Hamada S.
Sci Rep. 2018 Dec 20;8(1):17995. doi: 10.1038/s41598-018-36418-9.
PMID: 30573743 Free PMC Article
Similar articles

9. Taste changes in amyotrophic lateral sclerosis and effects on quality of life.
Tarlarini C, Greco LC, Lizio A, Gerardi F, Sansone VA, Lunetta C.
Neurol Sci. 2019 Feb;40(2):399-404. doi: 10.1007/s10072-018-3672-z. Epub 2018 Dec 4.
PMID: 30515604
Similar articles

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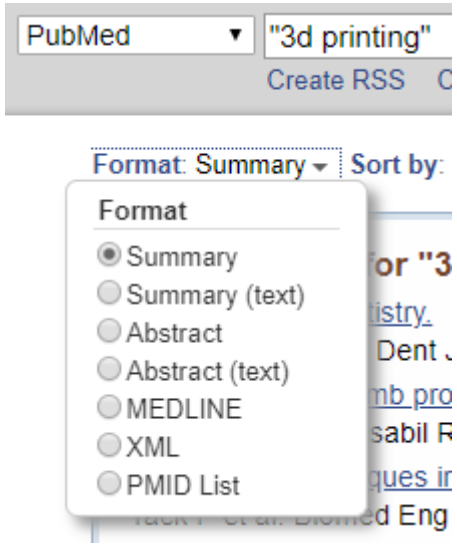
Search – Format of the Results



Searching - Example

- What are the various health parameters in the population of war veterans?

Too broad?

- Morbidity and/or mortality in veterans

Searching PubMed

morbidity and mortality in war veterans

Translates to:

("Morb Mortal"[Journal] OR ("morbidity"[All Fields] AND "and"[All Fields] AND "mortality"[All Fields]) OR "morbidity and mortality"[All Fields]) AND ("armed conflicts"[MeSH Terms] OR ("armed"[All Fields] AND "conflicts"[All Fields]) OR "armed conflicts"[All Fields] OR "war"[All Fields]) AND ("veterans"[MeSH Terms] OR "veterans"[All Fields])

= 9 references

morbidity mortality veterans

Translates to:

("Morb Mortal"[Journal] OR ("morbidity"[All Fields] AND "mortality"[All Fields]) OR "morbidity mortality"[All Fields]) AND ("veterans"[MeSH Terms] OR "veterans"[All Fields])

= 2.309 references

Searching PubMed

morbidity veterans

Translates to:

("epidemiology"[Subheading] OR "epidemiology"[All Fields] OR "morbidity"[All Fields] OR "morbidity"[MeSH Terms]) AND ("veterans"[MeSH Terms] OR "veterans"[All Fields])

= 25.937 references

mortality veterans

Translates to:

("mortality"[Subheading] OR "mortality"[All Fields] OR "mortality"[MeSH Terms]) AND ("veterans"[MeSH Terms] OR "veterans"[All Fields])

= 11.965 references



Searching PubMed

Combine the results

morbidity veterans

#1

mortality veterans

#2

- Advanced search
- #1 or #2

Searching PubMed

But where are the veterans?

- Check „Best matches”,
- Change sort order to „Best match”,
- Combine #1 and #2 with „AND” instead of „OR”,
- Try search strategy with MeSH.

Searching PubMed

MeSH term?

- "Veterans"[Mesh]

Former members of the armed services.
Year introduced: 1981
= 15.060 references

or

- "Veterans Health"[Mesh]

The concept covering the physical and mental conditions of VETERANS.
Year introduced: 2011
= 1.090 references

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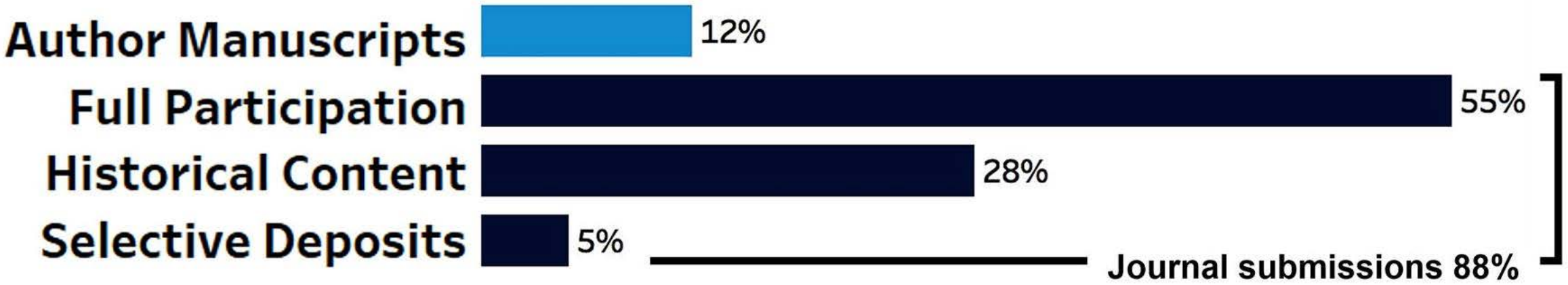
Full text?

- PMC (all NIH-sponsored papers),
- Publisher Web Sites,
- Google Scholar,
- Librarian/Institutional subscription,
- Other means…

Composition of PMC



Williamson PO, Minter CIJ. Exploring PubMed as a reliable resource for scholarly communications services. J Med Libr Assoc. 2019 Jan;107(1):16-29.

Institution-specific content

Williamson PO, Minter CIJ. Exploring PubMed as a reliable resource for scholarly communications services. J Med Libr Assoc. 2019 Jan;107(1):16-29.

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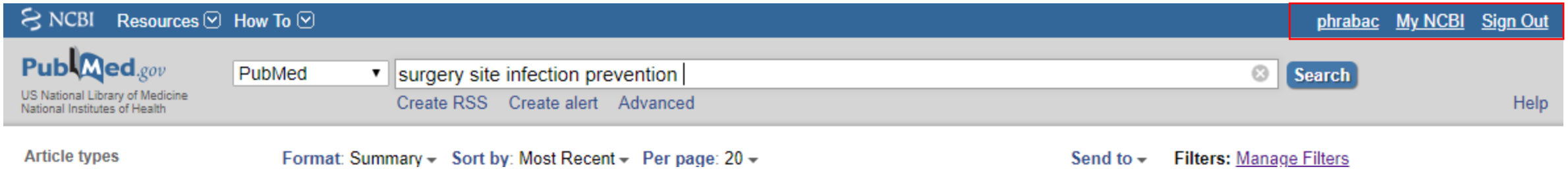
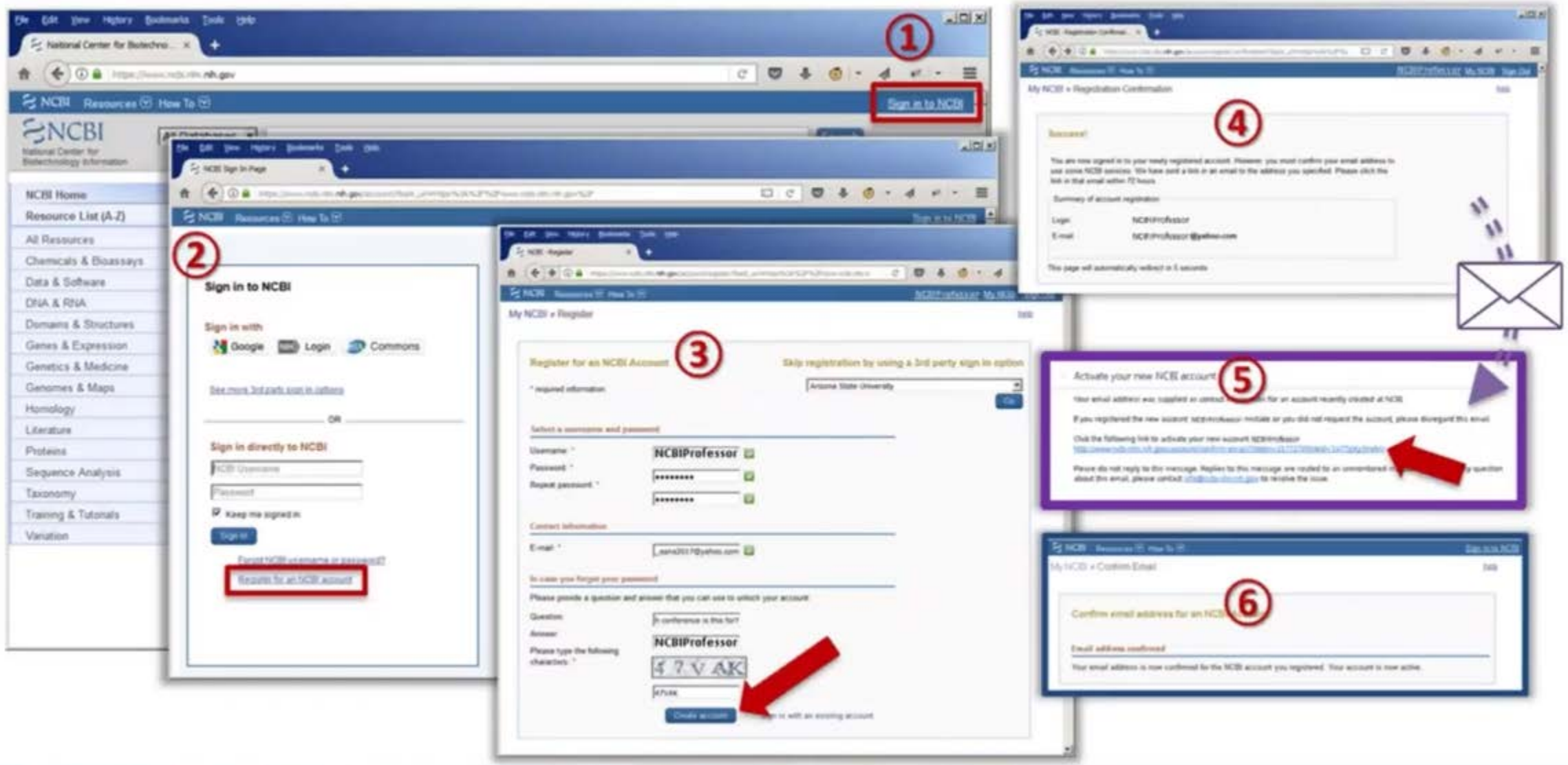
How to select/organise the results?

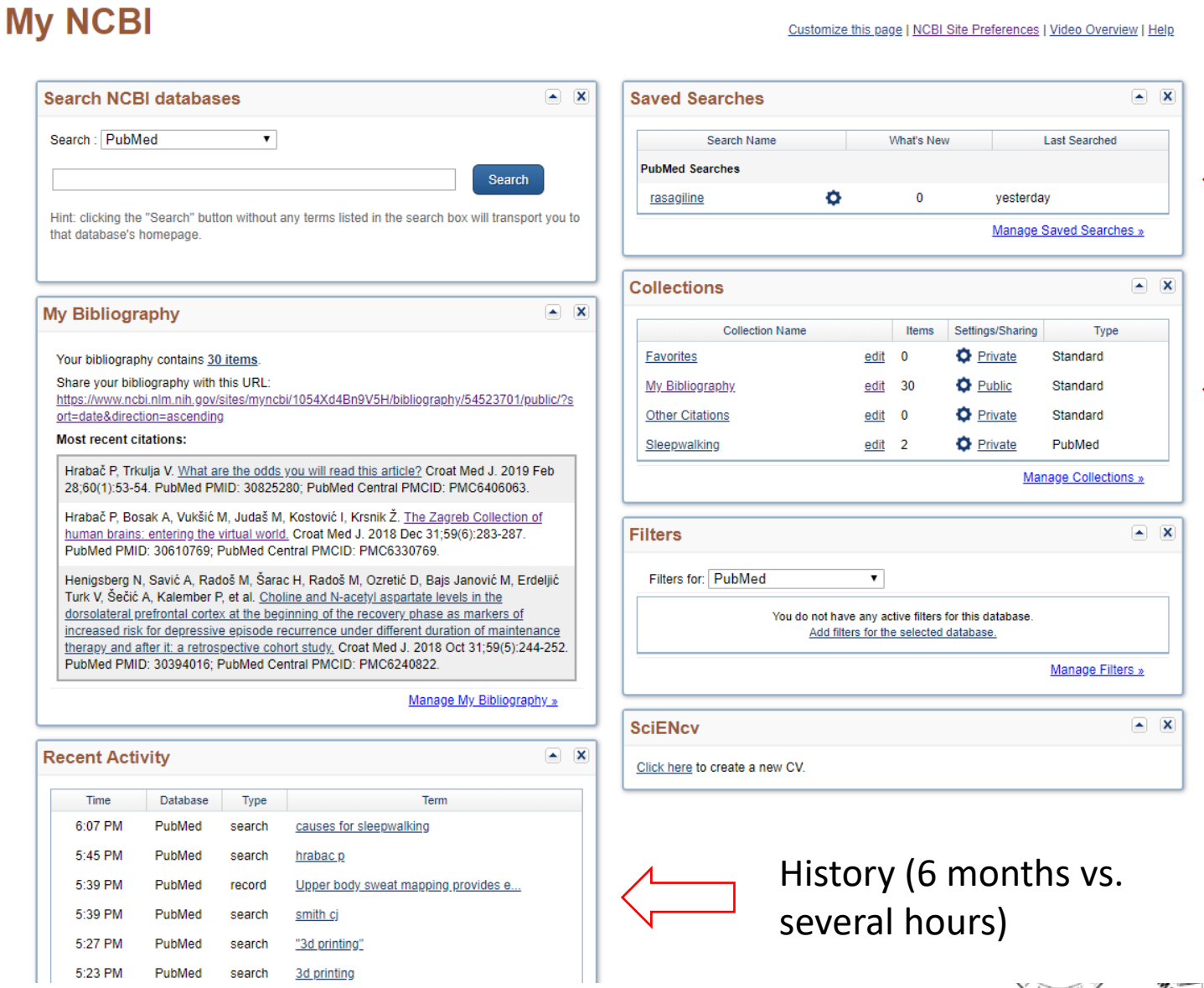
My NCBI



My NCBI - Registration



My NCBI - Options

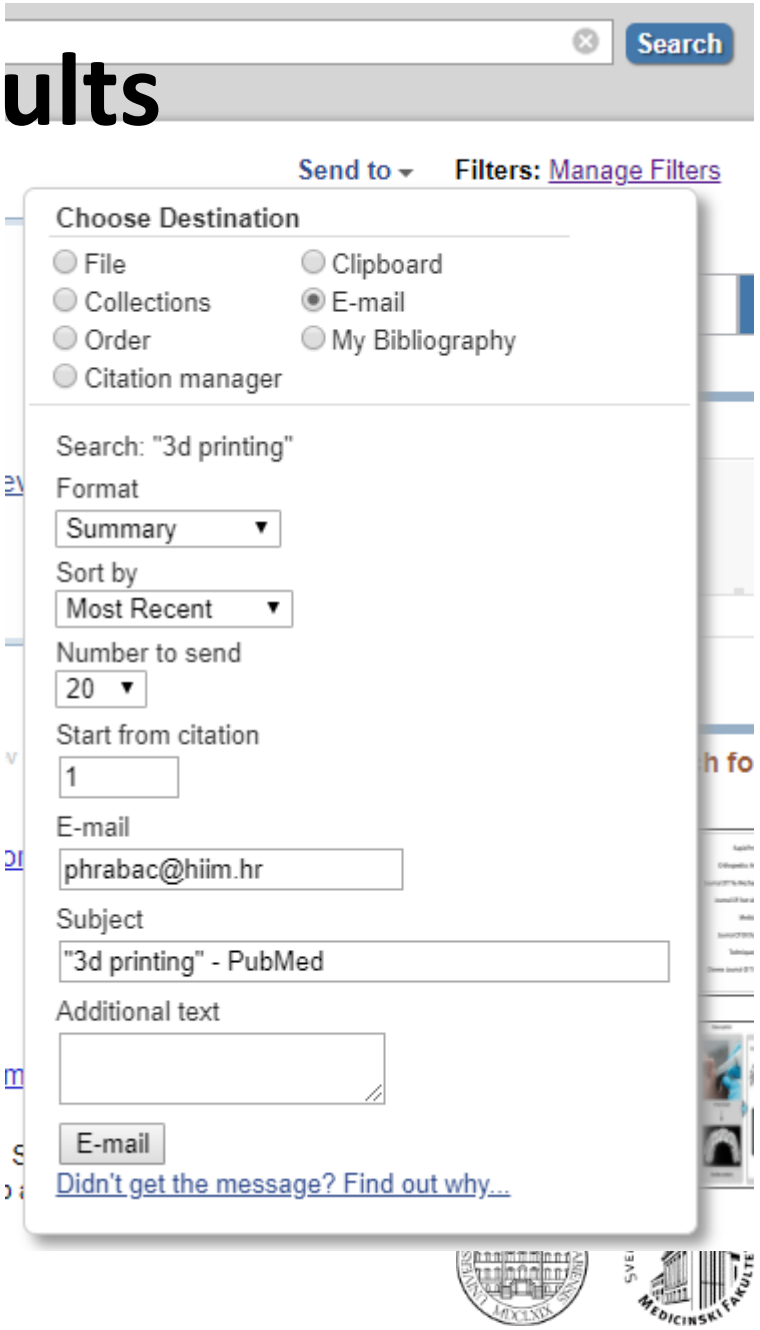


Saved searches with or without e-mail alerts

Bibliography and collections (sharing!)

History (6 months vs. several hours)

Export of the Results



Author search

- Proper syntax is lastname initials
- E.g. Smith JC

How to be sure this is the right author?

- Abstract view
- Affiliation (available for all authors)

Temperature (Austin). 2019 Feb 7;6(1):50-65. doi: 10.1080/23328940.2019.1570777. eCollection 2019.

Upper body sweat mapping provides evidence of relative sweat redistribution towards the periphery following hot-dry heat acclimation.

Smith CJ[1,2], Havenith G[1].

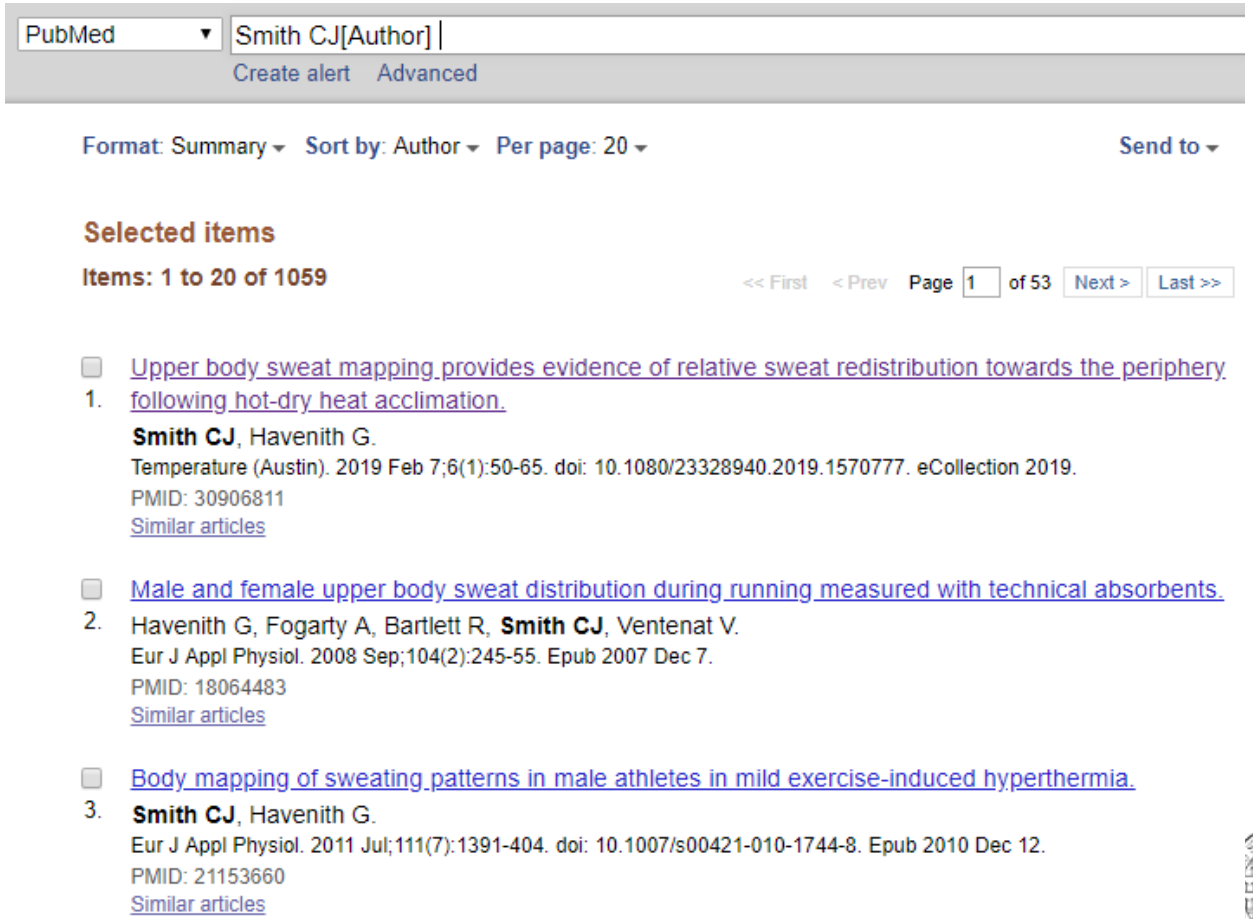
Author information

1 Environmental Ergonomics Research Center, Loughborough University Design School, Loughborough, UK.
2 Department of Health & Exercise Science, Appalachian State University, Boone, NC, USA.

Search – Example

Author search

- Sort method changes to “Author”



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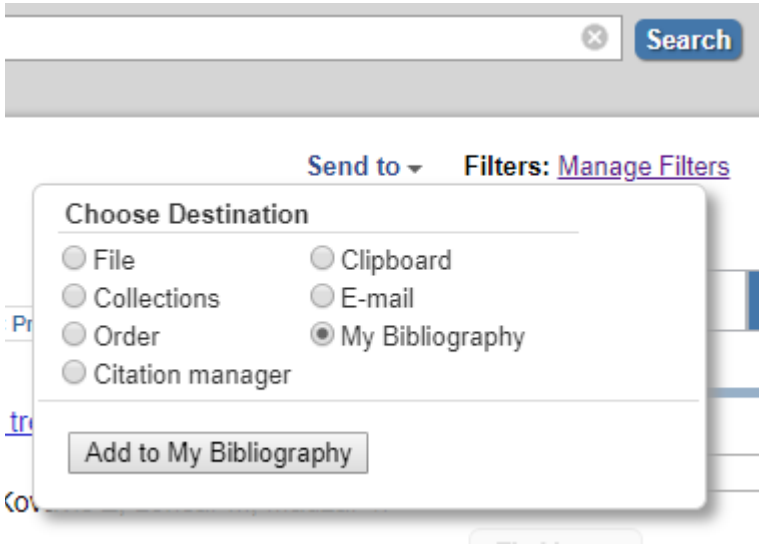
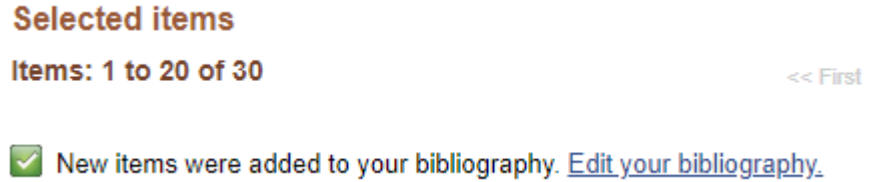
Author search

- What if I actually am dr. Smith JC?
- Send to -> My Bibliography
- Exact author ID?





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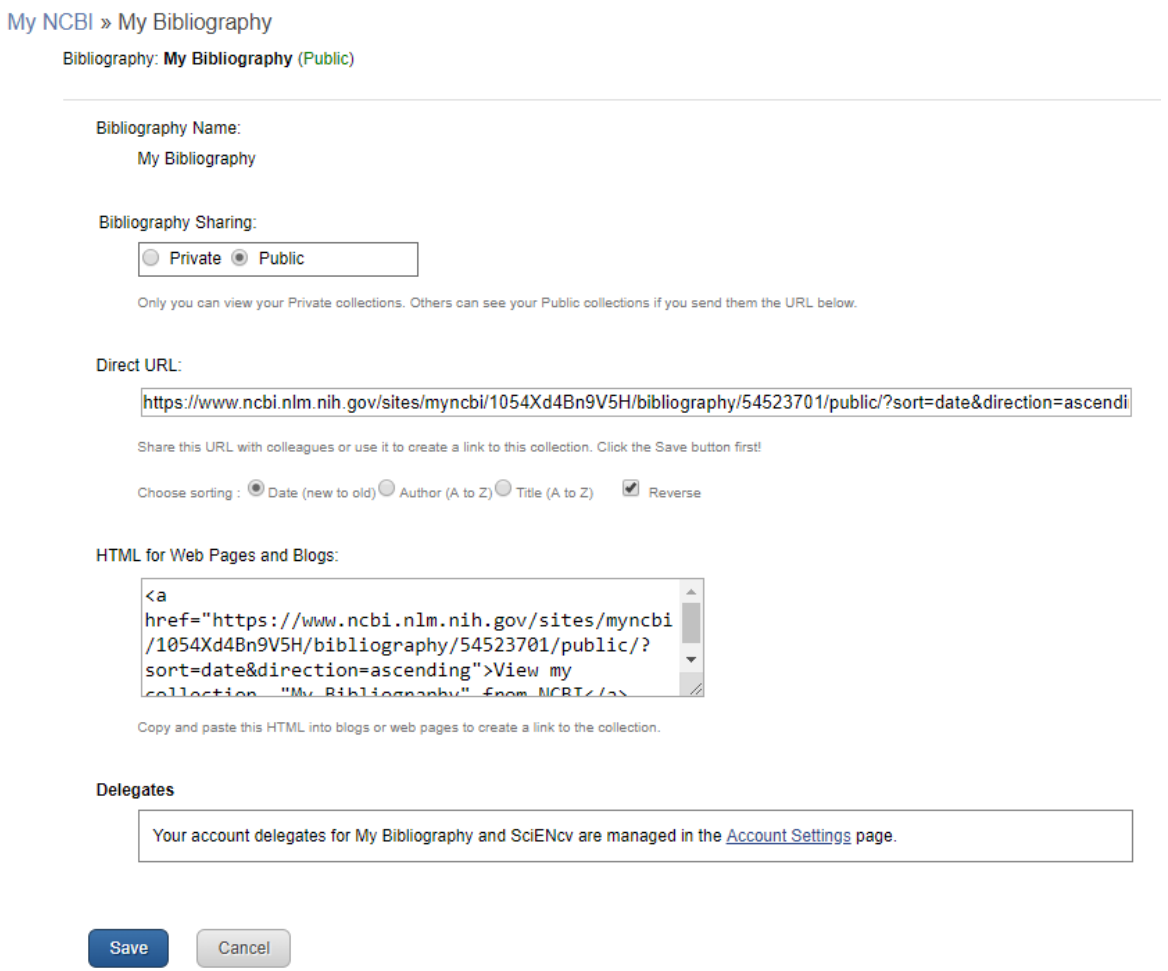
My Bibliography



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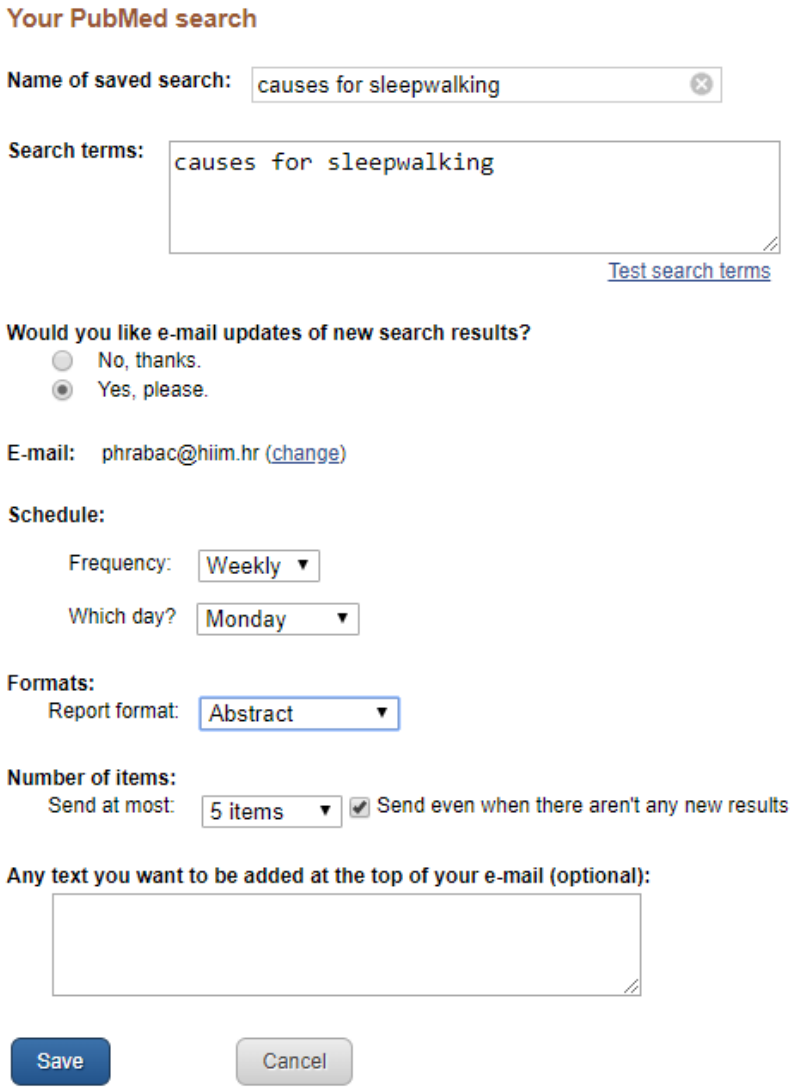
Bibliography and Collections

- Send to -> My Bibliography
- Send to -> Collections

E-mail Alerts



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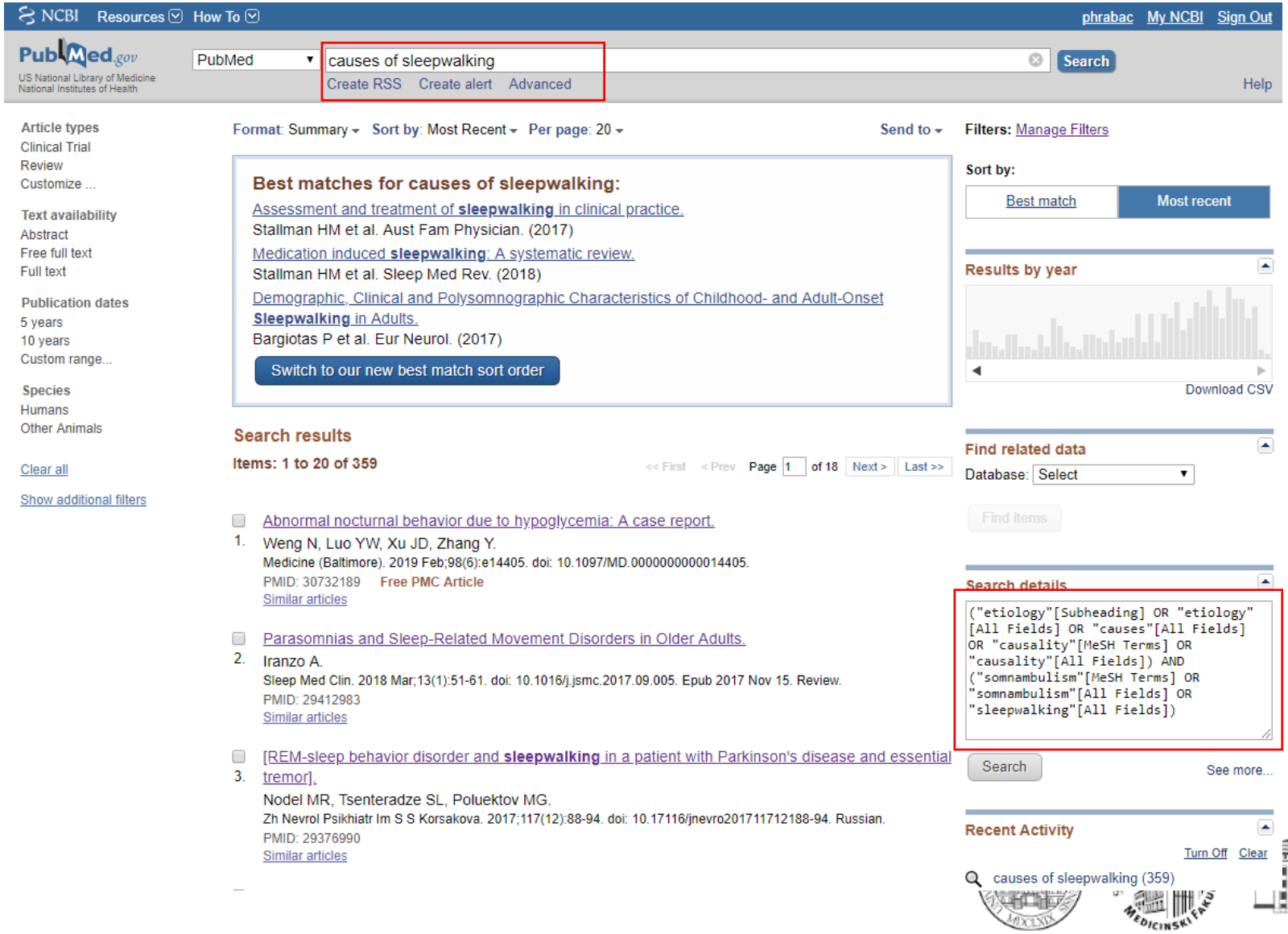
Searching



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Searching

Related information

Articles frequently viewed together

MedGen

User behaviour!

Similar articles

Review [Sleep and movement disorders]. [Ther Umsch. 2007]

Review REM Sleep Behavior Disorder in Parkinson's Disease and Othe [Mov Disord. 2017]

Periodic Limb Movements During Sleep Mimicking REM Sleep Behavior Dis [Sleep. 2017]

Review Degeneration of rapid eye movement sleep circuitry underlies rapid [Mov Disord. 2017]

Review REM behaviour disorder and neurodegenerative diseases. [Sleep Med. 2011]

See reviews...

See all...

Algorithm for finding best matching citations in PubMed

In the standard best match order, PubMed displays documents in order of decreasing relevance score. This score is calculated by comparing the input query to the document fields (e.g. Text, Author, Journal, etc.). Document fields are indexed to allow the system to quickly retrieve the documents matching a given query. During indexing, the terms (and their frequencies) in the document are calculated and stored for each index field. During retrieval, the term frequencies are used in a weighted fashion to return a ranked list of PubMed citations matching the terms in the user query. The relevancy of a document in a single term query is dependent on the following:

- IDF_t or the global weight of the term;
- FW_f or the weight of the field the term appears in;
- FL_f or the field length;
- TF_t or the local weight of the term.

IDF_t – The global weight of a term assumes that terms are independent in their contribution to finding relevant material. If term t appears in n_t documents and the total number of documents in the database is N, it will be given the global weight:

$$IDF_t = \ln\left(\frac{N - n_t + 0.5}{n_t + 0.5}\right)$$

FW_f – Since the contribution of a field to the overall representation of a document is not equal, fields have weights of their own, and consequently the occurrence of a term in a particular field will have more importance than in other fields. For example, in computing the weight of a document, the occurrence of a term in the title of a document would have more importance than the occurrence of the term in the abstract field. The actual values are optimized empirically and may change over time.

FL_f – For every document, a field has a different length. The sum of all field lengths of a document is equal to the document length.

TF_t – The local weight of a term measures its importance in a particular document for a specific field. It is the sum of weighted frequencies of the term for all fields of a document. Generally, the more frequent a term is within a document field, the more important it is in representing the content of that document as a whole.

$$TF_t = \sum_{f \in fields} \frac{|occurrences\ of\ t\ in\ f|}{FL_f} \times FW_f$$

Document scores

In a first pass, we generate document scores by using the local, global and field weights defined above. We calculate Okapi-BM25F [1], a field weighted version of Okapi-BM25 [2]:

$$dl = \sum_{f \in fields} FL_f \times FW_f\ ,$$

$$\widetilde{avdl} = average\ of\ dl\ across\ documents\ ,$$

$$score\,(d,q) = \sum_{t \in q \cap d} \frac{TF_t}{k_1\left((1-b) + b\frac{dl}{avdl}\right) + TF_t} \times IDF_t\ ,$$

Searching

Search is enriched by:

- Search algorithms
- Automatic term mapping
- Spell check
- Similar articles
- Citation Sensors

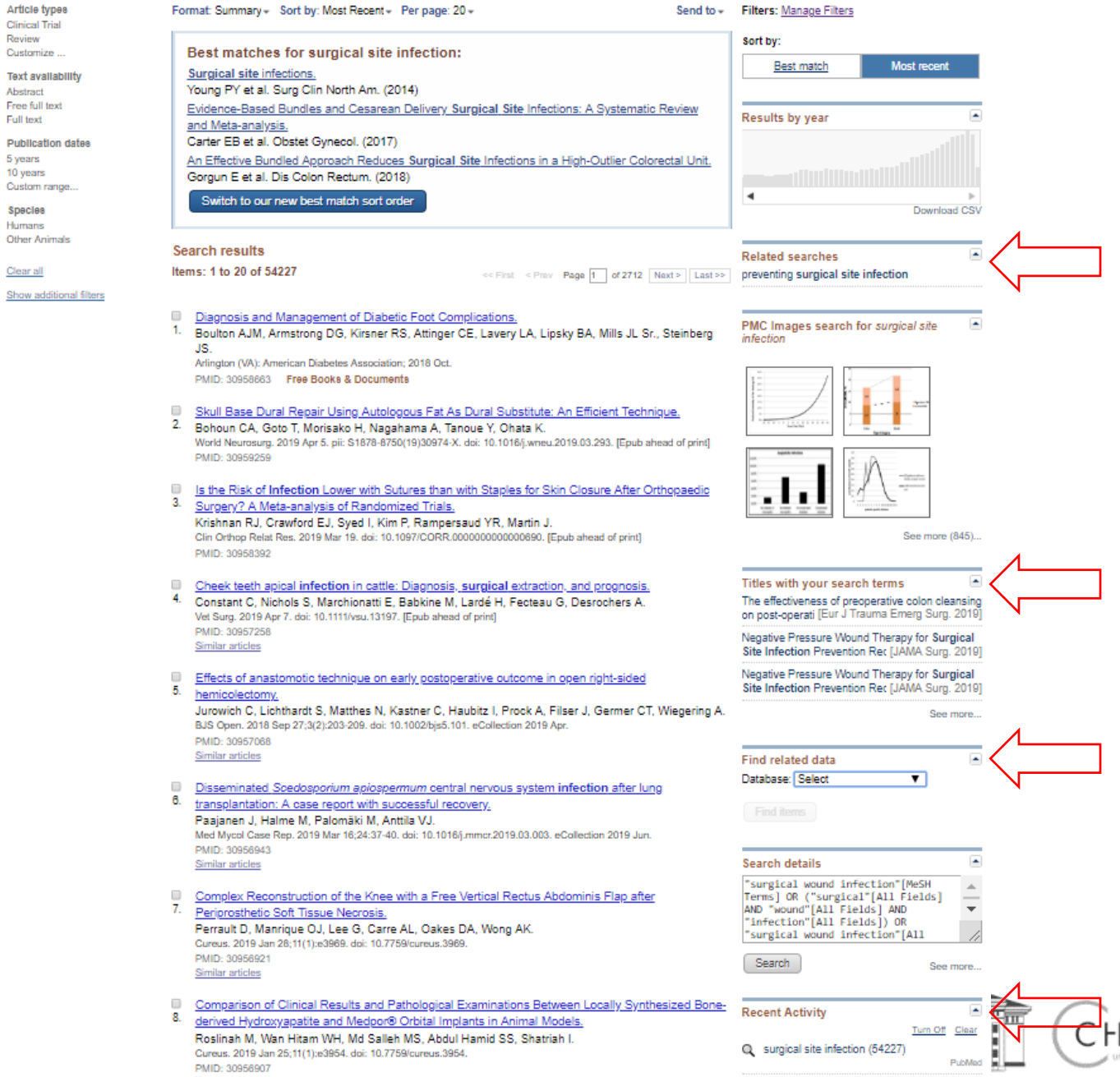
…and with user behaviour logs

- Related searches
- Articles viewed together
- Autocomplete (suggestions)

Searching

All results

Example: surgical site infection



Article types
Clinical Trial
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Text availability
Abstract
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Full text

Publication dates
5 years
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Custom range...

Species
Humans
Other Animals

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Filters: Manage Filters

Best matches for surgical site infection:

Surgical site infections.
Young PY et al. Surg Clin North Am. (2014)

Evidence-Based Bundles and Cesarean Delivery Surgical Site Infections: A Systematic Review and Meta-analysis.
Carter EB et al. Obstet Gynecol. (2017)

An Effective Bundled Approach Reduces Surgical Site Infections in a High-Outlier Colorectal Unit.
Gorgun E et al. Dis Colon Rectum. (2018)

Switch to our new best match sort order

Search results

Items: 1 to 20 of 54227

<< First < Prev Page 1 of 2712 Next > Last >>

1. Diagnosis and Management of Diabetic Foot Complications.
Boulton AJM, Armstrong DG, Kirsner RS, Attinger CE, Lavery LA, Lipsky BA, Mills JL Sr., Steinberg JS.
Arlington (VA): American Diabetes Association; 2018 Oct.
PMID: 30958663 Free Books & Documents

2. Skull Base Dural Repair Using Autologous Fat As Dural Substitute: An Efficient Technique.
Bohoun CA, Goto T, Morisako H, Nagahama A, Tanoue Y, Ohata K.
World Neurosurg. 2019 Apr 5. pii: S1878-8750(19)30974-X. doi: 10.1016/j.wneu.2019.03.293. [Epub ahead of print]
PMID: 30959259

3. Is the Risk of Infection Lower with Sutures than with Staples for Skin Closure After Orthopaedic Surgery? A Meta-analysis of Randomized Trials.
Krishnan RJ, Crawford EJ, Syed I, Kim P, Rampersaud YR, Martin J.
Clin Orthop Relat Res. 2019 Mar 19. doi: 10.1097/CORR.0000000000000690. [Epub ahead of print]
PMID: 30958392

4. Cheek teeth apical infection in cattle: Diagnosis, surgical extraction, and prognosis.
Constant C, Nichols S, Marchionatti E, Babkine M, Lardé H, Fecteau G, Desrochers A.
Vet Surg. 2019 Apr 7. doi: 10.1111/vsu.13197. [Epub ahead of print]
PMID: 30957258
Similar articles

5. Effects of anastomotic technique on early postoperative outcome in open right-sided hemicolectomy.
Jurowich C, Lichthardt S, Matthes N, Kastner C, Haubitz I, Prock A, Filser J, Germer CT, Wiegering A.
BJS Open. 2018 Sep 27;3(2):203-209. doi: 10.1002/bjs5.101. eCollection 2019 Apr.
PMID: 30957068
Similar articles

6. Disseminated *Scedosporium apiospermum* central nervous system infection after lung transplantation: A case report with successful recovery.
Paajanen J, Halme M, Palomäki M, Anttila VJ.
Med Mycol Case Rep. 2019 Mar 16;24:37-40. doi: 10.1016/j.mmcr.2019.03.003. eCollection 2019 Jun.
PMID: 30956943
Similar articles

7. Complex Reconstruction of the Knee with a Free Vertical Rectus Abdominis Flap after Periprosthetic Soft Tissue Necrosis.
Perrault D, Manrique OJ, Lee G, Carre AL, Oakes DA, Wong AK.
Cureus. 2019 Jan 28;11(1):e3969. doi: 10.7759/cureus.3969.
PMID: 30956921
Similar articles

8. Comparison of Clinical Results and Pathological Examinations Between Locally Synthesized Bone-derived Hydroxyapatite and Medpor® Orbital Implants in Animal Models.
Roslinah M, Wan Hitam WH, Md Salleh MS, Abdul Hamid SS, Shatriah I.
Cureus. 2019 Jan 25;11(1):e3954. doi: 10.7759/cureus.3954.
PMID: 30956907

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preventing surgical site infection

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The effectiveness of preoperative colon cleansing on post-operati [Eur J Trauma Emerg Surg. 2019]
Negative Pressure Wound Therapy for Surgical Site Infection Prevention Rec [JAMA Surg. 2019]
Negative Pressure Wound Therapy for Surgical Site Infection Prevention Rec [JAMA Surg. 2019]
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Database: Select
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Search details
"surgical wound infection"[MeSH Terms] OR ("surgical"[All Fields] AND "wound"[All Fields] AND "infection"[All Fields]) OR "surgical wound infection"[All
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Searching

Individual Citation

Format: Abstract

Send to

Orthop Traumatol Surg Res. 2016 Apr;102(2):161-5. doi: 10.1016/j.otsr.2015.12.017. Epub 2016 Feb 10.

Can the presence of an infection be predicted before a revision total hip arthroplasty? Preliminary study to establish an infection score.

Jenny JY[1], Adamczewski B[2], De Thomasson E[3], Godet J[2], Bonfait H[4], Delaunay C[4], French Hip, Knee Society (SFHG).

Author information

Abstract

INTRODUCTION: The diagnosis of periprosthetic joint **infection** can be challenging, in part because there is no universal diagnostic test. Current recommendations include several diagnostic criteria, and are mainly based on the results of deep microbiological samples; however, these only provide a diagnosis after surgery. A predictive **infection** score would improve the management of revision arthroplasty cases. The purpose of this study was to define a composite **infection** score using standard clinical, radiological and laboratory data that can be used to predict whether an **infection** is present before a total hip arthroplasty (THA) revision procedure.

HYPOTHESIS: The **infection** score will make it possible to differentiate correctly between infected and non-infected patients in 75% of cases.

MATERIAL AND METHODS: One hundred and four records from patients who underwent THA revision for any reason were analysed retrospectively: 43 with **infection** and 61 without **infection**. There were 54 men and 50 women with an average age of 70±12 years (range 30-90). A univariate analysis was performed to look for individual discriminating factors between the data in the medical records of infected and non-infected patients. A multivariate analysis subsequently integrated these factors together. A composite score was defined and its diagnostic effectiveness was evaluated as the percentage of correctly classified records, along with its sensitivity and specificity.

RESULTS: The score consisted of the following individually weighed factors: body mass index, presence of diabetes, mechanical complication, **wound** healing disturbance and fever. This composite **infection** score was able to distinguish correctly between the infected patients (positive score) and non-infected patients (negative score) in 78% of cases; the sensitivity was 57% and the specificity 93%.

DISCUSSION: Once this score is evaluated prospectively, it could be an important tool for defining the medical - **surgical** strategy during THA revision, no matter the reason for revision.

LEVEL OF EVIDENCE: Level IV - retrospective study.

KEYWORDS: Infection; Preoperative diagnosis; Revision; Total hip arthroplasty

PMID: 26874447 DOI: 10.1016/j.otsr.2015.12.017

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MeSH terms

LinkOut - more resources

Full text links

ELSEVIER OPEN ACCESS

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Periprosthetic Joint Infection in Hip Arthroplasty: Is There an Associ [Clin Orthop Relat Res. 2016]

Prospective analysis of preoperative and intraoperative inves [J Bone Joint Surg Am. 1999]

Perioperative testing for joint infection in patients undergoing revision [J Bone Joint Surg Am. 2008]

Review Megaprostheses in the Revision of Infected Total Hip [Bull Hosp Jt Dis (2013). 2015]

Review Extensively coated non-modular stem used in two-stage revision for [Orthop Surg. 2014]

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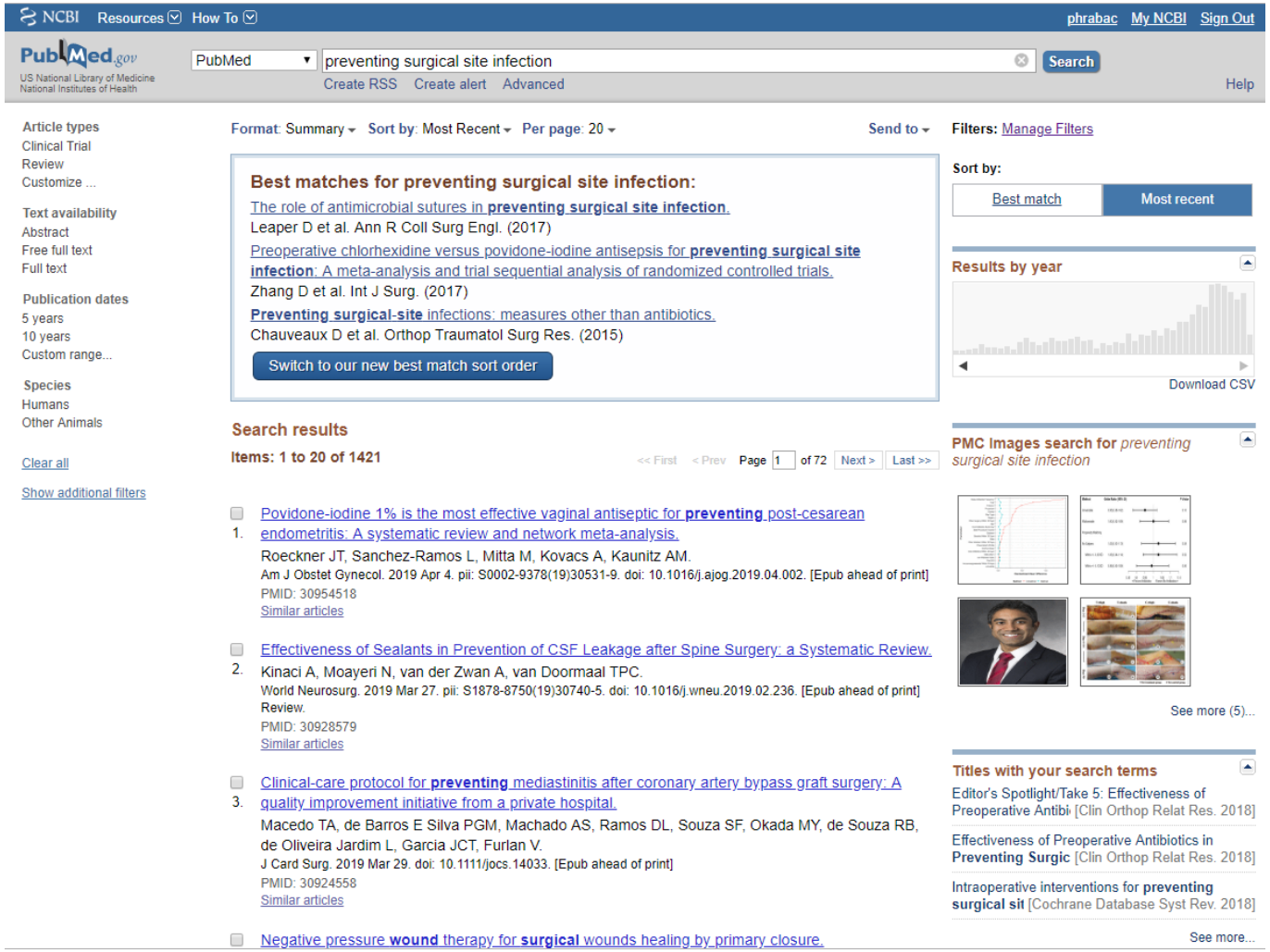
Searching

Being Specific

Example: preventing surgical site infection



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Searching

Pitfalls

Example: ALS nutrition

Search Details

Query Translation:
als[All Fields] AND ("nutritional status"[MeSH Terms] OR ("nutritional"[All Fields] AND "status"[All Fields]) OR "nutritional status"[All Fields] OR "nutrition"[All Fields] OR "nutritional sciences"[MeSH Terms] OR ("nutritional"[All Fields] AND "sciences"[All Fields]) OR "nutritional sciences"[All Fields])
Search URL
Result:
373
Database:
PubMed
User query:
als[All Fields] AND ("nutritional status"[MeSH Terms] OR ("nutritional"[All Fields] AND "status"[All Fields]) OR "nutritional status"[All Fields] OR "nutrition"[All Fields] OR "nutritional sciences"[MeSH Terms] OR ("nutritional"[All Fields] AND "sciences"[All Fields]) OR "nutritional sciences"[All Fields])

Searching

Pitfalls

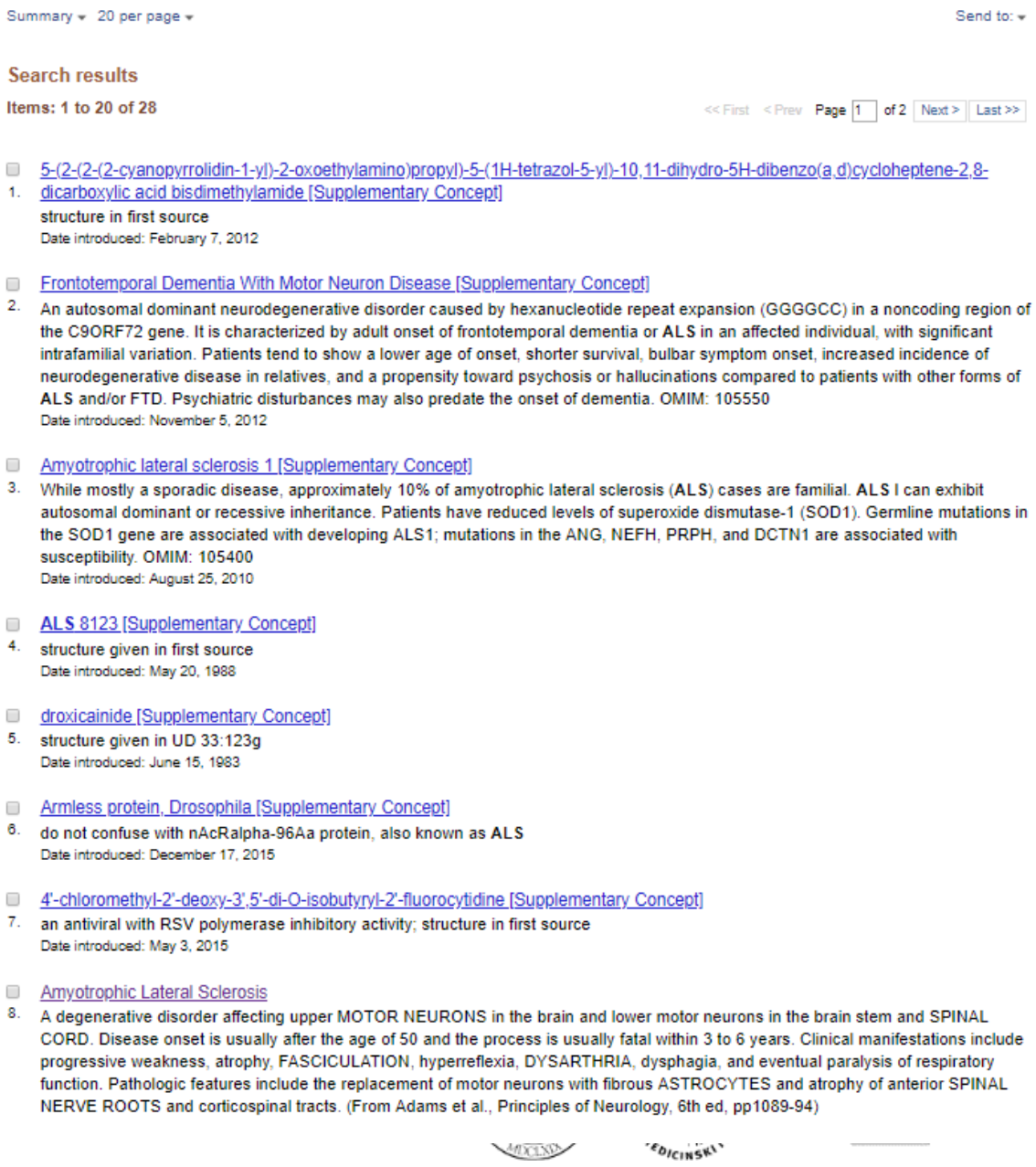
Example: ALS nutrition

Problem:

- Acronym,
- Ambiguous,
- Not mapped properly!

Solution:

- MesH.



Summary 20 per page Send to:

Search results

Items: 1 to 20 of 28

<< First < Prev Page 1 of 2 Next > Last >>

1. 5-(2-(2-(2-cyanopyrrolidin-1-yl)-2-oxoethylamino)propyl)-5-(1H-tetrazol-5-yl)-10,11-dihydro-5H-dibenzo(a,d)cycloheptene-2,8-dicarboxylic acid bisdimethylamide [Supplementary Concept]
   structure in first source
   Date introduced: February 7, 2012

2. Frontotemporal Dementia With Motor Neuron Disease [Supplementary Concept]
   An autosomal dominant neurodegenerative disorder caused by hexanucleotide repeat expansion (GGGGCC) in a noncoding region of the C9ORF72 gene. It is characterized by adult onset of frontotemporal dementia or **ALS** in an affected individual, with significant intrafamilial variation. Patients tend to show a lower age of onset, shorter survival, bulbar symptom onset, increased incidence of neurodegenerative disease in relatives, and a propensity toward psychosis or hallucinations compared to patients with other forms of **ALS** and/or FTD. Psychiatric disturbances may also predate the onset of dementia. OMIM: 105550
   Date introduced: November 5, 2012

3. Amyotrophic lateral sclerosis 1 [Supplementary Concept]
   While mostly a sporadic disease, approximately 10% of amyotrophic lateral sclerosis (**ALS**) cases are familial. **ALS** I can exhibit autosomal dominant or recessive inheritance. Patients have reduced levels of superoxide dismutase-1 (SOD1). Germline mutations in the SOD1 gene are associated with developing ALS1; mutations in the ANG, NEFH, PRPH, and DCTN1 are associated with susceptibility. OMIM: 105400
   Date introduced: August 25, 2010

4. **ALS** 8123 [Supplementary Concept]
   structure given in first source
   Date introduced: May 20, 1988

5. droxicainide [Supplementary Concept]
   structure given in UD 33:123g
   Date introduced: June 15, 1983

6. Armless protein, Drosophila [Supplementary Concept]
   do not confuse with nAcRalpha-96Aa protein, also known as **ALS**
   Date introduced: December 17, 2015

7. 4'-chloromethyl-2'-deoxy-3',5'-di-O-isobutyryl-2'-fluorocytidine [Supplementary Concept]
   an antiviral with RSV polymerase inhibitory activity; structure in first source
   Date introduced: May 3, 2015

8. Amyotrophic Lateral Sclerosis
   A degenerative disorder affecting upper MOTOR NEURONS in the brain and lower motor neurons in the brain stem and SPINAL CORD. Disease onset is usually after the age of 50 and the process is usually fatal within 3 to 6 years. Clinical manifestations include progressive weakness, atrophy, FASCICULATION, hyperreflexia, DYSARTHRIA, dysphagia, and eventual paralysis of respiratory function. Pathologic features include the replacement of motor neurons with fibrous ASTROCYTES and atrophy of anterior SPINAL NERVE ROOTS and corticospinal tracts. (From Adams et al., Principles of Neurology, 6th ed, pp1089-94)

Searching

Pitfalls

Example: ALS nutrition

Do not include MeSH terms found below this term in the MeSH hierarchy.

Tree Number(s): C10.228.854.139, C10.574.562.250, C10.574.950.050, C10.668.467.250, C18.452.845.800.050
MeSH Unique ID: D000690
Entry Terms:

- Sclerosis, Amyotrophic Lateral
- Charcot Disease
- Motor Neuron Disease, Amyotrophic Lateral Sclerosis
- Lou Gehrig Disease
- Lou Gehrig's Disease
- Lou-Gehrigs Disease
- Disease, Lou-Gehrigs
- **ALS** (Amyotrophic Lateral Sclerosis)
- Gehrig's Disease
- Gehrig Disease
- Gehrigs Disease
- Amyotrophic Lateral Sclerosis, Guam Form
- Amyotrophic Lateral Sclerosis, Parkinsonism-Dementia Complex of Guam
- Amyotrophic Lateral Sclerosis, Parkinsonism Dementia Complex of Guam
- Guam Form of Amyotrophic Lateral Sclerosis
- Amyotrophic Lateral Sclerosis-Parkinsonism-Dementia Complex 1
- Amyotrophic Lateral Sclerosis Parkinsonism Dementia Complex 1
- Guam Disease
- Disease, Guam
- Amyotrophic Lateral Sclerosis With Dementia
- Dementia With Amyotrophic Lateral Sclerosis

Synonims

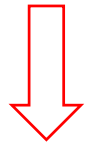
All MeSH Categories
Diseases Category
Nervous System Diseases
Central Nervous System Diseases
Spinal Cord Diseases
Amyotrophic Lateral Sclerosis

All MeSH Categories
Diseases Category
Nervous System Diseases
Neurodegenerative Diseases
Motor Neuron Disease
Amyotrophic Lateral Sclerosis

All MeSH Categories
Diseases Category
Nervous System Diseases
Neurodegenerative Diseases
TDP-43 Proteinopathies
Amyotrophic Lateral Sclerosis

All MeSH Categories
Diseases Category
Nervous System Diseases

Less specific



More specific

Searching

Pitfalls

Example: ALS nutrition

Mapping:

- MeSH (explicitly) or
- PubMed?

MeSH (explicitly):

"Amyotrophic Lateral Sclerosis"[Mesh] nutrition

=

291 results

PubMed:

amyotrophic lateral sclerosis nutrition

=

380 results

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Searching

Pitfalls

Example: ALS nutrition

Mapping:

- MeSH (explicitly) or
- PubMed?

- Missing citations?

"Amyotrophic Lateral Sclerosis"[Mesh] nutrition

1. Taste changes in amyotrophic lateral sclerosis and effects on quality of life.
Tarlarini C, Greco LC, Lizio A, Gerardi F, Sansone VA, Lunetta C.
Neurol Sci. 2019 Feb;40(2):399-404. doi: 10.1007/s10072-018-3672-z. Epub 2018 Dec 4.
PMID: 30515604
Similar articles

2. Serum irisin is upregulated in patients affected by amyotrophic lateral sclerosis and correlates with functional and metabolic status.
Lunetta C, Lizio A, Tremolizzo L, Ruscica M, Macchi C, Riva N, Weydt P, Corradi E, Magni P, Sansone V.
J Neurol. 2018 Dec;265(12):3001-3008. doi: 10.1007/s00415-018-9093-3. Epub 2018 Oct 22.
PMID: 30350189
Similar articles

3. [Nutritional management of amyotrophic lateral sclerosis: summary of recommendations].
Del Olmo García MªD, Virgili Casas N, Cantón Blanco A, Lozano Fuster FM, Wanden-Berghe C, Avilés V, Ashbaugh Enguídanos R, Ferrero López I, Molina Soria JB, Montejo González JC, Bretón Lesmes I, Álvarez Hernández J, Moreno Villares JM, Senpe GTÉS.
Nutr Hosp. 2018 Oct 8;35(5):1243-1251. doi: 10.20960/nh.2162. Review. Spanish. No abstract available.
PMID: 30307310 Free Article
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4. Swim Training Modulates Skeletal Muscle Energy Metabolism, Oxidative Stress, and Mitochondrial Cholesterol Content in Amyotrophic Lateral Sclerosis Mice.
Flis DJ, Dzik K, Kaczor JJ, Halon-Golabek M, Antosiewicz J, Wieckowski MR, Ziolkowski W.
Oxid Med Cell Longev. 2018 Apr 11;2018:5940748. doi: 10.1155/2018/5940748. eCollection 2018.
PMID: 29849903 Free PMC Article
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5. The increasing importance of environmental conditions in amyotrophic lateral sclerosis.
Riancho J, Bosque-Varela P, Perez-Pereda S, Povedano M, de Munaín AL, Santurtun A.
Int J Biometeorol. 2018 Aug;62(8):1361-1374. doi: 10.1007/s00484-018-1550-2. Epub 2018 Apr 30. Review.
PMID: 29713861
Similar articles

6. Possible etiology and treatment of amyotrophic lateral sclerosis.
Holecek V, Rokyta R.
Neuro Endocrinol Lett. 2018 Feb;38(8):528-531. Review.
PMID: 29504729
Similar articles

7. Riluzole and other prognostic factors in ALS: a population-based registry study in Italy.
Mandrioli J, Malerba SA, Beghi E, Fini N, Fasano A, Zucchi E, De Pasqua S, Guidi C, Terlizzi E, Sette E, Ravasio A, Casmiro M, Salvi F, Liguori R, Zinno L, Handouk Y, Rizzi R, Borghi A, Rinaldi R, Medici D, Santangelo M, Granieri E, Mussuto V, Aiello M, Ferro S, Vinceti M; ERRALS Group.
J Neurol. 2018 Apr;265(4):817-827. doi: 10.1007/s00415-018-8778-y. Epub 2018 Feb 5.
PMID: 29404735
Similar articles

8. Percutaneous endoscopic gastrostomy with and without jejunal extension in patients with amyotrophic lateral sclerosis.
Kirstein MM, Körner S, Schneider A, Manns MP, Petri S, Voigtländer T.
Eur J Gastroenterol Hepatol. 2018 Mar;30(3):257-262. doi: 10.1097/MEG.0000000000001054.
PMID: 29324589
Similar articles

9. Dietary intake and zinc status in amyotrophic lateral sclerosis patients.
Lopes da Silva HF, Brito ANA, Freitas EPS, Dourado MET Jr, Sena-Evangelista KCM, Leite Lais L.
Nutr Hosp. 2017 Oct 27;34(5):1361-1367. doi: 10.20960/nh.1004.
PMID: 29280652 Free Article
Similar articles

amyotrophic lateral sclerosis nutrition

1. Prediagnostic plasma metabolomics and the risk of amyotrophic lateral sclerosis.
Bjornevik K, Zhang Z, O'Reilly ÉJ, Berry JD, Clish CB, Deik A, Jeanfavre S, Kato I, Kelly RS, Kolonel LN, Liang L, Marchand LL, McCullough ML, Paganoni S, Pierce KA, Schwarzschild MA, Shadyab AH, Wactawski-Wende J, Wang DD, Wang Y, Manson JE, Ascherio A.
Neurology. 2019 Mar 29. pii: 10.1212/WNL.0000000000007401. doi: 10.1212/WNL.0000000000007401. [Epub ahead of print]
PMID: 30926684
Similar articles

2. Prognostic significance of body weight variation after diagnosis in ALS: a single-centre prospective cohort study.
Shimizu T, Nakayama Y, Matsuda C, Haraguchi M, Bokuda K, Ishikawa-Takata K, Kawata A, Isozaki E.
J Neurol. 2019 Mar 13. doi: 10.1007/s00415-019-09276-2. [Epub ahead of print]
PMID: 30868220
Similar articles

3. Physicians' attitudes toward end-of-life decisions in amyotrophic lateral sclerosis.
Thurn T, Borasio GD, Chiò A, Galvin M, McDermott CJ, Mora G, Sermeus W, Winkler AS, Anneser J.
Amyotroph Lateral Scler Frontotemporal Degener. 2019 Feb 21:1-8. doi: 10.1080/21678421.2018.1536154. [Epub ahead of print]
PMID: 30789031
Similar articles

4. Application of quercetin in neurological disorders: from nutrition to nanomedicine.
Amanzadeh E, Esmaeili A, Rahgozar S, Nourbakhshnia M.
Rev Neurosci. 2019 Feb 12. pii: /j/revneuro.ahead-of-print/revneuro-2018-0080/revneuro-2018-0080.xml. doi: 10.1515/revneuro-2018-0080. [Epub ahead of print]
PMID: 30753166
Similar articles

5. The Relevancy of Data Regarding the Metabolism of Iron to Our Understanding of Deregulated Mechanisms in ALS: Hypotheses and Pitfalls.
Petillon C, Hergesheimer R, Puy H, Corcia P, Vourc'h P, Andres C, Karim Z, Blasco H.
Front Neurosci. 2019 Jan 15;12:1031. doi: 10.3389/fnins.2018.01031. eCollection 2018. Review.
PMID: 30697143 Free PMC Article
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6. Swim Training Modulates Mouse Skeletal Muscle Energy Metabolism and Ameliorates Reduction in Grip Strength in a Mouse Model of Amyotrophic Lateral Sclerosis.
Flis DJ, Dzik K, Kaczor JJ, Cieminski K, Halon-Golabek M, Antosiewicz J, Wieckowski MR, Ziolkowski W.
Int J Mol Sci. 2019 Jan 9;20(2). pii: E233. doi: 10.3390/ijms20020233.
PMID: 30634386 Free PMC Article
Similar articles

7. Early weight loss in amyotrophic lateral sclerosis: outcome relevance and clinical correlates in a population-based cohort.
Moglia C, Calvo A, Grassano M, Canosa A, Manera U, D'Ovidio F, Bombaci A, Bersano E, Mazzini L, Mora G, Chiò A; Piemonte and Valle d'Aosta Register for ALS (PARALS).
J Neurol Neurosurg Psychiatry. 2019 Jan 10. pii: jnnp-2018-319611. doi: 10.1136/jnnp-2018-319611. [Epub ahead of print]
PMID: 30630957
Similar articles

8. β-N-methylamino-L-alanine (BMAA) suppresses cell cycle progression of non-neuronal cells.
Okamoto S, Esumi S, Hamaguchi-Hamada K, Hamada S.
Sci Rep. 2018 Dec 20;8(1):17995. doi: 10.1038/s41598-018-36418-9.
PMID: 30573743 Free PMC Article
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9. Taste changes in amyotrophic lateral sclerosis and effects on quality of life.
Tarlarini C, Greco LC, Lizio A, Gerardi F, Sansone VA, Lunetta C.
Neurol Sci. 2019 Feb;40(2):399-404. doi: 10.1007/s10072-018-3672-z. Epub 2018 Dec 4.
PMID: 30515604
Similar articles

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Searching

Mapping

Example: ALS physical therapy

Mapping:

- Sensor triggering,
- PubMed citation sensor,
- Title matching.

See 9 citations found by title matching your search:
Physical therapy for individuals with **amyotrophic lateral sclerosis**: current insights. Bello-Haas VD et al. Degener Neurol Neuromuscul Dis. (2018)
Patient-Reported Outcome of **Physical Therapy** in **Amyotrophic Lateral Sclerosis**: Observational Online Study. Meyer R et al. JMIR Rehabil Assist Technol. (2018)
Physical therapy improves lower limb muscle strength but not function in individuals with **amyotrophic lateral sclerosis**: A case series study. Kato N et al. Ann Phys Rehabil Med. (2018)

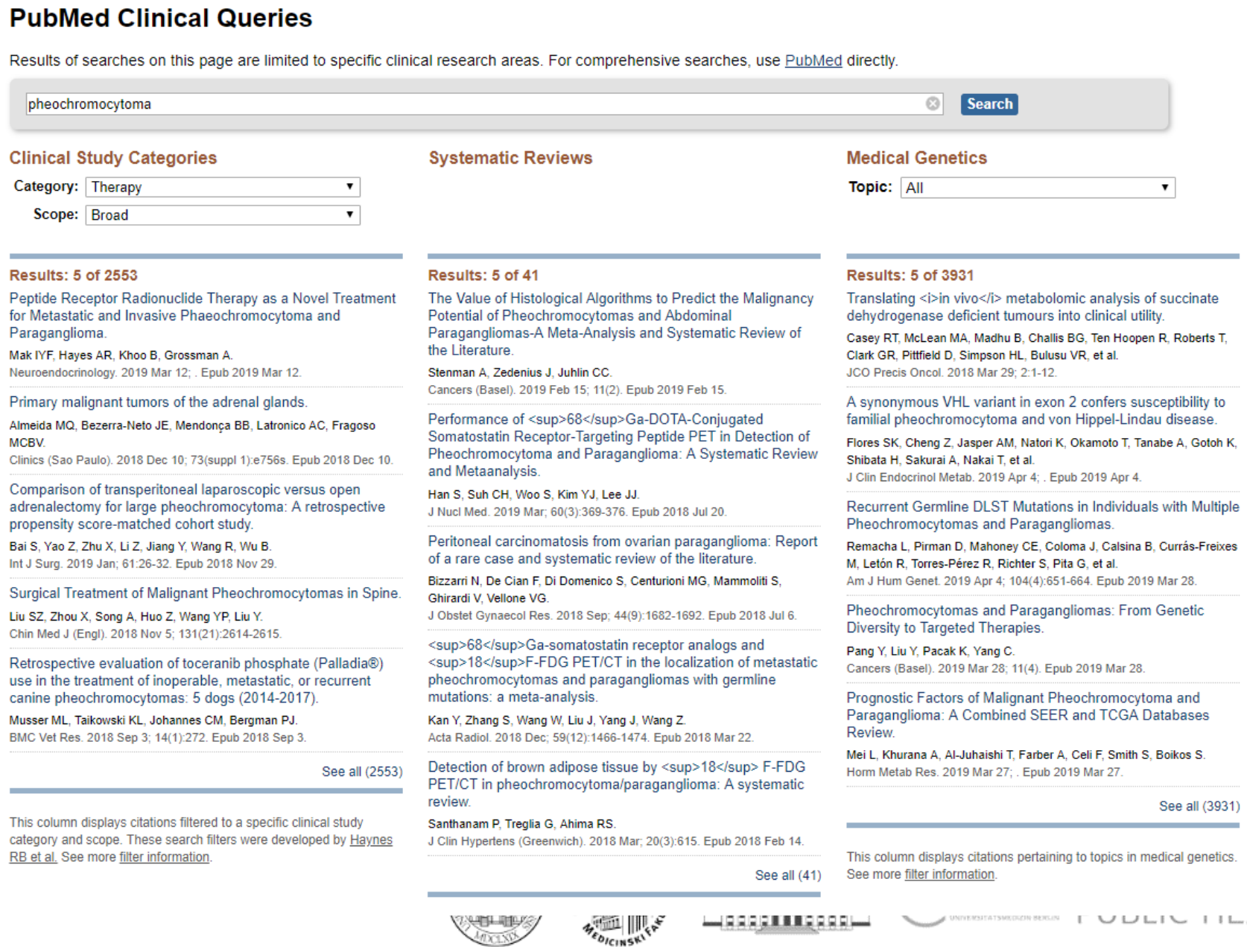
Searching

Clinical Queries

Example: pheochromocytoma

Aim:

- To connect clinicians to evidence-based clinical literature



PubMed Clinical Queries

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

pheochromocytoma

Search

Clinical Study Categories

Category: Therapy

Scope: Broad

Results: 5 of 2553

Peptide Receptor Radionuclide Therapy as a Novel Treatment for Metastatic and Invasive Phaeochromocytoma and Paraganglioma.
Mak IYF, Hayes AR, Khoo B, Grossman A.
Neuroendocrinology. 2019 Mar 12; . Epub 2019 Mar 12.

Primary malignant tumors of the adrenal glands.
Almeida MQ, Bezerra-Neto JE, Mendonça BB, Latronico AC, Fragoso MCBV.
Clinics (Sao Paulo). 2018 Dec 10; 73(suppl 1):e756s. Epub 2018 Dec 10.

Comparison of transperitoneal laparoscopic versus open adrenalectomy for large pheochromocytoma: A retrospective propensity score-matched cohort study.
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Musser ML, Taikowski KL, Johannes CM, Bergman PJ.
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See all (2553)

This column displays citations filtered to a specific clinical study category and scope. These search filters were developed by Haynes RB et al. See more filter information.

Systematic Reviews

Results: 5 of 41

The Value of Histological Algorithms to Predict the Malignancy Potential of Pheochromocytomas and Abdominal Paragangliomas-A Meta-Analysis and Systematic Review of the Literature.
Stenman A, Zedenius J, Juhlin CC.
Cancers (Basel). 2019 Feb 15; 11(2). Epub 2019 Feb 15.

Performance of ⁶⁸Ga-DOTA-Conjugated Somatostatin Receptor-Targeting Peptide PET in Detection of Pheochromocytoma and Paraganglioma: A Systematic Review and Metaanalysis.
Han S, Suh CH, Woo S, Kim YJ, Lee JJ.
J Nucl Med. 2019 Mar; 60(3):369-376. Epub 2018 Jul 20.

Peritoneal carcinomatosis from ovarian paraganglioma: Report of a rare case and systematic review of the literature.
Bizzarri N, De Cian F, Di Domenico S, Centurioni MG, Mammoliti S, Ghirardi V, Vellone VG.
J Obstet Gynaecol Res. 2018 Sep; 44(9):1682-1692. Epub 2018 Jul 6.

⁶⁸Ga-somatostatin receptor analogs and ¹⁸F-FDG PET/CT in the localization of metastatic pheochromocytomas and paragangliomas with germline mutations: a meta-analysis.
Kan Y, Zhang S, Wang W, Liu J, Yang J, Wang Z.
Acta Radiol. 2018 Dec; 59(12):1466-1474. Epub 2018 Mar 22.

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Santhanam P, Treglia G, Ahima RS.
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See all (41)

Medical Genetics

Topic: All

Results: 5 of 3931

Translating in vivo metabolomic analysis of succinate dehydrogenase deficient tumours into clinical utility.
Casey RT, McLean MA, Madhu B, Challis BG, Ten Hoopen R, Roberts T, Clark GR, Pittfield D, Simpson HL, Bulusu VR, et al.
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Recurrent Germline DLST Mutations in Individuals with Multiple Pheochromocytomas and Paragangliomas.
Remacha L, Pirman D, Mahoney CE, Coloma J, Calsina B, Currás-Freixes M, Letón R, Torres-Pérez R, Richter S, Pita G, et al.
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Prognostic Factors of Malignant Pheochromocytoma and Paraganglioma: A Combined SEER and TCGA Databases Review.
Mei L, Khurana A, Al-Juhaishi T, Farber A, Celi F, Smith S, Boikos S.
Horm Metab Res. 2019 Mar 27; . Epub 2019 Mar 27.

See all (3931)

This column displays citations pertaining to topics in medical genetics. See more filter information.

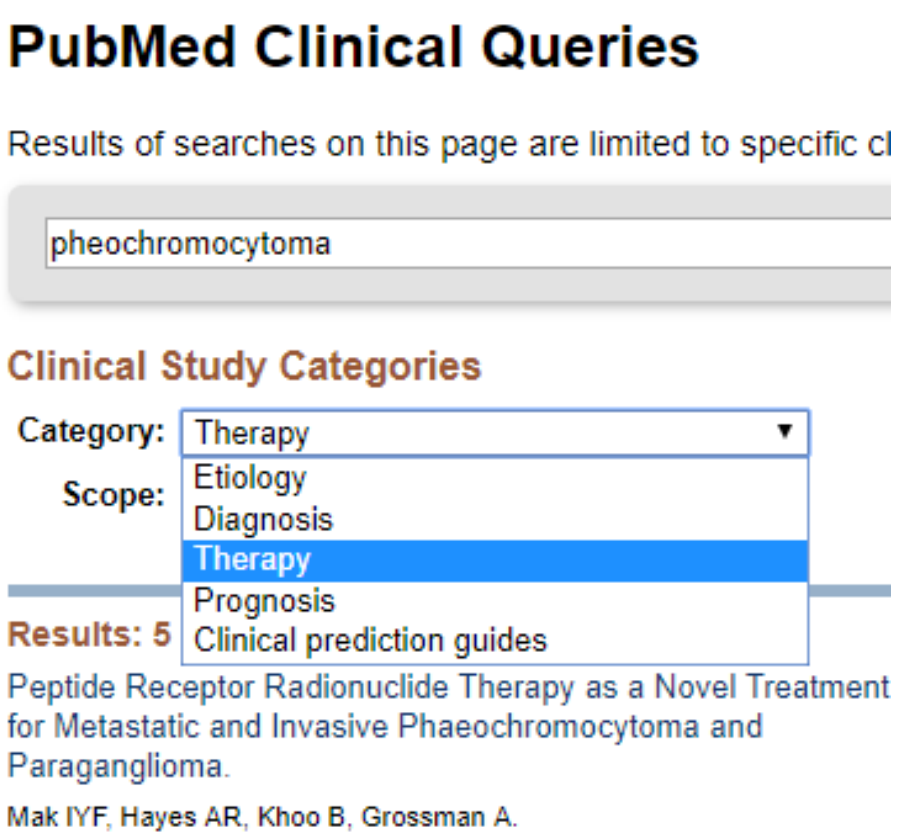
Searching

Clinical Queries

Example: pheochromocytoma

Note:

- Category,
- Scope.



Searching

Clinical Queries

Example: pheochromocytoma

Single article view (PMID 30030341)

Category	Optimized For	Sensitive/ Specific	PubMed Equivalent
therapy	sensitive/broad	99%/70%	((clinical[Title/Abstract] AND trial[Title/Abstract]) OR clinical trials as topic[MeSH Terms] OR clinical trial[Publication Type] OR random*[Title/Abstract] OR random allocation[MeSH Terms] OR therapeutic use[MeSH Subheading])
	specific/narrow	93%/97%	(randomized controlled trial[Publication Type] OR (randomized[Title/Abstract] AND controlled[Title/Abstract] AND trial[Title/Abstract]))
diagnosis	sensitive/broad	98%/74%	(sensitiv*[Title/Abstract] OR sensitivity and specificity[MeSH Terms] OR diagnose[Title/Abstract] OR diagnosed[Title/Abstract] OR diagnoses[Title/Abstract] OR diagnosing[Title/Abstract] OR diagnosis[Title/Abstract] OR diagnostic[Title/Abstract] OR diagnosis[MeSH:noexp] OR diagnostic * [MeSH:noexp] OR diagnosis,differential[MeSH:noexp] OR diagnosis[Subheading:noexp])
	specific/narrow	64%/98%	(specificity[Title/Abstract])
etiology	sensitive/broad	93%/63%	(risk*[Title/Abstract] OR risk*[MeSH:noexp] OR risk *[MeSH:noexp] OR cohort studies[MeSH Terms] OR group[Text Word] OR groups[Text Word] OR grouped [Text Word])
	specific/narrow	51%/95%	((relative[Title/Abstract] AND risk*[Title/Abstract]) OR (relative risk[Text Word]) OR risks[Text Word] OR cohort studies[MeSH:noexp] OR (cohort[Title/Abstract] AND study[Title/Abstract]) OR (cohort[Title/Abstract] AND studies[Title/Abstract]))
prognosis	sensitive/broad	90%/80%	(incidence[MeSH:noexp] OR mortality[MeSH Terms] OR follow up studies[MeSH:noexp] OR prognos*[Text Word] OR predict*[Text Word] OR course*[Text Word])
	specific/narrow	52%/94%	(prognos*[Title/Abstract] OR (first[Title/Abstract] AND episode[Title/Abstract]) OR cohort[Title/Abstract])
clinical prediction guides	sensitive/broad	96%/79%	(predict*[tiab] OR predictive value of tests[mh] OR score[tiab] OR scores[tiab] OR scoring system[tiab] OR scoring systems[tiab] OR observ*[tiab] OR observer variation[mh])
	specific/narrow	54%/99%	(validation[tiab] OR validate[tiab])

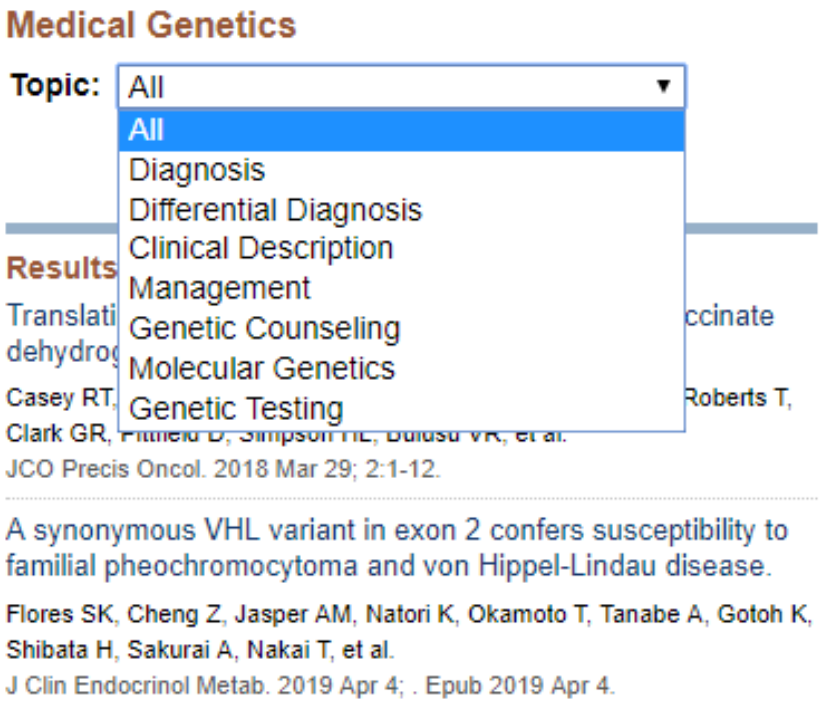
Searching

Clinical Queries

Example: pheochromocytoma

Note:

- Topic.



Searching

Clinical Queries

Example: pheochromocytoma

Single article view (PMID 30030341)

Format: Abstract — Send to

J Nucl Med. 2019 Mar;60(3):369-376. doi: 10.2967/jnumed.118.211706. Epub 2018 Jul 20.

Performance of ^{68}Ga-DOTA-Conjugated Somatostatin Receptor-Targeting Peptide PET in Detection of Pheochromocytoma and Paraganglioma: A Systematic Review and Metaanalysis.

Han S[1], Suh CH[2], Woo S[3], Kim YJ[4], Lee JJ[5].

Author information

Abstract

We performed a **systematic** review and metaanalysis of the performance of ^{68}Ga-DOTA-conjugated somatostatin receptor-targeting peptide (^{68}Ga-DOTA-SST) PET in the detection of pheochromocytomas and paragangliomas (PPGLs). **Methods:** PubMed and Embase were searched until May 8, 2018. We included studies that reported the detection rate of ^{68}Ga-DOTA-SST PET in patients with PPGLs. Detection rates were pooled using a random-effects model. Subgroup analyses and metaregression were performed to explore the cause of heterogeneity. **Results:** Thirteen studies were included for qualitative synthesis. Per-lesion detection rates of ^{68}Ga-DOTA-SST PET were consistently higher (ranging from 92% to 100%) than other imaging modalities, including ^{18}F-fluorohydroxyphenylalanine (^{18}F-FDOPA) PET, ^{18}F-FDG PET, and $^{123/131}$I-metaiodobenzylguanidine ($^{123/131}$I-MIBG) scintigraphy. However, in patients with polycythemia/paraganglioma syndrome, the detection rate of ^{68}Ga-DOTA-DOTATATE PET was 35%. Nine studies (215 patients) with no specific inclusion criteria for subtype were quantitatively synthesized. The pooled detection rate was 93% (95% confidence interval [CI], 91%-95%), which was significantly higher than that of ^{18}F-FDOPA PET (80% [95% CI, 69%-88%]), ^{18}F-FDG PET (74% [95% CI, 46%-91%]), and $^{123/131}$I-MIBG scan (38% [95% CI, 20%-59%], $P < 0.001$ for all). A greater prevalence of head and neck paragangliomas was associated with higher detection rates of ^{68}Ga-DOTA-SST PET ($P = 0.0002$). **Conclusion:** ^{68}Ga-DOTA-SST PET exhibited superior performance for lesion detection, over other functional imaging modalities, in patients with PPGLs, with the exception of polycythemia/paraganglioma syndrome. This might suggest ^{68}Ga-DOTA-SST PET as a first-line imaging modality for the primary staging of PPGL or the restaging of PPGL with unknown genetic status.

KEYWORDS: 68Ga-DOTANOC; 68Ga-DOTATATE; 68Ga-DOTATOC; paraganglioma; **pheochromocytoma**

PMID: 30030341 DOI: 10.2967/jnumed.118.211706

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Superiority of [68Ga]-DOTATATE PET/CT to Other Functional Imaging [Clin Cancer Res. 2015]

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Searching

Clinical Queries

Example: pheochromocytoma

Systematic Reviews actually includes:

- Systematic reviews,
- Meta analyses,
- Reviews of clinical trials,
- Evidence-based medicine,
- Consensus-development conferences,
- Guidelines.

Searching

Exercises (1)

Use the MeSH Database to build a strategy that will find citations to references discussing the economics of community-acquired pneumonia.

Searching

Exercises

Step 1: Select the MeSH Database, type pneumonia in the search box and click Search.

Step 2: Click on the Pneumonia term link to see the Full display for this term.

Step 3: Click in the check box next to the economics subheading. Click Add to search builder.

Step 4: Type in the next concept/term for your strategy, community-acquired, to search the MeSH Database to see if this concept is a MeSH heading.

Step 5: Read the scope note or definition for the term, Community-Acquired Infections. Because it seems appropriate for this search, click the term link to see the Full display for this term.

Step 6: Click in the check box next to the economics subheading to select that subheading. Select Add to search builder.

Step 7: Now you see the complete strategy you built within PubMed's MeSH Database. Click the Search PubMed button below the PubMed search builder to send the strategy to PubMed.

Searching

Exercises (2)

Use the NLM Catalog Journal search page to see if PubMed includes the journal, Molecular Microbiology. If so, retrieve all PubMed citations from this journal.

Searching

Exercises

Step 1: Select Journals in NCBI Databases from PubMed's home page.

Step 2: Type a few characters from the journal title in the search box, select the correct title and click Search.

Step 3: Click Add to search builder, to create a search string for records from this journal in PubMed.

Step 4: Click Search PubMed.

Searching

Exercises (3)

Use the Clinical Queries to find systematic reviews for accidents caused by sleep deprivation.

Searching

Exercises

Step 1: Select Clinical Queries from the PubMed homepage.

Step 2: Enter accidents sleep deprivation in the search box and click search. Review the citations listed under Systematic Reviews.

Step 3: Click See All to view all results in PubMed.

Searching

Exercises (4)

Using Sigle citation matcher find the article by Smith JC, published in 2003 in the BMJ.

Databases

EMBASE

MEDLINE	EMBASE
Over 23 million references to journal articles	Over 31 million indexed records
More than 5600 journals	More than 8500 indexed peer-reviewed journals
1946 to present with some older material	Biomedical literature from 1947 to present
Indexed with NLM Medical Subject Headings (MeSH)	Elsevier Life Science thesaurus Emtree
MeSH is updated once a year	Emtree is updated every three months
Free access via PubMed	Access-fee required

Databases

EMBASE

- For one, the indexing of publications within each thesaurus itself.
- This task is done by humans, i.e. experts in their fields who index each publication for MEDLINE (in **MeSH**) or EMBASE (in **Emtree**). As those experts are not the same persons for each database and humans naturally differ in their opinions, perceptions and their approaches of indexing results, the basis of the structures of EMBASE and MEDLINE can consequently vary as well.
- **MeSH** (used in MEDLINE) is the controlled vocabulary thesaurus of the National Library of Medicine and consists of sets of terms naming descriptors in a hierarchical structure. These descriptors are arranged in both, an alphabetic and a hierarchical structure.
- **Emtree** (used in EMBASE) is quite similar and was modeled based on MeSH in 1988. It includes a range of terms for drugs, diseases, medical devices and essential life science concepts.

Databases

Web of Science

- Web of Science (previously known as Web of Knowledge) is an online **subscription-based** scientific **citation indexing service** originally produced by the Institute for Scientific Information (ISI), later maintained by Clarivate Analytics (previously the Intellectual Property and Science business of Thomson Reuters),
- It provides a comprehensive citation search. It gives access to multiple databases that reference cross-disciplinary research, which allows for in-depth exploration of specialized sub-fields within an academic or scientific discipline.

Databases

Web of Science

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- It provides a comprehensive citation search. It gives access to multiple databases that reference cross-disciplinary research, which allows for in-depth exploration of specialized sub-fields within an academic or scientific discipline.

Databases

Web of Science

- Citations are the formal, explicit linkages between papers that have particular points in common. A citation index is built around these linkages. It lists publications that have been cited and identifies the sources of the citations. Anyone conducting a literature search can find from one to dozens of additional papers on a subject just by knowing one that has been cited. And every paper that is found provides a list of new citations with which to continue the search.
- The simplicity of citation indexing is one of its main strengths.

Garfield, Garfield, Eugene. Citation indexing: Its theory and application in science, technology, and humanities. New York: Wiley, 1979, P. 1.




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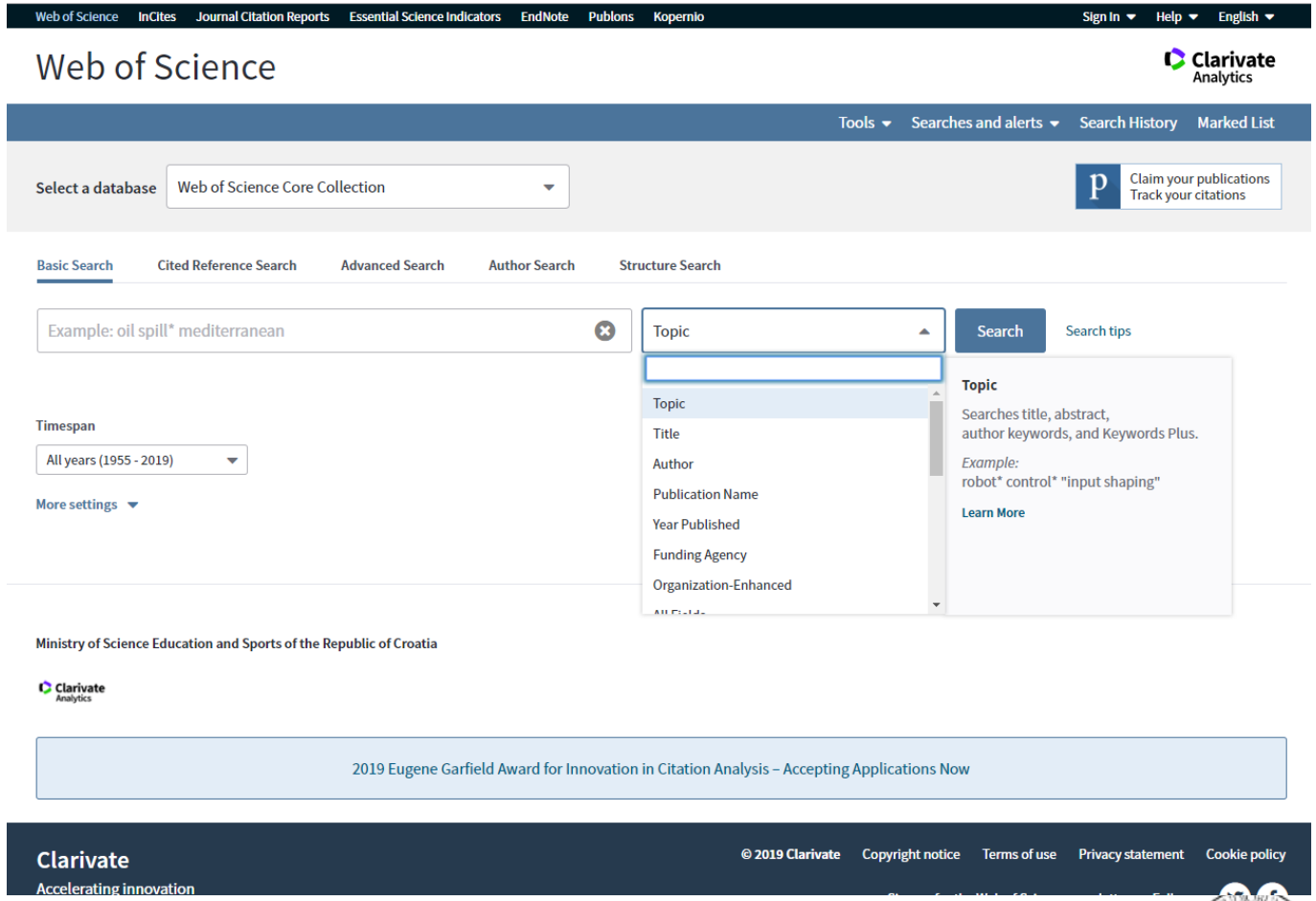
Databases

Web of Science – Basic search



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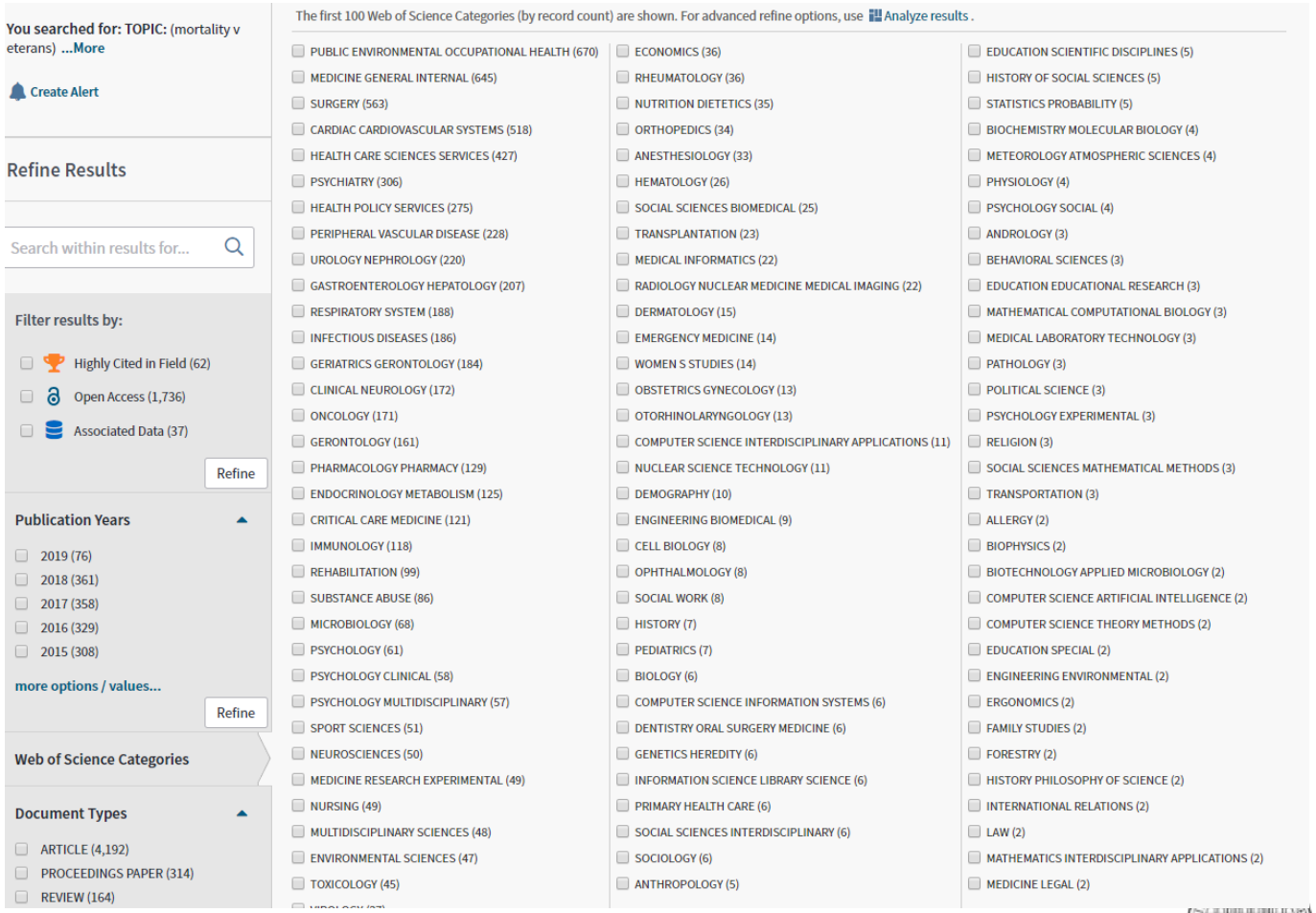
Databases

Web of Science – Refining the results



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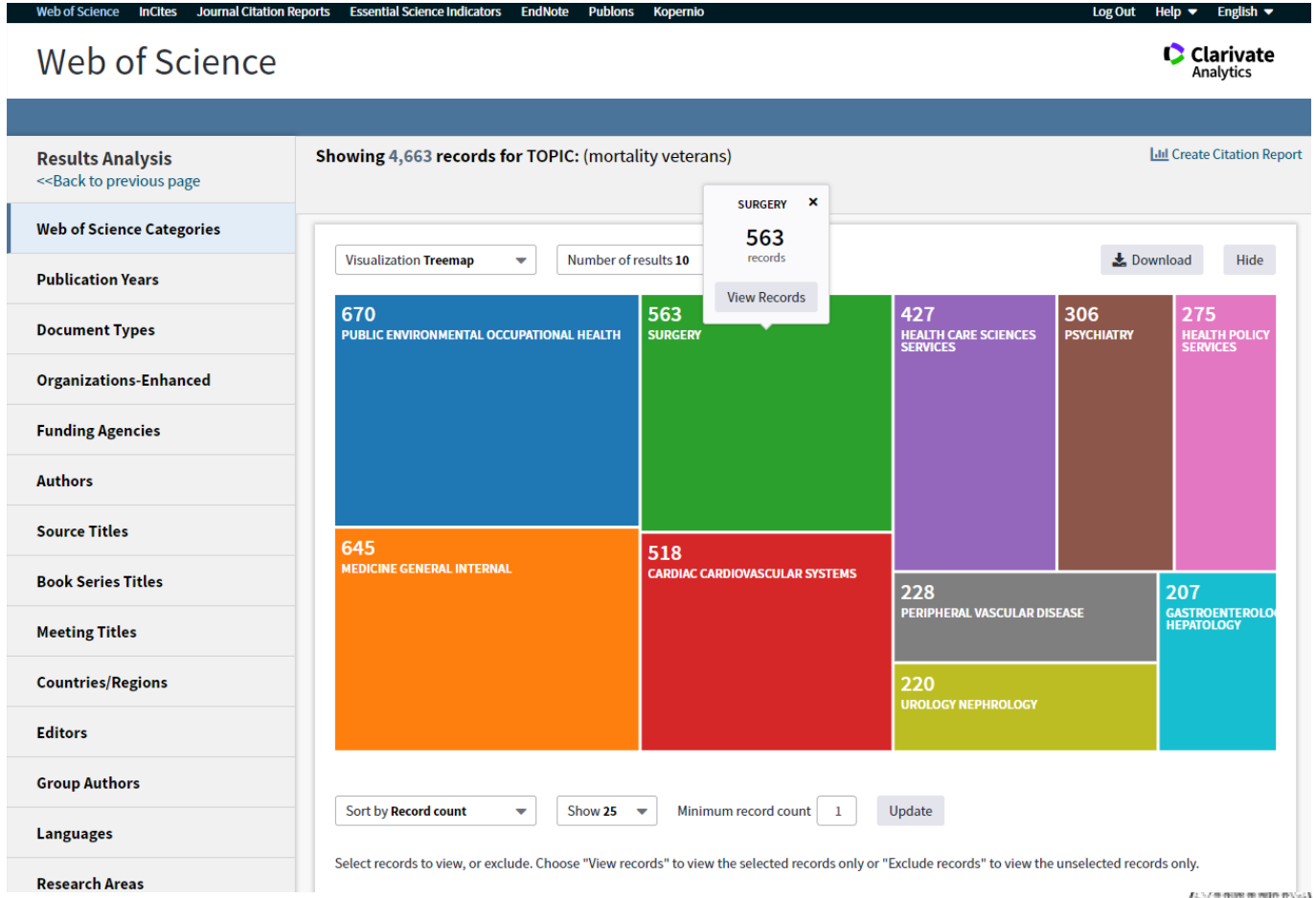
Databases

Web of Science – Filtering by topic



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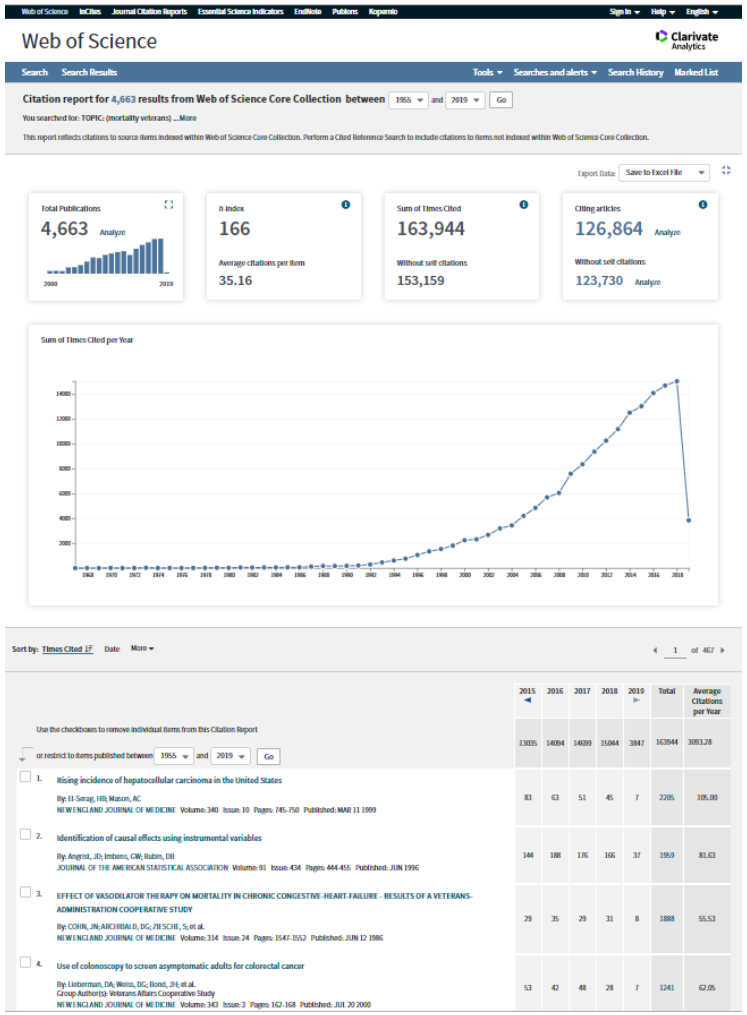
Databases

Web of Science – Sorting by number of citations



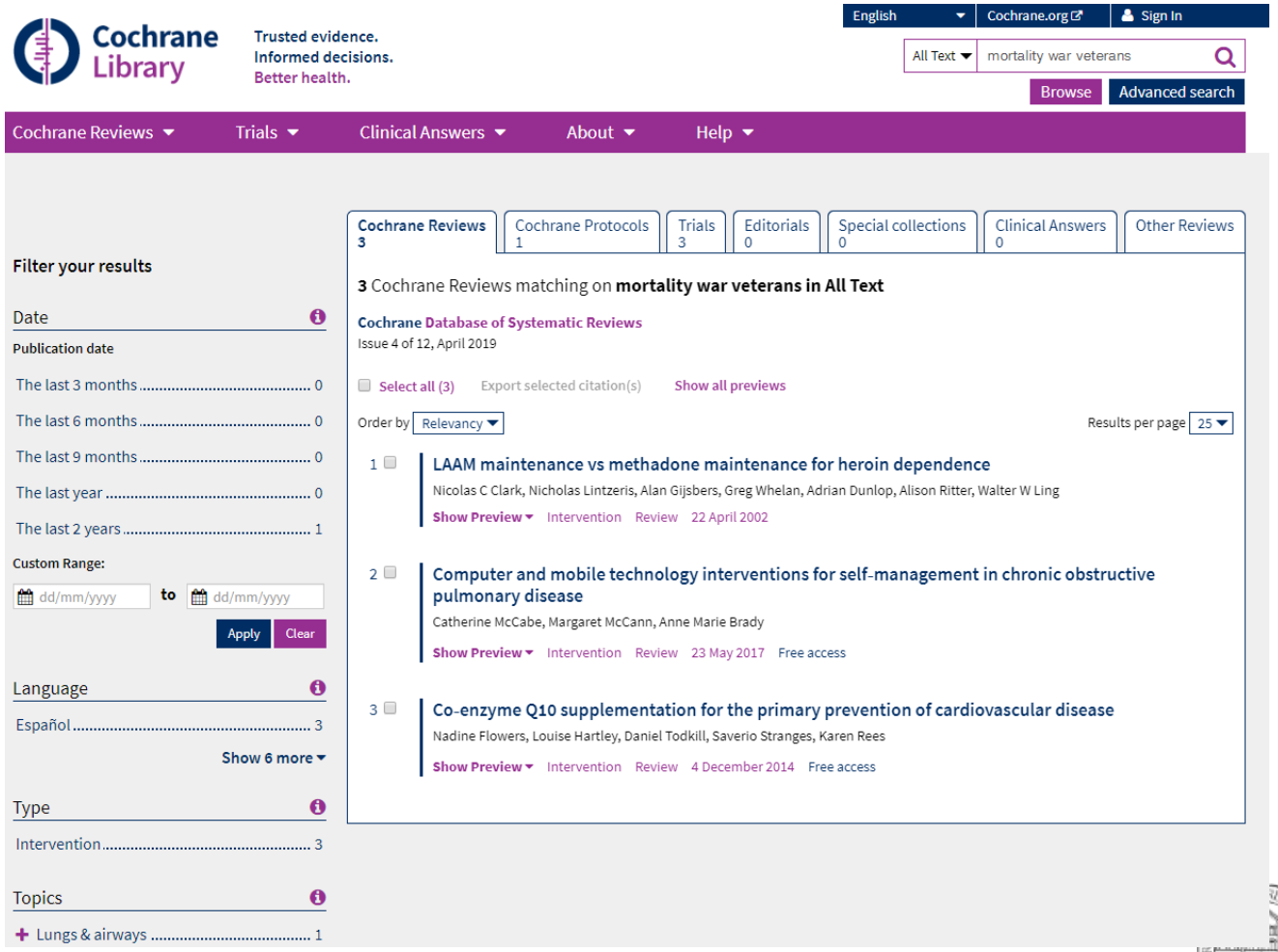
Databases

The Cochrane Central Register of Controlled Trials (CENTRAL)

- The Cochrane Central Register of Controlled Trials (CENTRAL) serves as the most comprehensive source of reports of controlled trials. CENTRAL is published as part of The Cochrane Library and is updated quarterly. As of January 2008 (Issue 1, 2008), CENTRAL contains nearly 530,000 citations to reports of trials and other studies potentially eligible for inclusion in Cochrane reviews, of which 310,000 trial reports are from MEDLINE, 50,000 additional trial reports are from EMBASE and the remaining 170,000 are from other sources such as other databases and handsearching.
- Many of the records in CENTRAL have been identified through systematic searches of MEDLINE and EMBASE. CENTRAL, however, includes citations to reports of controlled trials that are not indexed in MEDLINE, EMBASE or other bibliographic databases; citations published in many languages; and citations that are available only in conference proceedings or other sources that are difficult to access (Dickersin 2002). It also includes records from trials registers and trials results.

Databases

The Cochrane Central Register of Controlled Trials (CENTRAL)



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