



With this guide, we will guide you through various processes of searching for scientific literature.

This guide is intended for PhD students of the Amsterdam UMC Doctoral School. However, anyone, from a "beginner" to a starting PhD candidate can use the (online) resources of this guide.

The primary focus is to accommodate you in your current knowledge about the use of PubMed. You may have had previous education on how to use PubMed, but your acquired knowledge has faded over the years.

The medical library offers courses to PhD students through the Amsterdam UMC Doctoral School. Most of the available courses are e-learning. To be able to enter our (hybrid) course "Searching for a systematic review", general knowledge obtained through the available e-learning courses is required.

For further information, see the courses page of the Amsterdam UMC Doctoral School.

Finally, we provide support in the development of your search strategy for a (systematic) review. You can submit a request for this via the contact form on the intranet page of the [Medische Bibliotheek, AMC](#)

1. Formulating a (re)search question

Formulating a well-defined research question is the basis for the development of a search strategy in biomedical databases, such as PubMed.

See: Appendix I: Literature search and search process in PubMed

2. Searching on pubmed

After you have formulated a well-defined question, the next step is to convert this question into a search in (for example) PubMed. A useful tool for understanding the functionalities in PubMed is the E-learning Literatuur zoeken (medischonderwijs.nl). This e-learning can be accessed free of charge on medicalonderwijs.nl (registration is required)

Registration on via Medischonderwijs.nl:

The screenshot displays the Medischonderwijs.nl website. At the top, there is a navigation bar with the logo and a search bar. Below the navigation bar, there is a registration form with fields for 'E-mail address' and 'Password'. A red box highlights the 'Free registration!' button. To the right of the registration form, there is a search bar with a red box highlighting the 'GO' button. Below the registration form, there is a 'Welcome to medischonderwijs.nl' message. To the right of the welcome message, there is a list of participating members. Below the welcome message, there is a search bar with the text 'Search by keyword through online lessons'. Below the search bar, there is a list of search results. The first result is 'PubMed v.s. Google Scholar' with a duration of 20 minutes. The second result is 'MeSH' with a duration of 25 minutes. The third result is 'MeSH, vrije tekstwoorden en truncatie' with a duration of 15 minutes. The fourth result is 'Het opstellen van een zoekstrategie' with a duration of 20 minutes. Each result has a 'Show details' button.

Free registration!

Free Access !!!

After registering/ login you can search with the word 'literatuur'

Search by keyword through online lessons
literatuur

GO Advanced

Institution: Select an institution
Department: Select a department

Search result
Number of lesson(s) found: 7

Click on a thumbnail to enlarge the screenshot

PubMed v.s. Google Scholar [30s] ⓘ
Na de e-learning kan men bijzondere onderwerpen worden PubMed en/of Google Scholar wordt gebruikt.
Educational Setting:
Language: Nederlands - Duration: 20 minutes -
Show details

MeSH [30s] ⓘ
Na de e-learning kan men een semantische zoekactie uitvoeren, rekening houdend met de belangrijkste synoniemen en spellingsvarianten in Nederlands en Engels.
Educational Setting:
Language: Nederlands - Duration: 25 minutes -
Show details

MeSH, vrije tekstwoorden en truncatie [30s] ⓘ
Na de e-learning kan men een semantische zoekactie uitvoeren, rekening houdend met de belangrijkste synoniemen en spellingsvarianten in Nederlands en Engels.
Educational Setting:
Language: Nederlands - Duration: 15 minutes -
Show details

Het opstellen van een zoekstrategie [30s] ⓘ
Na de e-learning kan men de zoekstrategie op transparante- en reproduceerbare wijze rapporteren.
Educational Setting:
Language: Nederlands - Duration: 20 minutes -
Show details

Figure 1. after registration, search in the search field for the full E-learning "Literature search" or to search for the substantive topics mentioned below.

The following topics are covered in the E-learning Literature search:

- Boolean logic
- MeSH (introduction)
- MeSH, free text words and truncation
- Developing a strategy on PubMed
- Evaluation of search results
- PubMed vs Google Scholar

In addition to this interactive E-learning, the [PubMed intranet page](#) of the Medical Library contains more "tips and tricks" for [searching in databases](#)

3. Other interesting sources

3.1 Dutch Journal of Medicine

The web page of the [Dutch Journal of Medicine](#) (ntvg) has made a web manual, called "How do I find the best information" available for literature searches.

3.2 LibGuide Vrije Universiteit of Amsterdam

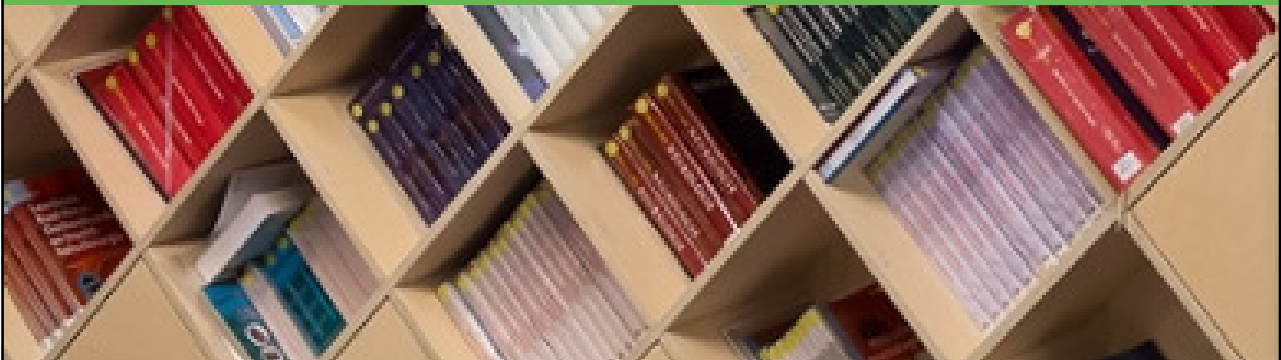
The Libguide of the Vrije University (VU) of Amsterdam, contains a special page, called "[Step-by-step plan for literature searches in PubMed: Introduction](#)". This page aims to guide you from a research question to a search strategy on PubMed. Supporting this page, a video demonstration of [How to search PubMed in a systematic way](#) is available.

Searching for literature

Part 2:

The process of searching for literature and searching in PubMed

Amsterdam UMC, Medical Library Amsterdam Medical Center(AMC)



Databases

- | | |
|----------------------------|--|
| • PubMed/Medline | (Bio)medical |
| • Medline (in AMC by Ovid) | (Bio)medical |
| • Embase (in AMC by Ovid) | (Bio)medical, pharmacological, psychiatry |
| • Cochrane Library (Wiley) | (Bio)medical |
| • TRIP Database | (Bio)medical. Aggregated evidence |
| • PsycINFO (by Ovid) | Psychology, psychiatry, behavioural sciences |
| • CINAHL (by Ebsco) | Nursing and other associated topics |
| • PEDRO | Physical therapy |
| • AMED | Alternative therapies |
| • Google Scholar | General |
| • Web of Science | General, cited references |
| • Scopus | General |



process of searching for literature



Casus

Billy, a 7 year old boy, visits the genereral practitioner with an unprompted nosebleed. His mother is very worried, because this happens quite often.

The boy does not have any underlying diseases.

You suggest it will be better to perform a cauterization to prevent future nose bleeds.

Billy's mother asked if there are any alternative treatments.

Your response is to suggest antiseptic creams, at the same time you have doubts about their effectiveness.

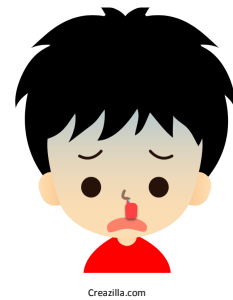
You promise the mother to find reliable evidice.



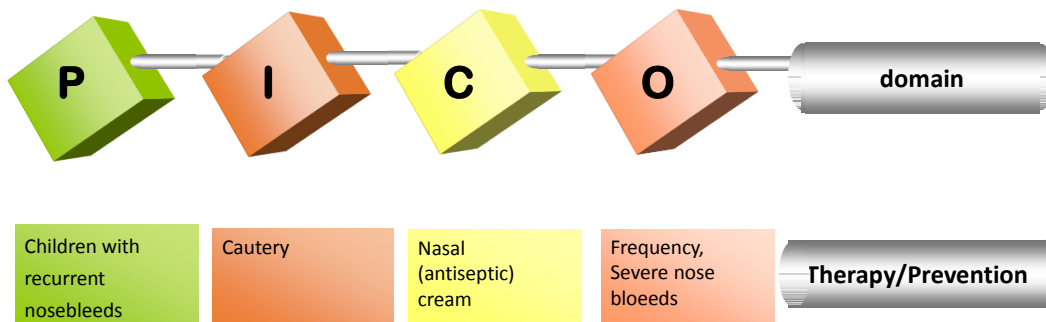
CreaZilla.com

Research question

- Does cauterization or the use nasal (antiseptic) cream prevent recurrent nose bleeds in children with recurrent nose bleeds?



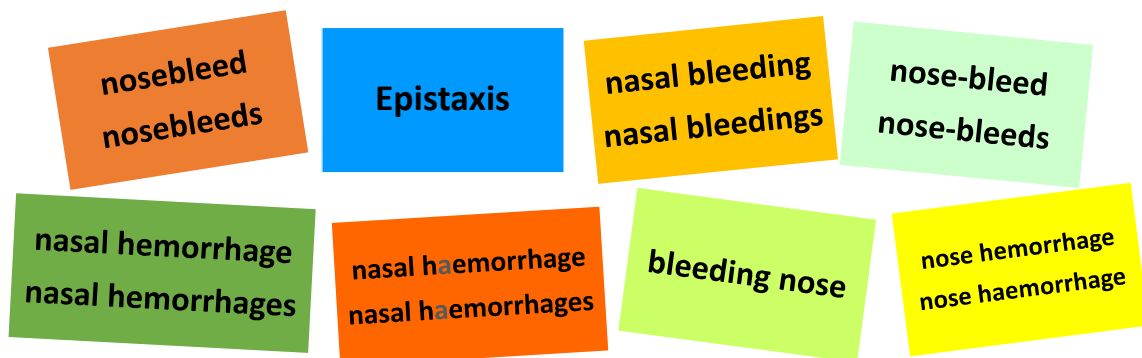
Search concepts



Collecting search terms:



Collecting search terms for nosebleed

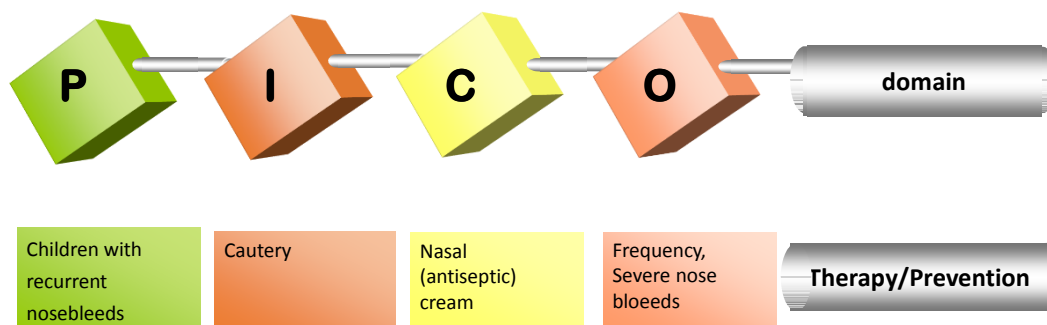


Databases

- | | |
|----------------------------|--|
| • PubMed/Medline | (Bio)medical |
| • Medline (in AMC by Ovid) | (Bio)medical |
| • Embase (in AMC by Ovid) | (Bio)medical, pharmacological, psychiatry |
| • Cochrane Library (Wiley) | (Bio)medical |
| • TRIP Database | (Bio)medical. Aggregated evidence |
| • PsycINFO (by Ovid) | Psychology, psychiatry, behavioural sciences |
| • CINAHL (by Ebsco) | Nursing and other associated topics |
| • PEDRO | Physical therapy |
| • AMED | Alternative therapies |
| • Google Scholar | General |
| • Web of Science | General, cited references |
| • Scopus | General |



Searching in PubMed – case nosebleed



Does cautery or the use of nasal (antiseptic) cream prevent recurrent nose bleeds in children with recurrent nose bleeds?

Example search strategy : nosebleed

"Epistaxis"[Mesh] OR nosebleed*[tiab] OR nose bleed*[tiab] OR
epistaxis[tiab] OR nasal bleed*[tiab] OR nasal hemorrhage*[tiab] OR
nasal haemorrhage*[tiab]

Search strategy noseblood in children

("Epistaxis"[Mesh] OR nosebleed*[tiab] OR nose bleed*[tiab] OR
epistaxis[tiab] OR nasal bleed*[tiab] OR nasal hemorrhage*[tiab] OR
nasal haemorrhage*[tiab])

AND

("Child"[Mesh] OR child*[tiab])

Saving your search strategy

Why:

- Transparency and reproducibility
- To re-run your search or to perform an update

Where:

- Save in **Word** or **Excel** or in the **database** (registration is required)
- When saving: state the database, date of the search, and the results at that particular date

Saving the search strategy

- Results from search strategies can be imported into **Reference manager software**:
 - Examples: EndNote, Mendeley, Zotero
- In the program you can import results from multiple databases, and finally deduplicate all the results in once.
- Note: The Medical Library AMC uses **EndNote**
 - [Also see our website bibliotheek AMC Intranet - Ik wil meer weten over Endnote](#)
 - There you will find the accompanying Endnote userguide
- Mendeley and Zotero are **FREE!**

Summary

In this course you learned:

- The steps in the processes for searching literature
- How to identify search terms for your research question
- Which databases to use
- Which search techniques are available and how to apply them
- Which (sites for) type of filters are available and to make the appropriate choice
- How to save your search strategy



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Searching for literature
Part 2:
The process of searching for literature and searching
in PubMed