

Searching the Literature using CINAHL



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As you come in, please use the chat box to let us know what websites, search engines, or databases, you have used to search for health information/evidence before (if any)

www.nhswls.org/contactyourlibrary

Learning Objectives:

Increase knowledge & understanding of how to:

- Define your information topic, problems or research questions.
- Identify appropriate online sources to search for your topic.
- Develop search strategies, and database skills, to most effectively search for information on your topic

Session Outline

1. Different kinds of evidence and where we might look
2. How to structure a question
3. How to build a search strategy
4. Applying a search to a database

The Elephant in the Room

Can I just ask AI to do a literature search?

Currently there is no AI tool that can do a high-quality literature search for you.

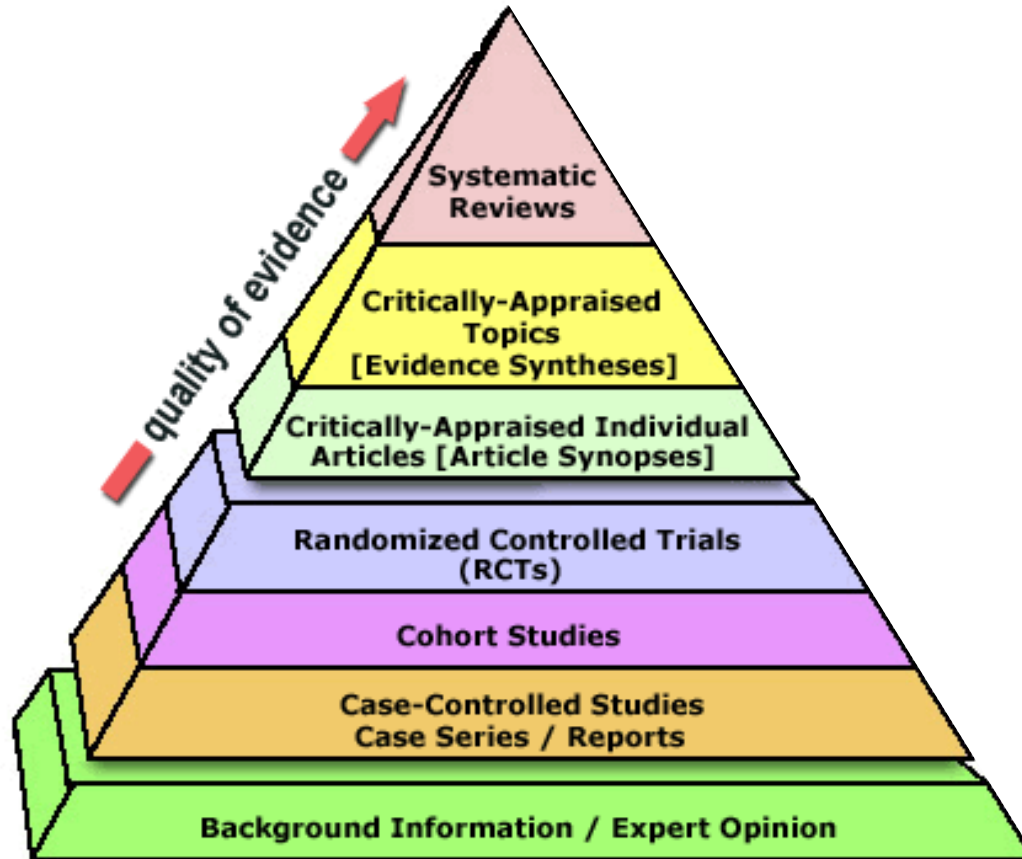
However, if you want to incorporate AI into your searching there are several ways it can support your search which we'll touch on as we go.

It's important to recognise that AI tools each have their own limitations (as do all tools) that restrict their helpfulness, so it's about knowing which tool is good for which job.

Session Outline

1. Different kinds of evidence and where we might look

Hierarchy of Evidence



[Exploring Evidence Video:
Levels of Evidence](#)

General vs Focussed Question

A general or “**Background**” question is one that asks for general knowledge about a particular clinical problem.

[NHS Wales Libraries
Catalogue](#)

[Using NHS Wales Library
Search Playlist](#)

A focussed or “**Foreground**” question asks about the specific management of patient(s)/population with a clinical problem.

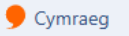
Databases



GIG
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NHS
WALES

e-Lyfrgell Iechyd
e-Library for Health

Skip Navigation Accessibility Feedback

Cymraeg

All...

▼

Search



➡ Cumulative Index of Nursing and Allied Health Literature (CINAHL) with Full Text

[\(NHS Wales\) CINAHL with Full Text](#)

[CINAHL with Full Text \(New UI\)](#)

[\(Welsh Government\) CINAHL with Full Text](#)

[CINAHL with Full Text](#) is a full-text database and encompasses the subjects of nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and allied health disciplines. It also contains care sheets, education modules, research instruments records, standards of practice, and educational software. It is updated weekly and carries records of journals dating back to the 1930s. Much of the content is from North America, but it does index many UK journals.

- ➕ Allied & Complementary Medicine (AMED)
- ➕ Applied Social Sciences Index & Abstracts (ASSIA)
- ➕ British Nursing Index (BNI)
- ➕ British Nursing Database (BND)

Databases

Nursing & Midwifery

British Nursing Database

**Cumulative Index of Nursing and
Allied Health Literature (CINAHL)**

**Maternity & Infant Care Database
(MIDIRS)**

Allied Health

**Allied & Complementary
Medicine (AMED)**

Physiotherapy Evidence (PEDro)

Public Health Database

Databases

Medical Literature

Cochrane Library

EMBase

Medline / PubMed

PsycInfo

Scopus

TripPro

Elicit^{AI} / Consensus^{AI} (no national subscriptions)

Management

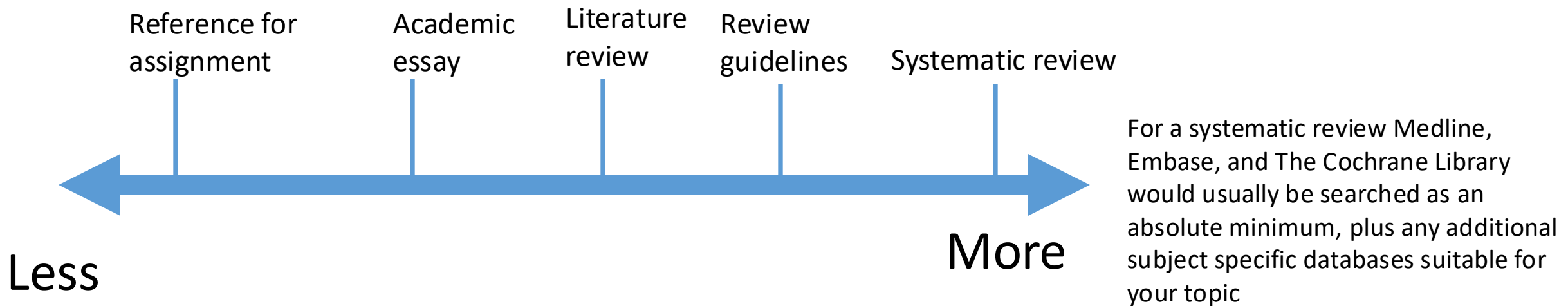
Health Administration Database

Health Management
Information Consortium (HMIC)

Social Care

Social Policy and Practice

Applied Social Sciences Index
& Abstracts (ASSIA)



Session Outline

2. How to structure a question



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Structuring your search question

- To enable your question to be as specific as possible you can use a framework that will help you identify the elements of your question into a structured question

The PICO framework

P = Patient / Problem / Population (who / what?)

I = Intervention (what do you want to do?)

C = Comparison (are there alternatives?)

O = Outcome (what is the effect of the intervention?)

Example - How to break your question down into your framework - PICO

Question / Query	<i>In 'children' with 'sickle cell disease' is the long term use of 'prophylactic penicillin' absolutely necessary to 'prevent infections'?</i>
P	Children, child, infant, paediatrics Sickle cell disease, sickle cell anaemia, sickle cell anemia
I	Prophylactic Penicillin
C	No treatment
O	Preventing infections



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Structuring your search question

- The PICO framework is particularly suited to clinical questions. For questions that search for meaning, for example why people act in a certain way, questions around patient experience and satisfaction, the SPICE framework might be more appropriate.

The SPICE framework

S = Setting (where? hospital/community?)

P = Perspective / Point of view (for whom?)

I = Intervention / Interest (what do you want to do?)

C = Comparison (are there alternatives?)

E = Evaluation (how is the intervention measured?)

Example - How to break your question down into your framework - SPICE

Question / Query	<i>How does a mindfulness-based therapy in a university setting impact student mental health compared to no intervention?</i>
S	University
P	Students, Undergraduates, Postgraduates
I	Mindfulness based therapy
C	No intervention
E	Mental health impacts, reduced anxiety/depression/stress etc

PICO Activity

Does listening to music preoperatively reduce anxiety?

Put this question into a PICO framework

P = Patient –

I = Intervention –

C = Comparison –

O = Outcome –

PICO Activity

Does listening to music preoperatively reduce anxiety?

Put this question into a PICO framework

P = Patient – Preoperative Patient
I = Intervention – Listening to Music
C = Comparison – No Intervention
O = Outcome – Reduced anxiety

Session Outline

3. How to build a search strategy

Identifying search terms and key word searching

Database searching generally uses a combination of searching using **key words** and **subject headings**.

Key Words

Pros: Low barrier to use, something we're familiar with, terms are controlled by us so is repeatable by others,

Cons: Doesn't allow for spelling mistakes, requires us to think of all terms that could be used for a concept, looks for exact word not it's context

Identifying search terms and key word searching

Brain Cancer(s)	Malignant Brain Tumour(s)
Brain Tumo(u)r(s)	Primary Brain Tumo(u)r(s)
Brain Neoplasm(s)	Intracranial Malignanc(y/ies)
Intracranial Neoplasm(s)	Etc.



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Identifying search terms with subject headings

Subject headings (also known as Index headings) are a *controlled vocabulary* of words that are assigned to articles by databases to enable the identification of articles on a particular topic, regardless of the terminology used by the authors.

Pros: Provide precise results with articles on the subject chosen, the results are not dependent on author terminology, different databases use different terms more specific to their speciality.

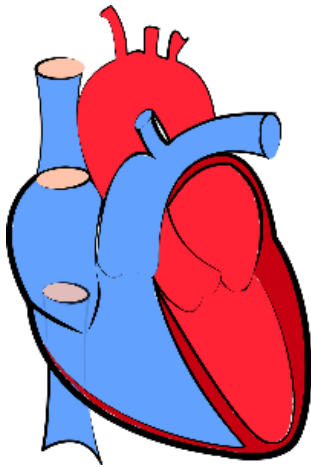
Cons: There may not be a subject heading for a specific topic, indexing is not infallible and some terms may be missed / added incorrectly



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Finding the correct terminology - examples

In Subject Headings in CINAHL,
the term used for **heart attack**
is **Myocardial Infarction**.



heart attack

☒ Relevancy ranked ☐ Term begins with

Term

☐ Heart Attack **Use:** Myocardial Infarction

☐ Myocardial Infarction



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Finding the correct terminology - exploding subject headings

		Focus	Explode
☐	☐ Pregnancy	☐	☐
☐	☐ Childbirth	☐	☐
☐	☐ Labor	☐	☐
☐	☐ Maternal-Fetal Exchange	☐	
☐	☐ Perinatal Period	☐	

[Exploring Evidence Video: What are MeSH headings?](#)



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Finding the correct terminology

Tips to identifying key word terms:

- Consider different ways of expressing the same meaning / concept
- Consider different British and American spellings of terms (eg color v colour)
- In articles on your topic review the terms used in the title and abstract

Tips to identifying subject headings:

- In the databases look for the thesaurus
- In articles on your topic look to see what subject headings that they have been given



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Refining your search terms - truncation

- Truncation searching is an easy way to quickly search for root of words. Use the * symbol for truncation searching.
- Searching like this will broaden your search and the database will bring back results with any ending of your root word.





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Examples of using truncation

pregnan*	will find	pregnant, pregnancy, pregnancies
nurs*	will find	nursing, nurses, nurse
smok*	will find	smoke, smoker, smokers, smoking, smokeless

Take care not to overdo a truncation. For example:

creat*	will find	create, creature, creatine, creator, creating, etc.
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Refining your search terms - wild cards

- Wild card searching is an easy way to quickly search for words with similar spellings (eg British / American) or irregular plurals. CINAHL uses the # symbol for wild card searching.
- Searching like this will broaden your search and the database will bring back results with a variety of words according to your search.

Wildcard

Organi#ation finds organisation or organization

Wom#n finds woman or women

Tumo#r will find tumor or tumour

P#ediatrics with find pediatrics and paediatrics

Different databases may use different symbols, (e.g Medline and Embase uses ? instead of #) so always check the 'search help' pages if you are unsure – or check with your librarian!

Proximity searching & additional search fields

- In CINAHL, use the abbreviation '**N**' to help you find words near each other e.g. 'hip N3 pain' will retrieve:
'Hip pain', 'pain around the hip', 'hip joint pain', 'hip or groin pain'
- Make use of the **search fields** to select title and abstracts to search for terms to make your search more precise.

[Exploring Evidence Video: Database Searching Tips](#)

Using Limits

- Databases often allow you to apply limits to the search you are performing. This enables you to be very specific in the type of references retrieved.
- Most databases allow you to limit to language, year and publication type. Some also allow you to limit by human, gender, latest update etc.

[Exploring Evidence Video:
Using Search Hedges](#)



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Combining terms together

Our search terms have to be combined to narrow or widen a search. The main Boolean operators are:

AND

both terms must be present

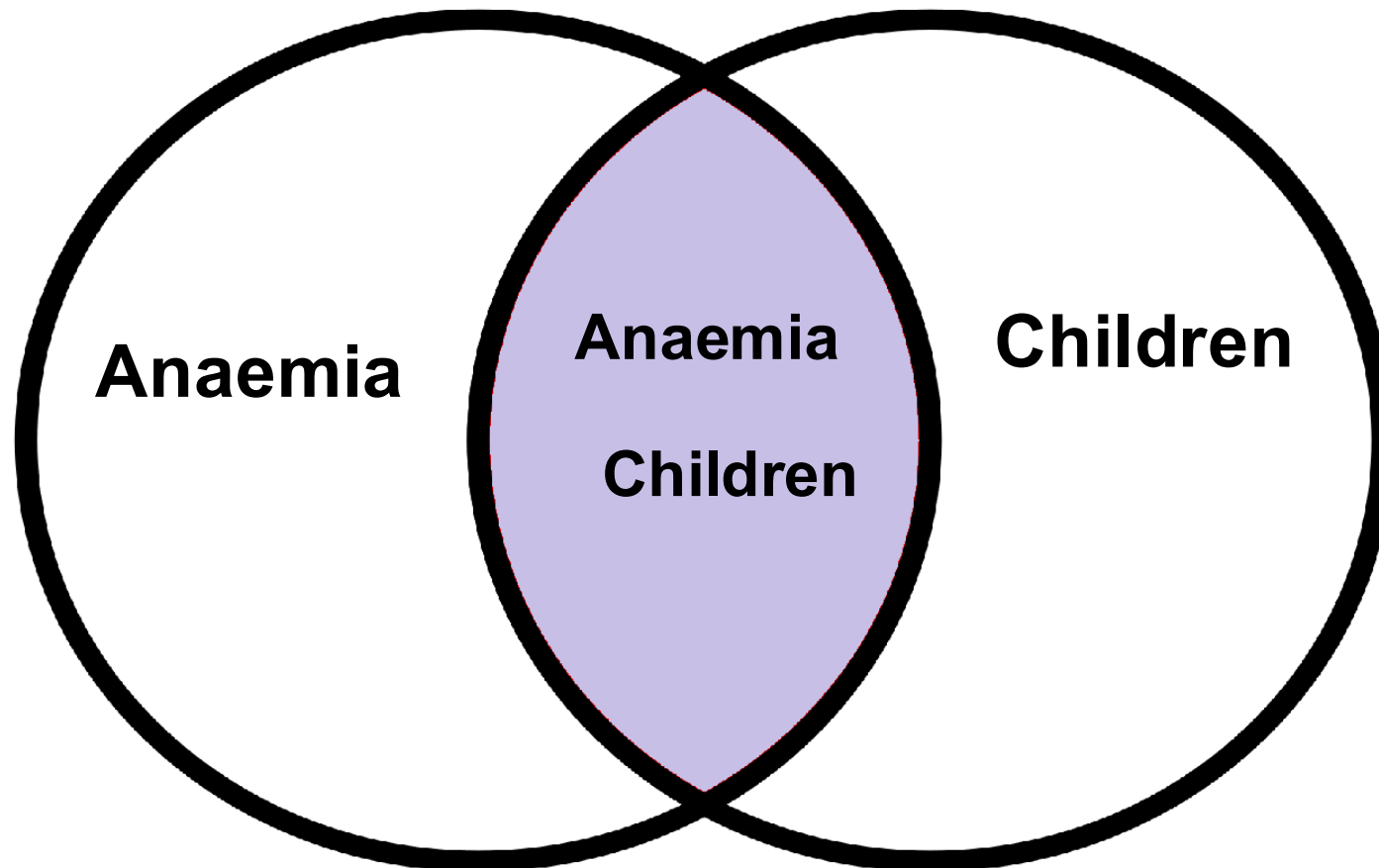
OR

either or **both** words must be present

NOT

the **first** but not the **second** word must be present

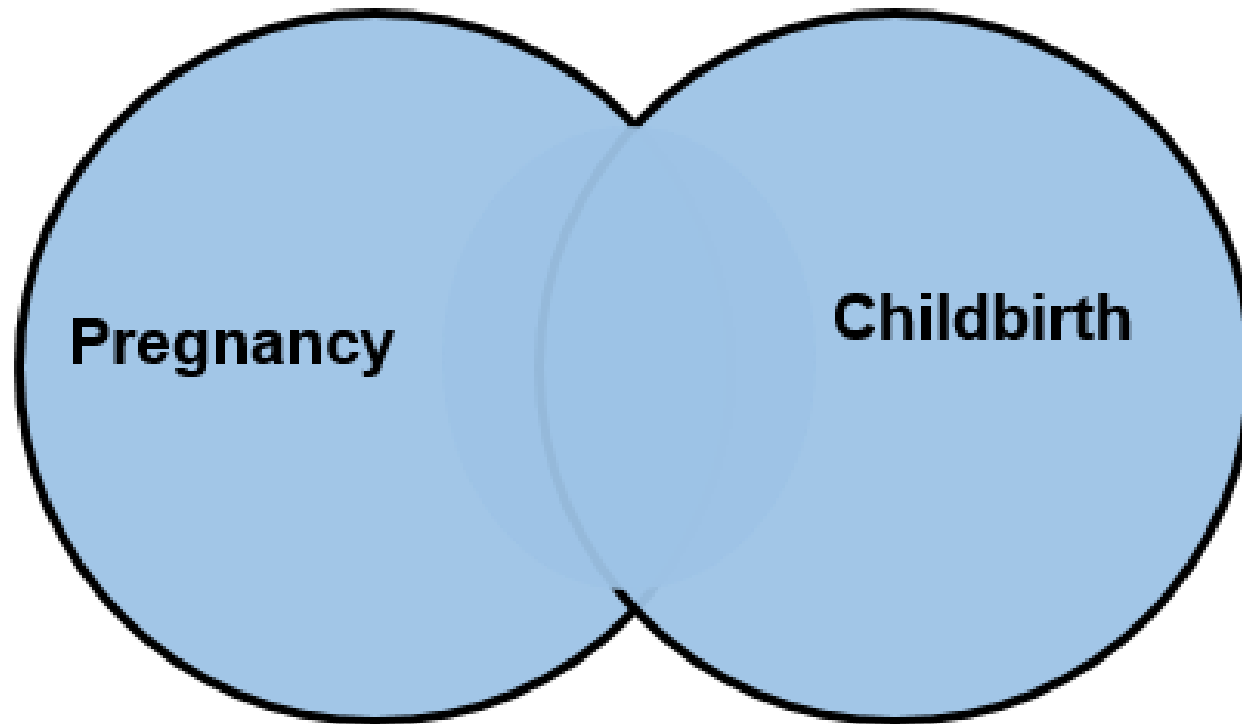
AND narrows your search



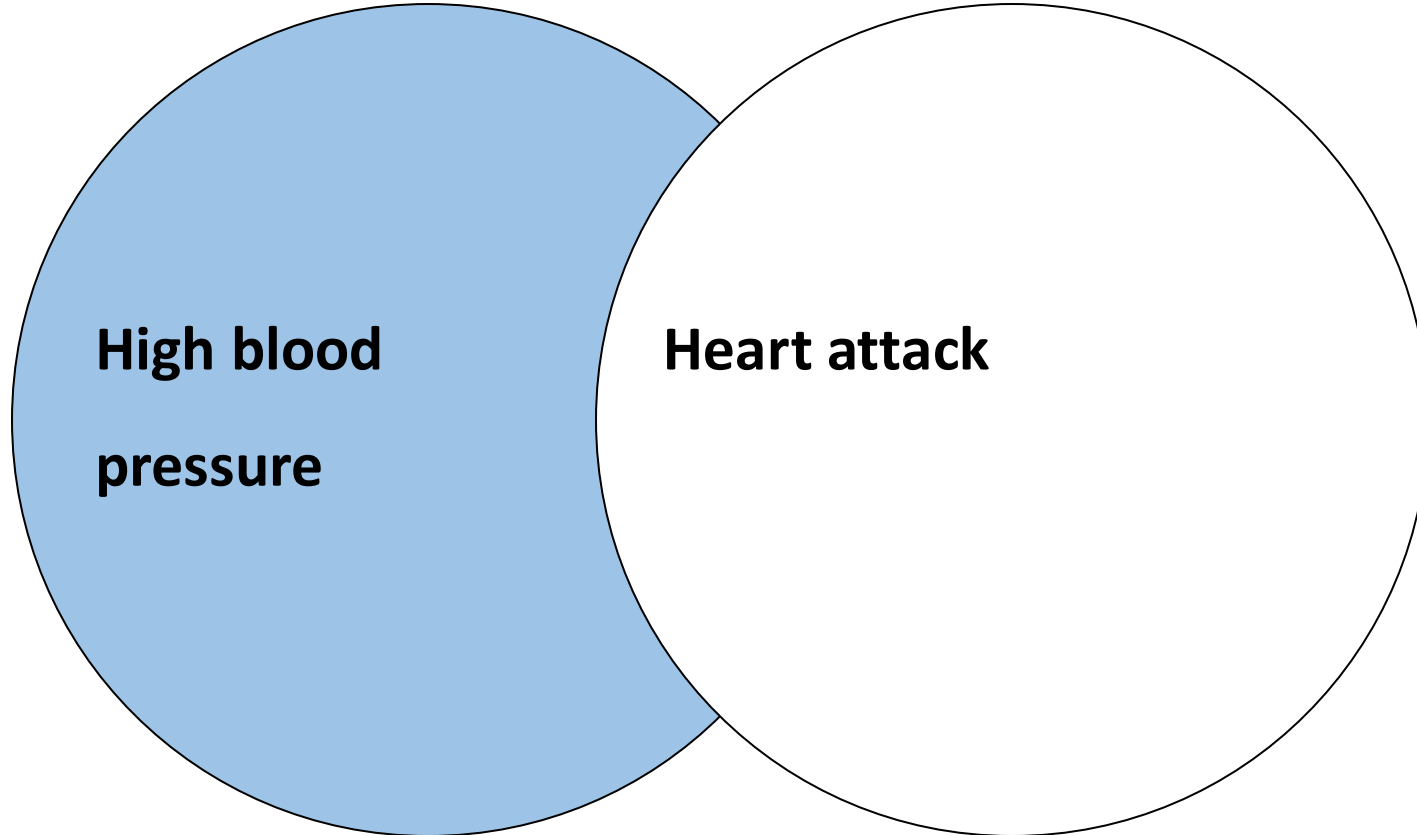


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OR broadens your search



NOT excludes terms



P		I		C		O
Pre-surgical	AND	Music*	AND	—	AND	Anxiety
OR		OR		—		OR
Presurgical		Song*		—		Concern*
OR		OR		—		OR
Pre-surgery		Tune*		—		Dread
OR		OR		—		OR
Presurgery		Sound*		—		Panic
OR		OR		—		OR
Pre-operative		Sing		—		Fear*
OR		OR		—		OR
Preoperative		Singer		—		Apprehension
		OR		—		OR
		Singing				Stress*
						OR
						Nervous*

[Exploring Evidence](#)
[Video: Boolean](#)
[Searching](#)

Boolean Activity

1. Which operator would increase the number of search results?
 - AND
 - OR
 - NOT
2. The operator AND...
 - Expands your search results
 - Narrows your search results
 - Excludes search terms
3. What is the purpose of the NOT operator?
 - To expand a search
 - To include only phrases in the search results
 - To exclude a term or phrase from the search results
4. If I wanted to search for articles about anaemia in children, which search string would give me the best results?
 - anaemia OR children
 - anaemia AND children
 - anaemia NOT children

Activity 3- Answers

1. Which operator would increase the number of search results?
 - ~~AND~~
 - **OR**
 - ~~NOT~~
2. The operator AND...
 - ~~Expands your search results~~
 - **Narrows your search results**
 - ~~Excludes search terms~~
3. What is the purpose of the NOT operator?
 - ~~To expand a search~~
 - ~~To include only phrases in the search results~~
 - **To exclude a term or phrase from the search results**
4. If I wanted to search for articles about anaemia in children, which search string would give me the best results?
 - ~~anaemia OR children~~
 - **anaemia AND children**
 - ~~anaemia NOT children~~

Session Outline

4. Applying a search to a database

Does listening to music preoperatively reduce anxiety?

P- Perioperative patient

I- Listening to music

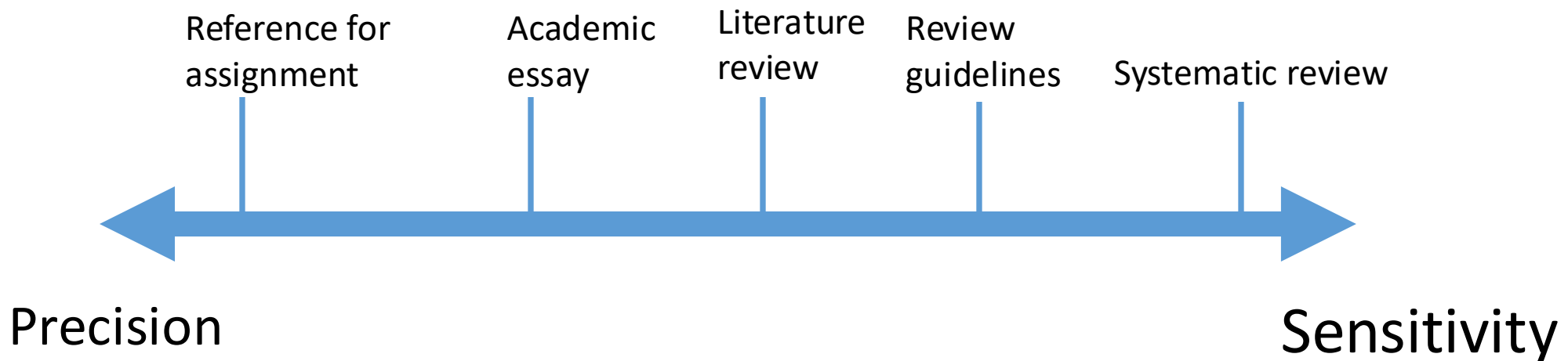
C- Not applicable

O- Reduction in anxiety

Literature searching demonstration

Summary

- There's no such thing as a perfect search
- Precision vs Sensitivity
- Think about your research objectives and tailor your search accordingly



Summary

- Search process from framing our question through to performing the search in a database
- Databases may vary slightly in look and syntax but principles generally remain the same
- NHS Wales Librarians are on hand to support you

www.nhswls.org/contactyourlibrary

List of resources

NHS Wales Libraries- www.nhswls.org/

NHS Wales e-Library- <https://elh.nhs.wales/>

NHS Wales Library Catalogue- <https://nhswaleslibrarysearch.cardiff.ac.uk/>

SURE Unit Critical Appraisal Checklists- <https://www.cardiff.ac.uk/specialist-unit-for-review-evidence/resources/critical-appraisal-checklists>

CASP Checklists- <https://casp-uk.net/>

Exploring Evidence Videos:

[Exploring Evidence: Boolean Searching](#)

[Exploring Evidence: Levels of Evidence](#)

[Exploring Evidence: What are MeSH headings?](#)

[Exploring Evidence: Database Searching Tips](#)

[Exploring Evidence: Hedges](#)



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Any Questions?

Evaluation form

CINAHL New interface feedback for NHS Wales