



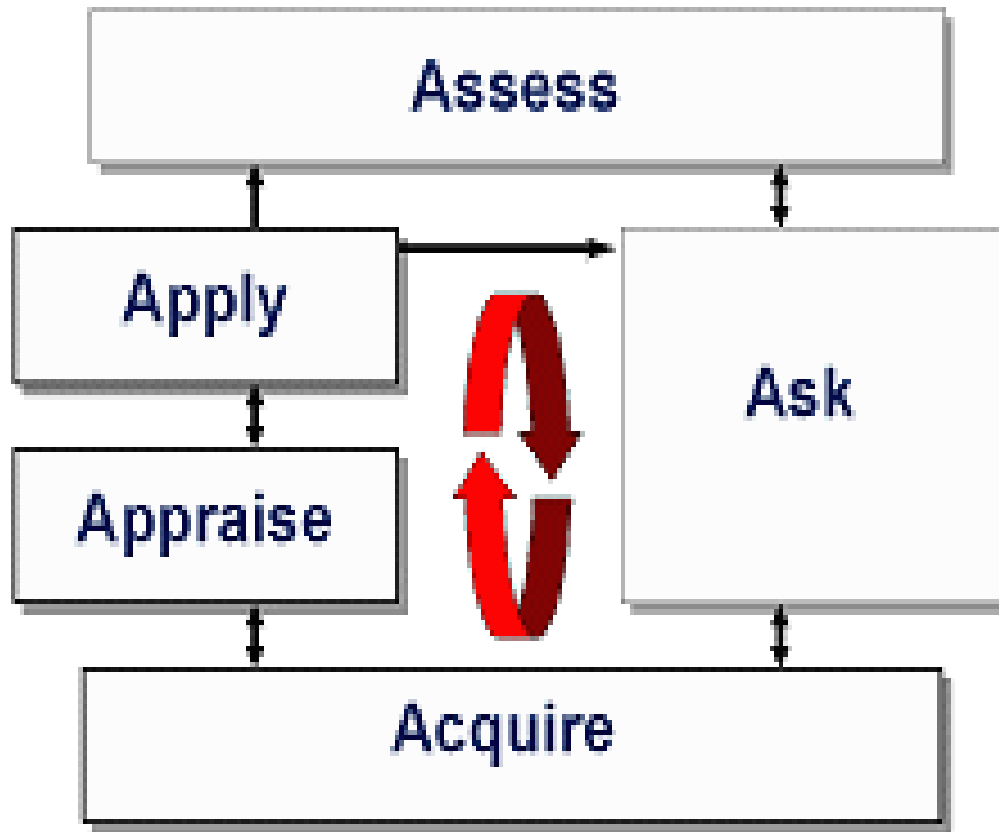
Evidence Based Medicine

Developing the strategy





The Evidence-Based Information Cycle*



ASSESS clinical or policy problems and identify key issues ;

ASK well-built questions that can be answered using evidence-based resources;

ACQUIRE evidence using selected, pre-appraised resources ;

APPRAISE the validity, importance and applicability of evidence that has been retrieved;

APPLY evidence to clinical or policy problems.

* <http://www.cche.net/info.asp> Centre for Health Evidence



Where do you start?

- * **Recognise an information need**
 - * Issue with patient care
 - * Awareness of new development
 - * Change of job role/promotion
 - * College assignment
 - * Professional development
 - * Multi-disciplinary working



Select your resource

- * Where you chose to search depends on the type of information you need
- * For research use the Health Databases Advanced Search (HDAS) form NICE Evidence
- * Set yourself up with a NHS athens password



Asking the right question will help you to find the right information

Finding the right information in the most efficient manner is key to making evidence-based decisions.

- Knowing what key components to use in your search strategy will help you develop that efficiency
- The PICO components of interest are:
 - Patient/Population
 - Intervention/Exposure
 - Comparison
 - Outcome



Asking the question

Forming a “Clinical Question” using PICO

Look at the components of your question and put into these concepts
(note you do NOT have to use all 4)

A large, empty rectangular box with a thin blue border, intended for the user to write or draw their clinical question and its components.

PICO

P

Problem

Blood clot
OR
venous thrombosis
OR
venous thromboembolism
OR
VTE

I

Intervention

Heparin
OR
Low molecular weight heparin
OR
Heparin sodium
OR
Heparin calcium

C

Comparison

Aspirin
OR
Acetylsalicylic Acid
OR
Pain relief

O

Outcome

Prevention
OR
Prophylaxis

**A
N
D**

**A
N
D**

**A
N
D**



Alternative strategies

PEO format - qualitative

P	Population and their problems	Who are the users, patients or community being affected? What are their symptoms, age, gender etc .
E	Exposure	Use for a specific exposure (this term is used loosely) such as “witnessed resuscitation” or “domestic violence”
O	Outcomes or themes	Are you looking for improvements in pain, responsiveness to treatment, mobility, quality of life, daily living? Usually there will be an element of looking at patient’s experiences.

SPIDER Model

S Sample, PI Phenomena of Interest, D Design, E Evaluation, R Research type



Operators

- * Operators are ways of easily combining concepts within a search
- * Consist of OR, AND and NOT
- * OR to widen a search “cats or dogs”
- * AND to narrow a search “cats and dogs”
- * NOT to specify a search “cats not dogs”



Boolean “Or” Operator

- Use to
 - link together similar concepts that could be in the search results
 - expand the search and so usually find more search results

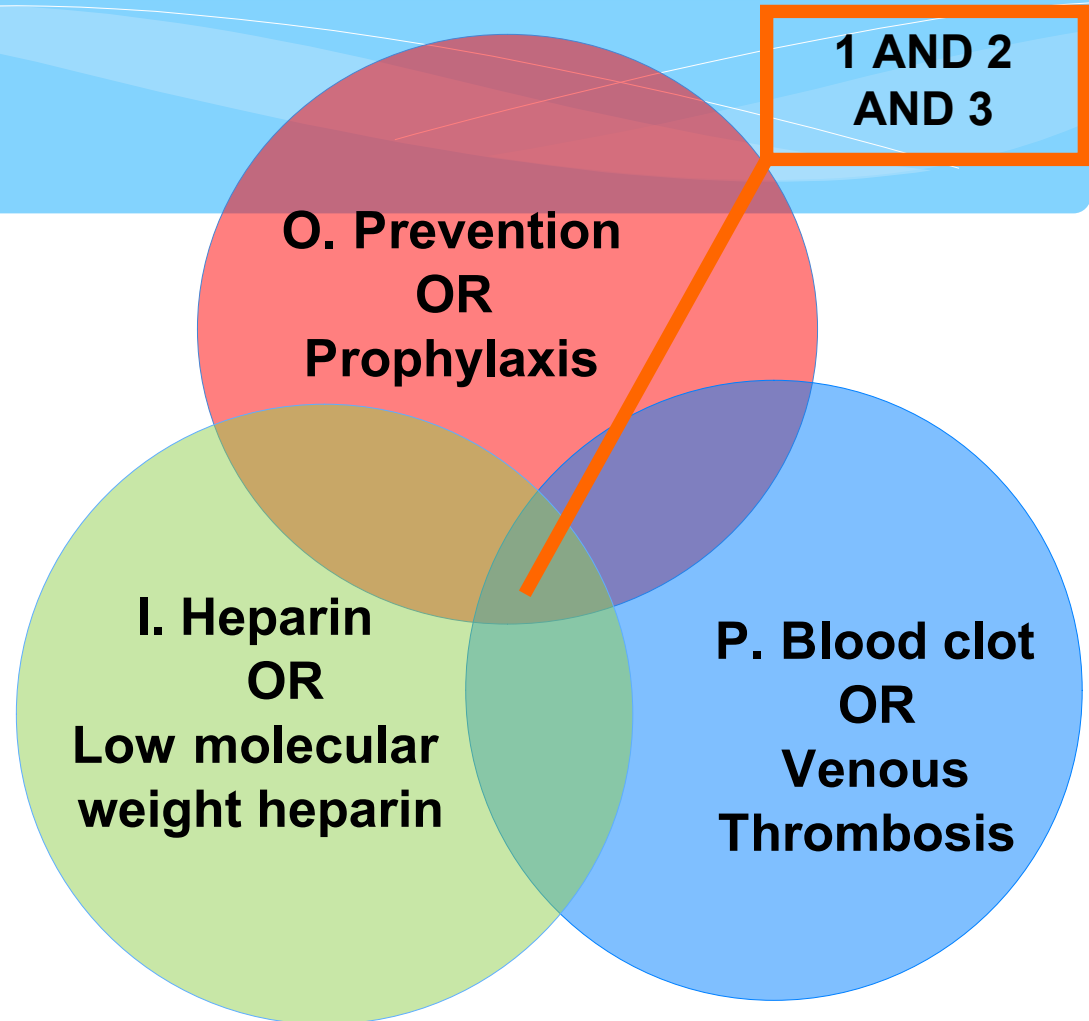
**Aspirin or Acetylsalicylic
acid**



Boolean “AND” Operator

Use “AND” to:

- Limit the number of search results and make them more relevant. Concepts linked with “AND” must be present in the results

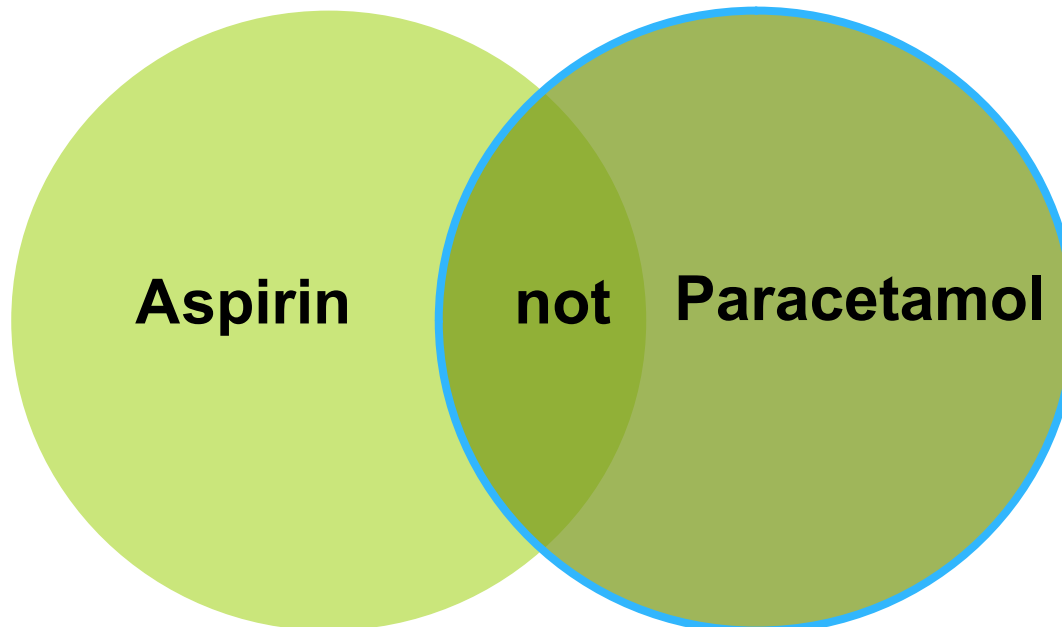




Boolean “Not” Operator

Use to

- Limit your search by excluding concepts that should not appear in search results
- Warning. Using “NOT” will exclude results that contain a concept you do want if it appears along with one you don’t



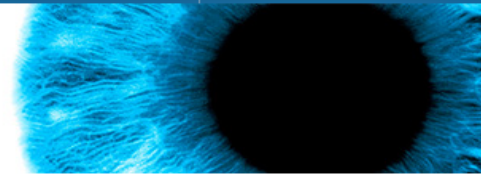


Practical application

www.wkp.nhs.uk

NICE

Healthcare Databases Advanced Search



Select Database | Saved Searches | Search | Recover Searches | Alerts | My Account

Home » Database select » Search and Limits

You are currently searching Medline Search another ▼ ?

Search Limits

There are 0 results based on your current criteria

Search Keyword:

Enter search words or line numbers in the box below. You may use AND, OR, NOT, * to search for word stems, "inverted commas" to search for phrases and round brackets () to nest words. ?

IN

- | | |
|--|---|
| <input checked="" type="checkbox"/> Title and Abstract | <input type="checkbox"/> Journal Name * |
| <input type="checkbox"/> Any field | <input type="checkbox"/> Abstract |
| <input type="checkbox"/> Publication Type | <input type="checkbox"/> Author * |
| <input type="checkbox"/> Title | <input type="checkbox"/> ISSN |
- [More fields](#)

Map to Thesaurus ?

* For Author and Journal name enter search terms in "quotation marks". ?

[Browse Thesaurus](#)

Search

Search history

<input type="checkbox"/> Select All <input type="button" value="Save all"/> <input type="button" value="Save selected lines"/> <input type="button" value="Delete selected"/> <input type="button" value="Remove duplicates"/> <input type="button" value="?"/> <input type="button" value="Collapse history ▲"/>						
Line	Database	Search Term	View Results			
<input type="checkbox"/>	1	MEDLINE	"Blood clot".ti,ab	2004	▼ Apply Limits	⊗
<input type="checkbox"/>	2	MEDLINE	"venous thrombosis".ti,ab	19531	▼ Apply Limits	⊗
<input type="checkbox"/>	3	MEDLINE	"venous thrombo embolism".ti,ab	149	▼ Apply Limits	⊗
<input type="checkbox"/>	4	MEDLINE	vte.ti,ab	4977	▼ Apply Limits	⊗
<input type="checkbox"/>	5	MEDLINE	1 OR 2 OR 3 OR 4	25815	▼ Apply Limits	⊗
<input type="checkbox"/>	6	MEDLINE	Heparin.ti,ab	63650	▼ Apply Limits	⊗
<input type="checkbox"/>	7	MEDLINE	"Low molecular weight heparin".ti,ab	7408	▼ Apply Limits	⊗
<input type="checkbox"/>	8	MEDLINE	"Heparin sodium".ti,ab	431	▼ Apply Limits	⊗
<input type="checkbox"/>	9	MEDLINE	"Heparin calcium".ti,ab	84	▼ Apply Limits	⊗
<input type="checkbox"/>	10	MEDLINE	6 OR 7 OR 8 OR 9	63650	▼ Apply Limits	⊗
<input type="checkbox"/>	11	MEDLINE	Aspirin.ti,ab	36634	▼ Apply Limits	⊗
<input type="checkbox"/>	12	MEDLINE	"Acetylsalicylic Acid".ti,ab	7278	▼ Apply Limits	⊗
<input type="checkbox"/>	13	MEDLINE	"Pain relief".ti,ab	21859	▼ Apply Limits	⊗
<input type="checkbox"/>	14	MEDLINE	11 OR 12 OR 13	64142	▼ Apply Limits	⊗
<input type="checkbox"/>	15	MEDLINE	Prevention.ti,ab	351339	▼ Apply Limits	⊗
<input type="checkbox"/>	16	MEDLINE	Prophylaxis.ti,ab	69675	▼ Apply Limits	⊗
<input type="checkbox"/>	17	MEDLINE	15 OR 16	409524	▼ Apply Limits	⊗
<input type="checkbox"/>	18	MEDLINE	5 AND 10 AND 14 AND 17	146	▼ Apply Limits	⊗
<input type="checkbox"/>	19	MEDLINE	18 [Limit to: Publication Year 2008-2014]	52	▼ Apply Limits	⊗

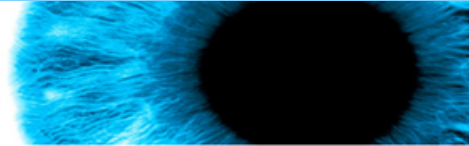


Practical application

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NICE

Healthcare Databases Advanced Search



Select Database | Saved Searches | Search | Recover Searches | Alerts | My Account

Home » Database select » Search and Limits

Search history

Line	Database	Search Term	View Results
<input type="checkbox"/>	1	MEDLINE ("Blood clot" OR "venous thrombosis" OR "venous thrombo embolism" OR VTE).ti,ab	24962 Apply Limits ×
<input type="checkbox"/>	2	MEDLINE (Heparin OR "Low molecular weight heparin" OR "Heparin sodium" OR "Heparin calcium").ti,ab	63394 Apply Limits ×
<input type="checkbox"/>	3	MEDLINE (Aspirin OR "Acetylsalicylic Acid" OR "Pain relief").ti,ab	62892 Apply Limits ×
<input type="checkbox"/>	4	MEDLINE (Prevention OR Prophylaxis).ti,ab	399005 Apply Limits ×
<input type="checkbox"/>	5	MEDLINE 1 AND 2 AND 3 AND 4	144 Apply Limits ×
<input type="checkbox"/>	6	MEDLINE 5 [Limit to: Publication Year 2008-Current]	47 Apply Limits ×

Select All

AND OR To combine two line numbers using NOT, enter the line numbers in the search box below: for example 1 NOT 2

You are currently searching Medline or

Search

Limits

Date* **Article Type** **Clinical Query** **Human or Animal** **Gender** **Age Groups** **Language** **Other**

Latest Update From Publication Year To Publication Year



A bit of advice

- * Write your question down to begin with
- * Bracket off individual concepts/ components
- * Think of alternative phrases
- * Search one concept at a time
- * Then combine using operators
- * Use the limiters
- * Ask a librarian