PubMed Searching

Simple Subject Search

1. Identify the key concepts for your search.
2. Enter the terms (or key concepts) in the search box.
   - Example: What is the breast cancer treatment?
     - What are the key concepts?
     - Search….

Explain the search result

- First homework:
  - What is DOI????

Simple Subject Search; Tips:

1. To search PubMed be as specific as possible.
2. Use no punctuation, tags or operators.
   - Quiz

You want to search PubMed for articles on the use of aspirin for heart attack prevention. Which of the below is your best search strategy?

- ☐ "aspirin for heart attack prevention"
- ☐ aspirin heart attack prevention
- ☐ aspirin AND heart AND attack AND prevention

Simple Subject Search: How it works?

- Search details in the right column
- See more
- Go to the PubMed…

Search by Author

- There is 2 ways to search by author:
  1. Write the last name and first name in the search box.
  2. Use the advanced search
- Go to the PubMed…

Search by Author; Tips:

- Use no punctuation
- For the most comprehensive results use the last name and the initials.
  - Quiz

You want to search for all works in PubMed by Anthony S. Fauci. Of the below choices, what is the most comprehensive search?

- ☐ fauci anthony s
- ☐ fauci as
- ☐ anthony fauci

Search for a journal

- There are several ways:
  1. Complete title of the journal
  2. The ISSN (International Standard Serial Number)
  3. The medline title abbreviation
- Go to the PubMed and search for the “Iranian Journal of Public Health”

Search for a journal; Tips:

- If you are searching for a journal title that is also a subject term, use search tag [ta]
  - Example:
    - Go to the PubMed and search “Radiation Oncology”

Search for a journal; use single citation matcher

- Go to the PubMed and search for the “Iranian journal of public health” in the single citation matcher.
- Repeat the previous search in the advanced search box.
- Return to the single citation manager and search for the ““Iranian journal of public health” Volume 42 and Issue 6

Searching for a journal in the NLM catalog

- Find journals in NCBI Databases from PubMed home page
- Indexing
- Pubmed in the right column
- Single citation matcher in the right column
- Homework:
  - What does NCBI stand for?

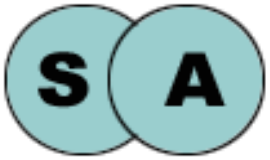
Use MeSH to Build a Better PubMed Query

- MeSH is a controlled vocabulary for indexing in the PubMed.
- Select MeSH from the “More Resources”
  - Example: We want to search for “flu vaccine”
  - Go to the pubmed and do it…
- Look at the MeSH terms of one of the search results

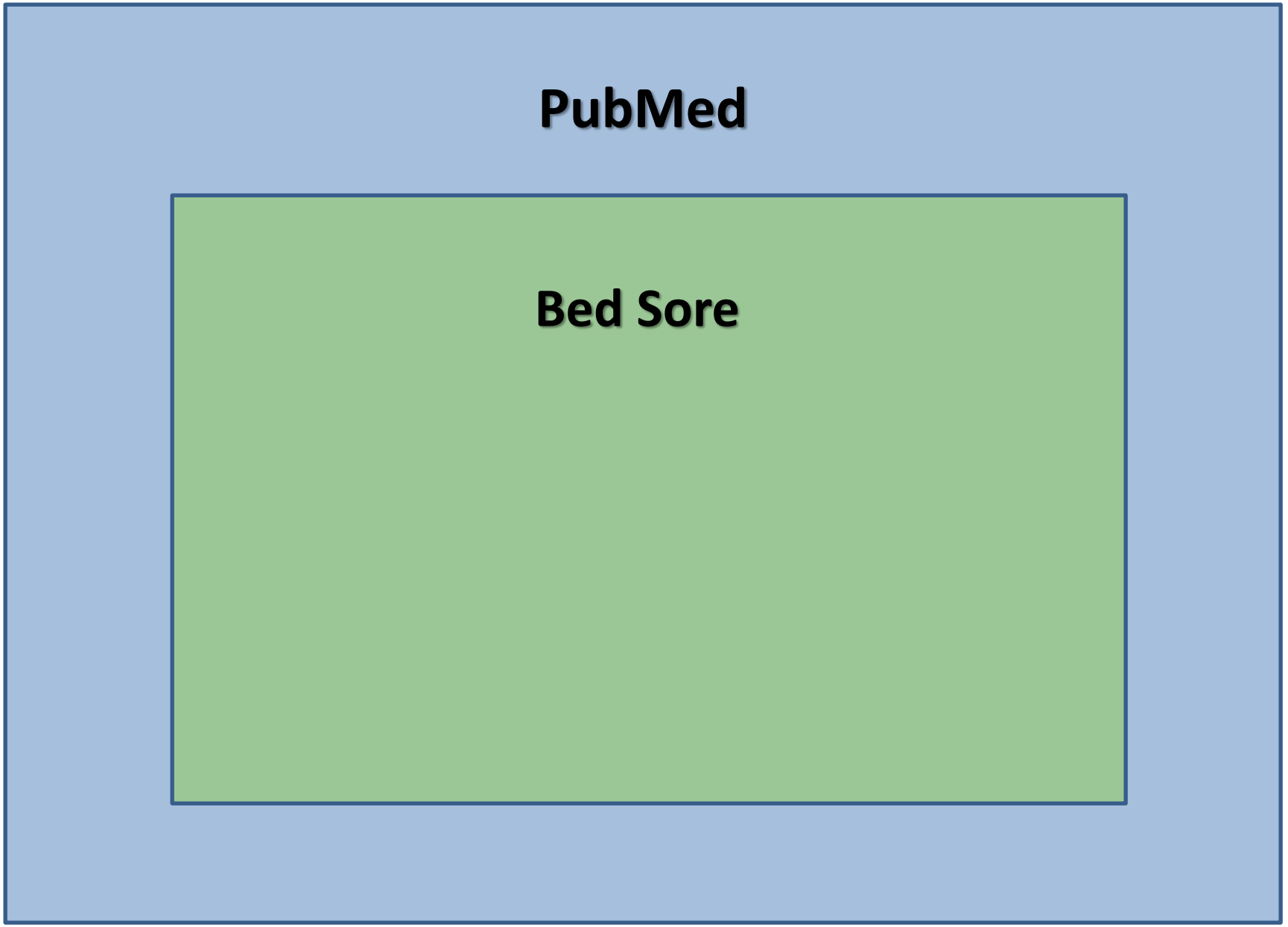
Advanced search

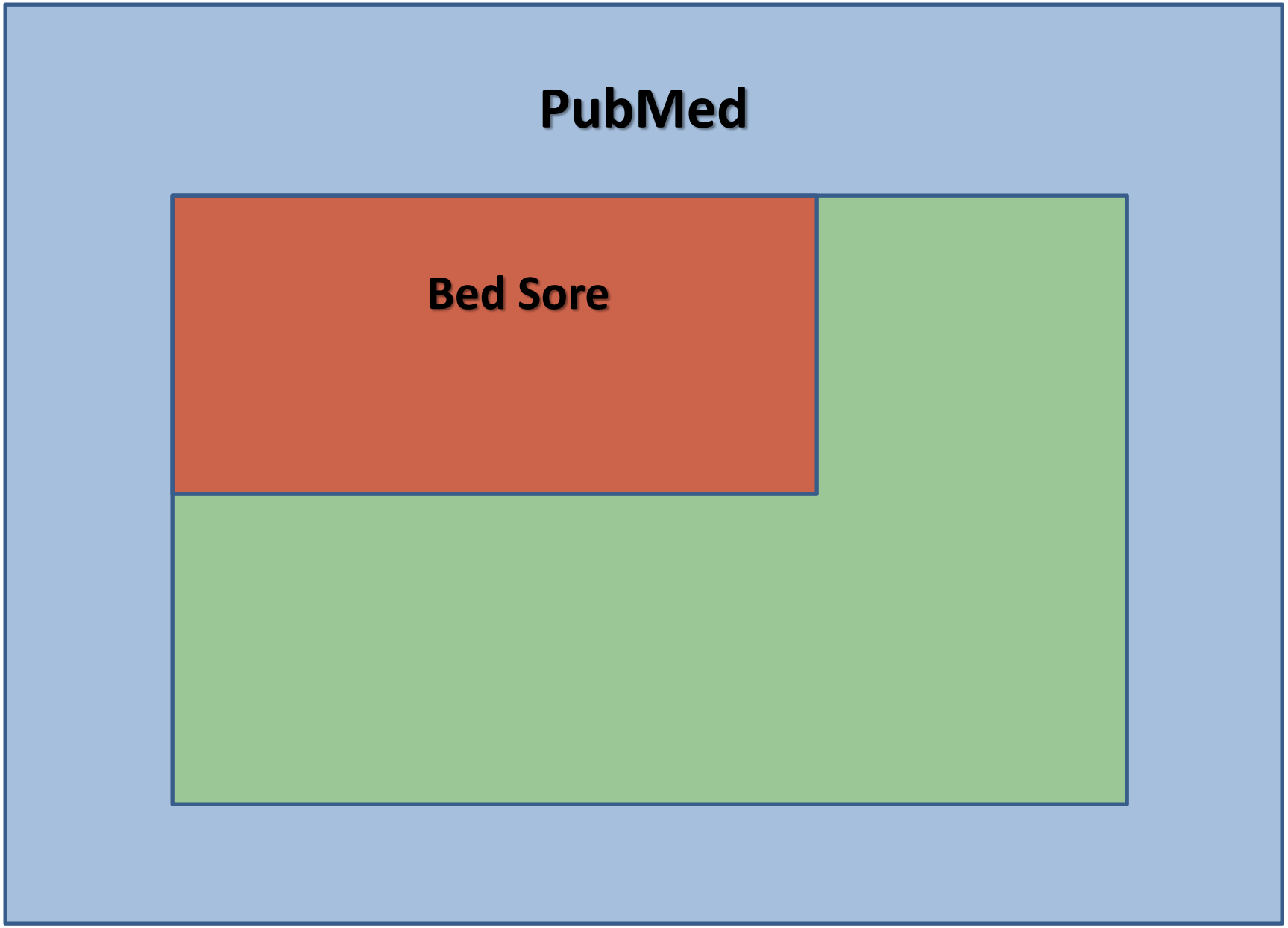
Conduting a search strategy

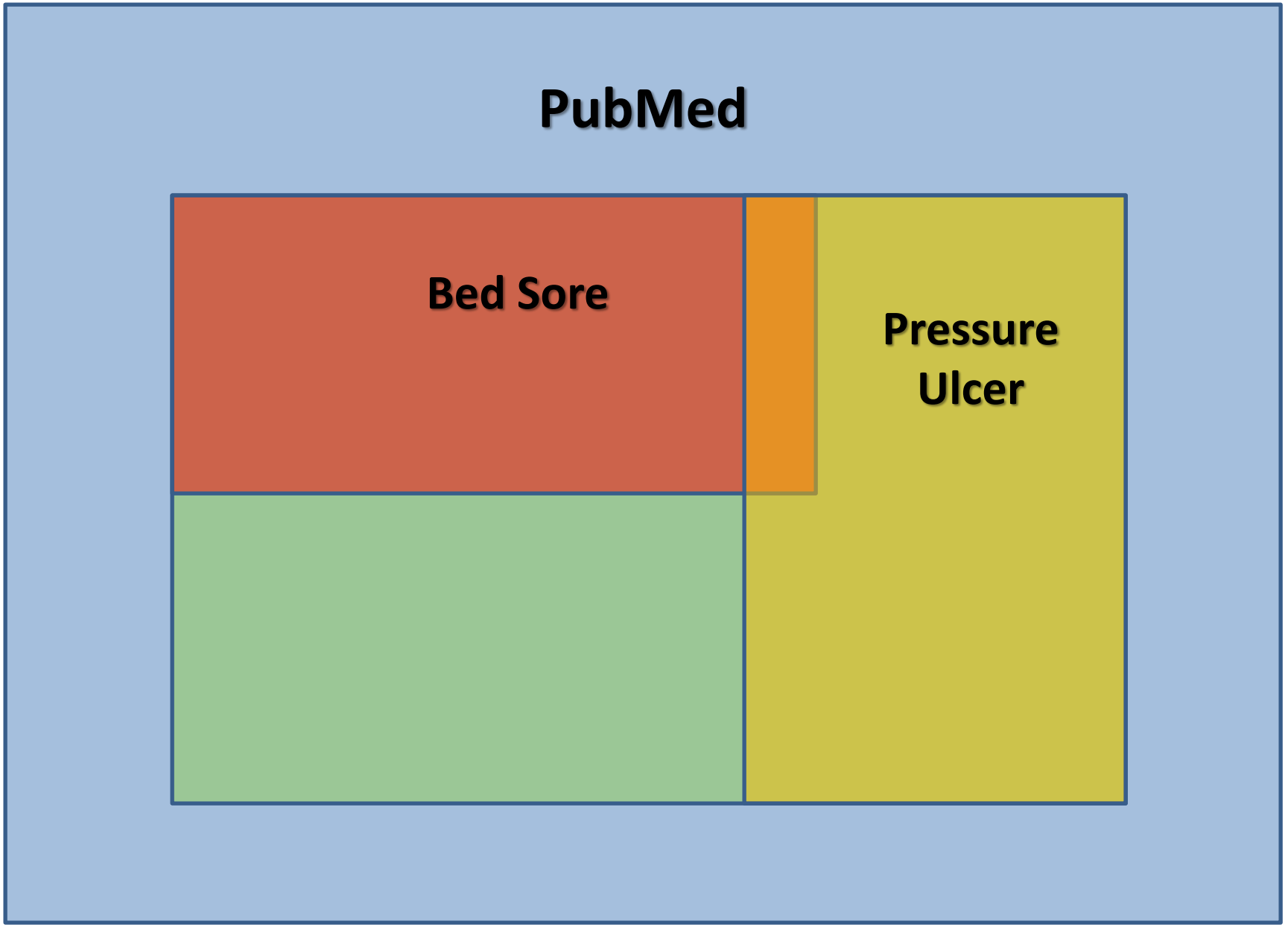
Boolean Logics

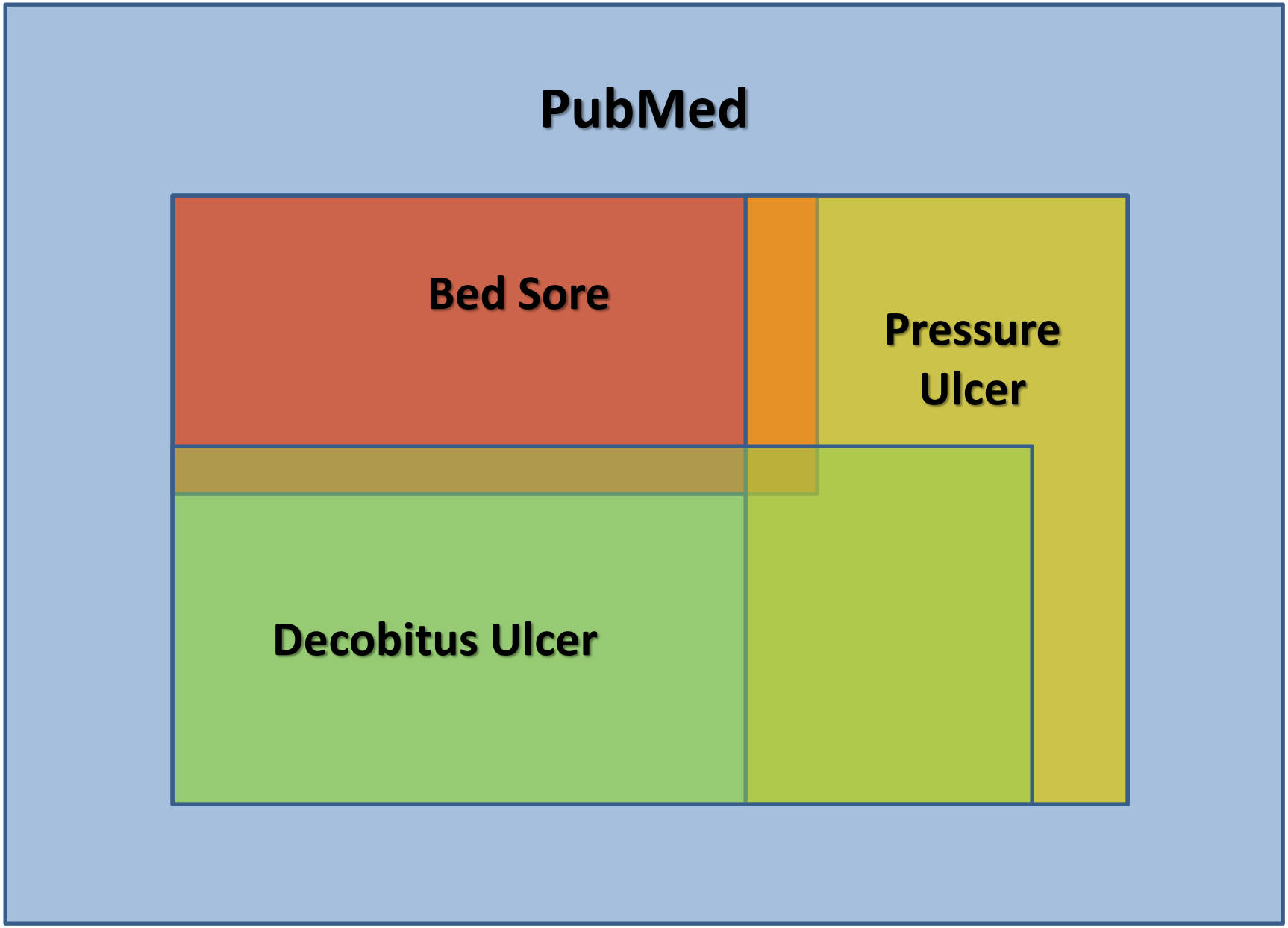
Shaded areas indicate retrieval	Search Statement	Types of records retrieved
	stress **AND** anxiety	Documents that have **both** stress **AND** anxiety
	stress **OR** anxiety	Documents that have **either** stress **OR** anxiety
	stress **NOT** anxiety	Documents that have stress **but NOT** anxiety

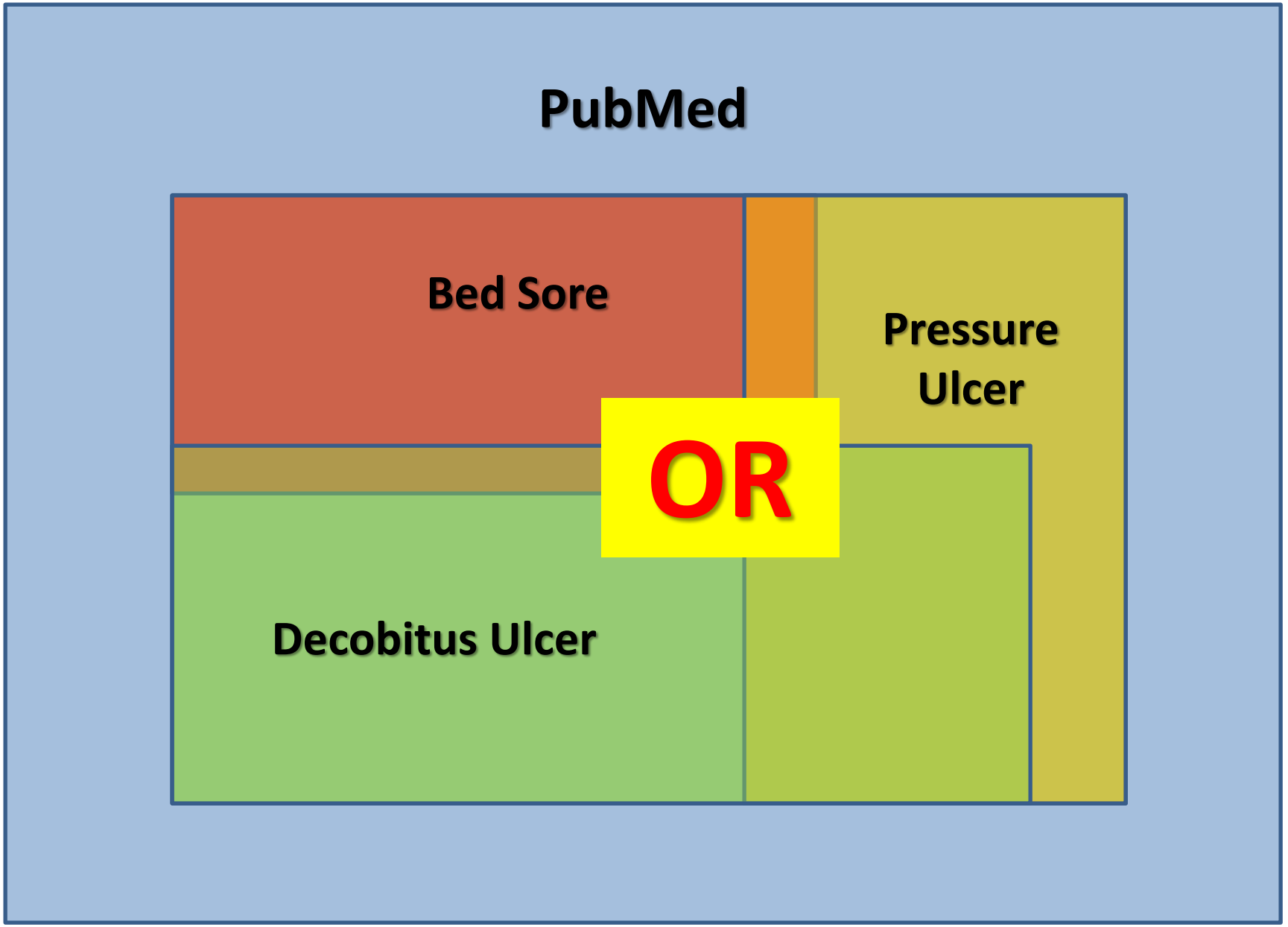
PubMed

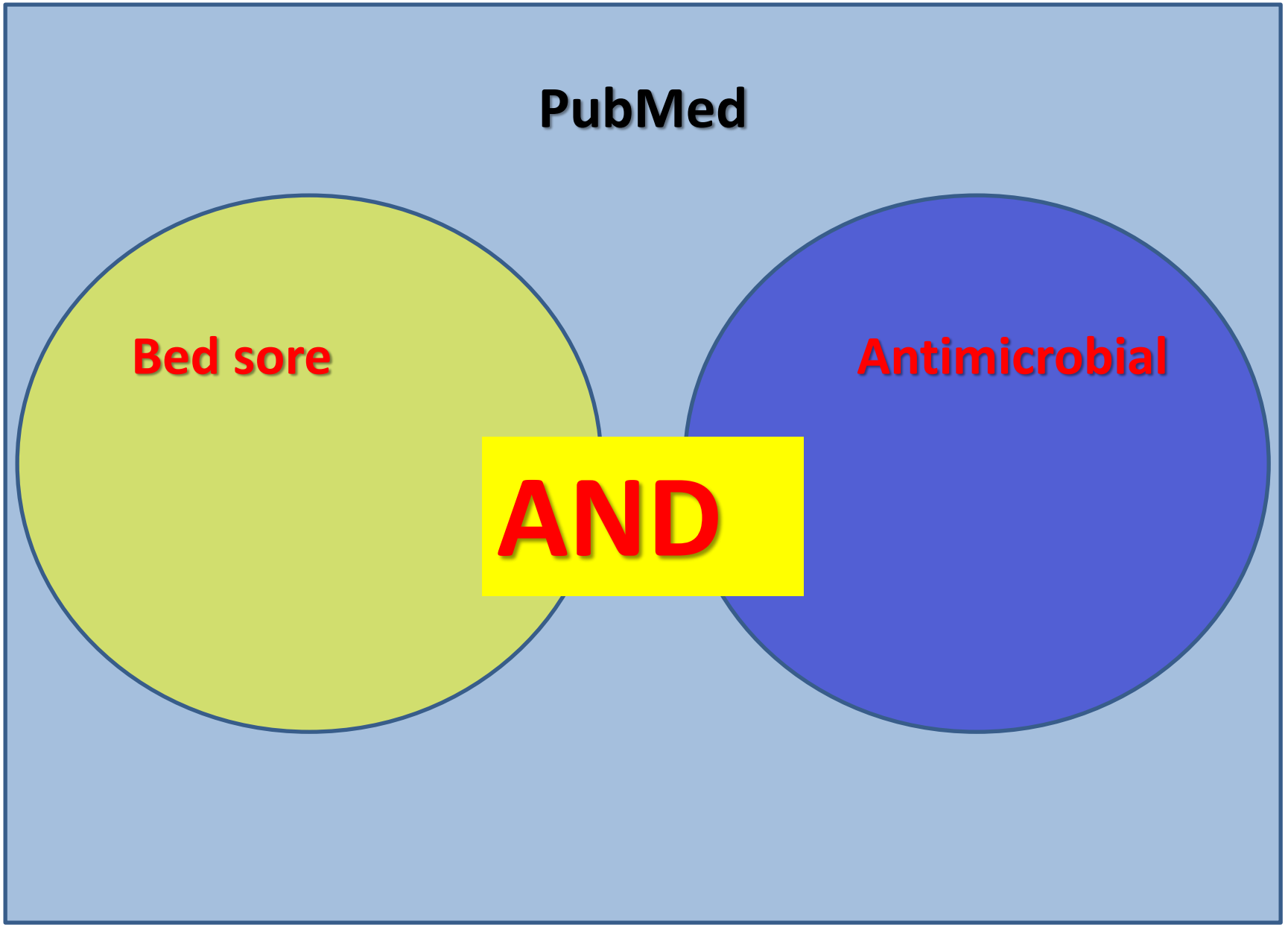

PubMed
Bed Sore


PubMed
Bed Sore


PubMed
Bed Sore
Pressure Ulcer


PubMed
Bed Sore
Pressure Ulcer
Decobitus Ulcer


PubMed
Bed Sore
Pressure Ulcer
OR
Decobitus Ulcer


PubMed
Bed sore
AND
Antimicrobial

Example:

- Free form Question:

  Which of the many available antimicrobial products improve healing in patients with Chronic wounds?

Structured Question

The Population	In adults with various forms of chronic wounds…
The interventions	… would systematic or topical antimicrobial preparations…
The Outcomes	… improve wound healing?
The Study Design	A comparative study that allocates subjects with chronic wounds to alternative therapeutic interventions of interest and determines the effect of the interventions on wound healing (eg RCT)

The Populations:

Patients with various forms of chronic wounds

#1	(Decubitus ulcer[MeSH]) OR foot ulcer[MeSH]	MeSH (14985)
#2	(Leg ulcer[MeSH]) OR varicose ulcer[MeSH]	MeSH (16045)
#3	Skin ulcer[MeSH]	MeSH (32307)
#4	Diabetic foot[MeSH]	MeSH (5039)
#5	(plantar OR diabetic OR heel OR venous OR stasis OR arterial) ulcer*[Title/Abstract]	Free (14855)
#6	(decubitus OR foot OR diabetic OR ischaemic OR pressure) ulcer*[Title/Abstract]	Free (17094)
#7	(pressure OR bed) sore*[Title/Abstract]	Free (3214)
#8	Additional terms may be used	
#9	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 (45883)	Captures population

The interventions:

treatments for chronic wounds

#10	(Debridement[MeSH] OR biological dressings[MeSH]) OR bandages[MeSH]	MeSH (27919)
#11	(Occlusive dressings[MeSH] OR clothing[MeSH]) OR wound healing[MeSH]	MeSH (106685)
#12	(Antibiotics[MeSH] OR growth substances[MeSH]) OR platelet-derived growth factor[MeSH]	MeSH (337730)
#13	(((debridement OR dressing*) OR compress*) OR cream*) OR "growth factor*"[Title/Abstract]	Free (361092)
#14	(((Antibiotic* OR "electric therapy") OR laser*) OR nutrition*) OR surg*[Title/Abstract]	Free (1869226)
#15	(((homeopath* OR acupuncture) OR massage) OR reflexology) OR ultrasound[Title/Abstract]	Free (168222)
#16	Additional terms may be used	
#17	#10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 (2569219)	Captures intervention

No search is performed to capture outcomes

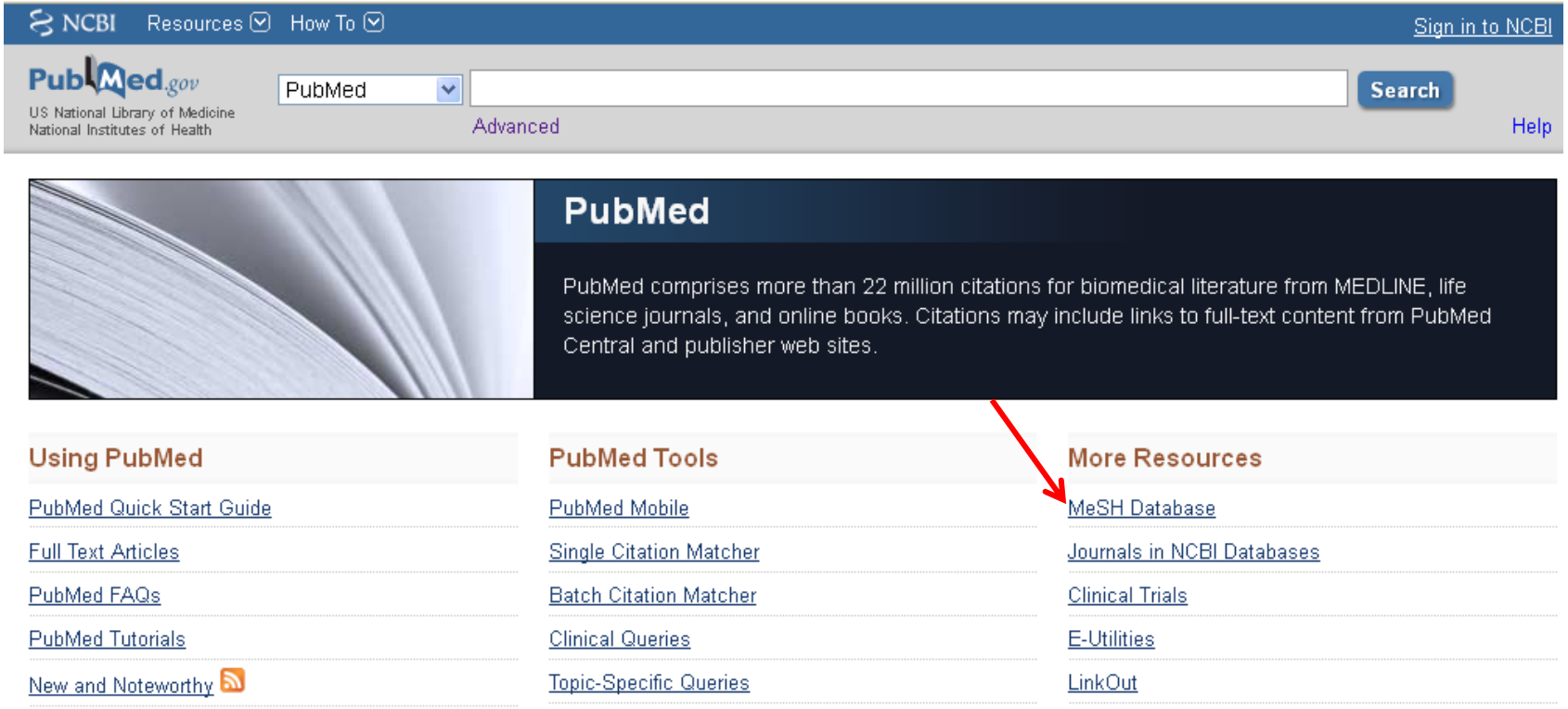
#18	#9 AND #17	Combines population and intervention (17969)
The Study Designs		
#19	Random allocation[MeSH] OR randomized controlled trials[MeSH]	MeSH (155299)
#20	randomized clinical trial[MeSH]	MeSH (80767)
#21	Single-blind method[MeSH] OR double-blind method[MeSH]	MeSH (131088)
#22	“random* controlled trial*” OR “prospective random*”[Title/Abstract]	Free (102)
#23	Additional terms may be used	
#24	#19 OR #20 OR #21 OR #22 OR #23 (270706)	Captures study designs
#25	#18 AND #24	Combines population AND intervention and study designs (612)
#26	Limit #25 to human	(584)

Calcium supplementation for the management of primary hypertension in adults

Calcium supplementation for the management of primary hypertension in adults

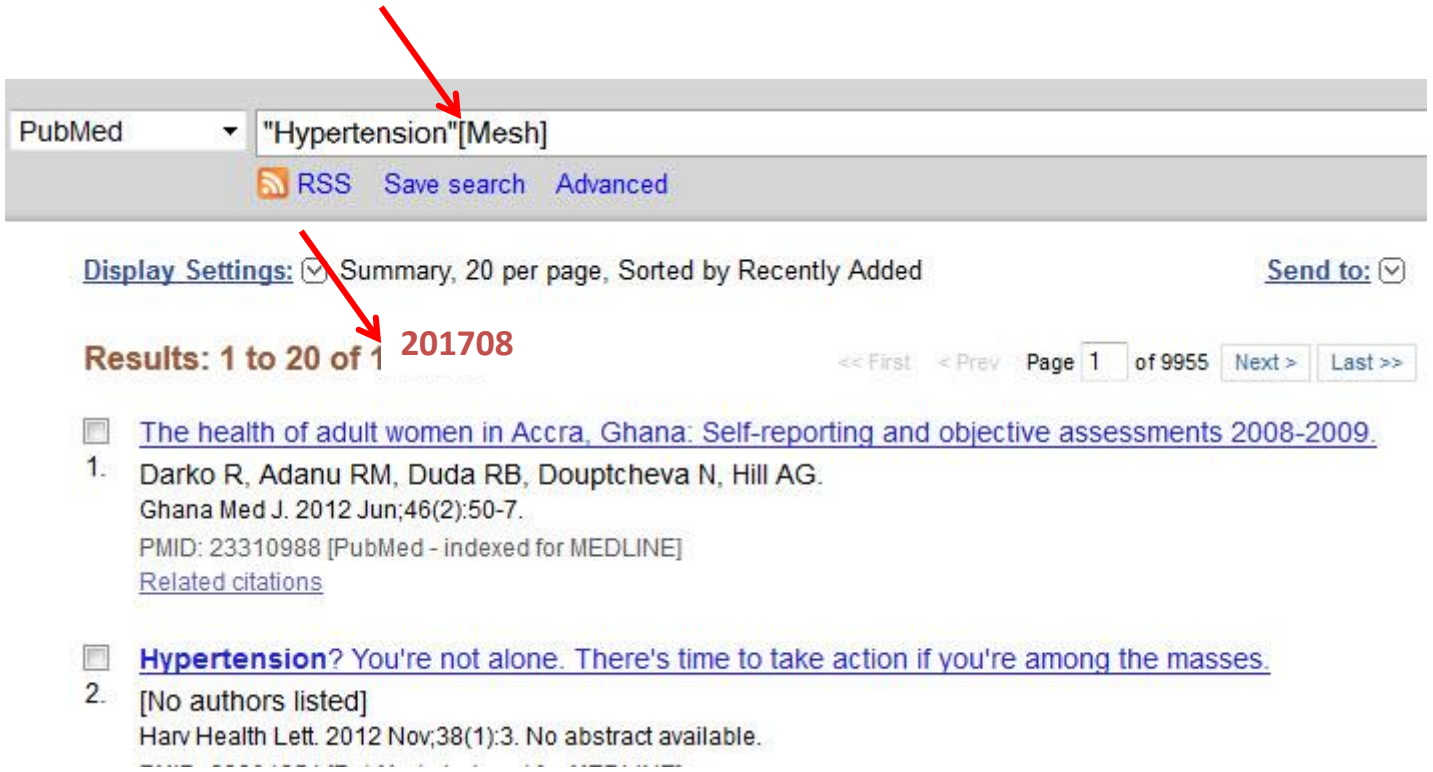
- HYPERTENSION
  - blood pressure
- DIETARY supplements
- CALCIUM, DIETARY
  - Calcium diet, oral, supplement, intake
- PREGNANCY
  - pre eclampsia
- calcium antagonist
- channel blocker

Pubmed; MeSH Database

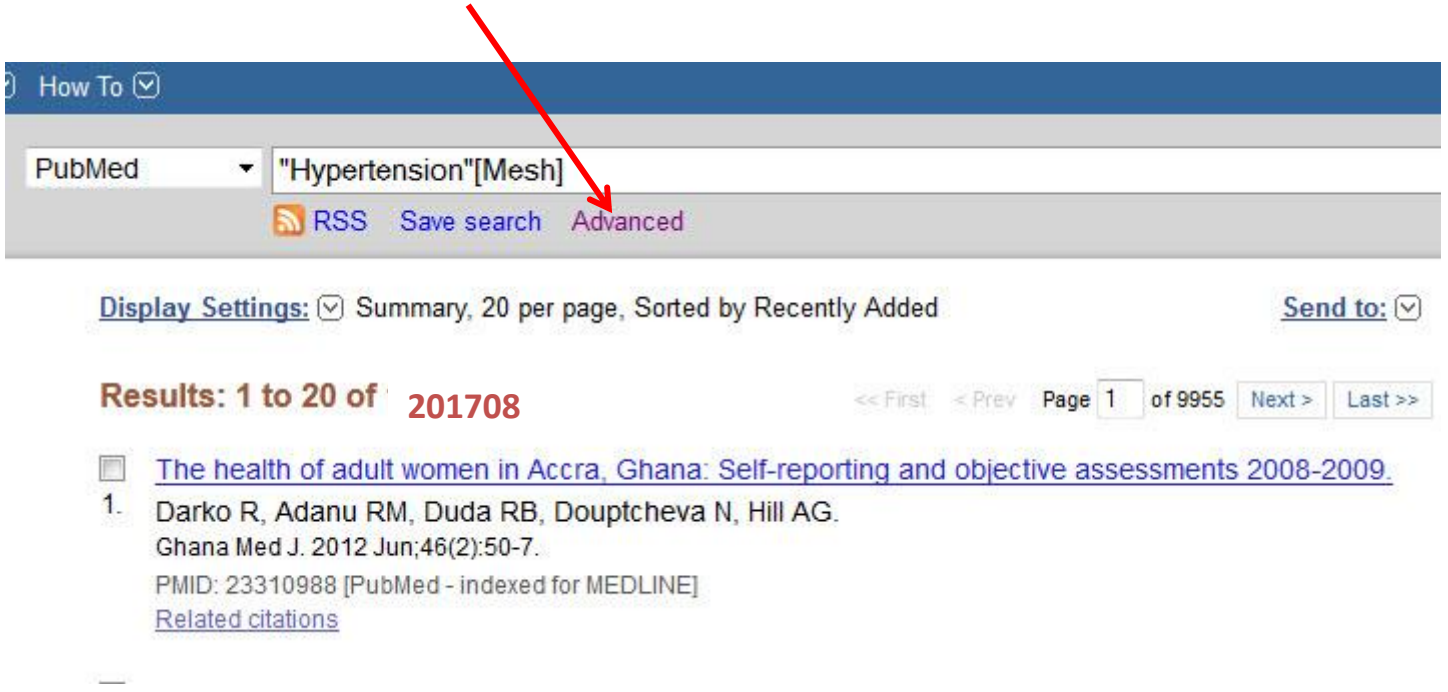


Hypertension [MESH]

HYPERTENSION[Mesh] (201708)



Pubmed; Advanced Search



Use the builder below to create your search

Edit Clear

Builder

All Fields Show index list

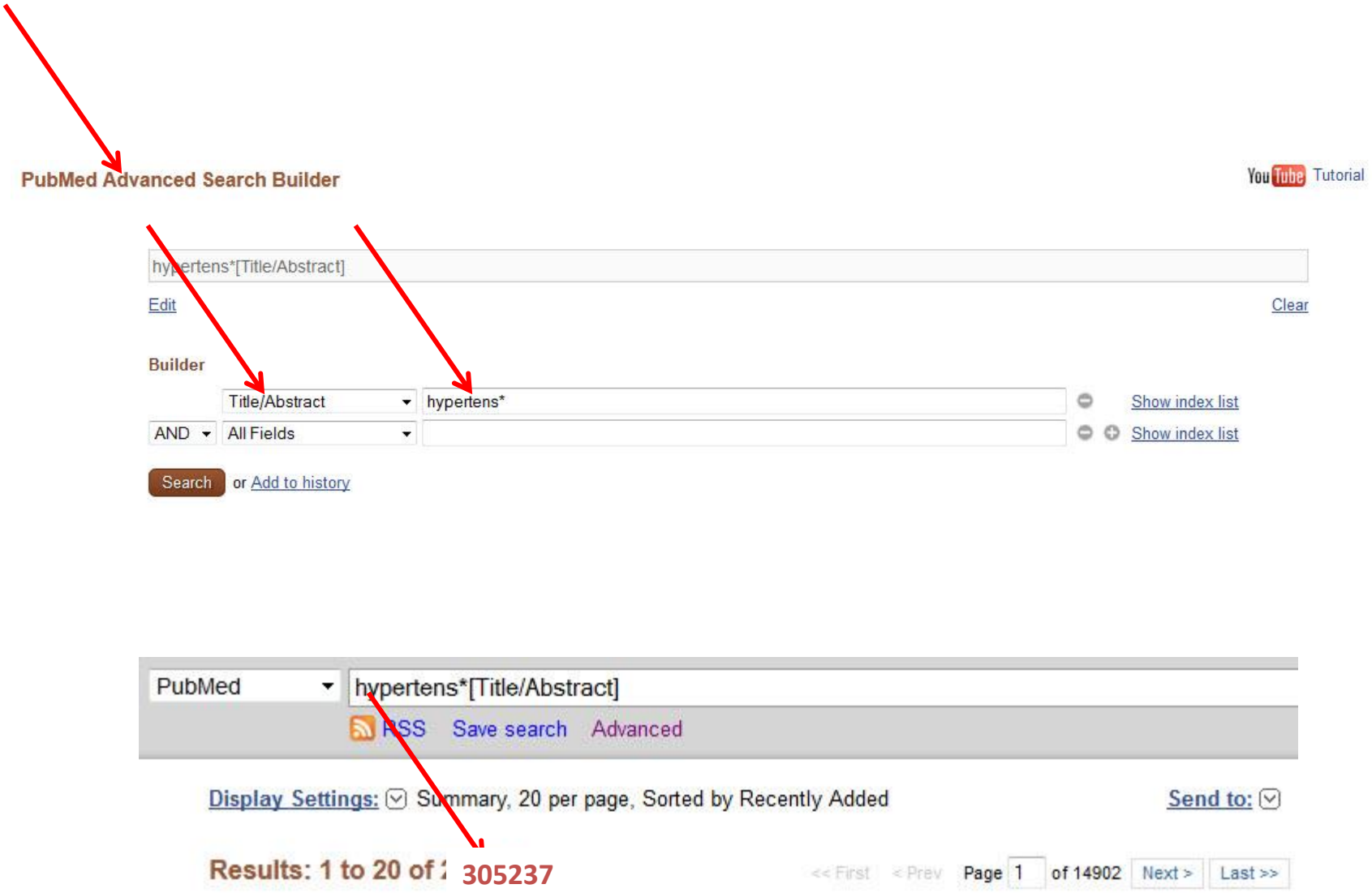
AND All Fields Show index list

Search or Add to history

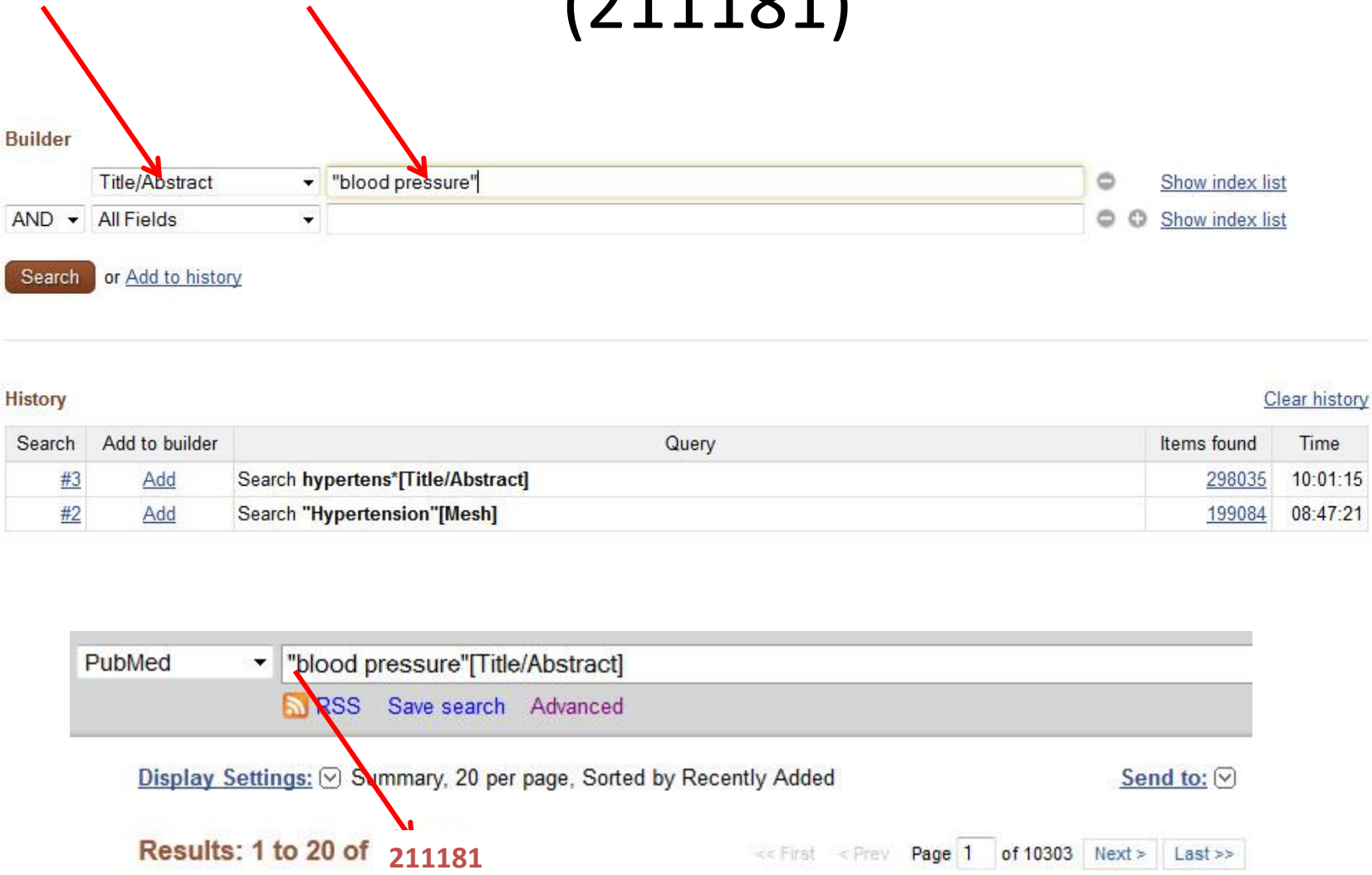
History Clear history

Search	Add to builder	Query	Items found	Time
#1	Add	Search **"Hypertension"[Mesh]**	197958	04:32:27

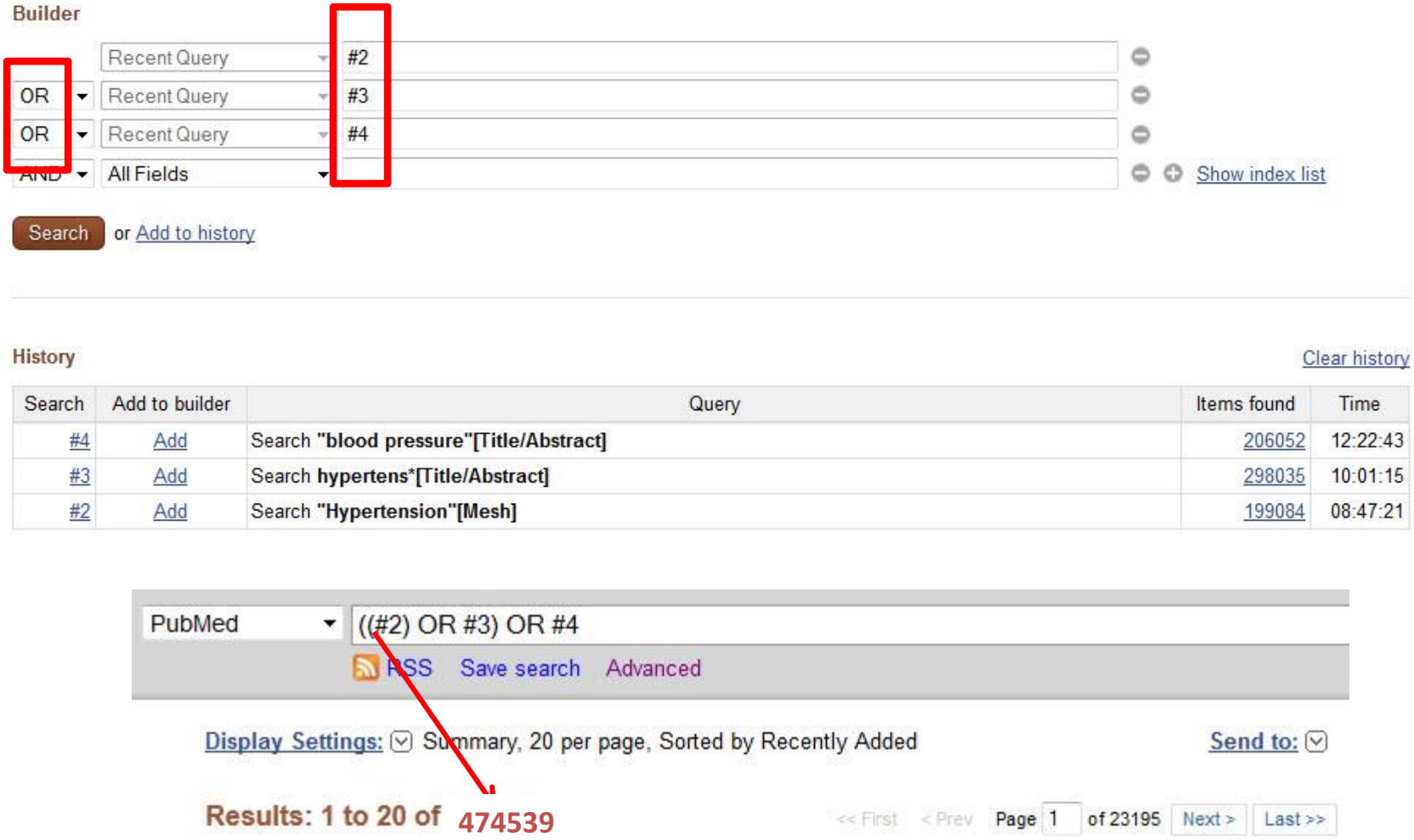
Hypertens*[Title/Abstract] (305237)

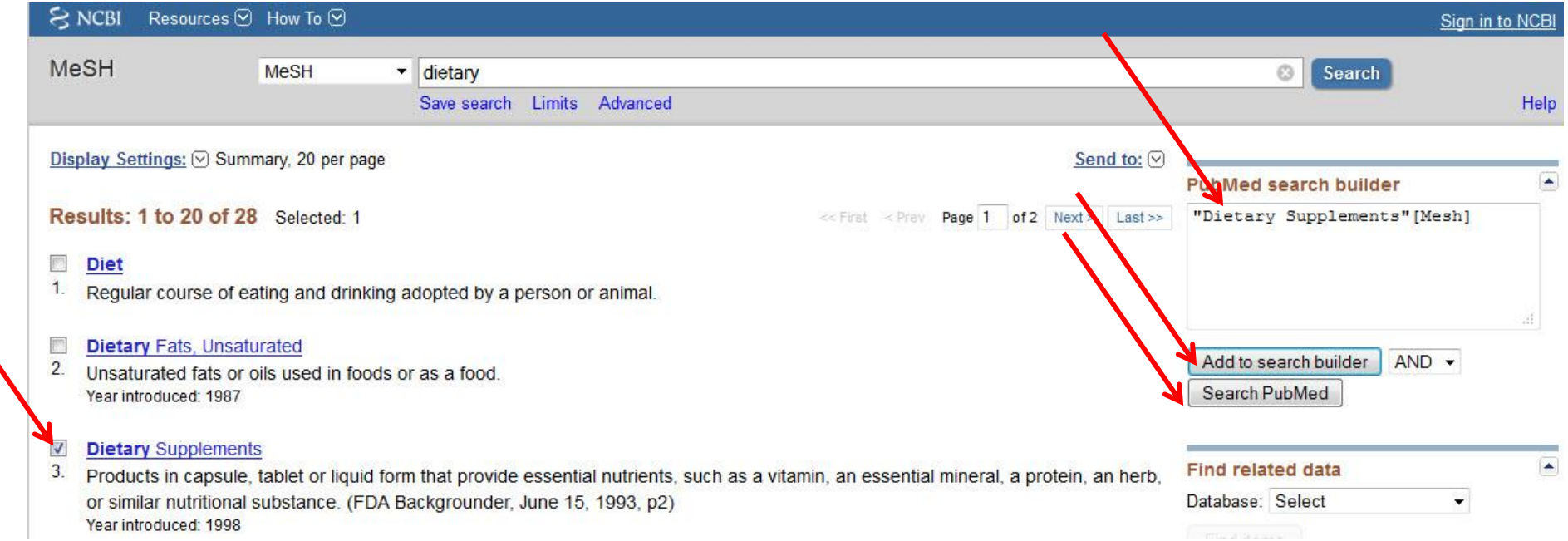


“blood pressure”[Title/Abstract] (211181)



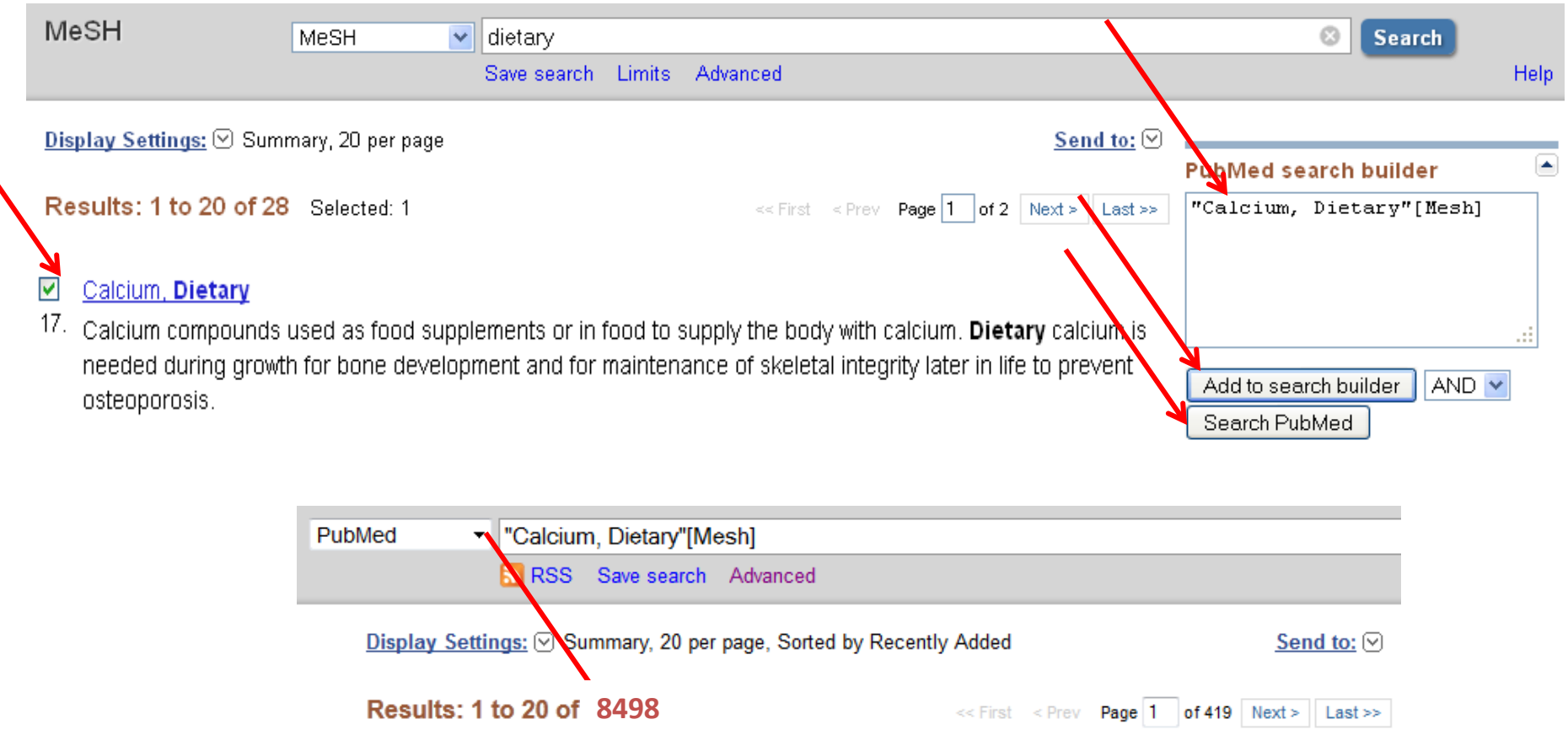
#2 OR #3 OR #4 (474539)



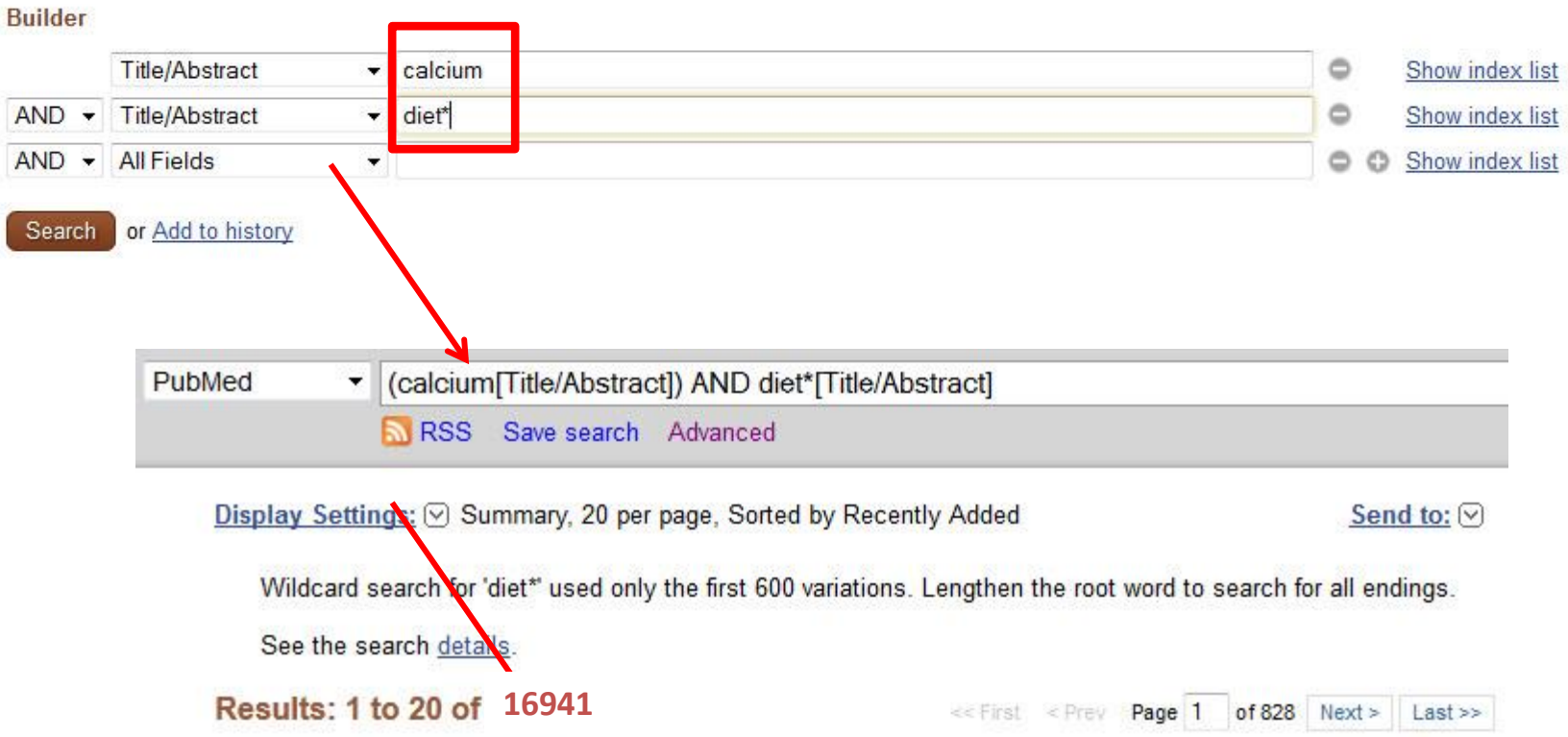

NCBI
Resources
How To
Sign in to NCBI
MeSH
MeSH
dietary
Search
Save search
Limits
Advanced
Help
Display Settings: Summary, 20 per page
Send to:
Results: 1 to 20 of 28
Selected: 1
<< First
< Prev
Page 1 of 2
Next >
Last >>
Diet
1. Regular course of eating and drinking adopted by a person or animal.
Dietary Fats, Unsaturated
2. Unsaturated fats or oils used in foods or as a food.
Year introduced: 1987
Dietary Supplements
3. Products in capsule, tablet or liquid form that provide essential nutrients, such as a vitamin, an essential mineral, a protein, an herb, or similar nutritional substance. (FDA Backgrounder, June 15, 1993, p2)
Year introduced: 1998
PubMed search builder
"Dietary Supplements"[Mesh]
Add to search builder
AND
Search PubMed
Find related data
Database: Select

DIETARY supplements[Mesh] (35914)

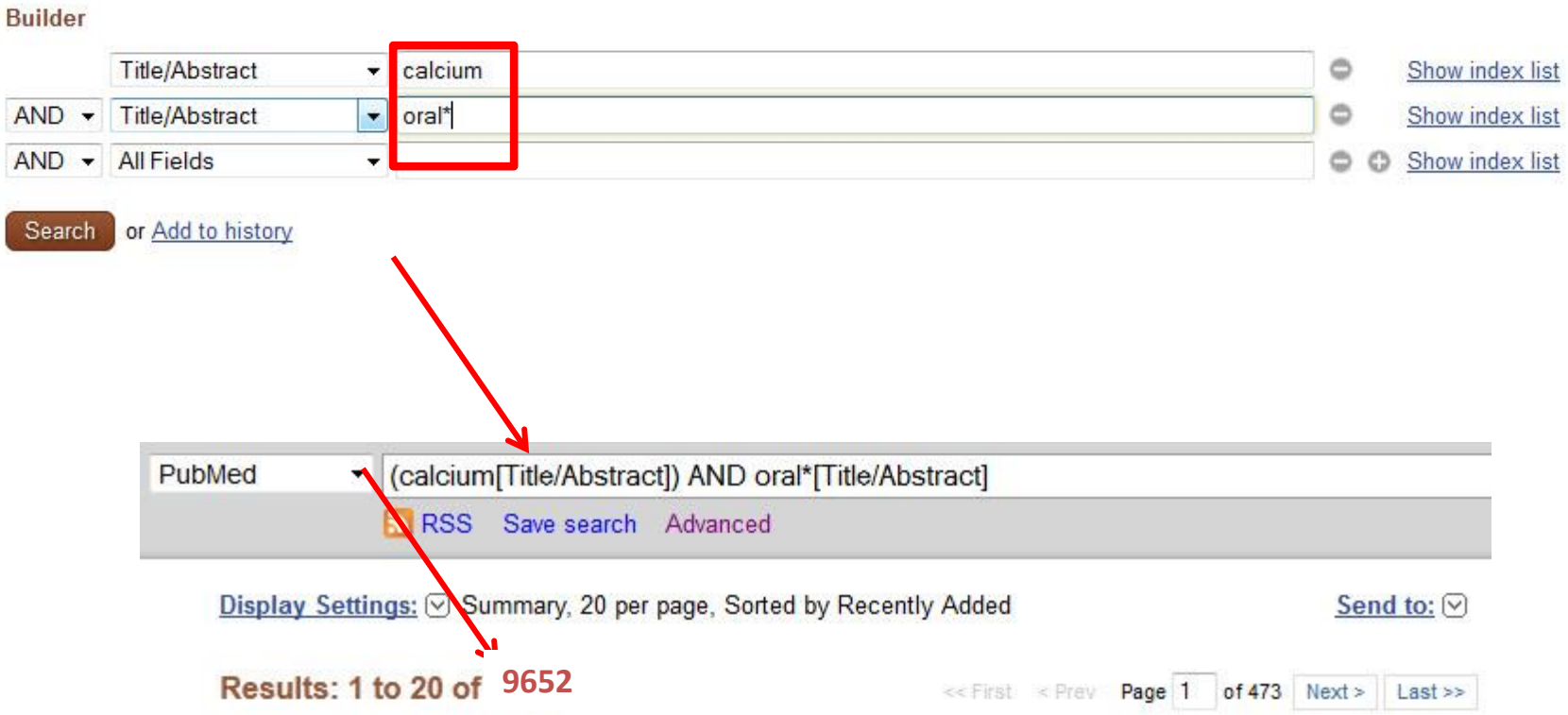
CALCIUM, DIETARY[Mesh] (8498)



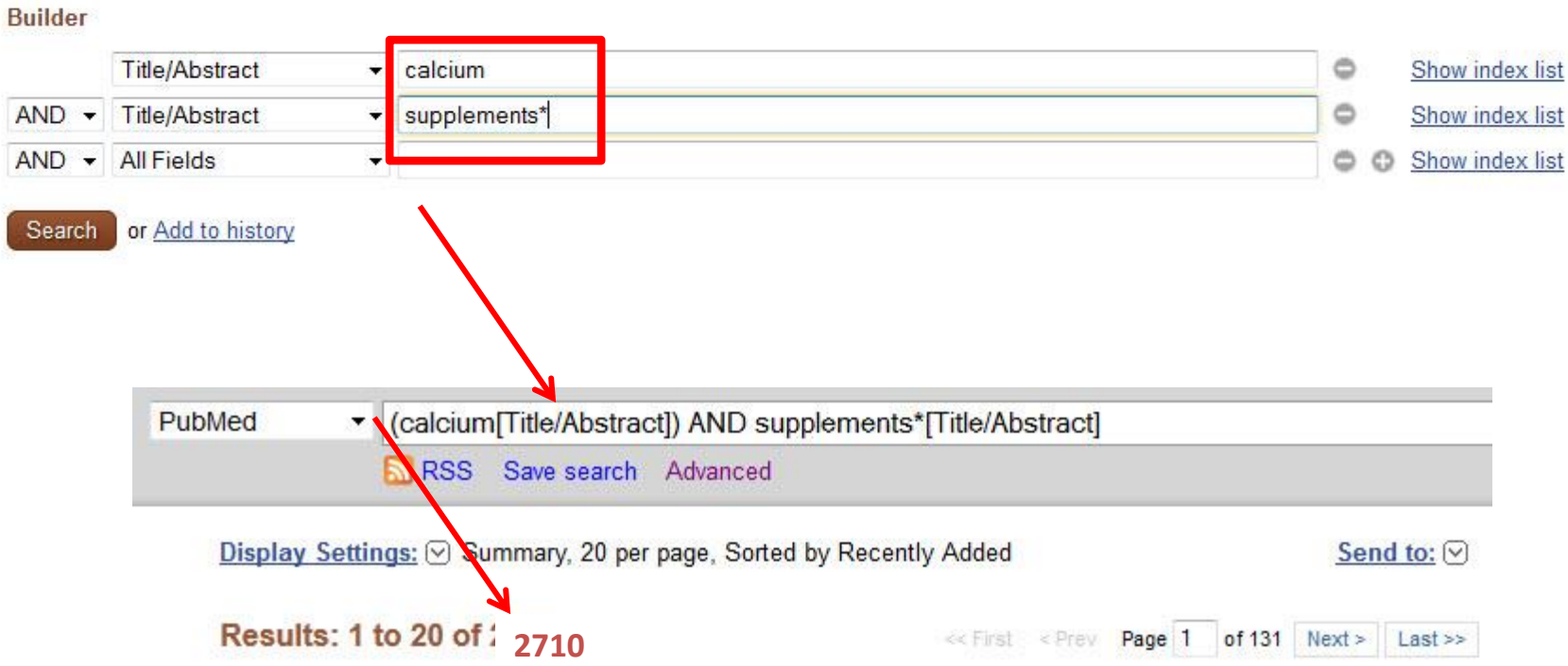
calcium[Title/Abstract] AND diet*[Title/Abstract] (16941)



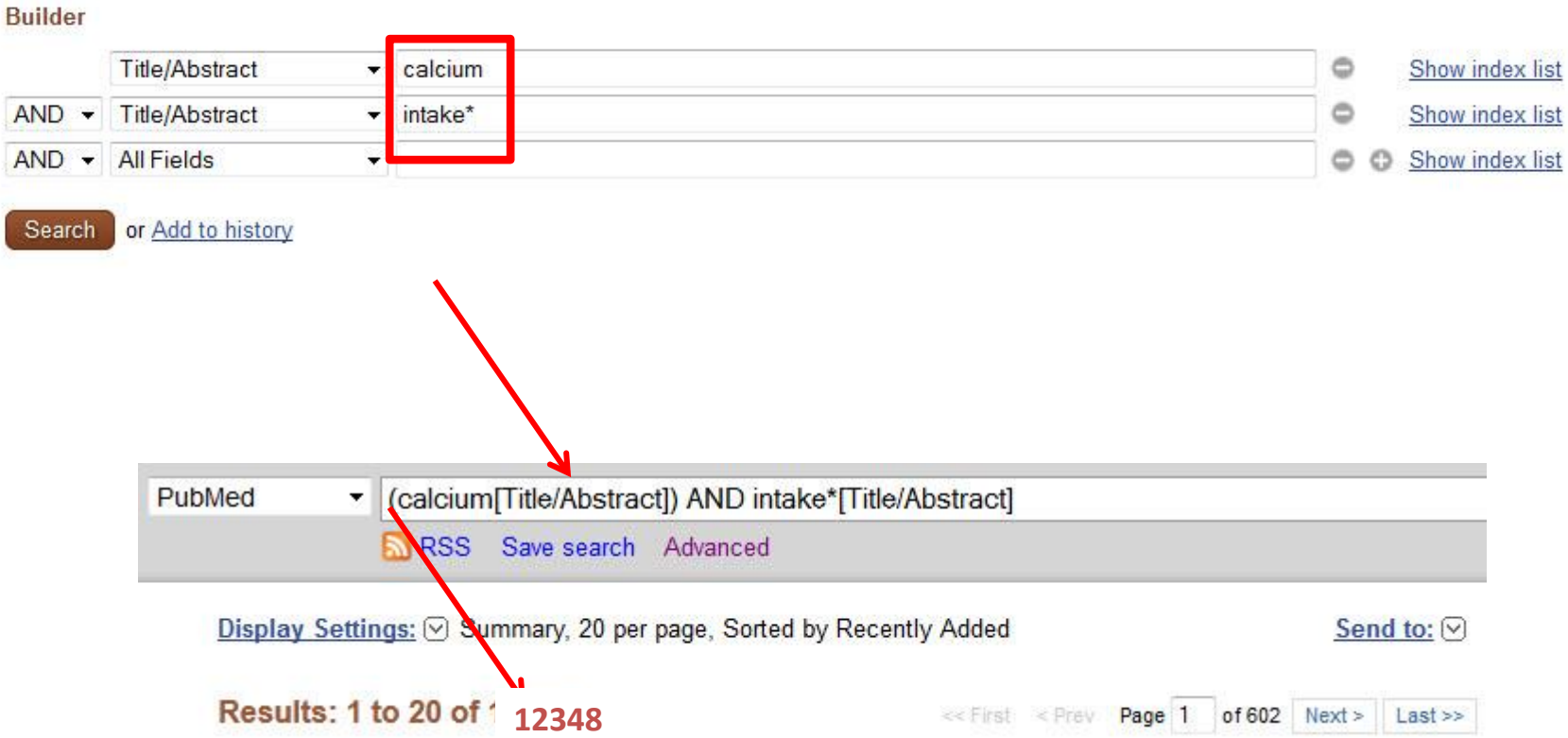
calcium[Title/Abstract] AND oral*[Title/Abstract] (9652)



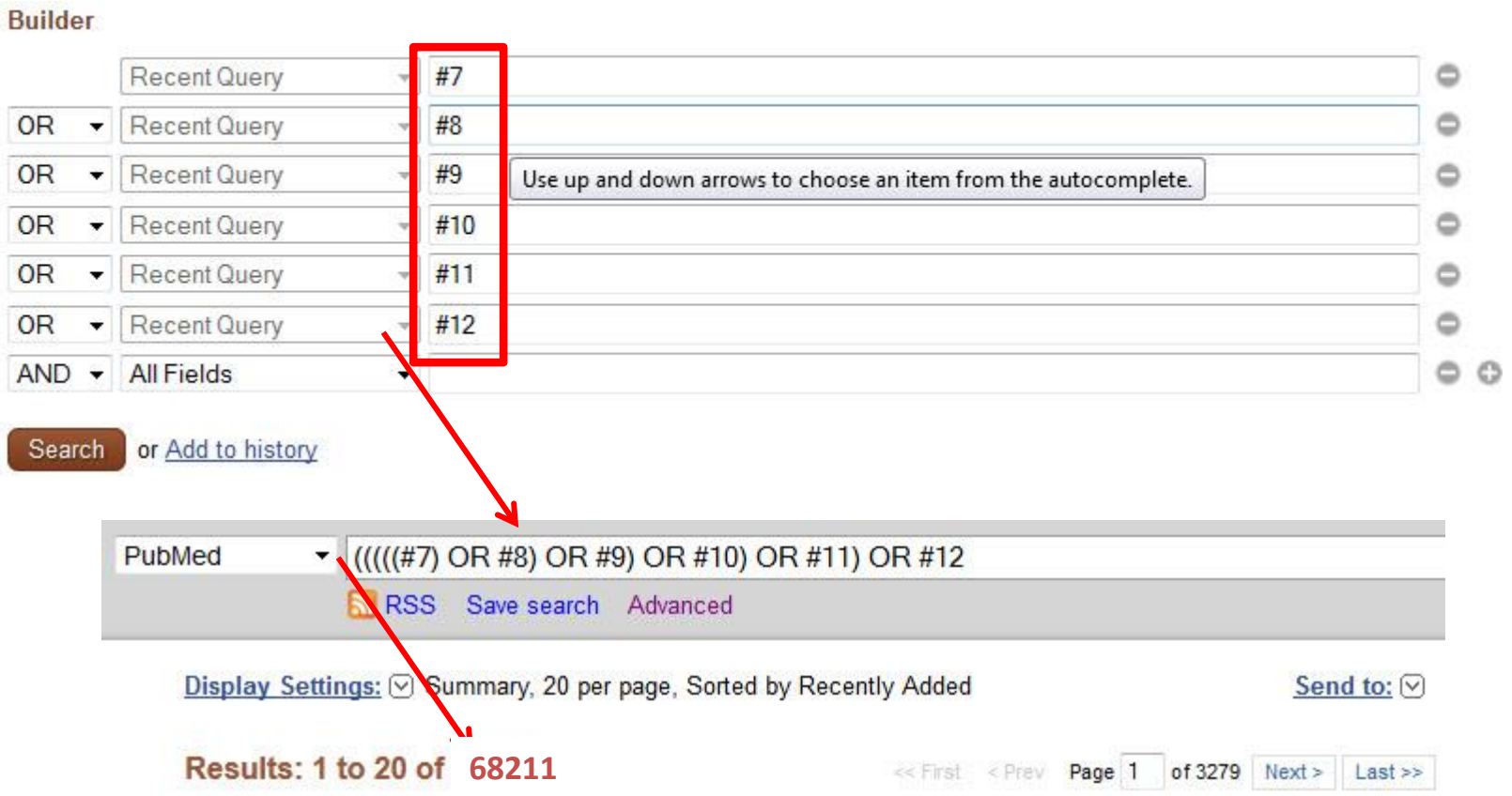
calcium[Title/Abstract] AND supplements*[Title/Abstract] (2710)



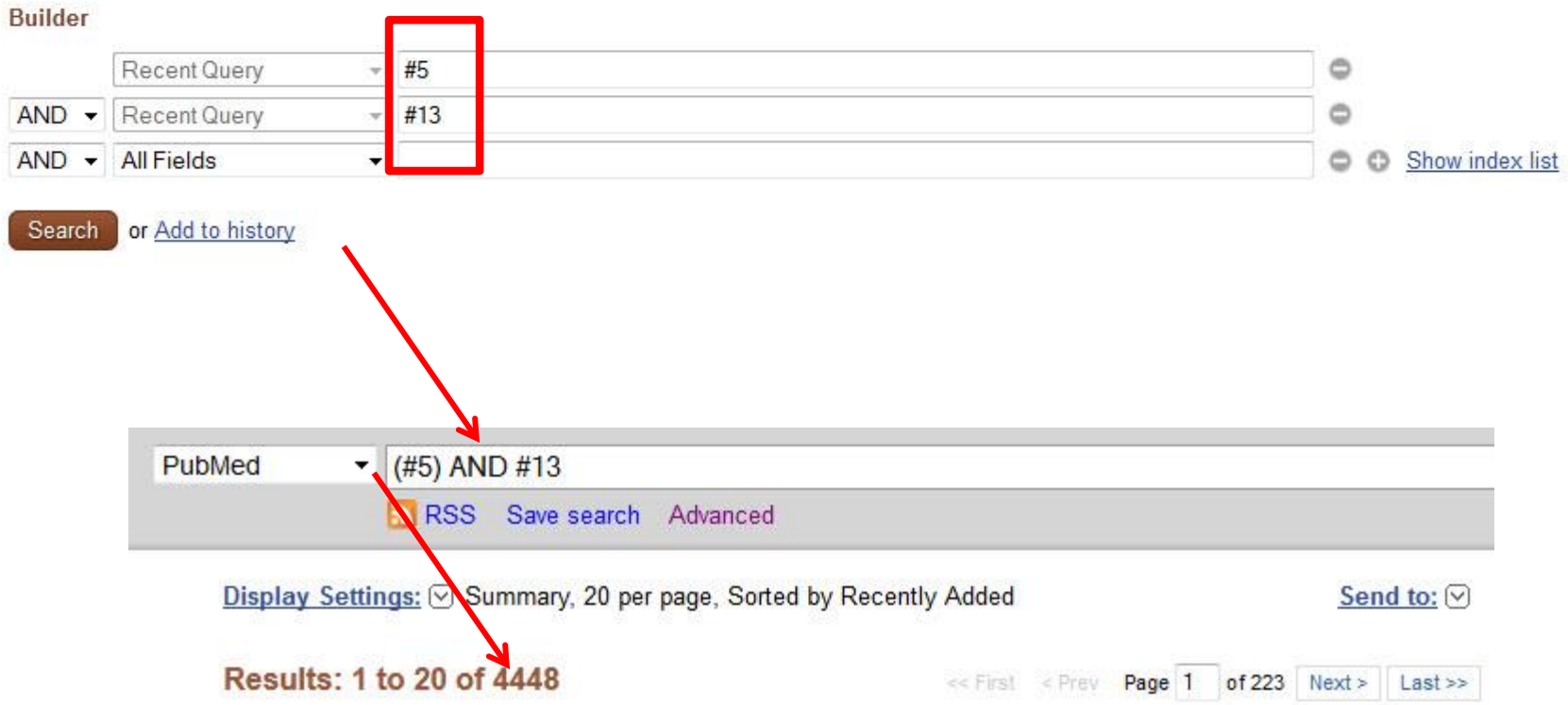
calcium[Title/Abstract] AND intake*[Title/Abstract] (12348)



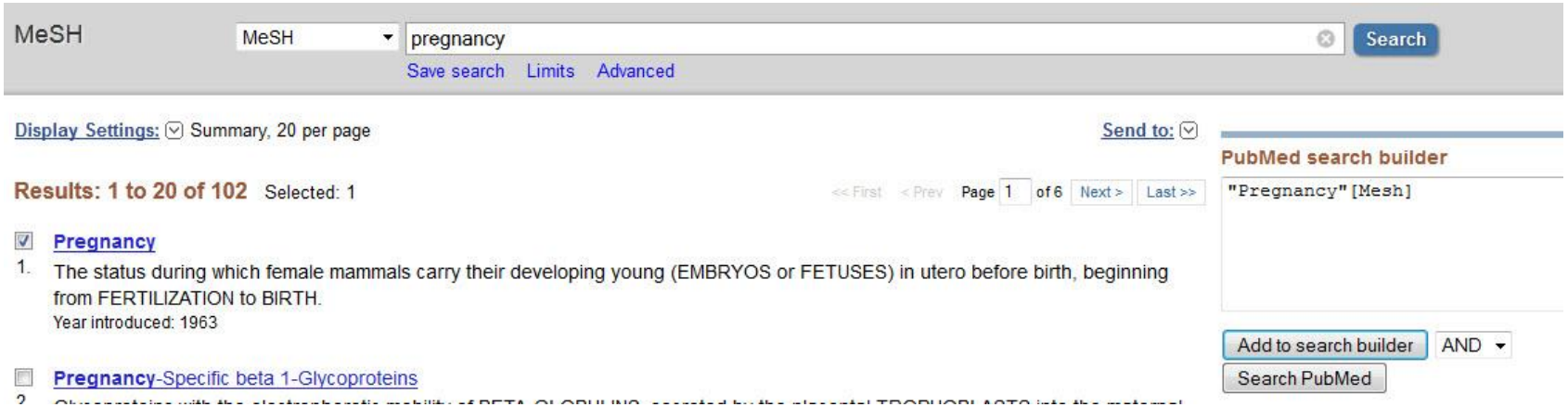
#7 OR #8 OR #9 OR #10 OR #11 OR #12 (68211)



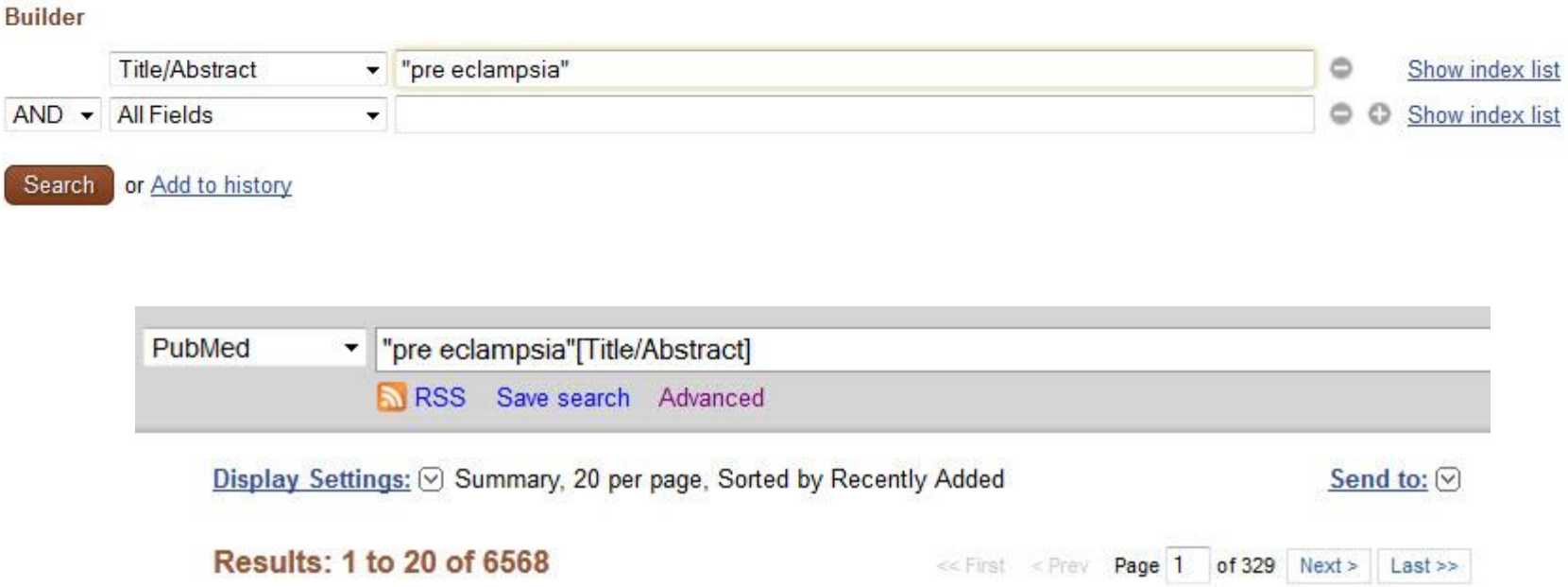
#4 AND #11 (4448)


Builder
Recent Query
#5
AND
Recent Query
#13
AND
All Fields
Show index list
Search
or Add to history
PubMed
(#5) AND #13
RSS
Save search
Advanced
Display Settings:
Summary, 20 per page, Sorted by Recently Added
Send to:
Results: 1 to 20 of 4448
<< First
< Prev
Page 1 of 223
Next >
Last >>

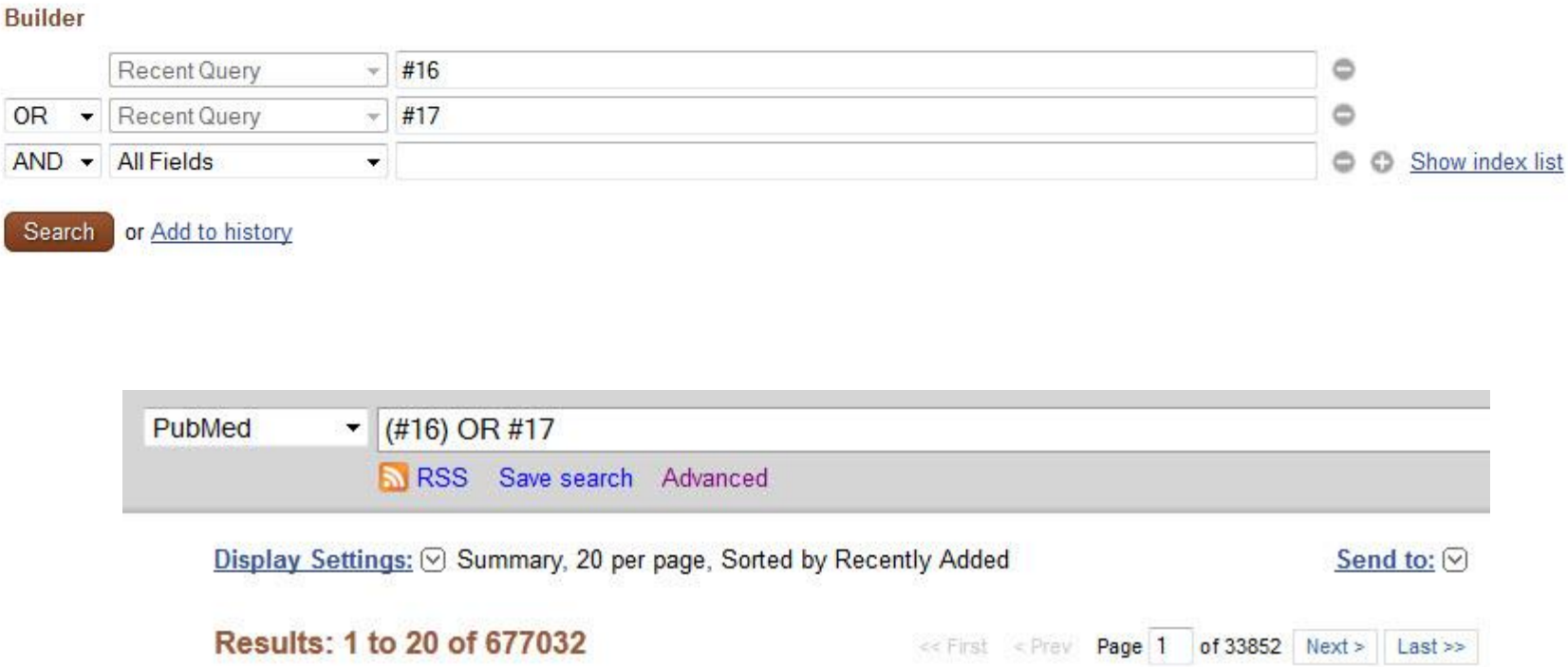
PREGNANCY[Mesh](676296)



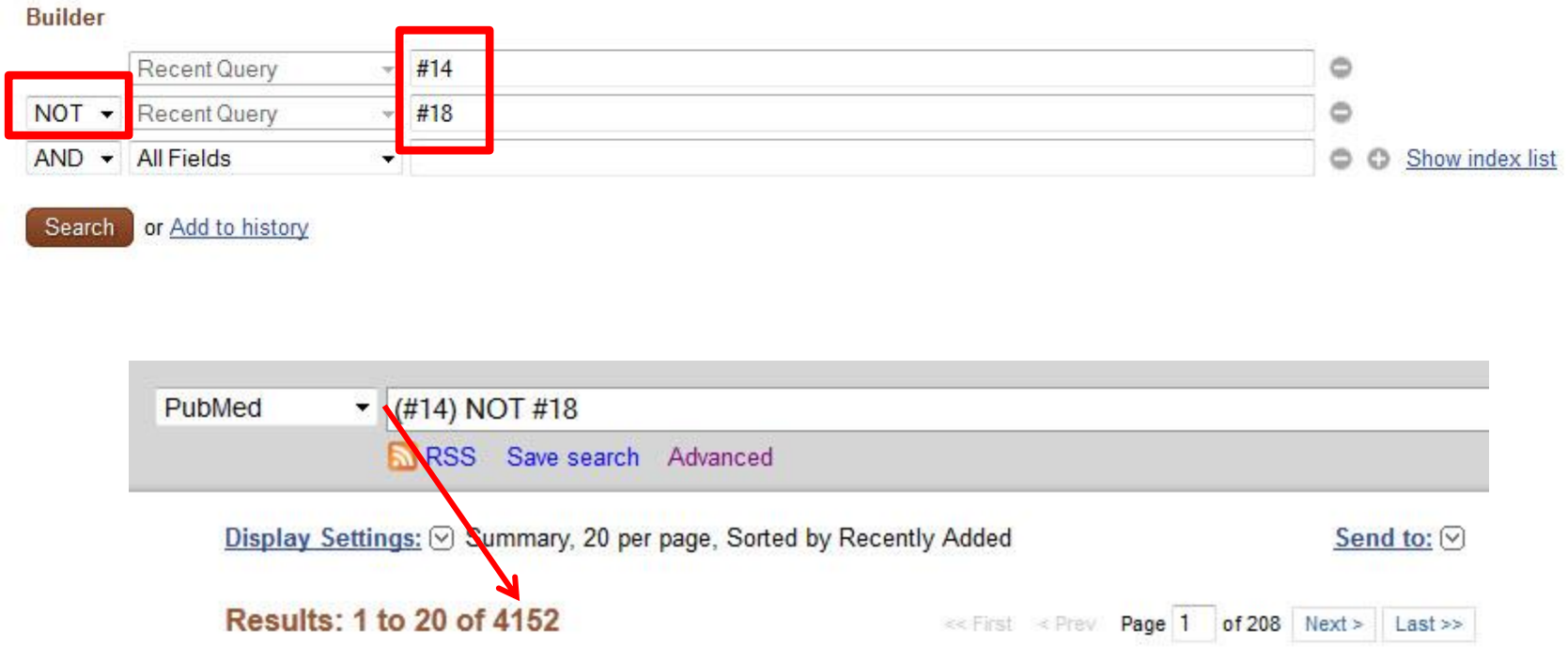
“pre eclampsia”[Title/Abstract] (6568)



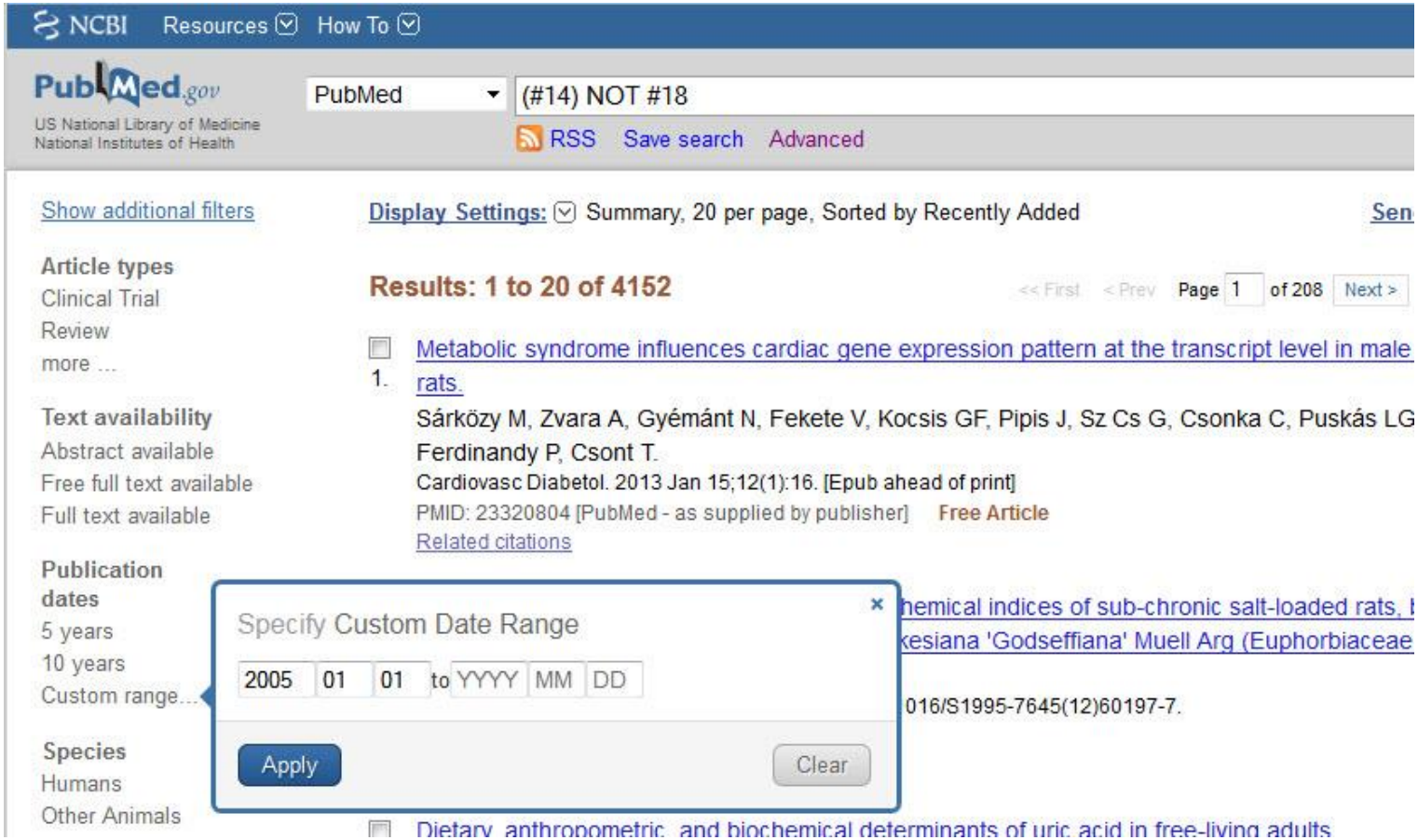
#16 OR #17 (677032)



#14 NOT #18 (4152)



Limit from 2005 to present



Limit from 2005 to present: 1347

Calcium supplementation for the management of primary hypertension in adults

#1: HYPERTENSION[Mesh] (199084)

#2: Hypertens*[Title/Abstract] (298035)

#3: “blood pressure”[Title/Abstract] (206052)

#4: #1 OR #2 OR #3 (463900)

#5: DIETARY supplements[Mesh] (33898)

#6: CALCIUM, DIETARY[Mesh] (8369)

#7: calcium[Title/Abstract] AND diet*[Title/Abstract] (16556)

#8: calcium[Title/Abstract] AND oral*[Title/Abstract] (9460)

#9: calcium[Title/Abstract] AND supplements*[Title/Abstract] (2619)

#10: calcium[Title/Abstract] AND intake*[Title/Abstract] (12032)

#11: #5 OR #6 OR #7 OR #8 OR #10 OR #11 (65571)

#12: #4 AND #11 (4448)

Calcium supplementation for the management of primary hypertension in adults

#13: PREGNANCY[Mesh] (676296)

#14: “pre eclampsia”[Title/Abstract] (6568)

#15: #13 OR #14 (677032)

#16: #12 NOT #15 (4152)

Limit to 2005 to present (1380)

Saving the results

1. Clipboard
2. NCBI

Search Alert

Home Work

- What are the tags in the PubMed?

Structure of a search strategy

- Based on your eligibility criteria
- Start with the 2 or 3 most important concepts
- Focus on those most likely to be found in title & abstract

P participants

I intervention

~~C comparison~~

~~O outcomes~~

S study design

Structure of a Search Strategy

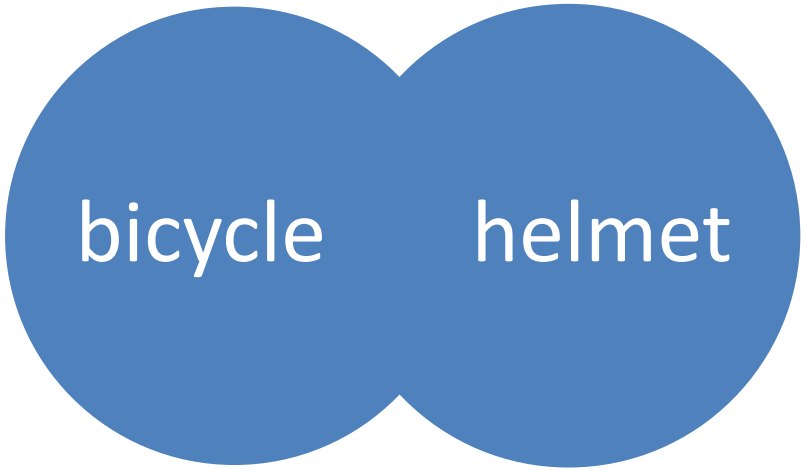
- Example:
  Helmets for preventing head and facial injuries in cyclists

P cyclists

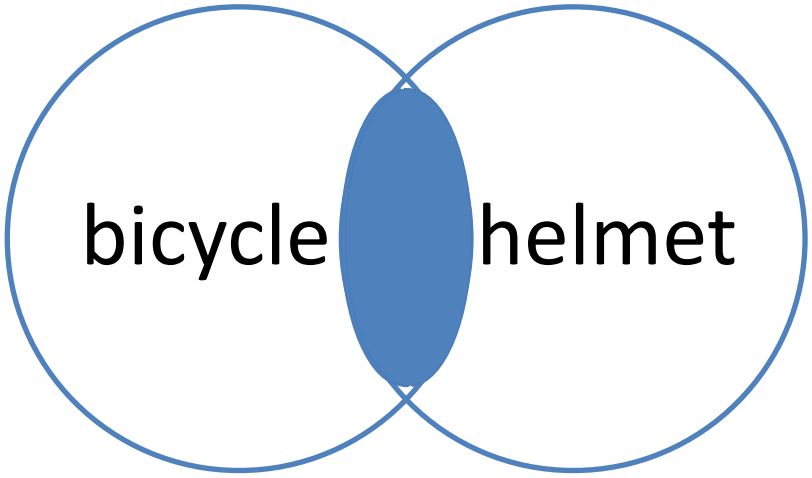
I helmets

S RCTs

Boolean Operators

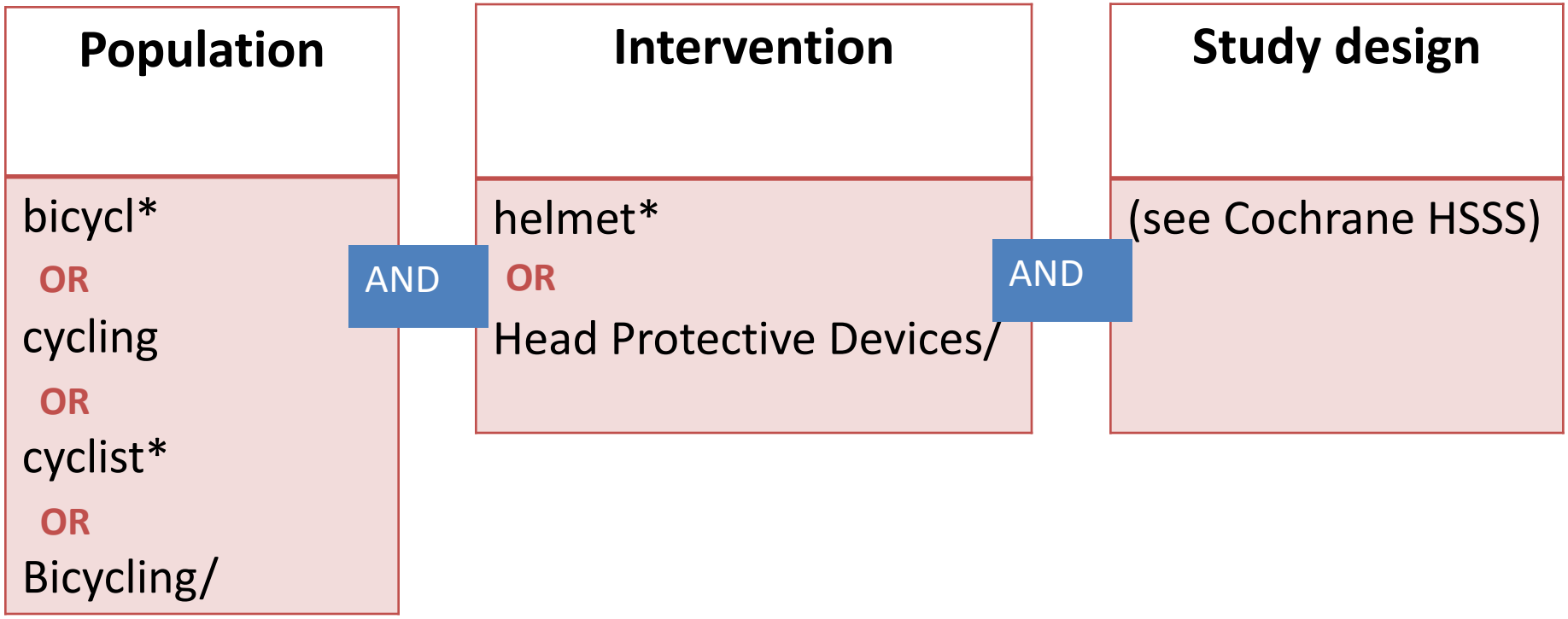


OR – to expand search



AND – to narrow search

Nop Bringing It all Together



- “Brain injury” OR “head injury” OR “skull fracture”

Sample PubMed strategy

Cycling

1. bicycl* [tiab]
2. cycling [tiab]
3. cyclist* [tiab]
4. bicycling [mesh: noexp]
5. #1 OR #2 OR #3 OR #4

Helmets

6. helmet* [tiab]
7. head protective devices [mesh: noexp]
8. #6 OR #7

RCTs

9. randomized controlled trial [pt]
10. controlled clinical trial [pt]
11. randomized [tiab]
12. placebo [tiab]
13. drug therapy [sh]
14. randomly [tiab]
15. trial [tiab]
16. groups [tiab]
17. #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16
18. animals [mh] NOT humans [mh]
19. #17 NOT #18

20. #5 AND #8 AND #19