



Embase

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What is Embase?

What is Embase?

A biomedical literature database with the most comprehensive journal and conference coverage and indexing

Content: Be confident you aren't missing important information

Find all relevant articles that may not otherwise be found by using alternative databases

Deep full-text indexing: Find relevant articles, no matter where a term is mentioned

All relevant, up-to-date, biomedical information from the research literature

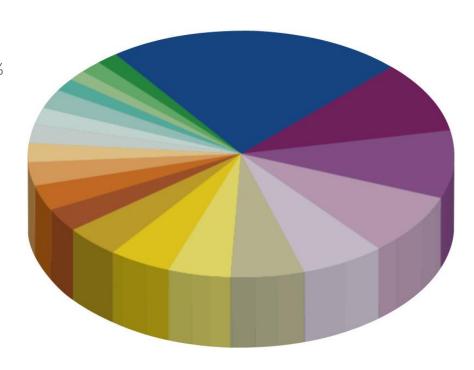
Precise retrieval: Pinpoint the most relevant results

Deep and focused research using the most powerful retrieval tools

Embase focuses on biomedical literature in key areas for disease, drug and medical device research



- General Clinical Medicine 11%
- Genetics, Biochemistry & Molecular Biology 10%
- Neurology & Behavioral Medicine 8%
- Microbiology & Infectious Disease 7%
- Cardiology & Hematology 6%
- Psychiatry & Mental Health 6%
- Oncology 5%
- Healthcare Policy & Management 4%
- Allergy & Immunology 4%
- Pediatrics 4%
- Endocrinology & Metabolism 3%
- Obstetrics & Gynecology 3%
- Biomedical Engineering & Medical Devices 3%
- Anesthesiology & Intensive Care 3%
- Gastroenterology 2%
- Respiratory Medicine 2%
- Nephrology & Urology 2%
- Dermatology 2%



Other topics 28%

Including public health, basic biomedical science and topics included from MEDLINE

How does Embase work?

...by including literature and information resources in a **timely manner**

Conference proceedings



Scientific Journals



In Press (unpublished)



We make sure you don't miss any biomedical literature

...by reading full-text to identify drugs, diseases, adverse affects, clinical trials, drug trade names, etc.

Deep indexing using own taxonomy (EMTREE)

The only close alternative is reading all the articles

...by enabling advanced search filters to **drill down** a comprehensive search to a relevant and manageable record set

Very powerful search environment

Good precision and recall balance

...by allowing users to **automate searching** and result management



E-mail Alerting



API

QUOSA™

Interoperability

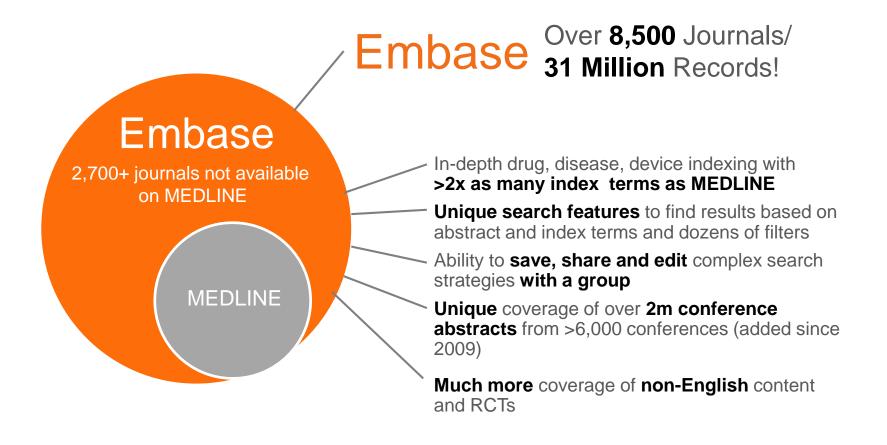
Automation and documentation





Coverage

With Embase critical information isn't missed — Includes all of MEDLINE (PubMed) plus much more



Embase is Internationally Recognized and Recommended

More non-English content supports comprehensive SRs

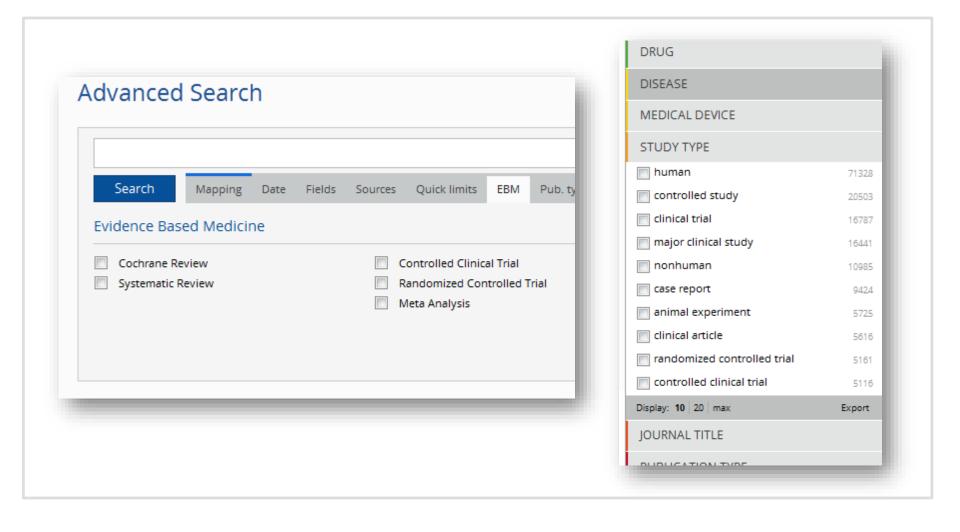
Language	Embase (per year) *	MEDLINE (per year) *	Unique in Embase
English **	877,186 (90%)	664,207 (92%)	213,000
Chinese	27,861 (2.9%)	11,523 (2.2%)	16,300
German	17,051 (1.7%)	7,421 (1.0%)	9,600
French	13,491	8,469	5,000
Spanish	12,582	6,839	5,700
Japanese	7,762	5,761	2,000
Russian	6,275	6,094	200
Portuguese	4,918	3,560	1,400
Polish	3,479	1,791	1,700
Turkish	3,264	545	2,700
Italian	2,880	1,522	1,400
Dutch	2,618	899	1,700
Czech	1,557 (0.16%)	585 (0.08%)	1,000

More randomized controlled trials

Embase has more randomized controlled trial reports — a key study type for SRs — than MEDLINE, especially in non-English languages

Language	Embase on Elsevier	MEDLINE on Ovid	Embase Advantage	Percent
Turkish	613	75	538	717%
Korean	134	46	88	191%
Portuguese	712	442	270	61%
Dutch	606	442	164	37%
Chinese	5366	3945	1421	36%
Polish	491	434	57	13%
Spanish	2316	2137	179	8%
French	3952	3904	48	1%
German	8393	8566	-173	-2%

Apply limits and filters to investigate data for Evidence-Based Medicine







Indexing

Embase indexing – What is Emtree?

Easy to search

 Over 73,000 preferred terms and more than 310,000 synonyms that map to the preferred term when searched

Comprehensive drug and Medical Device searching

- Chemical names, trade names, laboratory/research codes, and more than 31,000 generic drugs and chemicals (FDA, EMEA and WHO)
- Over 3,000 specific terms for general and medical devices (e.g. endoscopes, catheters, prostheses) as well as several thousand terms for related medical procedures, (e.g. endoscopy, catheterization)

Jp-to-date

The latest drugs, diseases, organisms and procedures are indexed and added 3x per year (with back-posting of older records). Includes all drug generic names described by FDA and EMA, all International Non-Proprietary Names (INNs) described by WHO from 2000

Inclusive terminology

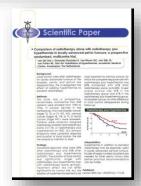
• All MeSH terms, with links to more than **23,000** CAS registry numbers

Indexing principles

Indexing for Embase is a manual process performed by trained indexers with a biomedical background, with the exception of articles designated for automatic indexing.



Indexers read and analyze the full text of articles in order to identify relevant concepts, and index them with the most specific Emtree terms.



Index terms are controlled by the Emtree thesaurus resulting in consistent coverage of concepts that may be expressed in many different ways in the literature.



Indexing: subheadings

Important Definition

Subheadings are Emtree terms that are also used as concept qualifiers for drugs, diseases and devices to refine their meaning, providing a very precise idea of what an article covers.

Nine subheadings are denoted *key subheadings*.

Term	Key Subheading
drug	adverse drug reaction
drug	drug combination
drug	drug comparison
drug	drug interaction
drug	drug therapy
device	adverse device effect
device	device comparison
disease	drug therapy
disease	side effect

Indexing: triple-linking

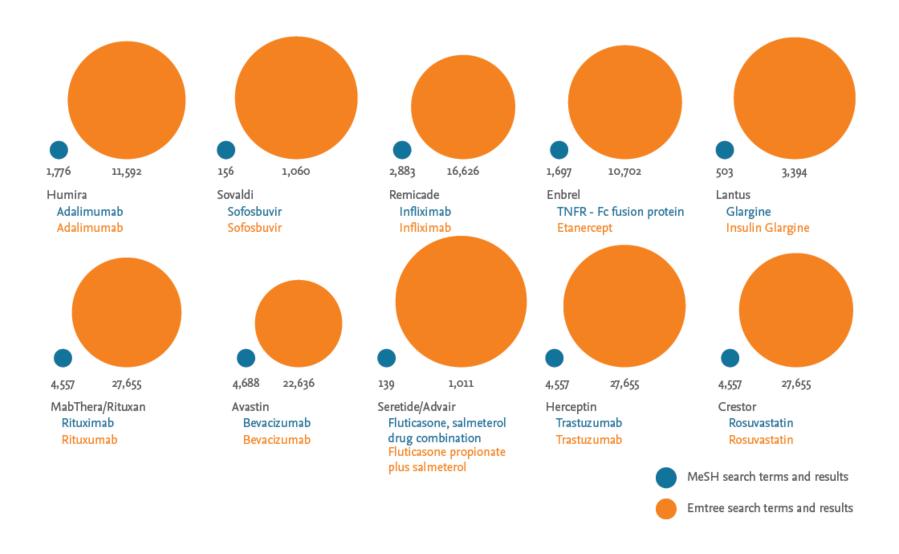
Important Definition

Triple-indexing is three level indexing of the full text of an article. It consists of:

- Term (drug or disease)
- Key subheading (relationship)
- Linked terms (e.g. stomatitis, hypertension, stroke, nausea, etc.)



More comprehensive content and Deeper Indexing Leads to More Results







PICO Search

Using the PICO framework to structure a question

P = Patient

I = Intervention

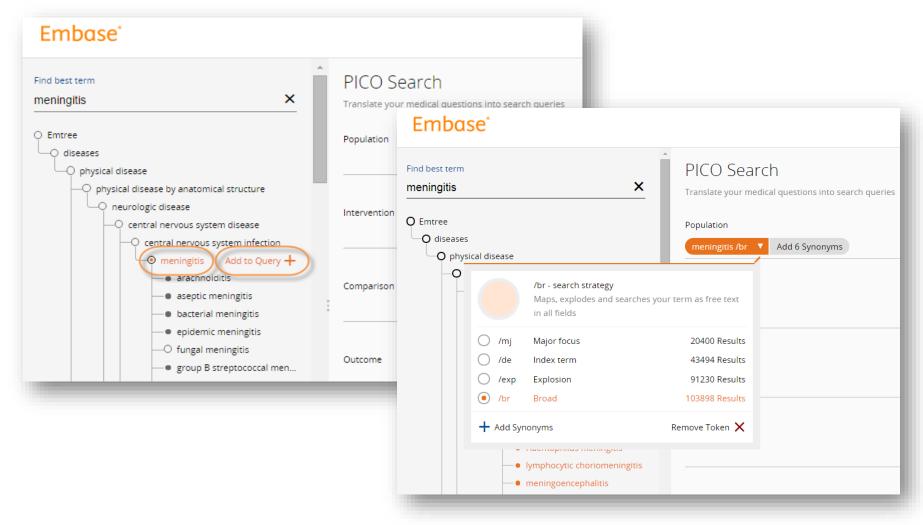
C = Comparison/control

0 = Outcome

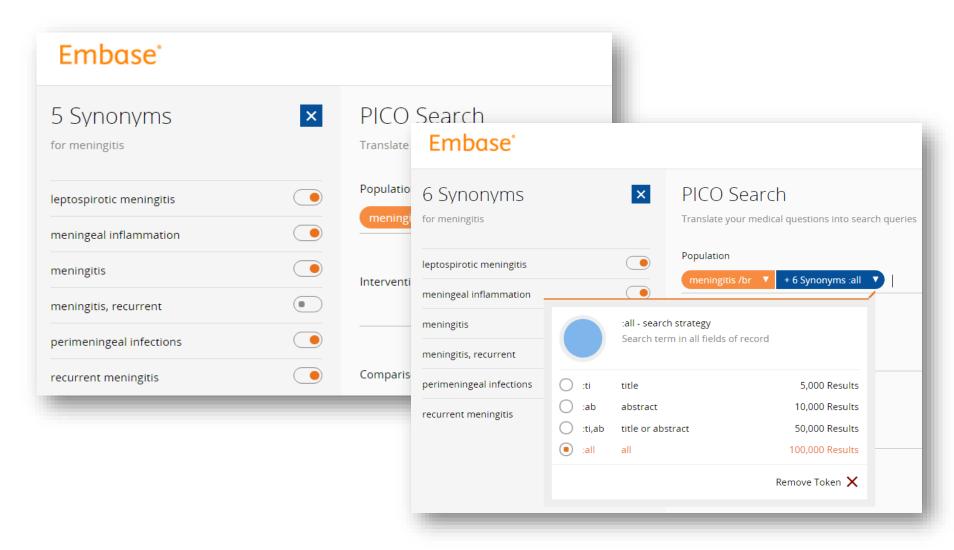
PICO is a method of putting together a search strategy that allows you to take a more evidence-based approach to literature searching



Quickly find and add Emtree terms to each element (P,I,C,O) of your query



Add synonyms in a single step

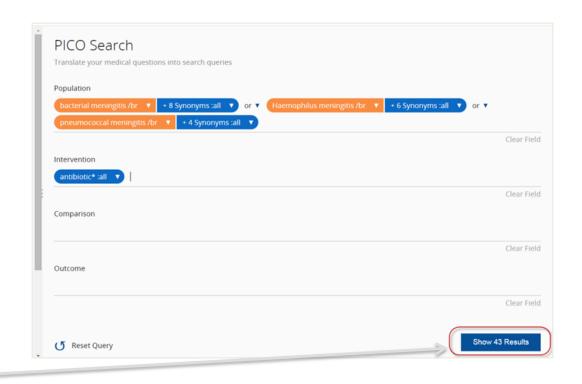


Combine queries

OR connector (Boolean operator) between terms within an individual PICO element.

The Boolean **AND** operator will be used to combine search terms/strategies *between* the different elements.

While a search is being built, Embase calculates the number of results and displays the number in the lower right-corner of the page.







PV Wizard

PV Wizard – Query Builder for Pharmacovigilance

PV Wizard is an easy-to-use query builder that contains a pre-coded PV search strategy constructed in consultation with pharma industry partners.

The main goal with PV Wizard is to simplify pharmacovigilance workflows by ensuring that even beginners can quickly build complex search strategies.



PV Search Strategy



Recall 100%

'paracetamol'/'drug toxicity','drug interaction','adverse drug reaction'

OR ('paracetamol':de OR '4 acetamidophenol':tn,ab,ti OR '4 acetaminophenol':tn,ab,ti OR '4 acetylaminophenol':tn,ab,ti...

AND ('adverse drug reaction'/exp OR adverse:de,ab,ti OR ((side OR undesirable OR unwanted) NEXT/2 (effect* OR reaction* OR event* OR outcome*)):de,ab,ti OR 'side effect'/exp OR 'complication'/exp OR complication*:de,ab,ti OR 'case report*':de,ab,ti ...

OR 'pregnancy'/exp OR pregnant*:de,ab,ti OR pregnanc*:de,ab,ti OR 'pregnancy complication'/exp OR 'pregnancy disorder'/exp OR 'abortion':de,ab,ti OR...))

AND ('human'/exp OR human OR m?n OR wom?n OR child OR boy OR girl)

Drug subheadings

Drug name and variants

Adverse drug reaction concept

Special situations

Human limit

PV Search Strategy Part 1: Drug subheadings

[drug subheadings]

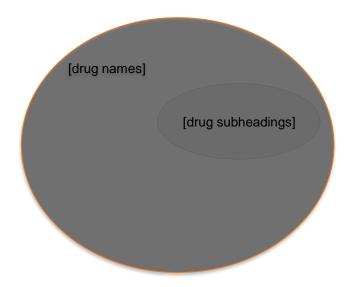
Search example:

'paracetamol'/'drug toxicity','drug interaction','adverse drug reaction'

Search summary:

[drug]/[subheadings]

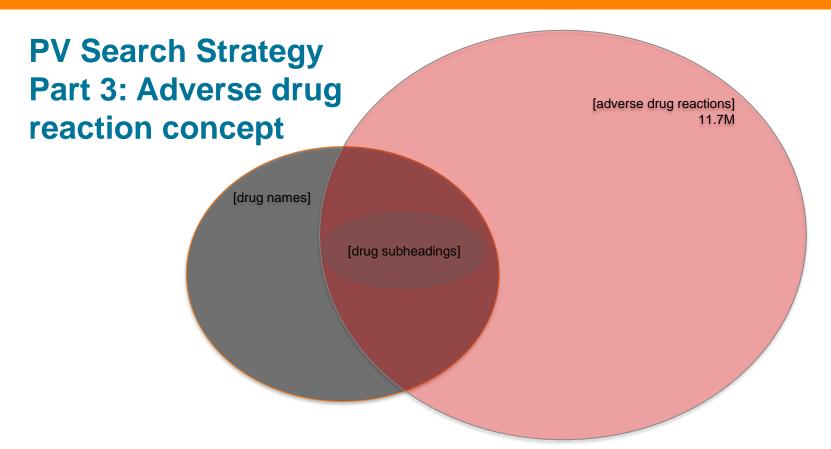
PV Search Strategy Part 2: Drug name and variants



Search summary: [drug]/[subheadings] OR [drug names]

Search example:

'paracetamol':de OR '4 acetamidophenol':tn,ab,ti OR '4 acetaminophenol':tn,ab,ti OR '4 acetylaminophenol':tn,ab,ti OR '4 hydroxyacetanilide':tn,ab,ti OR '4` hydroxyacetanilide':tn,ab,ti OR 'abenol':tn,ab,ti OR 'acamol':tn,ab,ti OR 'acamoli forte suppositories for kids':tn,ab,ti OR 'acenol':tn,ab,ti OR 'acethen':tn,ab,ti OR 'acetamino phenol':tn,ab,ti OR 'acetaminophenol':tn,ab,ti OR 'acetamino

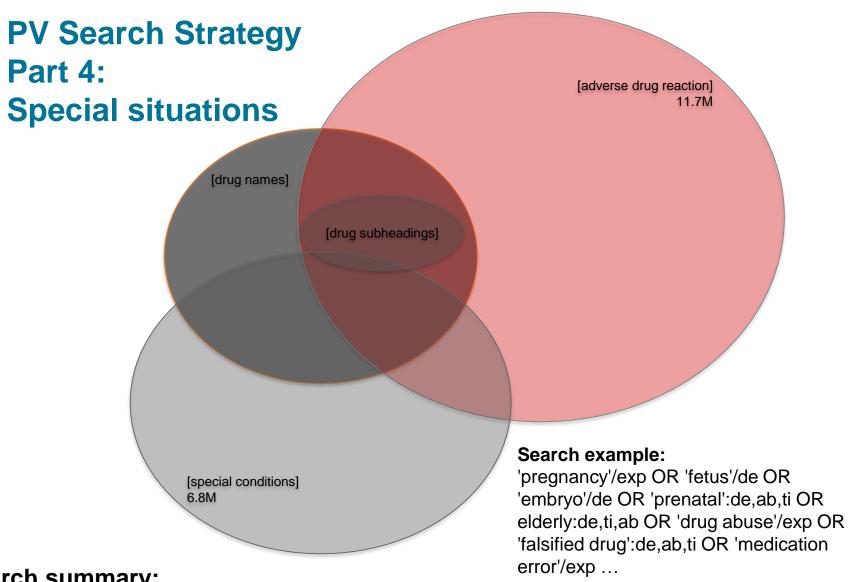


Search summary:

[drug]/[subheadings] OR ([drug names] AND [adverse drug reactions])

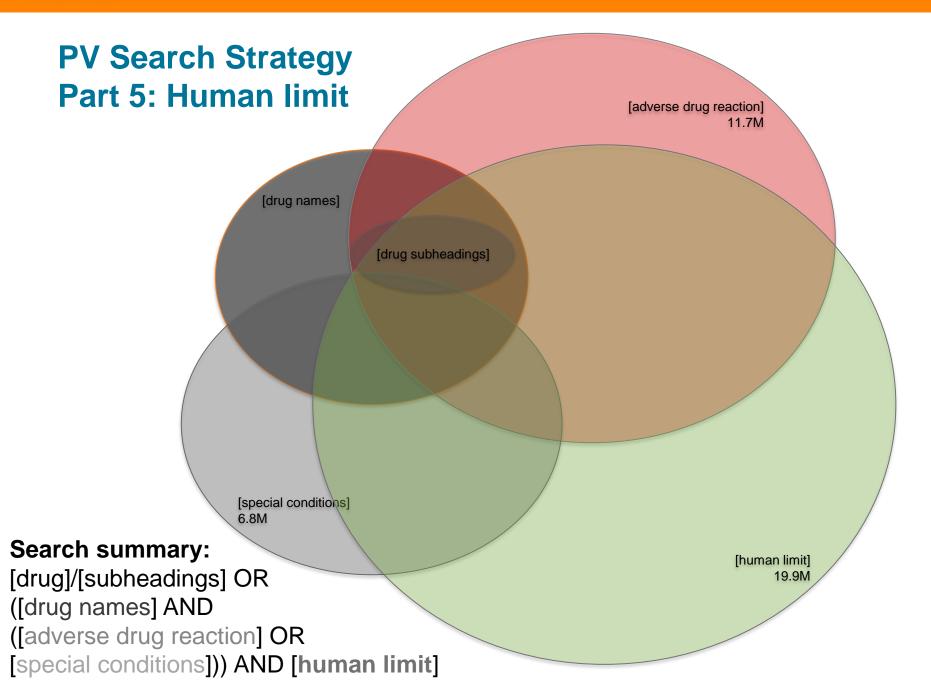
Search example:

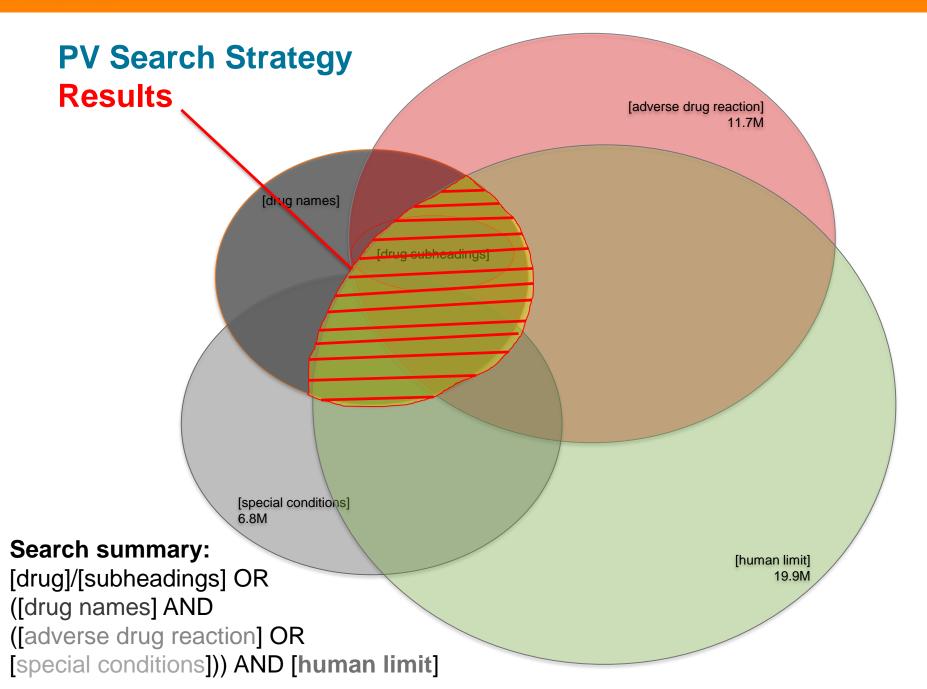
('adverse drug reaction'/exp OR adverse:de,ab,ti OR ((side OR undesirable OR unwanted) NEXT/2 (effect* OR reaction* OR event* OR outcome*)):de,ab,ti OR 'side effect'/exp OR 'complication'/exp OR complication*:de,ab,ti OR OR 'drug interaction'/exp OR 'toxicity'/exp ...



Search summary:

[drug]/[subheadings] OR ([drug names] AND ([adverse drug reaction] OR [special conditions]))





PV Search Strategy – full

'paracetamol'/'drug toxicity','drug interaction','adverse drug reaction'

OR 'paracetamol-induced':de.ab.ti

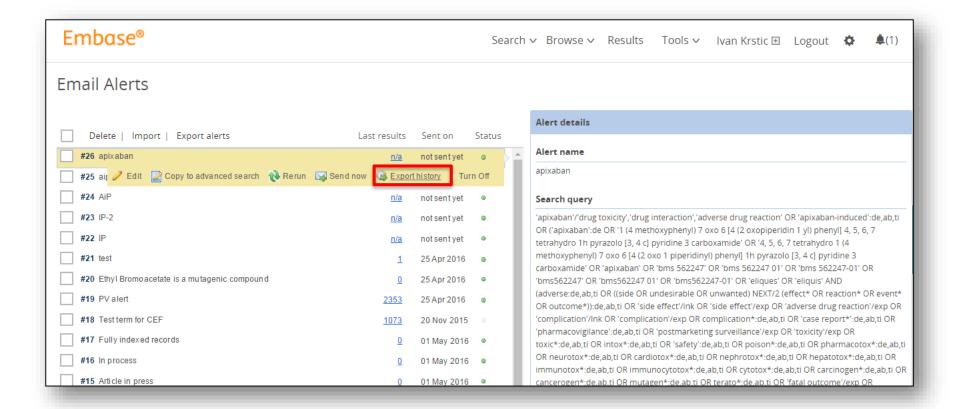
OR ('paracetamol':de OR '4 acetamidophenol':tn,ab,ti OR '4 acetaminophenol':tn,ab,ti OR '4 acetylaminophenol':tn,ab,ti OR '4 hydroxyacetanilide':tn,ab,ti OR 'acamol':tn,ab,ti OR 'acamoli forte suppositories for kids':tn,ab,ti OR 'acenol':tn,ab,ti OR 'acetamino phenol':tn,ab,ti OR 'acetaminophene':tn,ab,ti OR 'acetaminophenol':tn,ab,ti OR 'acetamol':tn,ab,ti OR 'acetomenophen':tn,ab,ti OR 'acetylaminophenol':tn,ab,ti OR 'adorem':tn,ab,ti OR 'afebrin':tn,ab,ti OR 'algiafin':tn,ab,ti OR 'acetomenophen':tn,ab,ti OR 'acetylaminophenol':tn,ab,ti OR 'acetomenophenol':tn,ab,ti OR 'acetome 'algotropyl':tn,ab,ti OR 'alphagesic':tn,ab,ti OR 'alvedon':tn,ab,ti OR 'amadil':tn,ab,ti OR 'anacin 3':tn,ab,ti OR 'anaflon':tn,ab,ti OR 'analgiser':tn,ab,ti OR 'apamide':tn,ab,ti OR 'apap:tn,ab,ti OR 'apirex':tn,ab,ti OR 'apirex':tn,ab,ti OR 'anaflon':tn,ab,ti O 'apotel':tn.ab.ti OR 'arthralgen':tn.ab.ti OR 'bodrex':tn.ab.ti OR 'ben-u-ron':tn.ab.ti OR 'ben-u-ron':tn.ab.ti OR 'biogesic':tn.ab.ti OR 'biogesic suspension':tn.ab.ti OR 'bodrex':tn.ab.ti OR 'calapol':tn.ab.ti OR 'cala 'calonal':tn,ab,ti OR 'calpol':tn,ab,ti OR 'causalon':tn,ab,ti OR 'cemol':tn,ab,ti OR 'christamol':tn,ab,ti OR 'claradol':tn,ab,ti OR 'clocephen':tn,ab,ti OR 'cp 500':tn,ab,ti OR 'cp500':tn,ab,ti OR 'dafalgan':tn,ab,ti OR 'daga':tn,ab,ti OR 'christamol':tn,ab,ti OR 'chri OR 'datril':tn,ab,ti OR 'depon':tn,ab,ti OR 'depoyretin':tn,ab,ti OR 'dipyretin':tn,ab,ti OR 'dismifen':tn,ab,ti OR 'dismifen':tn,ab,ti OR 'dolal':tn,ab,ti OR 'dolex':tn,ab,ti OR 'dolex 500':tn,ab,ti OR 'doliprane':tn,ab,ti OR 'doliprane':tn,ab,ti OR 'doliprane':tn,ab,ti OR 'doliprane':tn,ab,ti OR 'dolar':tn,ab,ti OR 'dolar' OR 'dolofen':tn,ab,ti OR 'dolomol':tn,ab,ti OR 'dolomol':tn,ab,ti OR 'dolorol':tn,ab,ti OR 'dolotemp':tn,ab,ti OR 'efferalgan':tn,ab,ti OR 'efferalgan 500':tn,ab,ti OR 'efferalganodis':tn,ab,ti OR 'efferalganodis':tn,ab,ti OR 'feralgan':tn,ab,ti OR 'feralgan':tn,ab,ti OR 'feralganodis':tn,ab,ti O 'fervex':tn,ab,ti OR 'fibrinol':tn,ab,ti OR 'fortolin':tn,ab,ti OR 'gelocatii':tn,ab,ti OR 'geluprane 500':tn,ab,ti OR 'gunaceta':tn,ab,ti OR 'headache strength allerest':tn,ab,ti OR 'hedex':tn,ab,ti OR 'infants' feverall':tn,ab,ti OR 'injectapap';tn.ab.ti OR 'ianupap';tn.ab.ti OR 'kamolas';tn.ab.ti OR 'kyofen';tn.ab.ti OR 'lemgrip';tn.ab.ti OR 'letamol';tn.ab.ti OR 'liquiprin';tn.ab.ti OR 'lotemp';tn.ab.ti OR 'lyteca';tn.ab.ti OR 'malidens';tn.ab.ti OR 'letamol';tn.ab.ti OR 'lyteca';tn.ab.ti OR 'malidens';tn.ab.ti OR 'malidens 'medamol':tn,ab,ti OR 'meforagesic':tn,ab,ti OR 'metagesic':tn,ab,ti OR 'metag acetyl para aminophenol':tn,ab,ti OR 'n-acetyl-p-aminophenol':tn,ab,ti OR 'nalgesik':tn,ab,ti OR 'napamol':tn,ab,ti OR 'napap':tn,ab,ti OR 'naprex':tn,ab,ti OR 'nektol 500':tn,ab,ti OR 'neocitran':tn,ab,ti OR 'neodalmin':tn,ab,ti OR 'neopap':tn,ab,ti OR 'nevral':tn,ab,ti OR 'nilapur':tn,ab,ti OR 'nobedon':tn,ab,ti OR 'nysacetol':tn,ab,ti OR 'ofirmev':tn,ab,ti OR 'pacemol':tn,ab,ti OR 'pacemol':tn,ab,ti OR 'pamal':tn,ab,ti OR 'pamal' 'panadol':tn,ab,ti OR 'panadol actifast':tn,ab,ti OR 'panadol soluble':tn,ab,ti OR 'panamax':tn,ab,ti OR 'panasorb':tn,ab,ti OR 'panadil':tn,ab,ti OR 'pana acetamidophenol':tn,ab,ti OR 'para acetylaminophenol':tn,ab,ti OR 'para hydroxyacetanilide':tn,ab,ti OR 'para suppo':tn,ab,ti OR 'paracet':tn,ab,ti OR 'paracetamole':tn,ab,ti 'paragin':tn,ab,ti OR 'paralen':tn,ab,ti OR 'paralef':tn,ab,ti OR 'paramax':tn,ab,ti OR 'paramax':tn,ab,ti OR 'parapaed':tn,ab,ti OR 'parapaed junior':tn,ab,ti OR 'parapaed six plus':tn,ab,ti OR 'paratabs':tn,ab,ti OR 'para 'parvid':tn,ab,ti OR 'pasolind':tn,ab,ti OR 'pasolind':tn,ab,ti OR 'pasolind n':tn,ab,ti OR 'pas 'predimol':tn,ab,ti OR 'puernol':tn,ab,ti OR 'pyrigesic':tn,ab,ti OR 'raperon':tn,ab,ti OR 'rapidol':tn,ab,ti OR 'reliv':tn,ab,ti OR 'remedol':tn,ab,ti OR 'revanin':tn,ab,ti OR 'rapidol':tn,ab,ti OR 'rhodapap':tn.ab.ti OR 'roxamol gelcaps':tn.ab.ti OR 'salzone':tn.ab.ti OR 'sedes a':tn.ab.ti OR 'serimol':tn.ab.ti OR 'setamol':tn.ab.ti OR 'sinaspril':tn.ab.ti OR 'sinaspri 'tachipirin':tn,ab,ti OR 'tachipirina':tn,ab,ti OR 'tachipirina':tn,ab,ti OR 'taganopain':tn,ab,ti OR 'taganopain':tn,ab, 'tramil':tn,ab,ti OR 'treuphadol':tn,ab,ti OR 'treuphadol':tn,ab,ti OR 'tylenol forte':tn,ab,ti OR 'tylenol (caplet)':tn,ab,ti OR 'tylenol (geltab)':tn,ab,ti OR 'tylenol extra fuerte':tn,ab,ti OR 'tylenol forte':tn,ab,ti OR 'tylenol nr 1':tn,ab,ti OR 'tylex':tn,ab,ti OR 'valadol':tn,ab,ti OR 'winadol':tn,ab,ti OR 'winasorb':tn,ab,ti OR 'xebramol':tn,ab,ti OR 'zolben':tn,ab,ti OR 'zydinol':tn,ab,ti

AND ('adverse drug reaction'/exp OR 'adverse drug reaction':lnk OR adverse:de,ab,ti OR ((side OR undesirable OR unwanted) NEXT/2 (effect* OR reaction* OR event* OR outcome*)):de,ab,ti OR 'side effect'/lnk OR 'side effect'/exp OR 'complication'/exp OR complication*:de,ab,ti OR 'worsening':de,ab,ti OR 'case report*:de,ab,ti OR 'postmarketing surveillance'/exp OR 'drug interaction'/exp OR 'drug interaction'/exp OR 'drug toxicity':nk OR toxicity':de,ab,ti OR poison*:de,ab,ti OR poison*:de,ab,ti OR neurotox*:de,ab,ti OR mununotyotox*:de,ab,ti OR neurotox*:de,ab,ti OR mununotyotox*:de,ab,ti OR mununotyotox*:de,ab,ti OR fatal outcome*/exp OR 'death*:de,ab,ti OR 'suicide'/exp OR usicide'/exp OR usicide'/exp OR usicide'/exp OR usicide'/exp OR usicide'/exp OR 'death*:de,ab,ti OR 'morbidity':de,ab,ti OR 'congenital disorder':de,ab,ti OR infertility/exp OR injury/exp

OR 'pregnancy'exp OR pregnant*:de,ab,ti OR pregnanc*:de,ab,ti OR 'pregnancy complication'/exp OR 'pregnancy disorder/exp OR 'abortion'/exp OR 'abortion':de,ab,ti OR 'lactation'/exp OR 'breast feeding':de,ab,ti OR 'pregnancy':de,ab,ti OR 'pregnancy:de,ab,ti OR 'pregnancy':de,ab,ti OR 'pregnancy:de,ab,ti OR 'pregnancy:de,ab,t

AND ('human'/exp OR human OR m?n OR wom?n OR child OR boy OR girl))

Email Alert history can be exported



Email Alert history is auditable

This is the	history of alast IIDV a	lortll as sun	orted on 01 May 3		CMT. This plant was eniginal		.11 CN4T
inis is the	e history of alert "PV a	iert as exp	orted on U1 May 2	016 19:38 (JIVIT. This alert was original	lly set up on 22 Dec 2015 10	I:11 GIVI
Alert nam	ne Event	Search que	Date & time (GMT	Records in	Frequency	Recipients	Statu
PV alert	Automatic run	'adverse d	25.04.2016 03:10	2353	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	18.04.2016 03:10	3446	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	11.04.2016 03:10	1913	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	04.04.2016 03:10	2178	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	28 Mar 2016 03:10	2923	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	21 Mar 2016 03:10	2192	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	14 Mar 2016 03:10	2131	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Send now alert	'adverse d	08 Mar 2016 15:25	315	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Edited (content sele	'adverse d	08 Mar 2016 15:25	n/a	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	07 Mar 2016 03:10	3215	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	29.02.2016 03:10	1716	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Edited (enabled)	'adverse d	22.02.2016 18:46	n/a	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Edited (disabled)	'adverse d	22.02.2016 18:46	n/a	Every week on Monday	i.krstic@elsevier.com	Off
PV alert	Send now alert	'adverse d	22.02.2016 18:43	0	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	22.02.2016 03:10	2383	Every week on Monday	i.krstic@elsevier.com	On
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PV alert	Automatic run	'adverse d	08.02.2016 03:10	1906	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	01.02.2016 03:10	2871	Every week on Monday	i.krstic@elsevier.com	On
PV alert	Automatic run	'adverse d	25.01.2016 03:10	1820	Every week on Monday	i.krstic@elsevier.com	On

EMA's MLM service

The European Medicines Agency (EMA) is responsible for monitoring 300 active substances and 100 herbals in selected medical literature to identify suspected adverse reactions with medicines authorised in the European Union, and for entering the relevant information into the EudraVigilance database (as of 1 September 2015).

Reference databases searched:

- EMBASE, the most comprehensive biomedical reference database covering literature from EEA and non-EEA countries
- International Pharmaceutical Abstracts (IPA)
- The Allied and the Complementary Medicine Database (AMED)

MLM searches can be found and run on embase.com on PV wizard page:







Questions?





Live training

Quiz

- 1. How many abstracts from the conference: 73rd Scientific Sessions of the American Diabetes Association are published about active ingredient of Januvia (Sitagliptin)?
- 2. How many records can you retrieved about active ingredient of *Keytruda* (**pembrolizumab**) published by Daud A. in 2015?
- 3. How many records in Embase are indexed with *Novartis* as drug manufacturer?
- 4. In how many records Embase indexers identified direct relationship between *hyperglycemia* as an adverse drug reaction and *everolimus* as drug used?
- 5. How many records retrieves the MLM's search on Ketoconazole in June 2017?

Quiz

- How many abstracts from the conference: 73rd Scientific Sessions of the American Diabetes
 Association are published about active ingredient of Januvia (Sitagliptin)?
 A: 49 ('sitagliptin'/exp OR sitagliptin OR januvia) AND '73rd scientific sessions of the american diabetes association':nc
- How many records can you retrieved about active ingredient of Keytruda (pembrolizumab) published by Daud A. in 2015?
 A: 22 ('keytruda'/exp OR keytruda OR 'pembrolizumab'/exp OR pembrolizumab) AND 'daud a.':au AND [2015]/py)
- 3. How many records in Embase are indexed with *Novartis* as drug manufacturer? A: 30,396 (novartis:mn)
- 4. In how many records Embase indexers identified direct relationship between *hyperglycemia* as an adverse drug reaction and *everolimus* as drug used?

A: 581 ('everolimus'/'adverse drug reaction'/'hyperglycemia')

5. How many records retrieves the MLM's search on Ketoconazole in June 2017?

A: 53