EMBASE

Find quick, relevant answers to your biomedical questions

Piotr Golkiewicz
Solution Sales Manager
Life Sciences
Central and Eastern Europe and Russia

EMBASE®

WHAT IS EMBASE?

THE WORLD'S MOST COMPREHENSIVE BIOMEDICAL RESEARCH TOOL

Reliable and authoritative content to help the drug and drug-related research community advance new biomedical and pharmaceutical discoveries.

Confidence

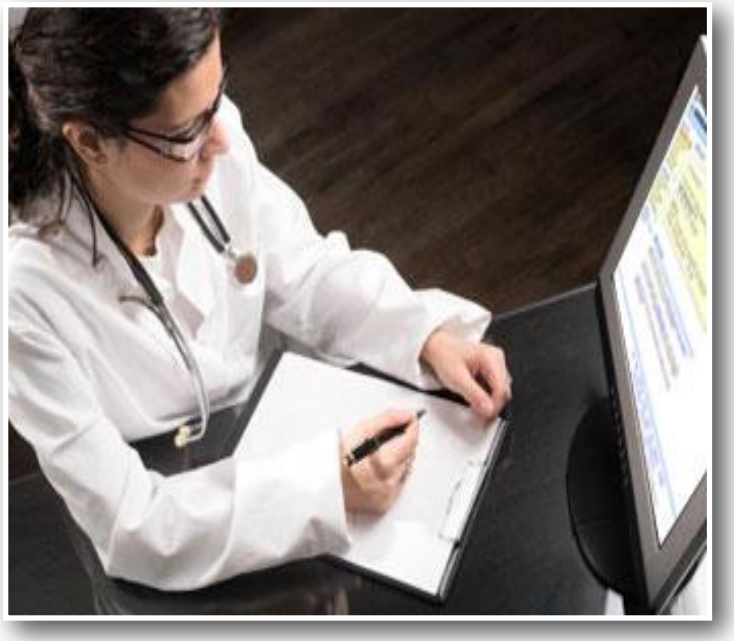
Find all relevant articles that may not otherwise be found by using alternative databases

Deep Biomedical Indexing

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

Precise Retrieval

Deep and focused research using the most powerful retrieval tools



EMBASE®

HOW EMBASE DELIVERS VALUE

...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In Press (unpublished) 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

Interoperability

Automation and documentation

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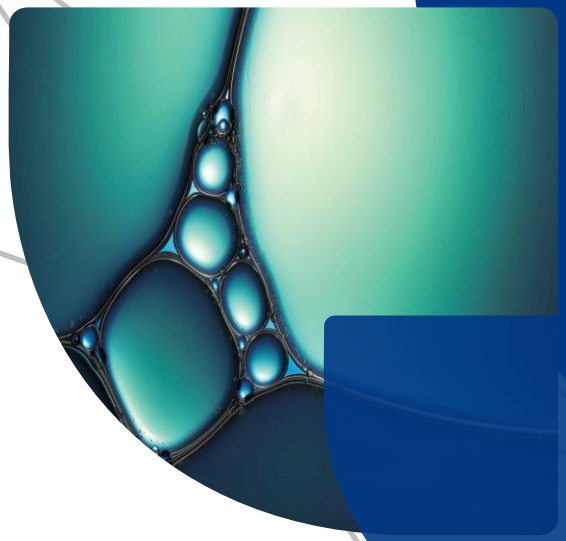
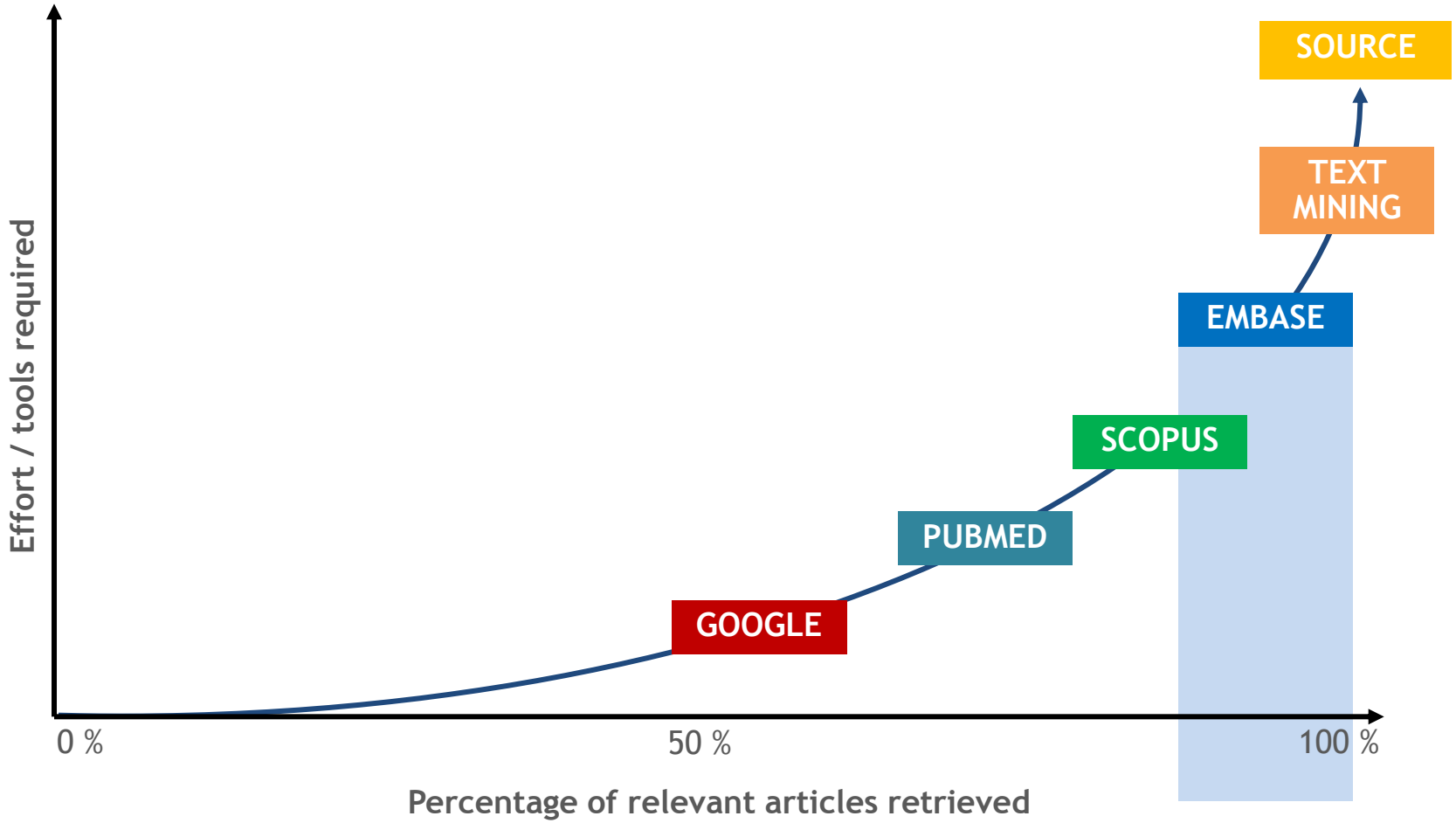
EMBASE CONTENT



EMBASE®

EMBASE IS AS COMPREHENSIVE AS POSSIBLE



EMBASE®

COMPREHENSIVE CONTENT COVERAGE

ON AVERAGE >5000 RECORDS ADDED EACH WORKDAY!

Embase: Now covers over 8,400 journals

Indexed at Embase (over 5,700 titles)

Indexed by MEDLINE (e.g. on PubMed) (over 5,500 titles)

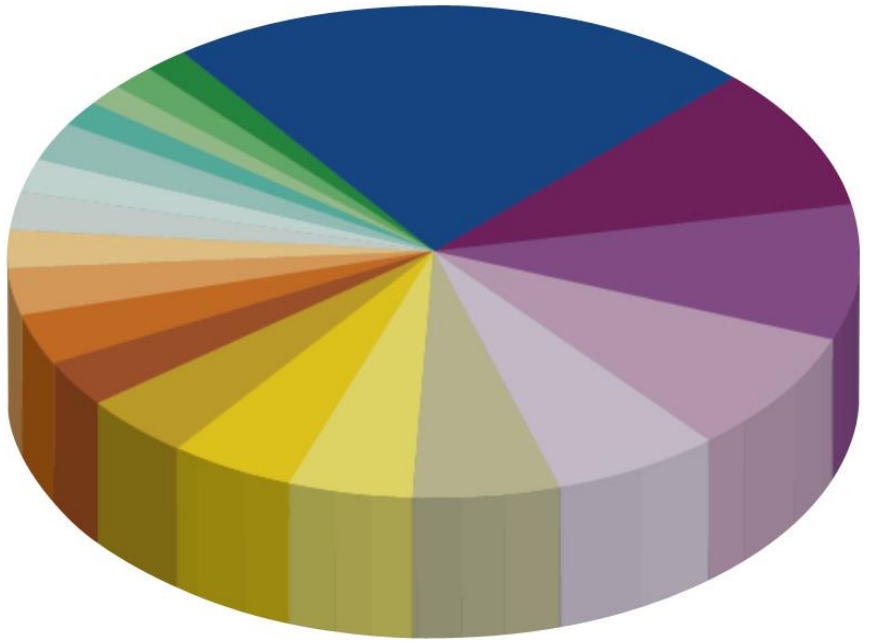
Over 2,700 journals	Over 3,000 journals	Over 2,500 journals
Indexed at Embase Unique to Embase	Indexed at Embase Also covered by MEDLINE	Indexed by MEDLINE Also in MEDLINE
Search:	**Search:**	**Search:**
[embase]/lim	[embase]/lim AND [medline]/lim	[medline]/lim NOT [embase]/lim

EMBASE®

SCOPE AND COVERAGE

EXTENSIVE COVERAGE OF PEER-REVIEWED BIOMEDICAL LITERATURE

- Pharmacology & Taxicology 12%
- 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

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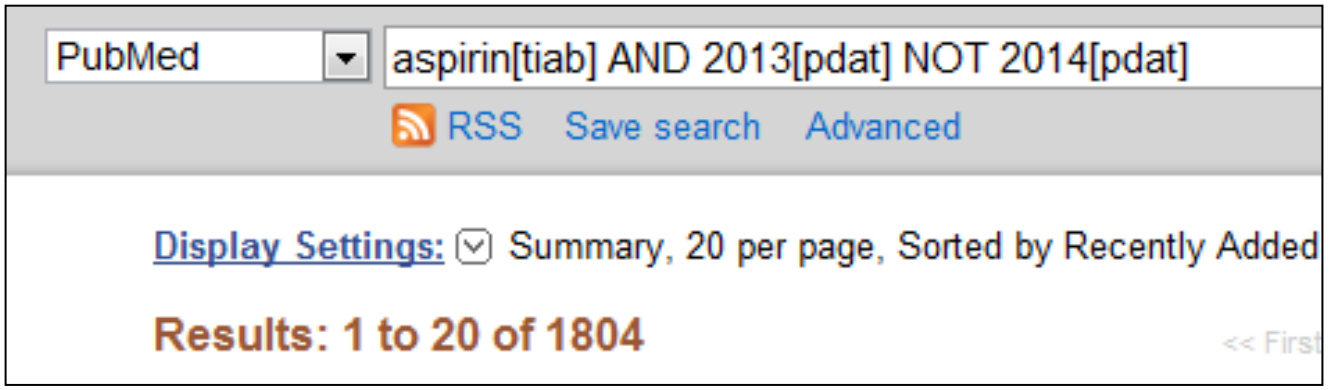
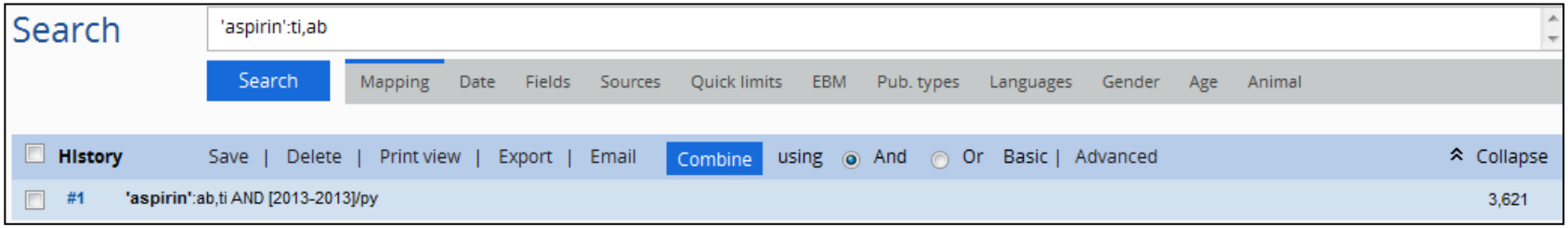
START WITH A COMPREHENSIVE SEARCH

EMBASE FINDS MORE RESULTS THAN MEDLINE





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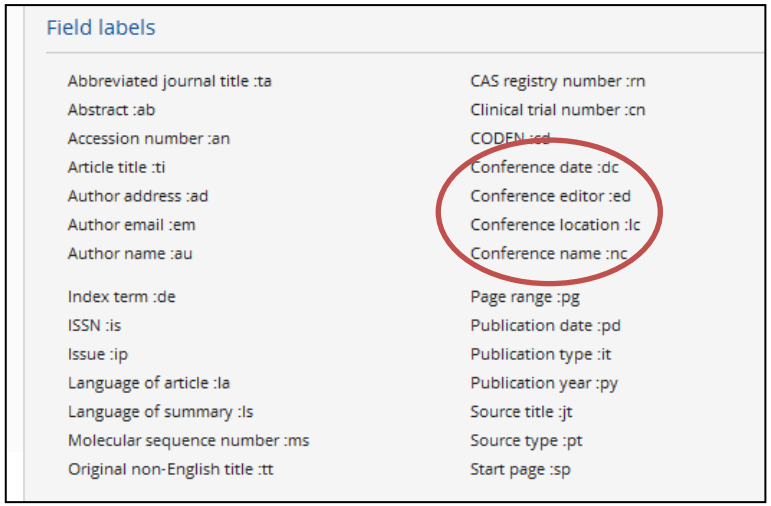
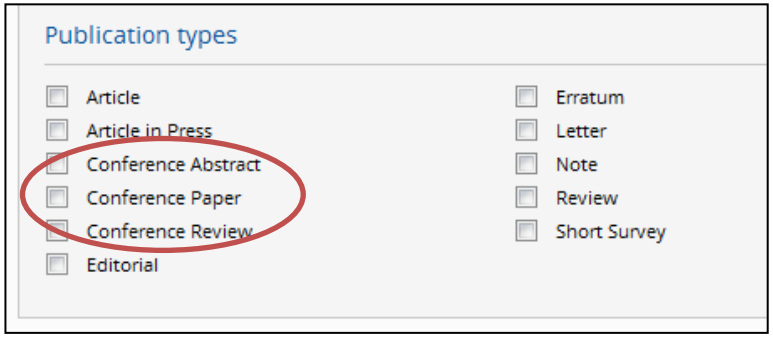
UNIQUE COVERAGE OF CONFERENCE ABSTRACTS

AN EARLY LOOK AT RESEARCH





Coverage began in 2009

Conference coverage is unique to Embase.

- Access to research before it's published in a journal article
- Over 4500 conferences included (as of Jan '14)

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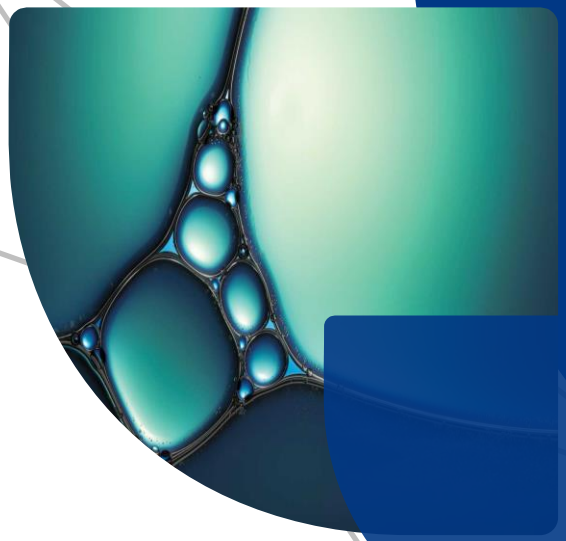
EMTREE — THE EMBASE THESAURUS



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WHAT IS EMTREE?

A LIFE SCIENCE THESAURUS — A CONTROLLED VOCABULARY FOR BIOMEDICINE AND RELATED LIFE SCIENCES

Easy to search

- Over 68,000 preferred terms and more than 280,000 synonyms

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)

Up-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

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WHY IS EMTREE SO VALUABLE?

SEARCH RESULTS INCLUDE ALL ARTICLES WITH TYPED TERM AND SYNONYMS

1. Emtree has > 68,000 **preferred terms** for searching *(these are the terms displayed with records)*, including over 30,000 drugs
   (MEDLINE has only 27,000 terms, including ~8,500 drugs)
2. Emtree has > 280,000 **synonyms**, which can be used for searching since they **map** to the preferred terms
   (Scopus has no synonyms, so fewer terms are available for searching)
3. Emtree has an extensive **tree structure** making it possible to search on **groups** of terms
   (e.g. all monoclonal antibodies)
   (Such searches are impossible on Scopus, which has no tree hierarchy — e.g. a Scopus search on "heart attack" misses records mentioning "myocardial infarction" or articles indexed using the Emtree term "heart infarction)

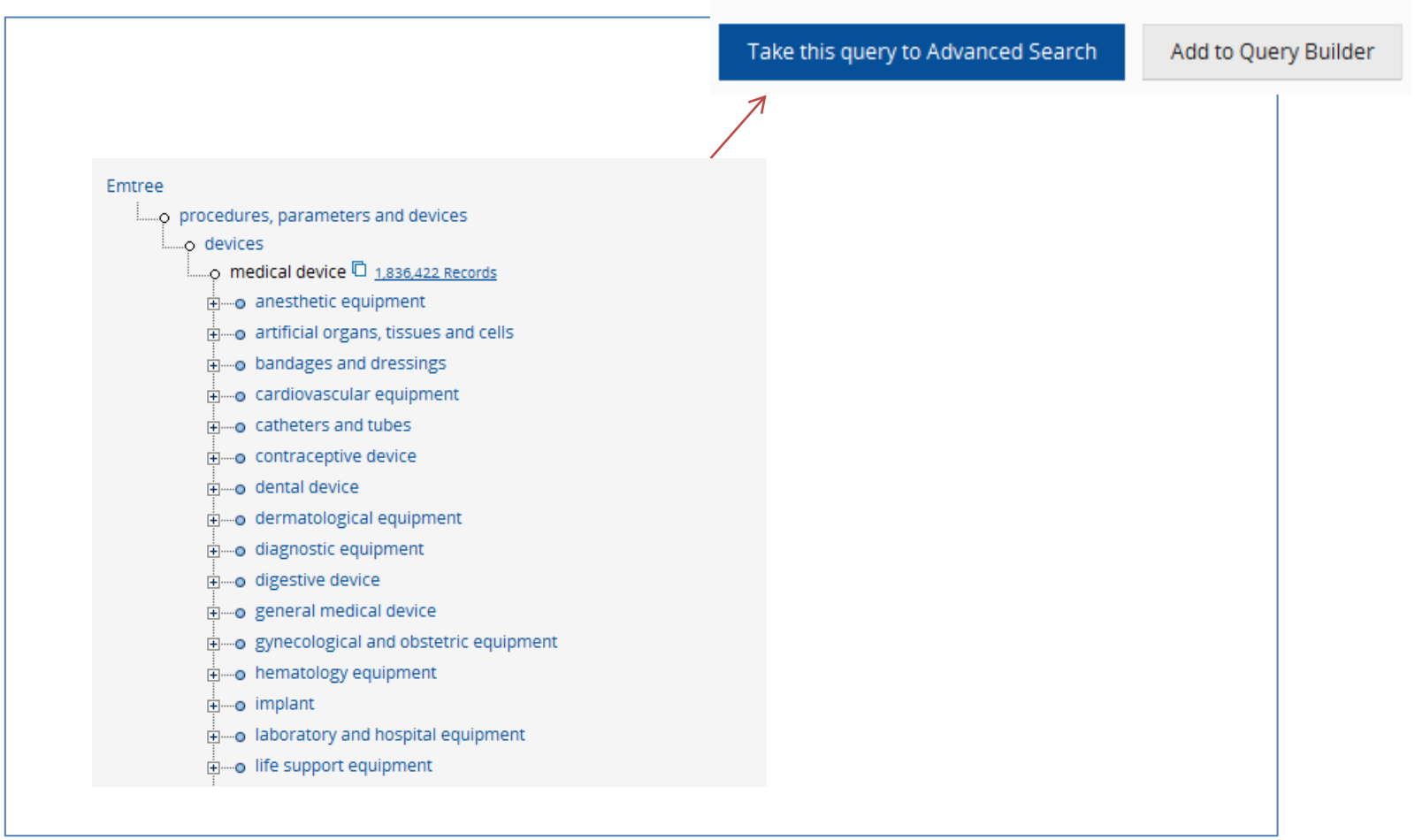
Additional information:
Drug and disease terms are qualified by **searchable sub-headings** (e.g. drug therapy) describing their precise role in the article

What is mapping?
Mapping means that searchers get the **same results** regardless of which term they use, e.g. **Vioxx** (synonym) or **rofecoxib** the preferred term)

EMBASE®

BUILD POWERFUL SEARCHES BY BROWSING IN EMTREE

EXPLORE EMTREE TO SEE RELATIONSHIPS BETWEEN TERMS



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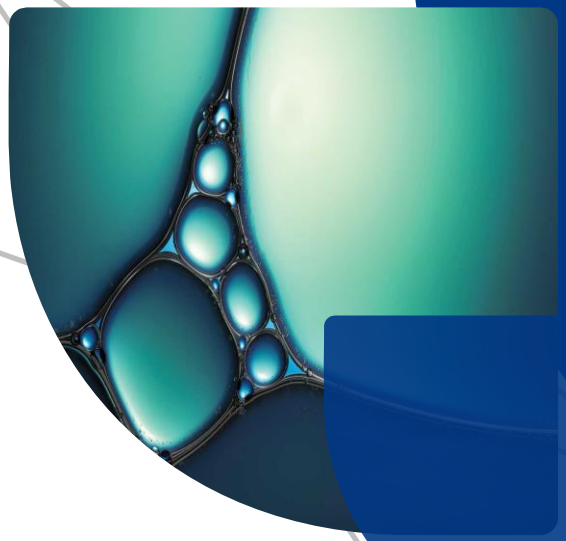
EMBASE VS MEDLINE



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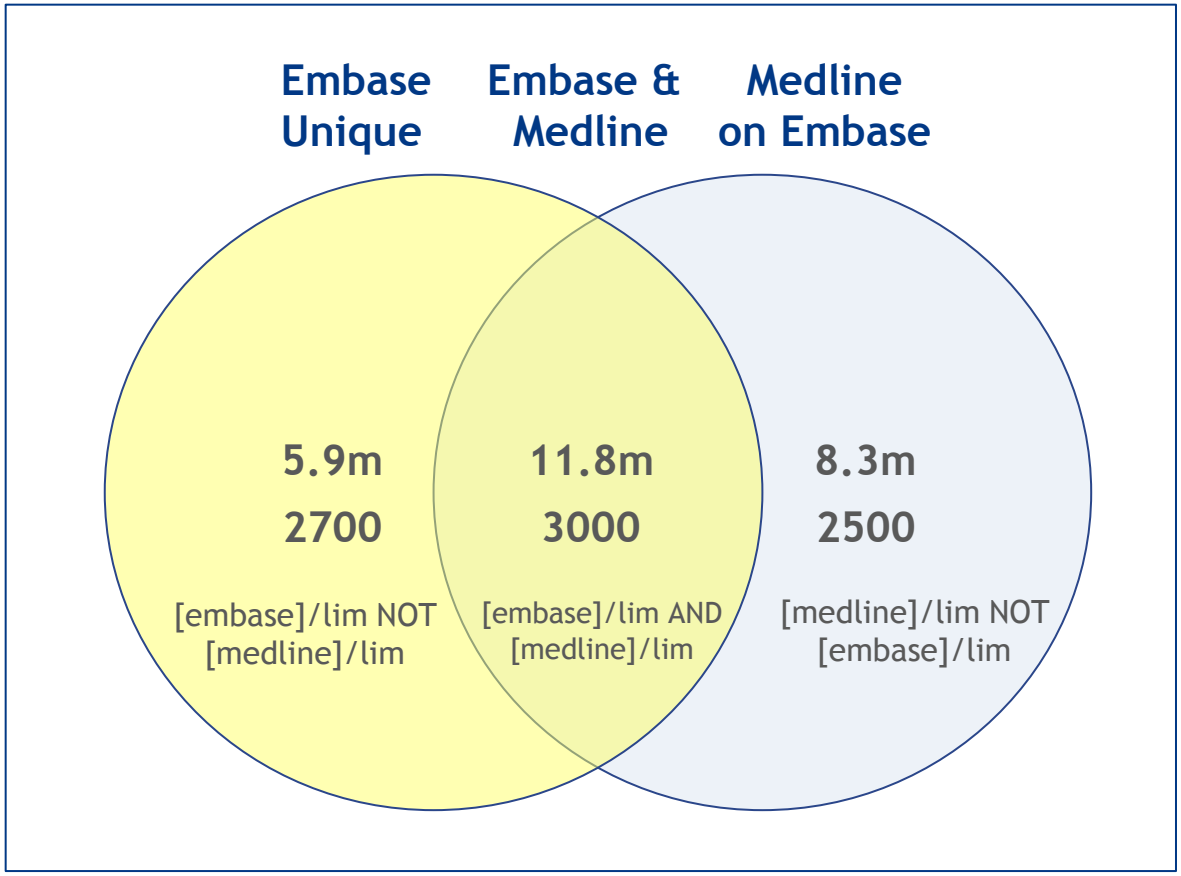
EMBASE VS. MEDLINE (CONTENT)

INCLUDES ALL MEDLINE CONTENT PLUS MUCH MORE



- Over **2700 journals** not indexed on MEDLINE, especially from countries outside North America
- Over **300,000 conference abstracts** from 1000 conferences each year (since 2009)
- **In-depth drug and medical device indexing** based on the Emtree Life Science thesaurus, which has over twice as many terms as the PubMed (MEDLINE) thesaurus (MeSH)

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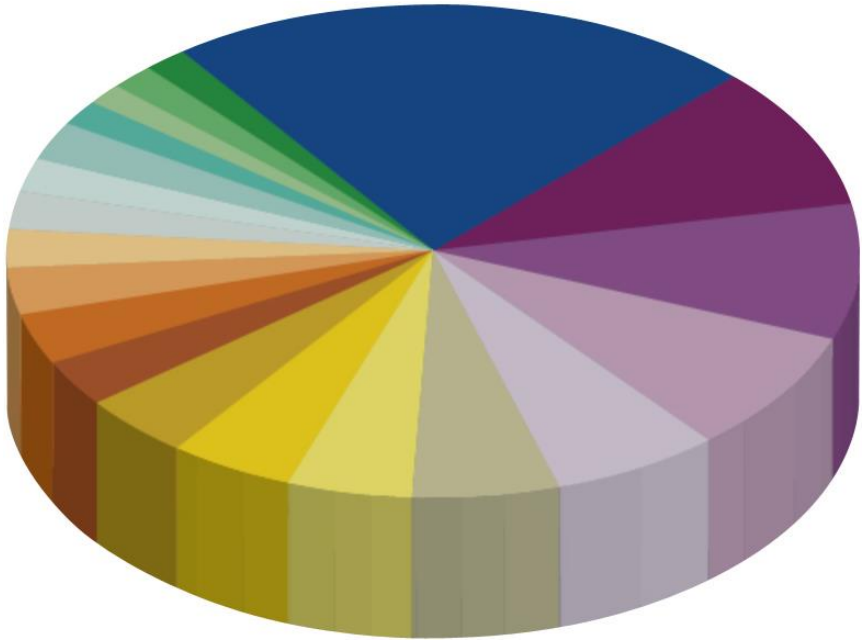
EMBASE VS. MEDLINE (SCOPE)

EMBASE HAS STRONGER FOCUS ON PHARMA/CLINICAL CONTENT



Similar overall pattern of coverage
... but with two major differences

1. Pharmacology & toxicology

- Embase: 11.2% (889 titles)
- MEDLINE: 8.3% (465 titles)

2. General clinical medicine

- Embase: 10.5% (835 titles
- MEDLINE: 8.9% (495 titles)

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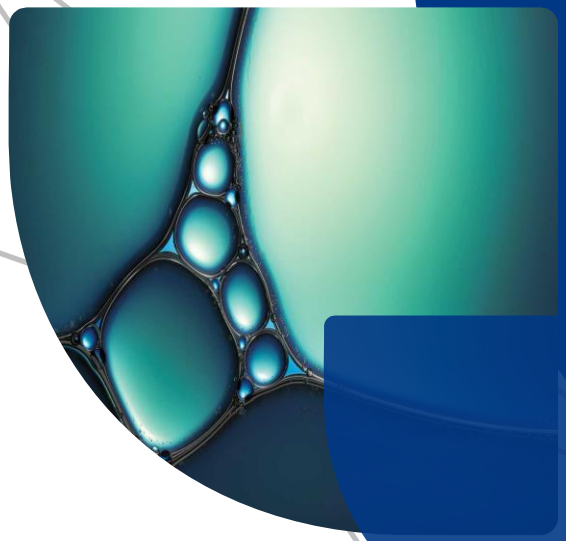
USING EMBASE FOR SYSTEMATIC SEARCHING



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SYSTEMATIC REVIEWS

GATHERING ALL AVAILABLE INFORMATION TO SUPPORT INFORMED DECISIONS

"How do you know if one treatment will work better than another, or if it will do more harm than good?"

Each systematic review addresses a clearly formulated question.

For example:

"Can antibiotics help to alleviate the symptoms of a sore throat?"

All the existing primary research on a topic that meets certain criteria is searched for and collated, and then assessed using stringent guidelines, to establish whether or not there is conclusive evidence about a specific treatment. The reviews are updated regularly, ensuring that treatment decisions can be based on the most up-to-date and reliable evidence.

CASE STUDY

THE IMPORTANCE OF EMBASE IN EVIDENCE BASED MEDICINE

A real example of the potential risks of NOT using Embase

Johns Hopkins' Tragedy : Could a death have been prevented?

by Eva Perkins
Posted On August 7, 2001

In a tragic situation that could have been averted, Ellen Roche, a healthy, 24-year-old volunteer in an asthma study at Johns Hopkins University, died in June because a chemical she inhaled led to the progressive failure of her lungs and kidneys. In the aftermath of this loss, it would appear that the researcher who conducted the experiment and the ethics panel that approved it allegedly overlooked numerous clues about the dangers of the chemical, hexamethonium, given to Roche to inhale.

Source: http://newsbreaks.infotoday.com/nbreader.asp?ArticleID=17534

COMPARE EMBASE VS PUBMED RESULTS

PUBMED SEARCHES MISS RELEVANT LITERATURE

"hexamethonium lung fibrosis" gave 3 hits and 2 useful articles;

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed | hexamethonium lung fibrosis AND 1947:1966[pdat]

RSS Save search Advanced

Display Settings: Abstract

J Obstet Gynaecol Br Emp. 1956 Oct;63(5):728-34.

Hexamethonium lung; report of a case associated with pregnancy.

COCKERSOLE FJ, PARK WW.

PMID: 13367924 [PubMed - OLDMEDLINE]

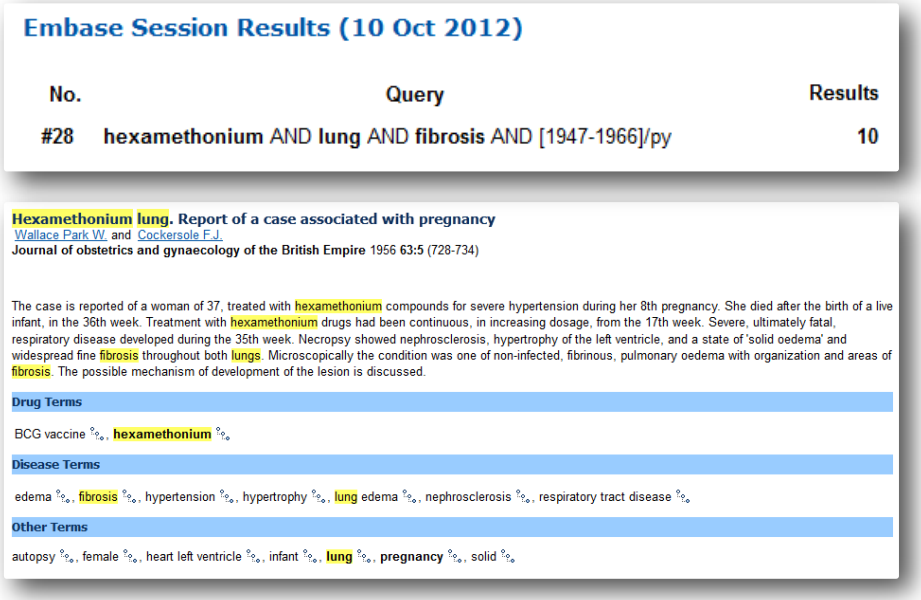
MeSH Terms, Substances

MeSH Terms

Hexamethonium Compounds/adverse effects*

Substances

Hexamethonium Compounds



Embase Session Results (10 Oct 2012)

No.	Query	Results
#28	**hexamethonium** AND **lung** AND **fibrosis** AND [1947-1966]/py	10

Hexamethonium lung. Report of a case associated with pregnancy

Wallace Park W. and Cockersole F.J.

Journal of obstetrics and gynaecology of the British Empire 1956 **63:5** (728-734)

The case is reported of a woman of 37, treated with hexamethonium compounds for severe hypertension during her 8th pregnancy. She died after the birth of a live infant, in the 36th week. Treatment with hexamethonium drugs had been continuous, in increasing dosage, from the 17th week. Severe, ultimately fatal, respiratory disease developed during the 35th week. Necropsy showed nephrosclerosis, hypertrophy of the left ventricle, and a state of 'solid oedema' and widespread fine fibrosis throughout both lungs. Microscopically the condition was one of non-infected, fibrinous, pulmonary oedema with organization and areas of fibrosis. The possible mechanism of development of the lesion is discussed.

Drug Terms

BCG vaccine °, **hexamethonium** °

Disease Terms

edema °, fibrosis °, hypertension °, hypertrophy °, lung edema °, nephrosclerosis °, respiratory tract disease °

Other Terms

autopsy °, female °, heart left ventricle °, infant °, **lung** °, **pregnancy** °, solid °

Evidence was available, but difficult to find. In PubMed, it is covered exclusively on the OldMEDLINE portion of PubMed, not on MEDLINE. If the exact same search is done using Embase Classic, in this case it has an abstract, as do some 90% of records in Embase Classic – so it gives some information/context on the toxicity.

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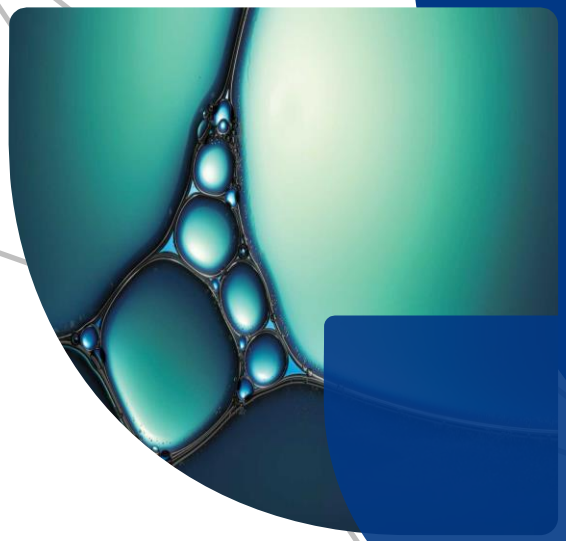
EMBASE SUPPORTS PHARMACOVIGILANCE



EMBASE®

EMBASE SUPPORTS EFFECTIVE PHARMACOVIGILANCE

GUIDELINES NAME EMBASE AS A SOURCE OF BIOMEDICAL LITERATURE

VI.B.1.1.2. Literature reports

The scientific and medical literature is a significant source of information for the monitoring of the safety profile and of the risk-benefit balance of medicinal products, particularly in relation to the detection of new safety signals or emerging safety issues. Marketing authorization holders are therefore expected to maintain awareness of possible publications through a systematic literature review of widely used reference databases (e.g. Medline, Excerpta Medica or Embase) no less frequently than once a week. The marketing authorization holder should ensure that the literature review includes the use of reference databases that contain the largest reference of articles in relation to the medicinal product properties.

VI. App2.2 Where to look

Articles relevant to the safety of medicinal products are usually published in well-recognized scientific and medical journals, however, new and important information may be first presented at international symposia or in local journals. Although the most well-known databases (e.g. Medline) cover the majority of scientific and medical journals, the most relevant publications may be collated elsewhere in very specialized medical fields, for certain types of product (e.g. herbal medicinal products) or where safety concerns are subject to non-clinical research. A marketing authorization holder should establish the most relevant source of published literature for each product. Medline, Embase and Excerpta Medica are often used for the purpose of identifying ICSRs. These databases have broad medical subject coverage. Other recognized appropriate systems may be used.

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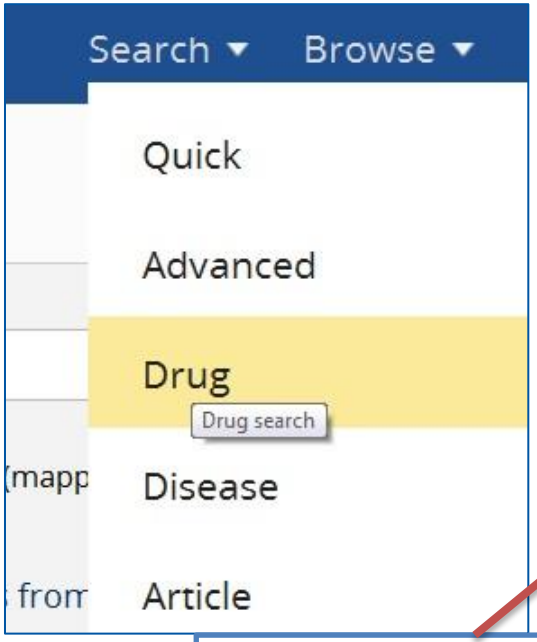
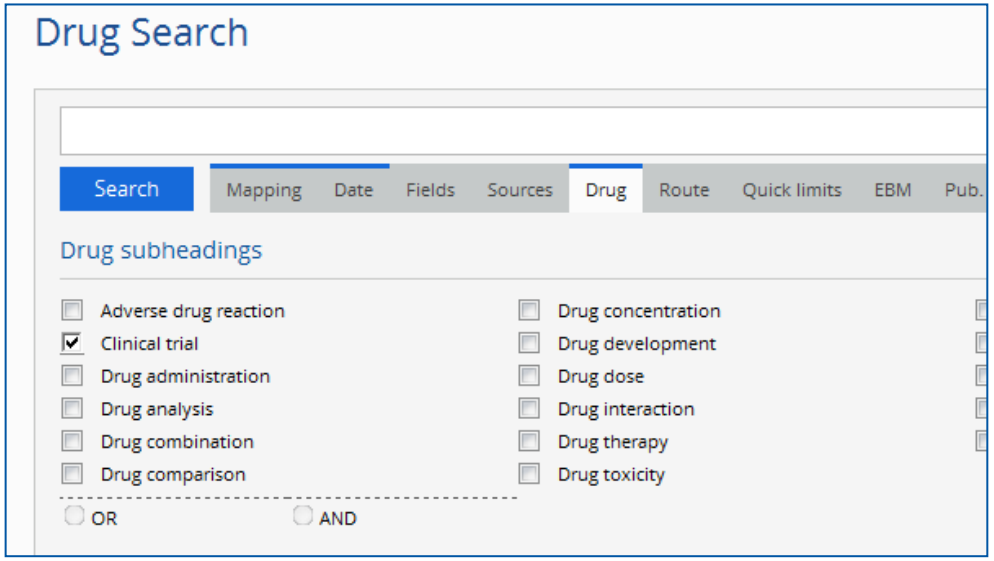
DRUG SAFETY

BE CONFIDENT A DRUG IS SAFE BEFORE THE TRIAL



! Searching for herceptin, which is a synonym of trastuzumab, will give the same results



Chose from several Drug Subheadings including Adverse drug reaction, Drug dose, Drug toxicity, etc.

Also apply limits, including Publication Type, Evidence Based Medicine, Publication Year, etc.

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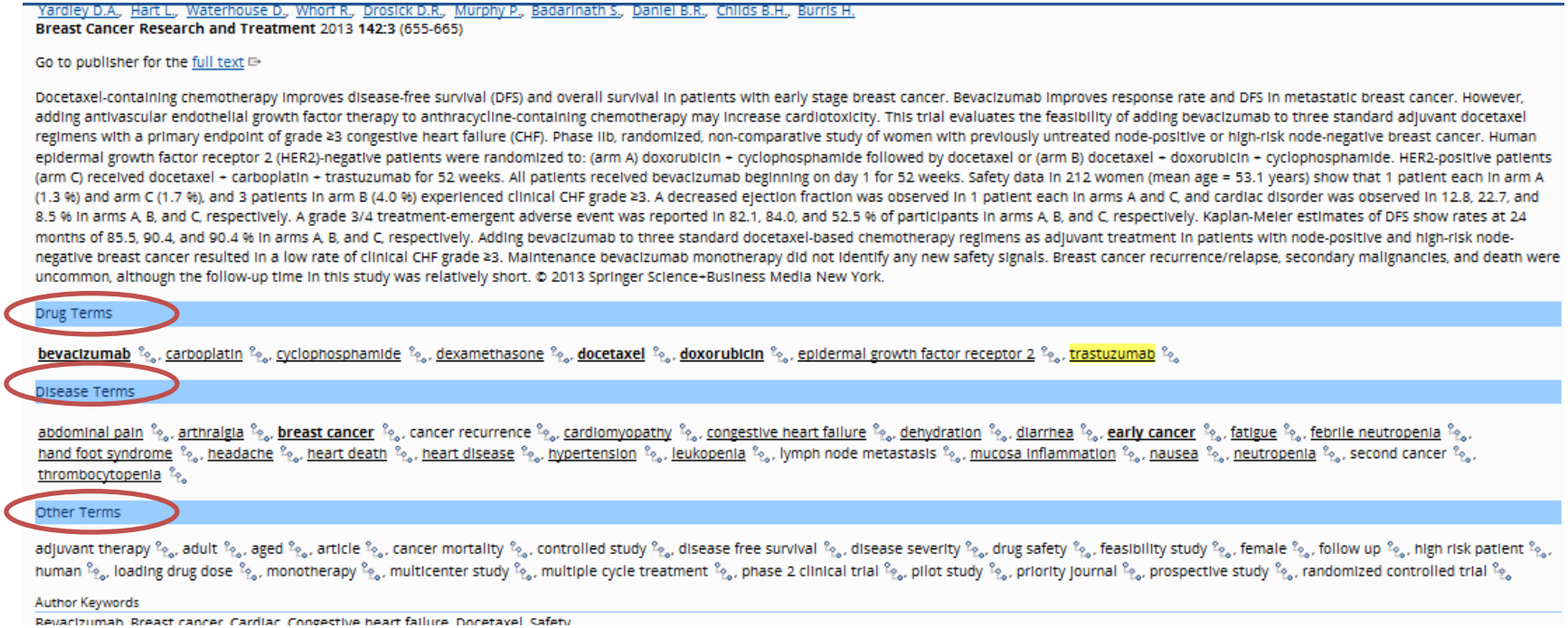
DEEP DRUG & DISEASE INDEXING

FIND EVERY RECORD WHERE YOUR DRUG IS MENTIONED

Example search result showing Emtree terms indexed in the article



Yardley D.A., Hart L., Waterhouse D., Whorf R., Drosick D.R., Murphy P., Badarinath S., Daniel B.R., Childs B.H., Burris H.
Breast Cancer Research and Treatment 2013 **142:3** (655-665)

Go to publisher for the full text

Docetaxel-containing chemotherapy improves disease-free survival (DFS) and overall survival in patients with early stage breast cancer. Bevacizumab improves response rate and DFS in metastatic breast cancer. However, adding antivascular endothelial growth factor therapy to anthracycline-containing chemotherapy may increase cardiotoxicity. This trial evaluates the feasibility of adding bevacizumab to three standard adjuvant docetaxel regimens with a primary endpoint of grade ≥3 congestive heart failure (CHF). Phase IIb, randomized, non-comparative study of women with previously untreated node-positive or high-risk node-negative breast cancer. Human epidermal growth factor receptor 2 (HER2)-negative patients were randomized to: (arm A) doxorubicin → cyclophosphamide followed by docetaxel or (arm B) docetaxel → doxorubicin → cyclophosphamide. HER2-positive patients (arm C) received docetaxel → carboplatin → trastuzumab for 52 weeks. All patients received bevacizumab beginning on day 1 for 52 weeks. Safety data in 212 women (mean age = 53.1 years) show that 1 patient each in arm A (1.3 %) and arm C (1.7 %), and 3 patients in arm B (4.0 %) experienced clinical CHF grade ≥3. A decreased ejection fraction was observed in 1 patient each in arms A and C, and cardiac disorder was observed in 12.8, 22.7, and 8.5 % in arms A, B, and C, respectively. A grade 3/4 treatment-emergent adverse event was reported in 82.1, 84.0, and 52.5 % of participants in arms A, B, and C, respectively. Kaplan-Meier estimates of DFS show rates at 24 months of 85.5, 90.4, and 90.4 % in arms A, B, and C, respectively. Adding bevacizumab to three standard docetaxel-based chemotherapy regimens as adjuvant treatment in patients with node-positive and high-risk node-negative breast cancer resulted in a low rate of clinical CHF grade ≥3. Maintenance bevacizumab monotherapy did not identify any new safety signals. Breast cancer recurrence/relapse, secondary malignancies, and death were uncommon, although the follow-up time in this study was relatively short. © 2013 Springer Science+Business Media New York.

Drug Terms

bevacizumab, carboplatin, cyclophosphamide, dexamethasone, **docetaxel**, **doxorubicin**, epidermal growth factor receptor 2, trastuzumab

Disease Terms

abdominal pain, arthralgia, **breast cancer**, cancer recurrence, cardiomyopathy, congestive heart failure, dehydration, diarrhea, **early cancer**, fatigue, febrile neutropenia, hand foot syndrome, headache, heart death, heart disease, hypertension, leukopenia, lymph node metastasis, mucosa inflammation, nausea, neutropenia, second cancer, thrombocytopenia

Other Terms

adjuvant therapy, adult, aged, article, cancer mortality, controlled study, disease free survival, disease severity, drug safety, feasibility study, female, follow up, high risk patient, human, loading drug dose, monotherapy, multicenter study, multiple cycle treatment, phase 2 clinical trial, pilot study, priority journal, prospective study, randomized controlled trial

Author Keywords

Bevacizumab, Breast cancer, Cardiac, Congestive heart failure, Docetaxel, Safety

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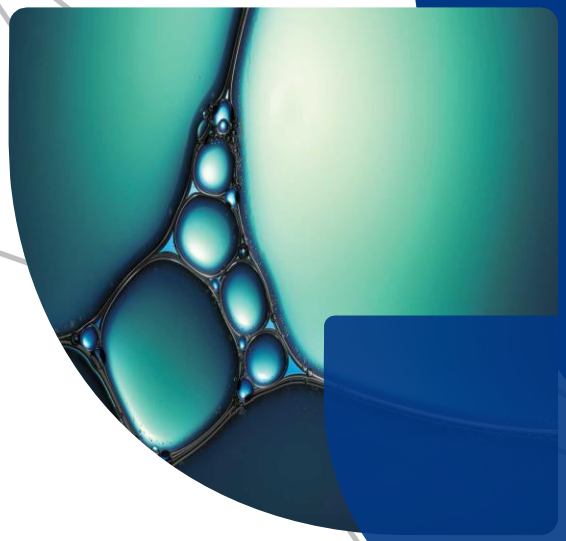
USING EMBASE FOR MEDICAL DEVICES DEVELOPMENT AND POST-MARKET SURVEILLANCE



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WHAT IS A MEDICAL DEVICE?

WITHIN THE INDUSTRY THERE ARE FOUR BROAD CATEGORIES OF DEVICES

DEFINITION: A medical device is a product that is used for medical purposes in patients, in diagnosis, therapy or surgery.

If applied to the body, the effect of the medical device is primarily physical, in contrast to pharmaceutical drugs, which exert a biochemical effect.

The medical device industry is also a subset of other industries, composed in part by divisions of pharmaceutical, electronics and industrial companies

Therapeutic devices

Diagnostic devices

Medical equipment

Hospital equipment

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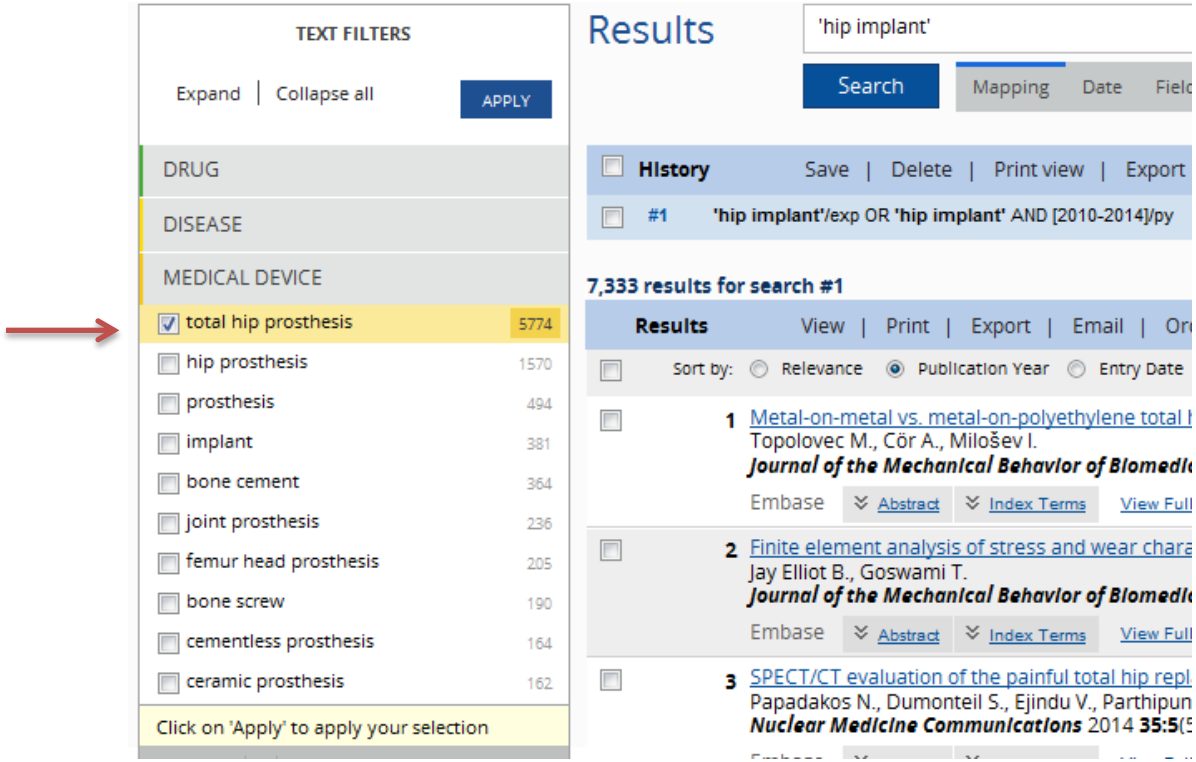
EMBASE HELPS COMPANIES COMPLY WITH REGULATIONS

WITH COMPREHENSIVE CONTENT AND SEARCH STRATEGIES FOR MEDICAL DEVICES

For example - Search for a medical device, then filter for Medical Device 'total hip prosthesis' and apply additional filters, like the subheading 'complication'



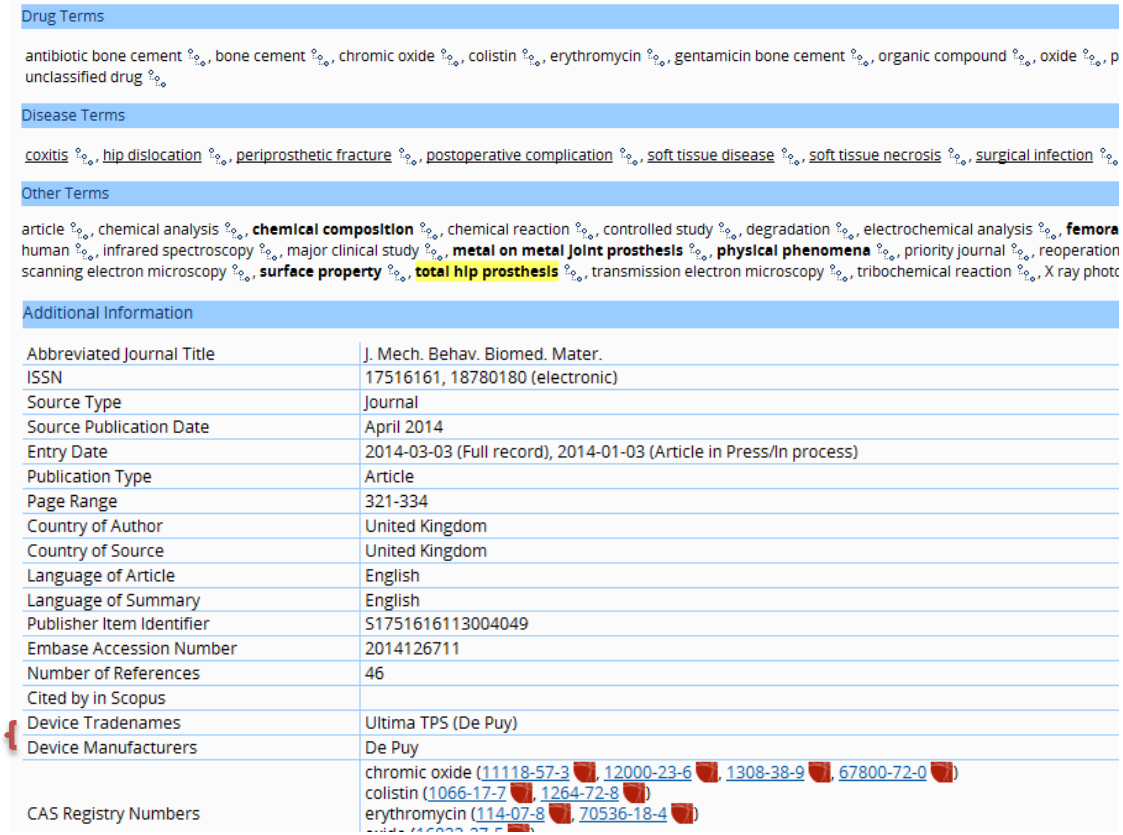
Embase includes 3,000+ specific terms for general & medical Devices, plus several thousand terms for related medical procedures

EMBASE®

UNPARALLELED ACCESS TO MEDICAL DEVICE LITERATURE, CRITICAL FOR CLINICAL EVALUATION REPORTS

INDEXING INCLUDES DEVICE TRADE NAMES LINKED TO MANUFACTURER NAMES AND RELATED PROCEDURES

Results include: Emtree terms, Device Trade names and Device Manufacturer



Drug Terms

antibiotic bone cement, bone cement, chromic oxide, colistin, erythromycin, gentamicin bone cement, organic compound, oxide, p
unclassified drug

Disease Terms

coxitis, hip dislocation, periprosthetic fracture, postoperative complication, soft tissue disease, soft tissue necrosis, surgical infection

Other Terms

article, chemical analysis, **chemical composition**, chemical reaction, controlled study, degradation, electrochemical analysis, **femora**
human, infrared spectroscopy, major clinical study, **metal on metal joint prosthesis**, **physical phenomena**, priority journal, reoperation
scanning electron microscopy, **surface property**, **total hip prosthesis**, transmission electron microscopy, tribochemical reaction, X ray photo

Additional Information

Abbreviated Journal Title	J. Mech. Behav. Biomed. Mater.
ISSN	17516161, 18780180 (electronic)
Source Type	Journal
Source Publication Date	April 2014
Entry Date	2014-03-03 (Full record), 2014-01-03 (Article in Press/In process)
Publication Type	Article
Page Range	321-334
Country of Author	United Kingdom
Country of Source	United Kingdom
Language of Article	English
Language of Summary	English
Publisher Item Identifier	S1751616113004049
Embase Accession Number	2014126711
Number of References	46
Cited by in Scopus	
Device Tradenames	Ultima TPS (De Puy)
Device Manufacturers	De Puy
CAS Registry Numbers	chromic oxide (11118-57-3, 12000-23-6, 1308-38-9, 67800-72-0) colistin (1066-17-7, 1264-72-8) erythromycin (114-07-8, 70536-18-4)

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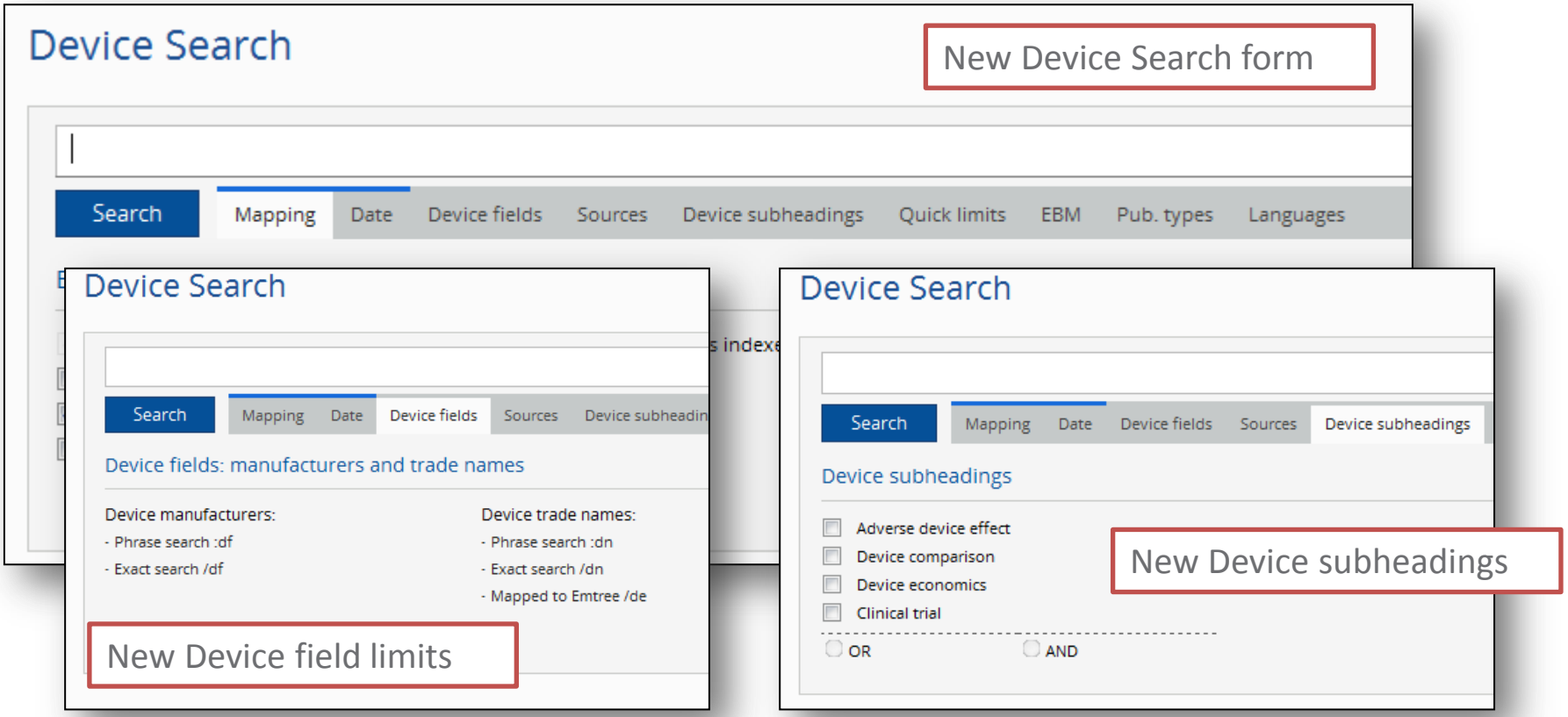
NEW DEVICE SEARCH FEATURES

MORE PRECISE MEDICAL DEVICE SEARCHES

New medical device indexing will help customers who are preparing for a clinical evaluation or doing post-market surveillance to run more precise searches on the coverage of medical devices in the literature.



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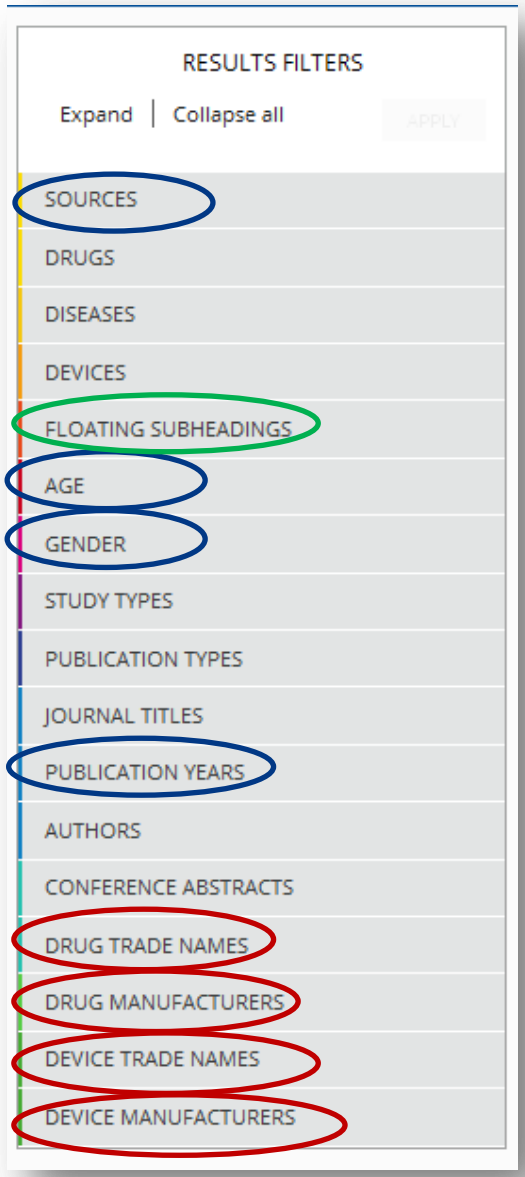
OPTIMIZED RESULTS FILTERS



- All filters now on one page (Sources, Age, Gender
- Publication Years were graphic filters on a 2nd tab)
- Filters are re-ordered, with the very popular Sources filter (identifies Embase vs. MEDLINE) is now at the top
- Subheadings filter has been renamed to Floating Subheadings to avoid confusion with the Drug/Disease/Device-linked subheadings
- Instead of having to select 10/20/max filter options, users can now scroll to see all filter options at once

4 new filters added

Filters for the top drug & device trade names and manufacturer names have been added, allowing users to drill down and refine a result set using the information identified in the filters.

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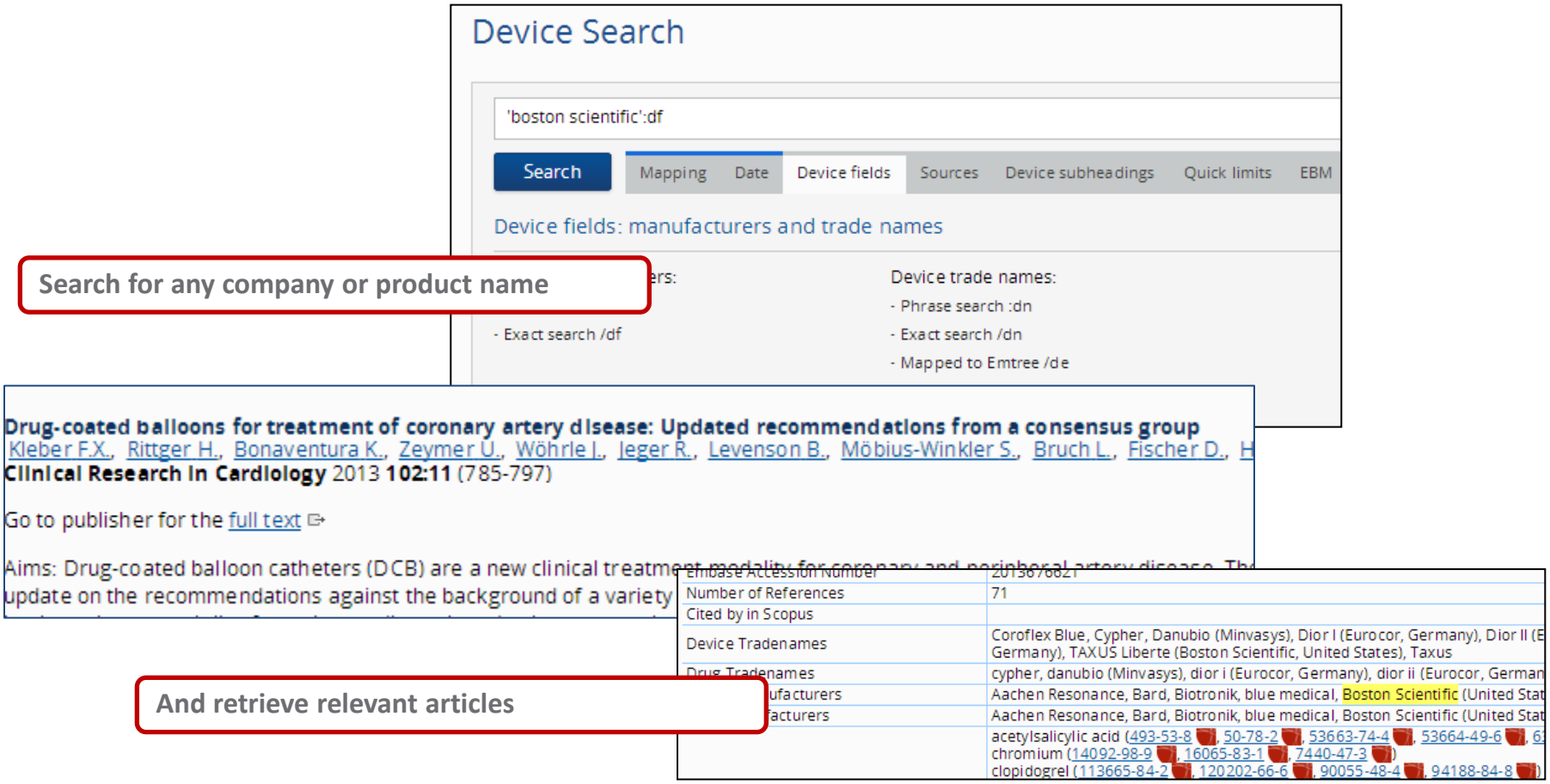
SEARCHING COMPANY SPECIFIC INFORMATION



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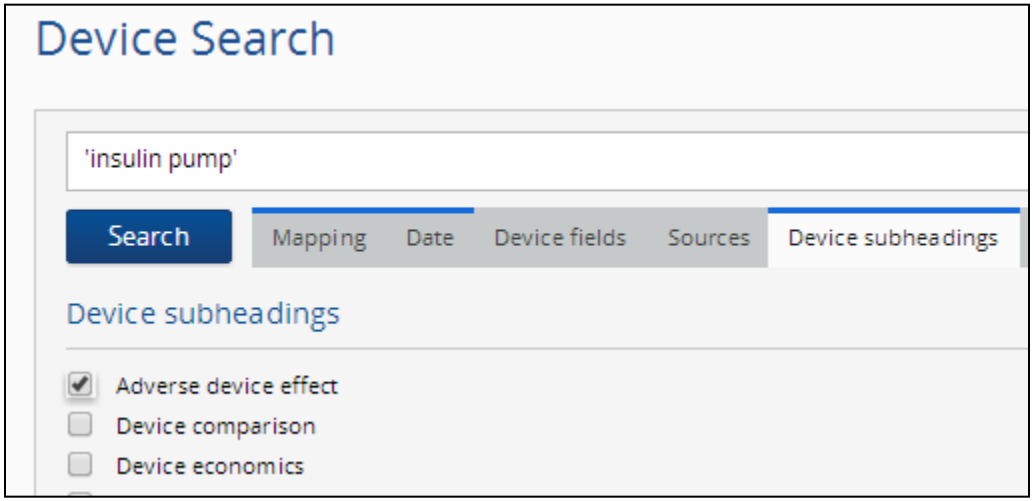
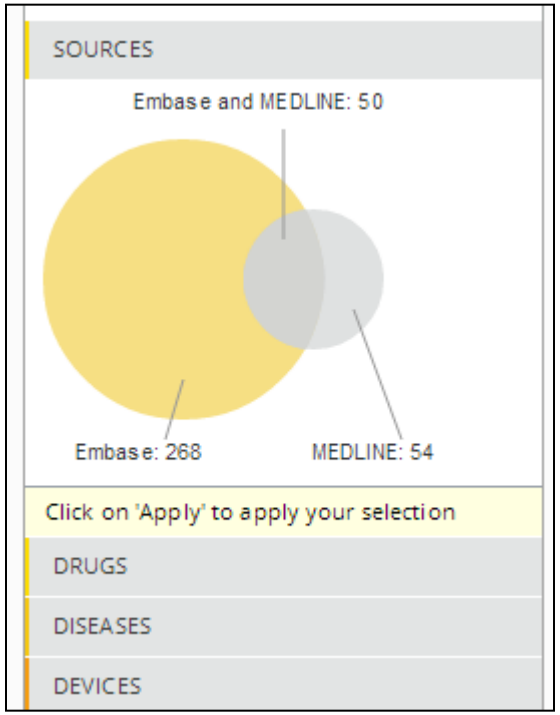
TRACKING ADVERSE EFFECTS OR COMPARISON DATA THAT'S UNIQUE TO EMBASE



Ability to search for a particular product, device type or class in relation to an adverse effect, a comparison, device economics or the mention of a clinical trial



Overlap with PubMed/MEDLINE quickly shows unique content

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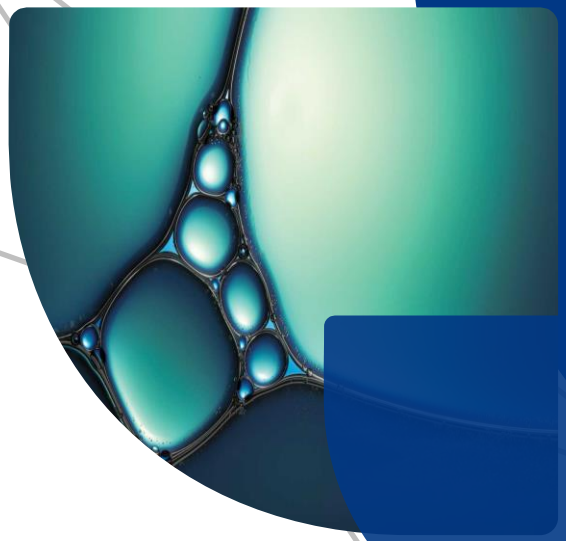
SEARCH FEATURES



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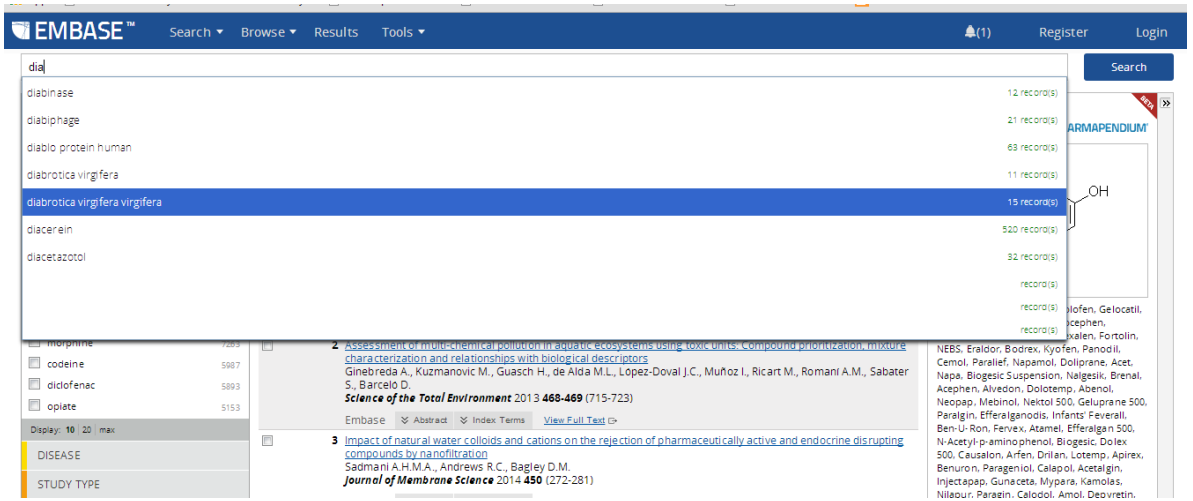
UNIQUE USER INTERFACE TOOLS

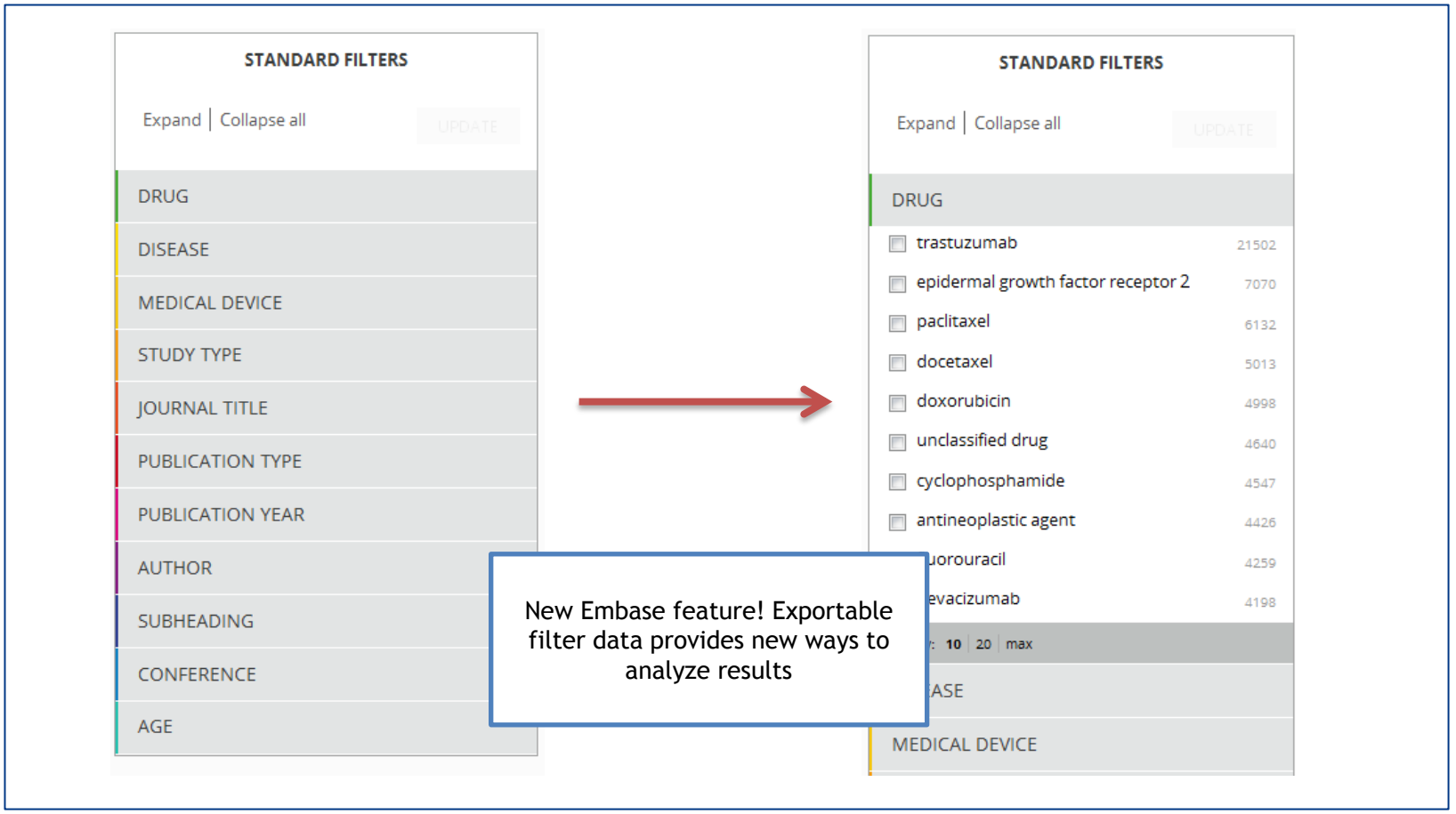
FAST AUTOCOMPLETE = QUICK SEARCHES

- Fast autocomplete response times using the Quick Search feature
- Multiple search terms allowed
- Commands such as AND, NOT and OR can be used



EASY-TO-USE FILTERS

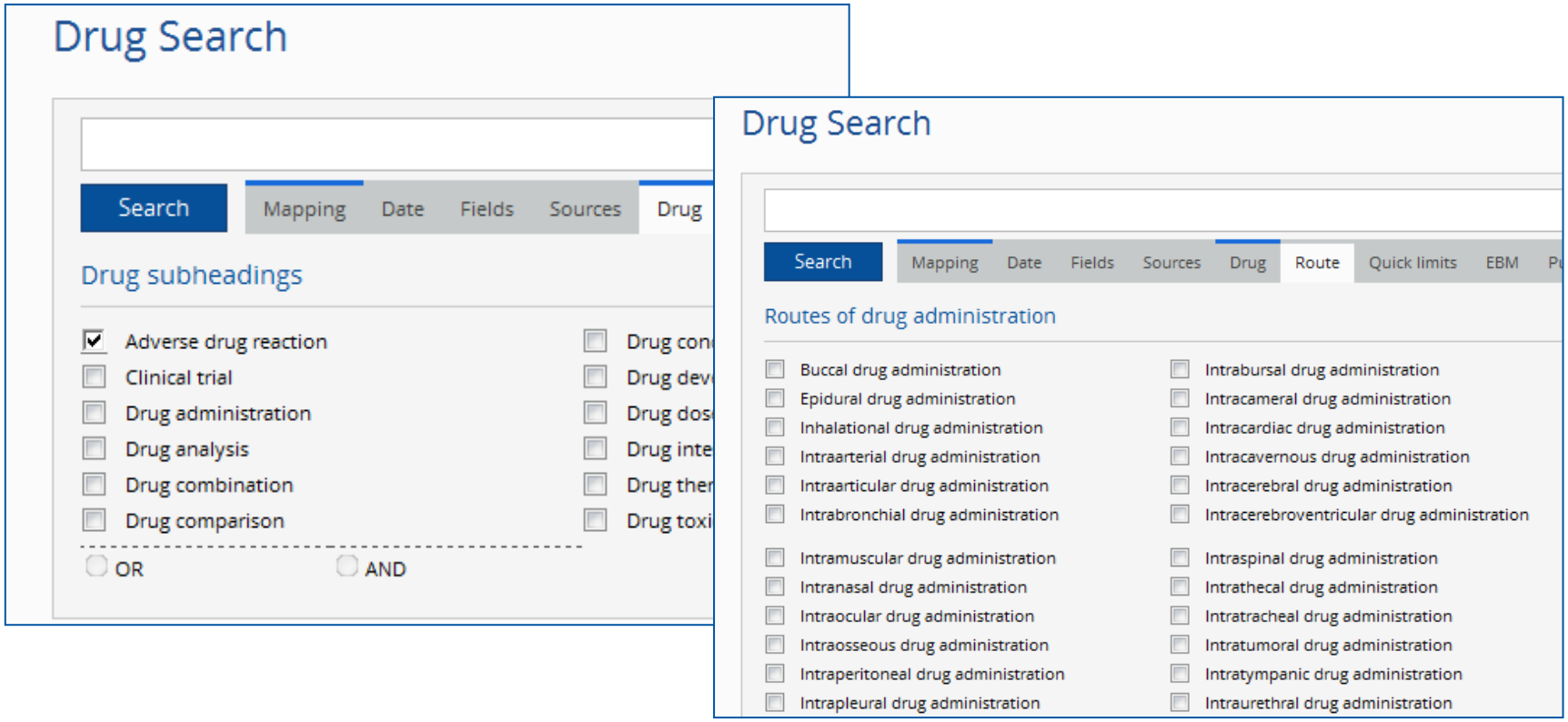
FOCUS SEARCH TO RELEVANT AND MANAGEABLE PROPORTIONS



EARLY AND COMPLETE DETECTION OF ANY AND ALL ADVERSE EFFECTS

UP-TO-DATE CONTENT, EXTENSIVE DRUG INDEXING, SPECIFIC SEARCH STRATEGIES

Use Drug Search and apply Drug Subheadings, Routes of Drug Administration and other limits



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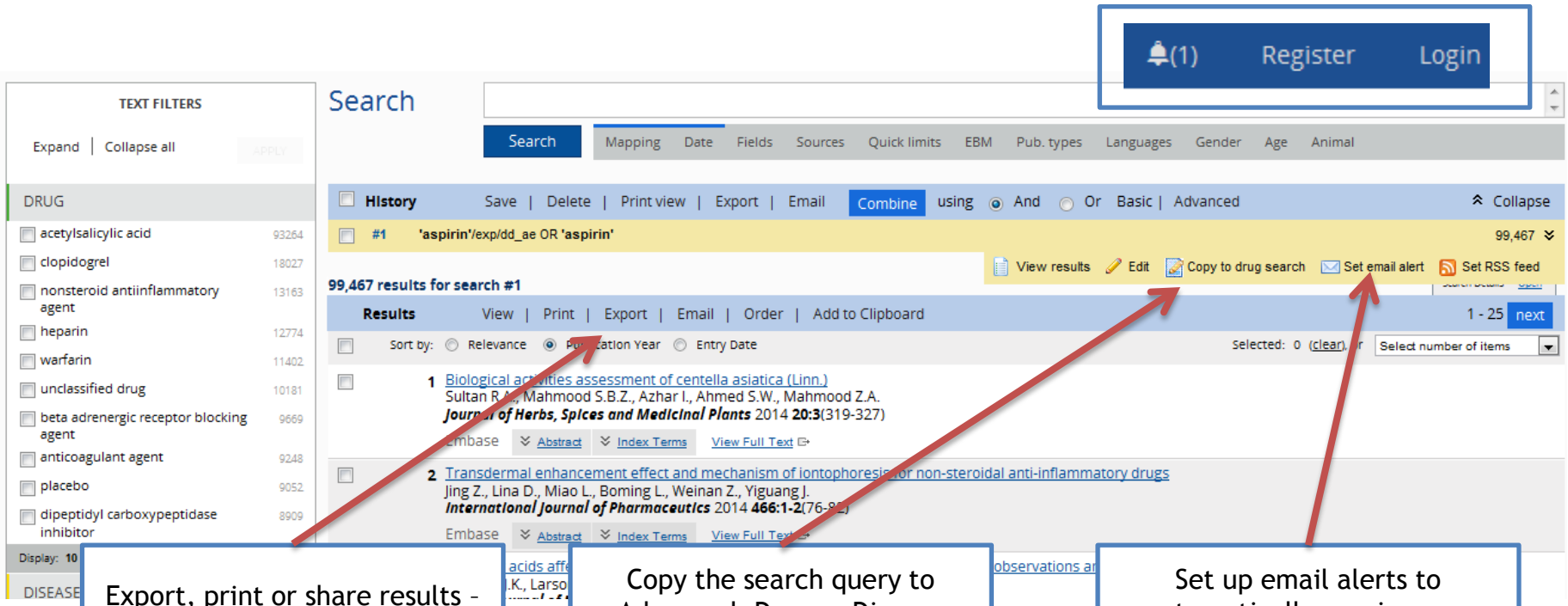
EASY TO MANAGE RESULTS

WITH EMAIL ALERTS, EXPORTING AND ADVANCE SEARCHING



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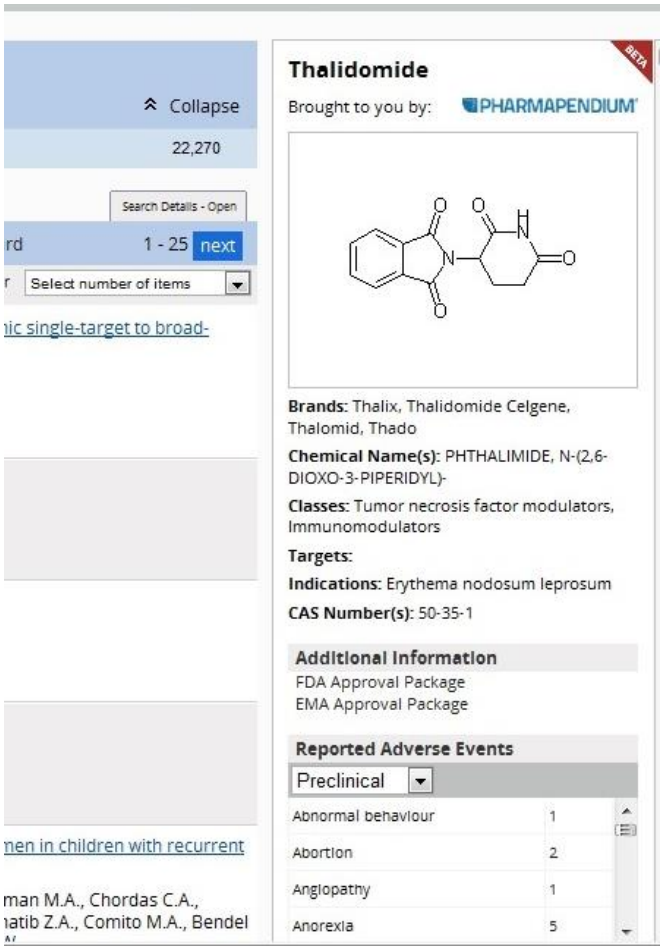
NEW — INTEROPERABILITY WITH PHARMAPENDIUM

ENHANCED SEARCH WITH ACCESS TO RELEVANT BACKGROUND DATA ON DRUGS

- ✓ PharmaPendium information provided in Embase search results
- ✓ Access relevant data on drugs, inducing FDA submission reports

Together, Embase and PharmaPendium provide a fully comprehensive view of drug safety — from preclinical and clinical studies, to post-marketing reports



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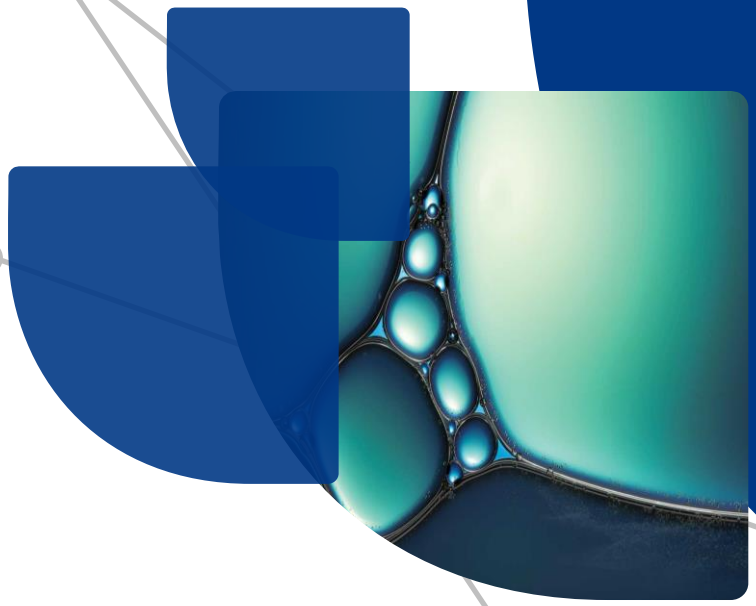
THANK YOU
ANY QUESTIONS?



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