

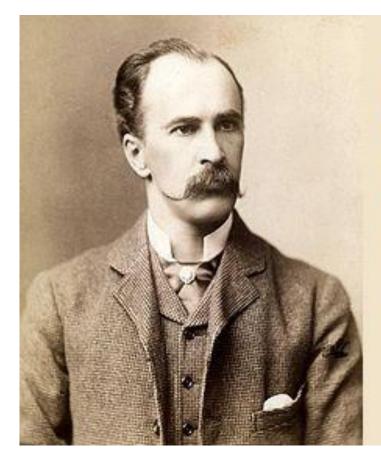
# Learning Objectives

- 1. Evidence Based Medicine (EBM)
- Background & Overview
- Cochrane Systematic Reviews
- 2. Systematic Review Example
- 3. Searching Resources on Ovid®
- Access & Main Search Page
- Basic Search Mode
  - Search History & Results Display
    - Related Terms & Relevancy
  - Limiting Search Results
  - Outputting Search Results
    - Print, Email, Export
- Search Results Management Tools
  - My Account, My Projects, My Alerts

- Advanced Search Mode
  - .mp Field
  - Mapping & MeSH Thesaurus
  - Explode , Focus & Combining Results
- Changing Ovid<sup>®</sup> Resources
  - Journals@Ovid
- Multi-File Searching & De-Duplication
- 4. Preparing for a Systematic Review
- 5. Structured Search Example
- 6. RCT Meta-Analysis



### High Quality Medical Practice & Medical Information



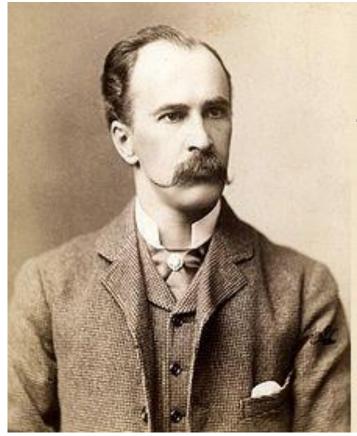
"He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all."

William Osler

Dr. William Osler (1849-1919), a Professor of Medicine at Johns Hopkins School of Medicine, U.S.A.,



### High Quality Medical Practice & Medical Information



"Medicine is an art based on science"

William Osler

Dr. William Osler (1849-1919), a Professor of Medicine at Johns Hopkins School of Medicine, U.S.A.,



### Scientific Medicine Evidence Based Medicine

"Science", "Scientific" ?

"The intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment"

"A systematically organized body of knowledge on a particular subject"

http://www.oxforddictionaries.com/definition/english/science



### Scientific Medicine Evidence Based Medicine

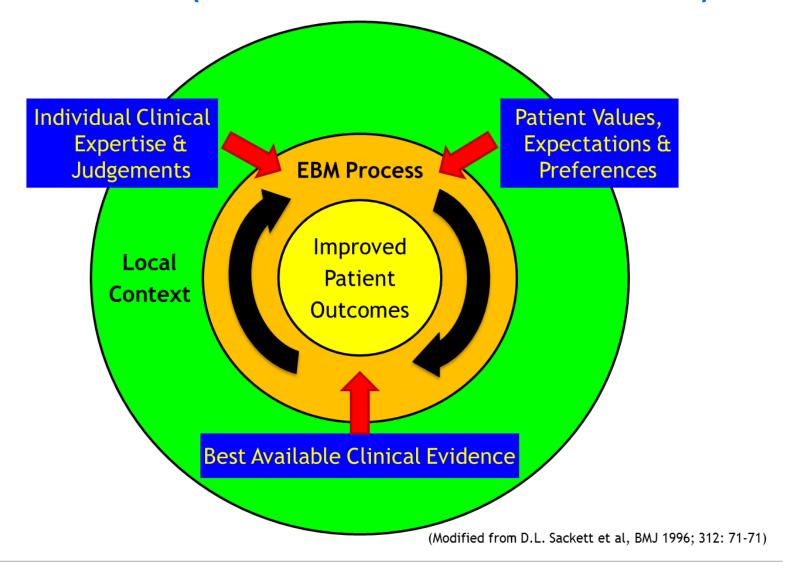
"systematic" ?

- Done or acting according to a fixed plan or system;
- methodical:
- "a systematic search of the whole city"

http://www.oxforddictionaries.com/definition/american\_english/systematic



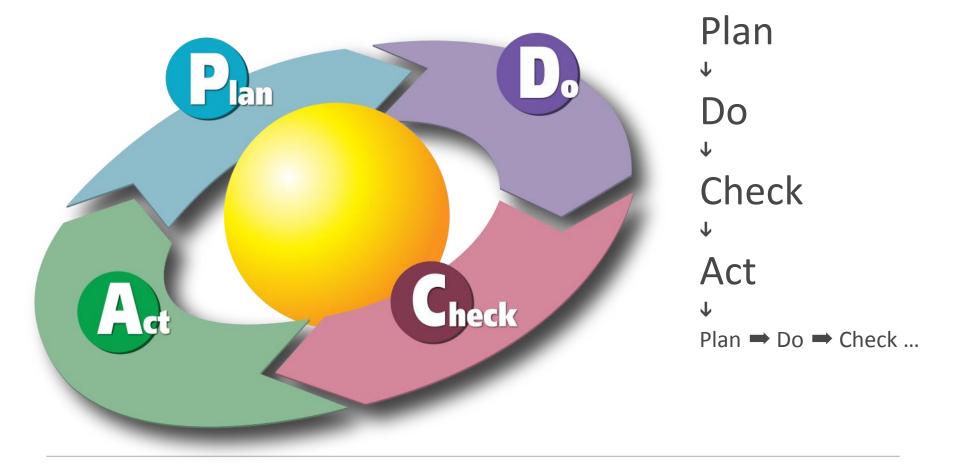
# What is EBM (Evidence-Based Medicine)?





### Scientific Medicine Evidence Based Medicine

What is a "Scientific" method? PDCA Cylce.



### Levels of Evidence

Filtered Information



http://ebbp.org/course outlines/searching for evidence/



### The PICO Process

### 1. Frame the question:

Does hand washing among healthcare workers reduce hospital acquired infections?

PICO	Example
Patient/Problem/Population	Hospital acquired infection
Intervention	Hand washing
Comparison/Control	No hand washing; other solution; masks
Outcome	Reduced infection

### 2. Plan a search strategy

Identify the major elements of your question, and translate natural language terms to subject descriptors, MeSH terms, or descriptors. A simple database search strategy should begin with the P and I and keep initial search results broad.



### Evidence Based Medicine

Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.

Evidence based medicine is not "cookbook" medicine. Because it requires a bottom up approach that integrates the best external evidence with individual clinical expertise and patients' choice.

Sackett, David, et al. Evidence based medicine: what it is and what it isn't. BMJ. 1996;312(7023):71-72 http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=ovftb&NEWS=N&AN=00002591-199601130-00005



### What is Cochrane?



- About us
- Our vision
- Our mission
- What we do
- How do we do this?
- Why do we do this?
- Our global community
- · Our products and services
- Governance and management
- Our Strategy
- Our policies and positions
- · Our funders and partners
- . The difference we make
- Contact us



Cochrane is for anyone interested in using high-quality information to make health decisions. Whether you are a doctor or nurse, patient or carer, researcher or funder, Cochrane evidence provides a powerful tool to enhance your healthcare knowledge and decision making.

Cochrane's 13,000 members and over 50,000 supporters come from more than 130 countries, worldwide. Our volunteers and contributors are researchers, health professionals, patients, carers, and people passionate about improving health outcomes for everyone, everywhere. Our global independent network gathers and summarizes

https://www.cochrane.org/about-us/



### Cochrane Database of Systematic Reviews (CDSR)



#### **About the Cochrane Library**

The Cochrane Library (ISSN 1465-1858) is a collection of databases that contain different types of high-quality, independent evidence to inform healthcare decision-making. The Cochrane Library is owned by **Cochrane** and published by **Wiley**.

The Cochrane Library is available as a Spanish language version. More information on translations &.

On this page: Databases | Featured content | Editor in Chief and Editorial Board | Committees | Editorial & publishing staff | Access | History of the Cochrane Library

#### **Databases**

#### Cochrane Database of Systematic Reviews

The Cochrane Database of Systematic Reviews (CDSR) is the leading resource for systematic reviews in health care. (ISSN: 1469-493X)

CDSR includes all Cochrane Reviews (and protocols) prepared by Cochrane Review Groups. Each Cochrane Review is a peer-reviewed systematic review that has been prepared and supervised by a Cochrane Review Group (editorial team), according to the Cochrane Handbook for Systematic Reviews of Interventions of or Cochrane Handbook for Diagnostic Test Accuracy Reviews CS. CDSR also includes Editorials and Supplements.

CDSR is built throughout the month, with new and updated reviews and protocols being continuously published when ready.

More about CDSR

#### Cochrane Central Register of Controlled Trials (CENTRAL)

The Cochrane Central Register of Controlled Trials (CENTRAL) is a highly concentrated source of reports of randomized and quasi-randomized controlled trials. In addition to bibliographic details (author, title, source, year, etc) CENTRAL records often include an abstract (a summary of the article). They do not contain the full text of the article.

CENTRAL is published monthly.

More about CENTRAL







https://www.cochranelibrary.com/about/about-cochrane-library



# What is a Systematic Review?

#### What is a systematic review?

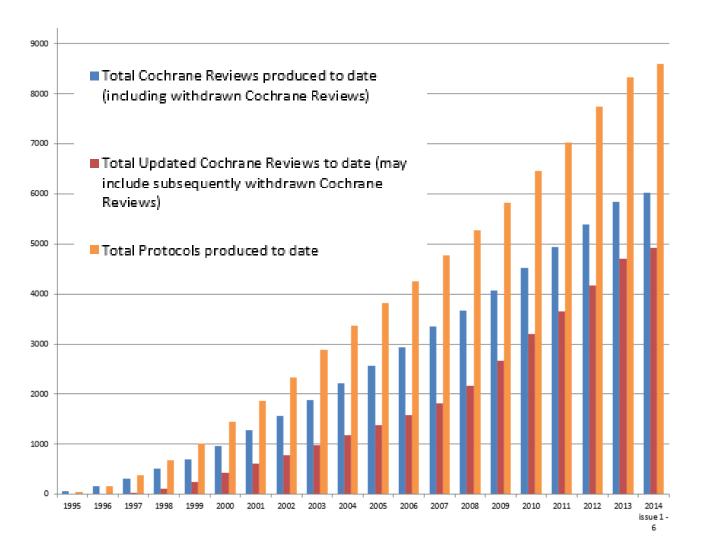
A systematic review summarises the results of available carefully designed healthcare studies (controlled trials) and provides a high level of evidence on the effectiveness of healthcare interventions. Judgments may be made about the evidence and inform recommendations for healthcare.

These reviews are complicated and depend largely on what clinical trials are available, how they were carried out (the quality of the trials) and the health outcomes that were measured. Review authors pool numerical data about effects of the treatment through a process called meta-analyses. Then authors assess the evidence for any benefits or harms from those treatments. In this way, systematic reviews are able to summarise the existing clinical research on a topic.

https://consumers.cochrane.org/what-systematic-review



### **CDSR** in Numbers





# Creating a Systematic Review

# Cochrane Handbook for Systematic Reviews of Interventions



Version 5.1.0

[updated March 2011]

Editors: Julian PT Higgins and Sally Green

Handbook information
Part 1: Cochrane reviews
Part 2: General methods for Cochrane reviews
Part 3: Special topics
Additional material

http://handbook-5-1.cochrane.org/



# Creating a Systematic Review





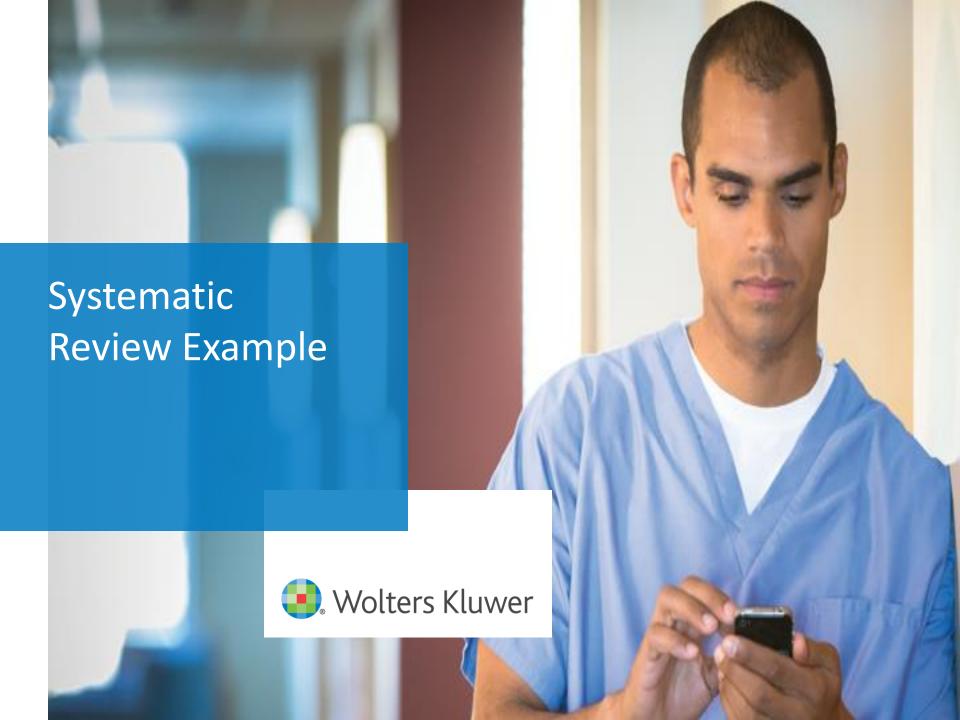
Search ①

Identify the issue and determine the question What authors Write a plan for the review (protocol) DO Search for studies Sift and select studies Extract data from the studies Assess the quality of the studies Combine the data (synthesis or meta-anlysis) Discuss and conclude overall findings Systematic Review Meta-Dissemination Analyse

3 Update, as required

Source: http://navigatingeffectivetreatments.org.au/





# Cochrane Systematic Review

### Parenteral anticoagulation in ambulatory patients with cancer (Review)

Akl EA, Kahale LA, Ballout RA, Barba M, Yosuico VED, van Doormaal FF, Middeldorp S, Bryant A, Schünemann H



Akl, EA, Kahale LA, Ballout RA, et al. Parenteral anticoagulation in ambulatory patients with cancer (Review)

Cochrane Database of Systematic Reviews. 2014;(12).



# **Systematic Review Components**

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# Systematic Review

#### ABSTRACT

#### Background

Anticoagulation may improve survival in patients with cancer through an antitumor effect in addition to the perceived antithrombotic effect.

#### Objectives

To evaluate the efficacy and safety of parenteral anticoagulants in ambulatory patients with cancer who, typically, are undergoing chemotherapy, hormonal therapy or radiotherapy, but otherwise have no standard therapeutic or prophylactic indication for anticoagulation.

#### Search methods

A comprehensive search included (1) an electronic search (February 2013) of the following databases: Cochrane Central Register of Controlled Trials (CENTRAL) (2013, Issue 1), MEDLINE (1966 to February 2013; accessed via OVID) and EMBASE(1980 to February 2013; accessed via OVID); (2) handsearching of conference proceedings; (3) checking of references of included studies; (4) use of the 'related citation' feature in PubMed and (5) a search for ongoing studies.

#### Selection criteria

Randomized controlled trials (RCTs) assessing the benefits and harms of parenteral anticoagulation in ambulatory patients with cancer. Typically, these patients are undergoing chemotherapy, hormonal therapy or radiotherapy, but otherwise have no standard therapeutic or prophylactic indication for anticoagulation.

#### Data collection and analysis

Using a standardized form we extracted data in duplicate on methodological quality, participants, interventions and outcomes of interest including all-cause mortality, symptomatic venous thromboembolism (VTE), symptomatic deep vein thrombosis (DVT), symptomatic pulmonary embolism (PE), arterial thrombosis (e.g. stroke, myocardial infarction), major bleeding, minor bleeding and quality of life.

Parenteral anticoagulation in ambulatory patients with cancer (Review)

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# Confirming PICO(Clinical Question)

PICO	Explanation	Example
Patient Problem	Who is the patient? What is the problem?	Ambulatory patients receiving chemotherapy for metastatic or locally advanced solid cancer (high risk of thromboembolism formation)
Intervention	What intervention is used?	Administration of Nadroparin
Comparison Control	What is the intervention being compared to?	No administration of Nadroparin (placebo)
Outcome	What happens?	<ul> <li>Mortality</li> <li>Prevention of deep venous thrombosis (VTE)</li> <li>Major bleeding</li> <li>Minor bleeding</li> <li>Other minor side effects (QOL)</li> </ul>

Lancet Oncol. 2009 Oct;10(10):943-9. doi: 10.1016/S1470-2045(09)70232-3. Epub 2009 Aug 31.



# "Risk of Bias" Summary

It is important to critically examine each RCT study for the presence and/or absence of bias.

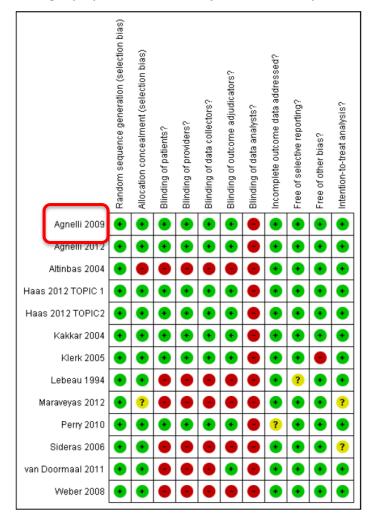
- Random sequence generation
- Allocation concealment
- Blinding
- Incomplete outcome data
- Selective reporting of outcomes

Green: Low Risk of Bias

Red: High Risk of Bias

Yellow: Unclear

Figure 2. 'Risk of bias' summary - mortality at 12 months: review authors' judgements about each methodological quality item for each included study that evaluated mortality at 12 months





### **Characteristics of Studies**

#### CHARACTERISTICS OF STUDIES

#### Characteristics of included studies [ordered by study ID]

#### Agnelli 2009

Methods	Randomized clinical trial			
Participants	1166 patients with metastatic or locally advanced lung, breast, gastrointestinal (stomach, colon-rectum, pancreas), ovarian or head and neck cancer undergoing chemotherapy Mean age 63, males 48%, previous VTE 1.6%			
Interventions	Intervention: subcutaneous LMWH nadroparin calcium 3800 IU anti-Xa once daily for up to a maximum of 4 months  Control: placebo  Co-intervention: both arms received chemotherapy  Discontinued treatment: 273 of 779 participants randomized to the intervention arm and 111 of 387 participants randomized to the control arm			
Outcomes	Duration of follow-up: median of 111 and 113 days in the nadroparin and placebo groups, respectively  • Survival (4 months and 12 months follow-up)  • Response to chemotherapy (4 months follow-up)  • For patients with central venous catheters (CVC), complications of possible thrombotic origin, such as malfunction or requirement of CVC removal (4 months follow-up)  • Superficial thrombophlebitis of lower limbs (4 months follow-up)  • Asymptomatic thromboembolic events diagnosed during tests performed for other purposes (4 months follow-up)  • Major bleeding (4 months follow-up)  • Minor bleeding (4 months follow-up)  • Other adverse events (4 months follow-up)  • Other adverse events (4 months follow-up)  • Streening testing for DVT/PE: none Diagnostic testing for DVT/PE:none			
Notes	Funding: Italfarmaco			
Risk of bias				
Bias	Authors' judgement	Support for judgement		
Random sequence generation (selection bias)	Low risk	Quote: "The randomisation list was generated by an independent statistician who used a standard permuted block of six without stratification. The list was generated with SAS version 8.2."		

Parenteral anticoagulation in ambulatory patients with cancer (Review)
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Quote: "the system assigned the next free number in accordance with the randomisation sequence. Patients and investigators did not know whether study drug or placebo was being given, since pre-filled syringes were used which were

#### Agnelli 2009 (Continued)

		identical in appearance."		
Blinding of patients? All outcomes	Low risk	Quote: "Treatment assignments were masked from all study personnel and participants for the duration of the study." Comment: definitely blinded		
Blinding of providers? All outcomes	Low risk	Quote: "Treatment assignments were masked from all study personnel and participants for the duration of the study." Comment: definitely blinded		
Blinding of data collectors? All outcomes	Low risk	Quote: "Treatment assignments were masked from all stud personnel and participants for the duration of the study." Comment: definitely blinded		
Blinding of outcome adjudicators? All outcomes	Low risk	Quote: "all the study outcomes were assessed by an inde- pendent adjudication committee, whose members were un- aware of the patients' study group allocation."  Comment: definitely blinded		
Blinding of data analysts? All outcomes	High risk	Quote: "For the final analysis, the treatment code was opened after the database was locked." Comment: definitely not blinded		
Incomplete outcome data addressed? All outcomes	Low risk	A number of patients were described as having discontinued treatment but it is not reported whether they were followed up for outcome assessments:  • 273 out of 769 participants from the intervention group (among which 69 were reported as lost to follow-up or withdrew consent) and 111 of 381 participants from the control group (among which 32 were reported as lost to follow-up or withdrew consent)  • Quote: "766 (66.6%) of 1150 patients completed the study treatment as defined by the protocol: 496 (64-5%) of 769 patients in the nadroparin group and 270 (70.9%) of 381 patients in the placebo group"  • Participants randomized but had not received treatment: 10 of 779 participants randomized to the intervention arm and 6 of 387 participants randomized to the control arm		
Free of selective reporting? All outcomes	Low risk	As compared to ClinicalTrials.gov information		
Free of other bias? All outcomes	Low risk	Study not reported as stopped early for benefit No other bias suspected		
Intention-to-treat analysis? All outcomes	Low risk	Quote: "All randomised patients who received at least one dose of study treatment were included in the efficacy and safety analyses"		

Parenteral anticoagulation in ambulatory patients with cancer (Review)
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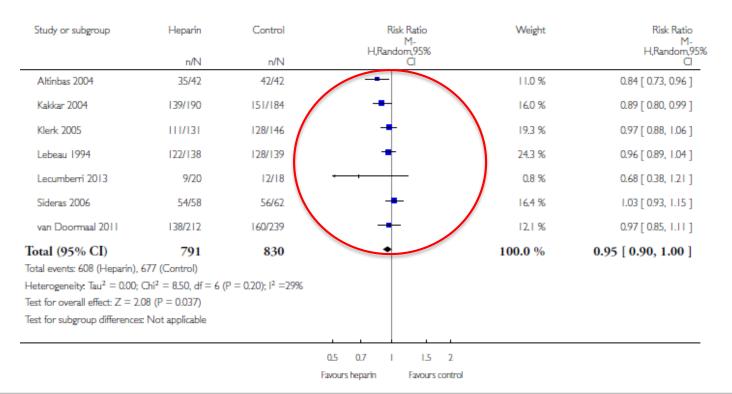
Allocation concealment (selection bias)

Analysis I.2. Comparison I Heparin versus placebo, Outcome 2 Mortality at 24 months.

Review: Parenteral anticoagulation in ambulatory patients with cancer

Comparison: I Heparin versus placebo

Outcome: 2 Mortality at 24 months





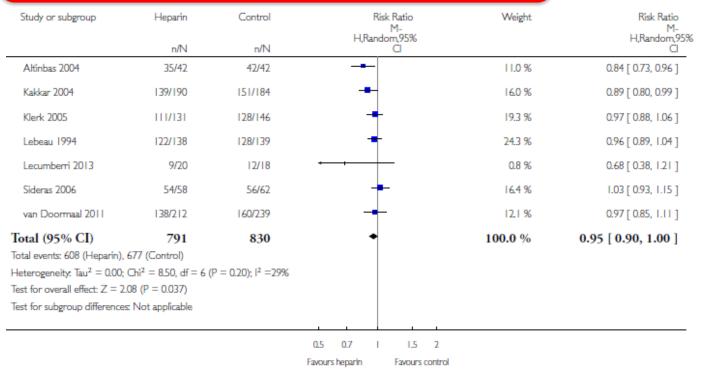
Analysis I.2. Comparison I Heparin versus placebo, Outcome 2 Mortality at 24 months.

Review: Parenteral anticoagulation in ambulatory patients with cancer

Comparison: 1 Heparin versus placebo

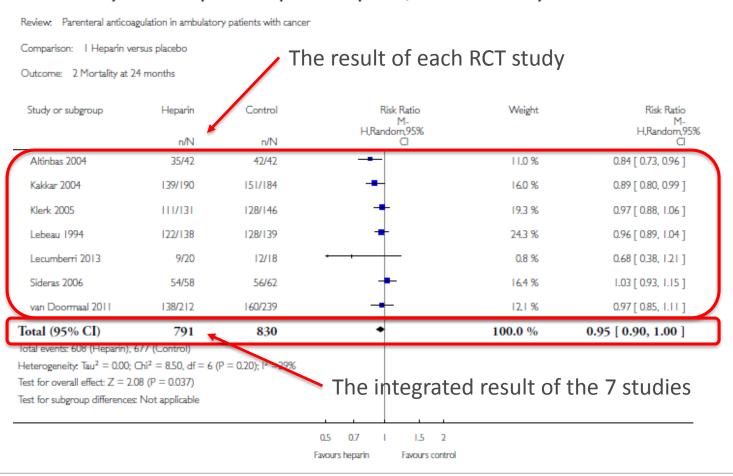
Outcome: 2 Mortality at 24 months

PICO Clinical Question





Analysis I.2. Comparison I Heparin versus placebo, Outcome 2 Mortality at 24 months.



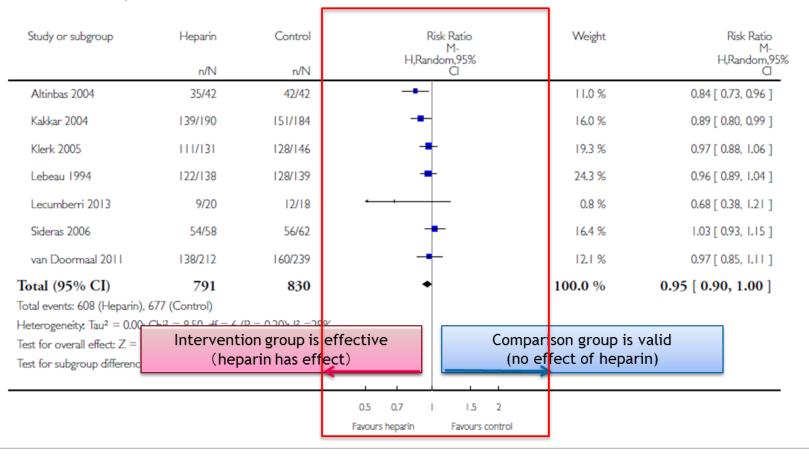


Analysis I.2. Comparison I Heparin versus placebo, Outcome 2 Mortality at 24 months.

Review: Parenteral anticoagulation in ambulatory patients with cancer

Comparison: I Heparin versus placebo

Outcome: 2 Mortality at 24 months



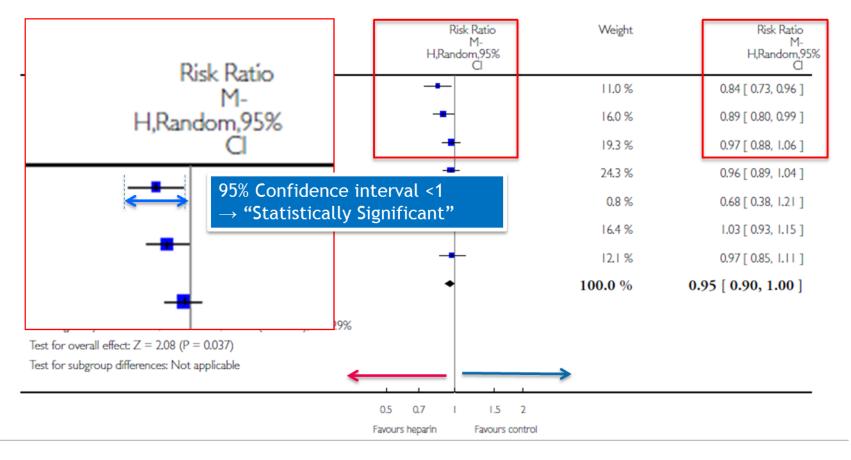


Analysis I.2. Comparison I Heparin versus placebo, Outcome 2 Mortality at 24 months.

Review: Parenteral anticoagulation in ambulatory patients with cancer

Comparison: I Heparin versus placebo

Outcome: 2 Mortality at 24 months





Analysis I.2. Comparison I Heparin versus placebo, Outcome 2 Mortality at 24 months.

Review: Parenteral anticoagulation in ambulatory patients with cancer

Comparison: I Heparin versus placebo

Outcome: 2 Mortality at 24 months

Study or subgroup	Heparin n/N	'Heterogeneity' can be any kind of variability among studies in a systematic review.				
Altinbas 2004	35/42	The I <sup>2</sup> va	due repre	cents the r	olativo	
Kakkar 2004	139/190	The I <sup>2</sup> value represents the relative absence/presence of heterogeneity:				
Klerk 2005	111/131	abserice	~ 25%	Absence	genercy.	
Lebeau 1994	122/138		~50%	Moderate		
Lecumberri 2013	9/20		~75%	Large		
Sideras 2006	54/58		~100%	Extreme		
van Doormaal 2011	138/212	160/239	-	-	12.1 %	0.97 [ 0.85, 1.11 ]
Total (95% CI)	791	830	•		100.0 %	0.95 [ 0.90, 1.00 ]
Total events: 608 (Heparin),	677 (Control)					
Heterogeneity: Tau <sup>2</sup> = 0.00;	$Chi^2 = 8.50$ , $df = 6$ (F	P = 0.20);  2 =29%				
Test for overall effect: $Z = 2$	.08 (P = 0.037)					
Test for subgroup difference	s: Not applicable		'			
			0.5 0.7 1	1.5 2		
			Favours heparin	Favours control		



# Conclusions (from the Abstract)

#### Main results

Of 9559 identified citations, 15 RCTs fulfilled the eligibility criteria. These trials enrolled 7622 participants for whom follow-up data were available. In all included RCTs the intervention consisted of heparin (either unfractionated heparin or low molecular weight heparin). Overall, heparin may have a small effect on mortality at 12 months and 24 months (risk ratio (RR) 0.97; 95% confidence interval (CI) 0.92 to 1.01 and RR 0.95; 95% CI 0.90 to 1.00, respectively). Heparin therapy was associated with a statistically and clinically important reduction in venous thromboembolism (RR 0.56; 95% CI 0.43 to 0.74) and a clinically important increase in the risk of minor bleeding (RR 1.32; 95% 1.02 to 1.71). Results failed to show or to exclude a beneficial or detrimental effect of heparin on major bleeding (RR 1.13; 95% CI 0.63 to 2.01) or quality of life. Our confidence in the effect estimates (i.e. quality of evidence) was high for symptomatic venous thromboembolism, moderate for mortality, major bleeding and minor bleeding, and low for quality of life.

#### Authors' conclusions

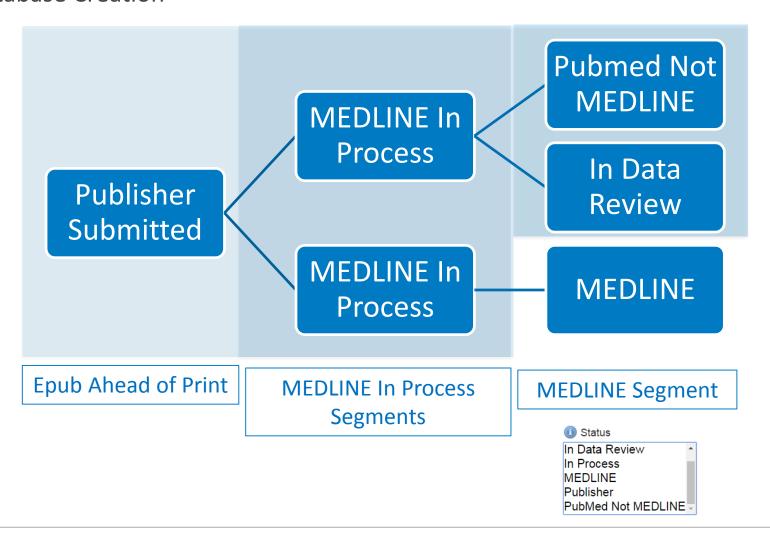
Heparin may have a small effect on mortality at 12 months and 24 months. It is associated with a reduction in venous thromboembolism and a likely increase in minor bleeding. Future research should further investigate the survival benefit of different types of anticoagulants in patients with different types and stages of cancer. The decision for a patient with cancer to start heparin therapy for survival benefit should balance the benefits and downsides, and should integrate the patient's values and preferences.





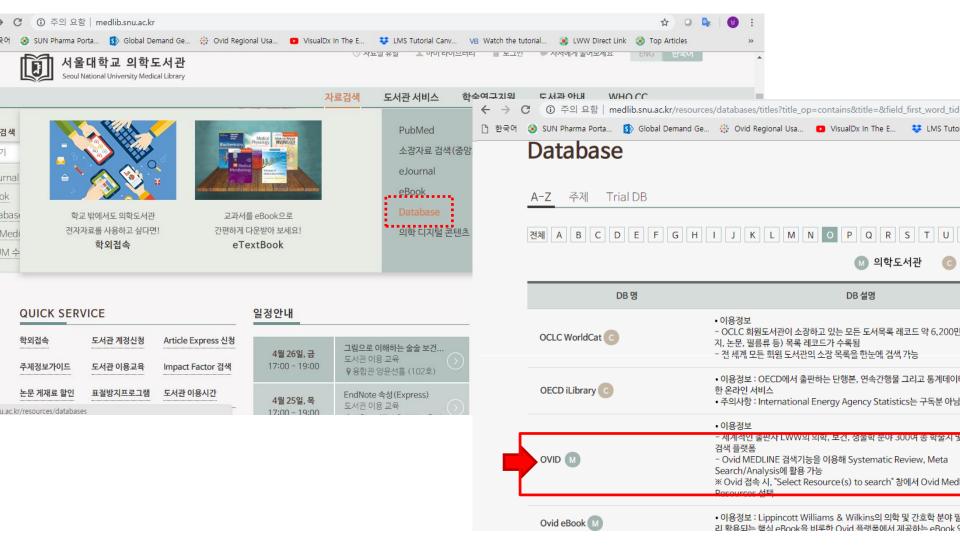
### Introduction to MEDLINE on Ovid®

Database Creation



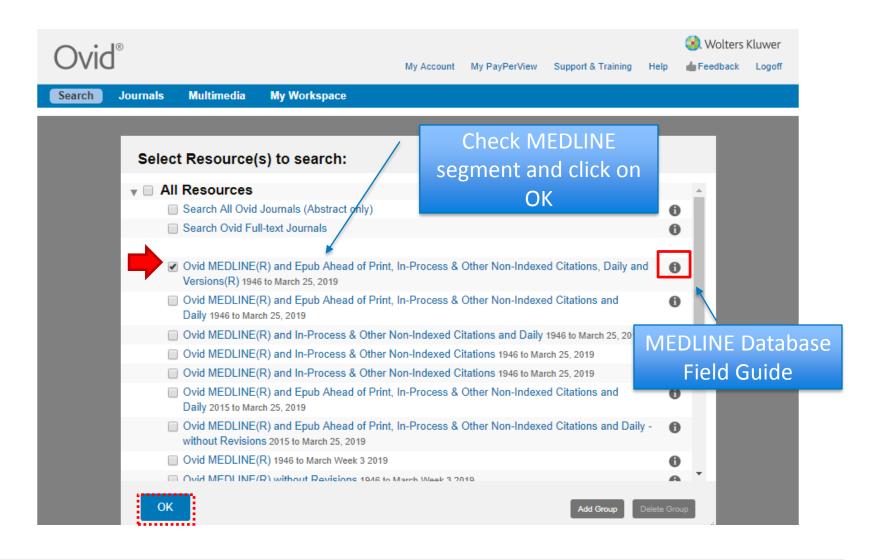


# Accessing Your Ovid Resources



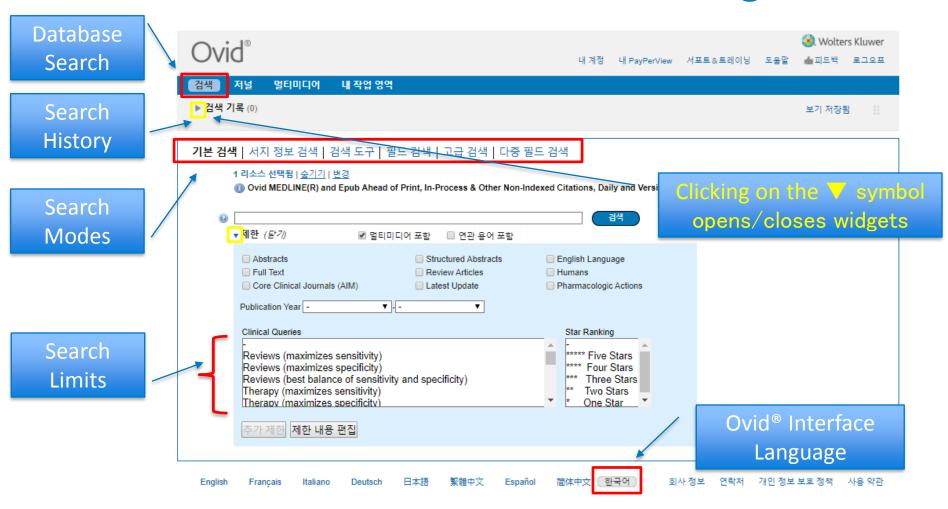


### MEDLINE on Ovid®: Ovid Resources List





## MEDLINE on Ovid®: Main Search Page





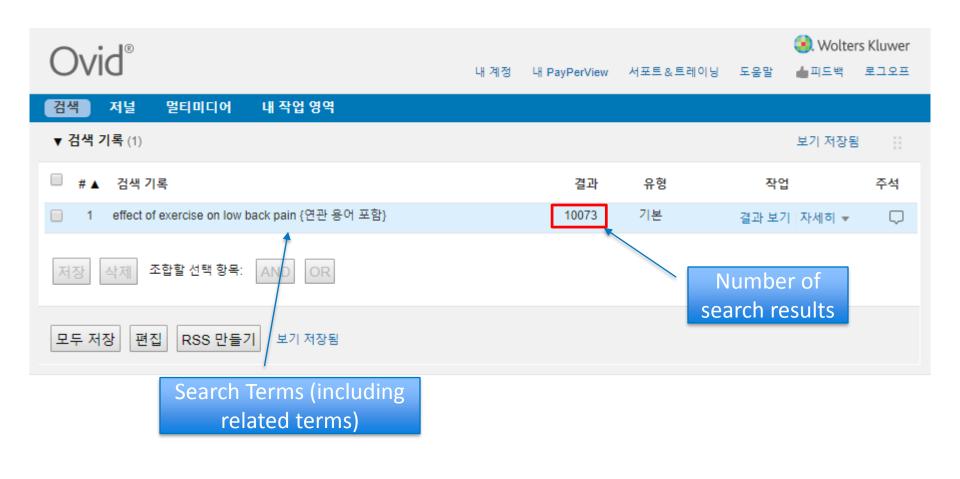
#### MEDLINE on Ovid®: Basic Search Mode



Practice Search: effect of exercise on low back pain



## MEDLINE on Ovid®: Search History





## MEDLINE on Ovid®: Search Results Display

In Basic Search Mode, results are not displayed in order of latest date, but "Highest Relevancy Ranking", indicated by a 5- ★ ranking system.

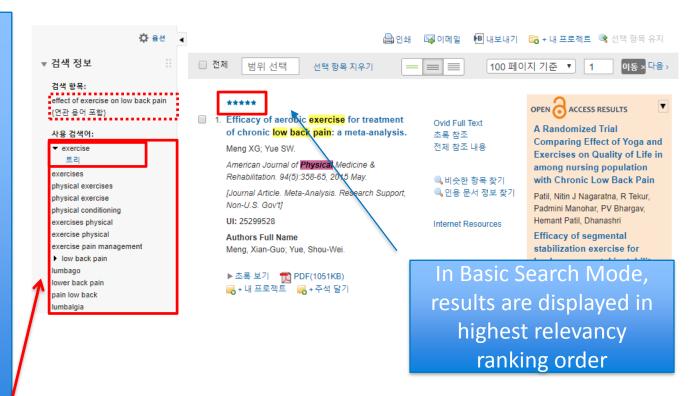
The search terms that were used are indicated on the left-side of the screen and are displayed in the 'Search Information' box.

"Related Terms" take into account singularity/ plurality, differences in spelling, synonyms, etc., as referenced by a general-purpose dictionary.

Words that you searched are indicated in yellow and related terms are highlighted in purple.

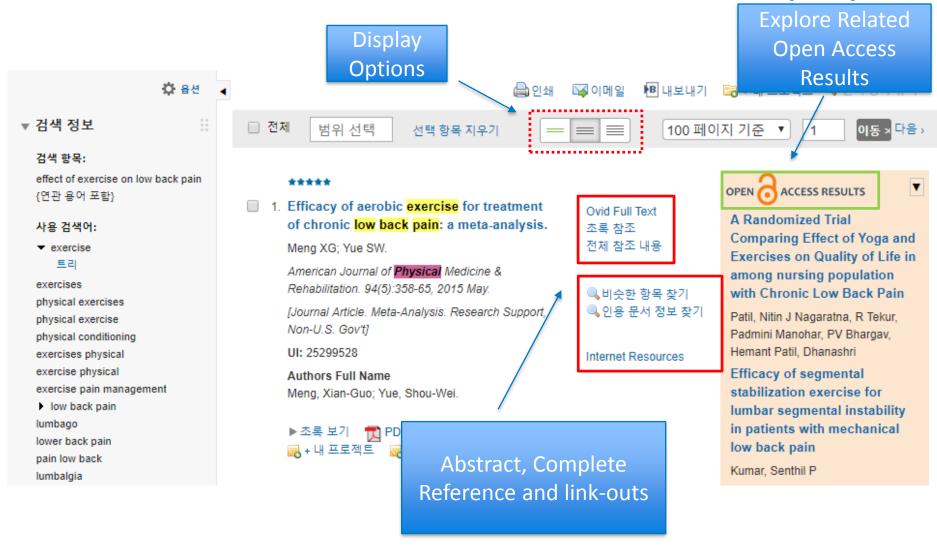
"Related Terms' on the left that are indicated with a ▼are MeSH terms. Clicking on 'Thesaurus' will display the hierarchy.

The Search History is displayed at the top of the page.



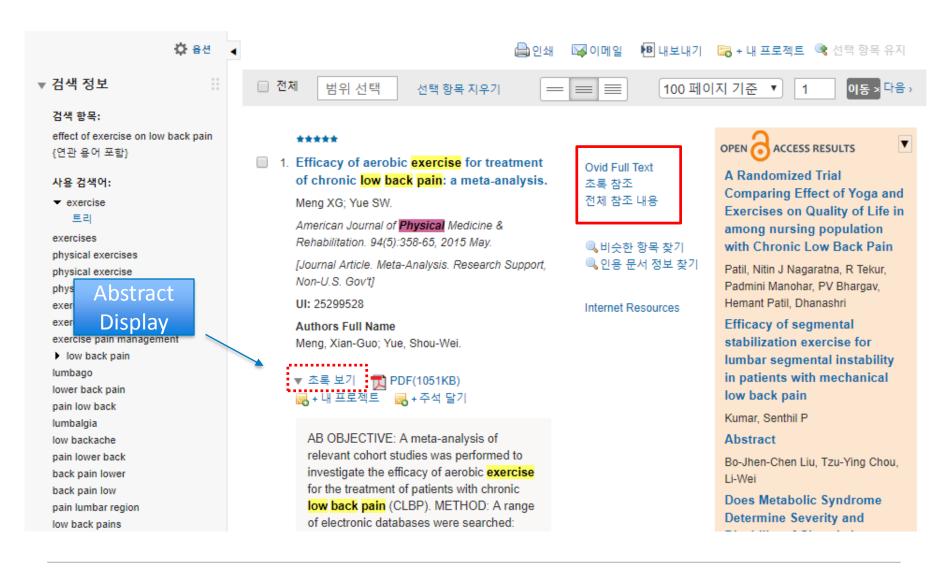


## MEDLINE on Ovid®: Search Results Display





#### MEDLINE on Ovid®: Abstracts & Full Text Views





## MEDLINE on Ovid®: Complete Reference Example

관련성:: \*\*\*\*\* Unique Identifier: 25299528

Title: Efficacy of aerobic exercise for treatment of chronic low back pain: a meta-analysis.

Source: American Journal of Physical Medicine & Rehabilitation. 94(5):358-65, 2015 May.

Abbreviated Source: Am J Phys Med Rehabil. 94(5):358-65, 2015 May.

Version ID: 1

Record Owner: From MEDLINE, a database of the U.S. National Library of Medicine.

Status: MEDLINE

Authors: Meng XG; Yue SW.

Authors Full Name: Meng, Xian-Guo; Yue, Shou-Wei.

Institution: Meng, Xian-Guo. From the Department of Physical Medicine & Rehabilitation, QiLu Hospital, Shandong

University, Jinan, P.R. China (X-GM, S-WY); and Department of Rehabilitation Medicine, Shandong Medical

College, Jinan, P.R. China (X-GM).

NLM Journal Name: American journal of physical medicine & rehabilitation

Publishing Model: Journal available in: Print

Citation processed from: Internet

NLM Journal Code: 8803677, ajo

ISO Journal Abbreviation: Am J Phys Med Rehabil

Journal Subset: Core Clinical Journals (AIM), Index Medicus

Country of Publication: United States

MeSH Subject Headings: Cohort Studies

\*Exercise

**Humans** 

Low Back Pain / cl [Classification]

\*Low Back Pain / rh [Rehabilitation]

Pain Measurement

Surveys and Questionnaires

**MeSH Subject Headings** 

Note: Subject Headings with an \*
mark are deemed 'more
important' in relation to the
citation in question

Abstract:

OBJECTIVE: A meta-analysis of relevant cohort studies was performed to investigate the efficacy of aerobic exercise for the treatment of patients with chronic low back pain (CLBP).

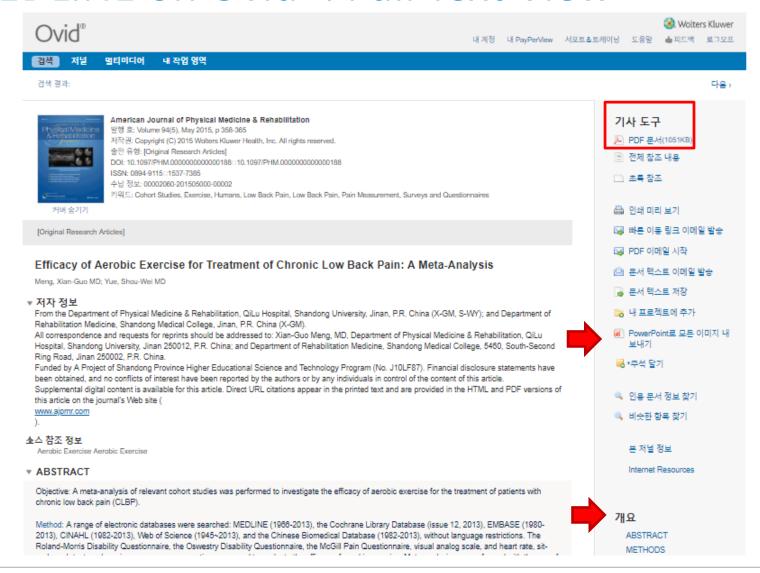


## MEDLINE on Ovid®: Full Text View





## MEDLINE on Ovid®: Full Text View



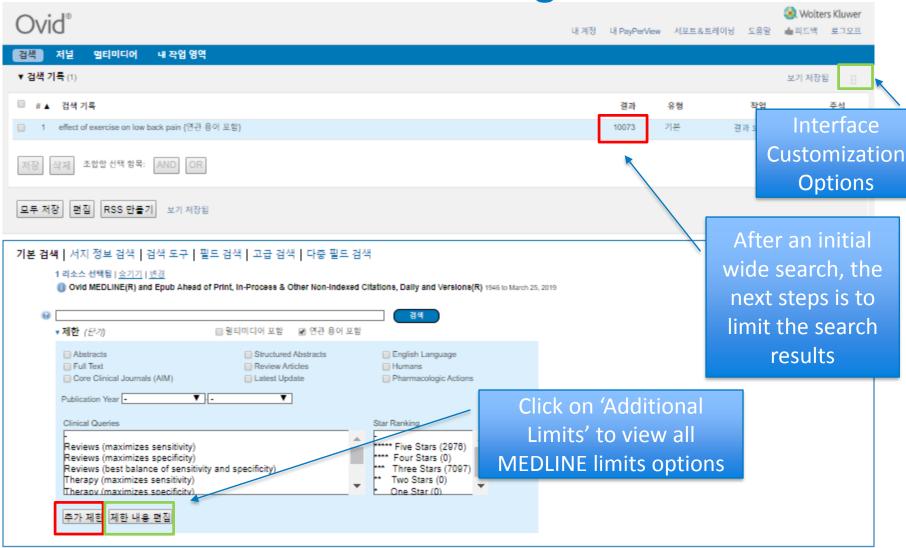


#### MEDLINE on Ovid®: Full Text View



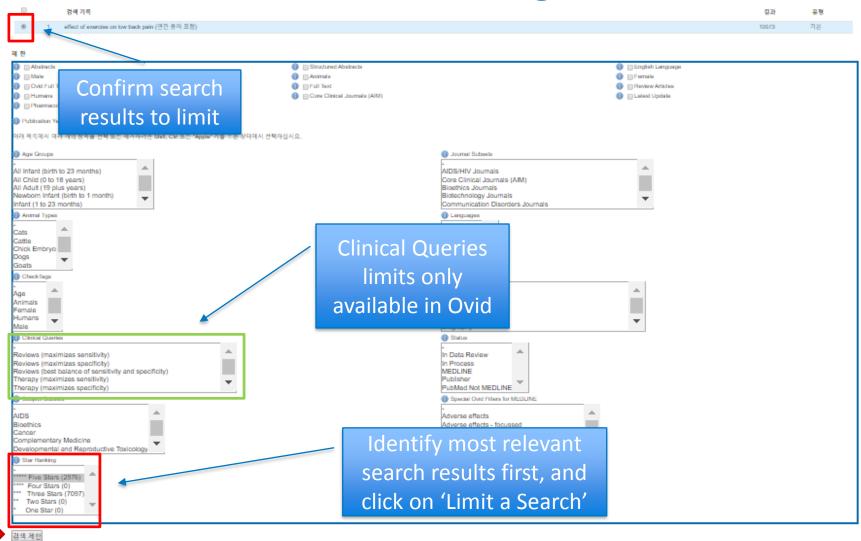


# MEDLINE on Ovid®: Limiting Search Results





# MEDLINE on Ovid®: Limiting Search Results





## MEDLINE on Ovid®: Clinical Queries

- Developed by McMaster University funded by the U.S. National Library of Medicine
- Clinical Queries are scientifically validated filters
   Precise search results in major clinical research areas.
   PUBLISHED in Clinical Journals, peer reviewed.
- Display as Ovid search limits:
  - Maximum sensitivity BROAD retrieves largest relevant results
  - Maximum specificity NARROW minimizes irrelevant, lower-quality articles
  - Balance of sensitivity and specificity

Table 4 Combination of terms with the best sensitivity (keeping spec lowest possible absolute difference between sensitivity and specificity) detecting original and review articles about QI that pass for methods

Search strategy OVID search*	Sensitivity (%) development validation diff (95% CI)	Qual Saf Health Care 2010; <b>19</b> :e31. doi:10.1136/qshc.2010.042432		
Best sensitivity				
All QI				
exp health services administration OR random:.mp. OR review.pt. OR compare:.tw	97.6 98.4 0.8 (—2.5 to 3.6)	53.0 53.3 0.3 (-0.6 to 1.1)	2.0 1.9 -0.1 (-0.4 to 0.3)	53.5 53.7 0.2 (-0.7 to 1.1)
QI pass for methods				
effectiveness.tw. OR journal.mp. OR MEDLINE.tw. OR random:.tw	100.0 96.3 -3.7 (-9.1 to 1.4)	89.3 89.3 0	5.2 4.8 -0.4 (-1.6 to 0.7)	89.3 0
Best optimisation of sensitivity and specificity All $\operatorname{Ql}$				
random:.ti,ab. OR educat:.tw. OR exp patient care management	83.3 84.7 1.4 (-5.7 to 8.0)	83.9 84.1 0.2 (-0.5 to 0.9)	4.9 4.8 -0.1 (-1.0 to 0.9)	83.9 84.1 0.2 (-0.5 to 0.9)
QI pass for methods				
control: trial:.mp. OR journal.mp. OR MEDLINE.tw. OR random: trial:.tw	94.8 89.9 -4.9 (-12.5 to 1.3)	95.7 95.8 0.1 (-0.3 to 0.5)	11.4 10.6 -0.8 (-3.4 to 1.8)	95.7 95.7 0
*0   1   1   1   1   1   1   1   1   1	I : ( MEDIUME			

<sup>\*</sup>Search strategies are reported using Ovid's search engine syntax for MEDLINE

#### Filters can be used with 8 purpose categories:

- Causation (etiology)
- Clinical Prediction Guide
- Diagnosis
- Economics

- Prognosis
- Qualitative
- Reviews
- Therapy

#### **RESULTS**

The Clinical Hedges QI database contained 49 233 citations, of which 471 (0.96%) were original or review QI studies; of those 282 (60%) were methodologically sound (ie, 'pass'). Of the 282

**Table 1** Formulae for calculating the sensitivity, specificity, precision and accuracy of medline searches

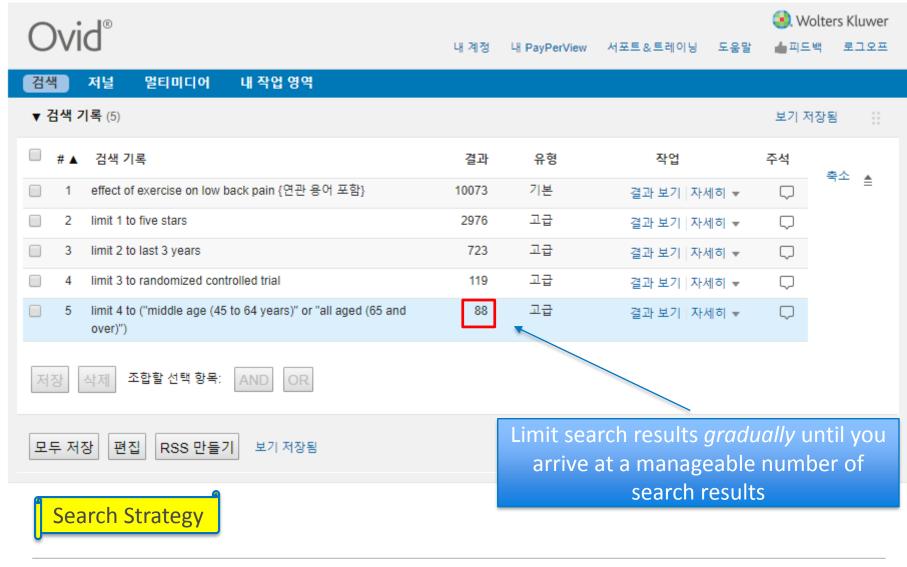
	Hand search of the literature			
		Meets criteria	Does not meet criteria	
Search terms	Detected	а	b	
	Not detected	С	d	
		a+c	b+d	

Sensitivity=a/(a+c). Specificity=d/(b+d). Precision=a/(a+b). Accuracy=(a+d)/(a+b+c+d).



Search Strategy

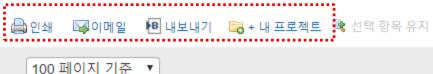
# MEDLINE on Ovid®: Limiting Search Results





## MEDLINE on Ovid®: Outputting Search Results

Outputting search results is a two-step process: (1) select what results to output and (2) select the output method



Results can be selected: one-by-one, all

(up to 200 results simultaneously) or

using a range







Comparison of spinal stability following motor control an chronic low back pain patients.

Shamsi M; Sarrafzadeh J; Jamshidi A; Arimand N; Ghezelbash F.

Clinical Biomechanics, 48:42-48, 2017 Oct.

[Comparative Study, Journal Article, Randomized Controlled Trial]

UI: 28728077

Authors Full Name

Internet Resources

Shamsi, MohammadBagher; Sarrafzadeh, Javad; Jamshidi, Aliashraf; Arjmand, Navid; Ghezelbash, Farshid.

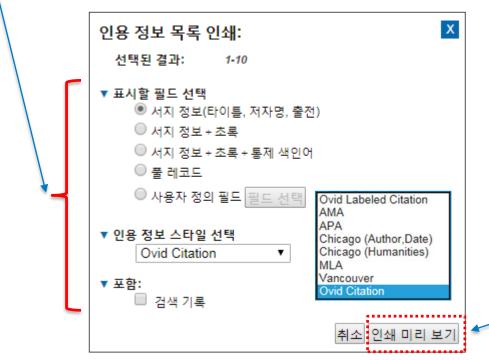
🔜 + 내 프로젝트 🔍 + 주석 달기 ▶ 초록 보기



및 비슷한 항목 찾기 이용 문서 정보 찾기

## MEDLINE on Ovid®: Printing Search Results

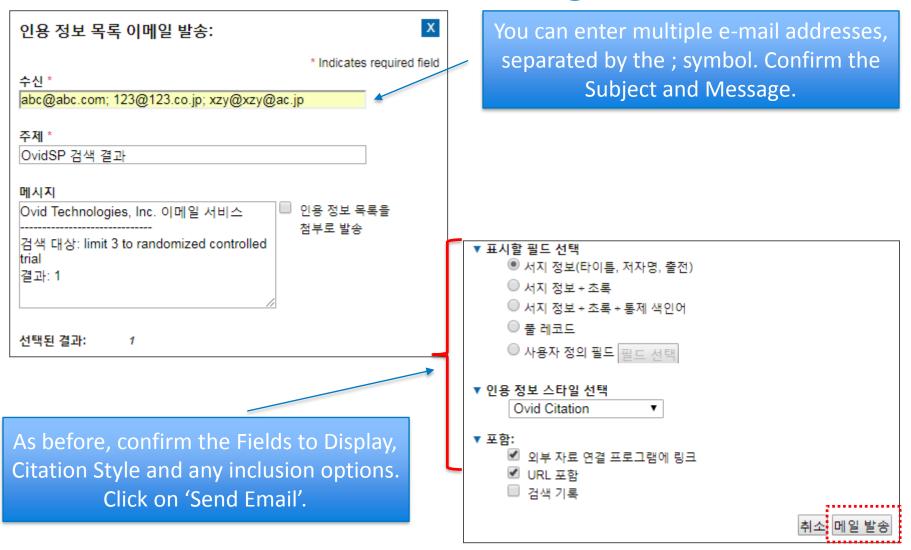
Confirm the (1) Fields to Display (2) Citation Style and (3) any inclusion options





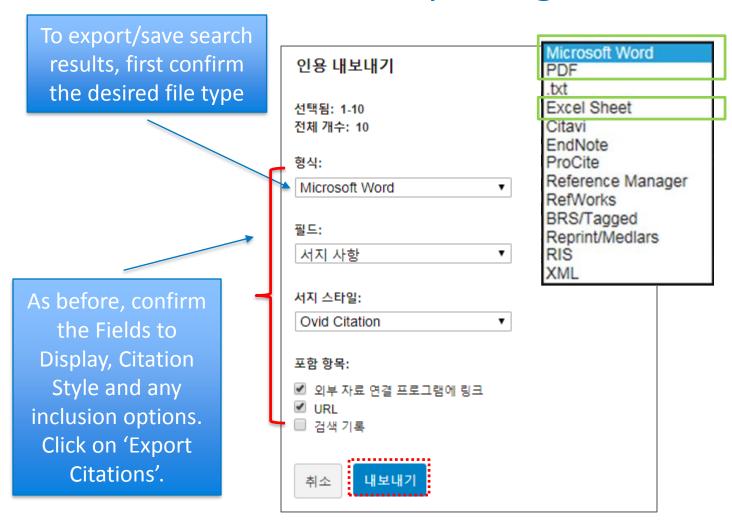
Click on 'Print Preview' and print as usual

## MEDLINE on Ovid®: Emailing Search Results





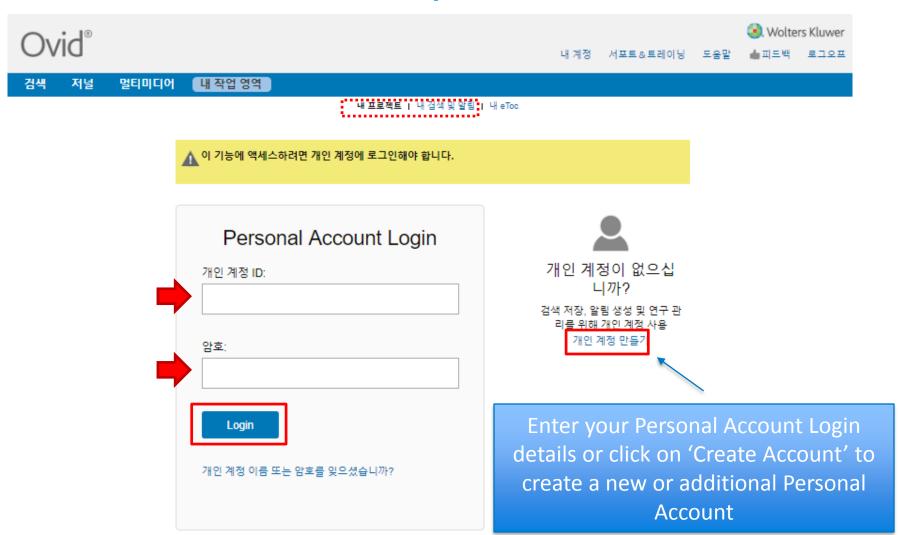
## MEDLINE on Ovid®: Exporting Search Results



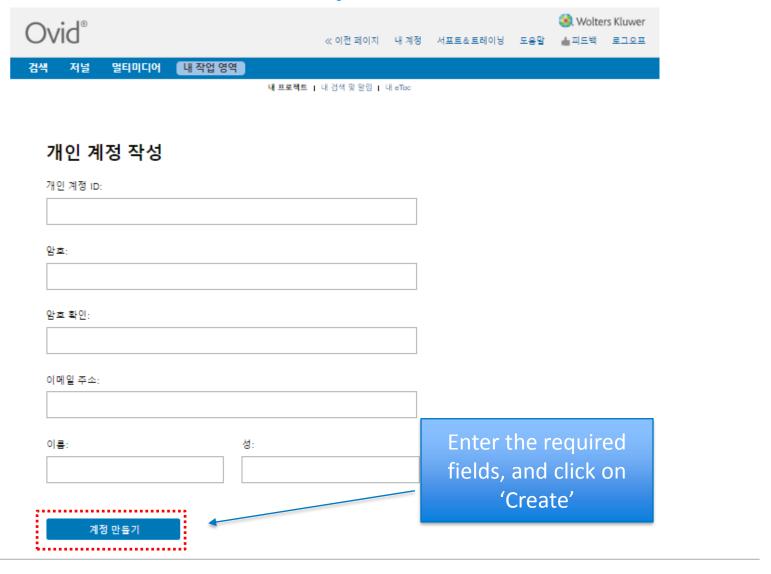


Ovid's 'My Account' feature is free-to-use and allows access to additional search and results management tools contained with 'My Workspace' Wolters Kluwer 내 작업 영역 멀티미디어 ► 검색 기록 (5) 보기 저장됨 기본 검색 | 서지 정보 검색 | 검색 도구 | 필드 검색 | 고급 검색 | 다중 필드 검색 1 리소스 선택됨 | 숨기기 | 변경 (i) Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R) 1946 to March 25, 2019 검색 ▶ 제한 (확장) ■ 멀티미디어 포함 연관용어 포함

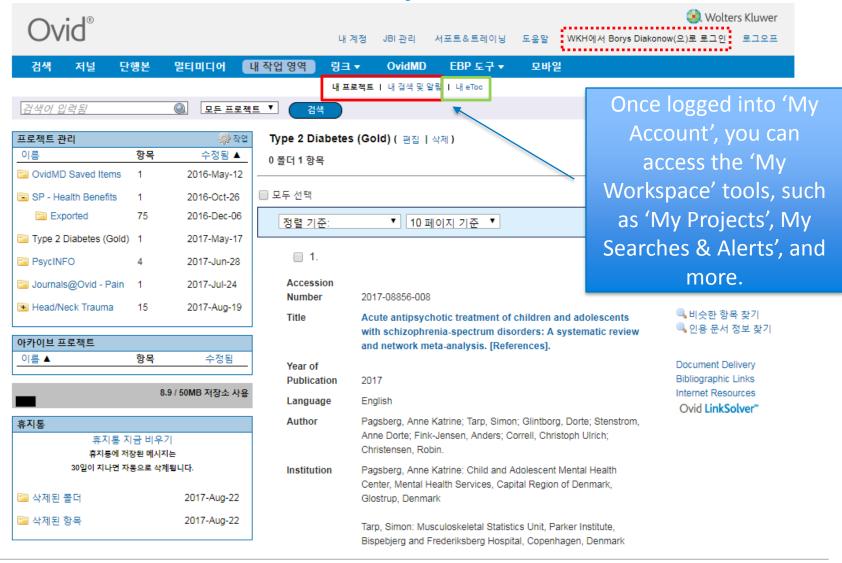






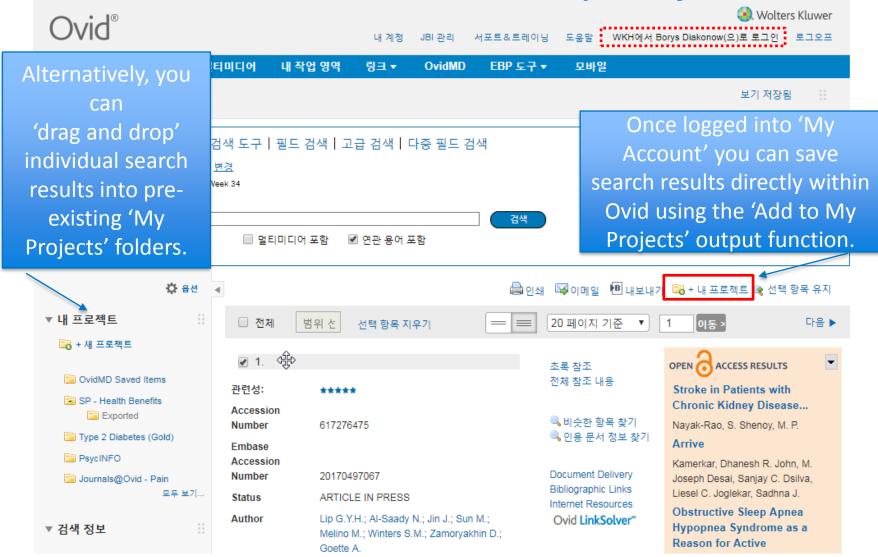






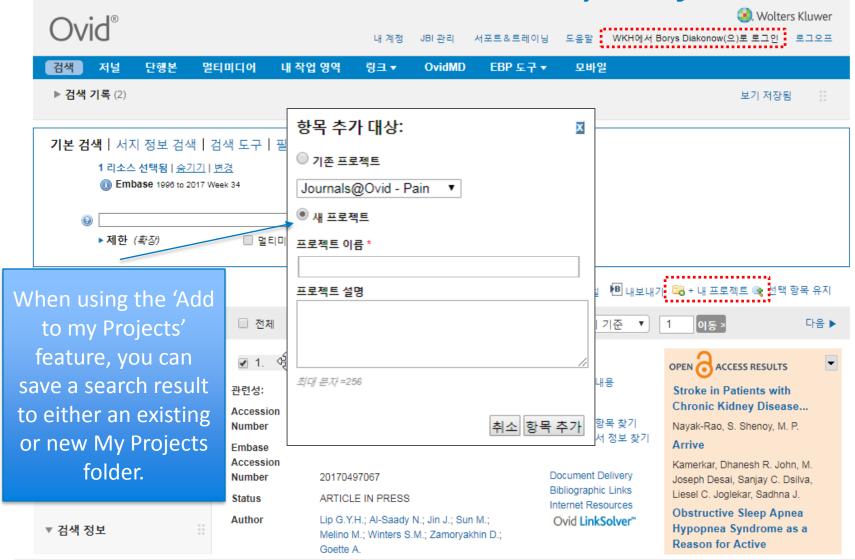


# MEDLINE on Ovid®: Add to My Projects



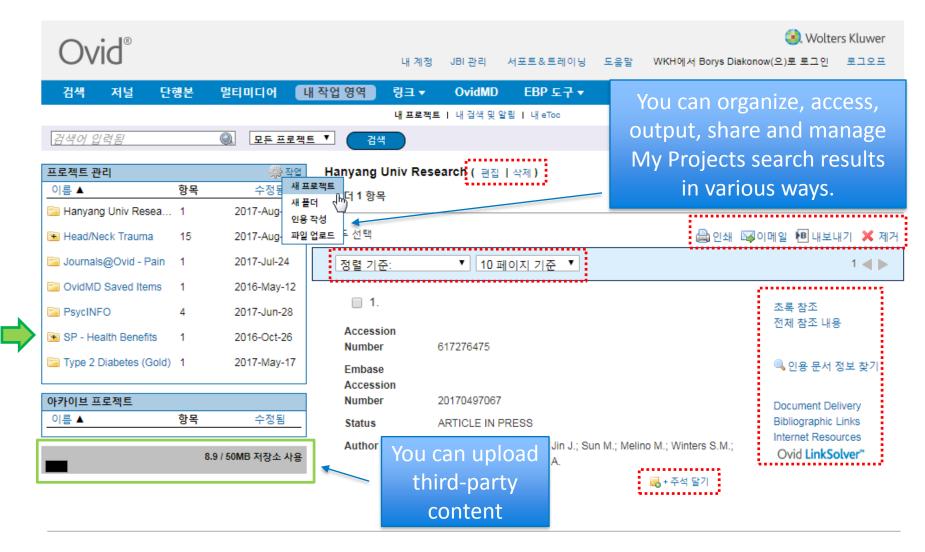


## MEDLINE on Ovid®: Add to My Projects



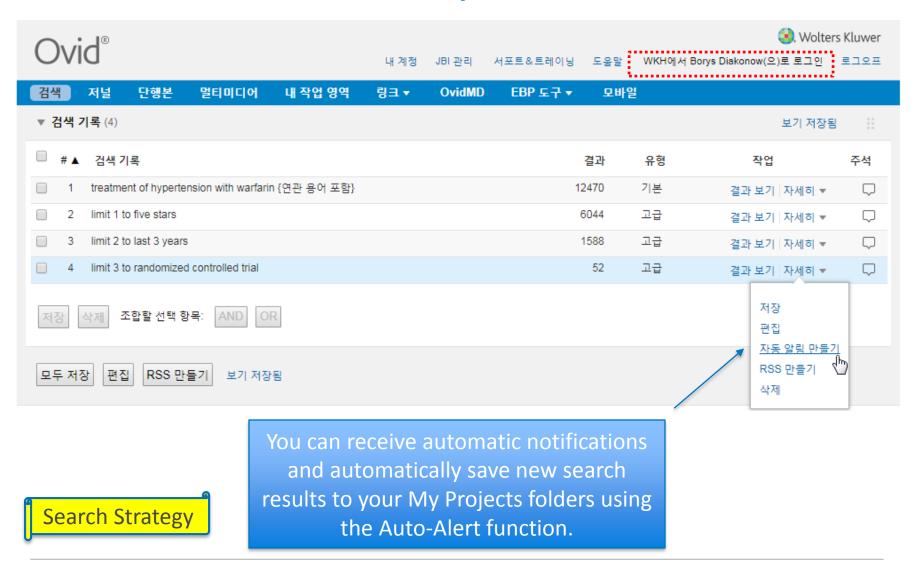


## MEDLINE on Ovid®: Add to My Projects



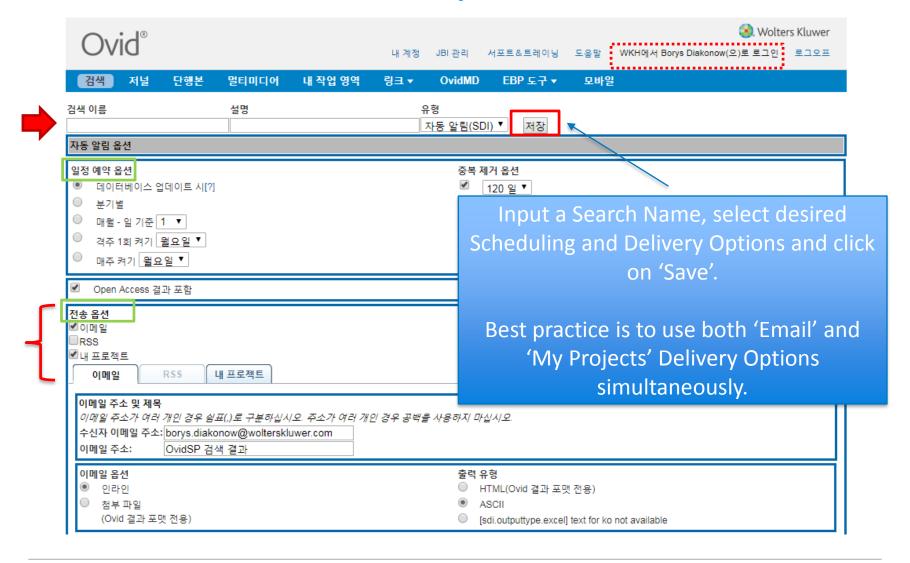


# MEDLINE on Ovid®: My Alerts



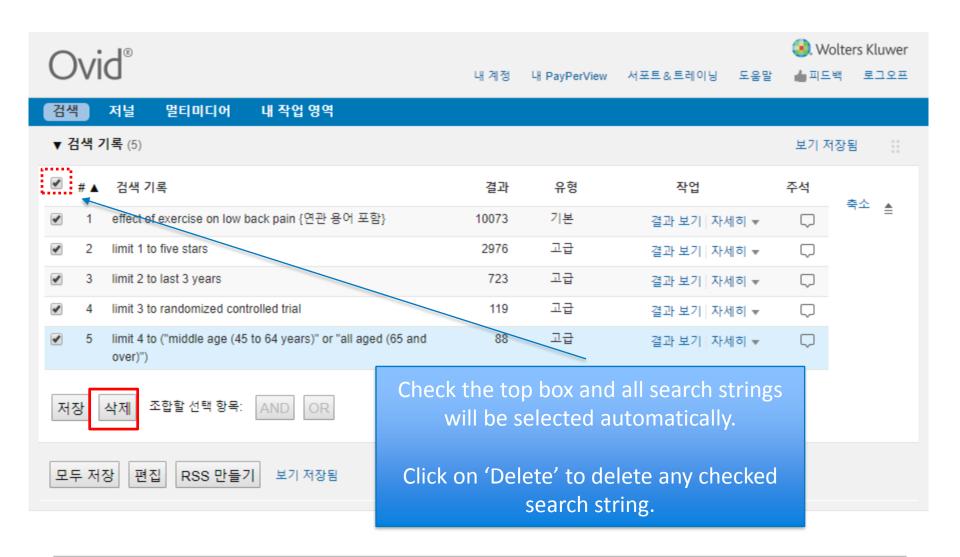


# MEDLINE on Ovid®: My Alerts





## MEDLINE on Ovid®: Clearing Search History





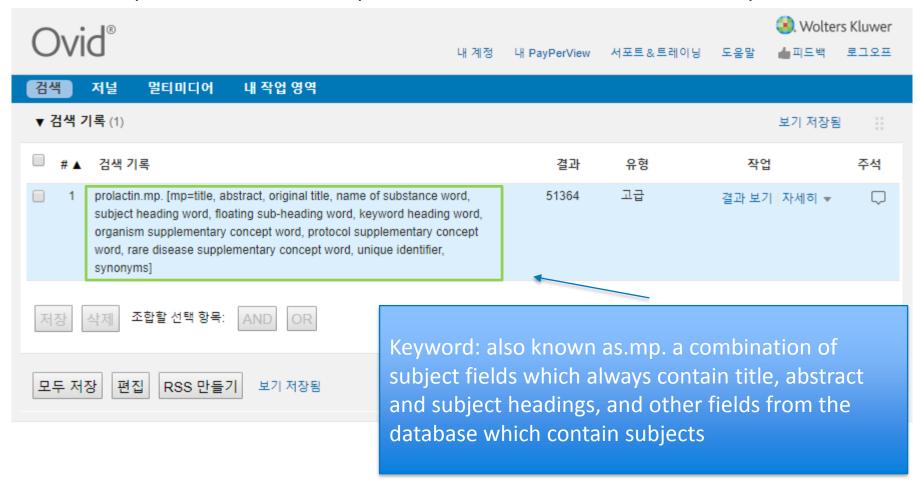
#### MEDLINE on Ovid®: Advanced Search Mode





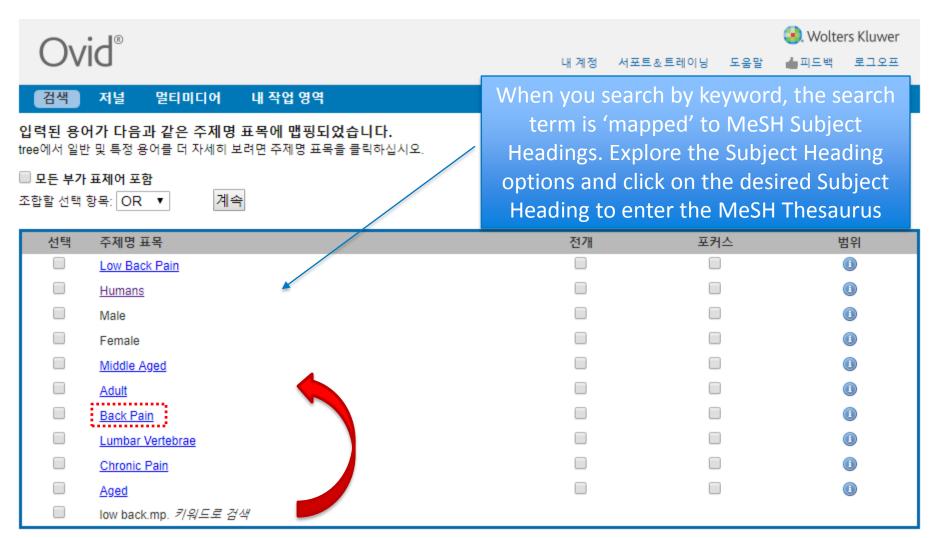
## MEDLINE on Ovid®: .mp Multi-Purpose Field

Unique to Ovid, Value for Systematic Reviews – broadens, sensitivity



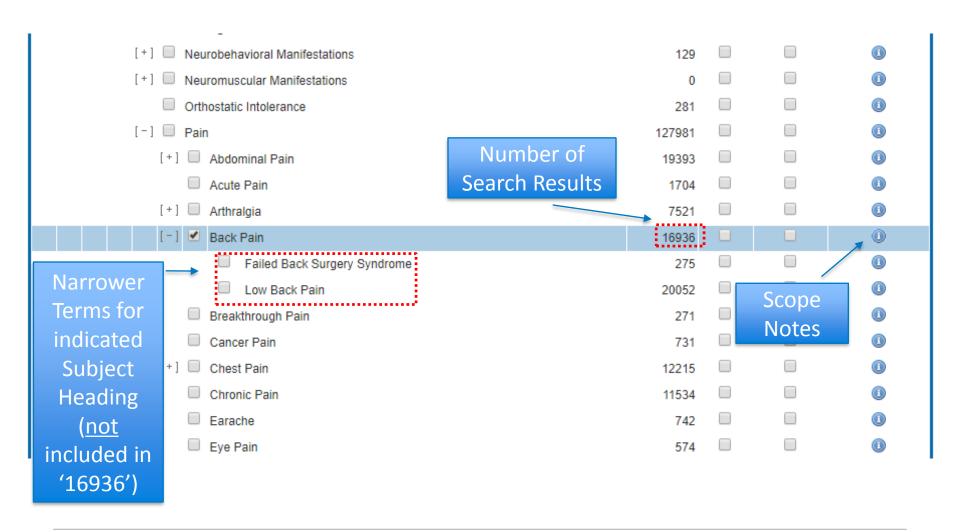


# MEDLINE on Ovid®: MeSH Subject Headings



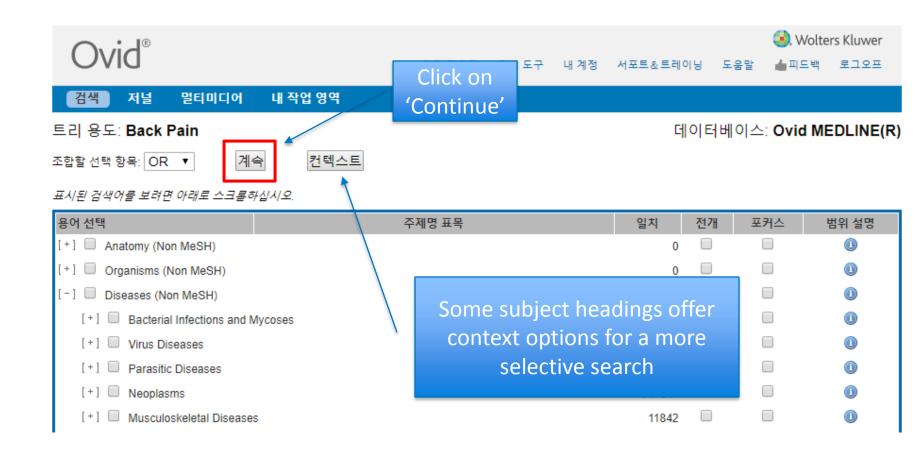


## MEDLINE on Ovid®: MeSH Thesaurus & Hierarchy



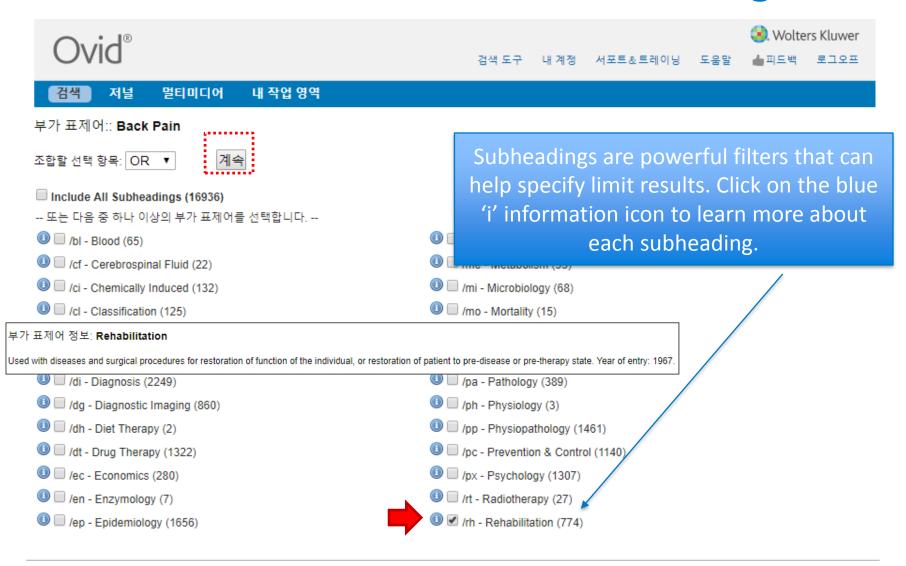


## MEDLINE on Ovid®: MeSH Thesaurus & Hierarchy



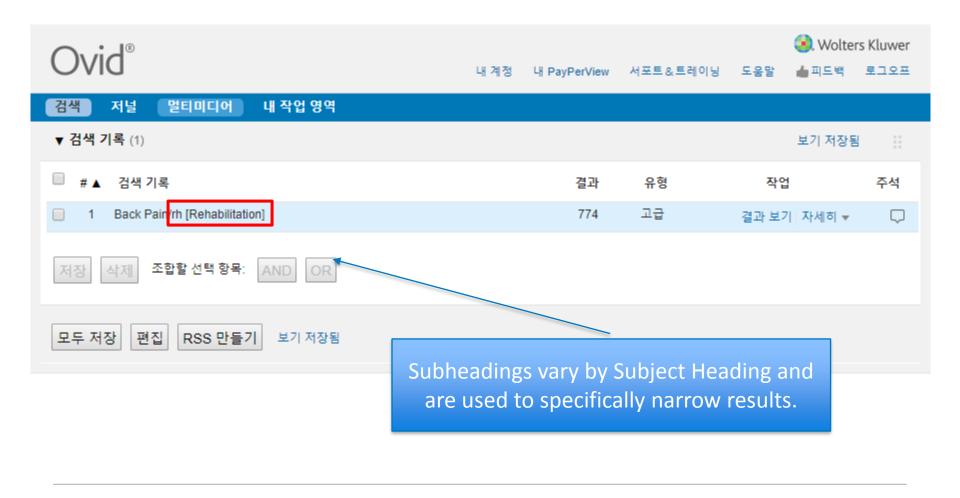


## MEDLINE on Ovid®: MeSH Subheadings





#### MEDLINE on Ovid®: Advanced Search Results





# MEDLINE on Ovid®: 'Explode' Function





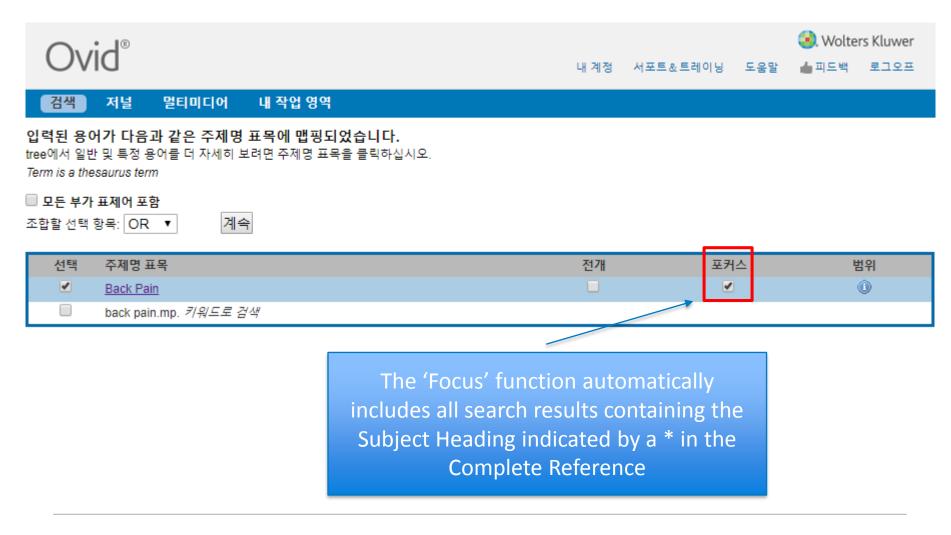
### MEDLINE on Ovid®: 'Explode' Search Results



'Explode' search results will always be larger than a regular advanced search as they incorporate the search results contained under 'Narrower Terms'. In MEDLINE, it is recommended to 'Explode' terms related to diseases.

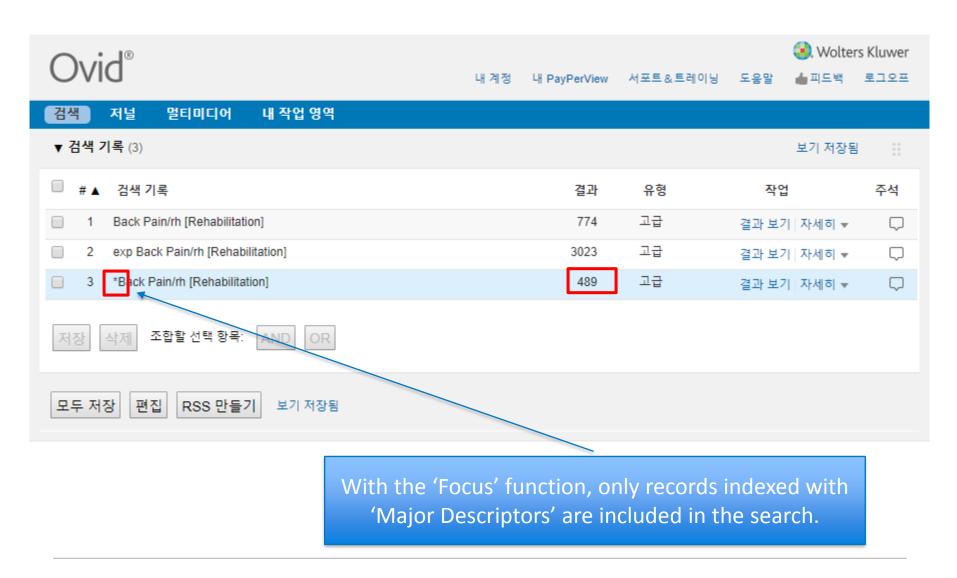


### MEDLINE on Ovid®: 'Focus' Function





### MEDLINE on Ovid®: 'Focus' Search Results





### MEDLINE on Ovid®: Adv. Search Results Display

Ovid에서 Open Access 컨텐츠를 검색하려면 다음 사이트로 이동하십시오 <u>기본 검색.</u>

□ 인쇄 □ 이메일 □ 내보내기 □ + 내 프로젝트 □ 선택 항목 유지
□ 전체 범위 선택 항목 지우기 = ■ 100 페이지 기준 ▼ 1 이동 > 다음 >
□ 1. GLA:D Back group-based patient education integrated with exercises to support self-management 초록 참조

OLA:D Back group-based patient education integrated with exercises to support self-management of back pain - development, theories and scientific evidence.

조목 삼조 전체 참조 내용

Kjaer P; Kongsted A; Ris I; Abbott A; Rasmussen CDN: Roos EM; Skou ST; Andersen TE; Hartvigsen J.

및 비슷한 항목 찾기

BMC Musculoskeletal Disorders. 19(1):418 2018 Nov 29.

Q 인용 문서 정보 찾기

[Journal Article]

UI: 30497440

#### Authors Full Name

Kjaer, Per; Kongsted, Alice; Ris, Inge; Abbott, Allan; Rasmussen, Charlotte Diana Norregaard; Roos, Ewa M; Skou,

Internet Resources

Full Text

Soren T; Andersen, Tonny Elmose; Hartvigsen, Jan.

▶ 초록 보기 🔜 + 내 프로젝트 🔜 + 주석 달기

Advanced Search results are displayed in order most recently added date. Also, Ovid Open Access results are only available via Basic Search.

2. Health-care utilization of patients with chronic back pain before and after rehal

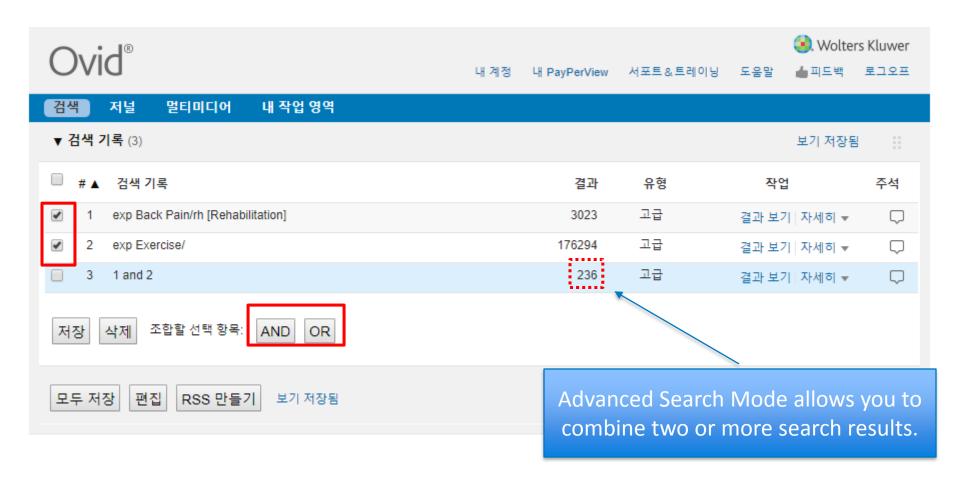
Gorge M; Ziehm J; Farin E.

BMC Health Services Research, 17(1):812, 2017 Dec 06.

[Journal Article]

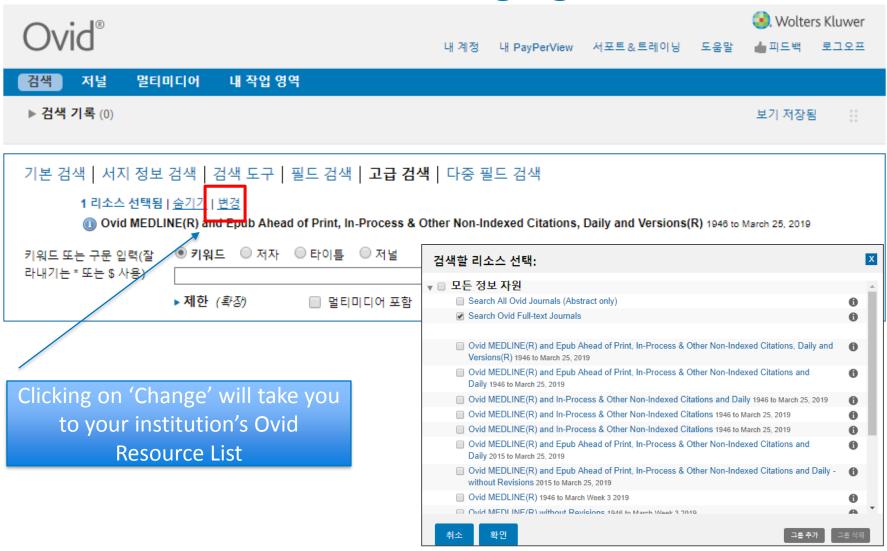
🥄 비슷한 항목 찾기

### MEDLINE on Ovid®: Combining Adv. Searches





### MEDLINE on Ovid®: Changing Ovid Resources



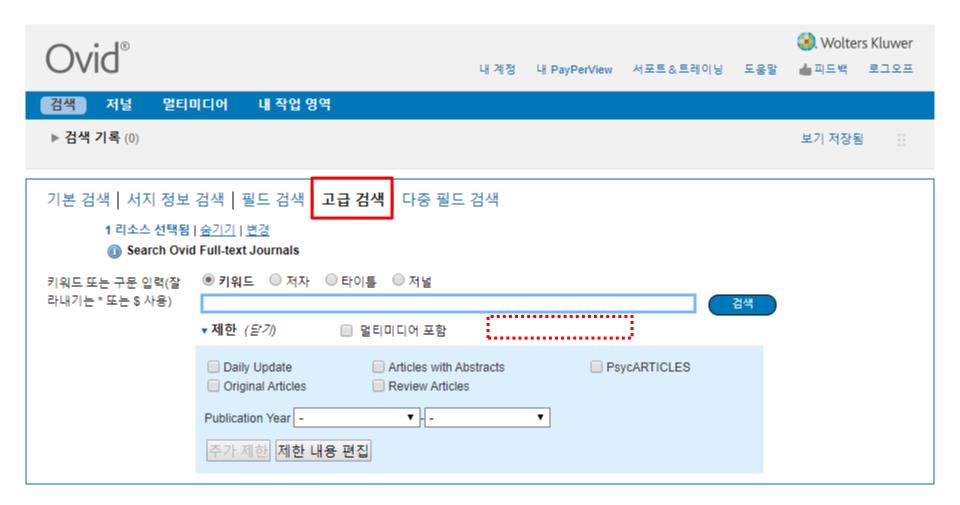


### Journals@Ovid: Unique Limits



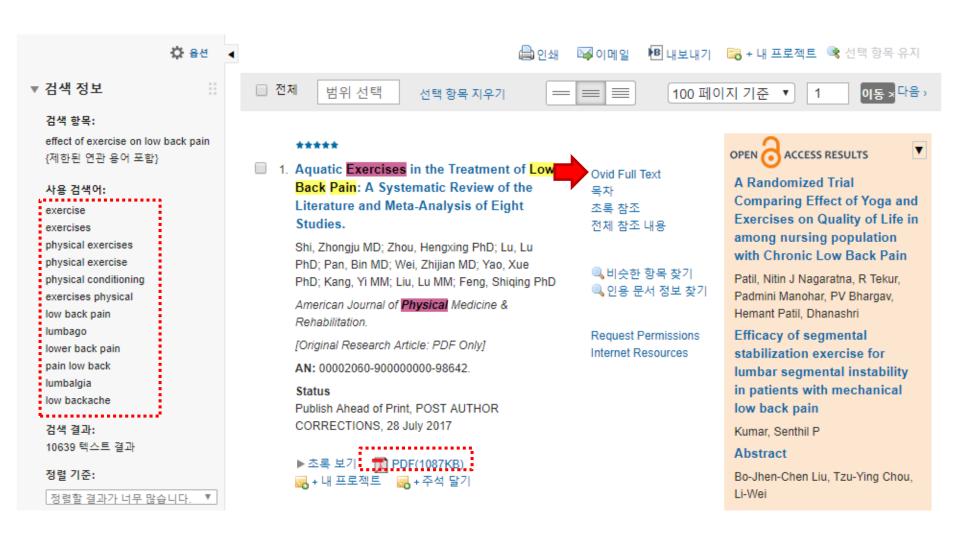


### Journals@Ovid: No Thesaurus



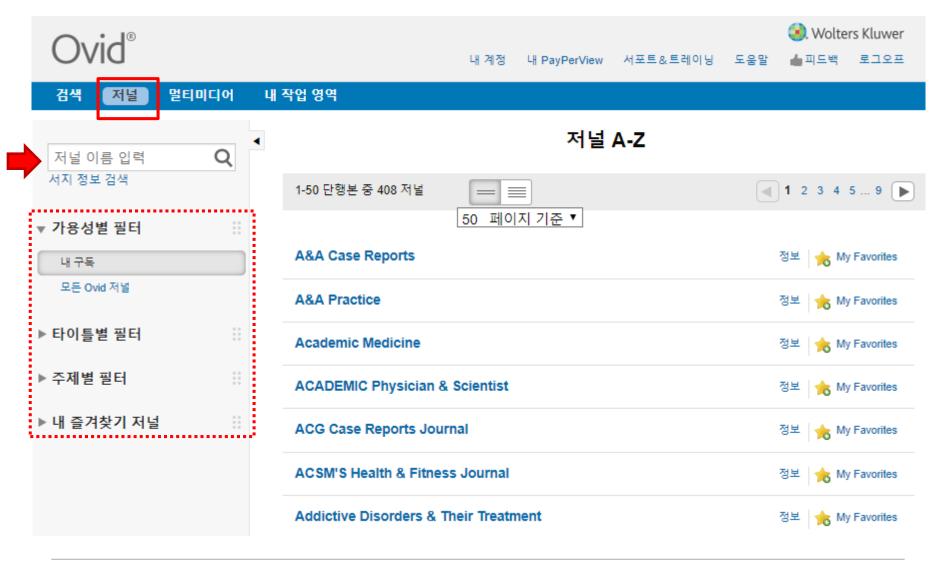


### Journals@Ovid: Basic Search Mode & Full Text



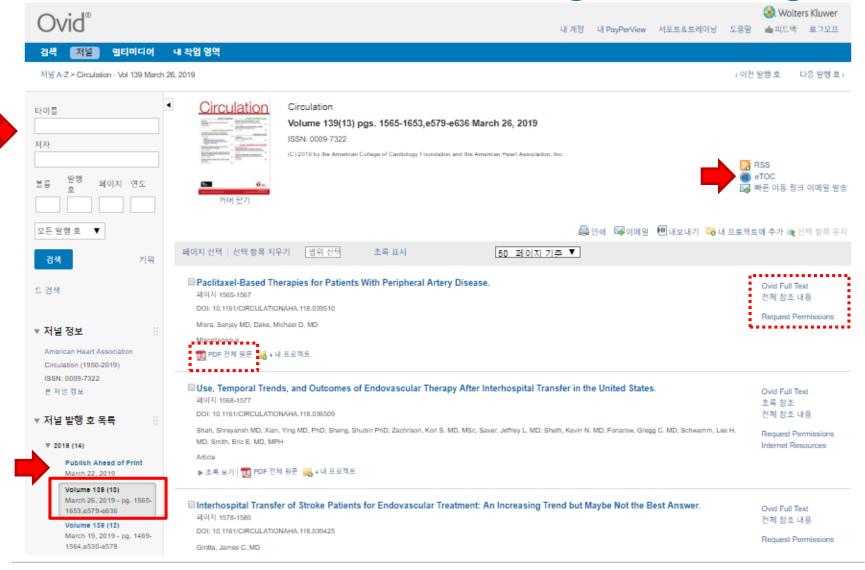


### Journals@Ovid: Journal Browsing & Searching



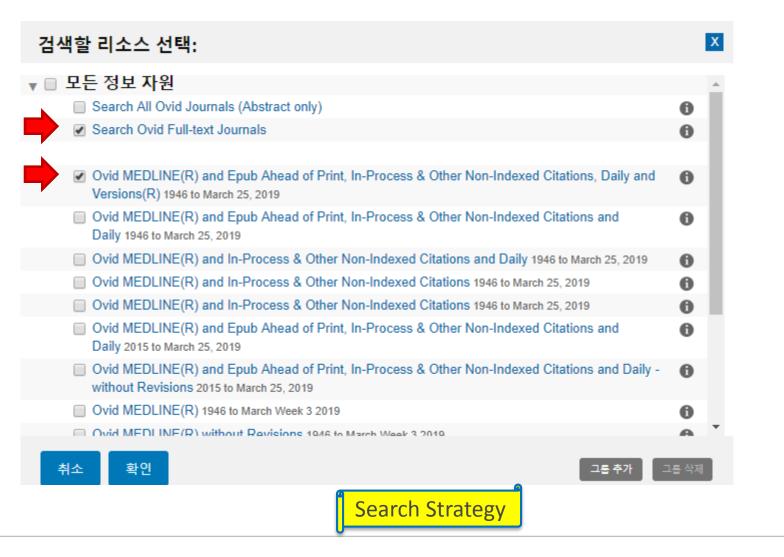


### Journals@Ovid: Journal Browsing & Searching





### Ovid®: Multi-File Searching





# Ovid®: Multi-File Searching

"The actual degree of reference overlap varies widely according to the topic but studies comparing searches of the two databases [Embase and MEDLINE] have generally concluded that a comprehensive search requires that both databases be searched."

(Suarez-Almazor 2000; Cochrane Handbook, 2011)

 Ovid is leading research source and is used more than other research platform in the creation of systematic reviews.

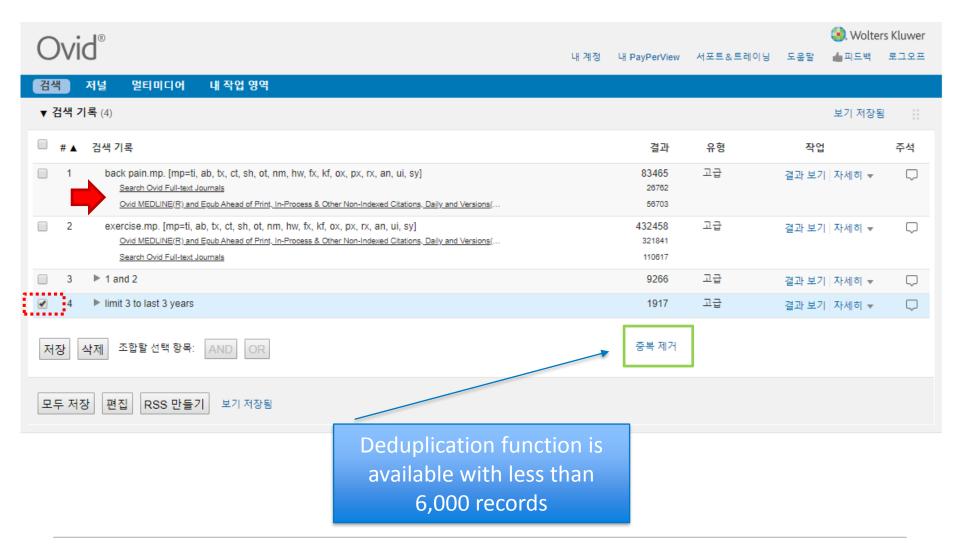


## Ovid®: Multi-File Searching



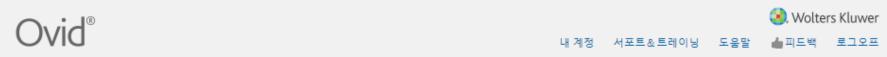


### Ovid®: De-Duplication





## Ovid®: De-Duplication



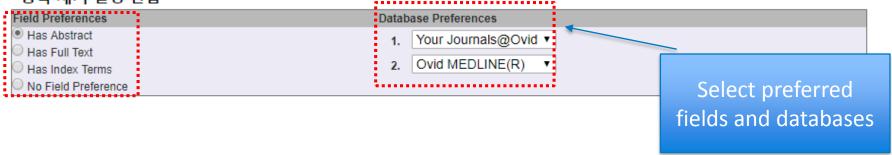
검색 저널 멀티미디어 내 작업 영역

**중복 내용 제거:** 중복 내용을 제거할 집합을 선택하고, 아래 표를 사용하여 중복 제거 설정을 편집한 다음, "계속" 버튼을 누릅니다. 6000 이상의 일치를 포함하는 집합은 중복 제거를 적용할 수 없습니다.



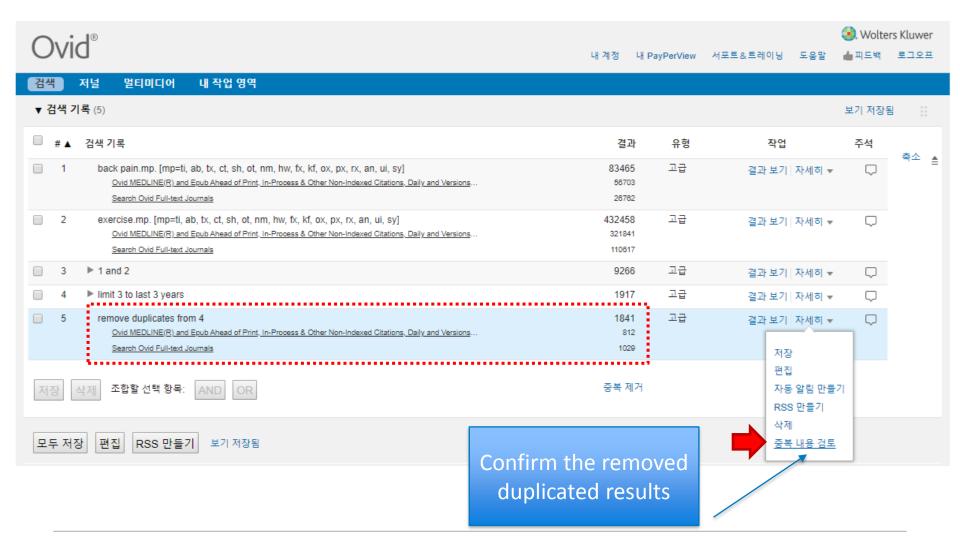
선택	#	검색 기록	결과	유형
-	1	back pain.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, fx, kf, ox, px, rx, an, ui, sy]	83465	고급
-	2	exercise.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, fx, kf, ox, px, rx, an, ui, sy]	432458	고급
-	3	1 and 2	9266	고급
•	4	limit 3 to last 3 years	1917	고급

#### 중복 제거 설정 편집



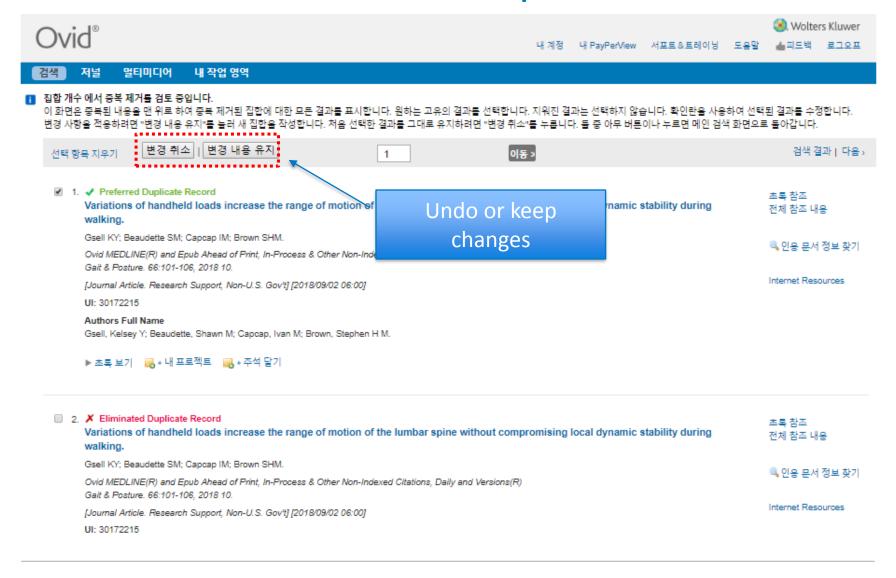


### MEDLINE on Ovid®: De-Duplication





### MEDLINE on Ovid®: De-Duplication







### Determining the Question

- The PICO process is a technique used in evidence based practice to answer a clinical question
- PICO is an acronym for: Population, Intervention,
   Comparison, Outcome

Р		С	0
Population Patient Problem	Inter∨ention Or Exposure	Comparison	Outcome
Who are the patients? What is the problem?	What do we do to them? What are they exposed to?	What do we compare the inter∨ention with?	What happens? What is the outcome?

**Source**: Macquarie University Library, Libguides: <a href="http://libguides.mq.edu.au/content.php?pid=371659&sid=3291432">http://libguides.mq.edu.au/content.php?pid=371659&sid=3291432</a>



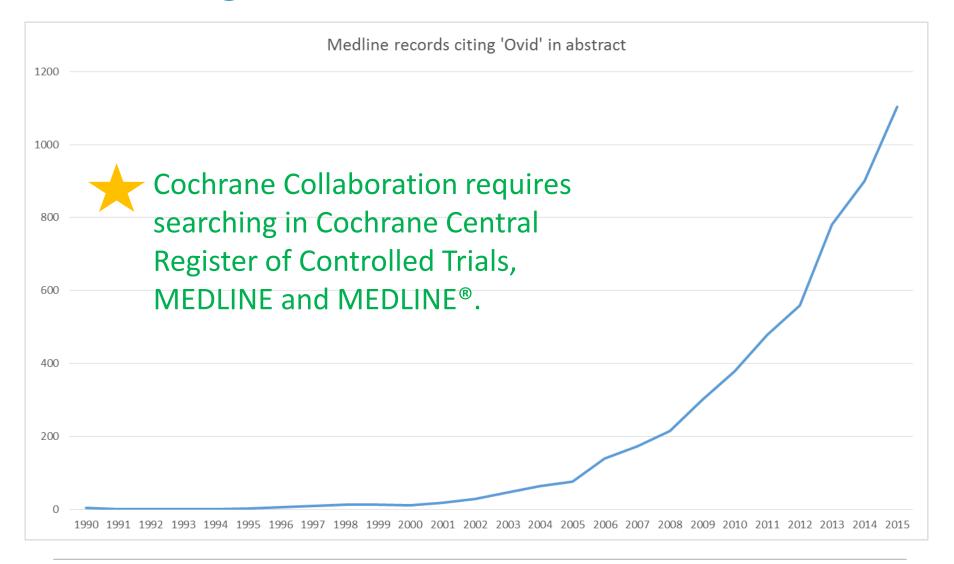
## **Defining a Question**

Among Type 2 diabetic patients, do improved lifestyle habits affect HbAlc levels?

- P Type 2 diabetic patients
- I improved lifestyle habits
- C HbAlc levels without improved lifestyle habits
- O changes in HbAlc levels



## Searching for Relevant Data





### Searching for Relevant Data

### SH: Subject Headings

### Topical lidocaine for neuropathic pain in adults,

### **KW**: Keywords

Cochrane Database of Systematic Reviews, Volume (6), 2016.

#### Appendix 3. Search strategy for MEDLINE via Ovid [Context Link]

- SH 1. Lidocaine/ (21225)
- KW 2. (lidocaine or Lidocaina or Lidocaina or Lidocainum or Lidokaiini or Lidokaina or Lidokainas or Lidocaina or Lignocaina).mp. (26612)
  - 3. 1 or 2 (26612)
- SH 4. exp Administration, Topical/ (65413)
- KW 5. topical\*.mp. (83967)
  - 6. 3 or 4 (113117)
- SH 7. exp Pain/ (296594)
- SH 8. exp Neuralgia/ (12582)
- KW 9. ((pain\* or discomfort\*) adj10 (central or complex or myofasci\* or nerv\* or neuralg\* or neuropath\*)).mp. (38260)
- K\A/ 10. ((neur\* or nerv\*) adj6 (compress\* or damag\*)).mp. (46211)
  - 11. or/7-10 (351685)
  - 12. randomized controlled trial.pt. (359493)
  - 13. controlled clinical trial.pt. (86909)
  - 14. randomized.ab. (260696)
  - 15. placebo.ab. (141221)
  - 16. drug therapy.fs. (1651531)
  - 17. randomly.ab. (186387)
  - 18. trial.ab. (268187)
  - 19. groups.ab. 1203305)
  - 20. or/12-19 (3092194)
  - 21. 3 and 4 and 11 and 20 (802)

### Methodological limits

- RCT and CCT (.pt)
- Studies about drug therapy







Among Type 2 diabetic patients, do improved lifestyle habits affect HbAlc levels?



OvidSP

### Structured Searching PICO

Formulate your complete query below as a sentence or question:

Among Type 2 diabetic patients, do improved lifestyle habits affect HBAlc levels?

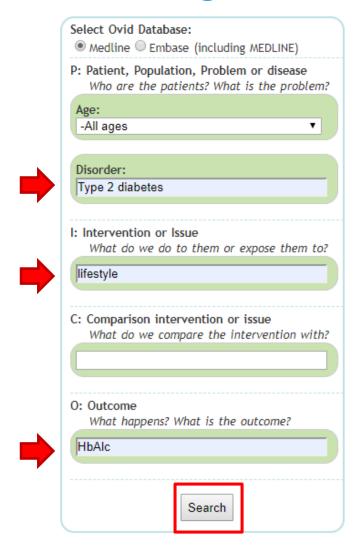
Distinguish each of the aspects in your search. List synonyms, free text words, and find the corresponding thesaurus (MESH) term(s). You may also want to apply limits at the end, e.g. when there are too many results for your search. Always start your analysis with the most important aspect of your search (Aspect 1)

	Aspect 1 P (Patient, Problem)	Aspect 2 I (Intervention)	Aspect 3 C (Comparison)	Aspect 4 O (Outcome)
Aspects of your search:	Type 2 diabetes	lifestyle	,	HbAlc
Synonyms and additional free text terms for each aspect*:				
*Include these terms to ensure you do not miss in-process records. Use trunctation and widlcards if needed				
Thesaurus (MESH*) term(s) for each aspect:				
*Explode your thesaurus terms and use subheadings if applicable				
Limits* for your aspects:  *like: Publication year, Publication				
type (Review, RCT) etc.				

http://access.ovid.com/training/pico/english/materials/StructuredSearchingForm PICO.pdf

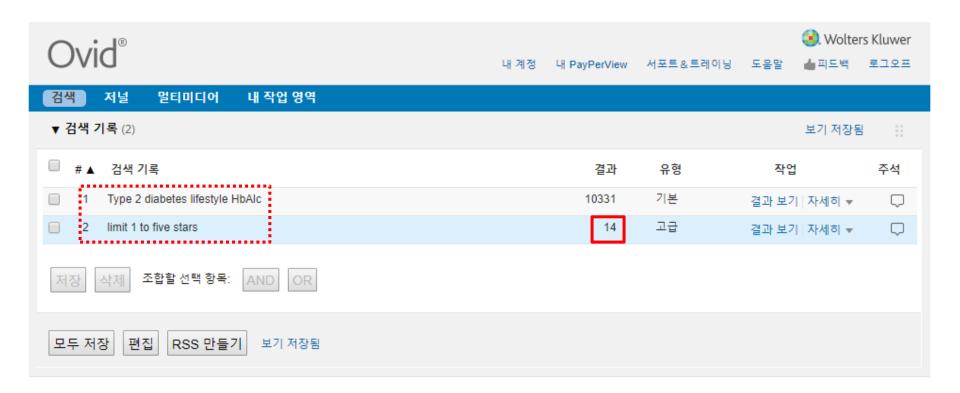


## **PICO Widget Searching**

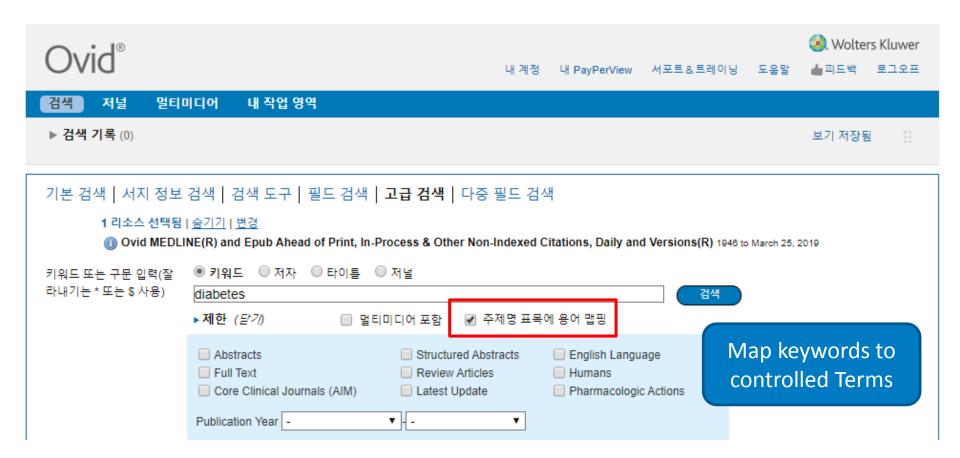




# PICO Widget Searching













범위 

서포트&트레이닝

도운말

포커스

멀티미디어 내 작업 영역

입력된 용어가 다음과 같은 주제명 표목에 맵핑되었습니다.

tree에서 일반 및 특정 용어를 더 자세히 보려면 주제명 표목을 클릭하십시오.

Term mapped through permuted index

□ 모든 부가 표제어 포함

조합할 선택 항목: OR ▼



선택 주제명표목	전개
Diabetes Complications	
Diabetes, Gestational	
Diabetes Insipidus	
Diabetes Insipidus, Neurogenic	
Diabetes Mellitus	
Diabetes Mellitus, Experimental	
Diabetes Mellitus, Type 1	
☑ <u>Diabetes Mellitus, Type 2</u>	
"National Institute of Diabetes and Digestive and Kidney Diseases (U.S.)"	
□ diabetes.mp. 키워드로 검색	

Click on the scope note to see more information about the subject heading



Scope Note for: Diabetes Mellitus, Type 2

MeSH HEADING: DIABETES MELLITUS, TYPE 2

SCOPE: A subclass of DIABETES MELLITUS that is not INSULIN-responsive or dependent (N and eventually by GLUCOSE INTOLERANCE; HYPERGLYCEMIA; and overt diabetes. Type II seldom develop KETOSIS but often exhibit OBESITY.

YEAR of ENTRY: 2005 (1984)

PREVIOUS INDEXING: Diabetes Mellitus (1986-1983)

#### REFERENCES:

#### See Related:

RATS, INBRED OLETF METABOLIC SYNDROME X

#### Used For:

adult-onset diabetes mellitus
diabetes mellitus, adult onset
diabetes mellitus, adult onset
diabetes mellitus, ketosis resistant
diabetes mellitus, ketosis-resistant
diabetes mellitus, maturity onset
diabetes mellitus, maturity-onset
diabetes mellitus, non insulin dependent
diabetes mellitus, noninsulin-dependent
diabetes mellitus, noninsulin-dependent
diabetes mellitus, soninsulin-dependent
diabetes mellitus, slow onset
diabetes mellitus, slow-onset
diabetes mellitus, slow-onset
diabetes mellitus, slow-onset

ketosis-resistant diabetes mellitus mody

diabetes mellitus, type 2 diabetes mellitus, type ii

maturity onset diabetes mellitus maturity-onset diabetes mellitus maturity-onset diabetes

niddm

non-insulin-dependent diabetes mellitus noninsulin-dependent diabetes mellitus slow-onset diabetes mellitus stable diabetes mellitus Adjacency operator (searches for words based on their proximity)

HYPERINSULINEMIA; bund in adults. Patients

(diabetes adj2 (adult onset OR ketotis resistant OR maturity onset OR non?insulin dependent OR slow onset OR stable OR type?2 OR type?ii)) OR mody OR

niddm

Truncation inside a word (stands for any letter or nothing)

Copy this Keyword Search



type 2 diabetes mellitus





서포트&트레이닝 도움말

저널 멀티미디어 내 작업 영역

입력된 용어가 다음과 같은 주제명 표목에 맵핑되었습니다.

tree에서 일반 및 특정 용어를 더 자세히 보려면 주제명 표목을 클릭하십시오.

Term mapped through permuted index

□ 모든 부가 표제어 포함

조합할 선택 항목: OR ▼



선택	주제명 표목	전개	포커스	범위
	<u>Diabetes Complications</u>			<b>(1)</b>
	<u>Diabetes</u> , <u>Gestational</u>			<b>(1)</b>
	<u>Diabetes Insipidus</u>			<b>(1)</b>
	<u>Diabetes Insipidus, Neurogenic</u>			<b>(1)</b>
	<u>Diabetes Mellitus</u>			<b>(1)</b>
	<u>Diabetes Mellitus, Experimental</u>			<b>(1)</b>
	Diabetes Mellitus, Type 1			<b>(1)</b>
•	<u>Diabetes Mellitus, Type 2</u>			<b>(1)</b>
	"National Institute of Diabetes and Digestive ar Kidney Diseases (U.S.)"			<b>(1)</b>
	diabetes.mp. 키워드로 검색			

Click on the subject heading to view the full thesaurus

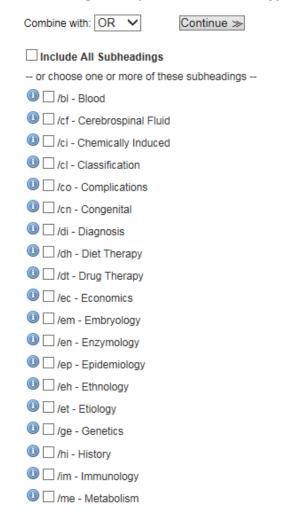


[ - ] Nutritional and Metabolic Diseases	0		<b>(i)</b>
[ - ]	11377		<b>(i)</b>
[+] Acid-Base Imbalance			0
[+] Brain Diseases, Metabolic	Select 'Explode	to	0
[+] Calcium Metabolism Disorders	search the		<b>(1)</b>
[+] DNA Repair-Deficiency Disorders	narrower terms together with the main term		0
[ - ] Glucose Metabolism Disorders			<b>(1)</b>
[ - ] Diabetes Mellitus			0
☐ Diabetes Mellitus, Experimental			<b>(1)</b>
[+] Diabetes Mellitus, Type 1	67360		0
[ − ] ✓ Diabetes Mellitus, Type 2	103247	✓	0
☐ Diabetes Mellitus, Lipoatrophic	195		<b>(1)</b>
☐ Diabetes, Gestational	7558		1
☐ Diabetic Ketoacidosis	5704		1
☐ Donohue Syndrome	47		<b>(1)</b>
Prediabetic State	4976		1
[+] Glycosuria	4571		0
[+] Hyperglycemia	23790		<b>(1)</b>
[+] Hyperinsulinism	8179		1
[+] Hypoglycemia	24130		0
☐ Hyperlactatemia	52		<b>(i)</b>



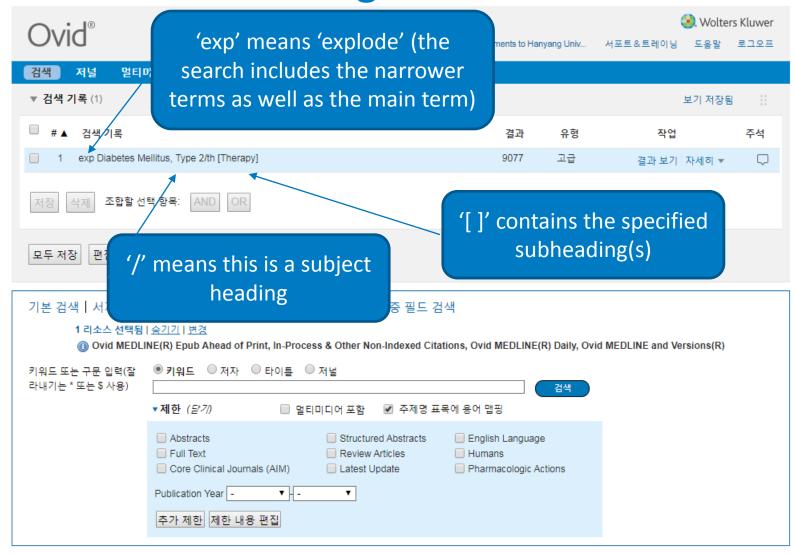
Subheadings for: exp Diabetes Mellitus, Type 2

Select a
subheading to
refine the search
to a specific
aspect of the
controlled term,
or leave blank to
perform a general
search

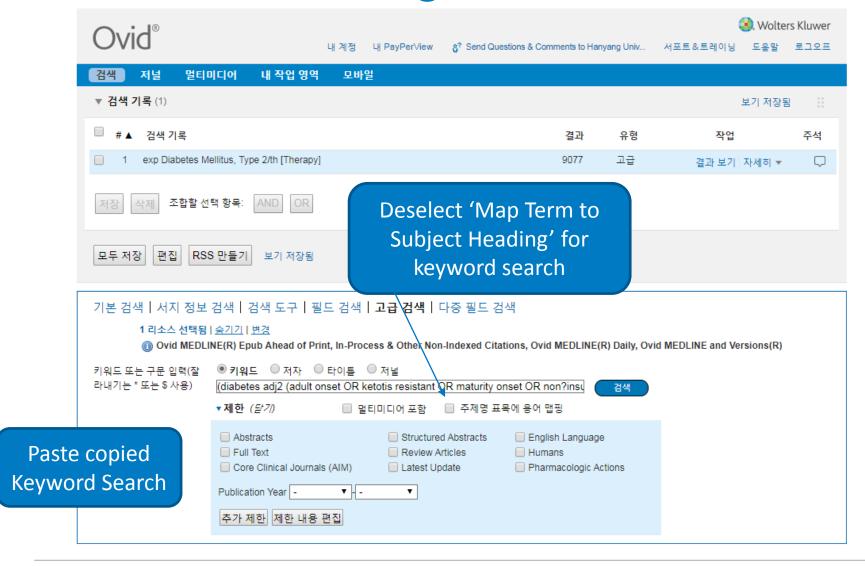


Choose the Therapy subheading to limit results to records indexed with the Therapy aspect of Diabetes Mellitus, Type 2

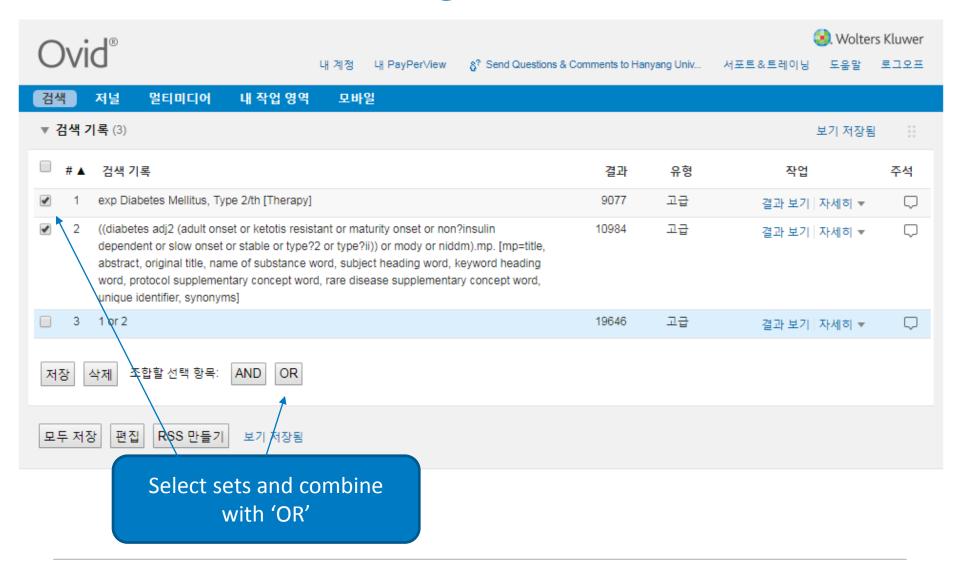














Among Type 2 diabetic patients, do improved lifestyle habits affect HbAlc levels?



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#### Structured Searching PICO

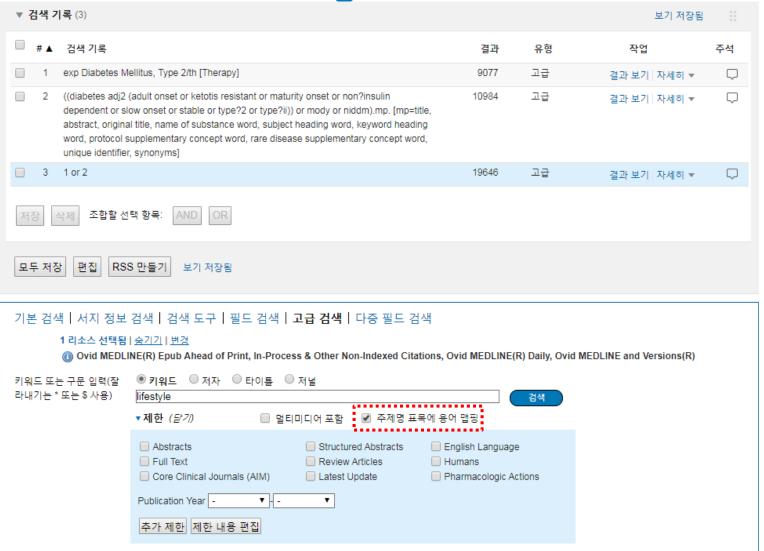
Formulate your complete query below as a sentence or question:

Among Type 2 diabetic patients, do improved lifestyle habits affect HBAlc levels?

Distinguish each of the aspects in your search. List synonyms, free text words, and find the corresponding thesaurus (MESH) term(s). You may also want to apply limits at the end, e.g. when there are too many results for your search. Always start your analysis with the most important aspect of your search (Aspect 1)

	Aspect 1	Aspect 2	Aspect 3	Aspect 4
	P (Patient, Problem)	I (Intervention)	C (Comparison)	O (Outcome)
Aspects of your				
search:	Type 2 diabetes	lifestyle		HbAlc
Synonyms and	// !!			
additional free text	((diabetes adj2			
terms for each	(adult onset OR			
aspect*:	ketotis resistant OR			
	maturity onset OR			
*Include these terms	non?insulin			
to ensure you do not	dependent OR slow			
miss in-process	onset OR stable OR			
records. Use	type?2 OR type?ii))			
trunctation and	OR mody OR niddm)			
widlcards if needed				
Thesaurus (MESH*)				
term(s) for each				
aspect:	exp Diabetes			
	'			
*Explode your	Mellitus, Type			
thesaurus terms and	2/			
use subheadings if				
applicable				
Limits* for your			I	
aspects:				
*like: Publication				
year, Publication				
type (Review, RCT)				
etc.				
Ctc.				
	L			









life?style\*



See Related:

life style induced illness

QUALITY OF LIFE HEALTH BEHAVIOR

life styles

lifestyle

lifestyles



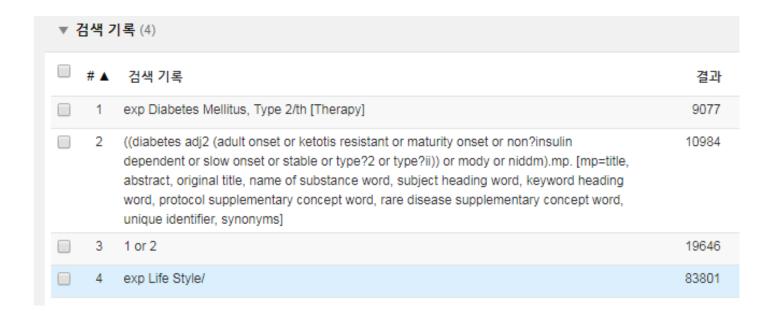
beginning with certain

letters)

[+] Personality	34486		(1)
[-] Desychology, Social	4913		(1)
☐ Double Bind Interaction	125		(1)
[+] ☐ Family	67946		(1)
[+] Group Processes	12682		<b>(1)</b>
☐ Internal-External Control	16939		<b>(1)</b>
[+] Interpersonal Relations	62489		<b>(1)</b>
[-] 🗹 Life Style	49525	✓	0
☐ Life Change Events	20984		<b>(1)</b>
☐ Sedentary Lifestyle	5254		<b>(1)</b>
☐ Morale	2840		<b>(1)</b>
[+]  Morals	12455		<b>(1)</b>
☐ Paternalism	2605		<b>(1)</b>
[+] Prejudice	23696		<b>(1)</b>
☐ Psychosocial Deprivation	1897		<b>(1)</b>
☐ Social Norms	324		<b>(1)</b>
☐ Social Values	18910		<b>(1)</b>
☐ Temperance	2507		<b>(1)</b>
[+] Psychological Phenomena and Processes	0		(1)
[+] Mental Disorders	145416		(1)

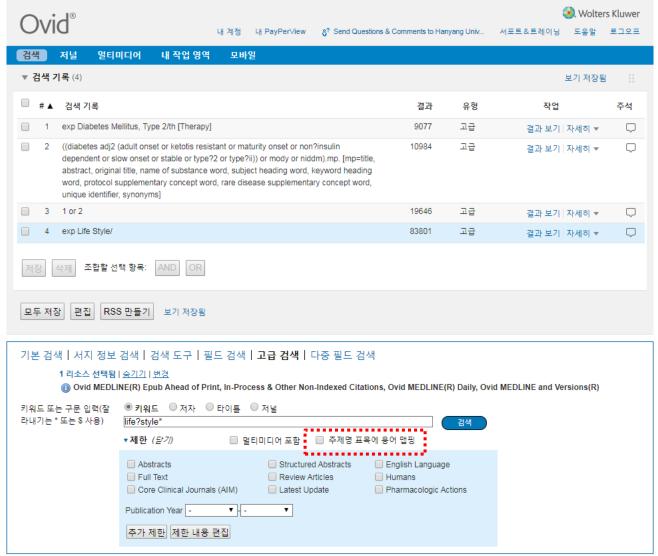


부가 표제어:: exp Life Style 조합할 선택 항목: OR ▼ 계속 Include All Subheadings -- 또는 다음 중 하나 이상의 부가 표제어를 선택합니다. --/eh - Ethnology

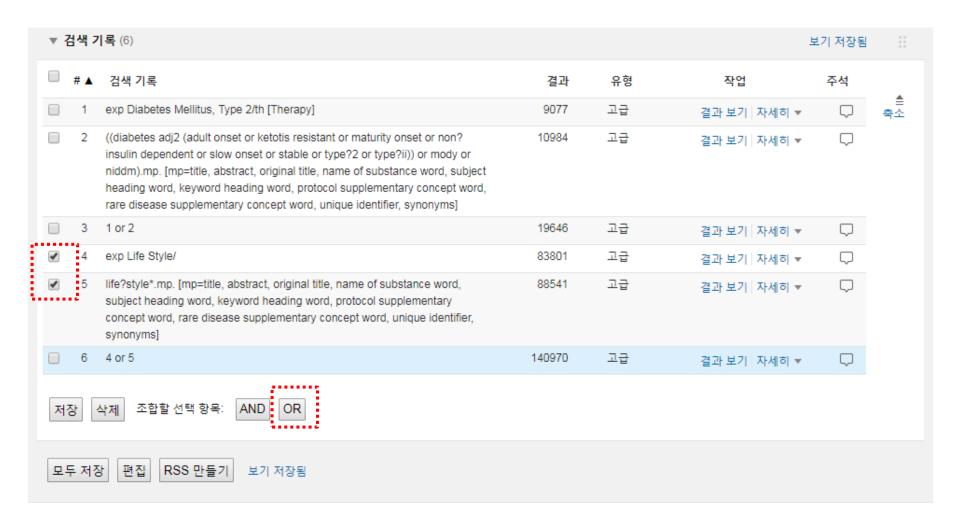


1 /hi - History











Among Type 2 diabetic patients, do improved lifestyle habits affect HbAlc levels?



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#### Structured Searching PICO

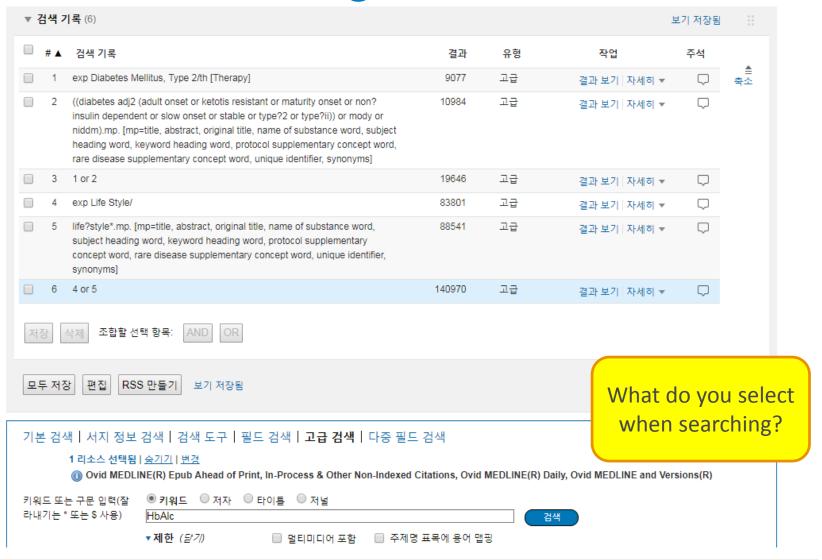
Formulate your complete query below as a sentence or question:

Among Type 2 diabetic patients, do improved lifestyle habits affect HBAlc levels?

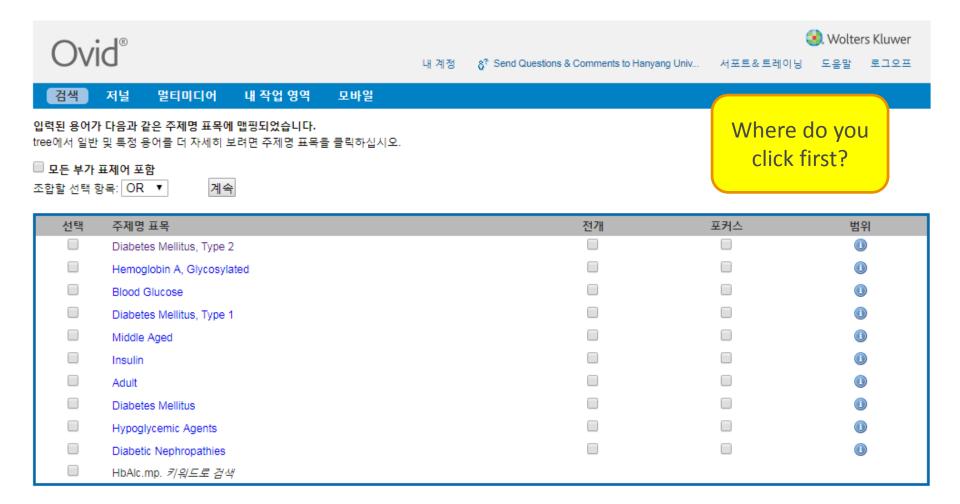
Distinguish each of the aspects in your search. List synonyms, free text words, and find the corresponding thesaurus (MESH) term(s). You may also want to apply limits at the end, e.g. when there are too many results for your search. Always start your analysis with the most important aspect of your search (Aspect 1)

	Aspect 1	Aspect 2	Aspect 3	Aspect 4
	P (Patient, Problem)	I (Intervention)	C (Comparison)	O (Outcome)
Aspects of your search:	Type 2 diabetes	lifestyle		HbAlc
Synonyms and additional free text terms for each aspect*:  *Include these terms to ensure you do not miss in-process records. Use trunctation and widlcards if needed	((diabetes adj2 (adult onset OR ketotis resistant OR maturity onset OR non?insulin dependent OR slow onset OR stable OR type?2 OR type?ii)) OR mody OR niddm)	life?style*		
Thesaurus (MESH*) term(s) for each aspect:  *Explode your thesaurus terms and use subheadings if applicable	exp Diabetes Mellitus, Type 2/	exp Life Style/		
Limits* for your aspects: *like: Publication year, Publication type (Review, RCT) etc.				











Scope Note for: Hemoglobin A, Glycosylated

MeSH HEADING: HEMOGLOBIN A. GLYCOSYLATED

SCOPE: Minor hemoglobin components of human erythrocytes designated A1a, A1b, and A1c. Hemoglobin A1c is most important since its sugar moiety is glucose covalently bound to the terminal amino acid of the beta chain. Since normal glycohemoglobin concentrations exclude marked blood glucose fluctuations over the preceding three to four weeks, the concentration of glycosylated hemoglobin A is a more reliable index of the blood sugar average over a long period of time.

NOTE: urine: coord IM with HEMOGLOBINURIA (IM); DF: note short X refs

YEAR of ENTRY: 82

PREVIOUS INDEXING: Hemoglobin A (1977-1981); Hemoglobins (1966-1976)

#### REFERENCES:

#### Used For:

a1b hemoglobin, glycosylated glycated hemoglobins glycohemoglobin a glycosylated a1a-1 hemoglobin glycosylated a1b hemoglobin glycosylated hemoglobin a glycosylated hemoglobin

a1a-1 hemoglobin, glycosylated

hb a1 hb a1a+b hb a1a-1 hb a1a-2 hb a1b

hb a1c hba1

hemoglobin a, glycosylated

hemoglobin a(1)

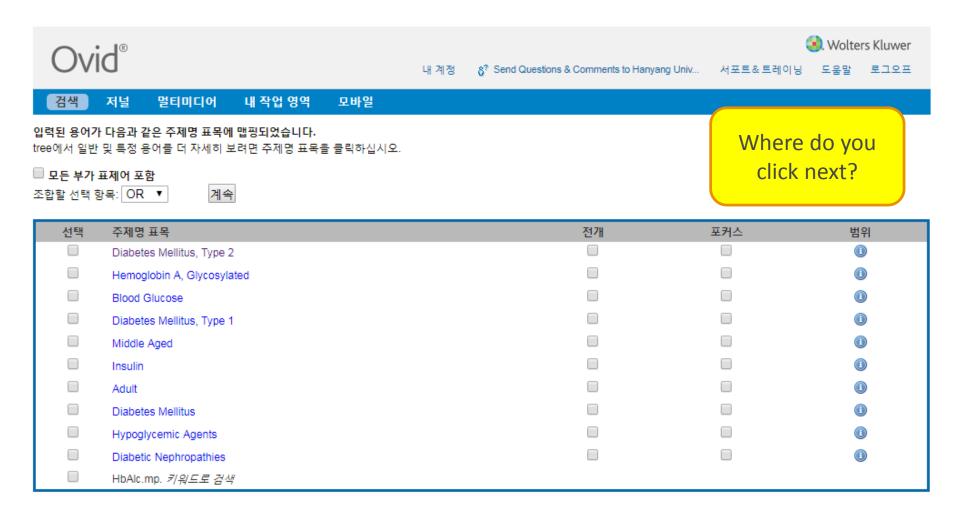
hemoglobin, glycosylated a1a 1 hemoglobin, glycosylated a1a-1 hemoglobin, glycosylated a1b hemoglobin, glycosylated

hemoglobins, glycated

hb?a1\* OR (a1\* adj1 (h?emoglobin\* adj1 glycosylated)) OR (glycated adj1 h?emoglobin\*) OR (glycoh?emoglobin a) OR (glycosylated a1\* adj1 h?emoglobin\*) OR (glycosylated h?emoglobin\*) OR (h?emoglobin\* adj1 a1\*)

What do you copy?

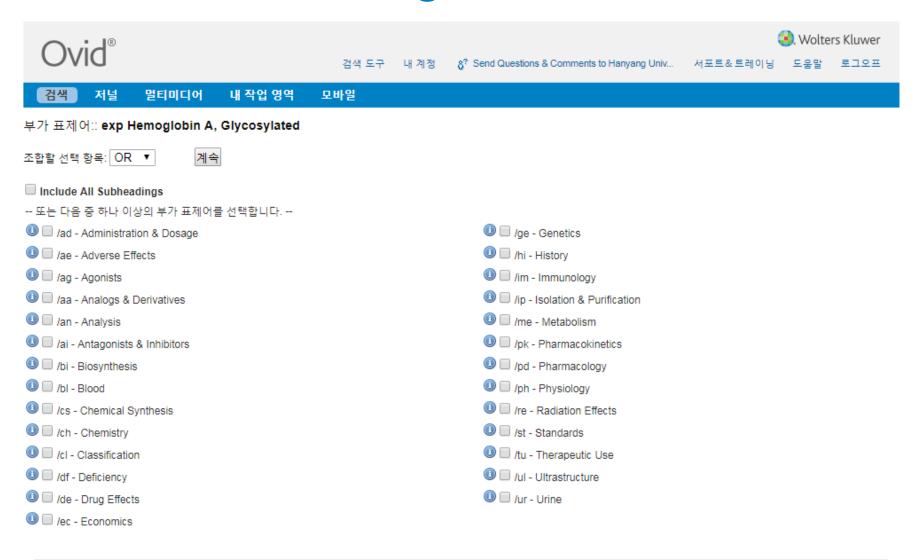




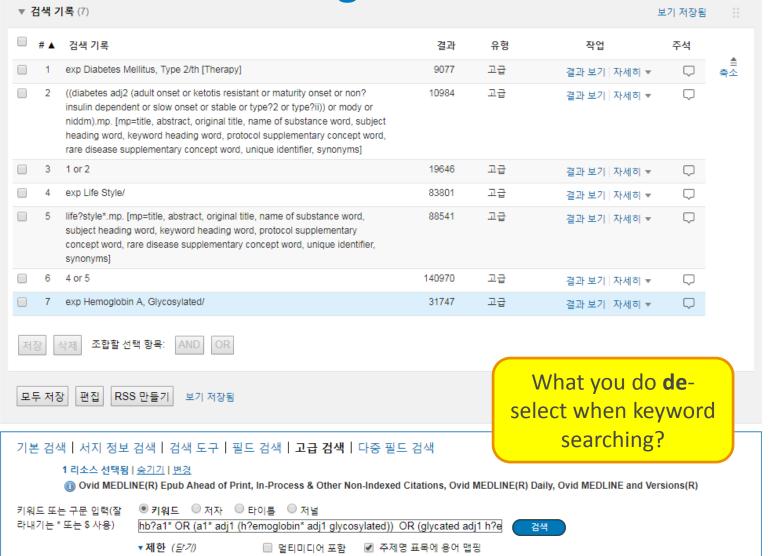


[-] 🗌 0	Blycosic	les	16241			(1)
[+]		Aminoglycosides	9787			(1)
		Anthocyanins	4946	9		
		Atractyloside	617		Whore	do you
[+]		Cardiac Glycosides	3952			-
[+]		Chromomycins	170		che	eck?
[+]		Galactosides	1849			
[+]		Glucosides	10341			<b>(1)</b>
	✓	Hemoglobin A, Glycosylated	27490			0
[+]		Iridoid Glycosides	409			<b>(1)</b>
[+]		Lincosamides	364			<b>(1)</b>
[+]		Mannosides	637			(1)
[+]		Methylglycosides	873			<b>(1)</b>
		Novobiocin	2045			<b>(1)</b>
		Nucleosides	13811			1
[+]		Nucleotides	20909			1
		Olivomycins	240			<b>(1)</b>
		Phlorhizin	1685			<b>(1)</b>
[+]		Saponins	10408			<b>(1)</b>
		Teichoic Acids	2377			
[+]		Thioglycosides	572			
		Tomatine	181			
[+] 🗌 🔥	/lonosa	ccharides	5331			(1)

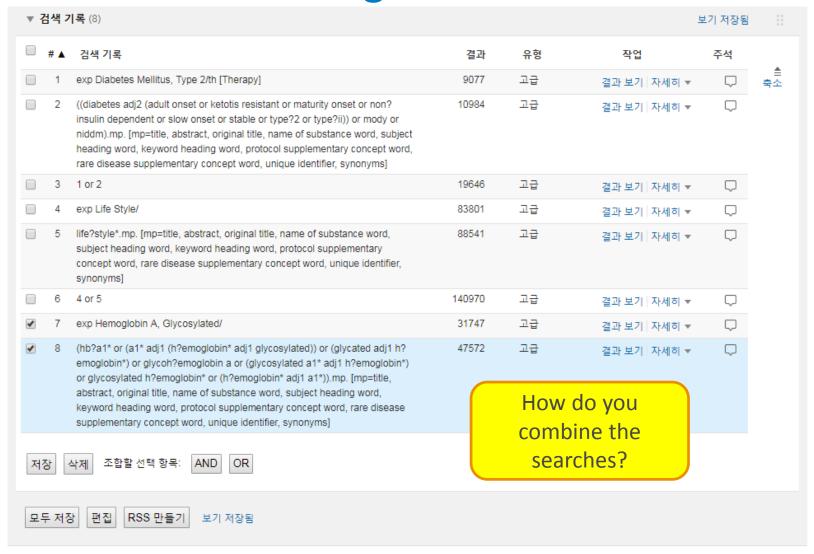














Among Type 2 diabetic patients, do improved lifestyle habits affect HbAlc levels?



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#### Structured Searching PICO

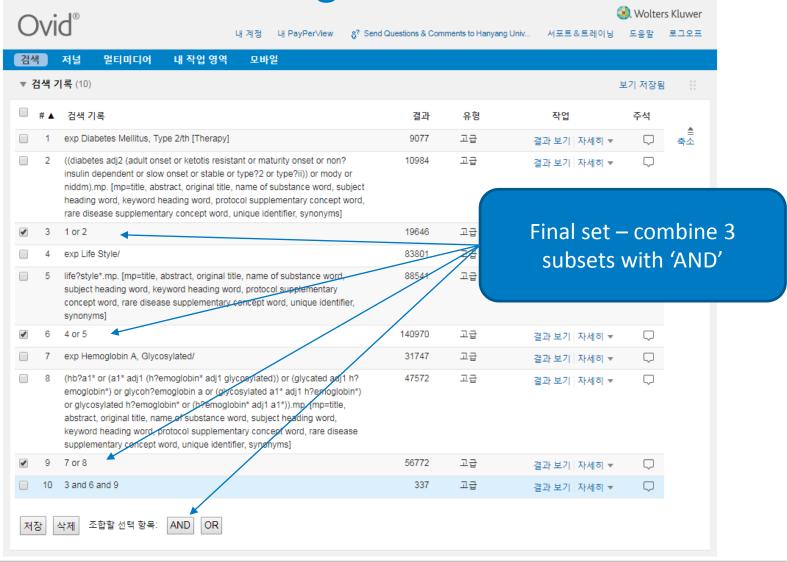
Formulate your complete query below as a sentence or question:

Among Type 2 diabetic patients, do improved lifestyle habits affect HBAlc levels?

Distinguish each of the aspects in your search. List synonyms, free text words, and find the corresponding thesaurus (MESH) term(s). You may also want to apply limits at the end, e.g. when there are too many results for your search. Always start your analysis with the most important aspect of your search (Aspect 1)

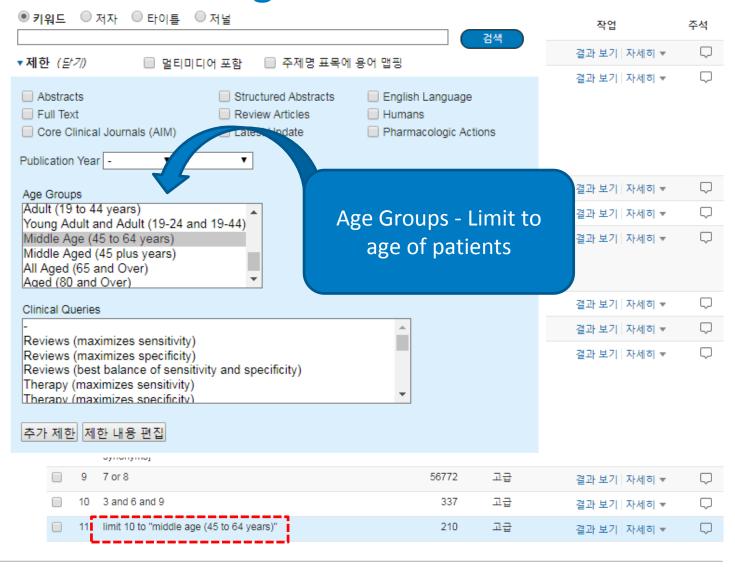
	Aspect 1	Aspect 2	Aspect 3	Aspect 4
	P (Patient, Problem)	I (Intervention)	C (Comparison)	O (Outcome)
Aspects of your search:	Type 2 diabetes	lifestyle		HbAlc
Synonyms and additional free text terms for each aspect*:  *Include these terms to ensure you do not miss in-process records. Use trunctation and widlcards if needed	((diabetes adj2 (adult onset OR ketotis resistant OR maturity onset OR non?insulin dependent OR slow onset OR stable OR type?2 OR type?ii)) OR mody OR niddm)	life?style*		hb?a1* OR (a1* adj1 (h?emoglobin* adj1 glycosylated)) OR (glycated adj1 h?emoglobin*) OR (glycoh?emoglobin a) OR (glycosylated a1* adj1 h?emoglobin*) OR (glycosylated h?emoglobin*) OR (h?emoglobin* adj1 a1*)
Thesaurus (MESH*) term(s) for each aspect:  *Explode your thesaurus terms and use subheadings if applicable	exp Diabetes Mellitus, Type 2/	exp Life Style/		exp Hemoglobin A, Glycosylated/
Limits* for your aspects: *like: Publication year, Publication type (Review, RCT) etc.				





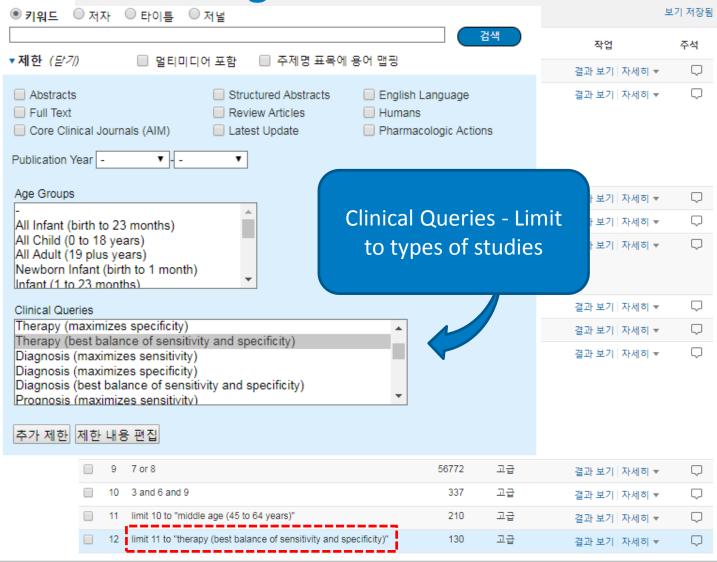


키워드 또는 구문 입력(잘 라내기는 \* 또는 \$ 사용)





키워드 또는 구문 입력(잘 라내기는 \* 또는 \$ 사용)





▼ -	검색 기	<b>기록</b> (12)			1	보기 저장됨
	# 🛦	검색 기록	결과	유형	작업	주석
	1	exp Diabetes Mellitus, Type 2/th [Therapy]	9077	고급	결과 보기 자세히 ▼	$\Box$
	2	((diabetes adj2 (adult onset or ketotis resistant or maturity onset or non?insulin dependent or slow onset or stable or type?2 or type?ii)) or mody or niddm).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	10984	고급	결과 보기 │ 자세히 ▼	Ç
	3	1 or 2	19646	고급	결과 보기 자세히 ▼	$\Box$
	4	exp Life Style/	83801	고급	결과 보기 자세히 ▼	$\Box$
	5	life?style*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	88541	고급	결과 보기 자세히 ▼	Ç
	6	4 or 5	140970	고급	결과 보기 자세히 ▼	$\Box$
	7	exp Hemoglobin A, Glycosylated/	31747	고급	결과 보기 자세히 ▼	$\Box$
	8	(hb?a1* or (a1* adj1 (h?emoglobin* adj1 glycosylated)) or (glycated adj1 h?emoglobin*) or glycoh?emoglobin a or (glycosylated a1* adj1 h?emoglobin*) or glycosylated h? emoglobin* or (h?emoglobin* adj1 a1*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	47572	고급	결과 보기 자세히 ▼	₽
	9	7 or 8	56772	고급	결과 보기 자세히 ▼	$\Box$
	10	3 and 6 and 9	337	고급	결과 보기 자세히 ▼	$\Box$
	11	limit 10 to "middle age (45 to 64 years)"	210	고급	결과 보기 자세히 ▼	$\Box$
	12	limit 11 to "therapy (best balance of sensitivity and specificity)"	130	고급	결과 보기 자세히 ▼	$\Box$



Among Type 2 diabetic patients, do improved lifestyle habits affect HbAlc levels?



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#### Structured Searching PICO

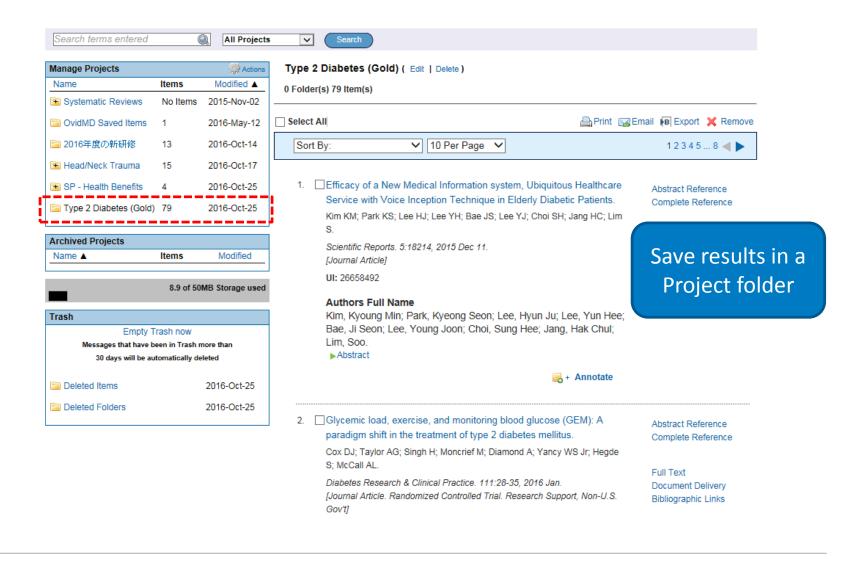
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	Aspect 1	Aspect 2	Aspect 3	Aspect 4
	P (Patient, Problem)	I (Intervention)	C (Comparison)	O (Outcome)
Aspects of your search:	Type 2 diabetes	lifestyle		HbAlc
Synonyms and additional free text terms for each aspect*:  *Include these terms to ensure you do not miss in-process records. Use trunctation and widlcards if needed	((diabetes adj2 (adult onset OR ketotis resistant OR maturity onset OR non?insulin dependent OR slow onset OR stable OR type?2 OR type?ii)) OR mody OR niddm)	life?style*		hb?a1* OR (a1* adj1 (h?emoglobin* adj1 glycosylated)) OR (glycated adj1 h?emoglobin*) OR (glycoh?emoglobin a) OR (glycosylated a1* adj1 h?emoglobin*) OR (glycosylated h?emoglobin*) OR (h?emoglobin* adj1 a1*)
Thesaurus (MESH*) term(s) for each aspect:  *Explode your thesaurus terms and use subheadings if applicable	exp Diabetes Mellitus, Type 2/	exp Life Style/		exp Hemoglobin A, Glycosylated/
Limits* for your aspects:  *like: Publication year, Publication type (Review, RCT) etc.	middle aged (45 years plus)			Clinical Queries: therapy (best balance of sensitivity and specificity







# Auto-Alerts – keep track of new research

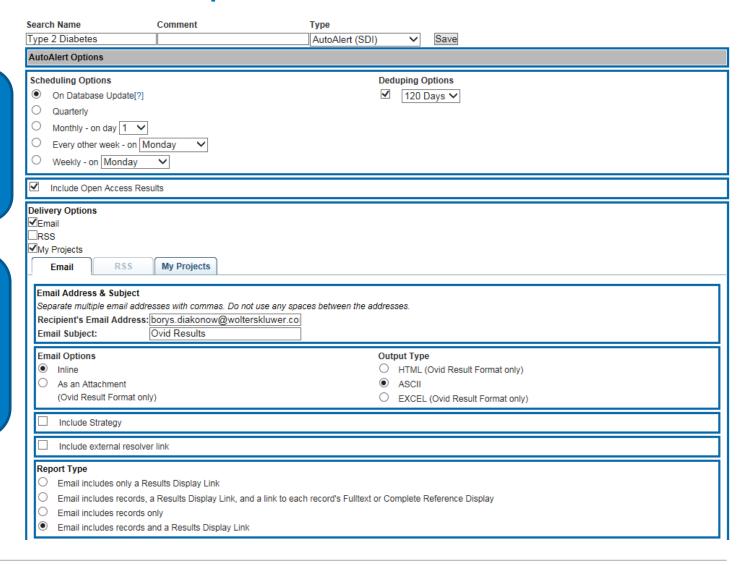
	6	4 or 5	140970	고급	결과 보기 자세히 ▼	$\Box$	
	7	exp Hemoglobin A, Glycosylated/	31747	고급	결과 보기 자세히 ▼	$\Box$	
	8	(hb?a1* or (a1* adj1 (h?emoglobin* adj1 glycosylated)) or (glycated adj1 h?emoglobin*) or glycoh?emoglobin a or (glycosylated a1* adj1 h?emoglobin*) or glycosylated h? emoglobin* or (h?emoglobin* adj1 a1*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	47572	고급	결과 보기 │ 자세히 ▼	₽	
	9	7 or 8	56772	고급	결과 보기 자세히 ▼	$\Box$	
	10	3 and 6 and 9	337	고급	결과 보기 자세히 ▼	$\Box$	
	11	limit 10 to "middle age (45 to 64 years)"	210	고급	결과 보기 자세히 ▼	$\Box$	
	12	limit 11 to "therapy (best balance of sensitivity and specificity)"	130	고급	결과 보기 자셋히 ▼	$\Box$	
저장 삭제 조합할 선택 항목: AND OR  Create an Auto- Alert to keep track of new research  저장 편집 자동 알림 만들기 사제							



#### Auto-Alerts – keep track of new research

Automatically run searches when database is updated

Receive results via email and deliver results directly to a project folder







# Meta-Analysis: Extracting Relevant Results

	8	(hb?a1* or (a1* adj1 (h?emoglobin* adj1 glycosylated)) or (glycated adj1 h?emoglobin*) or glycoh?emoglobin a or (glycosylated a1* adj1 h?emoglobin*) or glycosylated h?emoglobin* or (h?emoglobin* adj1 a1*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	58996	고급	결과 보기   자세히 ▼	₽
	9	7 or 8	58996	고급	결과 보기 │ 자세히 ▼	$\Box$
	10	3 and 6 and 9	360	고급	결과 보기 │ 자세히 ▼	$\Box$
	11	limit 10 to "middle age (45 to 64 years)"	226	고급	결과 보기   자세히 ▼	$\Box$
	12	limit 11 to "therapy (best balance of sensitivity and specificity)"	126	고급	결과 보기   자세히 ▼	$\Box$
	13	limit 12 to randomized controlled trial	114	고급	결과 보기 자세히 ▼	$\Box$
저정	탈	삭제 조합할 선택 항목: AND OR				
모두	두 저?	장 편집 RSS 만들기 보기 저장됨				



#### Meta-Analysis: Extracting Relevant Results

Relevance: ★★★★

Unique Identifier: 16502597

Title: Characterization of type 2 diabetes mellitus in first generation Italian migrants to Belgium.

Source: Acta Clinica Belgica. 60(6):362-8, 2005 Nov-Dec.

Version ID: 1

Status: MEDLINE

Authors: Selvais PL; Hermans MP.

Authors Full Name: Selvais, P L; Hermans, M P.

Institution: Selvais, P L. CH Hornu-Frameries, Hornu, and University Hospital Erasme, Brussels.

philippe.selvais@caramail.com

Local Messages:

Abstract:

Type 2 diabetes mellitus is a major metabolic disease in developed countries, and preferentially affects low-income groups and/or people from Southern extraction. Migrants are especially at risk. In Belgium, a large population of workers emigrated in the 50s and 60s, especially from rural areas of Southern Italy and Sicily. We tested the hypothesis that type 2 diabetes mellitus' phenotype in these Italian migrants could differ from that observed in autochthonous Belgian subjects. We retrospectively compared the clinical files of 485 patients with type 2 diabetes either of Belgian (n=445) or Italian origin (n=40). Italians were younger at diagnosis (46 +/- 14 vs. 52 +/- 13 years, P < 0.01), shorter, had a lower education and a stronger family record of diabetes (89 vs. 47%, P < 0.01). They had similar BMIs (31 +/- 6) and similar or slightly worse degree of sedentarity (>75%). We further compared this Italian group to 115 Belgians subjects matched for age, sex, and education. Known duration of diabetes (16 years), smoking and drinking habits, use of oral hypoglycaemic, antihypertensive and hypolipaemic drugs, complications, CRP, estimated glomerular filtration rate, micro-albuminuria prevalence, blood pressure, insulin sensitivity/ beta-cell



#### Meta-Analysis: Extracting Relevant Results



< Back to Search Results



#### Journal of Ambulatory Care Management

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DOI: 10.1097/01.JAC.0000314704.34795.8a 10.1097/01.JAC.0000314704.34795.8a

ISSN: 0148-9917 0148-9917

Accession: 00004479-200804000-00007

Keywords: Adolescent, Adult, Aged, Aged, 80 and over, Community Health Centers, Community Participation, Cooperative Behavior, Diabetes Mellitus, Exercise, Female, Humans, Male, Middle Aged, Poverty, Quality Assurance,

Health Care

Hide Cover

[Article]

#### Creating Open Access to Exercise for Low-income Patients Through a Community Collaboration for Quality Improvement: If You Build It, They Will Come

Candib, Lucy M. MD; Silva, Matthew PharmD; Cashman, Suzanne B. ScD; Ellstrom, Deborah BS; Mallett, Kristin BS

#### Author Information

From the Family Health Center of Worcester (Dr Candib and Ms Ellstrom), Massachusetts College of Pharmacy and Health Sciences (Dr Silva), and Department of Family Medicine and Community Health, University of Massachusetts Medical School (Dr Cashman and Ms Mallett), Worcester, Mass.

Corresponding author: Lucy M. Candib, MD, Family Health Center of Worcester, 26 Queen St, Worcester, MA 01610.

The authors thank the staff of the family health center and of the YWCA of Central Massachusetts for the help in implementing this project. We also thank Andrew Dzaugis and Rosemary Leary of the Homer Gage Memorial Library at UMMHC-Memorial Campus for their invaluable assistance in locating resources.

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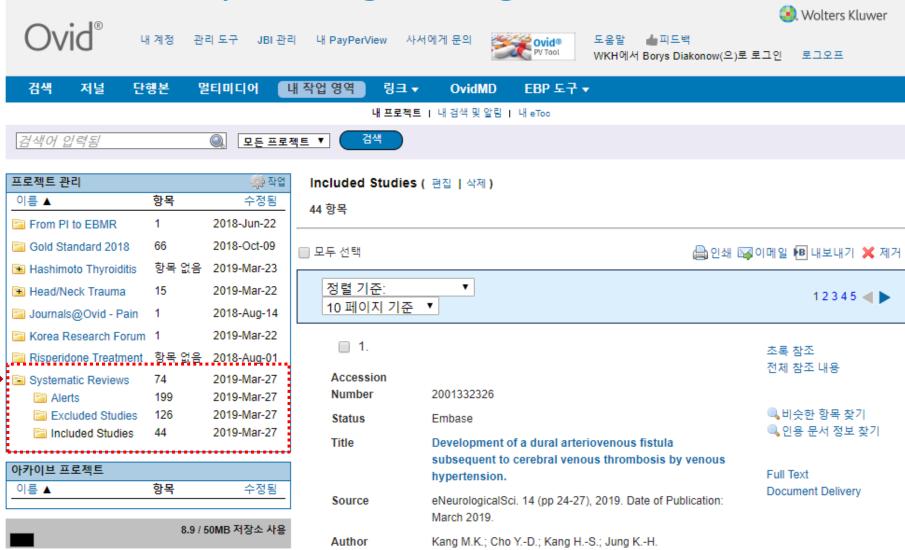
# Meta-Analysis: Extraction of relevant data

#### Characteristics of included studies

Methods	Participants															
		Intervention group	ps													
Aim of study (e. efficacy, equival pragmatic)	Population desc	Copy and paste table for Intervention Group 1	Outcomes  Copy and paste ta  Outcome 1	Copy and paste the approp	oriate table for e	each outcome, in	ncluding addition	nal tables for ea	ach time point and							
Design (e.g. para	(from which stu participants are			subgroup as required.												
Unit of allocatio	Setting (includin location and soc	Group name		For RCT/CCT Dichotomous outcome												
groups or body p	context)	No. randomised to gro	Outcome name		Description as	stated in repor	t/paper		Location in text							
Start date	Inclusion criteria	(specify whether no. people or clusters)	Time points mea (specify whether start or end of	(specify whether start or end of						or source (pg 8 ¶/fig/table/oth						
End date	Exclusion criteri	Theoretical basis (inclu			start or end of	start or end of	start or end of	start or end of						r)		
Duration of participation (fr	Method of recru of participants (	Description (include sufficient detail for replication, e.g. conten	key references)	intervention)	Comparison											
recruitment to la follow-up)	phone, mail, clir		sufficient detail for replication, e.g. conten	ail, clir Description (include sufficient detail for replication, e.g. conten	ohone, mail, clir Description (include sufficient detail for replication, e.g. conten	phone, mail, clir Description (include	Time points repo	Outcome								
Ethical approval						replication, e.g. conten		Subgroup								
needed/ obtain study	Informed consei obtained	dose, components)	diagnostic criteri relevant)  Person measurin	Ouration of treatment	_	_	_	_	_	_	Time point (specify from start or end of					
	Total no. randor	Duration of treatment period			intervention)											
	(or total pop. at	Timing (e.g. frequency,	reporting	Results	Intervention		Comparison									
	study for NRCTs	duration of each episod	Unit of measurer relevant)		No. with event	Total in group	No. with event	Total in group								
		Delivery (e.g. mechanis medium, intensity, fide	Scales: upper an													
			high or low scor good)	Any other results reported (e.g. odds ratio, risk difference, CI or P												
Source: htt	p://training.o	cochrane.org/		value)												

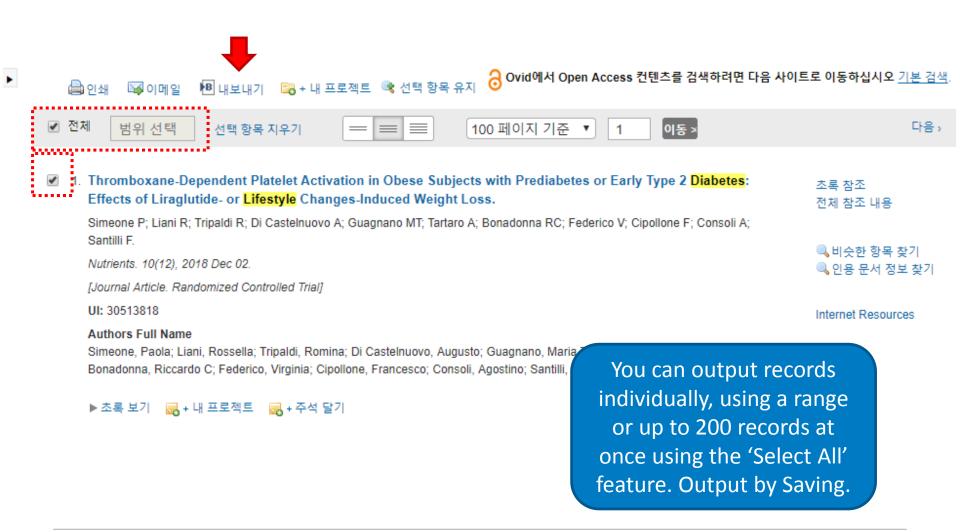


### Meta-Analysis: Organizing Studies





### Meta-Analysis: Outputting Search Results





#### Meta-Analysis: Outputting Search Results



Select RIS format, Complete Reference and include the Search History

#### Preparing a reference file

RevMan can read four reference formats:

RIS format - a generic format supported by most reference management software.



#### Meta-Analysis: RevMan 5



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Review production	Organizational info	Help	News and events					
	RevMan 5 Home > Help > Tools and sof	tware > RevM	an 5					
Tools and software	Review Manager 5 (RevMan 5) is the software used for preparing and maintaining Cochrane Reviews.							
<ul> <li>Archie</li> </ul>	RevMan facilitates prepa	RevMan facilitates preparation of protocols and full reviews, including text, characteristics of studies,						
Cochrane Crowd	comparison tables, and	comparison tables, and study data. It can perform meta-analysis of the data entered, and present the results						
CRS (Cochrane Register of Studies)	graphically.							
<ul> <li>Covidence</li> </ul>	You can also use RevMa	n to write re	eviews of diagnostic test accuracy studies, reviews of studies of methodology					
<ul> <li>EPPI-Reviewer</li> </ul>	and overviews of review							
<ul> <li>Evidence Pipeline</li> </ul>								
<ul> <li>GRADEpro GDT</li> </ul>	The latest major version	, RevMan 5.	3, was released on 13 June 2014. We are currently working on the next					
<ul> <li>Linked Data</li> </ul>	generation of online revi	ew-writing	software, RevMan Web.					
<ul> <li>PICO annotation</li> </ul>	D 14 5' - 1 1							
<ul> <li>Project Transform</li> </ul>	RevMan 5 is no longer being developed, but we continue to support Cochrane authors who use the programme.							

Source: https://community.cochrane.org/help/tools-and-software/revman-5



#### Meta-Analysis: RevMan 5

#### Step 1: Download the installation file

Download the file that matches your operating system:

Windows	Linux	Mac OS X
	Download	Download Java 8 version for OS X 10.13 (High Sierra) and
Download 32 bit version - will work on all Windows		higher with bundled Java 8
machines		Download Java 7 version for OS X 10.7.2 (Lion) and higher
Download 64 bit version - will <b>only</b> work on 64 bit		with bundled Java 7 ***
Windows machines		Download Java 6 version for OS X 10.5 (Leopard) on Intel CPU
		or 10.6 (Snow Leopard)

<sup>\*\*\*</sup> Note: We have discovered some issues running RevMan under Java 7. Before installing this version, we recommend first downloading the legacy Java 6 runtime 🖾 on your Mac and try the RevMan version for Java 6.

#### Step 2: Run the installer

Important: You need to be using an account that has sufficient permission to install software on the computer.

Note for OS X users: The most recent versions of OS X do not come with Java included; you will automatically be

Source: https://community.cochrane.org/help/tools-and-software/revman-5



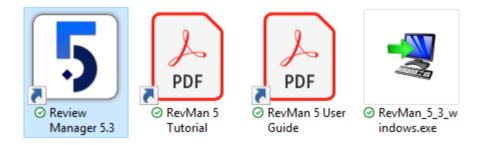
#### Meta-Analysis: RevMan 5

#### How to cite RevMan

Please cite RevMan whenever its output is used in works other than Cochrane Reviews: Review Manager (RevMan) [Computer program]. Version 5.3. Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration, 2014.

#### Licensing and permission to use RevMan

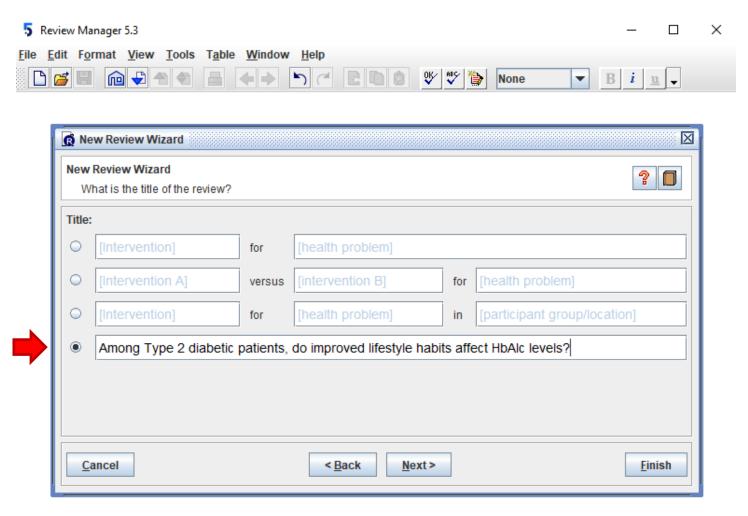
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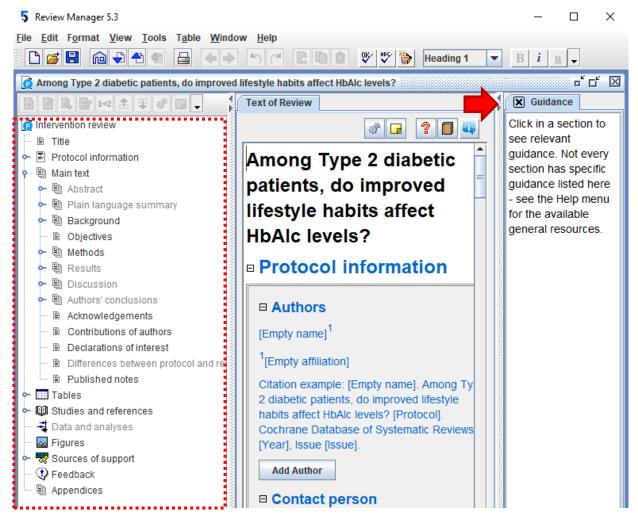
### Meta-Analysis: Creating a New Review



Source: Review Manager 5.3



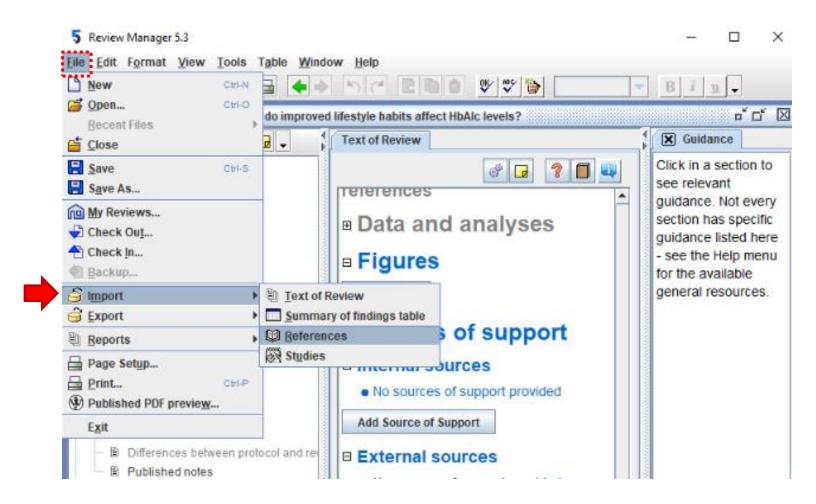
### Meta-Analysis: Creating a New Review



Source: Review Manager 5.3



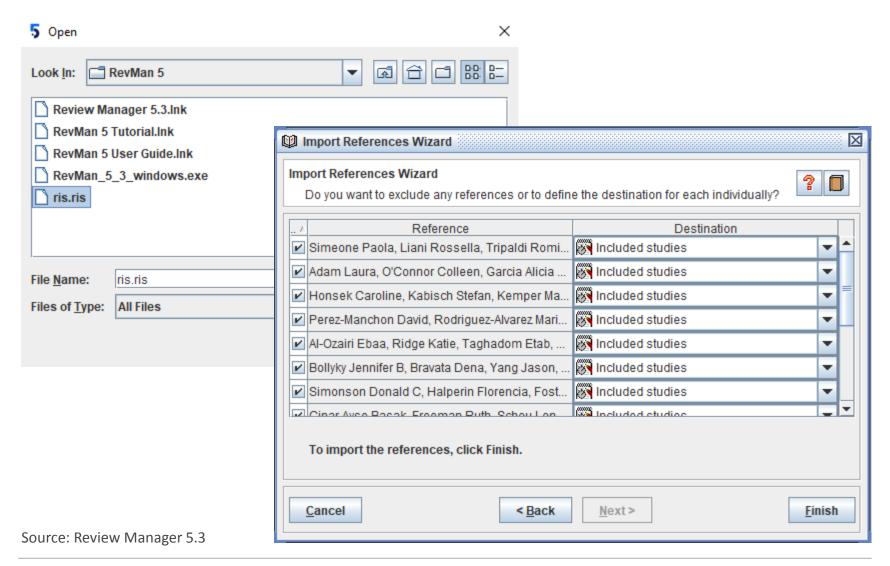
### Meta-Analysis: Importing Ovid Content



Source: Review Manager 5.3

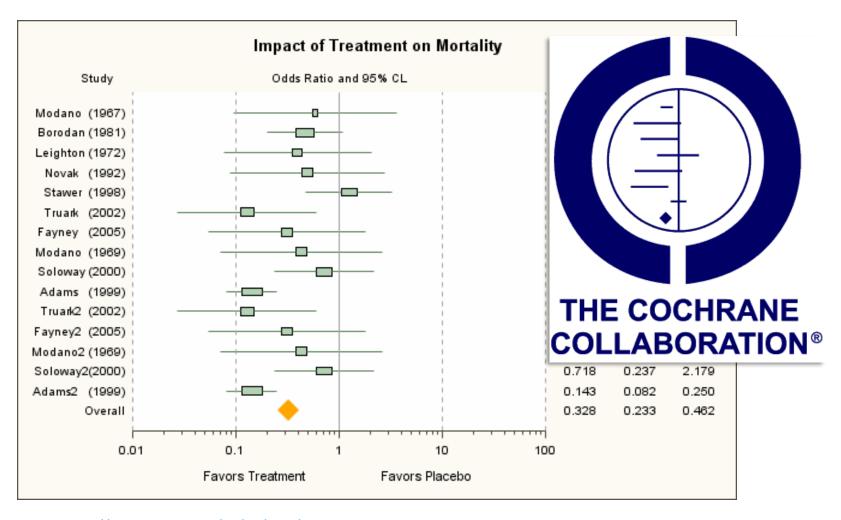


# Meta-Analysis: Importing Ovid Content





#### Meta-Analysis: Analyze and combine the data



Source: http://support.sas.com/kb/35/addl/fusion 35143 1 forestplot 2col.gif



### Ovid® User Support & Training Resources





