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MANNHEIM

Medizinische Fakultät Mannheim
der Universität Heidelberg

Universitätsklinikum Mannheim

EAHIL-Tagung 2017
12 – 16. Juni in Dublin

Allgemein

Aus Deutschland: IQWIG, Cochrane, Herr Knüttel (Regensburg)

Viele Kurse nach weniger Tagen ausgebucht, Warteliste möglich, ABER: Kurse vor Ort stark überbelegt.

Gute Education Courses (CECs, 16) und Workshops (18):

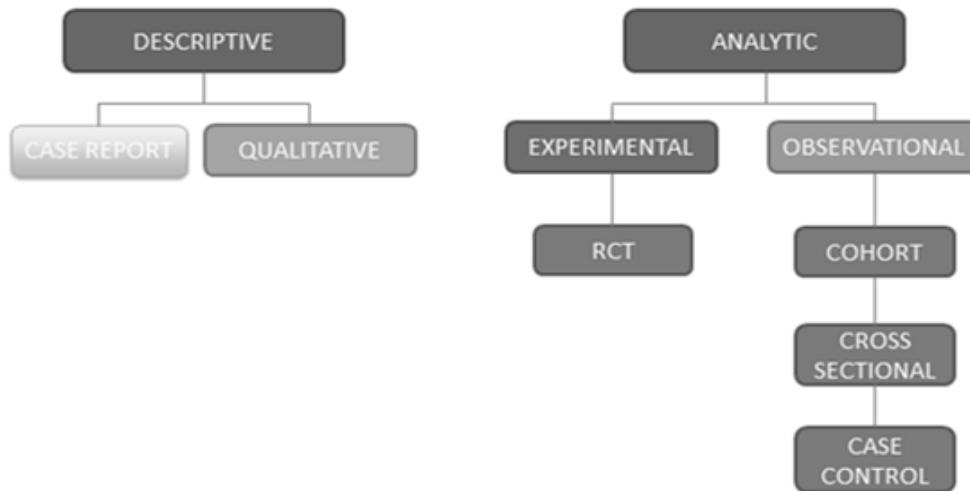|			
CEC 1. PRESSing search strategies and AMSTARing systematic reviews: have a go session	CEC 2. Librarians as Open Science facilitators: How to develop Research Data Management Services **(Full day workshop 10.00-16.00.** **Lunch 13.00-14.00)**		
CEC 4. Synchronous Online Teaching – Keeping virtual classroom students engaged	CEC 2. Librarians as Open Science facilitators: How to develop Research Data Management Services 13.00-14.00	CEC 6. Librarians can help address reporting concerns in the biomedical literature, particularly for systematic reviews	CEC 5. Improve your data! How to use surveys effectively in health information and library based research and evaluation

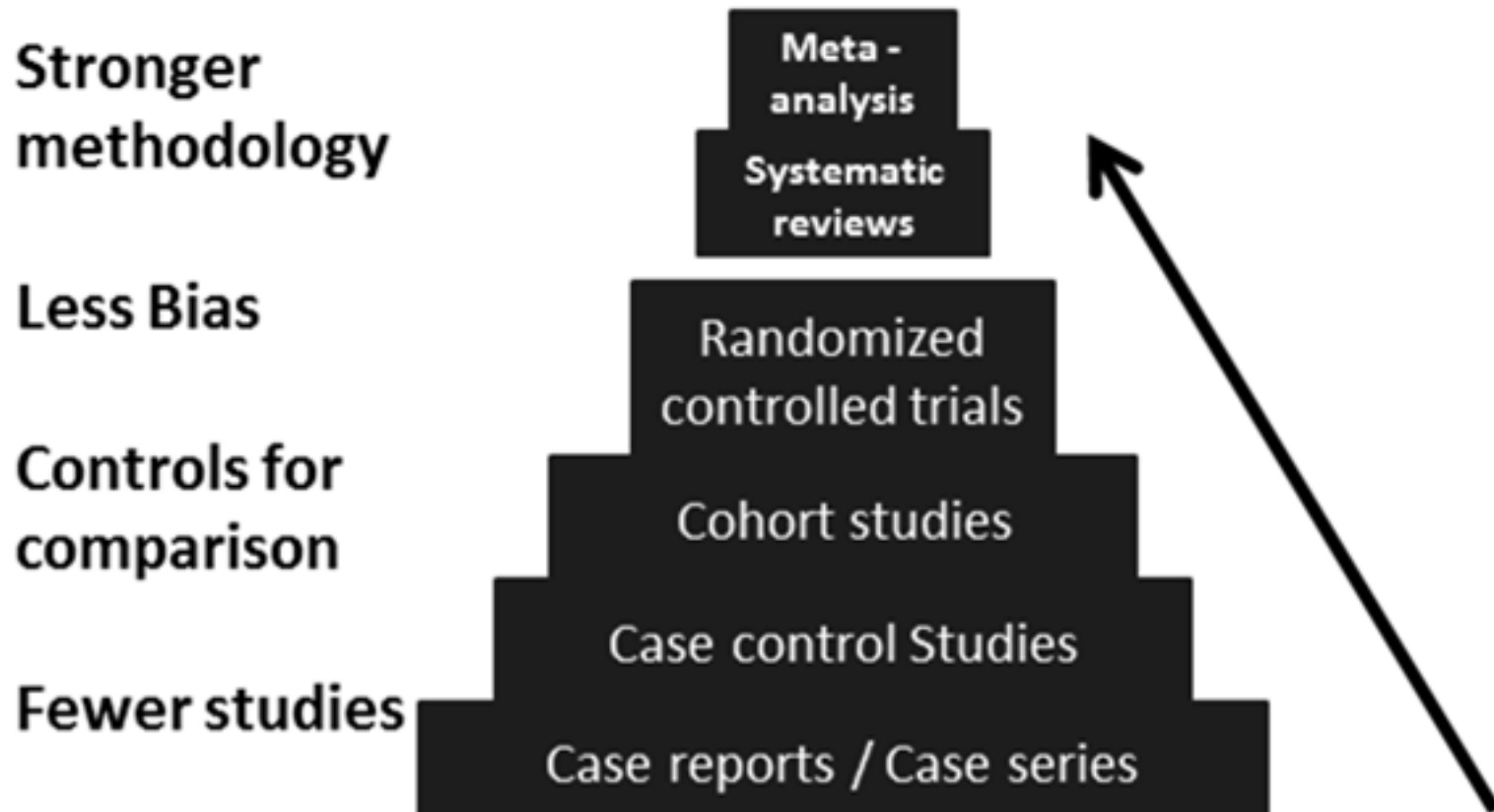# CEC 7: Practice makes perfect – Improving information literacy through understanding the quality of evidence

Hauptmerkmale folgender Studiendesigns:
Case reports/series, Case control, Cohort, Cross-sectional, RCT, Systematic Reviews

http://www.cebm.net/study-designs/

Stronger evidence – less bias

Stronger methodology

Less Bias

Controls for comparison

Fewer studies

Meta - analysis

Systematic reviews

Randomized controlled trials

Cohort studies

Case control Studies

Case reports / Case series

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Welcher Studientyp für welche Frage?

Type of question – type of study

Type of question	Best type of study
Therapy	RCT > cohort > case-control > case series
Diagnosis	Cross-sectional or prospective, blind comparison to a gold standard
Harm/Aetiology	RCT > cohort > case-control > case series
Prognosis	Cohort > case-control > case series
Prevention	RCT > cohort > case-control > case series

Case control studies - Cohort studies

Case control studies

Start with an **outcome or disease** and look <u>**backwards**</u> to identify a possible **exposure**.

"Studies which start with the identification of **persons with a disease** of interest and a **control** (comparison, referent) **group without** the disease. **The relationship of an attribute to the disease** is examined by comparing diseased and non-diseased persons with regard to the frequency or levels of the attribute in each group." [Mesh-Definition]

Cohort studies

Start with **patients** with an **exposure** and follow them <u>**forward**</u> to an **outcome** (prospective).

Beispiel

Vergleich ← (kein) Medikament ← (kein) Herzinfarkt ← Studien-/Kontrollkollektiv

Studienkollektiv → (kein) Medikament → (kein) Herzinfarkt → Vergleich

Cross-sectional studies
RCTs

Cross-sectional studies

Examines the **relationship between diseases and other variables** in a defined population at **one point in time**. Often used to investigate the **sensitivity and specificity of diagnostic tests**.

RCTs

"A work that reports on a clinical trial that involves at least one test treatment and one control treatment, concurrent enrollment and follow-up of the test- and control-treated groups, and in which the treatments to be administered are selected by a random process, such as the use of a random-numbers table." [Mesh-Definition]

Stichwörter: **Bias, Assignment of patients randomised, Concealed allocation, Blinding, Baseline characteristics, Equal treatment, Follow-up, Intention-to-Treat**

Systematic Reviews

A systematic review focuses on a topic, involves a systematic and thorough **literature** review, validates the **quality** of the studies and **summarises** the data extracted from the studies.

Problems for/with SRs:

- Poor quality trials
- Publication bias (studies)
- Industry influence
- Redundancy

SRs can:

- Deliver comprehensive summaries of the best available evidence on a topic thereby minimising error and bias
- Prevent redundant research
- Inform study design (e.g. the report of important outcomes)

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Systematic Reviews 2

Tools for evaluation systematic reviews:

http://amstar.ca/, Checkliste mit 11 Fragen

"**AMSTAR** can be used to assess the methodological quality of a systematic review and as a guide to performing a systematic review."

What librarians can do:

- Suchservice anbieten

- PRESSforum (Peer Reviewed Search Strategies) gives you (after registration) the possibility for a peer review of your own search strategy.

- Does a systematic review on this research topic already exist? Appropriate search?

- Infos auf Webseiten oder in Datenbanken (z.B. PubMed-Filter)

- Workshops mit anderen Experten für Ärzte/Wissenschaftler

Clinical Queries in PubMed

Validiert (McMaster University HiRU)

Link auf **PubMed Homepage**, oder Integration in eigene Suchfilter-anzeige, oder Suche mit **therapy/broad[filter], therapy/narrow[filter] usw.**

PubMed Clinical Queries

Results of searches on this page are limited to specif

chronic migraines

Clinical Study Categories

Category: Therapy ▼

Scope: Broad ▼

Category	Optimized For	Sensitive/ Specific	PubMed Equivalent
therapy	sensitive/broad	99%/70%	((clinical[Title/Abstract] AND trial[Title/Abstract]) OR clinical trials as topic[MeSH Terms] OR clinical trial[Publication Type] OR random* [Title/Abstract] OR random allocation[MeSH Terms] OR therapeutic use[MeSH Subheading])
	specific/narrow	93%/97%	(randomized controlled trial[Publication Type] OR (randomized[Title/Abstract] AND controlled[Title/Abstract] AND trial[Title/Abstract]))
diagnosis	sensitive/broad	98%/74%	(sensitiv*[Title/Abstract] OR sensitivity and specificity[MeSH Terms] OR diagnose[Title/Abstract] OR diagnosed[Title/Abstract] OR diagnoses[Title/Abstract] OR diagnosing[Title/Abstract] OR diagnosis[Title/Abstract] OR diagnostic[Title/Abstract] OR diagnosis[MeSH:noexp] OR diagnostic * [MeSH:noexp] OR diagnosis,differential[MeSH:noexp] OR diagnosis[Subheading:noexp])
	specific/narrow	64%/98%	(specificity[Title/Abstract])
etiology	sensitive/broad	93%/63%	(risk*[Title/Abstract] OR risk*[MeSH:noexp] OR risk *[MeSH:noexp] OR cohort studies[MeSH Terms] OR group[Text Word] OR groups[Text Word] OR grouped [Text Word])
			((relative[Title/Abstract] AND risk*[Title/Abstract]) OR (relative risk[Text Word]) OR risks[Text Word] OR cohort studies[MeSH:noexp]

CASP Checklists

http://www.casp-uk.net

Critical Appraisal Skills Programme

"This set of **eight critical appraisal tools** are designed to be used **when reading research**, these include tools for Systematic Reviews, Randomised Controlled Trials, Cohort Studies, Case Control Studies, Economic Evaluations, Diagnostic Studies, Qualitative studies and Clinical Prediction Rule."

Workshop 9: Search Strategy Development - compare, contrast and advance

Beispiel: **Impact of air pollution on cardiovascular disease morbidity**

(Caroline DeBrun, PHE, 6 databases, PICO + gold standard papers + steering group, 35 h)

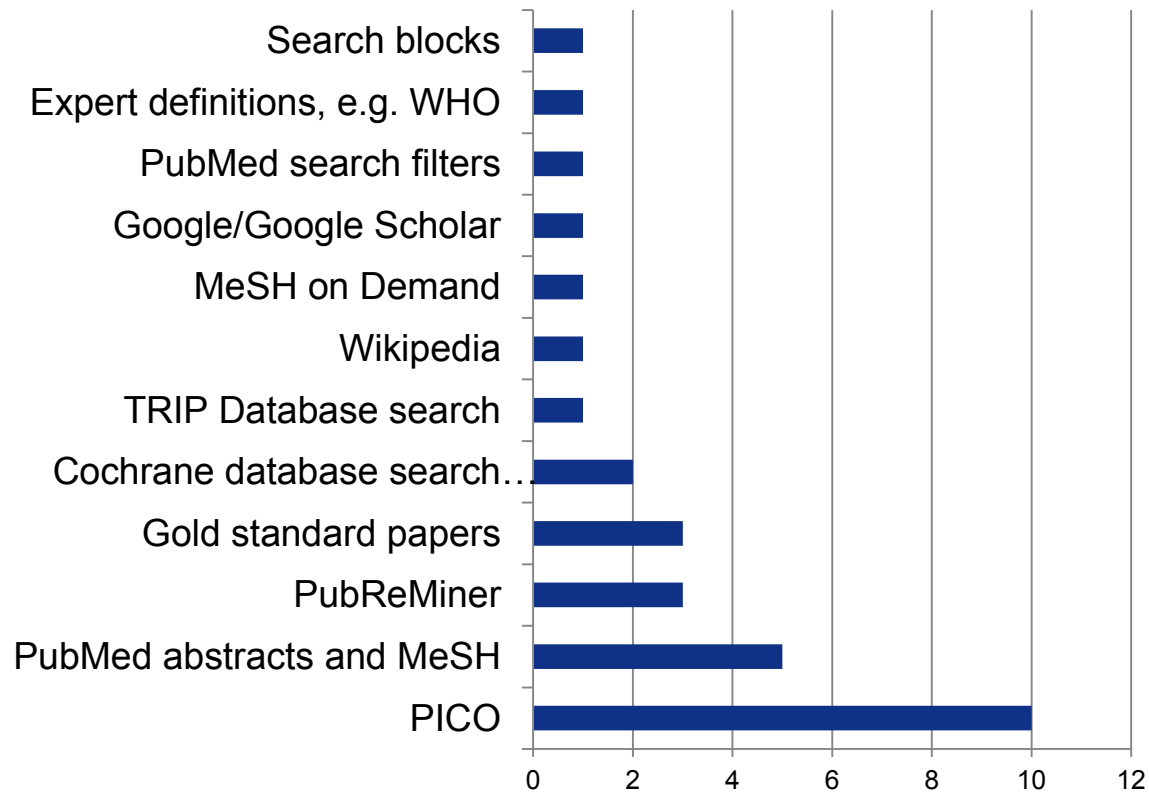Vor dem Kurs sollte man eine Suchstrategie erstellen (bis zu 2 Stunden) und folgende Fragen beantworten:

- Other than PubMed/Medline, which **other databases** <u>might</u> you search?

Information source	Hits
Cochrane Library (Database of Systematic Reviews and CENTRAL)	11
Embase	9
Web of Science	7
Scopus	3
CINAHL	2
clinicaltrials.gov	2
Global Health	2
Google Scholar	2
TRIP database	2
Biosis	1
Environmental science databases, such as Environmental Engineering Abstracts	1
Grey lit from WHO, EPA, local environmental ministries etc.	1
LILACS	1
National and/or international registries, such as databases on epidemiology, and causes of disease, such as WHO or OECD	1
Other relevant subject databases	1
PsycInfo	1
Scielo	1
Toxicological databases, such as Toxicological abstracts	1
WHO International Clinical Trials Registry Platform	1

Workshop 9

- How did you identify **initial terms**?

Workshop 9

Ergebnisse: 5 bis 220 Suchbegriffe, 321 bis 10538 Treffer

Dauer: die meisten benötigten 60-90 Minuten

Besonderheit Brn:

(term[mesh] … AND medline[sb]) OR (term[tiab] … NOT medline[sb])

Workshop 10: Sharing litarature search blocks

https://sites.google.com/site/eahilblocks/

"You should always **adjust** the blocks to your specific question!"

BMI from the Dutch Biomedical information specialists, search blocks for several databases

CADTH Canadian Agency for Drugs and Technologies in Health

CareSearch Palliative care knowledge network. Pubmed searches with a palliative care se

Cochrane RCT filters.

Flinders filters

ISSG The InterTASC Information Specialists' Sub-Group Search Filter Resource

KSS Kent Surrey and Sussex NHS libraries

McMaster University: Health information research unit information about filters

MedTerm Search Assist A database to share biomedical terminology and strategies for c

Ovid Expert Searches

Pubmed search strategies (Cindy Schmidt's Blog), search blocks for Embase as well

University of Alberta Libraries Health Sciences Search Filters

University of Texas School of Public Health Study type and some topic filters

Virtual Health library Repository of Search Strategies

VU Amsterdam: University library filters for Pubmed or Embase

Workshop 10

Ideen für die Darstellung:

- Datenbank mit Suchzeile (alle Felder) und Filter (validiert?, Recherche-DB?)
- Auswahl von Kategorien (Studiendesign, Altersgruppe, geographisch, …)
- Wikiprinzip

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ISSG Search Filters Resource

Other pages

Home page

What is the ISSG Search Filter Resource?

Search Filters by Study Design

Critical Appraisal of Search Filters

Investigating the Impact of Search Filters

Methods of Developing Search Filters

Surveys of Search Filter Performance

Search Strategy Blogs and Discussion Lists

Built in filters

Recently added filters

Conferences and Workshops

Sitemap

Recent site activity

Publications that review search filter per

Lokker C, Haynes RB, Wilczynski NL, McKibbon KA
PubMed's Clinical Queries filters. *J Am Medi Inform*

Hoogendam A, de Vries Robbé P F, Stalenhoef A F
using relative recall. *J Med Libr Assoc*. 2009; 97(3):

Individual search filters

Database	Filter	
CINAHL	Wong SS, Wilczynski NL, H review articles. *J Nurs Sch*	
EMBASE	Wong SS, Wilczynski NL, H treatment studies in EMBA And also at http://hiru.mcm	

The search filters are grouped by study design or focus:

- ○ Adverse effects
- ○ Aetiology
- ○ Diagnostic studies
- ○ Economic evaluations
- ○ Epidemiological studies
- ○ Guidelines
- ○ Health services research
- ○ Health state utility values
- ○ Mixed methods studies
- ○ Non-randomized studies
- ○ Observational studies
- ○ Outcome studies
- ○ Prognosis
- ○ Public Views & Patient Issues
- ○ Qualitative research
- ○ Quality of life
- ○ RCTs and other trials
- ○ Systematic reviews
- ○ Therapy studies
- ○ Other filters

Kontakt

Danke für die Aufmerksamkeit.

Volker Braun

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