

# APPENDIX A: SEARCH STRATEGIES

## MEDLINE (OVID interface)

1. search\$.tw.
2. exp "information storage and retrieval"/ or Medical Informatics/
3. Data Compression/
4. 2 not 3
5. or/1,4
6. quality control/ or Evaluation Studies/ or "reproducibility of results"/
7. (quality adj2 assess\$).tw.
8. or/6-7
9. (quality or evaluat\$).tw.
10. (precision or recall or sensitivity or relevance or specificity).tw.
11. (performance adj2 (measur\$ or indicat\$ or assess\$)).tw.
12. "Sensitivity and Specificity"/
13. or/10-12
14. (error\$ or mistake\$ or failure\$ or inaccura\$ or misspell\$).tw.
15. (MeSH or (subject adj2 heading\$) or (controlled adj2 vocabulary) or redundan\$ or explod\$ or explos\$ or spell\$ or Medline).tw.
16. truncat\$.tw.
17. (truncat\$ adj6 (protein\$ or gene\$)).mp.
18. 16 not 17
19. exp Documentation/
20. exp Molecular Sequence Data/
21. 19 not 20
22. or/15,18,21
23. EVIDENCE-BASED MEDICINE/
24. META-ANALYSIS/
25. Review.pt.
26. "Review Literature"/
27. or/23-26
28. "INFORMATION STORAGE AND RETRIEVAL"/st [Standards]
29. and/27-28
30. and/5,8,13
31. and/5,13-14
32. and/9,13,22
33. or/29-32
34. "cochrane database of systematic reviews".jn.
35. 33 not 34
36. limit 35 to yr=1980 - 2005

**HEALTH STAR (OVID): Same as MEDLINE above**

## HAPI (OVID interface)

search\$.mp

**THE COCHRANE LIBRARY  
(Wiley interface)**

**Search #1:**

(KW=(precision or recall or pertinence or performance or relevance or exhaustivity or feedback or sensitivity or specificity or efficien\*) or DE=("Retrieval performance measures" or "Relevance feedback")) and (kw=(controlled vocabulary or MeSH or explos\* or explod\* or spell\* or truncat\* or redundan\*) or (DE=("Non Boolean strategies" or "Multiple database searches" or Browsing or "Offline searching" or "Remote searching" or "Search strategies" or "Boolean strategies" or "Full text searching") or KW=(search\* or Ranking) and kw=(evaluat\* or rate or rating or assess\* or quality or validat\* or accura\* or proficien\* or effectiv\*)) or (kw=error\* or mistake\* or failure\*))

**Search #2:**

(DE=Searching and DE=Evaluation) NOT (Search #1)

**CINAHL: Cumulative Index to Nursing & Allied Health Literature  
(OVID interface)**

1. search\$.tw.
2. Medical Informatics/ or exp Information Retrieval/ or Information Science/
3. or/1-2
4. quality control/ or Evaluation Studies/ or "reproducibility of results"/
5. (quality adj2 assess\$).tw.
6. or/4-5
7. (quality or evaluat\$).tw.
8. (precision or recall or sensitivity or relevance or specificity).tw.
9. (performance adj2 (measur\$ or indicat\$ or assess\$)).tw.
10. "Sensitivity and Specificity"/
11. or/8-10
12. (error\$ or mistake\$ or failure\$ or inaccura\$ or misspell\$).tw.
13. (MeSH or (subject adj2 heading\$) or (controlled adj2 vocabulary) or redundan\$ or explod\$ or explos\$ or spell\$ or Medline).tw.
14. truncat\$.tw.
15. (truncat\$ adj6 (protein\$ or gene\$)).mp.
16. 14 not 15
17. exp Documentation/ or exp Bibliographic Control/
18. or/13,16-17
19. and/3,6,11
20. and/3,11-12
21. and/7,11,18
22. or/19-21
23. "The Cochrane Library".so.
24. 22 not 23
25. limit 24 to yr=1980-2005

**PsycINFO**
**(Scholarly literature in the behavioral sciences and mental health)  
(OVID interface)**

1. search\$.tw.
2. exp automated information retrieval/

3. or/1-2
4. quality control/ or evaluation criteria/
5. (quality adj2 assess\$.tw.
6. or/4-5
7. (quality or evaluat\$.tw.
8. (precision or recall or sensitivity or relevance or specificity).tw.
9. (performance adj2 (measur\$ or indicat\$ or assess\$)).tw.
10. or/8-9
11. (error\$ or mistake\$ or failure\$ or inaccura\$ or misspell\$).tw.
12. (MeSH or (subject adj2 heading\$) or (controlled adj2 vocabulary) or redundan\$ or explod\$ or explos\$ or spell\$ or Medline).tw.
13. truncat\$.tw.
14. (truncat\$ adj6 (protein\$ or gene\$)).mp.
15. 13 not 14
16. or/12,15
17. and/3,6,10
18. and/3,10-11
19. and/7,10,16
20. or/17-19
21. limit 20 to yr=1980-2005

## **Library and Information Science Abstracts (LISA) (CSA interface)**

### **LISA Search 1**

KW=(precision or recall or pertinence or performance or relevance or exhaustivity or feedback or sensitivity or specificity or efficien\*) and (kw=((controlled vocabulary) or MeSH or explos\* or explod\* or spell\* or truncat\* or redundan\*) or ((DE=("Non Boolean strategies" or Browsing or "Boolean strategies") or KW=(search\* or ranking)) and kw=(evaluat\* or rate or rating or assess\* or quality or validat\* or accura\* or proficien\* or effectiv\*)) or kw=(error\* or mistake\* or failure\*))

### **LISA Search 2**

(DE=Searching and DE=Evaluation) not (KW=(precision or recall or pertinence or performance or relevance or exhaustivity or feedback or sensitivity or specificity or efficien\*) and (kw=((controlled vocabulary) or MeSH or explos\* or explod\* or spell\* or truncat\* or redundan\*) or ((DE=("Non Boolean strategies" or Browsing or "Boolean strategies") or KW=(search\* or ranking)) and kw=(evaluat\* or rate or rating or assess\* or quality or validat\* or accura\* or proficien\* or effectiv\*)) or kw=(error\* or mistake\* or failure\*)))

## **Scopus - a comprehensive database for scientific, technical and medical information (Scopus web interface)**

((TITLE-ABS-KEY(quality)) AND (TITLE-ABS-KEY(precision) OR TITLE-ABSKEY(recall) OR TITLE-ABS-KEY(sensitivity) OR TITLE-ABS-KEY(specificity) OR TITLEABS- KEY(relevance) OR TITLE-ABS-KEY(performance W/2 measure) OR

TITLE-ABSKEY( performance W/2 indicator) OR TITLE-ABS-KEY(performance W/2 assessment)) AND (((TITLE-ABS-KEY(truncat\*)) AND NOT (TITLE-ABS-KEY(truncat\* W/6 protein) OR TITLE-ABS-KEY(truncat\* W/6 gene))) OR (TITLE-ABS-KEY(mesh) OR TITLE-ABSKEY( subject W/2 heading) OR TITLE-ABS-KEY(controlled W/2 vocabulary) OR TITLEABS- KEY(redundancies) OR TITLE-ABS-KEY(redundant) OR TITLE-ABS-KEY(explode) OR TITLE-ABS-KEY(explosion) OR TITLE-ABS-KEY(spelling) OR TITLE-ABSKEY( medline)))) OR ((TITLE-ABS-KEY(search\*)) AND (TITLE-ABS-KEY(precision) OR TITLE-ABS-KEY(recall) OR TITLE-ABS-KEY(sensitivity) OR TITLE-ABSKEY( specificity) OR TITLE-ABS-KEY(relevance) OR TITLE-ABS-KEY(performance W/2 measure) OR TITLE-ABS-KEY(performance W/2 indicator) OR TITLE-ABSKEY( performance W/2 assessment)) AND (TITLE-ABS-KEY(error) OR TITLE-ABSKEY( mistake) OR TITLE-ABS-KEY(failure) OR TITLE-ABS-KEY(inaccurate) OR TITLEABS- KEY(misspelling) OR TITLE-ABS-KEY(misspelled))) OR ((TITLE-ABSKEY( search\*)) AND (TITLE-ABS-KEY(quality)) AND (TITLE-ABS-KEY(precision) OR TITLE-ABS-KEY(recall) OR TITLE-ABS-KEY(sensitivity) OR TITLE-ABSKEY( specificity) OR TITLE-ABS-KEY(relevance) OR TITLE-ABS-KEY(performance W/2 measure) OR TITLE-ABS-KEY(performance W/2 indicator) OR TITLE-ABSKEY( performance W/2 assessment)))) AND PUBYEAR AFT 1979 AND (EXCLUDE(EXACTSRCTITLE, "Cochrane database of systematic reviews (Online : Update Software)"))

# APPENDIX B: DATA EXTRACTION AND ABSTRACTION FORM

## Data abstraction form for information retrieval research

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1. Which of the following are discussed? (check all that apply)

- Spelling mistakes
- Spelling variants
- Truncation
- Search logic & organization
- Logical operators AND OR NOT ADJ
- Wrong line number
- Subject headings and natural language terms combined
- Subject headings missing
- Natural language terms missing
- Irrelevant subject headings/ explosion
- Irrelevant natural language terms included?
- Subject headings exploded even though no narrower terms exist?
- Redundancies
- Search strategy been adapted for each database
- Other errors (explain)

2. This paper presents: (check all that apply)

- Research evidence regarding search performance
- Theoretical rationale for impact on search performance
- Frequency of error in a particular population
- Can't tell
- None of the above

3. The major impact discussed is: (check all that apply)

- Recall (sensitivity)
- Precision
- Specificity
- Cost/Time
- Peer reviewing
- Other (describe)
- Can't tell
- None of the above

4. Summarize the evidence, noting page number after each statement. Place cut/paste in quotations please.

5. Reference number of any potentially useful references we should check, followed by brief statement of the topic.

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### Data extraction form for scales

1. Does it address the electronic search strategy?
  - Yes
  - No
2. Does it address the search plan (e.g., choice of databases, non-electronic methods, etc.)?
  - Yes
  - No
3. Is it validated?
  - Yes
  - No
4. Is it evidence-based?
  - Yes (describe/citing evidence)
  - No
5. Characterize the type of tool:
  - Reporting guideline
  - Tool for evaluating training
  - Tool for peer reviewing or quality assessment
  - Other (specify)

### Data abstraction form for added elements

1. Which of the following are discussed? (check all that apply)
  - Additional Fields
  - Limits
  - Conceptualization
  - Other

### Complete the appropriate sections: Evidence regarding Additional Fields

2. This paper presents: (check all that apply)
  - Research evidence regarding search performance
  - Theoretical rationale for impact on search performance
  - Frequency of error in a particular population
  - Can't tell
  - None of the above

3. Is this positive or negative evidence?
- Positive (supports the importance of the element)
  - Negative (refutes the importance of the element)

4. The major impact discussed is: (check all that apply)

- Recall (sensitivity)
- Precision
- Specificity
- Cost/Time
- Peer reviewing
- Other (describe)
- Can't tell
- None of the above

5. Summarize the evidence, noting page number after each statement. Place cut/paste in quotations please.

### **Evidence regarding Limits**

6. This paper presents: (check all that apply)

- Research evidence regarding search performance
- Theoretical rationale for impact on search performance
- Frequency of error in a particular population
- Can't tell
- None of the above

7. Is this positive or negative evidence?

- Positive (supports the importance of the element)
- Negative (refutes the importance of the element)

8. The major impact discussed is: (check all that apply)

- Recall (sensitivity)
- Precision
- Specificity
- Cost/Time
- Peer reviewing
- Other (describe)
- Can't tell
- None of the above

9. Summarize the evidence, noting page number after each statement. Place cut/paste in quotations please.

**Evidence regarding Conceptualization**

10. This paper presents: (check all that apply)

- Research evidence regarding search performance
- Theoretical rationale for impact on search performance
- Frequency of error in a particular population
- Can't tell
- None of the above

11. Is this positive or negative evidence?

- Positive (supports the importance of the element)
- Negative (refutes the importance of the element)

12. The major impact discussed is: (check all that apply)

- Recall (sensitivity)
- Precision
- Specificity
- Cost/Time
- Peer reviewing
- Other (describe)
- Can't tell
- None of the above

13. Summarize the evidence, noting page number after each statement. Place cut/paste in quotations please.

**Evidence regarding other elements**

14. This paper presents: (check all that apply)

- Research evidence regarding search performance
- Theoretical rationale for impact on search performance
- Frequency of error in a particular population
- Can't tell
- None of the above

15. Is this positive or negative evidence?

- Positive (supports the importance of the element)
- Negative (refutes the importance of the element)

16. The major impact discussed is: (check all that apply)

- Recall (sensitivity)
- Precision
- Specificity
- Cost/Time
- Peer reviewing
- Other (describe)
- Can't tell
- None (non specific)

17. Summarize the evidence, noting page number after each statement. Place cut/paste in quotations please.

# APPENDIX C: CONSENT FORM AND SURVEY INSTRUMENT

The project was initially referred to as EHTAS (Evaluating Health Technology Assessment Searches). The name of the project was changed to PRESS (Peer Review Electronic Search Strategy) early in 2006 after consultation with local and international advisors. It was decided that PRESS was less difficult to remember and spell and thus easier to use. However, EHTAS was in use at the time of the survey.

## Consent form

Please read the following consent form and then answer at the bottom.

EHTAS (Evaluating Health Technology Assessment Searches). A project to develop a quality assessment checklist and an expert peer review forum for HTA searches.

Thank you for your interest in our research study to develop a quality assessment checklist for searches used in HTAs and systematic reviews and an expert forum to peer review these searches. The importance of the search quality in an HTA is to ensure an accurate and complete evidence base is used. A validated process for evaluating the quality and completeness of the evidence base for systematic reviews, including HTA reports, does not currently exist. The lack of such a process, paired with a demonstrable level of error in reported searches, leaves this type of research open to debate over the quality of evidence on which the review is based.

You are being asked to participate in a web-based survey to discuss your experiences in searching for systematic reviews. Participation is entirely voluntary. At any particular part of the survey, you may refuse to answer any particular question or stop the survey altogether.

You will never be personally identified as a participant in this study. General demographic information (e.g. respondents range in experience from 0-24 years) and generic descriptors (e.g. librarian, reviewer) will be used to describe study participants. Information will generally be presented in summary form, but some individual responses may be presented as part of the findings. Individual responses will be included as direct quotations, with no identifying information provided.

You may contact the Chair of the Ottawa Hospital Research Ethics Board for information regarding participants' rights in research studies at 1-613-798-5555 ext.14902; however, this person cannot provide detailed information with regard to this study. For questions about this study, please feel free to contact at any time the Project Office at the Institute of Population Health at 1-613-562-5800 ext.2114, or either of the study investigators below.

Sincerely,

Jessie McGowan, Principal Investigator

Senior Information Scientist, Institute of Population Health / Ottawa Health Research Institute  
Adjunct Professor, Department of Medicine, University of Ottawa  
Institute of Population Health, Room 206  
University of Ottawa  
1 Stewart Street, Ottawa, ON K1N 6N5  
(613) 562-5800 ext. 2359

Margaret Sampson, Principal Investigator,  
Senior Information Specialist, Chalmers Research Group  
CHEO Research Institute, Room 226  
401 Smyth Road, Ottawa, ON K1H 8L1  
(613) 738-3935

I consent to take part in the program EHTAS (evaluating health technology assessment searches): a project to develop a quality assessment checklist and an expert peer review forum for HTA searches.

YES

NO

Name of participant:

Email Address of Participant:

Phone Number of Participant (optional):

### **Survey Instructions**

Thank you for participating in our research study to develop a checklist for evaluating search strategies used in systematic reviews and HTAs. The goal of this research is to develop a peer reviewing tool to evaluate electronic search strategies and improve the quality of searches.

The survey asks you to assess the importance of various elements in a search strategy, to the best of your knowledge. Standard questions are asked for every element and there are 18 elements in total. The elements work from more conceptual problems to more concrete errors. Elements include conceptualization & organization, selections of terms, use of limits & fields, errors in spelling, truncation & operator use, and tailoring for different databases. Notice that we are not concerned here with the entire search plan, such as the selection of database and non-database sources. Note that you may go back to change an answer.

**Participant Background Information (to be presented in aggregated form only to describe the survey sample).**

**What is your formal training/degree? (Pick all that apply)**

MLIS

MD

MSc Epidemiology

PhD Epidemiology

Other (please specify)

**How many years experience do you have in searching?**

**How many years experience do you have doing systematic reviews or health technology assessments?**

**How many SRs or HTAs have you been involved in?**

**What country are you responding from?**

## 1. Is the search question translated well into search concepts?

**Definition:** The search includes the most important elements of the clinical question, with neither too few nor too many concepts introduced. Focus here on the broad concepts represented in the search strategy.

Score irrelevant terms in question #4 or #8 below. Score missing terms in question #3 or #6 below.

a) The potential negative impact of this element on recall is:

Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

## 2. Is the search well organized?

**Definition:** The search strategy follows a clear sequence.

Examples: All terms for the same concept are on consecutive lines, limits are placed at the end.

a) The potential negative impact of this element on recall is:

Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 3. Are any important subject headings missing?

**Note:** Also score here the incorrect use of a term or phrase as a subject heading (even if the system's mapping features would map it automatically to the correct subject heading). Example: "Anti-Bacterial Agents/" is the subject heading for antibiotics, but the OVID interface produces the same result with "exp Antibiotics/" as with "exp Anti-Bacterial Agents/".

Note that all examples in the survey are using the OVID interface.

a) The potential negative impact of this element on recall is:

- Nil    Small    Moderate    Large

b) The potential negative impact of this element on precision is:

- Nil    Small    Moderate    Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

#### 4. Are any irrelevant subject headings included?

**Definition:** The use of subject headings that are not relevant for the search.

a) The potential negative impact of this element on recall is:

Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

#### 5. Are any subject headings exploded even though no narrower terms exist?

**Definition:** The explosion of a subject heading when no narrower terms exist.

Example: 1. exp eyebrows/

a) The potential negative impact of this element on recall is:

Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### **6. Are any natural language terms missing?**

**Definition:** Important synonyms are missing.

Missing spelling variants are noted in question #7 below. Missing concepts are noted in question #1 above.

a) The potential negative impact of this element on recall is:

- Nil    Small    Moderate    Large

b) The potential negative impact of this element on precision is:

- Nil    Small    Moderate    Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### **7. Are any spelling variants missing?**

**Definition:** The presentation of only one spelling of a word when other variants exist.

Failing to truncate a term should be scored here. Missed synonyms are scored in question #6 above.

Examples of spelling variants are: haem\$/hem\$, paed\$/ped\$, ischem\$/ischaem\$.

a) The potential negative impact of this element on recall is:

Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

Strongly disagree     Disagree     Neutral     Agree     Strongly agree

### **8. Are any irrelevant natural language terms included?**

**Definition:** The use of natural language terms that are not relevant for the search.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

## **9. Are subject headings and natural language terms combined in the same line?**

**Definition:** The combination of subject headings & natural language terms in the same line.

This is correct to use in MEDLINE, but will not allow for re-running of the strategy in multiple databases, which is the norm in systematic reviews.

Example: 1. eye.tw,sh.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

**10. Should any additional fields be searched?**

Examples: authors, journals, publication types, floating subheadings, CAS registry numbers, etc.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

### **11. Do any of the limits used seem unwarranted?**

The following could be used to limit the search: publication types, methodological filters, languages, dates, check tags, subheadings, etc.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

## **12. Are any potentially helpful limits missing?**

Limits could be: publication types, methodological filters, languages, dates, check tags, subheadings, etc.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

### **13. Does the search strategy have any spelling mistakes or system syntax errors?**

**Definition:** A word that is misspelled or a search line that is presented in such a way that it won't run. Use for misspellings only. Missed spelling variants are scored in question #7 above.

Examples: the operator adj is spelled ajd - although the mistake is in a logical operator, it would be classified as a spelling mistake; entering example\$.tx. instead of example\$.tw.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

#### **14. Are there any errors in truncation?**

**Definition:** Typically truncating in the wrong place or inappropriate use of truncation.

Note: Failure to truncate is scored as a missed spelling variant in question #7 above.

Examples: Truncating after a plural (e.g., errors\$) or truncating too soon in the word stem.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

### **15. Are there any mistakes in the use of Boolean or proximity operators?**

**Definition:** The inappropriate use of the logical operators (e.g., AND where OR was intended, NOT with potential unintended consequences).

Example:

1. exp eye/
2. eye.tw.
3. 1 NOT 2

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

## **16. Is the wrong line number specified anywhere?**

**Definition:** The wrong line number is specified.

Example:

1. exp eye/
2. eye.tw.
3. 1 or 4

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

### **17. Does the search include redundancies without a rationale?**

**Definition:** The use of both a broader term and a narrower term, whether they are subject headings or natural language terms.

Example: Searching two versions of MEDLINE without giving a rationale is redundant.

Another example is:

1. esophag\$.tw.
2. (esophag\$ adj2 neoplas\$).tw.

The second line is narrower than the first & can't retrieve any additional material, so it is redundant.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

### **18. Has the search strategy been adapted for each database to be searched?**

**Definition:** The use of a search strategy for databases with different indexing or search features, without any indication that the search strategy was tailored for other databases.

a) The potential negative impact of this element on recall is:

- Nil     Small     Moderate     Large

b) The potential negative impact of this element on precision is:

- Nil     Small     Moderate     Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree     Disagree     Neutral     Agree     Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**19. Please describe other errors that should be considered.**

Note: If you would like to suggest more than one other error, please email the details to us at [jmcgowan@uottawa.ca](mailto:jmcgowan@uottawa.ca)

a) The potential negative impact of this element on recall is:

- Nil    Small    Moderate    Large

b) The potential negative impact of this element on precision is:

- Nil    Small    Moderate    Large

c) This element indicates that the searcher may be unfamiliar with aspects of searching such as thesaurus terms, database features or search mechanics:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

d) What is your impression of the level of evidence on the importance of this element?

- Compelling research evidence
- Weak research evidence
- Contradictory research evidence
- Refuted by research evidence
- No research evidence, but is supported by expert opinion
- No research evidence, but the impact is self-evident
- Not supported

e) This element is important to consider in reviewing a search strategy:

- Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**Thank you for your contribution**

Thank you for your participation in this important step in developing an assessment tool for search strategies used in systematic reviews and health technology assessments.

The results of the survey will be presented at the 2005 Cochrane Colloquium and the International Evidence-Based Librarianship Conference.

The next steps will be to revise the assessment tool based on these survey results, then have experienced searchers validate the tool by rating a series of searches.

May we contact you with information on participating in the next step of evaluating several searches, to occur in November 2005?

- Yes
- No

Are you interested in acting as a peer reviewer when the search peer review forum is launched, in January 2006?

- Yes
- No

## APPENDIX D: BIBLIOGRAPHY OF 26 SCALES IDENTIFIED

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One additional scale was identified, but at the request of the author, we have not listed it here.

## APPENDIX E: EXCLUDED STUDIES GROUPED BY EXCLUSION REASON

Articles excluded after review of the full article are listed here. Additional references excluded on the basis of review of the bibliographic record are not shown (n=8899).

### Not relevant to peer review of electronic search strategies

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## APPENDIX F: SEARCHES ASSESSED IN PRESS PILOT

**Search 1. Trinh KV, Phillips SD, Ho E, Damsma K. Acupuncture for the alleviation of lateral epicondyle pain: a systematic review. *Rheumatology (Oxford)* 2004; 43(9):1085 – 1090.**

- (1) lateral epicondyle pain.mp. [mp = ti, tc, sh, ab, it, kw, rw]
- (2) lateral epicondylitis.mp.
- (3) epicondylitis.mp.
- (4) epicondyle pain.mp.
- (5) tennis elbow.mp.
- (6) elbow pain.mp.
- (7) tendonitis
- (8) 1 or 2 or 3 or 4 or 5 or 6 or 7;
- (9) acupuncture.mp.
- (10) NSAID
- (11) analgesics
- (12) anti-inflammatory drug
- (13) ultrasound
- (14) treatments.mp
- (15) 9 or 10 or 11 or 12 or 13 or 14
- (16) prognosis.mp.
- (17) disease free survival.mp.
- (18) randomized controlled trial.mp.
- (19) placebo
- (20) cohort study.mp.
- (21) natural history.mp.
- (22) 17 or 18 or 19 or 20 or 21 or 22
- (23) 8 and 15 and 22

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**Search 2. Dodek P, Keenan S, Cook D, Heyland D, Jacka M, Hand L, Muscedere J, Foster D, Mehta N, Hall R, Brun-Buisson C. Evidence-based clinical practice guideline for the prevention of ventilator-associated pneumonia. *Ann Intern Med* 2004; 141(4): 305 – 313.**

The search strategy used in the development of this guideline was as follows:

exp pneumonia/ or exp pneumonia, aspiration/ or "pneumonia".mp. OR  
exp respiratory tract infections/ or "respiratory tract infection".mp OR  
exp cross infection/ or "cross infection".mp  
AND  
exp critical care/ or "critical care".mp. OR  
exp intensive care units/ or "intensive care unit". mp  
AND

exp clinical trials/ or exp randomized controlled trials/ or  
"controlled trials".mp.

AND

exp prospective studies/ or "prospective studies".mp

To increase the sensitivity of the search, we performed additional searches by using the terms mechanical ventilation, enteral nutrition, and nutrition instead of critical care and intensive care unit.

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**Search 3. Uitterhoeve RJ, Vernooij M, Litjens M, Potting K, Bensing J, De Mulder P, van Achterberg T. Psychosocial interventions for patients with advanced cancer - a systematic review of the literature. *Br J Cancer* 2004; 91(6): 1050 - 1062.**

Search strategy

Medline (1990 - 2002)

((('Neoplasms-/all subheadings in MIME,MJME) or (cancer\* in ab) or (tumor\* in ab) or (tumour\* in ab) or (malign\* in ab) or (oncolog\* in ab))

and (('Palliative-Care'/all subheadings in MIME,MJME) or ('Terminal-Care'/all subheadings in MIME,MJME) or ('Hospice-Care'/all subheadings in MIME,MJME) or ('Terminally-Ill'/all subheadings in MIME,MJME) or (incurable in ab) or (incurable in ti) or (advanced in ab) or (advanced in ti) or (palliat\* in ab) or (palliat\* in ti) or (terminal\* in ab) or (terminal\* in ti)))

and ((explode 'Psychotherapy-/all subheadings in MIME,MJME) or ('Patient-Education'/all subheadings in MIME,MJME) or ('Cognitive-Therapy'/all subheadings in MIME,MJME) or (explode 'Behavior- Therapy'/all subheadings in MIME,MJME) or (explode 'Adaptation-Psychological'/all subheadings in MIME,MJME) or ('Counseling-/all subheadings in MIME,MJME) or ('Social-Support'/all subheadings in MIME,MJME) or (psychosocial in ab) or (psychosocial in ti)))

and (((Randomized- Controlled-Trial in pt) or (Controlled-Clinical-Trial in pt) or (randomized controlled trials in MIME,MJME) or (random allocation in MIME,MJME) or (double-blind method in MIME,MJME) or (single- blind method in MIME,MJME) or (Clinical-Trial in pt) or (clinical trials in MIME,MJME) or ('clinical trial') or ((singl\* or doubl\* or trebl\* or tripl\*) and (mask\* or blind\*)) or ('latin square') or (placebos in MIME,MJME) or placebo\* or random\* or (research design in MIME,MJME) or (comparative study in MIME,MJME) or (evaluation studies in MIME,MJME) or (follow-up studies in MIME,MJME) or (prospective studies in MIME,MJME) or (cross-over studies in MIME,MJME) or control\* or prospective\* or volunteer\*))

not ((animal in MIME,MJME) not (human in MIME,MJME)))

Hits 328

Cinahl (1990 - 2002)

((('Neoplasms-'/all topical subheadings/all age subheadings in DE) or (cancer in ab) or (tumor\* in ab) or (tumour\* in ab) or (malign\* in ab) or (oncolog\* in ab)) and ((explode 'Terminal-Care'/all topical subheadings/all age subheadings in DE) or ('Terminally- Ill-Patients'/all topical subheadings/all age subheadings in DE) or (incurable in ab) or (incurable in ti) or (advanced in ab) or (advanced in ti) or (palliat\* in ab) or (palliat\* in ti) or (terminal\* in ab) or (terminal\* in ti)))) and (((explode 'Psychotherapy-'/all topical subheadings/ all age subheadings in DE) or (explode 'Behavior- Therapy'/all topical subheadings/all age subheadings in DE) or ('Coping-'/all topical subheadings/all age subheadings in DE) or (('Caregiver-Support'/all topical subheadings/all age subheadings in DE) or ('Support- Groups'/all topical subheadings/all age subheadings in DE)) or ('Social-Networks'/all topical subheadings/all age subheadings in DE) or (explode 'Counseling-'/all topical subheadings/all age subheadings in DE) or ('Death-Education'/all topical subheadings/all age subheadings in DE) or ('Patient-Education'/all topical subheadings/all age subheadings in DE) or (psychosocial in ab) or (psychosocial in ti)) and ((Clinical-Trial in DT) or (clinical-trials in DE) or (double-blind-studies in DE) or (single-blind-studies in DE) or (triple-blind-studies in DE) or ((singl\* or doubl\* or trebl\* or tripl\*) and (mask\* or blind\*)) or ('latin square') or (placebo in DE) or placebo\* or random\* or (study design in DE) or (explode 'quasi experimental studies'/all topical subheadings/all age subheadings in DE) or (pretest posttest control group design in DE) or (solomon four group design in DE) or (crossover design in DE) or (repeated measures in DE) or (pretest posttest design in DE) or (experimental studies in DE) or control\* or prospective\* or volunteer\* or compar\*)

Hits 179

PsycInfo (1990 - 2002)

((('Neoplasms-' in DE) or (cancer in ab) or (tumor\* in ab) or (tumour\* in ab) or (malign\* in ab) or (oncolog\* in ab)) and (('Palliative-Care' in DE) or (('Terminal- Cancer' in DE) or ('Terminally-Ill-Patients' in DE)) or ('Hospice-' in DE) or (incurable in ab) or (incurable in ti) or (advanced in ab) or (advanced in ti) or (palliat\* in ab) or (palliat\* in ti) or (terminal\* in ab) or (terminal\* in ti))) and (('Coping-Behavior' in DE) or ('Support - Groups' in DE) or ('Social-Support-Networks' in DE) or (explode 'Psychotherapy - ' in DE) or ('Cognitive- Therapy' in DE) or ('Art-Therapy' in DE) or ('Counseling-' in DE) or ('Self-Management' in DE) or ('Client-Education' in DE) or (psychosocial in ab) or (psychosocial in ti))) and ((experimental design in DE) or (Clinical-Trial in pt) or (clinical trial) or ((singl\* or doubl\* or trebl\* or tripl\*) and (mask\* or blind\*)) or ('latin square') or (placebo in DE) or placebo\* or random\* or (follow-up studies in DE) or (prospective studies in DE) or (repeated-measures in DE) or (Treatment-Outcome-Study in pt) or (treatment effectiveness evaluation in DE) or control\* or prospective\* or volunteer\* or compar\*) Hits 328 Hits 179 Hits 77

Hits 77

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**Search 4. El-Kadiki A, Sutton AJ. Role of multivitamins and mineral supplements in preventing infections in elderly people: systematic review and meta-analysis of randomised controlled trials. *BMJ* 2005; 330(7496):871.**

1. exp vitamins/ (151282)
2. vitamins\$.tw. (66130)
3. micronutients/ (416)
4. or/1-3 (170821)
5. exp trace elements/ (148034)
6. trace element\$.tw. (5425)
7. exp antioxidants/ (61933)
8. antioxidant\$.tw. (25297)
9. retinal.tw. (6447)
10. exp ascorbic acid/ (20047)
11. ascorbic acid.tw. (11170)
12. tocopherol\$.tw. (8012)
13. menadione.tw. (1324)
14. menaquinone.tw. (483)
15. cobalt.tw. (9245)
16. copper.tw. (25369)
17. fluoride.tw. (17480)
18. fluorine.tw. (3529)
19. iodine.tw. (17022)
20. iron.tw. (52427)
21. manganese.tw. (8237)
22. zinc.tw. (33788)
23. selenium.tw. (9115)
24. molybdenum.tw. (2335)
25. chromium.tw. (6575)
26. silicon.tw. (6575)
27. exp minerals/ (51560)
28. mineral\$.tw. (39718)
29. or/5-28 (366069)
30. eating/ (23360)
31. dietary supplements/ (3442)
32. food.tw. (86122)
33. food/ (12576)
34. or/30-33 (110404)
35. 29 and 34 (10098)
36. 4 or 35 (177226)
37. exp infection/(307738)
38. infection\$. tw. (415904)
39. exp immunity/ (570166)
40. "allergy and immunology"/(2871)
41. im.fs. (785484)
42. (immune or immunity or immunology\$.ti. (106979)
43. or/37-42 (1522096)
44. 36 and 43 (13338)
45. exp aged/ (1215692)
46. elderly.tw.(1215692)
47. old\$ person\$.tw. (3420)

48. old\$ people\$. tw. (5210)
49. or/45-48 (1226166)
50. 44 and 49 (997)
51. guideline.pt. (9980)
52. practice guideline.pt. (6066)
53. exp guidelines/ (27374)
54. health planning guidelines/ (876)
55. or/51-54 (37965)
56. meta-analysis/ (3999)
57. exp review literature/ (1350)
58. (meta-analy\$ or meta analy\$ or metaanaly\$).tw (7483)
59. meta analysis.pt. (6071)
60. review academic.pt.(60389)
61. review literature.pt (26302)
62. letter.pt. (444983)
63. review of reported cases.pt. (43658)
64. historical article.pt. (193586)
65. review multicase.pt. (6620)
66. or/56-61
67. or 62-65
68. 66 not 67 (97252)
69. 55 or 68 (134197)
70. 50 and 69 (11)
71. limit 70 to (human and English language) (10)
72. randomised controlled trial.pt. (152463)
73. controlled clinical trial.pt. (59132)
74. randomised controlled trials/ (20675)
75. random allocation/ (44901)
76. double blind method/ (67074)
77. single blind method/ (6136)
78. clinical trial.pt. (321481)
79. (random\$ adj5 trial\$).tw.(47760)
80. or/72-79 (374582)
81. 50 and 80 (173)
82. limit 81 to (human and English language) (153)
83. exp epidemiologic studies/ (612374)
84. (case\$ adj3 control\$).tw.(34604)
85. epidemiolog\$.ti.(49352)
86. or/83-85 (669165)
87. 50 and 86 (126)
88. limit 87 to (human and English language) (111)
89. from 71 keep 1-10 (10)
90. from 82 keep 1-153 (153)
91. from 88 keep 1-111 (111)

Search Strategy using database: CINAHL

1. exp vitamins/ (3253)

2. vitamin\$.tw. (2044)
3. micronutrients/ (185)
4. or/1-3 (3960)
5. exp trace elements/ (1211)
6. trace element\$. Tw. (67)
7. antioxidants/ (682)
8. antioxidant\$.tw. (502)
9. retinal.tw. (125)
10. exp ascorbic acid/ (479)
11. ascorbic acid.tw. (94)
12. tocopherol\$.tw. (102)
13. menadione.tw. (0)
14. menaquinone.tw. (2)
15. cobalt.tw. (21)
16. copper.tw. (163)
17. fluoride.tw. (276)
18. fluorine.tw. (10)
19. iodine.tw. (211)
20. iron.tw. (868)
21. manganese.tw. (29)
22. zinc.tw. (405)
23. selenium.tw. (115)
24. molybdenum.tw. (11)
25. chromium.tw. (60)
26. silicon.tw. (24)
27. exp minerals/ (526)
28. mineral\$.tw. (955)
29. or/5-28 (4604)
30. eating/ (159)
31. dietary supplementation/ (2136)
32. food/ (1235)
33. food.tw. (4903)
34. or/ 30-33 (7704)
35. 29 and 34 (904)
36. exp infection/ (12508)
37. infection\$.tw. (14150)
38. "allergy and immunology"/ (44)
39. im.fs. (244)
40. (immune or immunity or immunolog\$.tw. (2613)
41. exp immunity/ (2068)
42. or/36-41 (24704)
43. 4 or 35 (4331)
44. exp aged/ (60050)
45. elderly.tw. (11728)
46. old\$ person\$.tw. (993)
47. old\$ people\$.tw. (1979)
48. or/44-47 (62151)

49. 43 and 42 (234)
50. 49 and 42 (40)
51. from 50 keep 1-40 (40)

Search strategy for database AMED (Allied and Complementary Medicine)  
< 1985 to December 2001>

1. exp vitamins/ (1209)
2. vitamin\$.tw. (1160)
3. micronutrients/ (6)
4. or/1-3 (1364)
5. exp trace elements/ (401)
6. trace element\$. Tw. (138)
7. antioxidants/ (193)
8. antioxidant\$. Tw. (363)
9. retinal.tw. (3)
10. exp ascorbic acid/ (162)
11. ascorbic acid.tw. (183)
12. tocopherol\$.tw. (27)
13. menadione.tw. (3)
14. menaquinone.tw. (0)
15. cobalt.tw. (19)
16. copper.tw. (76)
17. fluoride.tw. (22)
18. fluorine.tw. (3)
19. iodine.tw. (32)
20. iron.tw. (90)
21. manganese.tw. (13)
22. zinc.tw. (127)
23. selenium.tw. (107)
24. molybdenum.tw. (7)
25. chromium.tw. (37)
26. silicon.tw. (12)
27. exp minerals/ (484)
28. mineral\$.tw. (843)
29. or/5-28 (1795)
30. eating/ (57)
31. food/ (355)
32. food.tw. (1061)
33. exp diet/ (937)
34. or/30-33 (1893)
35. 29 and 34 (205)
36. 4 or 35 (1474)
37. exp aged/ (4323)
38. elderly.tw. (2352)
39. old\$ person\$. Tw. (238)
40. old\$ people\$. tw. (354)
41. or/37-40 (4991)

42. 36 and 41 (58)
43. exp infection/ (252)
44. infection\$.tw. (1842)
45. exp immunity/ (331)
46. exp immune system/ (831)
47. (immunity or immune or immunology\$). Tw. (1599)
48. or/43-47 (3510)
49. 42 and 48 (7)
50. from 49 keep 1-7 (7)

Search strategy by PREMEDLINE

1. (vitamin\$ or mineral\$ or trace element\$ or micronutrient\$).tw. (2079)
2. (immunity or immune or immunology\$ or infection\$).tw. 9918)
3. (elderly or old\$ people\$ or old person\$).tw. (1394)
4. 1 and 2 and 3 (4)
5. from 4 keep 1-4 (4)

Search strategy - database: EBM reviews - ACP Journal club  
<1991 to September/October 2001>

1. [exp vitamin/] (0)
2. vitamin\$.tw. (91)
3. [micronutrients/] (0)
4. or/1-3 (91)
5. [exp trace elements/] (0)
6. trace element\$. Tw. (3)
7. [antioxidants/] (0)
8. antioxidant\$.tw (26)
9. retinal.tw. (5)
10. [exp ascorbic acid/] (0)
11. ascorbic acid.tw. (4)
12. tocopherol\$.tw. (9)
13. menadione.tw. (0)
14. menaquinone.tw. (0)
15. cobalt.tw. (0)
16. copper.tw. (3)
17. fluoride.tw. (7)
18. fluorine.tw. (0)
19. iodine.tw. (14)
20. iron.tw. (21)
21. manganese.tw. (0)
22. zinc.tw. (11)
23. selenium.tw. (7)
24. molybdenum.tw. (0)
25. chromium.tw. (0)
26. silicon.tw. (0)
27. [exp minerals/] (0)

28. mineral\$.tw. (40)
29. or/5-28 (111)
30. [eating/] (0)
31. [food/] (0)
32. food.tw. (95)
33. [exp diet/] (0)
34. or/30-33 (95)
35. 29 and 34 (14)
36. 4 or 35 (95)
37. [exp aged/] (0)
38. elderly.tw. (212)
39. old\$ person\$.tw. (42)
40. old\$ people\$.tw. (2)
41. or/37-40 (228)
42. 36 and 41 (14)
43. [exp infection/] (0)
44. infection\$.tw. (364)
45. [exp immunity/] (0)
46. [exp immune system/] (0)
47. (immunity or immune or immunology\$). Tw. (106)
48. or/43-47 (397)
49. 42 and 48 (2)
50. [from 49 keep 1-7] (0)
51. from 49 keep 1-2 (2)

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**Search 5. Koning S, Verhagen AP, Suijlekom-Smit LW, Morris A, Butler CC, van der Wouden JC. Interventions for impetigo. *Cochrane Database of Systematic Review* 2004; Issue 2, CD003261.**

1. RANDOMIZED CONTROLLED TRIAL.pt.
2. CONTROLLED CLINICAL TRIAL.pt.
3. RANDOMIZED CONTROLLED TRIALS/
4. RANDOM ALLOCATION/
5. DOUBLE-BLIND METHOD/
6. SINGLE-BLIND METHOD/
7. OR/1-6
8. HUMAN.sh.
9. 7 AND 8
10. CLINICAL TRIAL.pt.
11. EXP CLINICAL TRIALS/
12. (CLIN\$ ADJ25 TRIAL\$). ti,ab.
13. ((SINGL\$ OR DOUBL\$ OR TREBL\$ OR TRIPL\$) ADJ 3 (BLIND\$ OR MASK\$)). ti,ab.
14. PLACEBOS/
15. PLACEBO\$.ti,ab.
16. RANDOM\$.ti,ab.

17. RESEARCH DESIGN/
18. OR/9-17
19. COMPARATIVE STUDY.sh.
20. EXP EVALUATION STUDIES/
21. FOLLOW UP STUDIES.sh.
22. PROSPECTIVE STUDIES.sh.
23. (CONTROL\$ OR PROSPECTIV\$ OR VOLUNTEER\$).ti,ab.
24. OR/18-23
25. LIMIT 24 TO HUMAN
26. STAPHYLOCOCCAL SKIN INFECTIONS/
27. IMPETIGO/
28. IMPETIGO.ti,ab.
29. PYODERMA.ti,ab.
30. OR/26-29
31. 30 and 25

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**Search 6. Bellamy N, Campbell J, Robinson V, Gee T, Bourne R, and Wells G. Intraarticular corticosteroid for treatment of osteoarthritis of the knee. *Cochrane Database of Systematic Review* 2005; Issue 2, CD005328.**

- 1 osteoarthritis.tw,sh.
- 2 knee joint/
- 3 knee.tw,sh.
- 4 1 and (2 or 3)
- 5 osteoarthritis, knee/
- 6 4 or 5
- 7 exp osteoporosis/
- 8 osteoporos#.tw.
- 9 bone density/
- 10 bone desit\$.tw.
- 11 bone mineral.tw.
- 12 osteopenia.tw.
- 13 bone loss\$.tw.
- 14 or/7-11
- 15 Plus Cochrane study filter

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**Search 7. Smucny J, Fahey T, Becker L, Glazier R, and McIsaac W. Antibiotics for acute bronchitis. *Cochrane Database of Systematic Reviews* 2000; Issue 4, CD000245.**

- 1 RANDOMIZED CONTROLLED TRIAL.pt.
- 2 CONTROLLED CLINICAL TRIAL.pt.
- 3 RANDOMIZED CONTROLLED TRIALS.sh.
- 4 RANDOM ALLOCATION.sh.
- 5 DOUBLE BLIND METHOD.sh.
- 6 SINGLE-BLIND METHOD.sh.
- 7 or/1-6

8 (ANIMAL not HUMAN).sh.  
 9 7 not 8  
 10 CLINICAL TRIAL.pt.  
 11 exp Clinical Trials/  
 12 (clin\$ adj25 trial\$).ti,ab.  
 13 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj25 (blind\$ or mask\$)).ti,ab.  
 14 PLACEBOS.sh.  
 15 placebo\$.ti,ab.  
 16 random\$.ti,ab.  
 17 or/10-16  
 18 17 not 8  
 19 9 or 18  
 20 exp BRONCHITIS/  
 21 acute bronchit\$.mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]  
 22 exp Respiratory Tract Infections/  
 23 or/20-22  
 24 exp ANTIBIOTICS, LACTAM/ or exp ANTIBIOTICS, COMBINED/ or exp ANTIBIOTICS, TETRACYCLINE/ or exp ANTIBIOTICS, AMINOGLYCOSIDE/ or exp ANTIBIOTICS, GLYCOPEPTIDE/ or exp ANTIBIOTICS, MACROLIDE/  
 25 19 and 23 and 24

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**Search 8. Moore Z, Cowman S, Moore Z. Wound cleansing for pressure ulcers. *Cochrane Database of Systematic Review* 2005; Issue 4, CD004983.**

1. DETERGENTS explode all trees (MeSH)
2. SALINE SOLUTION HYPERTONIC explode all trees (MeSH)
3. POVIDONE-IODINE explode all trees (MeSH)
4. CHLORHEXIDINE explode all trees (MeSH)
5. HYDROTHERAPY explode tree 1 (MeSH)
6. ANTI-INFECTIVE AGENTS LOCAL explode all trees (MeSH)
7. DISINFECTION explode all trees (MeSH)
8. ALCOHOL DETERGENTS explode all trees (MeSH)
9. (clean\* or wash\* or scrub\*)
10. (wound\* near cleaning)
11. (shower\* or bath\*)
12. (detergent\* or saline or povidone or iodine or betadine)
13. (irrigat\* or whirlpool)
14. (chlorhexidine or hibitane or water or alcohol)
15. ANTI-INFECTIVE AGENTS LOCAL explode all trees (MeSH)
16. DISINFECTION single term (MeSH)
17. antiseptic\*
18. disinfectant\*
19. solution\*
20. soak\*

21. SODIUM HYPOCHLORITE explode all trees (MeSH)
22. SOLUTIONS single term (MeSH)
23. hypochlorit\*
24. eusol
25. dakin\*
26. (potassium next permanganate)
27. (gentian next violet)
28. (hydrogen next peroxide)
29. (benzoyl next peroxide)
30. (#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11)
31. (#12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20)
32. (#21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29)
33. (#30 or #31 or #32)
34. DECUBITUS ULCER explode all trees (MeSH)
35. (decubitus near ulcer\*)
36. (bed near ulcer\*)
37. (pressure near ulcer\*)
38. (pressure near sore\*)
39. (bed near sore\*)
40. (#34 or #35 or #36 or #37 or #38 or #39)
41. (#33 and #40)

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**Search 9. Banerjee S, Babidge W, Noorani HZ, Cuncins-Hearn A, Miller J, Smith J, Mensinkai S. Lung volume reduction surgery for emphysema [Technology overview no 17]. Ottawa: Canadian Coordinating Office for Health Technology Assessment; 2005.**

Pulmonary Emphysema!/de OR Emphysema!/de OR Emphysem?/ti,ab  
AND  
Surgery/de OR (Lung()volume()reduction()surger? OR LVRS OR  
Reduction()pneumoplast? OR Surger? OR pneumectom? OR lung(reduction()surger?)/  
ti,ab OR (Pulmonary AND (surger? OR resection? OR lobectom?))/ ti,ab OR  
(Lung()volume()reduction )/ti,ab AND (surgery/de OR surgery/ti,ab OR surgeries/ti,ab))  
AND  
dt=(meta-analysis OR controlled clinical trial OR randomized controlled trial OR  
multicenter study OR clinical trial OR clinical trial, phase i OR clinical trial, phase ii OR  
clinical trial, phase iii OR clinical trial, phase iv OR review OR review, multicase) OR  
(clinical trials! OR comparative study OR epidemiologic research design! OR  
epidemiologic studies! OR evaluation studies OR random allocation)/de OR (random?  
OR controlled()trial? OR controlled()clinical()trial? OR double()blind? OR single()blind?  
OR treble()blind? OR open()label()stud? OR open()label()trial? OR retrospective stud?  
OR prospective()stud? OR sham OR meta()analy? OR metaanaly? OR meta-analysis OR  
cohort()stud? OR case()control()stud? OR epidemiologic()stud? OR research()integration  
OR review? OR research()overview? OR quantitative()review? OR  
quantitative()overview? OR research()overview? OR methodologic()review? OR  
methodologic()overview? OR systematic()overview? OR systematic()review? OR

integrative()research OR quantitative()synthes?s OR comparative()stud? OR rct? ? or evidence-based medicine OR follow-up()stud? OR evaluation()stud? OR case()series OR case-series OR cross-over OR crossover OR multi-center OR multicenter OR multi-centre OR multicentre)/ti,ab

AND

Human? OR people? OR person?

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**Search 10. Ho C, Tran K, Hux M, Sibbald G, Campbell K. Artificial skin grafts in chronic wound care: a meta-analysis of clinical efficacy and a review of cost-effectiveness [Technology report no 52]. Ottawa: Canadian Coordinating Office for Health Technology Assessment; 2005.**

S1 s (Skin Transplantation OR Skin(L)transplantation)/de

S2 s (Graft Rejection OR Graft Survival OR Transplantation Tolerance OR Transplants OR Transplantation OR Transplantation, Homologous! OR Transplantation, Heterologous)/de AND (Skin!/de OR (skin OR dermi? OR derma? OR epidermi? OR epiderma? OR keratinocyte?)/ti,ab)

S3 s (transplant? OR graft? OR autograft? OR allograft?)(n)(skin OR dermi? OR derma? OR epidermi? OR epiderma? OR keratinocyte?)/ti,ab

S4 s s1:s3

S5 s (Artificial Organs OR Bioartificial Organs OR Prostheses and Implants OR Absorbable Implants OR Implants, Experimental OR Tissue Engineering OR Tissue Culture)/de

S6 s (artificial? OR bio()artificial OR bioartificial OR bio()engineer? OR bioengineer? OR culture? OR equivalent? OR living()cell()composite? OR man()made OR replac? OR substitut? OR synthetic? OR tissue()engineer?/ti,ab)

S7 s5:s6

S8 s s4 and s7

S9 s Skin, Artificial/de

S10 s (Apligraf OR Dermagraft OR Epicel OR Graftskin OR OrCel OR INTEGRA OR TransCyte OR Epibase)/ti,ab

S11 s artificial(n)skin/ti,ab

S12 s s9:s11

S13 s s8 or s12

S14 s Single-Blind Method/de OR Double-Blind Method/de OR Meta-Analysis/de OR Random Allocation/de

S15 s dt=(Clinical Trial, Phase I OR Clinical Trial, Phase II OR Clinical Trial, Phase III OR Clinical Trial, Phase IV)

S16 s dt=(Clinical Trial OR Controlled Clinical Trial OR Meta-Analysis OR Multicenter Study OR Randomized Controlled Trial)

S17 s (Controlled Clinical Trials! OR Clinical Trials! OR Epidemiologic Research Design! OR Research Design!)/de

S18 s (Comparative Study OR Placebos)/de

S19 s (random? OR RCT? ? OR single()(blind? OR dumm? OR mask?) OR double()(blind? OR dumm? OR mask?))/ti,ab

S20 s (triple()(blind? OR dumm? OR mask?) OR treble()(blind? OR dumm? OR mask?))/ti,ab

S21 s (placebo? OR meta()analy? OR metaanaly? OR quantitative?()(review? OR overview? OR synthesi?) OR integrative()research OR research()integration)/ti,ab

S22 s (systematic?()(review? OR overview?) OR methodologic?()(review? OR overview?))/ti,ab

S23 s (clinical()(trial? OR study OR studies) OR multigent?(2n)(trial? OR study OR studies) OR multi()cent?()(trial? OR study OR studies))/ti,ab

S24 s (control?()(study OR studies OR trial?) OR crossover()(design OR study OR studies OR trial?))/ti,ab

S25 s (comparative()(trial? OR study OR studies))/ti,ab

S26 s (head()”to”(head OR off()label? OR follow()up))/ti,ab

S27 s s14:s26

S28 s (Comparative Study OR Epidemiologic Studies! OR Evaluation Studies! OR Morbidity! OR Mortality! OR Prognosis!)/de

S29 s (natural()history OR inception()cohort OR predict? OR prognos? OR outcome)/ti,ab

S30 s (case()control()(stud? OR trial?))/ti,ab OR (retrospective()(stud? OR trial?))/ti,ab  
OR  
(cohort()(stud? OR trial?))/ti,ab

S31 s (prospective()(stud? OR trial?))/ti,ab OR (observational()(stud? OR trial?))/ti,ab  
OR (follow()up()(stud? OR trial?))/ti,ab

S32 s s28:s31

S33 s s13 AND s27

S34 S S33/HUMAN

S35 s s34/1980:2004

S36 rd s35

S37 s s13 AND s32

S38 S S37/HUMAN

S39 s s38/1980:2004

S40 rd s39

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Database: CINAHL <1982 to February Week 1 2004>

Search Strategy:

1 Skin Transplantation/

2 Dermatoplasty.ti,ab.

3 Transplantation/ or Organ Transplantation/ or exp Grafts/

4 exp Skin/ or (skin or dermi\$ or derma\$ or epidermi\$ or epiderma\$ or keratinocyte\$).mp.

5 3 and 4

6 ((transplant\$ or graft\$ or autograft\$ or allograft\$) adj (skin or dermi\$ or derma\$ or epidermi\$ or epiderma\$ or keratinocyte\$)).mp.

7 or/1-2,5-6

8 Artificial Organs/ or "Prostheses and Implants"/ or Tissue Culture/

9 (artificial\$ or (bio adj artificial) or bioartificial or (bio adj engineer\$) or bioengineer\$ or culture\$ or equivalent\$ or (living adj cell adj composite\$) or (man adj made) or replac\$ or substitut\$ or synthetic\$ or (tissue adj engineer\$)).ti,ab.

10 (or/8-9) and 7

11 Skin, Artificial/

12 (Apligraf or Dermagraft or Epicel or Graftskin or Or Cel or INTEGRA or TransCyte

or Epibase).ti,ab.  
13 (Artificial adj Skin).ti,ab.  
14 or/11-13  
15 10 or 14  
16 exp Experimental Studies/ or Meta Analysis/ or exp Clinical Research/  
17 Comparative Studies/ or Crossover Design/ or exp Professional Practice, Evidence-Based/ or exp Nonexperimental Studies/  
18 (Clinical trial or Systematic Review).pt.  
19 (((random\$ or RCT\$ or single) adj (blind\$ or dumm\$ or mask\$)) or (double adj (blind\$ or dumm\$ or mask\$))).ti,ab.  
20 ((triple adj (blind\$ or dumm\$ or mask\$)) or (treble adj (blind\$ or dumm\$ or mask\$))).ti,ab.  
21 (placebo\$ or (meta adj analy\$) or metaanaly\$ or (quantitative\$ adj (review\$ or overview\$ or synthesi\$)) or (integrative adj research) or (research adj integration)).ti,ab.  
22 ((systematic\$ adj (review\$ or overview\$)) or (methodologic\$ adj (review\$ or overview\$))).ti,ab.  
23 ((clinical adj (trial\$ or study or studies)) or (multicent\$ adj2 (trial\$ or study or studies)) or (multi adj cent\$ adj (trial\$ or study or studies))).ti,ab.  
24 ((control\$ adj (study or studies or trial\$)) or (crossover adj (design or study or studies or trial\$))).ti,ab.  
25 (comparative adj (trial\$ or study or studies)).ti,ab.  
26 ((head adj2 head) or (off adj label\$) or (follow adj up)).ti,ab.  
27 Review.pt.  
28 exp Morbidity/ or Mortality/ or Prognosis/ or Treatment Outcomes/  
29 ((natural adj history) or (inception adj cohort) or predict\$ or prognos\$ or outcome).ti,ab.  
30 ((case adj control adj (stud\$ or trial\$)) or (retrospective adj (stud\$ or trial\$)) or (cohort adj (stud\$ or trial\$))).ti,ab.  
31 ((prospective adj (stud\$ or trial\$)) or (observational adj (stud\$ or trial\$)) or (follow adj up adj (stud\$ or trial\$))).ti,ab.  
32 or/16-31  
33 15 and 32  
34 from 33 keep 1-127

# APPENDIX G: PRESS CHECKLIST

## PRESS Checklist

1. Translation: Is the search question translated well into search concepts?

Adequate

Needs revision Provide an explanation or example

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2. Operators: Are there any mistakes in the use of Boolean or proximity operators?

Adequate

Needs revision Provide an explanation or example

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3. Subject headings: Are any important subject headings missing or have any irrelevant ones been included?

Adequate

Needs revision Provide an explanation or example

---

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4. Natural language: Are any natural language terms or spelling variants missing, or have any irrelevant ones been included? Is truncation used optimally?

Adequate

Needs revision Provide an explanation or example

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5. Spelling & syntax: Does the search strategy have any spelling mistakes, system syntax errors, or wrong line numbers?

Adequate

Needs revision Provide an explanation or example

---

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6. Limits: Do any of the limits used seem unwarranted or are any potentially helpful limits missing?

Adequate

Needs revision Provide an explanation or example

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7. Adapted for db: Has the search strategy been adapted for each database to be searched?

Adequate

Needs revision Provide an explanation or example

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# APPENDIX H: SCREENSHOTS OF THE PEER REVIEW FORUM

Log-in Page - Microsoft Internet Explorer

Address: http://xp0558/press/login.aspx

**PRESS**  
Peer Reviewed Electronic Search Strategies

Home  
Login

Home  
Upload/Download  
Change Password  
New Register

**PRESS- Peer Reviewed Electronic Search Strategies**

**Log In**

User Name:

Password:

Remember me next time.

[New Account?](#)  
[Forgot your password?](#)

**Useful Links**

Alex Korablin  
Business Analysis & WEB-Design

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Question Statement - Microsoft Internet Explorer

Address: http://localhost:1981/press/secure\_members/all\_questions.aspx

**PRESS**  
Peer Reviewed Electronic Search Strategies

Home > View Questions  
Logout

Home  
View Questions  
My Questions  
New Question  
Upload/Download  
Edit Profile  
Change Password  
New Register

**Welcome Alex Korablin**

Question	Answer	Time	Interface	Other	Email Address
<a href="#">test4</a>	<a href="#">No Answer</a>	5days	Dialog	test4	<a href="mailto:aalkor@ua.fm">aalkor@ua.fm</a>
<a href="#">test3</a>	<a href="#">test3</a>	48hours	OVID		<a href="mailto:aalkor@ua.fm">aalkor@ua.fm</a>
<a href="#">test22222</a>	<a href="#">answer2</a>	48hours	OVID		<a href="mailto:aalkor@ua.fm">aalkor@ua.fm</a>
<a href="#">test question</a>	<a href="#">test answer</a>	48hours	OVID	test	<a href="mailto:akorablin@cheo.on.ca">akorablin@cheo.on.ca</a>

Alex Korablin  
Business Analysis & WEB-Design

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