Online Resource 1: Database search strategies

Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1946 to Present> was searched on 02/04/2014, using the OVID SP interface.
1408 records were retrieved

Key:
/=index term (MeSH heading)
*=truncation
?= embedded truncation
ti=title field
ab=abstract
tw=textword
.ti,ab=terms were searched for in either title or abstract
adj = terms adjacent to each other (same order)
adj1 = terms within one word of each other (any order)
adj2 = terms within two words of each other (any order)

1 Agranulocytosis/ or neutropenia/ or leukopenia/ (26903)
2 exp Fever/ or exp "Fever of Unknown Origin"/ or exp Body Temperature/ (103535)
3 (1 and 2) or febrile neutropenia/ (2868)
4 (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab. (5241)
5 ((fever or temperature or temp) adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*).ti,ab. (2727)
6 3 or 4 or 5 (8261)
7 (antibiotic* or antimicrob* or anti-biotic* or anti-microb*).tw. (293708)
8 exp anti-bacterial agents/ (522999)
9 exp beta-lactamases/ or exp beta-lactams/ (114490)
10 exp penicillins/ or penicillin*.tw. (89738)
11 tazobactam*.tw. (2549)
12 ureidopenicillin*.tw. (203)
13 exp ticarcillin/ or ticarcillin*.tw. (2002)
14 exp piperacillin/ or piperacillin*.tw. (5122)
15 exp quinolones/ or quinolone*.tw. (38463)
16 exp ciprofloxacin/ or ciprofloxacin*.tw. (20215)
17 exp ceftazidime/ or ceftazidime*.tw. (7133)
18 meropenem*.tw. (3297)
19 exp imipenem/ or imipenem*.tw. (8147)
20 exp aminoglycosides/ (126292)
21 exp aminoglycoside*.tw. (14842)
22 exp amikacin/ or amikacin*.tw. (7485)
23 exp gentamicins/ or gentam?cin*.tw. (27182)
24 exp tobramycin/ or tobram?cin*.tw. (6382)
25 exp kanamycin/ or kanam?cin*.tw. (17391)
26 exp netilmicin/ or netilm?cin*.tw. (1885)
27 (beta-lactam* or beta?lactam*).tw. (30330)
28 or/7-28 (762602)
29 exp "length of stay"/ or exp patient admission/ or exp patient discharge/ or exp patient readmission/ or exp inpatients/ or exp outpatients/ (109775)
30 (discharge* or (length* adj2 stay*) or (duration* adj2 stay*) or admission* or readmission* or inpatient* or outpatient*).tw. (428579)
31 30 or 31 (475681)
33 or 32 (1211026)
34 adolescent/ or exp child/ or exp infant/ or exp young adult/ (2972677)
35 (newborn* or new-born* or baby* or babies or neonat* or infan* or kid or kids or toddler* or adole* or teen* or boy* or girl* or junevil* or youth* or puber* or pubescent* or paediatric* or paediatric* or young person* or young people or young adult* or child* or schoolchild* or schoolage* or school* or preschool*).tw. (1838751)
36 34 or 35 (3514897)
37 6 and 33 and 36 (1408)

Cochrane Database of Systematic Reviews  Issue 4 of 12, April 2014 was searched on 03/04/2014, using the Cochrane Library interface.
367 records were retrieved from The Cochrane Library, of which 5 were from CDSR.

Key:
* = truncation
ti = title field
ab = abstract
\(.\)ti,ab. = terms were searched for in either title or abstract
near/1 = terms within one word of each other (any order)
near/2 = terms within two words of each other (any order)
next = terms are next to each other

<table>
<thead>
<tr>
<th>ID</th>
<th>Search</th>
<th>Hits</th>
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<tbody>
<tr>
<td>#1</td>
<td>MeSH descriptor: [Agranulocytosis] this term only</td>
<td>309</td>
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<tr>
<td>#2</td>
<td>MeSH descriptor: [Neutropenia] this term only</td>
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<td>#3</td>
<td>MeSH descriptor: [Leukopenia] this term only</td>
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<td>#4</td>
<td>{or #1-#3}</td>
<td>2101</td>
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<td>#5</td>
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<tr>
<td>#6</td>
<td>MeSH descriptor: [Fever of Unknown Origin] this term only</td>
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<tr>
<td>#7</td>
<td>MeSH descriptor: [Body Temperature] explode all trees</td>
<td>3323</td>
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<tr>
<td>#8</td>
<td>{or #5-#7}</td>
<td>4863</td>
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<td>#9</td>
<td>#4 and #8</td>
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<tr>
<td>#10</td>
<td>MeSH descriptor: [Febrile Neutropenia] this term only</td>
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<tr>
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<td>#9 or #10</td>
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<td>#12</td>
<td>(&quot;febrile&quot; near/5 (neutropen* or granulocytop* or agranulocyto* or leukocytop<em>ni</em>)):ti,ab</td>
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<td>460</td>
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<td>#14</td>
<td>{or #11-#13}</td>
<td>1574</td>
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<td>#15</td>
<td>(antibiotic* or antimicrob* or anti-biotic* or anti-microb*):ti,ab</td>
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<td>MeSH descriptor: [Anti-Bacterial Agents] explode all trees</td>
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<td>MeSH descriptor: [beta-Lactamases] explode all trees</td>
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<td>MeSH descriptor: [beta-Lactams] explode all trees</td>
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<td>#19</td>
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<td>penicillin*:ti,ab</td>
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<td>tazobactam*:ti,ab</td>
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<td>#22</td>
<td>ureidopenicillin*:ti,ab</td>
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<td>#28</td>
<td>quinolone*:ti,ab</td>
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</tbody>
</table>
CENTRAL (Issue 3 of 12 March 2014), Database of Abstracts of Reviews of Effects, DARE (Issue 1 of 4 January 2014) and Health Technology Database, HTA (Issue 1 of 4, January 2014) were searched on 03/04/2014, using the Cochrane Library interface.

520 records were retrieved from The Cochrane Library, of which 415 were from CENTRAL, 20 were from DARE, 1 was from HTA and the remainder were from CDSR (and therefore discarded).

Key:
/ = index term (MeSH heading)
#1 MeSH descriptor: [Agranulocytosis] this term only 309
#2 MeSH descriptor: [Neutropenia] this term only 1449
#3 MeSH descriptor: [Leukopenia] this term only 514
#4 {or #1-#3} 2101
#5 MeSH descriptor: [Fever] this term only 1646
#6 MeSH descriptor: [Fever of Unknown Origin] this term only 72
#7 MeSH descriptor: [Body Temperature] explode all trees 3323
#8 {or #5-#7} 4863
#9 #4 and #8 522
#10 MeSH descriptor: [Febrile Neutropenia] this term only 0
#11 #9 or #10 522
#12 ("febrile" near/5 (neutropen* or granulocytop* or agranulocyto* or leukocytop*ni*)) 1566
#13 (("fever" or "temperature" or "temp") near/5 (neutropen* or granulocytop* or agranulocyto* or leukocytop*ni*)) 643
#14 {or #11-#13} 2000
#15 (antibiotic* or antimicrob* or anti-biote* or anti-microb*) 22059
#16 MeSH descriptor: [Anti-Bacterial Agents] explode all trees 9158
#17 MeSH descriptor: [beta-Lactamases] explode all trees 131
#18 MeSH descriptor: [beta-Lactams] explode all trees 7776
#19 MeSH descriptor: [Penicillins] explode all trees 4621
#20 penicillin* 3272
#21 tazobactam* 297
#22 ureidopenicillin* 13
#23 MeSH descriptor: [Ticarcillin] explode all trees 147
#24 ticarcillin* 279
#25 MeSH descriptor: [Piperacillin] explode all trees 336
#26 piperacillin* 660
#27 MeSH descriptor: [Quinolones] explode all trees 3106
#28 quinolone* 1191
#29 MeSH descriptor: [Ciprofloxacin] explode all trees 960
#30 ciprofloxacin* 1866
#31 MeSH descriptor: [Ceftazidime] explode all trees 404
#32 ceftazidime* 849
#33 meropenem* 263
#34 MeSH descriptor: [Imipenem] explode all trees 262
#35 imipenem* 527
#36 MeSH descriptor: [Aztreonam] explode all trees 142
#37 aztreonam* 291
#38 MeSH descriptor: [Aminoglycosides] explode all trees 6668
#39 aminoglycoside* 836
#40 MeSH descriptor: [Amikacin] explode all trees 312
#41 amikacin* 680
#42 MeSH descriptor: [Gentamicins] explode all trees 1056
#43 gentam*cin* 1844
#44 MeSH descriptor: [Tobramycin] explode all trees 484
EMBASE <1974 to 2014 April 02> was searched on 03/04/2014, using the OVID SP interface. 1327 records were retrieved.

Key:

/ = indexing term (EMTREE heading)
* = focussed EMTREE heading
exp = exploded EMTREE heading
* = truncation
? = embedded truncation
.ti,ab. = terms in either title or abstract fields
.tw. = textword
adj = terms adjacent to each other (same order)
adj1 = terms within one word of each other (any order)
adj2 = terms within two words of each other (any order)

1 *Agranulocytosis/ or *neutropenia/ or *leukopenia/ (19402)
2 *Fever/ or *pyrexia idiopathica/ or exp *Body Temperature/ (36896)
3 (1 and 2) or *febrile neutropenia/ (3340)
4 (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab. (8453)
5 ((fever or temperature or temp) adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab. (3832)
6 3 or 4 or 5 (12398)
7 (antibiotic* or antimicrob* or anti-biotic* or anti-microb*).tw. (373110)
8 exp *antiinfective agent/ (1071546)
To make the most of the interface, a number of different strategies were run, and duplicates removed from the final results. Overall, 450 different records were retrieved.

Search 1:
(tw:(febrile AND (neutropen$ or granulocytop$ or agranulocyto$ or leukocytop$))) OR (tw:((fever AND (neutropen$ or granulocytop$ or agranulocyto$ or leukocytop$))) OR (tw:((temperature AND (neutropen$ or granulocytop$ or agranulocyto$ or leukocytop$))) OR (tw:((temp AND (neutropen$ or granulocytop$ or agranulocyto$ or leukocytop$))))
Retrieved 225 records
Search 2:
((mh:(Agranulocytosis)) OR (mh:(neutropenia)) OR (mh:(leukopenia)) AND (mh:(Fever)) OR (mh:"Fever of Unknown Origin")) OR (mh:(Body Temperature)))
Retrieved 94 records

Search 3:
((C15.378.553.546) OR (C15.378.553.546.184) OR (C15.378.553.546.184.564) OR (Leucopenia) OR (Agranulocytosis) OR (Agranulocitose)) AND ((C23.888.119.344) OR (C23.888.119.344.345) OR (Fiebre) OR (Febre) OR (Fiebre de Origen Desconocido) OR (Febre de Causa Desconhecida))
Retrieved 246 records

Search 4:
(C15.378.553.546.184.564.750) OR (Neutropenia Febril)
Retrieved 135 records