Web appendix – available online at www.3epain.com

Measuring pain and efficacy of pain treatment in inflammatory arthritis: a systematic literature review
Matthias Englbrecht, et al.
J Rheumatol 2012;39:Suppl.90.

Population, Intervention, Comparison, Outcome - the PICO concept -

<table>
<thead>
<tr>
<th><strong>Population</strong></th>
<th>Adult patients with inflammatory arthritis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intervention</strong></td>
<td>Pain instruments (questionnaires, indices, (sub)scales, items) that measure pain as a primary outcome or have a distinct pain subscale</td>
</tr>
<tr>
<td><strong>Comparison</strong></td>
<td>Not applicable for this SLR</td>
</tr>
</tbody>
</table>
| **Outcome** | Clinimetric/psychometric properties of instruments:  
- Validity  
- Reliability  
- Responsiveness  
- Feasibility  
- Standardization  
⇒ including patient acceptable symptom state or clinically relevant differences |
### Search terms in Embase as an example

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>exp Arthritis, Rheumatoid/</td>
</tr>
<tr>
<td>2.</td>
<td>((rheumatoid or reumatoid or revmatoid or rheumatic or reumatic or revmatic or rheumat* or reumat* or revmarthrit*) adj3 (arthrit* or artrit* or diseas* or condition* or nodule*)).tw</td>
</tr>
<tr>
<td>3.</td>
<td>(felty* adj2 syndrome).tw</td>
</tr>
<tr>
<td>4.</td>
<td>(caplan* adj2 syndrome).tw</td>
</tr>
<tr>
<td>5.</td>
<td>(sjogren* adj2 syndrome).tw</td>
</tr>
<tr>
<td>6.</td>
<td>(sicca adj2 syndrome).tw</td>
</tr>
<tr>
<td>7.</td>
<td>still* disease.tw</td>
</tr>
<tr>
<td>8.</td>
<td>bechterew* disease.tw</td>
</tr>
<tr>
<td>9.</td>
<td>exp Spondylarthropathies/</td>
</tr>
<tr>
<td>10.</td>
<td>(ankylos* or spondyl*).tw</td>
</tr>
<tr>
<td>11.</td>
<td>(bekhterev* or bechterew*).tw</td>
</tr>
<tr>
<td>12.</td>
<td>(Marie adj struempell*).tw</td>
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<tr>
<td>13.</td>
<td>exp Arthritis, Psoriatic/</td>
</tr>
<tr>
<td>14.</td>
<td>(psoria* adj2 (arthriti* or arthropath*)).tw</td>
</tr>
<tr>
<td>15.</td>
<td>((arthriti* or arthropath*) adj2 psoria*).tw</td>
</tr>
<tr>
<td>16.</td>
<td>exp Arthritis, Infectious/</td>
</tr>
<tr>
<td>17.</td>
<td>reactive arthritis.tw</td>
</tr>
<tr>
<td>18.</td>
<td>(reiter* adj2 (disease or syndrome)).tw</td>
</tr>
<tr>
<td>19.</td>
<td>((sexual* or chlamydia or yersinia or postyersinia or postdysenteric or salmonella or shigella or b27 or postinfectious or post infectious) adj5 arthrit*).tw</td>
</tr>
<tr>
<td>20.</td>
<td>reactive enthesitis.tw</td>
</tr>
<tr>
<td>21.</td>
<td>undifferentiated oligoarthritis.tw</td>
</tr>
<tr>
<td>22.</td>
<td>or/1-21</td>
</tr>
<tr>
<td>23.</td>
<td>exp Inflammatory Bowel Diseases/</td>
</tr>
<tr>
<td>24.</td>
<td>exp Arthritis/</td>
</tr>
<tr>
<td>25.</td>
<td>23 and 24</td>
</tr>
<tr>
<td>26.</td>
<td>((inflamm* or ibd or chrohn* or enteropath*) adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>27.</td>
<td>(granulomatous colitis adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>28.</td>
<td>(ulcerative colitis adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>29.</td>
<td>(granulomatous enteritis adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>30.</td>
<td>(regional enteritis adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>31.</td>
<td>(ileoenteritis adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>32.</td>
<td>(terminal ileitis adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>33.</td>
<td>(regional ileitis adj5 (arthrit* or arthrop*)).tw</td>
</tr>
<tr>
<td>34.</td>
<td>or/22,25-33</td>
</tr>
<tr>
<td><strong>Population, Intervention &amp; Outcome</strong></td>
<td>48. AND/ 34, 35, 47</td>
</tr>
<tr>
<td><strong>Limitations to adults &amp; humans</strong></td>
<td>49. 48 [Limit to: Human, Adults 18-65, Adults 65+]</td>
</tr>
</tbody>
</table>

| **Intervention** | 35. ((exp Pain/ OR exp Pain Measurement/) AND ((inventory OR index OR scale$ OR questionnaire$ OR score$).tw OR (exp Outcome Assessment(health care)/ OR exp Outcome and Process Assessment(health care)/))) |
| **Comparison** | Not applicable |

| **Outcome** | 36. validation$.tw  
37. validit*.tw  
38. reliab*.tw  
39. objectivit*.tw  
40. (psychometr* AND propert*).tw  
41. clinimetric*.tw  
42. evaluation.tw  
43. introduction.tw  
44. responsive*.tw  
45. (patient AND acceptable AND symptom* AND state*).tw  
46. ((minimal* OR meaning* OR detectabl* OR important* OR effectiv* OR relevant*).tw AND (difference* OR change* OR improv* OR shift* OR alteration* OR deterioration* OR respons* OR efficacy OR effectiveness).tw)  
47. /OR 36-46 |
Excluded articles (in ascending chronological order for each exclusion criterion)

No pain measure validated/wrong outcome


23. Cardiel, M.H., et al., Translation, cross-cultural adaptation, and validation of the Bath Ankylosing Spondylitis Functional Index (BASFI), the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) and the Dougados Functional Index (DFI) in a Spanish


47. Pincus, T., et al., Complex measures and indices for clinical research compared with simple patient questionnaires to assess function, pain, and global estimates as rheumatology "vital signs" for usual clinical care. Rheum Dis Clin North Am, 2009. 35(4):


No psychometric/clinimetric information on IA-subgroup provided


Wrong population


No patient reported outcome


Metrics of pain scales not described