

**Supplemental Material**

MEDLINE search strategy:

1. exp Arthritis, Rheumatoid/
2. ((rheumatoid or reumatoid or revmatoid or rheumatic or reumatic or revmatic or rheumat\$ or reumat\$ or revmarthrit\$) adj (arthritis\$ or artrit\$ or disease\$ or condition\$ or nodule\$)).tw.
3. (inflammatory adj arthr\$).tw.
4. (early adj arthr\$).tw.
5. (chronic adj arthr\$).tw.
6. exp Spondylitis, Ankylosing/
7. exp Spondylarthropathies/
8. (marie-strumpell adj disease\$).tw.
9. (bechtere\$ adj disease\$).tw.
10. (bekhterev\$ adj disease\$).tw.
11. (rheumatoid adj spondylitis).tw.
12. (ankylo\$ adj spondyl\$).tw.
13. (vertebral adj ankylosis).tw.
14. (spin\$ adj ankylosis).tw.
15. spondyloarthr\$.tw.
16. oligoarthr\$.tw.
17. exp Arthritis, Juvenile/
18. (juvenile\$ adj3 arthr\$).tw.
19. (juvenile\$ adj3 polyarthr\$).tw.
20. (child\$ adj3 arthr\$).tw.
21. (stills adj disease).tw.
22. (enthesitis adj2 arthr\$).tw.
23. JRA.tw.
24. JIA.tw.
25. exp Arthritis, Psoriatic/
26. (psoria\$ adj (arthr\$ or enthesopath\$)).tw.
27. (seronegative adj (arthr\$ or enthesopath\$)).tw.
28. (sero-negative adj (arthr\$ or enthesopath\$)).tw.
29. or/1-28
30. exp Methotrexate/
31. met?ot?rexat\$.tw.
32. Otrexup.tw.
33. rasuovo.tw.
34. trexall.tw.
35. amet?opterin\$.tw.
36. A Met?opterine.tw.
37. mexate.tw.
38. Antifolan.tw.
39. E?rt?exat\$.tw.
40. Farmitrexat\$.tw.
41. Folex.tw.
42. Ledertrexate.tw.
43. Methoblastin.tw.
44. Methohexate.tw.
45. Methotrate.tw.
46. methylaminopterin\$.tw.
47. Metotrexate.tw.
48. mtx.tw.
49. Novatrex.tw.
50. Rheumatrex.tw.
51. biotrexate.tw.
52. farmotrex.tw.
53. imeth.tw.
54. lantarel.tw.
55. maxtrex.tw.
56. metex.tw.
57. methotrexate.tw.
58. methoxtrexate.tw.
59. metoject.tw.
60. metotrexin.tw.
61. metrex.tw.
62. neotrexate.tw.
63. texate.tw.
64. texorate.tw.
65. xaken.tw.
66. zexate.tw.
67. Biometrox.tw.
68. Ebetrexat.tw.
69. ifamet.tw.
70. lumexon.tw.
71. Metolate.tw.
72. Metrexato.tw.
73. Metrotex.tw.
74. miantrex.tw.
75. Pterin.tw.
76. trexan.tw.
77. unitrexate.tw.
78. or/30-77
79. exp Sulfasalazine/
80. sulf?sal?zin\$.tw.
81. a?ulf?d\$.tw.
82. azopyrin\$.tw.
83. azosulfidine.tw.
84. azulfin.tw.
85. benzosulfa.tw.
86. colo pleon.tw.
87. colopleon.tw.
88. disalazin.tw.
89. pyralin.tw.
90. rorasul.tw.
91. rosulfant.tw.
92. s?lazine.tw.
93. salazopyr\$.tw.
94. Salazopirin\$.tw.
95. salazo sulfapyridine.tw.
96. salazosulfa pyridine.tw.
97. salazosulf?pyridine.tw.
98. salicyl azo sulfapyridine.tw.
99. salicylazosulfapyridine.tw.
100. salisulf.tw.
101. sardine.tw.
102. sulcolon.tw.
103. sulphosalazine.tw.
104. ucine.tw.
105. ulcol.tw.
106. Azaline.tw.
107. Salopyrine.tw.
108. sulfazine.tw.
109. pleon.tw.
110. or/79-109
111. leflunomide\$.tw.
112. arava.tw.
113. exp Isoxazoles/
114. isoxazole\$.tw.
115. arabloc.tw.
116. or/111-115
117. exp Elasticity Imaging Techniques/
118. fibroscan.tw.
119. transient elastograph\$.tw.
120. ultrasound elastograph\$.tw.
121. (elasticity adj3 imag\$ adj3 technique).tw.
122. (tissue adj3 elasticity adj3 imag\$).tw.
123. elastogra\$.tw.
124. vibro acoustogra\$.tw.
125. sonoelastogra\$.tw.
126. sonoelastic\$.tw.
127. elastomet\$.tw.
128. (liver adj3 stiffness).tw.
129. (liver adj3 rigidity).tw.
130. or/117-129
131. 29 or 78 or 110 or 116
132. 130 and 131

**Supplementary Table I.** Quality assessment of cross-sectional studies.

	Arena <i>et al.</i> 2012	Barbero- Villares <i>et al.</i> 2011	Lee <i>et al.</i> 2012	Park <i>et al.</i> (meloxicam) 2014	Park <i>et al.</i> (celecoxib) 2014	Pongpit <i>et al.</i> 2016	Seitz <i>et al.</i> 2010
Study population and recruitment to study is clearly explained and defined	1	0	1	1	1	1	1
Complete or consecutive recruitment into study, based on a diagnosis of inflammatory arthritis rather than a specific feature of liver disease	0	0	1	1	1	1	1
Clear definition of the method used to measure liver stiffness, including a minimum of 10 repeated measures	1	1	1	1	1	1	1
Baseline characteristics of study population demonstrate that the study contains a representative sample of patients with inflammatory arthritis	0	0	1	0	1	1	1
Data completeness: liver stiffness measurement reported in at least 80% of the study population	1	1	1	1	1	1	0
Total score:	3	2	5	4	4	5	3

**Supplementary Table II.** Quality assessment of case-control studies (Newcastle-Ottawa Scale)

	Kim <i>et al.</i> 2015	Laharie <i>et al.</i> 2010	Park <i>et al.</i> 2010
Selection (max stars = 4)	+++	++	+++
Comparability (max stars = 2)	+	+	+
Exposure (max stars = 4)	++++	+++	++
Total points	8	6	6