

Appendix 1. Search Strategies for MEDLINE

Original search (1989 to April 13th, 2015)

Minimally Important Difference Medline Search Strategy

1. (clinical* important difference? Or clinical* meaningful difference? Or clinical* meaningful improvement? Or clinical* relevant mean difference? Or clinical* significant change? Or clinical* significant difference? Or clinical* important improvement? Or clinical* meaningful change? Or mcid or minim* clinical* important or minim* clinical* detectable or minim* clinical* significant or minim* detectable difference? Or minim* important change? Or minim* important difference? Or smallest real difference? Or subjectively significant difference?).tw.
2. "Quality of Life" /
3. "outcome assessment(health care)" / or treatment outcome / or treatment failure /
4. exp pain /
5. exp disease attributes / or exp "signs and symptoms" /
6. or/2-5
7. 1 and 6
8. health status indicators / or "severity of illness index" / or sickness impact profile / or interviews as topic / or questionnaires / or self report /
9. Pain Measurement /
10. patient satisfaction / or patient preference /
11. or/8-10
12. 7 and 11
13. limit 12 to yr="1989 -Current"
14. (quality of life or life 1atisfy??? Or hrqol or hrql).mp.
15. (assessment? Outcome? Or measure? Outcome? Or outcome? Studies or outcome? Study or outcome? Assessment? Or outcome? management or outcome? measure* or outcome? research or patient? outcome? or research outcome? or studies outcome? or study outcome? or therap* outcome? or treatment outcome? or treatment failure?).mp.
16. pain????mp.
17. ((activity or sever* or course) adj3 (disease or disabilit* or symptom*)).mp.
18. or/14-17
19. 1 and 18
20. (questionnaire? or instrument? or interview? or inventor* or test??? or scale? or subscale? or survey? or index?? or indices or form? or score? or measurement?).mp.
21. (patient? rating? or subject* report? or subject* rating? or self report* or self evaluation? or self appraisal? or self assess* or self rating? or self rated).mp.
22. (patient? report* or patient? observ* or patient? satisf*).mp.
23. anchor base??mp.

- 24. or/20-23
- 25. 19 and 24
- 26. limit 25 to yr="1989 -Current"
- 27. 13 or 26

Search Update with Degenerative Knee Disease Filter (February 02 2015 to September 15 2016)

- 28. Knee.mp.
- 29. (WOMAC or WOMUOI).mp.
- 30. KOOS.mp.
- 31. KOS?ADL.mp.
- 32. IKDC.mp.
- 33. Lysholm.mp.
- 34. OKS.mp.
- 35. (Activity Rating Scale or ARS).mp.
- 36. (Tegner Activity Score or TAS).mp.
- 37. (Visual Analogue Scale or VAS).mp.
- 38. (Short form or SF?36 or SF?12 or SF?8).mp.
- 39. (RAND?36 or RAND?12 or RAND?8).mp.
- 40. (Medical outcomes study or MOS).mp.
- 41. (EuroQol or EQ?5D).mp.
- 42. (Health Assessment Questionnaire or HAQ or HAQ?DI).mp.
- 43. Lequesne.mp.
- 44. Numerical Rating Scale.mp.
- 45. Number of painful days.mp.
- 46. Arthritis.mp.
- 47. Osteoarthritis.mp.
- 48. (AIMS or AIMS?2).mp.
- 49. McGill Pain.mp.
- 50. ASES.mp.
- 51. (Schmerzempfindungsskala or SES or Pain Experience Scale).mp.
- 52. (Pain disability index or PDI).mp.
- 53. MACTAR.mp.
- 54. (Brief Pain Inventory or Wisconsin Brief Pain Questionnaire).mp.
- 55. (Western Ontario Meniscal Evaluation Tool or WOMET).mp.
- 56. 15?D.mp.
- 57. (Health Utilities Index or HUI?2 or HUI?3).mp.
- 58. or/28-57
- 59. 27 and 58
- 60. limit 59 to ed=20150201-20160915

Appendix 2. Summary of MID estimates

PRO Instrument	Study	No. of patients	Absolute MID Estimate (SD or 95%CI)	Correlation coefficient between anchor and PRO	Follow up (months)	Method of analysis
WOMAC						
<i>Pain</i>	Terwee 2010 ^b	NR	11.8 (7.9 to 15.7)	11.8	12	MC ^b
	Terwee 2010 ^c	NR	3.5 (-1.3 to 8.3)	3.5	6	MC ^b
	Terwee 2010 ^d	NR	7.9 (1.6 to 14.2)	7.9	9	MC ^b
	Terwee 2010 ^d	NR	15.7 (6.5 to 24.9)	15.7	15	MC ^b
	Terwee 2010 ^b	NR	12.9 (-1.3 to 27.1)	12.9	12	ROC
	Terwee 2010 ^c	NR	3.6 (-4.5 to 11.7)	3.6	6	ROC
	Terwee 2010 ^d	NR	2.2 (-11.4 to 15.8)	2.2	9	ROC
	Terwee 2010 ^d	NR	11.2 (5 to 17.4)	11.2	15	ROC
	Escobar 2013	209	29.9 (27.1 to 32.6)	29.9	12	MC ^b
	Escobar 2013	207	28.1 (25.1 to 31)	28.1	12	MC ^b
	Escobar 2013	415	20.5 (20.2 to 20.9)	20.5	12	ROC
	Escobar 2013	497	23.5 (23.1 to 23.8)	23.5	12	ROC
	<i>Function</i>	Terwee 2010 ^b	NR	9.5 (6.5 to 13.4)	9.5	12
Terwee 2010 ^c		NR	5.7 (1.8 to 9.6)	5.7	3	MC ^b
Terwee 2010 ^c		NR	3.3 (0.1 to 6.5)	3.3	6	MC ^b
Terwee 2010 ^c		NR	6.9 (1.8 to 12)	6.9	12	MC ^b
Terwee 2010 ^d		NR	4.7 (0.5 to 8.9)	4.7	9	MC ^b
Terwee 2010 ^d		NR	4.7 (-5.2 to 14.6)	4.7	15	MC ^b
Terwee 2010 ^b		NR	8.9 (0.5 to 17.3)	8.9	12	ROC
Terwee 2010 ^c		NR	6.8 (-1.7 to 15.2)	6.8	3	ROC
Terwee 2010 ^c		NR	3.5 (-0.5 to 7.5)	3.5	6	ROC
Terwee 2010 ^c		NR	4.9 (-10.5 to 20.3)	4.9	12	ROC
Terwee 2010 ^d		NR	3.1 (-9.2 to 15.4)	3.1	9	ROC
Terwee 2010 ^d		NR	5.7 (-3.3 to 14.7)	5.7	15	ROC
Ornetti 2011		NR	17.1 (14.2 to 20.1)	17.13	1	MC ^b
Escobar 2013		221	31.1 (28.3 to 33.9)	31.1	12	MC ^b
Escobar 2013		237	33.5 (30.9 to 36)	33.5	12	MC ^b
Escobar 2013		415	24.2 (23.6 to 24.7)	24.2	12	ROC
Escobar 2013		497	23 (22.7 to 23.2)	23	12	ROC
KOOS						
<i>Pain</i>	Mills 2016 ^a	184	11.5	0.453	6	ROC - Youden

	Mills 2016 ^a	184	18	0.453	6	ROC - 80%
	Mills 2016 ^a	35	20.0 (8.9 to 31.2)	0.453	6	MC ^b
	Mills 2016 ^a	67	15.0 (2.1 to 27.8)	0.453	6	MC ^a
	Mills 2016 ^b	184	11.5	0.455	6	ROC - Youden
	Mills 2016 ^b	184	17	0.455	6	ROC - 80%
	Mills 2016 ^b	34	16.6 (9.9 to 23.2)	0.455	6	MC ^b
	Mills 2016 ^b	65	5.6 (-7.7 to 18.9)	0.455	6	MC ^a
	Mills 2016 ^a	184	4	0.412	12	ROC - Youden
	Mills 2016 ^a	184	13	0.412	12	ROC - 80%
	Mills 2016 ^a	35	8.2 (0.7 to 15.9)	0.412	12	MC ^b
	Mills 2016 ^a	67	9.3 (-1.9 to 20.4)	0.412	12	MC ^a
	Mills 2016 ^b	184	4	0.437	12	ROC - Youden
	Mills 2016 ^b	184	12	0.437	12	ROC - 80%
	Mills 2016 ^b	34	4.3 (-3.4 to 12.1)	0.437	12	MC ^b
	Mills 2016 ^b	65	4.0 (-7.7 to 15.4)	0.437	12	MC ^a
<i>ADL</i>	Mills 2016 ^a	184	2.5	0.502	12	ROC - Youden
	Mills 2016 ^a	184	-1.5	0.502	12	ROC - 80%
	Mills 2016 ^a	35	8.7 (2.9 to 14.2)	0.502	12	MC ^b
	Mills 2016 ^a	67	8.9 (0.74 to 17.1)	0.502	12	MC ^a
	Mills 2016 ^b	184	2.5	0.471	12	ROC - Youden
	Mills 2016 ^b	184	-1.5	0.471	12	ROC - 80%
	Mills 2016 ^b	34	8.2 (2.2 to 14.1)	0.471	12	MC ^b
	Mills 2016 ^b	65	7.6 (-0.79 to 16.1)	0.471	12	MC ^a

EQ-5D

	Browne 2010	100	0.15	0.42	6	MC ^a
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Terwee 2010^{a-e}: This study reported on five cohorts of patients from different studies. a=cohort 1; b=cohort 2; c=cohort 3; d=cohort 4; e=cohort 5

Mills 2016^{a,b}: This study measured in the MID using two different anchors. a=walking anchor; b=knee health anchor

*Estimate is for improvement/deterioration

MC^a=Mean change method proposed by Redelmeier

MC^b=Mean change method proposed by Jaeshcke