

Appendix

Expert consensus on propositions

Before the first task force meeting, a general literature search of practice guidelines, overviews of systematic reviews and evidence-based recommendations was undertaken to obtain an overview of current recommendations and addressed treatment modalities in people with hip or knee OA. For this purpose, the databases Medline, Embase, Pedro, CINAHL, OTseekers, PsychInfo, AMED, G-I-N and The Cochrane Database of systematic reviews were searched up to March 2011. After removing duplicates, 984 hits were retrieved and after excluding recommendations on pharmacological or surgical treatment or other diagnoses than OA, 31 studies remained. The 31 studies addressed 30 different non-pharmacological treatment modalities. The results were presented at the first task force meeting. All addressed treatment modalities and potential topics for propositions were discussed. After the first meeting, the experts were asked to contribute independently with 10 propositions about non-pharmacological management and its content. Experts' consensus was achieved using the Delphi technique. In total, five Delphi rounds, facilitated by the convenor, were performed by e-mail. All members of the task force, except for the convenor and the research fellow, responded during each round. The preliminary literature review as well as the first Delphi rounds included propositions covering different aspects of non-pharmacological treatment, for example thermal modalities, Transcutaneous Electric Nerve Stimulation, acupuncture, manual therapy and traction. Consensus on 11 propositions was reached in the 5th Delphi round concerning the topics; initial assessment, individualised treatment, comprehensive care, principles of life style changes, patient education, exercise, and weight loss, footwear, assistive technology, and vocational rehabilitation.

Systematic literature search

A systematic literature search was undertaken by the research fellow (LF) supported by her mentors (JWJB, KBH and TPMVV), using Medline (In-Process & Other Non-Indexed Citations 1948-), Embase (1980-), AMED (1985-), PsychINFO (1806-), CINAHL (1981-), Cochrane Database of Systematic Reviews (2005-), Database of Abstracts of Reviews of Effects (1994-), Cochrane Central Register of Controlled Trials (1898-), and PEDro (1929-). The search comprised a general and proposition-specific searches and were all performed up to

February 2012. The general search combined a search query for hip or knee OA with a search query for study design. Study designs of interest were; systematic review/meta-analysis, randomised controlled trial (RCT)/ controlled trial (CT), or observational studies. Systematic reviews were included if they had undertaken a literature search of at least two databases, were of a time frame of more than one year and presented at least one meta-analysis of RCTs. Effect-sizes presented in the results derived from the latest systematic review containing the largest number of studies. Propositions that were not substantiated by at least one meta-analysis of RCT's were followed by a proposition-specific search for RCT/CT's. If the propositions still was not substantiated, a proposition-specific search for observational studies was performed. RCTs were included if they described a random allocation procedure and presented between group comparisons. The general search queries and proposition-specific search queries for Medline are included in Table S1-2; these were adapted for the other databases. Part I, II and III (Table S1-2) were combined with "and" as appropriate. The extraction procedures are presented in Figures S1-12. Studies were included if they: a. evaluated the effect of non-pharmacological treatment related to the propositions; b. used clinical outcomes (pain, physical function, quality of life) or other outcomes relevant to the proposition (adherence, activity level, weight, sick-leave); c. concerned persons diagnosed with hip or knee OA or with persisting knee pain, if 45 years or older. In case of a mixed sample, studies were included if they provided a separate analysis for people with hip and/or knee OA or if the majority of included persons were diagnosed with hip or knee OA. Reviews, dissertations, case-reports, editorials, commentaries, meeting abstracts, and protocols were excluded.

For every recommendation, all results obtained by the research fellow were discussed with the convenor and co-applicants. If needed, the extracted data were then reviewed by a committee member and any additional data known by the member could be included.

Table S1 General search queries for Medline. These were adapted for other databases.

General search query		General search query	
Part I, Osteoarthritis		Part II, Study design	
OA	<ol style="list-style-type: none"> 1. Osteoarthritis/ 2. osteoarthritis\$.tw. 3. osteoarthros\$.tw. 4. degenerative arthrit\$.tw. 5. arthrosis.tw. 6. arthroses.tw. 7. or/1-6 8. Hip/ 9. Hip Joint/ 10. hip\$.tw. 11. or/8-10 12. Knee/ 13. knee\$.tw. 14. exp Knee joint/ 15. or/12-14 16. 11 or 15 17. 7 and 16 18. Osteoarthritis, hip/ 19. Osteoarthritis, Knee/ 20. coxitis.tw. 21. gonarthrosis.tw. 22. or/17-21 	SR/ MA	<ol style="list-style-type: none"> 1. exp Meta-Analysis as Topic/ 2. Meta-Analysis.pt. 3. quantitative review\$.tw. 4. quantitative overview\$.tw. 5. statistical pool\$.tw. 6. data pool\$.tw. 7. (meta analy\$ or metaanaly\$ or meta?analy\$).tw. 8. exp "Review Literature as Topic"/ 9. Review.pt. 10. Systematic review\$.tw. 11. or/1-10
		RCT/ CT	<ol style="list-style-type: none"> 1. randomized controlled trial.pt. 2. controlled clinical trial.pt. 3. randomized.ab. 4. placebo.ab. 5. drug therapy.fs. 6. randomly.ab. 7. trial.ab. 8. groups.ab. 9. or/1-8 10. (animals not (humans and animals)).sh. 11. 9 not 10
		Obs.	<ol style="list-style-type: none"> 1. exp Cohort Studies/ 2. cohort stud\$.tw. 3. exp Prospective Studies/ 4. prospective stud\$.tw. 5. exp Risk/ 6. risk.tw. 7. relative risk\$.tw. 8. exp Incidence/ 9. incidence.tw. 10. exp Longitudinal Studies/ 11. longitudinal studies.tw. 12. or/1-11 13. exp Case-Control Studies/ 14. case-control stud\$.tw. 15. exp Retrospective Studies/ 16. retrospective stud\$.tw. 17. exp Odds Ratio/ 18. odds ratio\$.tw. 19. or/13-18 20. exp Cross-Sectional Studies/ 21. cross-sectional stud\$.tw. 22. exp Prevalence/ 23. prevalence.tw. 24. disease frequenc\$.tw. 25. or/20-24 26. 12 or 19 or 25

OA, osteoarthritis; SR, systematic review; MA, meta-analysis; RCT/CT, randomised controlled trial/controlled trial; Obs., observational studies.

Table S2 Proposition-specific search queries for Medline (proposition 1-11). These were adapted for other databases.

1	<ol style="list-style-type: none"> 1. Medical History Taking/ 2. medical history.tw. 3. exp Physical examination/ 4. examination.tw. 5. assessment\$.tw. 6. measurement\$.tw. 7. or/1-6 8. biopsychosocial.tw. 9. psychosocial.tw. 10. exp Holistic Health/ 11. exp Holistic Nursing/ 12. holistic.tw. 13. (comprehensive or thorough or full or complete).tw. 14. or/8-13 15. exp "Activities of Daily Living"/ 16. activit\$ of daily living.tw. 17. exp Disability Evaluation/ 18. disabilit\$.tw. 19. ((limitation\$ or reduc\$ or restrict\$) and activit\$).tw. 20. ((limitation\$ or reduc\$ or restrict\$) and physical function).mp. 21. or/15-20 22. social behavior/ or exp social adjustment/ or exp social isolation/ or exp social environment/ 23. (social function\$ or social behavior or social adjustment or social isolation or social environment).tw. 24. participation.tw. 25. exp Work/ 26. work.tw. 27. exp Education/ 28. education.tw. 29. societal participation.tw. 30. exp Leisure Activities/ 31. (leisure or recreation).tw. 32. or/22-31 33. pain.tw. 34. exp Pain Measurement/ 35. exp Fatigue/ 36. fatigue.tw. 37. exp Sleep Disorders/ 38. sleep.tw. 39. exp Foot Joints/ 40. (foot or feet).tw. 41. exp "Range of Motion, Articular"/ 42. range of motion.tw. 43. Muscle Strength/ 44. (muscle strength or muscular strength).tw. 45. Joint Instability/ 46. (joint\$ adj2 instability).tw. 47. alignement.tw. 48. exp Proprioception/ 49. proprioception.tw. 50. joint position sense.tw. 51. Posture/ 52. posture.tw. 53. Comorbidity/ 54. comorbidity.tw. 55. exp Body Weight/ 56. body weight.tw. 57. body mass index/ 	4	<ol style="list-style-type: none"> 1. exp Life Style/ or exp Health Behavior/ or exp Adaptation, psychological 2. lifestyle\$.tw. 3. exp goals/ 4. (goal or action plan).tw. 5. (re adj2 (evaluation or examination)).tw. 6. (reinforcement or booster or adjustment or adherence).tw. 7. (individual\$ adj4 (treatment\$ or therap\$ or program\$ ro management\$)).tw. 8. (tailor\$ adj4 (treatment\$ or therap\$ or program\$ ro management\$)).tw. 9. (target\$ adj4 (treatment\$ or therap\$ or program\$ ro management\$)).tw. 10. or/1-9
		5	<ol style="list-style-type: none"> 1. exp Health Education/ 2. exp Patient Education as Topic/ 3. exp Self Care/ 4. (health education or patient education or self care).tw. 5. (self adj2 manage\$).tw. 6. (information or advice or counsel\$).tw. 7. or/1-6
		6	<ol style="list-style-type: none"> 1. exp Exercise Tolerance/ or exp Exercise/ or exp Exercise Therapy/ 2. exercise.tw. 3. physical activity.tw. 4. or/1-3 5. (pacing or dose or progression or link\$ or integrate or adhere\$).tw. 6. 4 and 5
		7	Covered by the general search for SR / MA
		8	<ol style="list-style-type: none"> 1. exp Weight Loss/ 2. weight loss\$.tw. 3. (los\$ adj2 weight).tw. 4. weight reduction\$.tw. 5. (reduc\$ adj2 weight).tw. 6. weight decreas\$.tw. 7. (decreas\$ adj2 weight).tw. 8. weight control\$.tw. 9. (control\$ adj2 weight).tw. 10. or/1-9 11. exp Maintenance/ 12. (maint\$).tw. 13. (retention\$ or preserv\$ or sustain\$ or continu\$ or keep).tw. 14. or/11-13 15. 10 and 14 16. exp Diet/ 17. diet.tw. 18. exp Health Promotion/ 19. (nutrition adj2 education).tw. 20. ((meal or activity or individual or patient) adj2 (plan or goal)).tw. 21. (eating adj2 (behavio\$ or trigger\$)).tw. 22. ((self adj3 (monitor\$ or record\$ or assess\$))

58. body mass index.tw.
59. or/33-58
60. exp Emotions/
61. exp Depressive Disorder/
62. (emotion\$ or depression or mood or fear or anxiety or affect or frustration or anger or loneliness or sadness).tw.
63. or/60-62
64. exp Motivation/
65. motivation\$.tw.
66. exp Attitude to Health/
67. exp Health Behavior/
68. (health belief\$ or health behavior or attitude to health).tw.
69. or/64-68
70. 21 or 32 or 63 or 69
71. 14 or 70
- 2 1. Individualized medicine/
2. individual\$.tw.
3. (individual\$ adj4 (treatment\$ or therap\$ or program\$ or management\$)).tw.
4. (tailor\$ adj4 (treatment\$ or therap\$ or program\$ or management\$)).tw.
5. (target\$ adj4 (treatment\$ or therap\$ or program\$ or management\$)).tw.
6. exp Classification/
7. classif\$.tw.
8. stratif\$.tw.
9. categor\$.tw.
10. or/1-9
- 3 1. exp health services/ or exp patient care/ or exp preventive health services/ or exp rehabilitation/
2. exp Patient Care Management/
3. (multidisciplinary or rehabilitation or complex intervention or package of care).tw.
4. ((multifaceted or multimodal or integrated or complex or combined) adj2 management).tw.
5. (education or information or advise).tw.
6. or/1-5
- and weight).tw.
23. (portion size or (reduc\$ adj2 (fat or sugar or salt)) or vegetables).tw.
24. (((relapse adj2 predicition) or booster session\$ or support) and adj2 weight).tw.
25. or/16-24
26. 10 or 15 or 25
- 9 1.exp Shoes/
2.insole\$.tw.
3.lateral wedge\$.tw.
4.shoe\$.tw.
or/1-4
- 10 1. Walkers/
2. walker\$.tw.
3. (walking adj3 aids).tw.
4. (walking adj3 stick\$).tw.
5. (walking adj3 frame\$).tw.
6. self-help devices/ or wheelchairs/
7. assistive device\$.tw.
8. crutch\$.tw.
9. (environmental adj3 modification\$).tw.
10. (height adj3 (bed\$ or chair\$ or seat\$)).tw.
11. (adaptation\$ adj3 home).tw.
12. (adaptation\$ adj3 work).tw.
13. (cane or canes).tw.
14. (rail\$ adj4 stair\$).tw.
15. (handrail\$ or (hand adj rail\$)).tw.
16. (walk adj3 shower).tw.
17. (automatic adj gear).tw.
18. (car or cars or driving).tw.
19. occupational therapy/
20. or/1-20
- 11 1. exp Rehabilitation, Vocational/
2. vocation\$.tw.
3. (occupational adj3 rehabilitation).tw.
4. exp Work/
5. work\$.tw.
6. job\$.tw.
7. career.tw.
8. exp Employment/
9. employment.tw.
10. exp Disability Evaluation/
11. or/1-10
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