

## **Supplementary appendix 1. Search strategy**

### **MEDLINE and Embase (via Void)**

1. Carcinoma, Non-Small-Cell Lung/ or Lung Neoplasms/ or lung neoplasm\*.mp. or lung cancer\*.mp.
2. lung resection.mp.
3. lobectomy.mp. or Thoracic Surgery, Video-Assisted/ or Pneumonectomy/
4. 1 or 2 or 3
5. Postoperative Care/ or Postoperative Complications/ or postoperative.mp.
6. Preoperative Care/ or preoperative.mp.
7. perioperative.mp. or Perioperative Care/
8. Physical Therapy Modalities/ or Exercise Therapy/ or physiotherapy.mp.
9. Respiratory Muscles/ or Breathing Exercises/ or inspiratory muscle.mp.
10. Leisure Activities/ or leisure activ\*.mp.
11. physical\* activ\*.mp.
12. exercis\*.mp.
13. 5 or 6 or 7
14. 8 and 13
15. 9 and 13
16. 10 and 13
17. 11 and 13
18. 12 and 13
19. rehabilitation.mp.
20. prehabilitation.mp.
21. 14 or 15 or 16 or 17 or 18 or 19 or 20
22. Randomized Controlled Trial\*.mp.
23. 4 and 21 and 22

### **Cochrane Central Register of Controlled Trials**

1. MeSH descriptor: [Lung Neoplasms] explode all trees
2. MeSH descriptor: [Exercise] explode all trees
3. MeSH descriptor: [Physical Therapy Modalities] explode all trees
4. MeSH descriptor: [Rehabilitation] explode all trees
5. #1 AND (#2 OR #3 OR #4)

## Web of Science

1. TS=(lung cancer\* OR lung neoplasm\* OR non-small-cell lung OR lung resection\* OR lobectomy OR thoracic surgery OR lung surgery OR Pneumonectomy)
2. TS= (Postoperative OR Preoperative OR perioperative)
3. TS= physiotherapy
4. TS= Physical Therapy
5. TS= exercis\*
6. TS= physical\* activ\*
7. TS= leisure activ\*
8. TS= Breath\* Exercise\*
9. TS= Respiratory Muscle
10. #3 AND #2
11. #4 AND #2
12. #5 AND #2
13. #6 AND #2
14. #7 AND #2
15. #8 AND #2
16. #9 AND #2
17. TS= (rehabilitation OR prehabilitation)
18. #17 OR #16 OR #15 OR #14 OR #13 OR #12 OR #11 OR #10
19. TS= (randomized controlled trial\* OR rct\* OR clinical trial\*)
20. #19 AND #18 AND #1

## **CINAHL Plus and SPORTDiscus**

1. (MH "Postoperative Complications") OR (MH "Postoperative Care") OR "postoperative"
2. (MH "Preoperative Care") OR "preoperative"
3. (MH "Perioperative Care") OR "perioperative"
4. S1 OR S2 OR S3
5. (MH "Physical Therapy") OR "Physical Therapy"
6. "physical therapy modalities"
7. (MH "Exercise") OR "exercise"
8. (MH "Breathing Exercises") OR "Breathing Exercises"
9. (MH "Respiratory Muscles") OR "Respiratory Muscles"
10. "inspiratory muscle"
11. (MH "Physical Activity") OR "physical activity"
12. (MH "Leisure Activities") OR "Leisure Activities"
13. (MH "Chest Physical Therapy") OR "Chest Physical Therapy"
14. "physiotherapy"
15. #4 AND #5
16. #4 AND #6
17. #4 AND #7
18. #4 AND #8
19. #4 AND #9
20. #4 AND #10
21. #4 AND #11
22. #4 AND #12
23. #4 AND #13
24. #4 AND #14
25. S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24
26. (MH "Rehabilitation") OR "rehabilitation"
27. (MH "Prehabilitation") OR "prehabilitation"
28. S25 OR S26 OR S27
29. (MH "Randomized Controlled Trials") OR "randomized controlled trial"

30. (MH "Lung Neoplasms") OR "lung cancer"

31. (MH "Carcinoma, Non-Small-Cell Lung") OR "small cell lung cancer"

32. (MH "Surgery, Lung") OR (MH "Pneumonectomy") OR "lung surgery" OR (MH "Thoracic Surgery, Video-Assisted")

33. "lobectomy"

34. S30 OR S31 OR S32 OR S33

35. S28 AND S29 AND S34

## **PsycInfo**

1. noft(lung cancer) OR noft(lung neoplasm) OR noft(carcinoma, non-small-cell lung) OR noft(lung resection) OR noft(lobectomy) OR noft(Thoracic Surgery)
2. noft(Physical Therapy) OR noft(Exercise) OR noft(breathing exercise) OR noft(Respiratory Muscle) OR noft(inspiratory muscle) OR noft(physical\* activ\*) OR noft(leisure activ\*) OR noft(Chest Physical Therapy) OR noft(physiotherapy)
3. noft(preoperative ) OR noft(postoperative ) OR noft(perioperative )
4. S2 AND S3
5. noft(rehabilitation) OR noft(prehabilitation )
6. S4 OR S5
7. noft(randomized controlled trial\*)
8. S1 AND S6 AND S7