

## Appendix 1 Search strategies

### Medline and Embase

#	Database	Search term
1	Medline	(randomized controlled trial).pt
2	Medline	(controlled clinical trial).pt
3	Medline	(randomi*ed).ab
4	Medline	(placebo).ti,ab
5	Medline	(drug therapy).fs
6	Medline	(randomly).ti,ab
7	Medline	(trial).ti,ab
8	Medline	(groups).ti,ab
9	Medline	(1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8)
10	Medline	(animals NOT (humans AND animals)).su
11	Medline	9 not 10
12	Medline	(dorsalgia).ti,ab
13	Medline	exp "BACK PAIN"/
14	Medline	(backache).ti,ab
15	Medline	(lumbar ADJ pain).ti,ab
16	Medline	(coccyx).ti,ab
17	Medline	(coccydynia).ti,ab
18	Medline	(sciatica).ti,ab
19	Medline	"SCIATIC NEUROPATHY"/

- 20 Medline (spondylosis).ti,ab
- 21 Medline (lumbago).ti,ab
- 22 Medline (12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21)
- 23 Medline exp SPINE/
- 24 Medline (discitis).ti,ab
- 25 Medline exp "SPINAL DISEASES"/
- 26 Medline (disc ADJ degeneration).ti,ab
- 27 Medline (disc ADJ prolapse).ti,ab
- 28 Medline (disc ADJ herniation).ti,ab
- 29 Medline (spinal fusion).su
- 30 Medline (facet ADJ joints).ti,ab
- 31 Medline (intervertebral disc).su
- 32 Medline (postlaminectomy).ti,ab
- 33 Medline (arachnoiditis).ti,ab
- 34 Medline (failed ADJ back).ti,ab
- 35 Medline (23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34)
- 36 Medline (22 OR 35)
- 37 Medline exp "RADIO WAVES"/
- 38 Medline exp "PULSED RADIOFREQUENCY TREATMENT"/
- 39 Medline (radiofrequency).af
- 40 Medline (radio frequency).af

41 Medline exp ELECTROCOAGULATION/  
42 Medline (electrocoag\*).af  
43 Medline (thermocoag\*).af  
44 Medline neurotom\* OR (neuroly\*).af  
45 Medline (37 OR 38 OR 39 OR 40 OR 41 OR 42 OR 43 OR 44)  
46 Medline (11 AND 36 AND 45)  
47 EMBASE "CLINICAL TRIAL"/  
48 EMBASE "CONTROLLED CLINICAL TRIAL"/  
49 EMBASE "CONTROLLED STUDY"/  
50 EMBASE "RANDOMIZED CONTROLLED TRIAL"/  
51 EMBASE "DOUBLE BLIND PROCEDURE"/  
52 EMBASE "SINGLE BLIND PROCEDURE"/  
53 EMBASE "CROSSOVER PROCEDURE"/  
54 EMBASE PLACEBO/  
55 EMBASE (allocat\*).ti,ab  
56 EMBASE (assign\*).ti,ab  
57 EMBASE (blind\*).ti,ab  
58 EMBASE (clinic\* ADJ25 (study OR trial)).ti,ab  
59 EMBASE (crossover OR cross-over).ti,ab  
60 EMBASE (factorial\*).ti,ab  
61 EMBASE (followup OR follow-up).ti,ab  
62 EMBASE (prospectiv\*).ti,ab

- 63 EMBASE (placebo\*).ti,ab
- 64 EMBASE (random\*).ti,ab
- 65 EMBASE ((singl\* OR doubl\* OR trebl\* OR trip\*) ADJ25 (blind\* OR mask\*)).ti,ab
- 66 EMBASE (volunteer\*).ti,ab
- 67 EMBASE (47 OR 48 OR 49 OR 50 OR 51 OR 52 OR 53 OR 54 OR 55 OR 56 OR 57 OR 58 OR 59 OR 60 OR 61 OR 62 OR 63 OR 64 OR 65 OR 66)
- 68 EMBASE exp animals/ or exp invertebrate/ or animal experiment/ or animal model/ or animal tissue/ or animal cell/ or nonhuman/
- 69 EMBASE exp ANIMALS/
- 70 EMBASE exp INVERTEBRATE/
- 71 EMBASE ANIMAL EXPERIMENT/
- 72 EMBASE ANIMAL MODEL/
- 73 EMBASE ANIMAL TISSUE/
- 74 EMBASE ANIMAL CELL/
- 75 EMBASE NONHUMAN/
- 76 EMBASE 71 or 72 or 73 or 74 or 75
- 77 EMBASE exp ANIMALS/
- 78 EMBASE exp INVERTEBRATE/
- 79 EMBASE (76 OR 77 OR 78)
- 80 EMBASE 77 or 78
- 81 EMBASE HUMAN/ OR NORMAL HUMAN/ OR HUMAN CELL/
- 82 EMBASE (76 AND 77 AND 78 AND 81)

- 83 EMBASE (dorsalgia).ti,ab
- 84 EMBASE (back pain).ti,ab
- 85 EMBASE exp BACKACHE/
- 86 EMBASE (lumbar ADJ pain).ti,ab
- 87 EMBASE (coccyx).ti,ab
- 88 EMBASE (coccydynia).ti,ab
- 89 EMBASE (sciatica).ti,ab
- 90 EMBASE ISCHIALGIA/
- 91 EMBASE (spondylosis).ti,ab
- 92 EMBASE (lumbago).ti,ab
- 93 EMBASE (back disorder\*).ti,ab
- 94 EMBASE (83 OR 84 OR 85 OR 86 OR 87 OR 88 OR 89 OR 90 OR 91 OR 92 OR 93)
- 95 EMBASE exp SPINE/
- 96 EMBASE (discitis OR diskitis).ti,ab
- 97 EMBASE exp "SPINE DISEASE"/
- 98 EMBASE (disc ADJ degeneration).ti,ab
- 99 EMBASE (disc ADJ prolapse).ti,ab
- 100 EMBASE (disc ADJ herniation).ti,ab
- 101 EMBASE (spinal fusion).ti,ab
- 102 EMBASE (facet ADJ joints).ti,ab
- 103 EMBASE (intervertebral disk OR Intervertebral disc).ti,ab
- 104 EMBASE (postlaminectomy).ti,ab

105	EMBASE	(arachnoiditis).ti,ab
106	EMBASE	(failed ADJ back).ti,ab
107	EMBASE	(95 OR 96 OR 97 OR 98 OR 99 OR 100 OR 101 OR 102 OR 103 OR 104 OR 105 OR 106)
108	EMBASE	94 or 107
109	EMBASE	exp PULSED RADIOFREQUENCY TREATMENT/
110	EMBASE	exp RADIOFREQUENCY/
111	EMBASE	exp RADIOFREQUENCY RADIATION/
112	EMBASE	(radiofrequency OR radio-frequency).ti,ab
113	EMBASE	exp THERMOCOAGULATION/ OR thermocoag*
114	EMBASE	exp ELECTROCOAGULATION/ OR electrocoag*
115	EMBASE	(neurotom* OR neuroly*).ti,ab
116	EMBASE	(109 OR 110 OR 111 OR 112 OR 113 OR 114 OR 115)
117	EMBASE	(108 AND 116)
118	Medline	46 [DT 2014-2019]

### Medline in process

#	Database	Search term
1	Medline	("randomi*ed controlled trial").ti,ab
2	Medline	("controlled clinical trial").ti,ab
3	Medline	("randomi*ed").ab
4	Medline	(placebo).ti,ab
5	Medline	("drug therapy").fs

6	Medline	(randomly).ti,ab
7	Medline	(trial).ti,ab
8	Medline	(groups).ti,ab
9	Medline	(1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8)
10	Medline	(dorsalgia).ti,ab
11	Medline	("back pain").ti,ab
12	Medline	(backache).ti,ab
13	Medline	("lumber pain").ti,ab
14	Medline	(coccyx).ti,ab
15	Medline	(coccydynia).ti,ab
16	Medline	(sciatica*).ti,ab
17	Medline	(spondylosis).ti,ab
18	Medline	(lumbago).ti,ab
19	Medline	(10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18)
20	Medline	(spine OR sacrum OR "lumber vertebrae" OR "intervertebral disc*").ti,ab
21	Medline	(discitis).ti,ab
22	Medline	("disc degeneration").ti,ab
23	Medline	("disc prolapse").ti,ab
24	Medline	("disc herniation").ti,ab
25	Medline	("spinal fusion").ti,ab
26	Medline	("facet joints").ti,ab

27	Medline	(postlaminectomy).ti,ab
28	Medline	(arachnoiditis).ti,ab
29	Medline	("failed back").ti,ab
30	Medline	(20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29)
31	Medline	(19 OR 30)
32	Medline	(radiowave* OR "radio wave*").ti,ab
33	Medline	(radiofrequency OR "radio frequency").ti,ab
34	Medline	(electrocoag*).ti,ab
35	Medline	(thermocoag*).ti,ab
36	Medline	(neurotom* OR neuroloy*).ti,ab
37	Medline	(32 OR 33 OR 34 OR 35 OR 36)
38	Medline	(9 AND 31 AND 37)
39	Medline	38 [Document status In Data Review OR In Process OR PubMed not MEDLINE OR Publisher]

### Cinahl

#	Database	Search term
1	CINAHL	exp "CLINICAL TRIALS"/
2	CINAHL	("randomi*ed controlled trial*").ti,ab
3	CINAHL	(clinical ADJ3 trial).ti,ab
4	CINAHL	(double-blind).ti,ab
5	CINAHL	(single-blind).ti,ab
6	CINAHL	(triple-blind).ti,ab

7 CINAHL (1 OR 2 OR 3 OR 4 OR 5 OR 6)

8 CINAHL "PLACEBO EFFECT"/

9 CINAHL PLACEBOS/

10 CINAHL (placebo\*).ti,ab

11 CINAHL (random\*).ti,ab

12 CINAHL (8 OR 9 OR 10 OR 11)

13 CINAHL "RANDOM SAMPLE"/

14 CINAHL exp "STUDY DESIGN"/

15 CINAHL (latin square).ti,ab

16 CINAHL exp "COMPARATIVE STUDIES"/

17 CINAHL exp "EVALUATION RESEARCH"/

18 CINAHL exp "PROSPECTIVE STUDIES"/

19 CINAHL (13 OR 14 OR 15 OR 16 OR 17 OR 18)

20 CINAHL (follow-up stud\*).ti,ab

21 CINAHL (followup stud\*).ti,ab

22 CINAHL (control\*).ti,ab

23 CINAHL (prospectiv\*).ti,ab

24 CINAHL (volunteer\*).ti,ab

25 CINAHL (20 OR 21 OR 22 OR 23 OR 24)

26 CINAHL (7 OR 12 OR 19 OR 25)

27 CINAHL ANIMALS/

28 CINAHL 26 not 27

- 29 CINAHL ("dorsalgia").ti,ab
- 30 CINAHL exp "BACK PAIN"/
- 31 CINAHL "LOW BACK PAIN"/
- 32 CINAHL ("backache").ti,ab
- 33 CINAHL (lumbar ADJ1 pain).ti,ab
- 34 CINAHL (lumbar ADJ5 pain).ti,ab
- 35 CINAHL (29 OR 30 OR 31 OR 32 OR 33 OR 34)
- 36 CINAHL COCCYX/
- 37 CINAHL SCIATICA/
- 38 CINAHL (sciatica).ti,ab
- 39 CINAHL (coccyx).ti,ab
- 40 CINAHL (coccydynia).ti,ab
- 41 CINAHL "LUMBAR VERTEBRAE"/
- 42 CINAHL (lumbar ADJ2 vertebra).ti,ab
- 43 CINAHL (36 OR 37 OR 38 OR 39 OR 40 OR 41 OR 42)
- 44 CINAHL "THORACIC VERTEBRAE"/
- 45 CINAHL exp SPONDYLOLYSIS/
- 46 CINAHL (lumbago).ti,ab
- 47 CINAHL (44 OR 45 OR 46)
- 48 CINAHL (35 OR 43 OR 47)
- 49 CINAHL (28 AND 48)
- 50 CINAHL (radiofrequency OR radio-frequency).ti,ab

51	CINAHL	(thermocoag*).ti,ab
52	CINAHL	exp ELECTROCOAGULATION/ OR electrocoag*
53	CINAHL	(neurotom* OR neuroly*).ti,ab
54	CINAHL	"RADIO WAVES"/
55	CINAHL	(50 OR 51 OR 52 OR 53 OR 54)
56	CINAHL	(49 AND 55)
57	CINAHL	56 [DT 2014-2019]

### Cochrane

#	Database	Search term
1	Cochrane	MeSH descriptor: [Back Pain] explode all trees
2	Cochrane	dorsalgia
3	Cochrane	backache
4	Cochrane	MeSH descriptor: [Low Back Pain] explode all trees
5	Cochrane	lumbar next pain or coccyx or coccydynia or spondylosis
6	Cochrane	MeSH descriptor: [Spine] explode all trees
7	Cochrane	MeSH descriptor: [Spinal Diseases] explode all trees
8	Cochrane	lumbago OR discitis OR disc near degeneration OR disc near prolapse OR disc near herniation
9	Cochrane	spinal fusion
10	Cochrane	facet near joints
11	Cochrane	MeSH descriptor: [Intervertebral Disk] explode all trees
12	Cochrane	postlaminectomy

13	Cochrane	arachnoiditis
14	Cochrane	failed near back
15	Cochrane	MeSH descriptor: [Cauda Equina] explode all trees
16	Cochrane	lumbar near vertebra*
17	Cochrane	spinal near stenosis
18	Cochrane	slipped near (disc* or disk*)
19	Cochrane	degenerat* near (disc* or disk*)
20	Cochrane	stenosis near (spine or root or spinal)
21	Cochrane	displace* near (disc* or disk*)
22	Cochrane	prolap* near (disc* or disk*)
23	Cochrane	MeSH descriptor: [Sciatic Neuropathy] explode all trees
24	Cochrane	sciatic*
25	Cochrane	back disorder*
26	Cochrane	back near pain
27	Cochrane	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26
28	Cochrane	MeSH descriptor: [Radio Waves] explode all trees
29	Cochrane	MeSH descriptor: [Pulsed Radiofrequency Treatment] explode all trees
30	Cochrane	radiofrequency
31	Cochrane	radio frequency or radio-frequency
32	Cochrane	MeSH descriptor: [Electrocoagulation] explode all trees
33	Cochrane	electrocoag*

- 34 Cochrane thermocoag\*
- 35 Cochrane neurotom\* or neuroly\*
- 36 Cochrane #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35
- 37 Cochrane #27 and #36 in Trials