Appendix 1 Literature search strategy

1.PubMed

Search number	Query	Records
#1	"Pulmonary Embolism"[Mesh]	44432
#2	"Pulmonary Embolism"[Title/Abstract] OR "Pulmonary Thromboembolism"[Title/Abstract] OR "lung Embolism"[Title/Abstract]	47817
#3	("Pulmonary Embolism"[Mesh]) OR ("Pulmonary Embolism"[Title/Abstract] OR "Pulmonary Thromboembolism"[Title/Abstract] OR "lung Embolism"[Title/Abstract])	65157
#4	"Exercise"[Mesh] OR "Sports"[Mesh]	364867
#5	Exercise[Title/Abstract] OR Sports[Title/Abstract] OR "Physical Activity"[Title/Abstract] OR "Physical Exercise"[Title/Abstract] OR "Acute Exercise"[Title/Abstract] OR "Isometric Exercise"[Title/Abstract] OR "Aerobic Exercise"[Title/Abstract] OR Exercise Training[Title/Abstract] OR "Resistance movement"[Title/Abstract] OR "Resistance training"[Title/Abstract] OR training[Title/Abstract] OR Aerobic[Title/Abstract] OR Anaerobic[Title/Abstract] OR "Flexibility training"[Title/Abstract] OR "Strength training"[Title/Abstract] OR HIIT[Title/Abstract]	1167863
#6	("Exercise"[Mesh] OR "Sports"[Mesh]) OR (Exercise[Title/Abstract] OR Sports[Title/Abstract] OR "Physical Activity"[Title/Abstract] OR "Physical Exercise"[Title/Abstract] OR "Acute Exercise"[Title/Abstract] OR "Isometric Exercise"[Title/Abstract] OR "Aerobic Exercise"[Title/Abstract] OR Exercise Training[Title/Abstract] OR "Resistance movement"[Title/Abstract] OR "Resistance training"[Title/Abstract] OR training[Title/Abstract] OR Aerobic[Title/Abstract] OR Anaerobic[Title/Abstract] OR "Flexibility training"[Title/Abstract] OR "Strength training"[Title/Abstract] OR HIIT[Title/Abstract])	1303547
#7	(("Pulmonary Embolism"[Mesh]) OR ("Pulmonary Embolism"[Title/Abstract] OR "Pulmonary Thromboembolism"[Title/Abstract] OR "lung Embolism"[Title/Abstract])) AND (("Exercise"[Mesh] OR "Sports"[Mesh]) OR (Exercise[Title/Abstract] OR Sports[Title/Abstract] OR "Physical Activity"[Title/Abstract] OR "Physical Exercise"[Title/Abstract] OR "Acute Exercise"[Title/Abstract] OR "Isometric Exercise"[Title/Abstract] OR "Aerobic Exercise"[Title/Abstract] OR Exercise Training[Title/Abstract] OR "Resistance movement"[Title/Abstract] OR "Resistance training"[Title/Abstract] OR training[Title/Abstract] OR Aerobic[Title/Abstract] OR Anaerobic[Title/Abstract] OR "Flexibility training"[Title/Abstract] OR "Strength training"[Title/Abstract] OR HIIT[Title/Abstract]))	1214
#8	((("Pulmonary Embolism"[Mesh]) OR ("Pulmonary Embolism"[Title/Abstract] OR "Pulmonary Thromboembolism"[Title/Abstract] OR "lung Embolism"[Title/Abstract])) AND (("Exercise"[Mesh] OR "Sports"[Mesh]) OR (Exercise[Title/Abstract] OR Sports[Title/Abstract] OR "Physical Activity"[Title/Abstract] OR "Physical Exercise"[Title/Abstract] OR "Acute Exercise"[Title/Abstract] OR "Isometric Exercise"[Title/Abstract] OR "Aerobic Exercise"[Title/Abstract] OR Exercise Training[Title/Abstract] OR "Resistance movement"[Title/Abstract] OR "Resistance training"[Title/Abstract] OR training[Title/Abstract] OR Aerobic[Title/Abstract] OR Anaerobic[Title/Abstract] OR "Flexibility training"[Title/Abstract] OR "Strength training"[Title/Abstract] OR HIIT[Title/Abstract]))) AND ("Randomized Controlled Trial" OR RCT)	44

2. CENTRAL

Search number	Query	Records
#1	MeSH descriptor: [Pulmonary Embolism] explode all trees	1531
#2	("Pulmonary Embolism" OR "Pulmonary Thromboembolism" OR "lung Embolism"):ti,ab,kw	6089
#3	#1 OR #2	6090
#4	MeSH descriptor: [Exercise] explode all trees	38714
#5	MeSH descriptor: [Sports] explode all trees	22087
#6	("Physical Activity" OR "Physical Exercise" OR "Acute Exercise" OR "Isometric Exercise" OR "Aerobic Exercise" OR Exercise Training OR "Resistance movement" OR "Resistance training" OR training OR Aerobic OR Anaerobic OR "Flexibility training" OR "Strength training" OR HIIT):ti,ab,kw	201435
#7	#4 OR #5 OR #6	215780
#8	#3 AND #7	181

CENTRAL, Cochrane Central Register of Controlled Trials.

3. EMBASE

Search number	Query	Records
#1	'pulmonary embolism'/exp OR 'pulmonary thromboembolism'/exp OR 'lung embolism'/exp	131,001
#2	'pulmonary embolism':ab,ti OR 'pulmonary thromboembolism':ab,ti OR 'lung embolism':ab,ti	73,980
#3	#1 OR #2	140,051
#4	'sport'/exp OR 'physical activity'/exp OR 'physical exercise'/exp OR 'acute exercise'/exp OR 'isometric exercise'/exp OR 'aerobic exercise'/exp OR 'exercise'/exp OR 'training'/exp OR 'resistance training'/exp OR 'flexibility training'/exp OR 'strength training'/exp	1,122,928
#5	'sport':ab,ti OR 'physical activity':ab,ti OR 'physical exercise':ab,ti OR 'acute exercise':ab,ti OR 'isometric exercise':ab,ti OR 'aerobic exercise':ab,ti OR 'exercise':ab,ti OR 'training':ab,ti OR 'resistance training':ab,ti OR 'resistance movement':ab,ti OR 'flexibility training':ab,ti OR 'strength training':ab,ti OR hiit:ab,ti	1,326,911
#6	#4 OR #5	1,874,845
#7	#3 AND #6	4,353
#8	#7 AND 'randomized controlled trial'/de	168

EMBASE, Excerpta Medica Database.

4. WOS

Search number	Query	Records
#1	TS=("Pulmonary Embolism" OR "Pulmonary Thromboembolism" OR "lung embolism")	50930
#2	TS=(Exercise OR Sport OR "Physical Activity" OR "Physical Exercise" OR "Acute Exercise" OR "Isometric Exercise" OR "Aerobic Exercise" OR Exercise Training OR "Resistance movement" OR "Resistance training" OR training OR Aerobic OR Anaerobic OR "Flexibility training" OR "Strength training" OR HIIT)	2535788
#3	TS=("Randomized Controlled Trial" OR RCT)	240803
#4	#1 AND #2 AND #3	20

WOS, Web of Science.

5. MEDLINE

	Query	Type	Records
	Exercise OR Sport OR "Physical Activity" OR "Physical Exercise" OR "Acute Exercise" OR "Isometric Exercise" OR "Aerobic Exercise" OR Exercise Training OR "Resistance movement" OR "Resistance training" OR training OR Aerobic OR Anaerobic OR "Flexibility training" OR "Strength training" OR HIIT	TX	24
AND	"Pulmonary Embolism" OR "Pulmonary Thromboembolism" OR "lung embolism"	TX	
AND	"Randomized Controlled Trial" OR RCT	TX	

MEDLINE, Medical Literature Analysis and Retrieval System Online.

6. CINAHL

Query	Search type	Records
Exercise OR Sport OR "Physical Activity" OR "Physical Exercise" OR "Acute Exercise" OR "Isometric Exercise" OR "Aerobic Exercise" OR Exercise Training OR "Resistance movement" OR "Resistance training" OR training OR Aerobic OR Anaerobic OR "Flexibility training" OR "Strength training" OR HIIT	AB	112
AND "Pulmonary Embolism" OR "Pulmonary Thromboembolism" OR "lung embolism"	AB	

CINAHL, Cumulative Index to Nursing and Allied Health Literature.

7. Scopus

Search type		Query	Records
TITLE-ABS-KEY		(Exercise OR Sport OR "Physical Activity" OR "Physical Exercise" OR "Acute Exercise" OR "Isometric Exercise" OR "Aerobic Exercise" OR exercise AND training OR "Resistance movement" OR "Resistance training" OR training OR aerobic OR anaerobic OR "Flexibility training" OR "Strength training" OR hit)	39
TITLE-ABS-KEY	AND	("Pulmonary Embolism" OR "Pulmonary Thromboembolism" OR "lung embolism")	
TITLE-ABS-KEY	AND	("Randomized Controlled Trial" OR rct)	

Appendix 2 Original data

ISWT (m)	Intervention group (I)			Control group (C)		
	Mean	SD	Total	Mean	SD	Total
Rolving *et al.* (17)	714	270	69	637	241	68
	Median	25th percentile (q1)	75th percentile (q3)	Median	25th percentile (q1)	75th percentile (q3)
Jervan *et al.* (20)	790	540	1020	760	470	1020

EQ-5D	Intervention group (I)			Control group (C)		
	Median	25th percentile (q1)	75th percentile (q3)	Median	25th percentile (q1)	75th percentile (q3)
Rolving *et al.* (17)	1.0	0.824	1.0	1.0	0.824	1.0
Jervan *et al.* (20)	0.84	0.73	0.88	0.77	0.7	0.88

PEmbQoL	Intervention group (I)			Control group (C)		
	Median	25th percentile (q1)	75th percentile (q3)	Median	25th percentile (q1)	75th percentile (q3)
Rolving *et al.* (17)	8	3	26	10	2	20
Jervan *et al.* (20)	0.20	0.07	0.38	0.23	0.09	0.44

Rolving *et al.* (17) converted each PEmbQoL item score to a 0–100 scale to calculate the total score, while Jervan *et al.* (20) converted each domain score of PembQoL to a 0–1 scale for calculation. In our study, Rolving *et al.* (17) study results were converted to a 0–1 scale for data extraction. ISWT, incremental shuttle walk test; EQ-5D, EuroQol-5 Dimensions questionnaire; PembQoL, pulmonary embolism quality of life.