

Appendix 1: Search Strategy

Ovid MEDLINE

- 1 Pulmonary Edema/ 17628
- 2 (pulmonary adj2 (edema or oedema)).tw. 19427
- 3 decompensated heart failure.mp. 3870
- 4 decompensated cardiac failure.mp. 37
- 5 exp Heart Failure/ 135224
- 6 1 or 2 or 3 or 4 or 5 161564
- 7 Morphine/ 39357
- 8 morphin*.tw. 55512
- 9 7 or 8 62460
- 10 6 and 9332
- 11 randomised controlled trial.pt. 558117
- 12 controlled clinical trial.pt. 94685
- 13 (randomised or placebo or randomly or trial or groups).ab. 3175308
- 14 drug therapy.fs. 2440064
- 15 11 or 12 or 13 or 14 5255383
- 16 exp animals/ not humans.sh. 4955382
- 17 15 not 16 4572999
- 18 10 and 17 152
- 19 Meta-Analysis as Topic/ 20787
- 20 meta-analysis/ or "systematic review"/ 257861
- 21 meta analy*.tw. 223648
- 22 metaanaly*.tw.2381
- 23 (systematic adj (review* or overview*)).tw. 232823
- 24 19 or 20 or 21 or 22 or 23 389013
- 25 10 and 24 7
- 26 18 or 25 152

Embase

- 1 lung edema/ 51465
- 2 (pulmonary adj2 (edema or oedema)).tw. 31414
- 3 decompensated heart failure.mp. 8216
- 4 decompensated cardiac failure.mp. 73
- 5 exp Heart Failure/ 597104
- 6 1 or 2 or 3 or 4 or 5 641888
- 7 Morphine/ 116360
- 8 morphin*.tw. 78128
- 9 7 or 8 130930
- 10 6 and 93362
- 11 (random* or factorial* or placebo* or assign* or allocat* or crossover*).tw. 2281083
- 12 ((blind* or mask*) and (single or double or triple or treble)).tw. 301379

13	crossover procedure/	69726
14	double blind procedure/ or single blind procedure/	237518
15	randomisation/ or placebo/	471387
16	parallel design/ or Latin square design/	15682
17	randomised controlled trial/	697078
18	exp ANIMAL/ or exp NONHUMAN/ or exp ANIMAL EXPERIMENT/ or exp ANIMAL MODEL/	32230501
19	exp human/	24589730
20	18 not 19	7640771
21	11 or 12 or 13 or 14 or 15 or 16 or 17	2588211
22	21 not 20	2254143
23	10 and 22	360
24	exp Meta Analysis/	237876
25	((meta adj analy*) or metaanalys*).tw.	289477
26	(systematic adj (review* or overview*)).tw.	283463
27	"systematic review"/	331371
28	24 or 25 or 26 or 27	559508
29	10 and 28	106
30	23 or 29	417

Cochrane Database of Systematic Reviews

#231	MeSH descriptor: [Pulmonary Edema] explode all trees	273
#232	(pulmonary edema):ti,ab,kw	1925
#233	("pulmonary oedema"):ti,ab,kw	262
#234	MeSH descriptor: [Heart Failure] explode all trees	10224
#235	(decompensated heart failure):ti,ab,kw	1337
#236	(decompensated cardiac failure):ti,ab,kw	407
#237	#231 or #232 or 233 or #234 or #235 or #236	25707
#238	MeSH descriptor: [Morphine Derivatives] explode all trees	7372
#239	(morphin*):ti,ab,kw	15665
#240	#238 or #239	17651
#241	#240 and #237	208