

Bijlage Zoekverantwoording

Onderzoeksvraag 1: Palliatieve zorg bij COPD

Wat is het effect van palliatieve zorg op symptomen en kwaliteit van leven van mensen met COPD?

Patiënten	Patiënten met COPD
Interventie	Palliatieve zorg
Comparator	Reguliere zorg
Outcome	Kritisch: dyspneu, kwaliteit van leven Belangrijk: vermoeidheid

Search strategy

Search date	23 December 2019
Databases	OVID Medline, Embase, Cochrane Library, Cinahl
Search limits	Publication date: 2009-2019 Languages: English and Dutch Study designs: meta-analyses, systematic reviews, randomized controlled trials

Search results

Table 1. Overall search results of research question 1.

Database	Number of hits
OVID Medline	1600
OVID PreMedline	54
EMBASE.com	1564
Cochrane Database of Systematic Reviews	34
CENTRAL	641
Cinahl	467
Total hits	4360
N excluded (language, duplicates)	1499
Total unique eligible hits	2861

Excluded studies

2861 unique hits were screened on title and abstract (Table 1). Of these, 2804 were excluded. The most important reasons for exclusion were:

- Other intervention: interventions other than palliative interventions
- Wrong study design: narrative reviews, case reports, letters, etc.
- Wrong study population: study was not about COPD

Of the remaining 57 papers, the full-text was retrieved. Based on the full-text, an additional 50 papers were excluded. Table 9 provides an overview of the excluded studies with reasons.

Search strings

MEDLINE (OVID)

- 1 Palliative Care/ (52422)
- 2 exp Terminal Care/ (50095)
- 3 Terminally Ill/ (6397)
- 4 palliat*.mp. (83314)
- 5 (terminal* adj6 (care or caring or ill*)).mp. (36149)
- 6 (terminal-stage* or terminal stage* or dying or (close adj6 death)).mp. (34178)
- 7 (end adj3 life).mp. (20123)
- 8 hospice*.mp. (14894)

9 ((end-stage* or end stage*) adj6 (disease* or ill* or care or caring)).mp. (43543)
 10 ((incurable or advanced) adj6 (ill* or disease*)).mp. (47734)
 11 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 (241121)
 12 Lung Diseases, Obstructive/ (18159)
 13 exp Pulmonary Disease, Chronic Obstructive/ (53627)
 14 emphysema\$.mp. (32776)
 15 (chronic\$ adj3 bronchiti\$).mp. (10878)
 16 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp.
 (104663)
 17 COPD.mp. (37889)
 18 COAD.mp. (253)
 19 COBD.mp. (17)
 20 AECB.mp. (210)
 21 or/12-20 (140207)
 22 11 and 21 (3475)
 23 limit 22 to yr="2009 -Current" (1600)

PREMEDLINE (OVID)

1 Palliative Care/ (113)
 2 exp Terminal Care/ (95)
 3 Terminally Ill/ (6)
 4 palliat*.mp. (1851)
 5 (terminal* adj6 (care or caring or ill*)).mp. (253)
 6 (terminal-stage* or terminal stage* or dying or (close adj6 death)).mp. (702)
 7 (end adj3 life).mp. (925)
 8 hospice*.mp. (381)
 9 ((end-stage* or end stage*) adj6 (disease* or ill* or care or caring)).mp. (1092)
 10 ((incurable or advanced) adj6 (ill* or disease*)).mp. (1096)
 11 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 (4967)
 12 Lung Diseases, Obstructive/ (5)
 13 exp Pulmonary Disease, Chronic Obstructive/ (133)
 14 emphysema\$.mp. (268)
 15 (chronic\$ adj3 bronchiti\$).mp. (64)
 16 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (1359)
 17 COPD.mp. (864)
 18 COAD.mp. (6)
 19 COBD.mp. (0)
 20 AECB.mp. (0)
 21 or/12-20 (1745)
 22 11 and 21 (58)
 23 limit 22 to yr="2009 -Current" (54)

EMBASE (VIA EMBASE.COM)

#1 'chronic obstructive lung disease'/exp (127439)
 #2 emphysema*:ti,ab (36093)
 #3 (chronic* NEAR/3 bronchiti*):ti,ab (15253)
 #4 (obstruct* NEAR/3 (pulmonary OR lung* OR airway* OR airflow* OR bronch* OR
 respirat*)):ti,ab (120989)
 #5 copd:ti,ab OR coad:ti,ab OR cobd:ti,ab OR aecb:ti,ab (82444)
 #6 #1 OR #2 OR #3 OR #4 OR #5 (226402)
 #7 'palliative therapy'/exp (106665)
 #8 'terminal care'/exp (67127)
 #9 'terminally ill patient'/exp (8354)
 #10 palliat*:ti,ab (112637)
 #11 (terminal* NEAR/6 (care OR caring OR ill*)):ti,ab (12585)
 #12 (end NEAR/3 life):ti,ab (32777)
 #13 hospice*:ti,ab (18760)
 #14 'terminal stage*':ti,ab (4263)

- #15 dying:ti,ab (43229)
- #16 (close NEAR/6 death):ti,ab (1276)
- #17 ((incurable OR advanced) NEAR/6 (ill* OR disease*)):ti,ab (86919)
- #18 #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 (330156)
- #19 #6 AND #18 (6099)
- #20 #6 AND #18 AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND ([embase]/lim OR [medline]/lim) AND [2009-2020]/py AND [medline]/lim (1564)

COCHRANE LIBRARY (VIA WILEY)

- #1 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
- #2 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
- #3 emphysema*:ti,ab
- #4 (chronic* NEAR/3 bronchiti*):ti,ab
- #5 (obstruct* NEAR/3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)):ti,ab
- #6 COPD:ti,ab
- #7 COAD:ti,ab
- #8 COBD:ti,ab
- #9 AECB:ti,ab
- #10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
- #11 MeSH descriptor: [Palliative Care] explode all trees
- #12 MeSH descriptor: [Terminal Care] explode all trees
- #13 MeSH descriptor: [Terminally Ill] explode all trees
- #14 pallia*:ti,ab
- #15 (terminal* NEAR/6 (care or caring or ill*)):ti,ab
- #16 (terminal-stage* or terminal stage* or dying or (close NEAR/6 death)):ti,ab
- #17 (end NEAR/3 life):ti,ab
- #18 hospice*:ti,ab
- #19 ((end-stage* or end stage*) NEAR/6 (disease* or ill* or care or caring)):ti,ab
- #20 ((incurable or advanced) NEAR/6 (ill* or disease*))
- #21 #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20
- #22 #10 AND #21 with Cochrane Library publication date Between Jan 2009 and Dec 2019

CINAHL

- S1 (MH "Pulmonary Disease, Chronic Obstructive+") OR (MH "Lung Diseases, Obstructive+") (53845)
- S2 emphysema* (4635)
- S3 (chronic* N3 bronchiti*) (1067)
- S4 (obstruct* N3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)) (33148)
- S5 COPD or COAD or COBD or AECB (20025)
- S6 S1 OR S2 OR S3 OR S4 OR S5 (68153)
- S7 MH Palliative Care (32587)
- S8 MH Terminal Care (16418)
- S9 MH Terminally Ill (12241)
- S10 palliat* (47716)
- S11 terminal* N3 (care OR caring OR ill*) (26701)
- S12 terminal-stage* OR terminal stage* OR dying OR (close N5 death) (14791)
- S13 end N2 life (18419)
- S14 hospice* (18627)
- S15 (end-stage* or end stage*) N5 (disease* or ill* or care or caring) (10411)
- S16 (incurable or advanced) N5 (ill* or disease*) (10905)
- S17 S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 (99855)
- S18 S6 AND S17 -> Limiters/Expanders: Limiters - Published Date: 20090101-20191231; Exclude MEDLINE records; Language: Dutch/Flemish, English; Expanders - Apply equivalent subjects (467)

Onderzoeksvraag 2: Proactieve zorgplanning

Wat is het effect van proactieve zorgplanning op levensverlengende maatregelen en tevredenheid van patiënten met COPD en hun naasten?

Patiënten	Patiënten met COPD
Interventie	ACP
Comparator	Geen ACP, reguliere zorg
Outcome	Kritisch: levensverlengende maatregelen, tevredenheid van patiënten en verzorgers Belangrijk: ziekenhuisopnames, plaats van zorg, plaats van overlijden

Search strategy

Search date	22 December 2019
Databases	OVID Medline, Embase, Cochrane Library, Cinahl
Search limits	Publication date: 2009-2019 Languages: English and Dutch Study design: meta-analyses, systematic reviews, randomized controlled trials

Search results

Table 2. Overall search results of research question 2.

Database	Number of hits
OVID Medline	408
OVID PreMedline	14
EMBASE.com	1676
Cochrane Database of Systematic Reviews	26
CENTRAL	263
Cinahl	404
Total hits	2791
N excluded (language, duplicates)	422
Total unique eligible hits	2369

Excluded studies

2369 unique hits were screened on title and abstract (Table 2). Of these, 2338 were excluded. The most important reasons for exclusion were:

- Other intervention: interventions other than advanced care planning
- Wrong study design: narrative reviews, case reports, etc.

Of the remaining 31 papers, the full-text was retrieved. Based on the full-text, an additional 25 papers were excluded. Table 10 provides an overview of the excluded studies with reasons.

Search strings

MEDLINE (OVID)

- 1 Lung Diseases, Obstructive/ (18159)
- 2 exp Pulmonary Disease, Chronic Obstructive/ (53627)
- 3 emphysema\$.mp. (32776)
- 4 (chronic\$ adj3 bronchiti\$).mp. (10878)
- 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (104663)
- 6 COPD.mp. (37889)
- 7 COAD.mp. (253)
- 8 COBD.mp. (17)
- 9 AECB.mp. (210)
- 10 or/1-9 (140207)

11 exp Advance Care Planning/ (8992)
 12 (advance care adj (plan or plans or planning)).tw. (1993)
 13 (advance adj (directive* or decision*)).tw. (3280)
 14 living will*.tw. (1158)
 15 Right to Die/ (4878)
 16 right to die.tw. (887)
 17 ((patient or patients) adj5 (advocat* or advocacy)).tw. (5513)
 18 power of attorney.tw. (384)
 19 ((end of life or EOL) adj5 (care or discuss* or decision* or plan or plans or planning or
 preference*)).tw. (12161)
 20 Terminal Care/ (27355)
 21 Treatment Refusal/ (11696)
 22 exp Withholding Treatment/ (14956)
 23 (treatment adj5 (refus* or withhold* or withdraw*)).tw. (14711)
 24 future care planning.mp. (24)
 25 anticipating care.mp. (3)
 26 early palliative care.mp. (270)
 27 timely palliative care.mp. (18)
 28 or/11-27 (78860)
 29 10 and 28 (746)
 30 limit 29 to yr="2009 -Current" (408)

PREMEDLINE (OVID)

1 Lung Diseases, Obstructive/ (5)
 2 exp Pulmonary Disease, Chronic Obstructive/ (133)
 3 emphysema\$.mp. (268)
 4 (chronic\$ adj3 bronchiti\$).mp. (64)
 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (1359)
 6 COPD.mp. (864)
 7 COAD.mp. (6)
 8 COBD.mp. (0)
 9 AECB.mp. (0)
 10 or/1-9 (1745)
 11 exp Advance Care Planning/ (23)
 12 (advance care adj (plan or plans or planning)).tw. (171)
 13 (advance adj (directive* or decision*)).tw. (73)
 14 living will*.tw. (19)
 15 Right to Die/ (0)
 16 right to die.tw. (5)
 17 ((patient or patients) adj5 (advocat* or advocacy)).tw. (205)
 18 power of attorney.tw. (17)
 19 ((end of life or EOL) adj5 (care or discuss* or decision* or plan or plans or planning or
 preference*)).tw. (518)
 20 Terminal Care/ (63)
 21 Treatment Refusal/ (17)
 22 exp Withholding Treatment/ (27)
 23 (treatment adj5 (refus* or withhold* or withdraw*)).tw. (230)
 24 future care planning.mp. (3)
 25 anticipating care.mp. (0)
 26 early palliative care.mp. (23)
 27 timely palliative care.mp. (0)
 28 or/11-27 (1165)
 29 10 and 28 (14)
 30 limit 29 to yr="2009 -Current" (14)

EMBASE (VIA EMBASE.COM)

#1 'chronic obstructive lung disease'/exp (127439)
 #2 emphysema*:ti,ab (36093)

- #3 (chronic* NEAR/3 bronchiti*):ti,ab (15253)
- #4 (obstruct* NEAR/3 (pulmonary OR lung* OR airway* OR airflow* OR bronch* OR respirat*)):ti,ab (120989)
- #5 copd:ti,ab OR coad:ti,ab OR cobd:ti,ab OR aecb:ti,ab (82444)
- #6 #1 OR #2 OR #3 OR #4 OR #5 (226402)
- #7 'living will'/exp OR 'right to die'/exp OR 'patient advocacy'/exp OR 'power of attorney'/exp OR 'terminal care'/exp OR 'treatment refusal'/exp OR 'treatment withdrawal'/exp (304669)
- #8 (living NEAR/1 will*):ab,ti (1577)
- #9 ('advance care' NEAR/1 (plan OR plans OR planning)):ab,ti (4117)
- #10 'right to die':ab,ti (966)
- #11 ((patient OR patients) NEAR/5 (advocat* OR advocacy)):ab,ti (9405)
- #12 'power of attorney':ab,ti (645)
- #13 (('end of life' OR eol) NEAR/5 (care OR discuss* OR decision* OR plan OR plans OR planning OR preference*)):ab,ti (20535)
- #14 'terminal care':ab,ti (1819)
- #15 (treatment NEAR/2 (refus* OR withhold* OR withdraw*)):ab,ti (12327)
- #16 'advance care planning'/exp (2366)
- #17 'shared decision making'/exp (5652)
- #18 #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 (331107)
- #19 #6 AND #18 (4078)
- #20 #6 AND #18 AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND ([embase]/lim OR [medline]/lim) AND [2009-2020]/py AND [medline]/lim (1676)

COCHRANE LIBRARY (VIA WILEY)

- #1 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
- #2 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
- #3 emphysema*:ti,ab
- #4 (chronic* NEAR/3 bronchiti*):ti,ab
- #5 (obstruct* NEAR/3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)):ti,ab
- #6 COPD:ti,ab
- #7 COAD:ti,ab
- #8 COBD:ti,ab
- #9 AECB:ti,ab
- #10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
- #11 MeSH descriptor: [Advance Care Planning] explode all trees
- #12 (advance care adj (plan or plans or planning)):ti,ab
- #13 (advance adj (directive* or decision*)):ti,ab
- #14 living will*:ti,ab
- #15 MeSH descriptor: [Right to Die] explode all trees
- #16 right to die:ti,ab
- #17 ((patient or patients) adj5 (advocat* or advocacy)):ti,ab
- #18 power of attorney:ti,ab
- #19 (("end of life" or EOL) NEAR/5 (care or discuss* or decision* or plan or plans or planning or preference*)):ti,ab
- #20 MeSH descriptor: [Terminal Care] explode all trees
- #21 MeSH descriptor: [Treatment Refusal] explode all trees
- #22 MeSH descriptor: [Withholding Treatment] explode all trees
- #23 (treatment NEAR/5 (refus* or withhold* or withdraw*)):ti,ab
- #24 future care planning:ti,ab
- #25 anticipating care:ti,ab
- #26 early palliative care:ti,ab
- #27 timely palliative care:ti,ab
- #28 #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 or #27
- #29 #10 AND #28 with Cochrane Library publication date Between Jan 2009 and Dec 2019

CINAHL

S1 (MH "Pulmonary Disease, Chronic Obstructive+") OR (MH "Lung Diseases, Obstructive+") (53845)
 S2 emphysema* (4635)
 S3 (chronic* N3 bronchiti*) (1067)
 S4 (obstruct* N3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)) (33148)
 S5 COPD or COAD or COBD or AECB (20025)
 S6 S1 OR S2 OR S3 OR S4 OR S5 (68153)
 S7 (MH "Advance Care Planning") (3027)
 S8 (MH "Right to Die") (1554)
 S9 (MH "Terminal Care+") (58993)
 S10 (MH "Treatment Refusal") (4746)
 S11 (MH "Euthanasia, Passive") (4365)
 S12 ("advance care" N1 (plan or plans or planning)) (3793)
 S13 (advance N1 (directive* or decision*)) (5905)
 S14 "living will*" (1214)
 S15 "right to die" (1668)
 S16 ((patient or patients) N5 (advocat* or advocacy)) (23779)
 S17 "power of attorney" (893)
 S18 (("end of life" or EOL) N5 (care or discuss* or decision* or plan or plans or planning or preference*)) (19966)
 S19 (treatment N5 (refus* or withhold* or withdraw*)) (8335)
 S20 "future care planning" (29)
 S21 "anticipating care" (3)
 S22 "early palliative care" (283)
 S23 "timely palliative care" (20)
 S24 S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 (98271)
 S25 S6 AND S24 (1222)
 S26 S6 AND S24 -> Limiters - Published Date: 20090101-20191231; Exclude MEDLINE records; Language: Dutch/Flemish, English (404)

Onderzoeksvraag 3: Psychosociale zorg

Wat is het effect van (niet-)medicamenteuze behandeling op angst bij mensen met COPD?

Patiënten Patiënten met COPD
 Interventie Medicamenteuze en niet-medicamenteuze behandeling van angst
 Comparator Andere interventie, placebo, geen behandeling
 Outcome Kritisch: angst

Search strategy

Search date 22 December 2019
 Databases: OVID Medline, Embase, Cochrane Library, Cinahl
 Search limits Publication date: 2009-2019
 Languages: English and Dutch
 Study design: meta-analyses, systematic reviews, randomized controlled trials

Search results

Table 3. Overall search results of research question 3.

Database	Number of hits
OVID Medline	1024
OVID PreMedline	28
EMBASE.com	1918
Cochrane Database of Systematic Reviews	12
CENTRAL	546

Cinahl	972
Total hits	4500
N excluded (language, duplicates)	1616
Total unique eligible hits	2884

Excluded studies

2884 unique hits were screened on title and abstract (Table 3). Of these, 2749 were excluded. The most important reasons for exclusion were:

- Other intervention: interventions other than those focused on anxiety
- Wrong study design: narrative reviews, case reports, etc.
- Wrong study population: focus on depressive outcome

Of the remaining 135 papers, the full-text was retrieved. Based on the full-text, an additional 123 papers were excluded. Table 11 provides an overview of the excluded studies with reasons.

Search strings

MEDLINE (OVID)

- 1 Lung Diseases, Obstructive/ (18154)
- 2 exp Pulmonary Disease, Chronic Obstructive/ (53494)
- 3 emphysema\$.mp. (32731)
- 4 (chronic\$ adj3 bronchiti\$).mp. (10870)
- 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (104473)
- 6 COPD.mp. (37766)
- 7 COAD.mp. (252)
- 8 COBD.mp. (17)
- 9 AECB.mp. (210)
- 10 or/1-9 (139970)
- 11 anxiety/ (77403)
- 12 anxiety disorders/ (32691)
- 13 agoraphobia/ (2569)
- 14 Obsessive-Compulsive Disorder/ (14002)
- 15 panic disorder/ (6788)
- 16 phobic disorders/ (10531)
- 17 exp stress disorders, traumatic/ (34808)
- 18 exp Anti-Anxiety Agents/ (68751)
- 19 (anxiety or anxieties or anxious or agoraphobi\$ or phobi\$ or panic disorder\$ or panic attack\$ or (obsess\$ adj3 compuls\$) or post?traumatic stress\$ or PTSD).tw. (196011)
- 20 (feel\$ adj5 (apprehens\$ or dread or disaster\$ or fear\$ or worry or worried)).tw. (1483)
- 21 manifest anxiety scale/ (609)
- 22 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 (298849)
- 23 10 and 22 (1755)
- 24 limit 23 to yr="2009 -Current" (1024)

PREMEDLINE (OVID)

- 1 Lung Diseases, Obstructive/ (5)
- 2 exp Pulmonary Disease, Chronic Obstructive/ (133)
- 3 emphysema\$.mp. (268)
- 4 (chronic\$ adj3 bronchiti\$).mp. (64)
- 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (1359)
- 6 COPD.mp. (864)
- 7 COAD.mp. (6)
- 8 COBD.mp. (0)
- 9 AECB.mp. (0)
- 10 or/1-9 (1745)
- 11 anxiety/ (228)

- 12 anxiety disorders/ (67)
- 13 agoraphobia/ (0)
- 14 Obsessive-Compulsive Disorder/ (18)
- 15 panic disorder/ (3)
- 16 phobic disorders/ (5)
- 17 exp stress disorders, traumatic/ (81)
- 18 exp Anti-Anxiety Agents/ (73)
- 19 (anxiety or anxieties or anxious or agoraphobi\$ or phobi\$ or panic disorder\$ or panic attack\$ or (obsess\$ adj3 compuls\$) or post?traumatic stress\$ or PTSD).tw. (6345)
- 20 (feel\$ adj5 (apprehens\$ or dread or disaster\$ or fear\$ or worry or worried)).tw. (60)
- 21 manifest anxiety scale/ (0)
- 22 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 (6495)
- 23 10 and 22 (28)
- 24 limit 23 to yr="2009 -Current" (28)

EMBASE (VIA EMBASE.COM)

- #1 'chronic obstructive lung disease'/exp (127439)
- #2 emphysema*:ti,ab (36093)
- #3 (chronic* NEAR/3 bronchiti*):ti,ab (15253)
- #4 (obstruct* NEAR/3 (pulmonary OR lung* OR airway* OR airflow* OR bronch* OR respirat*)):ti,ab (120989)
- #5 copd:ti,ab OR coad:ti,ab OR cobd:ti,ab OR aecb:ti,ab (82444)
- #6 #1 OR #2 OR #3 OR #4 OR #5 (226402)
- #7 'anxiety disorder'/exp OR 'anxiety'/exp OR 'agoraphobia'/exp OR 'obsessive compulsive disorder'/exp OR 'panic'/exp OR 'phobia'/exp OR 'acute stress disorder'/exp OR 'anxiolytic agent'/exp (578145)
- #8 anxiety:ti,ab OR anxieties:ti,ab OR anxious:ti,ab OR agoraphobi*:ti,ab OR phobi*:ti,ab OR 'panic disorder*':ti,ab OR 'panic attack*':ti,ab OR ((obsess* NEAR/3 compuls*):ti,ab) OR 'post?traumatic stress*':ti,ab OR ptsd:ti,ab (322735)
- #9 (feel* NEAR/5 (apprehens* OR dread OR disaster* OR fear* OR worry OR worried)):ti,ab (2671)
- #10 'manifest anxiety scale'/exp (80)
- #11 #7 OR #8 OR #9 OR #10 (641313)
- #12 #6 AND #11 (5607)
- #13 #6 AND #11 AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND ([embase]/lim OR [medline]/lim) AND [2009-2020]/py AND [medline]/lim (1918)

COCHRANE LIBRARY (VIA WILEY)

- #1 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
- #2 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
- #3 emphysema*:ti,ab
- #4 (chronic* NEAR/3 bronchiti*):ti,ab
- #5 (obstruct* NEAR/3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)):ti,ab
- #6 COPD:ti,ab
- #7 COAD:ti,ab
- #8 COBD:ti,ab
- #9 AECB:ti,ab
- #10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
- #11 MeSH descriptor: [Anxiety] explode all trees
- #12 MeSH descriptor: [Anxiety Disorders] explode all trees
- #13 MeSH descriptor: [Agoraphobia] explode all trees
- #14 MeSH descriptor: [Obsessive-Compulsive Disorder] explode all trees
- #15 MeSH descriptor: [Panic Disorder] explode all trees
- #16 MeSH descriptor: [Phobic Disorders] explode all trees
- #17 MeSH descriptor: [Stress Disorders, Traumatic] explode all trees
- #18 MeSH descriptor: [Anti-Anxiety Agents] explode all trees
- #19 MeSH descriptor: [Manifest Anxiety Scale] explode all trees

- #20 (anxiety or anxieties or anxious or agoraphobi* or phobi* or (panic NEAR/1 disorder*) or (panic NEAR/1 attack*) or (obsess* NEAR/3 compuls*) or (post? NEAR/1 traumatic) or PTSD):ti,ab
 #21 (feel* NEAR/5 (apprehens* or dread or disaster* or fear* or worry or worried)):ti,ab
 #22 #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21
 #23 #10 AND #22 with Cochrane Library publication date Between Jan 2009 and Dec 2019

CINAHL

- S1 (MH "Pulmonary Disease, Chronic Obstructive+") OR (MH "Lung Diseases, Obstructive+") (53845)
 S2 emphysema* (4635)
 S3 (chronic* N3 bronchiti*) (1067)
 S4 (obstruct* N3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)) (33148)
 S5 COPD or COAD or COBD or AECB (20025)
 S6 S1 OR S2 OR S3 OR S4 OR S5 (68153)
 S7 (MH "Anxiety") OR (MH "Anxiety Disorders") (47148)
 S8 (MH "Agoraphobia") OR (MH "Panic Disorder") (2187)
 S9 (MH "Obsessive-Compulsive Disorder") (4418)
 S10 (MH "Phobic Disorders") (2132)
 S11 (MH "Stress Disorders, Post-Traumatic+") (20292)
 S12 (MH "Antianxiety Agents+") (11476)
 S13 (anxiety or anxieties or anxious or agoraphobi* or phobi* or "panic disorder*" or "panic attack*" or (obsess* N3 compuls*) or "post?traumatic stress*" or PTSD) (108843)
 S14 (feel* N5 (apprehens* or dread or disaster* or fear* or worry or worried)) (1405)
 S15 S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 (123722)
 S16 S6 AND S15 -> Limiters - Published Date: 20090101-20191231 (972)

Onderzoeksvraag 4: Psychosociale zorg

Wat is het effect van (niet-)medicamenteuze behandeling op depressie bij mensen met COPD?

Patiënten	Patiënten met COPD
Interventie	Medicamenteuze en niet-medicamenteuze behandeling van depressieve symptomen of depressie
Comparator	Andere interventie, placebo, geen behandeling
Outcome	Kritisch: depressie

Search strategy

Search date 23 December 2019
 Databases OVID Medline, Embase, Cochrane Library, Cinahl
 Search limits Publication date: 2009-2019
 Languages: English and Dutch
 Study design: meta-analyses, systematic reviews, randomized controlled trials

Search results

Table 4. Overall search results of research question 4.

Database	Number of hits
OVID Medline	1025
OVID PreMedline	20
EMBASE.com	2845
Cochrane Database of Systematic Reviews	15
CENTRAL	747
Cinahl	517
Total hits	5169

N excluded (language, duplicates)	1370
Total unique eligible hits	3799

Excluded studies

3799 unique hits were screened on title and abstract (Table 4). Of these, 3696 were excluded. The most important reasons for exclusion were:

- Other intervention: interventions other than focused on depression
- Wrong study design: narrative reviews, case reports, etc.

Of the remaining 103 papers, the full-text was retrieved. Based on the full-text, an additional 91 papers were excluded. Table 12 provides an overview of the excluded studies with reasons.

Search strings

MEDLINE (OVID)

- 1 Lung Diseases, Obstructive/ (18154)
- 2 exp Pulmonary Disease, Chronic Obstructive/ (53494)
- 3 emphysema\$.mp. (32731)
- 4 (chronic\$ adj3 bronchiti\$).mp. (10870)
- 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (104473)
- 6 COPD.mp. (37766)
- 7 COAD.mp. (252)
- 8 COBD.mp. (17)
- 9 AECB.mp. (210)
- 10 or/1-9 (139970)
- 11 Depression/ (113432)
- 12 depressive disorder/ or depressive disorder, major/ (99289)
- 13 (depress* or dysthymi* or mood? or affective disorder* or affective symptom*).ti,kf. (153806)
- 14 (depress* adj3 (acute or clinical* or diagnos* or disorder* or major or unipolar or illness or scale* or score* or adult* or patient* or participant* or people or inpatient* or in patient* or outpatient* or out patient*)).ab. (126252)
- 15 (depress* and (Beck* or BDI* or DSM* or (Statistical Manual adj2 Mental Disorders) or Hamilton or HAM D or HAMD or MADRS or (International Classification adj2 Disease?) or ICD 10 or ICD 9)).ab. (36238)
- 16 "with depressi*".ab. (21647)
- 17 11 or 12 or 13 or 14 or 15 or 16 (282033)
- 18 10 and 17 (1559)
- 19 limit 18 to yr="2009 -Current" (1025)

PREMEDLINE (OVID)

- 1 Lung Diseases, Obstructive/ (5)
- 2 exp Pulmonary Disease, Chronic Obstructive/ (133)
- 3 emphysema\$.mp. (268)
- 4 (chronic\$ adj3 bronchiti\$).mp. (64)
- 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (1359)
- 6 COPD.mp. (864)
- 7 COAD.mp. (6)
- 8 COBD.mp. (0)
- 9 AECB.mp. (0)
- 10 or/1-9 (1745)
- 11 Depression/ (334)
- 12 depressive disorder/ or depressive disorder, major/ (140)
- 13 (depress* or dysthymi* or mood? or affective disorder* or affective symptom*).ti,kf. (4503)
- 14 (depress* adj3 (acute or clinical* or diagnos* or disorder* or major or unipolar or illness or scale* or score* or adult* or patient* or participant* or people or inpatient* or in patient* or outpatient* or out patient*)).ab. (3519)

- 15 (depress* and (Beck* or BDI* or DSM* or (Statistical Manual adj2 Mental Disorders) or Hamilton or HAM D or HAMD or MADRS or (International Classification adj2 Disease?) or ICD 10 or ICD 9)).ab. (745)
- 16 "with depressi*".ab. (793)
- 17 11 or 12 or 13 or 14 or 15 or 16 (6304)
- 18 10 and 17 (23)
- 19 limit 18 to yr="2009 -Current" (20)

EMBASE (VIA EMBASE.COM)

- #1 'chronic obstructive lung disease'/exp (127439)
- #2 emphysema*:ti,ab (36093)
- #3 (chronic* NEAR/3 bronchiti*):ti,ab (15253)
- #4 (obstruct* NEAR/3 (pulmonary OR lung* OR airway* OR airflow* OR bronch* OR respirat*)):ti,ab (120989)
- #5 copd:ti,ab OR coad:ti,ab OR cobd:ti,ab OR aecb:ti,ab (82444)
- #6 #1 OR #2 OR #3 OR #4 OR #5 (226402)
- #7 'depression'/exp OR 'major depression'/exp (480248)
- #8 (depress*:ti,ab OR dysthymi*:ti,ab OR mood?:ti,ab OR affective:ti,ab) AND disorder*:ti,ab OR 'affective symptom*':ti,ab (190815)
- #9 depress*:ti,ab OR dysthymi*:ti,ab OR mood?:ti,ab OR 'affective disorder*':ti,ab OR 'affective symptom*':ti,ab (612808)
- #10 (depress* NEAR/3 (acute OR clinical* OR diagnos* OR disorder* OR major OR unipolar OR illness OR scale* OR score* OR adult* OR patient* OR participant* OR people OR inpatient* OR 'in patient*' OR outpatient* OR 'out patient*')):ti,ab (222786)
- #11 depress*:ti,ab AND (beck*:ti,ab OR bdi*:ti,ab OR dsm*:ti,ab OR (('statistical manual' NEAR/2 'mental disorders'):ti,ab) OR hamilton:ti,ab OR 'ham d':ti,ab OR hamd:ti,ab OR madrs:ti,ab OR (('international classification' NEAR/2 disease?):ti,ab) OR 'icd 10':ti,ab OR 'icd 9':ti,ab) (66090)
- #12 'with depressi*':ab (36792)
- #13 #7 OR #8 OR #9 OR #10 OR #11 OR #12 (780787)
- #14 #6 AND #13 (7902)
- #15 #6 AND #13 AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND ([embase]/lim OR [medline]/lim) AND [2009-2020]/py AND [medline]/lim (2845)

COCHRANE LIBRARY (VIA WILEY)

- #1 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
- #2 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
- #3 emphysema*:ti,ab
- #4 (chronic* NEAR/3 bronchiti*):ti,ab
- #5 (obstruct* NEAR/3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)):ti,ab
- #6 COPD:ti,ab
- #7 COAD:ti,ab
- #8 COBD:ti,ab
- #9 AECB:ti,ab
- #10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
- #11 MeSH descriptor: [Depression] explode all trees
- #12 MeSH descriptor: [Depressive Disorder] explode all trees
- #13 MeSH descriptor: [Depressive Disorder, Major] explode all trees
- #14 (depress* or dysthymi* or mood? or (affective NEAR/1 disorder*) or (affective NEAR/1 symptom*)):ti,ab
- #15 (depress* NEAR/3 (acute or clinical* or diagnos* or disorder* or major or unipolar or illness or scale* or score* or adult* or patient* or participant* or people or inpatient* or in patient* or outpatient* or (out NEAR/1 patient*))) :ti,ab
- #16 (depress* and (Beck* or BDI* or DSM* or (Statistical Manual NEAR/2 Mental Disorders) or Hamilton or HAM D or HAMD or MADRS or (International Classification NEAR/2 Disease?) or "ICD 10" or "ICD 9")):ti,ab
- #17 #11 OR #12 OR #13 OR #14 OR #15 OR #16
- #18 #10 AND #17 with Cochrane Library publication date Between Jan 2009 and Dec 2019

CINAHL

- S1 (MH "Pulmonary Disease, Chronic Obstructive+") OR (MH "Lung Diseases, Obstructive+") (53845)
- S2 emphysema* (4635)
- S3 (chronic* N3 bronchiti*) (1067)
- S4 (obstruct* N3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)) (33148)
- S5 COPD or COAD or COBD or AECB (20025)
- S6 S1 OR S2 OR S3 OR S4 OR S5 (68153)
- S7 (MH "Depression") (96950)
- S8 (depress* or dysthymi* or mood? or "affective disorder*" or "affective symptom*" (196147)
- S9 (depress* N3 (acute or clinical* or diagnos* or disorder* or major or unipolar or illness or scale* or score* or adult* or patient* or participant* or people or inpatient* or "in patient*" or outpatient* or "out patient*")) (76553)
- S10 (depress* and (Beck* or BDI* or DSM* or ("Statistical Manual" N2 "Mental Disorders") or Hamilton or "HAM D" or HAMD or MADRS or ("International Classification" N2 Disease?) or "ICD 10" or "ICD 9")) (15929)
- S11 S7 OR S8 OR S9 OR S10 (196147)
- S12 S6 AND S11 (2191)
- S13 S6 AND S11 -> Limiters - Published Date: 20090101-20191231; Exclude MEDLINE records; Language: Dutch/Flemish, English (517)

Onderzoeksvraag 5: Symptomen

Wat is het effect van niet-medicamenteuze behandeling op dyspneu bij mensen met gevorderde COPD?

Patiënten	Patiënten met gevorderde COPD
Interventie	Niet-medicamenteuze behandeling: a. ademhalingsoefeningen, b. mind-body interventies en ontspanningsoefeningen, c. hulpmiddelen bij het lopen, d. ventilator, e. breathlessness support services, f. zuurstof, g. voorlichting, h. niet-invasieve beademing
Comparator	Andere interventie, geen interventie
Outcome	Kritisch: dyspneu, kwaliteit van leven Belangrijk: fysiek functioneren, inspanningstolerantie

Search strategy

Search 1 date 23 December 2019
Search 2 date 19 March 2020
Databases OVID Medline, Embase, Cochrane Library.
Search limits Publication date: 2014-2019;
Languages: English and Dutch
Study design: meta-analyses, systematic reviews, randomized controlled trials

Search results

First search

Table 5. Overall search results of research question 5 for search 1

Database	Number of hits
OVID Medline	885
OVID PreMedline	34
EMBASE.com	1344
Cochrane Database of Systematic Reviews	48
CENTRAL	995

Total hits	3306
N excluded (language, duplicates)	1220
Total unique eligible hits	2086

Second search

Table 6. Overall search results of research question 5 for search 2

Database	Number of hits
OVID Medline	397
OVID PreMedline	9
EMBASE.com	546
Cochrane Database of Systematic Reviews	10
CENTRAL	371
Total hits	1333
N excluded (language, duplicates)	531
Total unique eligible hits	802

Excluded studies

First search

2086 unique hits were screened on title and abstract (Table 5). Of these, 1966 were excluded. The most important reasons for exclusion were:

- Other intervention: interventions other than those specified
- Wrong study design: narrative reviews, case reports, etc.

Of the remaining 120 papers, the full-text was retrieved. Based on the full-text, an additional 96 papers were excluded. Eventually, non-invasive ventilation was excluded as outcome, which led to the exclusion of another 8 studies. Table 13 provides an overview of the excluded studies with reasons.

Second search

802 unique hits were screened on title and abstract (Table 6). Of these, 757 were excluded. The most important reasons for exclusion were:

- Other intervention: interventions other than those specified
- Wrong study design: narrative reviews, case reports, etc.

Of the remaining 45 papers, the full-text was retrieved. Based on the full-text, an additional 40 papers were excluded. Eventually, non-invasive ventilation was excluded as outcome, which led to the exclusion of another 4 studies. One studie (Maddocks 2019) was added by the clinical experts. Table 14 provides an overview of the excluded studies with reasons.

Onderzoeksvraag 6: symptomen

Wat is het effect van medicatie op dyspneu bij mensen met gevorderde COPD?

Patiënten	Patiënten met gevorderde COPD
Interventie	Medicamenteuze behandeling: 1. opioïden (morphine, fentanyl, oxycodon, hydromorfine), b. benzodiazepines, c. antidepressiva (sertraline, mirtazapine)
Comparator	Andere interventie, placebo, geen behandeling
Outcome	Kritisch: dyspneu, kwaliteit van leven, inspanningstolerantie Belangrijk: fysiek functioneren

Search strategy

Search date	23 December 2019
Databases	OVID Medline, Embase, Cochrane Library.
Search limits	Publication date: 2014-2019; Languages: English and Dutch

Study design: meta-analyses, systematic reviews, randomized controlled trials

Search results

Table 7. Overall search results of research question 6

Database	Number of hits
OVID Medline	885
OVID PreMedline	34
EMBASE.com	1344
Cochrane Database of Systematic Reviews	48
CENTRAL	995
Total hits	3306
N excluded (language, duplicates)	1220
Total unique eligible hits	2086

Excluded studies

2086 unique hits were screened on title and abstract (Table 7). Of these, 1966 were excluded. The most important reasons for exclusion were:

- Other intervention: no pharmacological interventions
- Wrong study design: narrative reviews, case reports, etc.

Of the remaining 120 papers, the full-text was retrieved. Based on the full-text, an additional 116 papers were excluded. Table 15 provides an overview of the excluded studies with reasons.

Search strings

The search strings for these research questions 5 and 6 was combined in one search. An extra search for research question 5 was performed in a later stadium.

First search

MEDLINE (OVID)

- 1 Lung Diseases, Obstructive/ (18154)
- 2 exp Pulmonary Disease, Chronic Obstructive/ (53494)
- 3 emphysema\$.mp. (32731)
- 4 (chronic\$ adj3 bronchiti\$).mp. (10870)
- 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (104473)
- 6 COPD.mp. (37766)
- 7 COAD.mp. (252)
- 8 COBD.mp. (17)
- 9 AECB.mp. (210)
- 10 or/1-9 (139970)
- 11 exp DYSPNEA/ (20661)
- 12 (dyspnoe\$ or dyspne\$).mp. (49027)
- 13 dyspnoeic.mp. (203)
- 14 breathless\$.mp. (4147)
- 15 (breathing adj3 labored).mp. (214)
- 16 (breathing adj3 laboured).mp. (44)
- 17 (breathing adj3 difficult\$).mp. (1822)
- 18 or/11-17 (53270)
- 19 exp Analgesics, Opioid/ (112926)
- 20 exp Morphine/ or exp Morphine Derivatives/ (49988)
- 21 morphin*.mp. (57074)
- 22 exp Fentanyl/ (15496)

23 fentanyl.mp. (19763)
 24 exp Oxycodone/ (2169)
 25 oxycodon*.mp. (3276)
 26 hydromorphin*.mp. (9)
 27 exp Benzodiazepines/ (64564)
 28 benzodiazepin*.mp. (44366)
 29 exp Sertraline/ (2956)
 30 sertralin*.mp. (4468)
 31 exp Mirtazapine/ (1263)
 32 mirtazapin*.mp. (1961)
 33 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 (206160)
 34 exp Patient Education as Topic/ (83693)
 35 exp Health Education/ (237804)
 36 exp Patient Participation/ (24824)
 37 exp Decision Making/ (194601)
 38 exp Communication/ (298072)
 39 exp counseling/ (42782)
 40 exp Health Communication/ (2062)
 41 exp Consumer Health Information/ (8533)
 42 exp Information Dissemination/ (15931)
 43 exp Information Systems/ (217752)
 44 exp Information Services/ (962013)
 45 exp Computer-Assisted Instruction/ (11633)
 46 exp Computer Systems/ (173310)
 47 exp Telephone/ (21433)
 48 exp Telecommunications/ (87837)
 49 exp teaching materials/ (117173)
 50 exp internet/ (75942)
 51 ((patient or client or providing or provision of or supplying or supplied) adj (education or information)).mp. (106646)
 52 (audio* or video* or cassette* or tape* or dvd* or compact dis* or cd or cds or multimedia or multi media).mp. (464609)
 53 (internet or web or website* or online or blog* or weblog* or podcast* or computer program* or computer mediated or computer based or computer assisted or electronic mail* or email* or mail*).mp. (568081)
 54 (telephon* or phone or phones or text messag* or sms).mp. (79411)
 55 (pamphlet* or booklet* or leaflet* or flyer* or brochure* or print* material* or written material*).mp. (29297)
 56 ((education* or teaching or instruction* or counsel?ing or advisory or information*) adj (material* or program* or session*)).mp. (56184)
 57 or/34-56 (2953955)
 58 Breathing Exercises/ (3305)
 59 (breath\$ adj3 (exercis\$ or retrain\$)).ti,ab. (2283)
 60 buteyko.ti,ab. (31)
 61 (diaphragm\$ adj3 breath\$).ti,ab. (432)
 62 (breath\$ adj3 control\$).ti,ab. (3248)
 63 (relax\$ adj3 breath\$).ti,ab. (372)
 64 tidal breath\$.ti,ab. (1325)
 65 Respiratory therapy/ (6502)
 66 physiotherap\$.ti,ab. (19995)
 67 physical therapy.ti,ab. (13669)
 68 yawn.ti,ab. (136)
 69 sigh.ti,ab. (540)
 70 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 (48747)
 71 yoga.mp. or exp Yoga/ (3482)
 72 meditation.mp. or exp Meditation/ (4526)
 73 imagery.mp. or exp "Imagery (Psychotherapy)"/ (12270)
 74 visualisation.mp. (5626)

75 exp Relaxation/ or relaxation.mp. (113806)
 76 exp Music/ or music.mp. (19943)
 77 71 or 72 or 73 or 74 or 75 or 76 (155226)
 78 oxygen*.mp. (616668)
 79 ventilat*.mp. (164762)
 80 respiratory care service*.mp. (58)
 81 (breathlessness adj3 service*).mp. (24)
 82 33 or 57 or 70 or 77 or 78 or 79 or 80 or 81 (3974452)
 83 10 and 18 and 82 (3728)
 84 limit 83 to yr="2014 -Current" (885)

PREMEDLINE (OVID)

1 Lung Diseases, Obstructive/ (5)
 2 exp Pulmonary Disease, Chronic Obstructive/ (133)
 3 emphysema\$.mp. (268)
 4 (chronic\$ adj3 bronchiti\$).mp. (64)
 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (1359)
 6 COPD.mp. (864)
 7 COAD.mp. (6)
 8 COBD.mp. (0)
 9 AECB.mp. (0)
 10 or/1-9 (1745)
 11 exp DYSPNEA/ (47)
 12 (dyspnoe\$ or dyspne\$).mp. (707)
 13 dyspnoeic.mp. (3)
 14 breathless\$.mp. (94)
 15 (breathing adj3 labored).mp. (5)
 16 (breathing adj3 laboured).mp. (0)
 17 (breathing adj3 difficult\$).mp. (65)
 18 or/11-17 (833)
 19 exp Analgesics, Opioid/ (203)
 20 exp Morphine/ or exp Morphine Derivatives/ (41)
 21 morphin*.mp. (663)
 22 exp Fentanyl/ (13)
 23 fentanyl.mp. (235)
 24 exp Oxycodone/ (5)
 25 oxycodon*.mp. (121)
 26 hydromorphin*.mp. (0)
 27 exp Benzodiazepines/ (49)
 28 benzodiazepin*.mp. (555)
 29 exp Sertraline/ (4)
 30 sertralin*.mp. (100)
 31 exp Mirtazapine/ (4)
 32 mirtazapin*.mp. (46)
 33 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 (1758)
 34 exp Patient Education as Topic/ (149)
 35 exp Health Education/ (480)
 36 exp Patient Participation/ (78)
 37 exp Decision Making/ (541)
 38 exp Communication/ (796)
 39 exp counseling/ (99)
 40 exp Health Communication/ (8)
 41 exp Consumer Health Information/ (59)
 42 exp Information Dissemination/ (56)
 43 exp Information Systems/ (712)
 44 exp Information Services/ (733)
 45 exp Computer-Assisted Instruction/ (18)
 46 exp Computer Systems/ (325)

47 exp Telephone/ (68)
 48 exp Telecommunications/ (308)
 49 exp teaching materials/ (115)
 50 exp internet/ (225)
 51 ((patient or client or providing or provision of or supplying or supplied) adj (education or information)).mp. (969)
 52 (audio* or video* or cassette* or tape* or dvd* or compact dis* or cd or cds or multimedia or multi media).mp. (8671)
 53 (internet or web or website* or online or blog* or weblog* or podcast* or computer program* or computer mediated or computer based or computer assisted or electronic mail* or email* or mail*).mp. (12858)
 54 (telephon* or phone or phones or text messag* or sms).mp. (2098)
 55 (pamphlet* or booklet* or leaflet* or flyer* or brochure* or print* material* or written material*).mp. (684)
 56 ((education* or teaching or instruction* or counsel?ing or advisory or information*) adj (material* or program* or session*)).mp. (1318)
 57 or/34-56 (27584)
 58 Breathing Exercises/ (9)
 59 (breath\$ adj3 (exercis\$ or retrain\$)).ti,ab. (47)
 60 buteyko.ti,ab. (1)
 61 (diaphragm\$ adj3 breath\$).ti,ab. (8)
 62 (breath\$ adj3 control\$).ti,ab. (38)
 63 (relax\$ adj3 breath\$).ti,ab. (14)
 64 tidal breath\$.ti,ab. (16)
 65 Respiratory therapy/ (4)
 66 physiotherap\$.ti,ab. (729)
 67 physical therapy.ti,ab. (563)
 68 yawn.ti,ab. (1)
 69 sigh.ti,ab. (6)
 70 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 (1373)
 71 yoga.mp. or exp Yoga/ (172)
 72 meditation.mp. or exp Meditation/ (188)
 73 imagery.mp. or exp "Imagery (Psychotherapy)"/ (379)
 74 visualisation.mp. (150)
 75 exp Relaxation/ or relaxation.mp. (1972)
 76 exp Music/ or music.mp. (489)
 77 71 or 72 or 73 or 74 or 75 or 76 (3262)
 78 oxygen*.mp. (8543)
 79 ventilat*.mp. (2248)
 80 respiratory care service*.mp. (0)
 81 (breathlessness adj3 service*).mp. (1)
 82 33 or 57 or 70 or 77 or 78 or 79 or 80 or 81 (42856)
 83 10 and 18 and 82 (39)
 84 limit 83 to yr="2014 -Current" (34)

EMBASE (VIA EMBASE.COM)

#1 'chronic obstructive lung disease'/exp (127439)
 #2 emphysema*.ti,ab (36093)
 #3 (chronic* NEAR/3 bronchiti*):ti,ab (15253)
 #4 (obstruct* NEAR/3 (pulmonary OR lung* OR airway* OR airflow* OR bronch* OR respirat*)):ti,ab (120989)
 #5 copd:ti,ab OR coad:ti,ab OR cobd:ti,ab OR aecb:ti,ab (82444)
 #6 #1 OR #2 OR #3 OR #4 OR #5 (226402)
 #7 'dyspnea'/de OR dyspnoe*:ab,ti OR dyspne*:ab,ti OR breathless*:ab,ti OR ((breathing NEAR/3 labored):ab,ti) OR ((breathing NEAR/3 laboured):ab,ti) OR ((breathing NEAR/3 difficult*):ab,ti) (184222)

- #8 'narcotic analgesic agent'/exp OR 'morphine'/exp OR 'morphine derivative'/exp OR 'fentanyl'/exp OR 'oxycodone'/exp OR 'hydromorphone'/exp OR 'benzodiazepine derivative'/exp OR 'sertraline'/exp OR 'mirtazapine'/exp (549788)
- #9 morphin*:ti,ab OR fentanyl:ti,ab OR oxycodon*:ti,ab OR hydromorphin*:ti,ab OR benzodiazepin*:ti,ab OR sertralin*:ti,ab OR mirtazapin*:ti,ab (147911)
- #10 'patient education'/exp (110173)
- #11 'patient information'/exp (26081)
- #12 ((patient OR client) NEAR/1 (education OR information)):ti,ab (39416)
- #13 'mass communication'/exp (54530)
- #14 audio*:ti,ab OR video*:ti,ab OR cassette*:ti,ab OR tape?:ti,ab OR dvd*:ti,ab OR 'compact dis*:ti,ab OR cd:ti,ab OR cds:ti,ab OR multimedia:ti,ab OR 'multi media':ti,ab (473531)
- #15 internet:ti,ab OR web:ti,ab OR website*:ti,ab OR online:ti,ab OR 'on line':ti,ab OR blog*:ti,ab OR weblog*:ti,ab OR podcast*:ti,ab OR portal?:ti,ab OR 'computer program*':ti,ab OR 'computer mediated':ti,ab OR 'computer based':ti,ab OR 'computer assisted':ti,ab (433066)
- #16 telephon*:ti,ab OR phone:ti,ab OR phones:ti,ab OR 'text messag*':ti,ab OR sms:ti,ab (126277)
- #17 pamphlet*:ti,ab OR booklet*:ti,ab OR leaflet*:ti,ab OR flyer*:ti,ab OR brochure*:ti,ab OR 'print* material*':ti,ab (44113)
- #18 ((education* OR teaching OR instruction* OR counseling OR advisory OR information*) NEAR/1 (material* OR pack* OR program* OR session* OR guide*)):ti,ab (88230)
- #19 'information service'/exp (15917)
- #20 'breathing exercise'/exp OR 'respiratory exerciser'/exp (7516)
- #21 (breath* NEAR/3 (exercis* OR retrain*)):ti,ab (4038)
- #22 buteyko:ti,ab (52)
- #23 (diaphragm* NEAR/3 breath*):ti,ab (819)
- #24 (breath* NEAR/3 control*):ti,ab (5090)
- #25 (relax* NEAR/3 breath*):ti,ab (783)
- #26 'tidal breath*':ti,ab (2306)
- #27 physiotherap*:ti,ab (44062)
- #28 'physical therapy':ti,ab (25920)
- #29 yawn:ti,ab (217)
- #30 sigh:ti,ab (835)
- #31 'yoga'/exp OR 'meditation'/exp OR 'guided imagery'/exp OR 'relaxation training'/exp OR 'music'/exp (40949)
- #32 yoga:ti,ab OR meditation:ti,ab OR imagery:ti,ab OR visualisation:ti,ab OR relaxation:ti,ab OR music:ti,ab (178319)
- #33 'oxygen'/exp (207358)
- #34 oxygen*:ti,ab (641742)
- #35 'assisted ventilation'/exp (165231)
- #36 ventilat*:ti,ab (234737)
- #37 'respiratory care service*':ti,ab (81)
- #38 (breathlessness NEAR/3 service*):ti,ab (59)
- #39 #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 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 (3298031)
- #40 #6 AND #7 AND #39 (9078)
- #41 #6 AND #7 AND #39 AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND ([embase]/lim OR [medline]/lim) AND [2014-2020]/py AND [medline]/lim (1344)

COCHRANE LIBRARY (VIA WILEY)

- #1 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
- #2 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
- #3 emphysema*:ti,ab
- #4 (chronic* NEAR/3 bronchiti*):ti,ab
- #5 (obstruct* NEAR/3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)):ti,ab
- #6 COPD:ti,ab
- #7 COAD:ti,ab
- #8 COBD:ti,ab

#9 AECB:ti,ab

#10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9

#11 MeSH descriptor: [Dyspnea] explode all trees

#12 (dyspnoe* OR dyspne*):ti,ab

#13 breathless*:ti,ab

#14 (breathing NEAR/3 (labored OR laboured OR difficult*)):ti,ab

#15 #11 OR #12 OR #13 OR #14

#16 #10 AND #15 with Cochrane Library publication date Between Jan 2014 and Dec 2019

#17 MeSH descriptor: [Analgesics, Opioid] explode all trees

#18 MeSH descriptor: [Morphine] explode all trees

#19 MeSH descriptor: [Morphine Derivatives] explode all trees

#20 MeSH descriptor: [Fentanyl] explode all trees

#21 MeSH descriptor: [Oxycodone] explode all trees

#22 MeSH descriptor: [Benzodiazepines] explode all trees

#23 MeSH descriptor: [Sertraline] explode all trees

#24 MeSH descriptor: [Mirtazapine] explode all trees

#25 (morphin* OR fentanyl OR oxycodon* OR hydromorphin* OR benzodiazepin* OR sertraline* OR mirtazapin*):ti,ab

#26 #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25

#27 MeSH descriptor: [Patient Education as Topic] explode all trees

#28 ((patient OR client OR providing OR "provision of" OR supplying OR supplied) NEAR/1 (education OR information)):ti,ab

#29 MeSH descriptor: [Teaching Materials] explode all trees

#30 (audio* OR video* OR cassette* OR tape? OR dvd* OR "compact dis*" OR cd OR cds OR multimedia OR "multi media"):ti,ab

#31 MeSH descriptor: [Internet] explode all trees

#32 MeSH descriptor: [Telecommunications] explode all trees

#33 (internet OR web OR website* OR online OR "on line" OR "electronic mail*" OR email* OR mail* OR blog* OR weblog* OR podcast* OR portal? OR "computer program*" OR "computer mediated" OR "computer based" OR "computer assisted"):ti,ab

#34 MeSH descriptor: [Computer-Assisted Instruction] explode all trees

#35 (telephon* OR phone OR phones OR "text messag*" OR sms):ti,ab

#36 (pamphlet* OR booklet* OR leaflet* OR flyer* OR poster* OR brochure* OR "print* material*"):ti,ab

#37 ((education* OR teaching OR instruction* OR counsel?ing OR advisory OR information*) NEAR/1 (material* OR program* OR session*)):ti,ab

#38 MeSH descriptor: [Communication] explode all trees

#39 MeSH descriptor: [Counseling] explode all trees

#40 MeSH descriptor: [Information Services] explode all trees

#41 MeSH descriptor: [Information Dissemination] explode all trees

#42 "shared decision":ti,ab

#43 #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42

#44 MeSH descriptor: [Breathing Exercises] explode all trees

#45 MeSH descriptor: [Respiratory Therapy] explode all trees

#46 (breath* NEAR/3 (exercis* or retrain*)):ti,ab

#47 buteyko:ti,ab

#48 (diaphragm* NEAR/3 breath*):ti,ab

#49 (breath* NEAR/3 control*):ti,ab

#50 (relax* NEAR/3 breath*):ti,ab

#51 (tidal NEAR/1 breath*):ti,ab

#52 physiotherap*:ti,ab

#53 (physical NEAR/1 therapy):ti,ab

#54 yawn:ti,ab

#55 sigh:ti,ab

#56 #44 OR #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52 OR #53 OR #54 OR #55

#57 MeSH descriptor: [Meditation] explode all trees

- #58 MeSH descriptor: [Yoga] explode all trees
- #59 MeSH descriptor: [Imagery (Psychotherapy)] explode all trees
- #60 MeSH descriptor: [Relaxation] explode all trees
- #61 MeSH descriptor: [Music] explode all trees
- #62 (yoga OR meditation OR imagery OR visualisation OR relaxation OR music):ti,ab
- #63 oxygen*:ti,ab
- #64 ventilat*:ti,ab
- #65 "respiratory care service*":ti,ab
- #66 (breathlessness NEAR/3 service*):ti,ab
- #67 #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63 OR #64 OR #65 OR #66
- #68 #26 OR #43 OR #56 OR #67
- #69 #16 AND #68

Second search

MEDLINE (OVID)

- 1 walking/ (32071)
- 2 Dependent Ambulation/ (177)
- 3 Physical Therapy Modalities/is [Instrumentation] (1611)
- 4 Exercise Therapy/is [Instrumentation] (1227)
- 5 mobility limitation/ (4482)
- 6 Ventilators, Mechanical/ (8631)
- 7 Noninvasive Ventilation/ (1958)
- 8 ventilat*.mp. (166650)
- 9 NIV.mp. (2403)
- 10 or/1-9 (205391)
- 11 Lung Diseases, Obstructive/ (18168)
- 12 exp Pulmonary Disease, Chronic Obstructive/ (54403)
- 13 emphysema\$.mp. (33004)
- 14 (chronic\$ adj3 bronchiti\$).mp. (10919)
- 15 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (105896)
- 16 COPD.mp. (38590)
- 17 COAD.mp. (269)
- 18 COBD.mp. (17)
- 19 AECB.mp. (210)
- 20 or/11-19 (141676)
- 21 exp DYSPNEA/ (20992)
- 22 (dyspnoe\$ or dyspne\$).mp. (49732)
- 23 dyspnoeic.mp. (204)
- 24 breathless\$.mp. (4214)
- 25 (breathing adj3 labored).mp. (218)
- 26 (breathing adj3 laboured).mp. (45)
- 27 (breathing adj3 difficult\$).mp. (1860)
- 28 or/21-27 (54048)
- 29 10 and 20 and 28 (1843)
- 30 limit 29 to yr="2014 -Current" (397)

PREMEDLINE (OVID)

- 1 walking/ (40)
- 2 Dependent Ambulation/ (0)
- 3 Physical Therapy Modalities/is [Instrumentation] (0)
- 4 Exercise Therapy/is [Instrumentation] (2)
- 5 mobility limitation/ (9)
- 6 Ventilators, Mechanical/ (3)
- 7 Noninvasive Ventilation/ (5)
- 8 ventilat*.mp. (2174)
- 9 NIV.mp. (80)

10 or/1-9 (2248)
 11 Lung Diseases, Obstructive/ (0)
 12 exp Pulmonary Disease, Chronic Obstructive/ (35)
 13 emphysema\$.mp. (249)
 14 (chronic\$ adj3 bronchiti\$).mp. (61)
 15 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (1244)
 16 COPD.mp. (789)
 17 COAD.mp. (9)
 18 COBD.mp. (0)
 19 AECB.mp. (0)
 20 or/11-19 (1617)
 21 exp DYSYPNEA/ (25)
 22 (dyspnoe\$ or dyspne\$).mp. (676)
 23 dyspnoeic.mp. (2)
 24 breathless\$.mp. (79)
 25 (breathing adj3 labored).mp. (5)
 26 (breathing adj3 laboured).mp. (0)
 27 (breathing adj3 difficult\$).mp. (72)
 28 or/21-27 (796)
 29 10 and 20 and 28 (9)
 30 limit 29 to yr="2014 -Current" (9)

EMBASE (VIA EMBASE.COM)

#1 'chronic obstructive lung disease'/exp (131636)
 #2 emphysema*:ti,ab (36882)
 #3 (chronic* NEAR/3 bronchiti*):ti,ab (15395)
 #4 (obstruct* NEAR/3 (pulmonary OR lung* OR airway* OR airflow* OR bronch* OR respirat*)):ti,ab (124044)
 #5 copd:ti,ab OR coad:ti,ab OR cobd:ti,ab OR aecb:ti,ab (85844)
 #6 #1 OR #2 OR #3 OR #4 OR #5 (232156)
 #7 'dyspnea'/de OR dyspnoe*:ab,ti OR dyspne*:ab,ti OR breathless*:ab,ti OR ((breathing NEAR/3 labored):ab,ti) OR ((breathing NEAR/3 laboured):ab,ti) OR ((breathing NEAR/3 difficult*):ab,ti) (189176)
 #8 'walking'/exp (115128)
 #9 'walking difficulty'/exp (11645)
 #10 'mechanical ventilator'/exp (3296)
 #11 ventilat*:ti,ab (239077)
 #12 niv:ti,ab (6152)
 #13 #8 OR #9 OR #10 OR #11 OR #12 (365003)
 #14 #6 AND #7 AND #13 (4202)
 #15 #6 AND #7 AND #13 AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND ([embase]/lim OR [medline]/lim) AND [2014-2020]/py AND [medline]/lim (546)

COCHRANE LIBRARY (VIA WILEY)

#1 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
 #2 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
 #3 emphysema*:ti,ab
 #4 (chronic* NEAR/3 bronchiti*):ti,ab
 #5 (obstruct* NEAR/3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)):ti,ab
 #6 COPD:ti,ab
 #7 COAD:ti,ab
 #8 COBD:ti,ab
 #9 AECB:ti,ab
 #10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
 #11 MeSH descriptor: [Dyspnea] explode all trees
 #12 (dyspnoe* OR dyspne*):ti,ab
 #13 breathless*:ti,ab

- #14 (breathing NEAR/3 (labored OR laboured OR difficult*)):ti,ab
- #15 #11 OR #12 OR #13 OR #14
- #16 ventilat*:ti,ab
- #17 NIV:ti,ab
- #18 MeSH descriptor: [Ventilators, Mechanical] explode all trees
- #19 MeSH descriptor: [Mobility Limitation] explode all trees
- #20 MeSH descriptor: [Walking] explode all trees
- #21 MeSH descriptor: [Dependent Ambulation] explode all trees
- #22 MeSH descriptor: [Physical Therapy Modalities] explode all trees and with qualifier(s): [instrumentation - IS]
- #23 MeSH descriptor: [Exercise Therapy] explode all trees and with qualifier(s): [instrumentation - IS]
- #24 MeSH descriptor: [Mobility Limitation] explode all trees
- #25 #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24
- #26 #10 AND #15 AND #25 with Cochrane Library publication date Between Jan 2014 and Mar 2020

Onderzoeksvraag 7: Symptomen

Wat is het effect van behandeling op prikkelhoest bij mensen met gevorderde COPD?

Patiënten	Patiënten met gevorderde COPD en prikkelhoest
Interventie	Opioïden, hoestdempende middelen, fysiotherapeutische interventies (hoesttechnieken en ademhalingsoefeningen)
Comparator	Geen behandeling, placebo, andere interventie
Outcome	Kritisch: hoesten

Search strategy

Search date	23 December 2019
Databases	OID Medline, Embase, Cochrane Library
Search limits	Publication date: 2000-2019 Languages: English and Dutch Study design: meta-analyses, systematic reviews, randomized controlled trials

Search results

Table 8. Overall search results of research question 7.

Database	Number of hits
OID Medline	860
OID PreMedline	15
EMBASE.com	1712
Cochrane Database of Systematic Reviews	95
CENTRAL	1187
Total hits	3867
N excluded (languages, duplicates)	859
Total unique eligible hits	3008

Excluded studies

3008 unique hits were screened on title and abstract (Table 8). Of these, 2956 were excluded. The most important reasons for exclusion were:

- Other intervention: interventions other than treatment of cough
- Wrong study design: narrative reviews, case reports, letters, etc.

Of the remaining 52 papers, the full-text was retrieved. Based on the full-text, an additional 49 papers were excluded. Eventually, the outcome 'airway clearance' was excluded, which led to exclusion of another 2 papers. Table 16 provides an overview of the excluded studies with reasons.

Search strings

MEDLINE (OVID)

- 1 Lung Diseases, Obstructive/ (18159)
- 2 exp Pulmonary Disease, Chronic Obstructive/ (53627)
- 3 emphysema\$.mp. (32776)
- 4 (chronic\$ adj3 bronchiti\$).mp. (10878)
- 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (104663)
- 6 COPD.mp. (37889)
- 7 COAD.mp. (253)
- 8 COBD.mp. (17)
- 9 AECB.mp. (210)
- 10 or/1-9 (140207)
- 11 exp Cough/ (15343)
- 12 cough*.mp. (51285)
- 13 11 or 12 (51285)
- 14 Salbutamol/ or Ipratropium Bromide/ (10863)
- 15 (salbutamol or albuterol or ventmax or ventolin or volmax or airomir or asmasal or salamol or salbutin).tw. (9112)
- 16 beta agonist*.tw. (5433)
- 17 (inhaler* or nebuliser* or nebulizer* or bronchodilator* or vaporiser* or vaporizer*).tw. (22945)
- 18 exp inhaler/ or nebulizer/ (11039)
- 19 Bronchodilator Agents/ (19284)
- 20 Adrenergic beta-2 Receptor Antagonists/ (476)
- 21 (steroid* or corticosteroid* or corticoid* or glucocorticoid* or cortison* or prednisone or prednisolone or hydrocortisone).tw. (388935)
- 22 Steroids/ (36474)
- 23 (mucolytic* or carbocisteine or erdosteine or erdotin or mecysteine or methyl cysteine or visclair or mucoactive).tw. (1811)
- 24 exp Mucolytic Agent/ or exp Antitussive Agent/ (41037)
- 25 (cough adj5 suppress*).tw. (503)
- 26 (antitussive or anti tussive or protussive or pro tussive).tw. (1692)
- 27 codeine.tw. (4497)
- 28 (cough adj5 (remed* or therap* or treatment* or management or medicine* or medication*)).tw. (2819)
- 29 (pholcodine or dextromethorphan or linctus).tw. (2403)
- 30 (demulcent* or ipecacuanha or expectorant*).tw. (721)
- 31 (decongestant* or ephedrine or oxymetazoline or phenylephrine or pseudoephedrine or xylometazoline).tw. (22674)
- 32 (sudafed or galpseud or galenphol or benylin or calpol or tixulix or robitussin or galsud or actifed or vicks).tw. (114)
- 33 (sedative* or diazepam or phenobarbitone or phenobarbital or chlorpromazine or largactil).tw. (62412)
- 34 (benadryl or diphenhydramide or promethazine or brompheniramine or chlorphenamine or doxylamine or triprolidine or chlorphenizamine or phenergan or piriton or anti histamine* or antihistamin* or histamine antagonist*).tw. (16400)
- 35 (sedat* or diazepam or phenobarbitone or phenobarbital or chlorpromazine or largactil).tw. (79691)
- 36 exp "Hypnotics and Sedatives"/ (121725)
- 37 exp Histamine Antagonists/ (61123)
- 38 (honey or glycerol or zinc or glycerin).tw. (143777)
- 39 Honey/ (3764)
- 40 exp Glycerol/ (24770)

41 (anticholinergic adj (drug or agent* or therap*)).tw. (2581)
 42 cholinergic antagonist*.tw. (914)
 43 levodropropizine.tw. (52)
 44 moguisteine.tw. (27)
 45 ipratropium bromide.tw. (1415)
 46 exp Analgesics, Opioid/ (113129)
 47 exp Morphine/ or exp Morphine Derivatives/ (50029)
 48 morphin*.mp. (57119)
 49 exp Fentanyl/ (15509)
 50 fentanyl.mp. (19782)
 51 exp Oxycodone/ (2174)
 52 oxycodon*.mp. (3293)
 53 hydromorphin*.mp. (9)
 54 Breathing Exercises/ (3314)
 55 (breath\$ adj3 (exercis\$ or retrain\$)).ti,ab. (2289)
 56 buteyko.ti,ab. (31)
 57 (diaphragm\$ adj3 breath\$).ti,ab. (432)
 58 (breath\$ adj3 control\$).ti,ab. (3250)
 59 (relax\$ adj3 breath\$).ti,ab. (372)
 60 tidal breath\$.ti,ab. (1327)
 61 Respiratory therapy/ (6506)
 62 physiotherap\$.ti,ab. (20064)
 63 physical therapy.ti,ab. (13721)
 64 yawn.ti,ab. (136)
 65 sigh.ti,ab. (540)
 66 or/14-65 (1012217)
 67 10 and 13 and 66 (1317)
 68 limit 67 to yr="2000 -Current" (860)

PREMEDLINE (OVID)

1 Lung Diseases, Obstructive/ (5)
 2 exp Pulmonary Disease, Chronic Obstructive/ (133)
 3 emphysema\$.mp. (268)
 4 (chronic\$ adj3 bronchiti\$).mp. (64)
 5 (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. (1359)
 6 COPD.mp. (864)
 7 COAD.mp. (6)
 8 COBD.mp. (0)
 9 AECEB.mp. (0)
 10 or/1-9 (1745)
 11 exp Cough/ (28)
 12 cough*.mp. (691)
 13 11 or 12 (691)
 14 Salbutamol/ or Ipratropium Bromide/ (11)
 15 (salbutamol or albuterol or ventmax or ventolin or volmax or airomir or asmasal or salamol or salbulin).tw. (91)
 16 beta agonist*.tw. (51)
 17 (inhaler* or nebuliser* or nebulizer* or bronchodilator* or vaporiser* or vaporizer*).tw. (346)
 18 exp inhaler/ or nebulizer/ (21)
 19 Bronchodilator Agents/ (21)
 20 Adrenergic beta-2 Receptor Antagonists/ (0)
 21 (steroid* or corticosteroid* or corticoid* or glucocorticoid* or cortison* or prednisone or prednisolone or hydrocortisone).tw. (4887)
 22 Steroids/ (42)
 23 (mucolytic* or carbocisteine or erdosteine or erdotin or mecysteine or methyl cysteine or visclair or mucoactive).tw. (22)
 24 exp Mucolytic Agent/ or exp Antitussive Agent/ (58)
 25 (cough adj5 suppress*).tw. (10)

26 (antitussive or anti tussive or protussive or pro tussive).tw. (24)
 27 codeine.tw. (72)
 28 (cough adj5 (remed* or therap* or treatment* or management or medicine* or medication*)).tw. (43)
 29 (pholcodine or dextromethorphan or linctus).tw. (36)
 30 (demulcent* or ipecacuanha or expectorant*).tw. (13)
 31 (decongestant* or ephedrine or oxymetazoline or phenylephrine or pseudoephedrine or xylometazoline).tw. (178)
 32 (sudafed or galpseud or galenphol or benylin or calpol or tixulix or robitussin or galsud or actifed or vicks).tw. (2)
 33 (sedative* or diazepam or phenobarbitone or phenobarbital or chlorpromazine or largactil).tw. (607)
 34 (benadryl or diphenhydramide or promethazine or brompheniramine or chlorphenamine or doxylamine or triprolidine or chlorphenizamine or phenergan or piriton or anti histamine* or antihistamin* or histamine antagonist*).tw. (204)
 35 (sedat* or diazepam or phenobarbitone or phenobarbitol or chlorpromazine or largactil).tw. (1225)
 36 exp "Hypnotics and Sedatives"/ (122)
 37 exp Histamine Antagonists/ (33)
 38 (honey or glycerol or zinc or glycerin).tw. (2213)
 39 Honey/ (20)
 40 exp Glycerol/ (25)
 41 (anticholinergic adj (drug or agent* or therap*)).tw. (51)
 42 cholinergic antagonist*.tw. (7)
 43 levodropropizine.tw. (4)
 44 moguisteine.tw. (0)
 45 ipratropium bromide.tw. (13)
 46 exp Analgesics, Opioid/ (203)
 47 exp Morphine/ or exp Morphine Derivatives/ (41)
 48 morphin*.mp. (663)
 49 exp Fentanyl/ (13)
 50 fentanyl.mp. (235)
 51 exp Oxycodone/ (5)
 52 oxycodon*.mp. (121)
 53 hydromorphin*.mp. (0)
 54 Breathing Exercises/ (9)
 55 (breath\$ adj3 (exercis\$ or retrain\$)).ti,ab. (47)
 56 buteyko.ti,ab. (1)
 57 (diaphragm\$ adj3 breath\$).ti,ab. (8)
 58 (breath\$ adj3 control\$).ti,ab. (38)
 59 (relax\$ adj3 breath\$).ti,ab. (14)
 60 tidal breath\$.ti,ab. (16)
 61 Respiratory therapy/ (4)
 62 physiotherap\$.ti,ab. (729)
 63 physical therapy.ti,ab. (563)
 64 yawn.ti,ab. (1)
 65 sigh.ti,ab. (6)
 66 or/14-65 (11492)
 67 10 and 13 and 66 (16)
 68 limit 67 to yr="2000 -Current" (15)

EMBASE (VIA EMBASE.COM)

#1 'chronic obstructive lung disease'/exp (127439)
 #2 emphysema*.ti,ab (36093)
 #3 (chronic* NEAR/3 bronchiti*);ti,ab (15253)
 #4 (obstruct* NEAR/3 (pulmonary OR lung* OR airway* OR airflow* OR bronch* OR respirat*));ti,ab (120989)
 #5 copd:ti,ab OR coad:ti,ab OR cobd:ti,ab OR aecb:ti,ab (82444)

#6 #1 OR #2 OR #3 OR #4 OR #5 (226402)
 #7 'coughing'/exp (118701)
 #8 cough*:ti,ab (79297)
 #9 #7 OR #8 (140525)
 #10 'salbutamol'/exp OR 'ipratropium bromide'/exp OR 'inhaler'/exp OR 'nebulizer'/exp OR 'bronchodilating agent'/exp OR 'beta 2 adrenergic receptor stimulating agent'/exp OR 'steroid'/exp OR 'mucolytic agent'/exp OR 'antitussive agent'/exp OR 'hypnotic sedative agent'/exp OR 'antihistaminic agent'/exp OR 'honey'/exp OR 'glycerol'/exp (2327121)
 #11 'narcotic analgesic agent'/exp OR 'morphine'/exp OR 'morphine derivative'/exp OR 'fentanyl'/exp OR 'oxycodone'/exp OR 'hydromorphone'/exp OR 'benzodiazepine derivative'/exp OR 'sertraline'/exp OR 'mirtazapine'/exp (549788)
 #12 morphin*:ti,ab OR fentanyl:ti,ab OR oxycodon*:ti,ab OR hydromorphin*:ti,ab OR benzodiazepin*:ti,ab OR sertralin*:ti,ab OR mirtazapin*:ti,ab (147911)
 #13 'breathing exercise'/exp OR 'respiratory exerciser'/exp (7516)
 #14 (breath* NEAR/3 (exercis* OR retrain*)):ti,ab (4038)
 #15 buteyko:ti,ab (52)
 #16 (diaphragm* NEAR/3 breath*):ti,ab (819)
 #17 (breath* NEAR/3 control*):ti,ab (5090)
 #18 (relax* NEAR/3 breath*):ti,ab (783)
 #19 'tidal breath*':ti,ab (2306)
 #20 physiotherap*:ti,ab (44062)
 #21 'physical therapy':ti,ab (25920)
 #22 yawn:ti,ab (217)
 #23 sigh:ti,ab (835)
 #24 #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 (2690727)
 #25 #6 AND #9 AND #24 (4771)
 #26 #6 AND #9 AND #24 AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND ([embase]/lim OR [medline]/lim) AND [2000-2020]/py AND [medline]/lim (1712)

COCHRANE LIBRARY (VIA WILEY)

#1 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
 #2 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
 #3 emphysema*:ti,ab
 #4 (chronic* NEAR/3 bronchiti*):ti,ab
 #5 (obstruct* NEAR/3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)):ti,ab
 #6 COPD:ti,ab
 #7 COAD:ti,ab
 #8 COBD:ti,ab
 #9 AECB:ti,ab
 #10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
 #11 MeSH descriptor: [Cough] explode all trees
 #12 cough*:ti,ab
 #13 #11 OR #12
 #14 #10 AND #13 with Cochrane Library publication date Between Jan 2000 and Dec 2019

Excluded studies

Table 9. Overview of excluded studies based on full-text evaluation of research question 1.

Reference	Reason for exclusion
Au D, Udris E, Diehr P, Engelberg R, Curtis J. A randomized trial to improve the occurrence and quality of communication about end-of-life care among patients with COPD. American thoracic society international conference, may 15-20, 2009, san diego [Internet]. 2009:[A2156 p.].	No full text available
Au DH, Udris EM, Engelberg RA, Diehr PH, Bryson CL, Reinke LF, et al. A randomized trial to improve communication about end-of-life care among patients with COPD. <i>Chest</i> . 2012;141(3):726-35.	Included in Singer 2016
Azoulay É, Demoule A, Jaber S, Kouatchet A, Meert AP, Papazian L, et al. Palliative noninvasive ventilation in patients with acute respiratory failure. <i>Intensive Care Med</i> . 2011;37(8):1250-7.	Narrative review
Bausewein C, Schunk M, Schumacher P, Dittmer J, Bolzani A, Booth S. Breathlessness services as a new model of support for patients with respiratory disease. <i>Chron</i> . 2018;15(1):48-59.	Not specific palliative and/or COPD
Beernaert K, Cohen J, Deliens L, Devroey D, Vanthomme K, Pardon K, et al. Referral to palliative care in COPD and other chronic diseases: a population-based study. <i>Respir Med</i> . 2013;107(11):1731-9.	Wrong outcomes
Boland J, Martin J, Wells AU, Ross JR. Palliative care for people with non-malignant lung disease: summary of current evidence and future direction. <i>Palliat Med</i> . 2013;27(9):811-6.	Narrative review
Bourke SJ, Peel ET. Palliative care of chronic progressive lung disease. <i>Clin Med</i> . 2014;14(1):79-82.	Narrative review
Brighton LJ, Gao W, Farquhar M, Booth S, Bajwah S, Man WDC, et al. Predicting outcomes following holistic breathlessness services: A pooled analysis of individual patient data. <i>Palliat Med</i> . 2019;33(4):462-6.	Not specific palliative and/or COPD
Buckingham S, Kendall M, Ferguson S, MacNee W, Sheikh A, White P, et al. HELPing older people with very severe chronic obstructive pulmonary disease (HELP-COPD): mixed-method feasibility pilot randomised controlled trial of a novel intervention. <i>NPJ Prim Care Respir Med</i> . 2015;25:15020.	No quantitative data
Chen CY, Thorsteinsdottir B, Cha SS, Hanson GJ, Peterson SM, Rahman PA, et al. Health care outcomes and advance care planning in older adults who receive home-based palliative care: A pilot cohort study. <i>J Palliat Med</i> . 2015;18(1):38-44.	No separate data for COPD
Coulter A, Entwistle V, Eccles A, Ryan S, Shepperd S, Perera R. Personalised care planning for adults with chronic or long-term health conditions. <i>Cochrane Database Syst Rev</i> [Internet]. 2015; (3). Available from: http://dx.doi.org/10.1002/14651858.CD010523.pub2 .	Not focus on palliative intervention
Crawford GB, Burgess TA, Young M, Brooksbank MA, Brown M. A patient-centred model of care incorporating a palliative approach: A framework to meet the needs of people with advanced COPD? <i>Progress in Palliative Care</i> . 2013;21(5):286-94.	Narrative review
Creagh-Brown BC, Shee C. Palliative and end-of-life care for patients with severe COPD. <i>Eur Respir J</i> . 2009;33(2):445-6; author reply 6.	Letter
Diaz-Lobato S, Smyth D, Curtis JR. Improving palliative care for patients with COPD. <i>Eur Respir J</i> . 2015;46(3):596-8.	Editorial
Disler R, Jones A. District nurse role in end-stage COPD: a review. <i>Br J Community Nurs</i> . 2010;15(9):428-30, 32-33.	No full text available
Disler RT, Currow DC, Phillips JL, Smith T, Johnson MJ, Davidson PM. Interventions to support a palliative care approach in patients with chronic obstructive pulmonary disease: an integrative review. <i>Int J Nurs Stud</i> . 2012;49(11):1443-58.	No quality assessment; only used for references
Duenk RG, Heijdra Y, Verhagen SC, Dekhuijzen RP, Vissers KC, Engels Y. PROLONG: a cluster controlled trial to examine identification of patients with COPD	Study protocol

with poor prognosis and implementation of proactive palliative care. BMC pulm. 2014;14:54.	
Fu PK, Tung YC, Wang CY, Hwang SF, Lin SP, Hsu CY, et al. Early and late do-not-resuscitate (DNR) decisions in patients with terminal COPD: a retrospective study in the last year of life. Int J Chron Obstruct Pulmon Dis. 2018;13:2447-54.	Focus on DNR, not palliative care
Fu PK, Yang MC, Wang CY, Lin SP, Kuo CT, Hsu CY, et al. Early Do-Not-Resuscitate Directives Decrease Invasive Procedures and Health Care Expenses During the Final Hospitalization of Life of COPD Patients. Journal of Pain and Symptom Management. 2019;58(6):968-76.	Focus on DNR, not palliative care
Fusi-Schmidhauser T, Riglietti A, Froggatt K, Preston N. Palliative Care Provision for Patients with Advanced Chronic Obstructive Pulmonary Disease: A Systematic Integrative Literature Review. Copd. 2018;15(6):600-11.	Wrong outcomes
Giacomini M, DeJean D, Simeonov D, Smith A. Experiences of living and dying with COPD: a systematic review and synthesis of the qualitative empirical literature. Ont Health Technol Assess Ser. 2012;12(13):1-47.	Qualitative research
Goodridge DM, Marciniuk DD, Brooks D, van Dam A, Hutchinson S, Bailey P, et al. End-of-life care for persons with advanced chronic obstructive pulmonary disease: report of a national interdisciplinary consensus meeting. Can Respir J. 2009;16(5):e51-3.	Consensus report
Henoch I, Strang P, Löfdahl CG, Ekberg-Jansson A. Equal palliative care for patients with COPD? A nationwide register study. Ups J Med Sci. 2019;124(2):140-7.	Retrospective study, no evaluation of specific intervention
Higginson IJ, Bausewein C, Reilly CC, Gao W, Gysels M, Dzingina M, et al. An integrated palliative and respiratory care service for patients with advanced disease and refractory breathlessness: a randomised controlled trial. Lancet Respir Med. 2014;2(12):979-87.	Only separate data for COPD on survival
Johnson MJ, Booth S. Palliative and end-of-life care for patients with chronic heart failure and chronic lung disease. Clin Med. 2010;10(3):286-9.	Narrative review
Kraskovsky V, Schneider J, Mador MJ, Provost KA. Longer Duration of Palliative Care in Patients With COPD Is Associated With Death Outside the Hospital. J Palliat Care. 2019:825859719851486.	Wrong outcomes
Larkin P, Porter S, Hudson P, Mc Veigh C, Reid J. Palliative care for people with non-malignant respiratory disease and their carers: a review of the current evidence. Journal of Research in Nursing. 2019;24(6):420-30.	Wrong outcomes
Leung JM, Udris EM, Uman J, Au DH. The effect of end-of-life discussions on perceived quality of care and health status among patients with COPD. Chest. 2012;142(1):128-33.	Same study as Au 2012
Levy R, Han Y, Dayan Y, Ganz M, Gabrielle-Jocson E, August P. Emergency Department (ED) initiated Palliative Care (PC) in end of life (EOL) ICU consults. A randomized clinical trial. Intensive care medicine experimental [Internet]. 2017; 5(2). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01431055/full	Abstract; no separate data for COPD
Lilly EJ, Senderovich H. Palliative care in chronic obstructive pulmonary disease. J Crit Care. 2016;35:150-4.	Narrative review
Makey L, Hiskett A. A palliative care outreach programme for patients with respiratory disease. European Journal of Palliative Care. 2015;22(3):126-9.	No full text available
Palliative care in chronic obstructive pulmonary disease. Lancet. 2017;390 North American Edition(10098):914-.	Editorial
Pantilat SZ, O'Riordan DL, Dibble SL, Landefeld CS. Hospital-based palliative medicine consultation: a randomized controlled trial. Arch Intern Med. 2010;170(22):2038-40.	No separate data for COPD

Phongtankuel V, Meador L, Adelman RD, Roberts J, Henderson CR, Jr., Mehta SS, et al. Multicomponent Palliative Care Interventions in Advanced Chronic Diseases: A Systematic Review. <i>Am J Hosp Palliat Care</i> . 2018;35(1):173-83.	Narrative review
Proactive palliative care for patients with COPD (PROLONG): a pragmatic cluster controlled trial. <i>Palliat Med</i> [Internet]. 2018; Conference: 10th World Research Congress of the European Association for Palliative Care, EAPC 2018. Switzerland. 32(1 Supplement 1):[37 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01920027/full	Abstract
Radwany SM, Hazelett SE, Allen KR, Kropp DJ, Ertle D, Albanese TH, et al. Results of the promoting effective advance care planning for elders (PEACE) randomized pilot study. <i>Popul Health Manag</i> . 2014;17(2):106-11.	No separate data for COPD
Reinke L, Feemster L, Mc DJ, Gunnink E, Tartaglione E, Udris E, et al. Long term impact of an end-of-life communication intervention among veterans with COPD. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2015; 191(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01471890/full .	Abstract
Rush B, Hertz P, Bond A, McDermid RC, Celi LA. Use of Palliative Care in Patients With End-Stage COPD and Receiving Home Oxygen: National Trends and Barriers to Care in the United States. <i>Chest</i> . 2017;151(1):41-6.	Retrospective study, no evaluation of specific intervention
Rzadkiewicz M, Nasiłowski J. Psychosocial Interventions for Patients with Severe COPD-An Up-to-Date Literature Review. <i>Medicina (Kaunas, Lithuania)</i> . 2019;55(9).	Only search on PubMed, no quality assessment
Siouta N, van Beek K, Preston N, Hasselaar J, Hughes S, Payne S, et al. Towards integration of palliative care in patients with chronic heart failure and chronic obstructive pulmonary disease: a systematic literature review of European guidelines and pathways. <i>BMC Palliat Care</i> . 2016;15:18.	Review of guidelines, no references to original studies
Smallwood N, Ross L, Taverner J, John J, Baisch A, Irving L, et al. A Palliative Approach is Adopted for Many Patients Dying in Hospital with Chronic Obstructive Pulmonary Disease. <i>Copd</i> . 2018;15(5):503-11.	Wrong outcomes
Steel A, Goldring J. End-of-life care in patients with chronic obstructive pulmonary disease. <i>Br J Hosp Med (Lond)</i> . 2015;76(1):C10-3.	No full text available
Stephen N, Skirton H, Woodward V, Prigmore S, Endacott R. End-of-life care discussions with nonmalignant respiratory disease patients: A systematic review. <i>J Palliat Med</i> . 2013;16(5):555-65.	Wrong outcomes
Strickland S. Palliative Care for the Patient with Chronic Pulmonary Disease. <i>AARC Times</i> . 2014;38(4):11-2.	No full text available
Thorns A, Cawley D. Palliative care in people with chronic obstructive pulmonary disease. <i>Bmj</i> . 2011;342:d106.	Editorial
Ventura Mde M. Effectiveness and cost-effectiveness of home palliative care services for adults with advanced illness and their caregivers. <i>Sao Paulo Med J</i> . 2016;134(1):93-4.	Summary of Cochrane review
Vitacca M, Comini L, Tabaglio E, Platto B, Gazzi L. Tele-Assisted Palliative Homecare for Advanced Chronic Obstructive Pulmonary Disease: A Feasibility Study. <i>J Palliat Med</i> . 2019;22(2):173-8.	No control group
von Gunten CF. Palliative care for pulmonary patients. <i>Am J Respir Crit Care Med</i> . 2010;182(6):725-6.	Editorial
Weber C, Stirnemann J, Herrmann FR, Pautex S, Janssens JP. Can early introduction of specialized palliative care limit intensive care, emergency and hospital admissions in patients with severe and very severe COPD? a randomized study. <i>BMC Palliat Care</i> . 2014;13:47.	Study protocol
Wilson ME, Majzoub AM, Dobler CC, Curtis JR, Nayfeh T, Thorsteinsdottir B, et al. Noninvasive Ventilation in Patients With Do-Not-Intubate and Comfort-Measures-Only Orders: A Systematic Review and Meta-Analysis. <i>Crit Care Med</i> . 2018;46(8):1209-16.	Focus on DNR

Table 10. Overview of excluded studies based on full-text evaluation of research question 2.

Reference	Reason for exclusion
Au DH, Udris EM, Engelberg RA, Diehr PH, Bryson CL, Reinke LF, et al. A randomized trial to improve communication about end-of-life care among patients with COPD. <i>Chest</i> . 2012;141(3):726-35.	Included in Jabbarian 2018
Bigger S, Haddad L. Advance Care Planning in Home Health: A Review of the Literature. <i>Journal of Hospice & Palliative Nursing</i> . 2019;21(6):518-23.	No separate data for COPD
Coulter A, Entwistle V, Eccles A, Ryan S, Shepperd S, Perera R. Personalised care planning for adults with chronic or long-term health conditions. <i>Cochrane Database Syst Rev</i> [Internet]. 2015; (3). Available from: http://dx.doi.org/10.1002/14651858.CD010523.pub2 .	Indicated there we no RCTs for COPD until juli 2013
Dalgaard KM, Bergenholtz H, Nielsen ME, Timm H. Early integration of palliative care in hospitals: A systematic review on methods, barriers, and outcome. <i>Palliat Support Care</i> . 2014;12(6):495-513.	Not specific about ACP
Duenk RG, Heijdra Y, Verhagen SC, Dekhuijzen RPNR, Vissers KCP, Engels Y. PROLONG: A cluster controlled trial to examine identification of patients with COPD with poor prognosis and implementation of proactive palliative care. <i>BMC pulm</i> . 2014;14(1).	Study protocol
Duenk RG, Verhagen C, Bronkhorst EM, van Mierlo P, Broeders M, Collard SM, et al. Proactive palliative care for patients with COPD (PROLONG): a pragmatic cluster controlled trial. <i>Int J Chron Obstruct Pulmon Dis</i> . 2017;12:2795-806.	ACP as part of a larger intervention
Fu PK, Tung YC, Wang CY, Hwang SF, Lin SP, Hsu CY, et al. Early and late do-not-resuscitate (DNR) decisions in patients with terminal COPD: A retrospective study in the last year of life. <i>Int J Chron Obstruct Pulmon Dis</i> . 2018;13:2447-54.	Retrospective study; focus only on DNR
Fu PK, Yang MC, Wang CY, Lin SP, Kuo CT, Hsu CY, et al. Early Do-Not-Resuscitate Directives Decrease Invasive Procedures and Health Care Expenses During the Final Hospitalization of Life of COPD Patients. <i>Journal of Pain and Symptom Management</i> . 2019;58(6):968-76.	Retrospective study; focus only on DNR
Fusi-Schmidhauser T, Riglietti A, Froggatt K, Preston N. Palliative Care Provision for Patients with Advanced Chronic Obstructive Pulmonary Disease: A Systematic Integrative Literature Review. <i>Copd</i> . 2018;15(6):600-11.	Not specific about ACP
Houben CH, Spruit MA, Wouters EF, Janssen DJ. A randomised controlled trial on the efficacy of advance care planning on the quality of end-of-life care and communication in patients with COPD: the research protocol. <i>BMJ Open</i> . 2014;4(1):e004465.	Study protocol
Houben CHM, Spruit MA, Luyten H, Pennings HJ, van den Boogaart VEM, Creemers J, et al. Cluster-randomised trial of a nurse-led advance care planning session in patients with COPD and their loved ones. <i>Thorax</i> . 2019;74(4):328-36.	Included in Meehan 2019
Nedjat-Haiem FR, Carrion IV, Gonzalez K, Quintana A, Eil K, O'Connell M, et al. Implementing an Advance Care Planning Intervention in Community Settings with Older Latinos: A Feasibility Study. <i>J Palliat Med</i> . 2017;20(9):984-93.	No separate data for COPD
Neergaard MA, Skorstengaard MH, Brogaard T, Bendstrup E, Lokke A, Aagaard S, et al. Advance care planning and longer survival in the terminally ill: a randomised controlled trial unexpected finding. <i>BMJ support</i> . 2019;10:10.	No full text available
Ntr. Advance care planning (ACP) in COPD. http://www.who.int/trialsearch/Trial2.aspx?TrialID=NTR3940 [Internet]. 2013. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01867755/full .	Study protocol
Proactive palliative care for patients with COPD (PROLONG): a pragmatic cluster controlled trial. <i>Palliat Med</i> [Internet]. 2018; Conference: 10th World Research Congress of the European Association for Palliative Care, EAPC 2018. Switzerland. 32(1 Supplement 1):[37 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01920027/full	Abstract

Qureshi D, Tanuseputro P, Perez R, Pond GR, Seow HY. Early initiation of palliative care is associated with reduced late-life acute-hospital use: A population-based retrospective cohort study. <i>Palliat Med.</i> 2019;33(2):150-9.	No ACP
Radwany SM, Hazelett SE, Allen KR, Kropp DJ, Ertle D, Albanese TH, et al. Results of the promoting effective advance care planning for elders (PEACE) randomized pilot study. <i>Population Health Management.</i> 2014;17(2):106-11.	No separate data for COPD
Robinson J, Gott M, Ingleton C. Patient and family experiences of palliative care in hospital: What do we know? An integrative review. <i>Palliat Med.</i> 2014;28(1):18-33.	Not specific about ACP
Sinclair C, Auret KA, Evans SF, Williamson F, Dormer S, Wilkinson A, et al. Advance care planning uptake among patients with severe lung disease: a randomised patient preference trial of a nurse-led, facilitated advance care planning intervention. <i>BMJ Open.</i> 2017;7(2):e013415.	No separate data for COPD
Siouta N, van Beek K, Preston N, Hasselaar J, Hughes S, Payne S, et al. Towards integration of palliative care in patients with chronic heart failure and chronic obstructive pulmonary disease: a systematic literature review of European guidelines and pathways. <i>BMC Palliat Care.</i> 2016;15:18.	Review of guideline, no references to original studies
Stephen N, Skirton H, Woodward V, Prigmore S, Endacott R. End-of-life care discussions with nonmalignant respiratory disease patients: A systematic review. <i>J Palliat Med.</i> 2013;16(5):555-65.	Qualitative review
Thoonsen B, Groot M, Engels Y, Prins J, Verhagen S, Galesloot C, et al. Early identification of and proactive palliative care for patients in general practice, incentive and methods of a randomized controlled trial. <i>BMC Fam Pract [Internet].</i> 2011; 12:[123 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00804954/full	Study protocol
Weber C, Merlet VR, Herrmann F, Stirnemann J, Pautex S, Janssens J-P. Inclusion of patients with severe or very severe COPD in a randomised controlled study on early specialised palliative care: is-it a challenge? <i>Palliat Med [Internet].</i> 2016; 30(6):[Np111- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01304442/full	No full text available
Weber C, Stirnemann J, Herrmann F, Cantero C, Matis C, Boiche-Brouillard L, et al. Inclusion of patients with severe or very severe COPD in a randomised controlled trial on early specialised palliative care: a difficult challenge. <i>Respiration; international review of thoracic diseases [Internet].</i> 2017; 94(1):[94- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01647774/full	Abstract; only discusses results of inclusion proces
Weber C, Stirnemann J, Herrmann FR, Pautex S, Janssens JP. Can early introduction of specialized palliative care limit intensive care, emergency and hospital admissions in patients with severe and very severe COPD? a randomized study. <i>BMC Palliat Care.</i> 2014;13:47.	Study protocol
Wilson ME, Majzoub AM, Dobler CC, Curtis JR, Nayfeh T, Thorsteinsdottir B, et al. Noninvasive Ventilation in Patients With Do-Not-Intubate and Comfort-Measures-Only Orders: A Systematic Review and Meta-Analysis. <i>Crit Care Med.</i> 2018;46(8):1209-16.	Focus op Do-Not-Intubate
Wong JS, Gottwald M. Advance Care Planning Discussions in Chronic Obstructive Pulmonary Disease: A critical review. <i>J Palliat Care.</i> 2015;31(4):258-64.	Qualitative review

Table 11. Overview of excluded studies based on full-text evaluation of research question 3.

Reference	Reason for exclusion
Alexopoulos GS, Sirey JA, Banerjee S, Kiosses DN, Pollari C, Novitch RS, et al. Two Behavioral Interventions for Patients with Major Depression and Severe COPD. <i>Am J Geriatr Psychiatry.</i> 2016;24(11):964-74.	Focus on depressie
Apps L, Wagg K, Sewell L, Williams J, Singh S, Singh S. Randomised controlled trial of a self-management programme of activity, coping and education (SPACE) for	Abstract

COPD. Thorax [Internet]. 2009; 64:[A96-a7 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00790004/full .	
Baker E, Fatoye F. Clinical and cost effectiveness of nurse-led self-management interventions for patients with copd in primary care: A systematic review. Int J Nurs Stud. 2017;71:125-38.	No focus on anxiety
Blumenthal JA, Emery CF, Smith PJ, Keefe FJ, Welty-Wolf K, Mabe S, et al. The effects of a telehealth coping skills intervention on outcomes in chronic obstructive pulmonary disease: primary results from the INSPIRE-II study. Psychosom Med. 2014;76(8):581-92.	Not exclusively patients with anxiety
Boral I, Jones H, Vorster I, Hussain S-F. Home-based pulmonary rehabilitation reduces admissions for respiratory exacerbations and increases quality of life in MRC 5 group. Eur Respir J [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01789475/full .	Abstract
Bourne C, Houchen-Wolloff L, Kanabar P, Bankart M, Singh S. A self-management programme of activity coping and education-space for copd-in primary care: a pragmatic trial. Thorax [Internet]. 2018; 73:[A167-a8 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01934434/full .	Abstract
Bove DG, Lomborg K, Jensen AK, Overgaard D, Lindhardt BO, Midtgaard J. Efficacy of a minimal home-based psychoeducative intervention in patients with advanced COPD: A randomised controlled trial. Respir Med. 2016;121:109-16.	Included in Ma 2019
Cafarella PA, Effing TW, Usmani ZA, Frith PA. Treatments for anxiety and depression in patients with chronic obstructive pulmonary disease: a literature review. Respirology. 2012;17(4):627-38.	Narrative review
Candemir I, Ergun P, Kaymaz D, Demir N, McCurdy SA. Comparison of unsupervised home-based pulmonary rehabilitation versus supervised hospital outpatient pulmonary rehabilitation in patients with chronic obstructive pulmonary disease. Expert Rev Respir Med. 2019;13(12):1195-203.	Unclear how many patients with anxiety are included
Chan R, Giardino N, Larson J. Meditation intervention development for persons with COPD: pilot study. American journal of respiratory and critical care medicine [Internet]. 2013; 187. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01135725/full .	Abstract
Chatwin M, Hawkins G, Panicchia L, Woods A, Hanak A, Lucas R, et al. Randomised crossover trial of telemonitoring in chronic respiratory patients (TeleCRAFT trial). Thorax. 2016;71(4):305-11.	Not exclusively patients with anxiety
Chatwin M, Hawkins G, Paniccia L, Woods A, Lucas R, Hanak A, et al. Randomised crossover trial of telemonitoring in chronic respiratory patients (TeleCRAFT trial*): no impact on hospital admissions and quality of life (QOL). Eur Respir J [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01081263/full .	Abstract
Chen X, Luo P, Chen Y, Huang Y, Wang K, Hu Y, et al. Effects of combined cycle ergometer and inspiratory muscle training in patients with stable chronic obstructive pulmonary disease. American journal of respiratory and critical care medicine [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408968/full .	Abstract
Coquart JB, Grosbois JM, Olivier C, Bart F, Castres I, Wallaert B. Home-based neuromuscular electrical stimulation improves exercise tolerance and health-related quality of life in patients with COPD. Int J Chron Obstruct Pulmon Dis. 2016;11:1189-97.	Not exclusively patients with anxiety
Croitoru A, Ionita D, Pele I, Marinescu L, Gologanu D, Dumitrescu A, et al. Inspiratory muscle training with threshold loading in a rehabilitation program of COPD patients. Eur Respir J [Internet]. 2013; 42. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01099986/full .	Abstract
Desveaux L, Lee A, Goldstein R, Brooks D. Yoga in the Management of Chronic Disease: A Systematic Review and Meta-analysis. Med Care. 2015;53(7):653-61.	Not exclusively patients with anxiety

Donesky-Cuenco D, Nguyen HQ, Paul S, Carrieri-Kohlman V. Yoga therapy decreases dyspnea-related distress and improves functional performance in people with chronic obstructive pulmonary disease: A pilot study. <i>Journal of Alternative and Complementary Medicine</i> . 2009;15(3):225-34.	Not exclusively patients with anxiety
Doyle C, Bhar S, Fearn M, Ames D, Osborne D, You E, et al. The impact of telephone-delivered cognitive behaviour therapy and befriending on mood disorders in people with chronic obstructive pulmonary disease: A randomized controlled trial. <i>Br J Health Psychol</i> . 2017;22(3):542-56.	Included in Ma 2019
Duiverman ML, Wempe JB, Bladder G, Vonk JM, Zijlstra JG, Kerstjens HA, et al. Two-year home-based nocturnal noninvasive ventilation added to rehabilitation in chronic obstructive pulmonary disease patients: a randomized controlled trial. <i>Respir Res</i> . 2011;12:112.	No focus on anxiety
Duruturk N, Arikian H, Ulubay G, Tekindal MA. A comparison of calisthenic and cycle exercise training in chronic obstructive pulmonary disease patients: a randomized controlled trial. <i>Expert Rev Respir Med</i> . 2016;10(1):99-108.	Not exclusively patients with anxiety
Effing T, Zielhuis G, Kerstjens H, van der Valk P, van der Palen J. Community based physiotherapeutic exercise in COPD self-management: a randomised controlled trial. <i>Respir Med</i> . 2011;105(3):418-26.	Not exclusively patients with anxiety
Ekren PK, Gürgün A, Uysal FE, Tuncel Ş, Deniz S, Karapolat H, et al. Effects of pulmonary rehabilitation in patients with mild-to-moderate chronic obstructive pulmonary disease: Bottom of an iceberg. <i>Turkish Journal of Physical Medicine & Rehabilitation</i> (2587-0823). 2018;64(2):162-9.	Not exclusively patients with anxiety
Engel R, Gonski P, Beath K, Vemulpad S. Medium term effects of including manual therapy in a pulmonary rehabilitation program for chronic obstructive pulmonary disease (COPD): a randomized controlled pilot trial. <i>Journal of manual & manipulative therapy</i> [Internet]. 2016; 24(2):[80-9 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01180185/full	Not exclusively patients with anxiety
Estrada E, Silva K, Medina E, Desai S, Fan V, Nguyen H. Depression and anxiety are associated with COPD patients' lower confidence for increasing physical activity but not with their motivation. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01619274/full .	Abstract
Etxarri A, Gimeno-Santos E, Balcells E, Barberan-Garcia A, Benet M, Celorrio N, et al. Effectiveness of an intervention of Urban Training in patients with COPD: a randomized controlled trial. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01794003/full .	Abstract
Farquhar MC, Prevost AT, McCrone P, Brafman-Price B, Bentley A, Higginson IJ, et al. The clinical and cost effectiveness of a Breathlessness Intervention Service for patients with advanced non-malignant disease and their informal carers: mixed findings of a mixed method randomised controlled trial. <i>Trials</i> . 2016;17:185.	Not exclusively patients with anxiety
Farver-Vestergaard I, O'Toole MS, O'Connor M, Lokke A, Bendstrup E, Basdeo SA, et al. Mindfulness-based cognitive therapy in COPD: a cluster randomised controlled trial. <i>Eur Respir J</i> . 2018;51(2):02.	Not exclusively patients with anxiety
Felcar JM, Probst VS, de Carvalho DR, Merli MF, Mesquita R, Vidotto LS, et al. Effects of exercise training in water and on land in patients with COPD: a randomised clinical trial. <i>Physiotherapy</i> . 2018;104(4):408-16.	Not exclusively patients with anxiety
Ford S. CBT by respiratory nurses can reduce anxiety in COPD patients. <i>Nurs Times</i> . 2018;114(11):165-.	No full text available
Fritzsche A, Clamor A, Von Leupoldt A. Effects of medical and psychological treatment of depression in patients with COPD - A review. <i>Respir Med</i> . 2011;105(10):1422-33.	No quality assessment of included studies
Gomes B, Calanzani N, Curiale V, McCrone P, Higginson IJ. Effectiveness and cost-effectiveness of home palliative care services for adults with advanced illness and their caregivers. <i>Cochrane Database Syst Rev</i> . 2013;2016(3).	No focus on anxiety

Gurgun A, Tuncel S, Karapolat H, Uluer H. The effect of adding noninvasive ventilation to supplemental oxygen during exercise training in severe COPD: a randomized controlled study. Chest [Internet]. 2015; 148(4). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01129032/full	Abstract
Gurgun A, Tuncel S, Korkmaz EP, Deniz S, Karapolat H, Kayahan B. Efficacy of an eight-week pulmonary rehabilitation in copd patients: an experience of a single center in Turkey. American journal of respiratory and critical care medicine [Internet]. 2011; 183(1). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01004784/full .	Abstract
Hagens P, Pieterse M, van dVP, van dPJ. Effectiveness of intensive smoking reduction counselling plus combination nicotine replacement therapy in promoting long-term abstinence in patients with chronic obstructive pulmonary disease not ready to quit smoking: protocol of the REDUQ trial. Contemporary clinical trials communications [Internet]. 2017; 8:[248-57 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01432172/full	Study protocol
Hernandez C, Alonso A, Garcia-Aymerich J, Serra I, Marti D, Rodriguez-Roisin R, et al. Effectiveness of community-based integrated care in frail COPD patients: a randomised controlled trial. NPJ Prim Care Respir Med. 2015;25:15022.	Not exclusively patients with anxiety
Heslop K, Stenton C, Newton J, Carrick-Sen D, Baker C, Graham B, et al. A randomised controlled trial of cognitive behavioural therapy (CBT) delivered by respiratory nurses to reduce anxiety in chronic obstructive pulmonary disease (COPD). (Trial registration-ISCRCNTN55206395). Eur Respir J [Internet]. 2016; 48. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01360784/full .	Abstract
Heslop-Marshall K, Baker C, Carrick-Sen D, Newton J, Echevarria C, Stenton C, et al. Randomised controlled trial of cognitive behavioural therapy in COPD. ERJ open research [Internet]. 2018; 4(4). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01690439/full	Included in Ma 2019
Heslop-Marshall K, Baker C, Carrick-Sen D, Newton J, Stenton C, Burns G, et al. A randomised controlled trial (RCT) of cognitive behavioural therapy (CBT) for patients with chronic obstructive pulmonary disease. Thorax [Internet]. 2017; 72:[A6- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01437847/full	Abstract
Heslop-Marshall K, Baker C, Carrick-Sen D, Stenton S, Newton J, Burns G, et al. Prevalence of anxiety and patient characteristics from a randomised controlled trial (RCT) to identify if cognitive behavioural therapy (CBT) by respiratory nurses reduces anxiety in COPD. Thorax [Internet]. 2015; 70:[A237- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01135254/full	Abstract
Horuz D, Kurcer MA, Erdogan Z. The Effect of Music Therapy on Anxiety and Various Physical Findings in Patients With COPD in a Pulmonology Service. Holist Nurs Pract. 2017;31(6):378-83.	Not exclusively patients with anxiety
Howard C, Dupont S. 'The COPD breathlessness manual': a randomised controlled trial to test a cognitive-behavioural manual versus information booklets on health service use, mood and health status, in patients with chronic obstructive pulmonary disease. NPJ Prim Care Respir Med. 2014;24:14076.	Included in Ma 2019
Hynninen MJ, Bjerke N, Pallesen S, Bakke PS, Nordhus IH. A randomized controlled trial of cognitive behavioral therapy for anxiety and depression in COPD. Respir Med. 2010;104(7):986-94.	Included in Ma 2019 and Usmani 2017
Hyun MK, Lee NR, Jang EJ, Yim JJ, Lee CH. Effect of inhaled drugs on anxiety and depression in patients with chronic obstructive pulmonary disease: A prospective observational study. Int J Chron Obstruct Pulmon Dis. 2016;11(1):747-54.	Only a minority of patients has anxiety
Jacome C, Marques A. Impact of pulmonary rehabilitation in subjects with mild COPD. Respir Care. 2014;59(10):1577-82.	Not exclusively patients with anxiety

Jakobsen A, Laursen L, Ostergaard B, Rydahl-Hansen S, Emme C, Schou L, et al. Hospital admitted COPD patients treated at home using telemedicine technology A randomized, multicentre trial. <i>Eur Respir J</i> [Internet]. 2012; 40. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01100539/full .	Abstract
Jayasinghe H, Usmani Z, Carson K, Heslop K, Esterman A, De SBA, et al. Psychological therapies for the treatment of anxiety disorders in COPD: a cochrane systematic review and meta-analysis. <i>Respirology (carlton, vic)</i> [Internet]. 2015; 20:[60- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01126365/full .	Abstract
Jiang X, He G. Effects of an uncertainty management intervention on uncertainty, anxiety, depression, and quality of life of chronic obstructive pulmonary disease outpatients. <i>Res Nurs Health</i> . 2012;35(4):409-18.	Unclear how many patients with anxiety are included
Johnson MJ, Booth S, Currow DC, Lam LT, Phillips JL. A Mixed-Methods, Randomized, Controlled Feasibility Trial to Inform the Design of a Phase III Trial to Test the Effect of the Handheld Fan on Physical Activity and Carer Anxiety in Patients With Refractory Breathlessness. <i>J Pain Symptom Manage</i> . 2016;51(5):807-15.	Wrong outcomes
Jolly K, Sidhu M, Hewitt C, Daley A, Jordan R, Coventry P, et al. Telephone health coaching in primary care patients with MRC I/II COPD: randomised controlled trial. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01787364/full .	Abstract
Jonkers CC, Lamers F, Bosma H, Metsemakers JF, van Eijk JT. The effectiveness of a minimal psychological intervention on self-management beliefs and behaviors in depressed chronically ill elderly persons: a randomized trial. <i>Int Psychogeriatr</i> . 2012;24(2):288-97.	Unclear how many patients with anxiety are included
Jonsdottir H, Amundadottir OR, Gudmundsson G, Halldorsdottir BS, Hrafnkelsson B, Ingadottir TS, et al. Effectiveness of a partnership-based self-management programme for patients with mild and moderate chronic obstructive pulmonary disease: a pragmatic randomized controlled trial. <i>J Adv Nurs</i> . 2015;71(11):2634-49.	Not exclusively patients with anxiety
Jonsdottir H, Gunnarsdottir A, Halldorsdottir B, Gudmundsson G, Stefansdottir I, Jonsson J, et al. Effectiveness of a partnership based self-management program for individuals with mild to moderate COPD and their families. <i>Eur Respir J</i> [Internet]. 2013; 42. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01099878/full .	Abstract
Kaymaz D, Ergun P, Demirci E, Demir N. Comparison of the effects of neuromuscular electrical stimulation and endurance training in patients with severe chronic obstructive pulmonary disease. <i>Tuberk</i> . 2015;63(1):1-7.	Unclear how many patients with anxiety are included
Kenealy TW, Parsons MJ, Rouse AP, Doughty RN, Sheridan NF, Hindmarsh JK, et al. Telecare for diabetes, CHF or COPD: effect on quality of life, hospital use and costs. A randomised controlled trial and qualitative evaluation. <i>PLoS ONE</i> . 2015;10(3):e0116188.	Not exclusively patients with anxiety, no separate data for COPD
Lamers F, Jonkers CC, Bosma H, Chavannes NH, Knottnerus JA, van Eijk JT. Improving quality of life in depressed COPD patients: effectiveness of a minimal psychological intervention. <i>Copd</i> . 2010;7(5):315-22.	Unclear how many patients with anxiety are included
Lebowitz KR, Suh S, Diaz PT, Emery CF. Effects of humor and laughter on psychological functioning, quality of life, health status, and pulmonary functioning among patients with chronic obstructive pulmonary disease: a preliminary investigation. <i>Heart Lung</i> . 2011;40(4):310-9.	Unclear how many patients with anxiety are included
Lenferink A, Van DPJ, Van DVP, Cafarella P, Van VA, Quinn S, et al. Effects of self-management action plans for COPD patients with comorbidities on health status and self-efficacy. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01790372/full .	Abstract
Lenferink A, Van DPJ, Van DVP, Cafarella P, Van VA, Quinn S, et al. Self-management action plans for COPD patients with comorbidities reduce exacerbation	Abstract

duration and respiratory-related hospitalizations - The cope-iii study. American journal of respiratory and critical care medicine [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408714/full .	
Lewis KE, Annandale JA, Warm DL, Hurlin C, Lewis MJ, Lewis L. Home telemonitoring and quality of life in stable, optimised chronic obstructive pulmonary disease. <i>J Telemed Telecare</i> . 2010;16(5):253-9.	No full text available
Lin FL, Yeh ML, Lai YH, Lin KC, Yu CJ, Chang JS. Two-month breathing-based walking improves anxiety, depression, dyspnoea and quality of life in chronic obstructive pulmonary disease: A randomised controlled study. <i>J Clin Nurs</i> . 2019;28(19-20):3632-40.	Not exclusively patients with anxiety
Liu X. Influence of emotional nursing combined with acupoint application on quality of life and adverse mood in patients with chronic obstructive pulmonary disease at acute exacerbation stage. <i>Chinese nursing research</i> [Internet]. 2017; 31(26):[3277-80 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01631765/full .	No full text available
Livermore N, Dimitri A, Sharpe L, McKenzie DK, Gandevia SC, Butler JE. Cognitive behaviour therapy reduces dyspnoea ratings in patients with chronic obstructive pulmonary disease (COPD). <i>Respir Physiol Neurobiol</i> . 2015;216:35-42.	Subset of RCT, focused on breathlessness
Livermore N, Sharpe L, McKenzie D. Prevention of panic attacks and panic disorder in COPD. <i>Eur Respir J</i> . 2010;35(3):557-63.	Not exclusively patients with anxiety
Lord V, Cave P, Hume V, Flude L, Evans A, Kelly J, et al. Singing for breathingtm effects of singing lessons in patients with copd-a randomised control trial. <i>Journal of aerosol medicine and pulmonary drug delivery</i> [Internet]. 2011; 24(6):[308- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00834054/full .	Abstract
Lord V, Hume V, Cave P, Flude L, Kelly J, Hopkinson N. Effect of singing lessons in patients with COPD - A randomised controlled trial. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2010; 181(1). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01004838/full .	Abstract
Lord V, Hume V, Kelly J, Cave P, Silver J, Waldman M, et al. Effects of "singing for breathing" TM in patients with chronic obstructive pulmonary disease (COPD)-a randomized control trial. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2012; 185. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01107393/full .	Abstract
Lord VM, Cave P, Hume VJ, Flude EJ, Evans A, Kelly JL, et al. Singing teaching as a therapy for chronic respiratory disease--a randomised controlled trial and qualitative evaluation. <i>BMC pulm</i> . 2010;10:41.	Not exclusively patients with anxiety
Lou P, Chen P, Zhang P, Yu J, Wang Y, Chen N, et al. A COPD health management program in a community-based primary care setting: a randomized controlled trial. <i>Respir Care</i> . 2015;60(1):102-12.	Only a minority of patients has anxiety
Luk EK, Gorelik A, Irving L, Khan F. Effectiveness of cognitive behavioural therapy in a community-based pulmonary rehabilitation programme: A controlled clinical trial. <i>J Rehabil Med</i> . 2017;49(3):264-9.	Only a minority of patients has anxiety
Marciniuk DD, Goodridge D, Hernandez P, Rucker G, Balter M, Bailey P, et al. Managing dyspnea in patients with advanced chronic obstructive pulmonary disease: A Canadian Thoracic Society clinical practice guideline. <i>Can Respir J</i> . 2011;18(2):69-78.	No focus on anxiety
Marquese A, Jácome C, Cruz J, Gabriel R, Brooks D, Figueiredo D. Family-based psychosocial support and education as part of pulmonary rehabilitation in COPD: A randomized controlled trial. <i>Chest</i> . 2015;147(3):662-72.	No focus on anxiety
McCabe C, McCann M, Brady AM. Computer and mobile technology interventions for self-management in chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2017;5:CD011425.	No focus on anxiety

McDowell J, McKeown G, Hanna B, Sloan H, Howard J, Jackson E, et al. A model of home based healthcare with telehealth monitoring improves quality of life in patients with chronic obstructive pulmonary disease. American journal of respiratory and critical care medicine [Internet]. 2012; 185. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01107394/full .	Abstract
McDowell JE, McClean S, FitzGibbon F, Tate S. A randomised clinical trial of the effectiveness of home-based health care with telemonitoring in patients with COPD. J Telemed Telecare. 2015;21(2):80-7.	Not exclusively patients with anxiety
Mitchell KE, Johnson-Warrington V, Apps LD, Bankart J, Sewell L, Williams JE, et al. A self-management programme for COPD: a randomised controlled trial. Eur Respir J. 2014;44(6):1538-47.	Not exclusively patients with anxiety
Mitchell-Wagg K, Warrington V, Apps L, Sewell L, Bankart J, Steiner M, et al. A self-management programme of activity coping and education (SPACE) for copd: results from a randomised controlled trial. Thorax [Internet]. 2012; 67:[A25-a6 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00839713/full	Abstract
Mkacher W, Mekki M, Chaieb F, Tabka Z, Trabelsi Y. Balance Training in Pulmonary Rehabilitation: EFFECTS ON PSYCHOSOCIAL OUTCOMES. J Mol Signal. 2015;35(4):278-85.	Unclear how many patients with anxiety are included
Momtaz O, Rabei S, Tawfike N, Hasan A. Effect of treatment of depression and anxiety on physiological state of severe COPD patients. Egyptian journal of chest diseases and tuberculosis [Internet]. 2015; 64(1):[29-34 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01077510/full	Only a minority of patients has anxiety
Neunhauserer D, Steidle-Kloc E, Weiss G, Kaiser B, Niederseer D, Hartl S, et al. A randomized, double-blind, cross-over trial of supplemental oxygen for exercise training in normoxemic COPD. Wiener klinische wochenschrift [Internet]. 2015; 127(19-20):[813- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01470020/full	Abstract
Nikoletou D, Man WD, Mustfa N, Moore J, Rafferty G, Grant RL, et al. Evaluation of the effectiveness of a home-based inspiratory muscle training programme in patients with chronic obstructive pulmonary disease using multiple inspiratory muscle tests. Disabil Rehabil. 2016;38(3):250-9.	No focus on anxiety
Norweg A, Collins EG. Evidence for cognitive-behavioral strategies improving dyspnea and related distress in COPD. Int J Chron Obstruct Pulmon Dis. 2013;8:439-51.	Narrative review
Nyberg A, Lindström B, Rickenlund A, Wadell K. Low-load/high-repetition elastic band resistance training in patients with COPD: A randomized, controlled, multicenter trial. Clinical Respiratory Journal. 2015;9(3):278-88.	Not exclusively patients with anxiety
Ozdemir E, Solak O, Fidan F, Demirdal U, Evcik D, Unlu M, et al. The effect of water-based pulmonary rehabilitation on anxiety and quality of life in chronic pulmonary obstructive disease patients. Turkiye klinikleri journal of medical sciences [Internet]. 2010; 30(3):[880-7 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00803704/full .	Not exclusively patients with anxiety
Panigrahi A, Sohani S, Amadi C, Joshi A. Role of music in the management of chronic obstructive pulmonary disease (COPD): a literature review. Technol Health Care. 2014;22(1):53-61.	No quality assessment of included studies
Pinnock H, Hanley J, McCloughan L, Todd A, Krishan A, Lewis S, et al. Effectiveness of telemonitoring integrated into existing clinical services on hospital admission for exacerbation of chronic obstructive pulmonary disease: researcher blind, multicentre, randomised controlled trial. Bmj. 2013;347:f6070.	Unclear how many patients with anxiety are included
Putman-Casdorff H, McCrone S. Chronic obstructive pulmonary disease, anxiety, and depression: state of the science. Heart Lung. 2009;38(1):34-47.	No quality assessment of included studies
Ranjita R, Badhai S, Hankey A, Nagendra H. A randomized controlled study on assessment of health status, depression, and anxiety in coal miners with chronic	Unclear how many patients with anxiety are included

obstructive pulmonary disease following yoga training. International journal of yoga [Internet]. 2016; 9(2):[137-44 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01180127/full	
Rixon L, Hirani SP, Cartwright M, Beynon M, Doll H, Steventon A, et al. A RCT of telehealth for COPD patient's quality of life: the whole system demonstrator evaluation. Clin Respir J. 2017;11(4):459-69.	Not exclusively patients with anxiety
Rose L, Istanboulian L, Carriere L, Price A, Lee L, Rezaie S, et al. Program of integrated care for patients with chronic obstructive pulmonary disease and multiple comorbidities (pic COPD+): a randomized controlled trial. American journal of respiratory and critical care medicine [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408779/full .	Abstract
Sahman F, Can F. Comparison of the effects of chest physiotherapy and chest physiotherapy with active exercise program on quality of life, depression and anxiety in in COPD patients. Fizyoterapi rehabilitasyon [Internet]. 2018; 29(1):[S36 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01690444/full .	Abstract
Schou L, Ostergaard B, Rydahl-Hansen S, Rasmussen LS, Emme C, Jakobsen AS, et al. A randomised trial of telemedicine-based treatment versus conventional hospitalisation in patients with severe COPD and exacerbation - effect on self-reported outcome. J Telemed Telecare. 2013;19(3):160-5.	Not exclusively patients with anxiety
Shen Y-C, Yang T, Wan C, Wang T, Wen F-Q. Effects of deanxit on anxiety/depression in chronic obstructive pulmonary disease patients. Respirology [abstracts of the 16th congress of the asian pacific society of respirology 3-6 nov 2011; shanghai china] [Internet]. 2011. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00851114/full .	Abstract
Simon ST, Higginson IJ, Booth S, Harding R, Bausewein C. Benzodiazepines for the relief of breathlessness in advanced malignant and non-malignant diseases in adults. Cochrane Database Syst Rev. 2010:N.PAG-N.PAG.	Updated by more recent review
Singer AE, Goebel JR, Kim YS, Dy SM, Ahluwalia SC, Clifford M, et al. Populations and Interventions for Palliative and End-of-Life Care: A Systematic Review. J Palliat Med. 2016;19(9):995-1008.	No focus on anxiety in COPD
Singh VP, Rao V, Prem V, Sahoo RC, Keshav PK. Comparison of the effectiveness of music and progressive muscle relaxation for anxiety in COPD-A randomized controlled pilot study. Chron. 2009;6(4):209-16.	Unclear how many patients with anxiety are included
Spencer L. Pulmonary rehabilitation for patients with acute chronic obstructive pulmonary disease exacerbations: is the evidence strengthening? Curr Opin Pulm Med. 2018;24(2):147-51.	Narrative review
Stoop CH, Nefs G, Pommer AM, Pop VJ, Pouwer F. Effectiveness of a stepped care intervention for anxiety and depression in people with diabetes, asthma or COPD in primary care: A randomized controlled trial. J Affect Disord. 2015;184:269-76.	No separate data for COPD
Suhaj A, Manu MK, Unnikrishnan MK, Vijayanarayana K, Mallikarjuna Rao C. Effectiveness of clinical pharmacist intervention on health-related quality of life in chronic obstructive pulmonary disorder patients - A randomized controlled study. Journal of Clinical Pharmacy and Therapeutics. 2016;41(1):78-83.	No focus on anxiety
Taylor S, Sohanpal R, Bremner S, Devine A, Eldridge S, Griffiths C. Pilot randomised controlled trial of a 7-week disease-specific self-management programme for patients with COPD: BELLA (better living with long term airways disease study). Thorax [Internet]. 2009; 64:[A95-a6 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01751645/full .	Abstract
Thapa N, Maharjan M, Shrestha TM, Gauchan S, Pun P, Thapa YB. Anxiety and depression among patients with chronic obstructive pulmonary disease and general population in rural Nepal. BMC Psychiatry. 2017;17(1):397.	No intervention and control group in COPD

Tian L, Zhang Y, Li L, Wu Y, Li Y. The efficacy of mindfulness-based interventions for patients with COPD: A systematic review and meta-analysis protocol. <i>BMJ Open</i> . 2019;9(5).	Study protocol
Titova E, Salvesen O, Bentsen SB, Sunde S, Steinshamn S, Henriksen AH. Does an Integrated Care Intervention for COPD Patients Have Long-Term Effects on Quality of Life and Patient Activation? A Prospective, Open, Controlled Single-Center Intervention Study. <i>PLoS ONE</i> . 2017;12(1):e0167887.	Not exclusively patients with anxiety
Tsai LLY, McNamara RJ, Moddel C, Alison JA, McKenzie DK, McKeough ZJ. Home-based telerehabilitation via real-time videoconferencing improves endurance exercise capacity in patients with COPD: The randomized controlled TeleR Study. <i>Respirology</i> . 2017;22(4):699-707.	Only one patient with anxiety
Valenza MC, Valenza-Pena G, Torres-Sanchez I, Gonzalez-Jimenez E, Conde-Valero A, Valenza-Demet G. Effectiveness of controlled breathing techniques on anxiety and depression in hospitalized patients with COPD: a randomized clinical Trial. <i>Respir Care</i> . 2014;59(2):209-15.	Unclear how many patients with anxiety are included
Vianello A, Fusello M, Gubian L, Rinaldo C, Dario C, Concas A, et al. Home telemonitoring for patients with acute exacerbation of chronic obstructive pulmonary disease: a randomized controlled trial. <i>BMC pulm</i> . 2016;16(1):157.	Not exclusively patients with anxiety
Volpato E, Banfi P, Nicolini A, Pagnini F. A quick relaxation exercise for people with chronic obstructive pulmonary disease: explorative randomized controlled trial. <i>Multidisciplinary respiratory medicine</i> [Internet]. 2018; 13(1). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01607052/full	Unclear how many patients with anxiety are included
Volpato E, Banfi P, Rogers SM, Pagnini F. Relaxation Techniques for People with Chronic Obstructive Pulmonary Disease: A Systematic Review and a Meta-Analysis. <i>Evidence-based Complementary & Alternative Medicine (eCAM)</i> . 2015;2015:1-22.	Unclear how many patients with anxiety are included
von Leupoldt A. Treating anxious expectations can improve dyspnoea in patients with COPD. <i>Eur Respir J</i> . 2017;50(3):09.	Editorial
Wadell K, Webb KA, Preston ME, Amornputtisathaporn N, Samis L, Patelli J, et al. Impact of pulmonary rehabilitation on the major dimensions of dyspnea in COPD. <i>Copd</i> . 2013;10(4):425-35.	Not exclusively patients with anxiety
Walters J, Cameron-Tucker H, Wills K, Schuz N, Scott J, Robinson A, et al. Effects of telephone health mentoring in community-recruited chronic obstructive pulmonary disease on self-management capacity, quality of life and psychological morbidity: a randomised controlled trial. <i>BMJ Open</i> [Internet]. 2013; 3(9). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00913802/full	Not exclusively patients with anxiety
Wan ES, Kantorowski A, Homsy D, Teylan M, Kadri R, Richardson CR, et al. Promoting physical activity in COPD: Insights from a randomized trial of a web-based intervention and pedometer use. <i>Respir Med</i> . 2017;130:102-10.	No focus on anxiety
Wang M, Li J, Li S, Xie Y. Effects of comprehensive therapy based on traditional Chinese medicine patterns on older patients with chronic obstructive pulmonary disease: a subgroup analysis from a four-center, randomized, controlled study. <i>Front</i> . 2014;8(3):368-75.	No focus on anxiety
Wiles L, Cafarella P, Williams MT. Exercise training combined with psychological interventions for people with chronic obstructive pulmonary disease. <i>Respirology</i> . 2015;20(1):46-55.	Unclear how many patients with anxiety are included
Williams M, Paquet C, Cafarella P, Frith P. Randomised controlled trial of pulmonary rehabilitation including cognitive behavioural therapy for breathlessness. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01915484/full .	Abstract
Williams M, Paquet C, John D, Cafarella P, Frith P. No additional benefits for pulmonary rehabilitation including cognitive behavioural therapy. <i>Respirology (Carlton, Vic)</i> [Internet]. 2018; 23:[91- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01607196/full	Abstract

Xie Y, Li JS, Yu XQ, Li SY, Zhang NZ, Li ZG, et al. Effectiveness of Bufeiyishen Granule combined with acupoint sticking therapy on quality of life in patients with stable chronic obstructive pulmonary disease. <i>Chin J Integr Med</i> . 2013;19(4):260-8.	Unclear how many patients with anxiety are included
Yan B et al. Study on the effects of pulmonary rehabilitation exercise in patients with chronic obstructive pulmonary disease in stable period. <i>Respirology (Carlton, Vic)</i> [Internet]. 2018; 23:[132- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01925517/full	Abstract
Yohannes AM, Junkes-Cunha M, Smith J, Vestbo J. Management of Dyspnea and Anxiety in Chronic Obstructive Pulmonary Disease: A Critical Review. <i>J Am Med Dir Assoc</i> . 2017;18(12):1096.e1-.e17.	No quality assessment of included studies
Yuwen L, Peng L, Yun L, Yitai C, Yuxia H, Kai W, et al. Effects of combined cycle ergometer and inspiratory muscle training in patients with stable chronic obstructive pulmonary disease. <i>Respirology (Carlton, Vic)</i> [Internet]. 2016; 21:[176- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01249601/full	Abstract
Zafar UA, Ni CJ, Smith B, Carson K. A meta-analysis (Cochrane review) of pharmacological and psychological interventions for anxiety and depression in COPD. <i>Respirology (Carlton, Vic)</i> [Internet]. 2010; 15:[A19- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01749566/full .	Abstract
Zarghami M, Taghizadeh F, Sharifpour A, Alipour A. Efficacy of smoking cessation on stress, anxiety, and depression in smokers with chronic obstructive pulmonary disease: a randomized controlled clinical trial. <i>Addiction & Health</i> [Internet]. 2018; 10(3):[137-47 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01953808/full .	Only a minority of patients has anxiety
Zuo A, Xiong G. Effect comparison of integrated traditional Chinese medicine nursing and routine nursing application to chronic obstructive pulmonary disease. <i>Chinese medicine modern distance education of China [zhong guo zhong yi yao xian dai yuan cheng jiao yu]</i> [Internet]. 2015; 13(4):[121-2 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01436965/full .	No full text available
Zwerink M, Brusse-Keizer M, van der Valk PDLPM, Zielhuis GA, Monninkhof EM, van der Palen J, et al. Self management for patients with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2014;2014(3).	No focus on anxiety

Table 12. Overview of excluded studies based on full-text evaluation of research question 4.

Reference	Reason for exclusion
Amo-Setién FJ, Abajas-Bustillo R, Torres-Manrique B, Martín-Melón R, Sarabia-Cobo C, Molina-Mula J, et al. Characteristics of nursing interventions that improve the quality of life of people with chronic diseases. A systematic review with meta-analysis. <i>PLoS ONE</i> . 2019;14(6).	No focus on depression
Apps L, Wagg K, Sewell L, Williams J, Singh S, Singh S. Randomised controlled trial of a self-management programme of activity, coping and education (SPACE) for COPD. <i>Thorax</i> [Internet]. 2009; 64:[A96-a7 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00790004/full .	Abstract
Bohingamu Mudiyansele S, Stevens J, Watts JJ, Toscano J, Kotowicz MA, Steinfors CL, et al. Personalised telehealth intervention for chronic disease management: A pilot randomised controlled trial. <i>J Telemed Telecare</i> . 2019;25(6):343-52.	Not exclusively patients with depression
Bourne C, Houchen-Wolloff L, Kanabar P, Bankart M, Singh S. A self-management programme of activity coping and education-space for COPD in primary care: a pragmatic trial. <i>Thorax</i> [Internet]. 2018; 73:[A167-a8 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01934434/full .	Abstract
Bove DG, Lomborg K, Jensen AK, Overgaard D, Lindhardt BO, Midtgaard J. Efficacy of a minimal home-based psychoeducative intervention in patients with advanced COPD: A randomised controlled trial. <i>Respir Med</i> . 2016;121:109-16.	Included in Ma 2019

Bove DG, Overgaard D, Lomborg K, Lindhardt BO, Midtgaard J. Efficacy of a minimal home-based psychoeducative intervention versus usual care for managing anxiety and dyspnoea in patients with severe chronic obstructive pulmonary disease: a randomised controlled trial protocol. <i>BMJ Open</i> . 2015;5(7):e008031.	Study protocol
Cafarella PA, Effing TW, Usmani ZA, Frith PA. Treatments for anxiety and depression in patients with chronic obstructive pulmonary disease: a literature review. <i>Respirology</i> . 2012;17(4):627-38.	Narrative review
Consider behavioural strategies in addition to antidepressants in clinically depressed patients with chronic obstructive pulmonary disease. <i>Drugs & Therapy Perspectives</i> . 2015;31(2):52-6.	Narrative review
Doyle C, Bhar S, Fearn M, Ames D, Osborne D, You E, et al. The impact of telephone-delivered cognitive behaviour therapy and befriending on mood disorders in people with chronic obstructive pulmonary disease: A randomized controlled trial. <i>Br J Health Psychol</i> . 2017;22(3):542-56.	Included in Ma 2019
Doyle C, Dunt D, Ames D, Fearn M, You EC, Bhar S. Study protocol for a randomized controlled trial of telephone-delivered cognitive behavior therapy compared with befriending for treating depression and anxiety in older adults with COPD. <i>Int J Chron Obstruct Pulmon Dis</i> . 2016;11:327-34.	Study protocol
Farmer A, Williams V, Velardo C, Shah SA, Yu LM, Rutter H, et al. Self-Management Support Using a Digital Health System Compared With Usual Care for Chronic Obstructive Pulmonary Disease: Randomized Controlled Trial. <i>J Med Internet Res</i> . 2017;19(5):e144.	No focus on depression
Farver-Vestergaard I, O'Toole MS, O'Connor M, Lokke A, Bendstrup E, Basdeo SA, et al. Mindfulness-based cognitive therapy in COPD: a cluster randomised controlled trial. <i>Eur Respir J</i> . 2018;51(2):02.	Not exclusively patients with depression (included in Pollok 2019)
Fleehart S, Nguyen H, Fan V, Hunter C, Chen Z, Reinke L. The effect of psychosocial behavioral therapy for patients with COPD and depression. <i>American journal of respiratory and critical care medicine [Internet]</i> . 2015; 191. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01101071/full .	Abstract
Fritzsche A, Clamor A, Von Leupoldt A. Effects of medical and psychological treatment of depression in patients with COPD - A review. <i>Respir Med</i> . 2011;105(10):1422-33.	No quality assessment of included studies
Galletti J, McHeileh G, Hahne A, Lee AL. The clinical effects of manipulative therapy in people with chronic obstructive pulmonary disease. <i>Journal of Alternative and Complementary Medicine</i> . 2018;24(7):677-83.	No focus on depression
He Y, Zheng Y, Xu C, Yang H, Wang Z, Zhou L, et al. Sertraline hydrochloride treatment for patients with stable chronic obstructive pulmonary disease complicated with depression: a randomized controlled trial. <i>Clin Respir J</i> . 2016;10(3):318-25.	Included in Pollok 2018
Hernández C, Alonso A, Garcia-Aymerich J, Serra I, Marti D, Rodriguez-Roisin R, et al. Effectiveness of community-based integrated care in frail COPD patients: a randomised controlled trial. <i>NPJ Prim Care Respir Med [Internet]</i> . 2015; 25:[15022 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01066429/full	Not exclusively patients with depression
Heslop K, Newton J, Baker C, Burns G, Carrick-Sen D, De Soyza A. Effectiveness of cognitive behavioural therapy (CBT) interventions for anxiety in patients with chronic obstructive pulmonary disease (COPD) undertaken by respiratory nurses: The COPD CBT CARE study: (ISRCTN55206395). <i>BMC pulm</i> . 2013;13(1).	Study protocol
Heslop K, Stenton C, Newton J, Carrick-Sen D, Baker C, Graham B, et al. A randomised controlled trial of cognitive behavioural therapy (CBT) delivered by respiratory nurses to reduce anxiety in chronic obstructive pulmonary disease (COPD). (Trial registration-ISRCTN55206395). <i>Eur Respir J [Internet]</i> . 2016; 48. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01360784/full .	Abstract

Heslop K. Non-pharmacological treatment of anxiety and depression in COPD. <i>Nurse Prescribing</i> . 2014;12(1):43-7.	Narrative review
Heslop-Marshall K, Baker C, Carrick-Sen D, Newton J, Echevarria C, Stenton C, et al. Randomised controlled trial of cognitive behavioural therapy in COPD. <i>ERJ open research</i> [Internet]. 2018; 4(4). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01690439/full	Not exclusively patients with depression (included in Ma 2019)
Heslop-Marshall K, Baker C, Carrick-Sen D, Newton J, Stenton C, Burns G, et al. A randomised controlled trial (RCT) of cognitive behavioural therapy (CBT) for patients with chronic obstructive pulmonary disease. <i>Thorax</i> [Internet]. 2017; 72:[A6- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01437847/full	Abstract
Heslop-Marshall K, Baker C, Carrick-Sen D, Stenton S, Newton J, Burns G, et al. Prevalence of anxiety and patient characteristics from a randomised controlled trial (RCT) to identify if cognitive behavioural therapy (CBT) by respiratory nurses reduces anxiety in COPD. <i>Thorax</i> [Internet]. 2015; 70:[A237- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01135254/full	Abstract
Heslop-Marshall K, Burns G. The role of cognitive behavioural therapy in living well with COPD. <i>Breathe</i> . 2019;15(2):95-7.	Editorial
Houben CHM, Spruit MA, Luyten H, Pennings HJ, van den Boogaart VEM, Creemers J, et al. Cluster-randomised trial of a nurse-led advance care planning session in patients with COPD and their loved ones. <i>Thorax</i> . 2019;74(4):328-36.	No focus on depression
Howard C, Dupont S, Haselden B, Lynch J, Wills P. The effectiveness of a group cognitive-behavioural breathlessness intervention on health status, mood and hospital admissions in elderly patients with chronic obstructive pulmonary disease. <i>Psychol Health Med</i> . 2010;15(4):371-85.	No patients with depression
Howard C, Dupont S. 'The COPD breathlessness manual': a randomised controlled trial to test a cognitive-behavioural manual versus information booklets on health service use, mood and health status, in patients with chronic obstructive pulmonary disease. <i>NPJ Prim Care Respir Med</i> . 2014;24:14076.	Included in Ma 2019
Hussain FA, Williams S. COPD: a proposed multidisciplinary approach to psychological issues. <i>Br J Nurs</i> . 2017;26(20):1109-15.	Narrative review
Hynninen MJ, Bjerke N, Pallesen S, Bakke PS, Nordhus IH. A randomized controlled trial of cognitive behavioral therapy for anxiety and depression in COPD. <i>Respir Med</i> . 2010;104(7):986-94.	Included in Ma 2019
Hyun MK, Lee NR, Jang EJ, Yim JJ, Lee CH. Effect of inhaled drugs on anxiety and depression in patients with chronic obstructive pulmonary disease: a prospective observational study. <i>Int J Chron Obstruct Pulmon Dis</i> . 2016;11:747-54.	Not about management of depression
Jackson DS, Banerjee S, Sirey JA, Pollari C, Solomonov N, Novitch R, et al. Two Interventions for Patients With Major Depression and Severe Chronic Obstructive Pulmonary Disease: Impact on Quality of Life. <i>Am J Geriatr Psychiatry</i> . 2019;27(5):502-11.	Secondary analysis of Alexopoulos
Janssens J-P, Weber C, Herrmann François R, Cantero C, Pessina A, Matis C, et al. Can Early Introduction of Palliative Care Limit Intensive Care, Emergency and Hospital Admissions in Patients with Severe Chronic Obstructive Pulmonary Disease? A Pilot Randomized Study. <i>Respiration</i> . 2019;97(5):406-15.	No focus on depression
Jayasinghe H, Usmani Z, Carson K, Heslop K, Esterman A, De SBA, et al. Psychological therapies for the treatment of anxiety disorders in COPD: a cochrane systematic review and meta-analysis. <i>Respirology (Carlton, Vic)</i> [Internet]. 2015; 20:[60- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01126365/full .	Abstract
Jiang X, He G. Effects of an uncertainty management intervention on uncertainty, anxiety, depression, and quality of life of chronic obstructive pulmonary disease outpatients. <i>Res Nurs Health</i> . 2012;35(4):409-18.	No patients with depression (includee in Pollok 2019 and Ma 2019)

Jolly K, Sidhu M, Hewitt C, Daley A, Jordan R, Coventry P, et al. Telephone health coaching in primary care patients with MRC I/II COPD: randomised controlled trial. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01787364/full .	Abstract
Jonkers CC, Lamers F, Bosma H, Metsemakers JF, van Eijk JT. The effectiveness of a minimal psychological intervention on self-management beliefs and behaviors in depressed chronically ill elderly persons: a randomized trial. <i>Int Psychogeriatr</i> . 2012;24(2):288-97.	Same study as Lamers 2010
Jonsdottir H, Amundadottir O, Gudmundsson G, Halldorsdottir B, Hrafnkelsson B, Ingadottir T, et al. Effectiveness of a partnership-based self-management programme for patients with mild and moderate chronic obstructive pulmonary disease: a pragmatic randomized controlled trial. <i>J Adv Nurs</i> [Internet]. 2015; 71(11):[2634-49 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01087160/full	No focus on depression
Jordan N, Lee TA, Valenstein M, Pirraglia PA, Weiss KB. Effect of depression care on outcomes in COPD patients with depression. <i>Chest</i> . 2009;135(3):626-32.	Not possible to distinguish separate interventions
Kapella MC, Herdegen JJ, Perlis ML, Shaver JL, Larson JL, Law JA, et al. Cognitive behavioral therapy for insomnia comorbid with COPD is feasible with preliminary evidence of positive sleep and fatigue effects. <i>Int J Chron Obstruct Pulmon Dis</i> . 2011;6(1):625-35.	No focus on depression (included in Ma 2019)
Kennedy GJ. Added Value of the Personalized Intervention for Depressed Patients with COPD. <i>Am J Geriatr Psychiatry</i> . 2018;26(2):172-3.	Editorial
Lamers F, Jonkers CC, Bosma H, Chavannes NH, Knottnerus JA, van Eijk JT. Improving quality of life in depressed COPD patients: effectiveness of a minimal psychological intervention. <i>Copd</i> . 2010;7(5):315-22.	Included in Ma 2019
Lamers F, Jonkers CCM, Bosma H, Kempen GIJM, Meijer JAMJ, Penninx BWJH, et al. A minimal psychological intervention in chronically ill elderly patients with depression: A randomized trial. <i>Psychotherapy and Psychosomatics</i> . 2010;79(4):217-26.	Included in Ma 2019
Lebowitz KR, Suh S, Diaz PT, Emery CF. Effects of humor and laughter on psychological functioning, quality of life, health status, and pulmonary functioning among patients with chronic obstructive pulmonary disease: a preliminary investigation. <i>Heart Lung</i> . 2011;40(4):310-9.	No focus on depression
Lee H, Yoon JY, Lim Y, Jung H, Kim S, Yoo Y, et al. The effect of nurse-led problem-solving therapy on coping, self-efficacy and depressive symptoms for patients with chronic obstructive pulmonary disease: a randomised controlled trial. <i>Age Ageing</i> . 2015;44(3):397-403.	Included in Ma 2019
Lenferink A, Van DPJ, Van DVP, Cafarella P, Van VA, Quinn S, et al. Effects of self-management action plans for COPD patients with comorbidities on health status and self-efficacy. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01790372/full .	Abstract
Lin FL, Yeh ML, Lai YH, Lin KC, Yu CJ, Chang JS. Two-month breathing-based walking improves anxiety, depression, dyspnoea and quality of life in chronic obstructive pulmonary disease: A randomised controlled study. <i>J Clin Nurs</i> . 2019;28(19-20):3632-40.	No patients with depression
Livermore N, Dimitri A, Sharpe L, McKenzie DK, Gandevia SC, Butler JE. Cognitive behaviour therapy reduces dyspnoea ratings in patients with chronic obstructive pulmonary disease (COPD). <i>Respir Physiol Neurobiol</i> . 2015;216:35-42.	No patients with depression (included in Ma 2019)
Livermore N, Sharpe L, McKenzie D. Prevention of panic attacks and panic disorder in COPD. <i>The european respiratory journal</i> [Internet]. 2010; 35(3):[557-63 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00751721/full	No patients with depression (exclusion criterion)
Lord V, Hume V, Cave P, Flude L, Kelly J, Hopkinson N. Effect of singing lessons in patients with COPD - A randomised controlled trial. <i>American journal of respiratory</i>	Abstract

and critical care medicine [Internet]. 2010; 181(1). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01004838/full .	
Luk EK, Gorelik A, Irving L, Khan F. Effectiveness of cognitive behavioural therapy in a community-based pulmonary rehabilitation programme: A controlled clinical trial. <i>J Rehabil Med</i> . 2017;49(3):264-9.	Not exclusively patients with depression
Mahesh P, Srikanth J, Ananthakrishna M, Parthasarathi G, Chaya S, Rajgopal R, et al. Amelioration of quality of life and lung function of chronic obstructive pulmonary disease by pranic healing as adjuvant therapy: a randomised double blind placebo controlled pilot study. <i>Australasian medical journal</i> [Internet]. 2017; 10(8):[665-73 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01417966/full .	No focus on depression
Matcham F, Rayner L, Hutton J, Monk A, Steel C, Hotopf M. Self-help interventions for symptoms of depression, anxiety and psychological distress in patients with physical illnesses: A systematic review and meta-analysis. <i>Clinical Psychology Review</i> . 2014;34(2):141-57.	Concerning COPD, included 1 abstract and 1 studie with no patients with depression
McDowell J, McKeown G, Hanna B, Sloan H, Howard J, Jackson E, et al. A model of home based healthcare with telehealth monitoring improves quality of life in patients with chronic obstructive pulmonary disease. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2012; 185. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01107394/full .	Abstract
McDowell JE, McClean S, FitzGibbon F, Tate S. A randomised clinical trial of the effectiveness of home-based health care with telemonitoring in patients with COPD. <i>J Telemed Telecare</i> . 2015;21(2):80-7.	No patients with depression
Min J, Mao B, Huang Y-L, Pan Y, Chen D-H, Xiao W, et al. Effect of Tai Chi combined with conventional pulmonary rehabilitation in patients with chronic obstructive pulmonary. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01409012/full .	Abstract
Mitchell KE, Johnson-Warrington V, Apps LD, Bankart J, Sewell L, Williams JE, et al. A self-management programme for COPD: a randomised controlled trial. <i>Eur Respir J</i> . 2014;44(6):1538-47.	No patients with depression
Moisieieva NV, Burya LV, Kapustianskaya AA, Kolenko IA, Rumyantseva MA, Shumeiko OH. Comprehensive patterns of comorbidity: copd and depression. Aspects of treatment. <i>Wiad Lek</i> . 2018;71(3 pt 1):588-91.	No full text available
Momtaz O, Rabei S, Tawfike N, Hasan A. Effect of treatment of depression and anxiety on physiological state of severe COPD patients. <i>Egyptian journal of chest diseases and tuberculosis</i> [Internet]. 2015; 64(1):[29-34 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01077510/full	Not exclusively patients with depression
Novitch R, Anne SJ, Raue P, Seirup J, Kiossis D, Gosh S, et al. A targeted intervention for depression initiated during pulmonary rehabilitation improves adherence to exercise, mood and dyspnea after acute exacerbation of COPD (AECOPD). <i>Eur Respir J</i> [Internet]. 2013; 42. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01099993/full .	Abstract
Novitch R, Sirey J, Alexopoulos G. Two interventions for patients with major depression and severe COPD: impact on dyspnea related disability. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01619293/full .	Abstract
Osadnik C, Madrusiak A, Haines T, Nitz J, Chang A, Yang I, et al. Anxiety and depression during self-management for COPD-an exploratory analysis of a multicentre randomized controlled trial (PRSM). <i>Respirology (carlton, vic)</i> [Internet]. 2014; 19:[101- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01009096/full	Abstract

Ouellette DR, Lavoie KL. Recognition, diagnosis, and treatment of cognitive and psychiatric disorders in patients with COPD. <i>Int J Chron Obstruct Pulmon Dis.</i> 2017;12:639-50.	Narrative review
Perkins-Porras L, Riaz M, Okekunle A, Zhelezna S, Chakravorty I, Ussher M. Feasibility study to assess the effect of a brief mindfulness intervention for patients with chronic obstructive pulmonary disease: A randomized controlled trial. <i>Chron.</i> 2018;15(4):400-10.	No patients with depression (included in Pollok 2019)
Poon Chung Leung H, Chan Sau M, Yu Sau F. Effectiveness of nurse-led disease management programs on health outcomes and health service utilization in adult patients with chronic obstructive pulmonary disease: A systematic review protocol. <i>JBI Database of Systematic Reviews & Implementation Reports.</i> 2013;11(1):307-28.	Study protocol
Ranjita R, Badhai S, Hankey A, Nagendra H. A randomized controlled study on assessment of health status, depression, and anxiety in coal miners with chronic obstructive pulmonary disease following yoga training. <i>International journal of yoga [Internet].</i> 2016; 9(2):[137-44 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01180127/full	Not exclusively patients with depression
Renn BN, Hundt NE, Sansgiry S, Petersen NJ, Kauth MR, Kunik ME, et al. Integrated Brief Cognitive Behavioral Therapy Improves Illness Intrusiveness in Veterans With Chronic Obstructive Pulmonary Disease. <i>Ann Behav Med.</i> 2018;52(8):686-96.	Wrong outcomes
Rixon L, Hirani S, Cartwright M, Beynon M, Doll H, Steventon A, et al. A RCT of telehealth for COPD patient's quality of life: the whole system demonstrator evaluation. <i>Clinical respiratory journal [Internet].</i> 2017; 11(4):[459-69 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01396037/full	No patients with depression
Rose L, Istanbulian L, Carriere L, Price A, Lee L, Rezaie S, et al. Program of integrated care for patients with chronic obstructive pulmonary disease and multiple comorbidities (pic COPD+): a randomized controlled trial. <i>American journal of respiratory and critical care medicine [Internet].</i> 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408779/full .	Abstract
Safka KA, Andrew Mclvor R. Non-pharmacological management of chronic obstructive pulmonary disease. <i>Ulster Medical Journal.</i> 2015;84(1):13-21.	Narrative review
Schuz N, Walters JA, Cameron-Tucker H, Scott J, Wood-Baker R, Walters EH. Patient Anxiety and Depression Moderate the Effects of Increased Self-management Knowledge on Physical Activity: A Secondary Analysis of a Randomised Controlled Trial on Health-Mentoring in COPD. <i>Copd.</i> 2015;12(5):502-9.	Not exclusively patients with depression (included in Pollok 2019)
Shen Y-C, Yang T, Wan C, Wang T, Wen F-Q. Effects of deanxit on anxiety/depression in chronic obstructive pulmonary disease patients. <i>Respirology [abstracts of the 16th congress of the asian pacific society of respirology 3-6 nov 2011; shanghai china] [Internet].</i> 2011. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00851114/full .	Abstract
Stoop CH, Nefs G, Pommer AM, Pop VJ, Pouwer F. Effectiveness of a stepped care intervention for anxiety and depression in people with diabetes, asthma or COPD in primary care: A randomized controlled trial. <i>J Affect Disord.</i> 2015;184:269-76.	Not exclusively patients with depression
Taylor S, Sohanpal R, Bremner S, Devine A, Eldridge S, Griffiths C. Pilot randomised controlled trial of a 7-week disease-specific self-management programme for patients with COPD: BELLA (better living with long term airways disease study). <i>Thorax [Internet].</i> 2009; 64:[A95-a6 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01751645/full .	Abstract
Thom DH, Willard-Grace R, Tsao S, Hessler D, Huang B, DeVore D, et al. Randomized Controlled Trial of Health Coaching for Vulnerable Patients with Chronic Obstructive Pulmonary Disease. <i>Ann Am Thorac Soc.</i> 2018;15(10):1159-68.	No patients with depression
Titova E, Salvesen O, Bentsen SB, Sunde S, Steinshamn S, Henriksen AH. Does an Integrated Care Intervention for COPD Patients Have Long-Term Effects on Quality	No patients with depression

of Life and Patient Activation? A Prospective, Open, Controlled Single-Center Intervention Study. <i>PLoS ONE</i> . 2017;12(1):e0167887.	
Usmani Z, Carson-Chahhoud K, Esterman A, Smith B. A randomized placebo-controlled trial of paroxetine for the management of anxiety in chronic obstructive pulmonary disease (PAC study). <i>Journal of multidisciplinary healthcare</i> [Internet]. 2018; 11:[287-93 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01618629/full	Patients with anxiety and (not necessarily) depression
Valenza MC, Valenza-Pena G, Torres-Sanchez I, Gonzalez-Jimenez E, Conde-Valero A, Valenza-Demet G. Effectiveness of controlled breathing techniques on anxiety and depression in hospitalized patients with COPD: a randomized clinical Trial. <i>Respir Care</i> . 2014;59(2):209-15.	Not exclusively patients with depression (i.e. >8 on HADS subscale)
van Straten A, Geraedts A, Verdonck-de Leeuw I, Andersson G, Cuijpers P. Psychological treatment of depressive symptoms in patients with medical disorders: A meta-analysis. <i>J Psychosom Res</i> . 2010;69(1):23-32.	No separate analysis for COPD
Vogelmeier CF, Criner GJ, Martinez FJ, Anzueto A, Barnes PJ, Bourbeau J, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive lung disease 2017 report. <i>American Journal of Respiratory and Critical Care Medicine</i> . 2017;195(5):557-82.	No methodology described
Volpato E, Banfi P, Rogers SM, Pagnini F. Relaxation Techniques for People with Chronic Obstructive Pulmonary Disease: A Systematic Review and a Meta-Analysis. <i>Evidence-based Complementary & Alternative Medicine (eCAM)</i> . 2015;2015:1-22.	Unclear how many patients with clinically relevant symptoms of depression are included
Wiles L, Cafarella P, Williams MT. Exercise training combined with psychological interventions for people with chronic obstructive pulmonary disease. <i>Respirology</i> . 2015;20(1):46-55.	Unclear how many patients with depression are included: 'irrespective of their gender, disease severity or medical comorbidities (e.g. diagnosis of anxiety/ depression)'
Williams M, Cafarella P, Paquet C, Frith P. Cognitive behavioral therapy for management of dyspnea: a pilot study. <i>Respir Care</i> [Internet]. 2015; 60(9):[1303-13 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01161346/full	No focus on depression
Williams M, Paquet C, Cafarella P, Frith P. Randomised controlled trial of pulmonary rehabilitation including cognitive behavioural therapy for breathlessness. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01915484/full .	Abstract
Yohannes AM, Alexopoulos GS. Depression and anxiety in patients with COPD. <i>Eur</i> . 2014;23(133):345-9.	Narrative review
Yohannes AM, Alexopoulos GS. Pharmacological treatment of depression in older patients with chronic obstructive pulmonary disease: impact on the course of the disease and health outcomes. <i>Drugs Aging</i> . 2014;31(7):483-92.	Narrative review
Yohannes AM, Connolly MJ. Do antidepressants work in patients with chronic obstructive pulmonary disease with comorbid depression? <i>Expert Rev Respir Med</i> . 2011;5(6):727-9.	Narrative review
Yohannes AM, Kaplan A, Hanania NA. Anxiety and Depression in Chronic Obstructive Pulmonary Disease: Recognition and Management. <i>Cleve Clin J Med</i> . 2018;85(2 Suppl 1):S11-S8.	Narrative review
Yohannes AM, Willgoss TG, Baldwin RC, Connolly MJ. Depression and anxiety in chronic heart failure and chronic obstructive pulmonary disease: prevalence, relevance, clinical implications and management principles. <i>Int J Geriatr Psychiatry</i> . 2010;25(12):1209-21.	Narrative review

Zafar UA, Ni CJ, Smith B, Carson K. A meta-analysis (cochrane review) of pharmacological and psychological interventions for anxiety and depression in COPD. <i>Respirology (Carlton, Vic)</i> [Internet]. 2010; 15:[A19- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01749566/full .	Abstract
Zareifopoulos N, Bellou A, Spiropoulou A, Spiropoulos K. Prevalence, Contribution to Disease Burden and Management of Comorbid Depression and Anxiety in Chronic Obstructive Pulmonary Disease: A Narrative Review. <i>Copd</i> . 2019.	Narrative review
Zarghami M, Taghizadeh F, Sharifpour A, Alipour A. Efficacy of smoking cessation on stress, anxiety, and depression in smokers with chronic obstructive pulmonary disease: a randomized controlled clinical trial. <i>Addiction & health</i> [Internet]. 2018; 10(3):[137-47 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01953808/full .	Not exclusively patients with depression

Table 13. Overview of excluded studies based on full-text evaluation of research question 5 for the first search.

Reference	Reason for exclusion
Abdallah S, Wilkinson-Maitland C, Saad N, Bourbeau J, Smith B, Jensen D. A Randomized double blind, placebo controlled clinical trial evaluating the effects of immediate release morphine on breathlessness and exercise endurance in COPD: responders vs. Non-Responders. <i>Canadian journal of respiratory critical care and sleep medicine</i> [Internet]. 2017; 1(3):[159- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01654927/full	Pharmacological intervention
Abdallah SJ, Wilkinson-Maitland C, Saad N, Li PZ, Smith BM, Bourbeau J, et al. Effect of morphine on breathlessness and exercise endurance in advanced COPD: a randomised crossover trial. <i>The European respiratory journal</i> . 2017;50(4).	Pharmacological intervention
Ahmadi Z, Currow DC, Ekstrom M. Palliative oxygen for chronic breathlessness: what new evidence? <i>Curr</i> . 2017;11(3):159-64.	Only Medline search, no quality assessment of included studies
Ambrosino N, Fracchia C. Strategies to relieve dyspnoea in patients with advanced chronic respiratory diseases. A narrative review. <i>Pulmonology</i> . 2019;25(5):289-98.	Narrative review
Barbetta C, Currow DC, Johnson MJ. Non-opioid medications for the relief of chronic breathlessness: current evidence. <i>Expert Rev Respir Med</i> . 2017;11(4):333-41.	No quality assessment of included studies
Barneche M, Dell'Era S, Roux N, Santos E, Terrasa S, Bykhovsky I, et al. High flow nasal cannula improves exercise capacity in COPD patients: crossover trial. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914655/full .	Abstract
Barnestein-Fonseca P, Leiva-Fernández F, Vazquez-Alarcon R, Aguiar-Leiva V, Lobnig-Becerra M, Leiva-Fernández J. Can we improve the inhalation techniques in patient with COPD?. Tiepoc study. <i>Value in health</i> [Internet]. 2015; 18(7):[A495-pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01107047/full .	Abstract
Barnestein-Fonseca P, Vazquez-Alarcon R, Leiva-Fernandez F, Aguiar-Leiva V, Lobnig-Becerra M, Leiva-Fernandez J. Inhalation technique evolution after training in COPD. The role of the device. <i>Value in health</i> [Internet]. 2014; 17(7):[A600 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01037786/full .	Abstract
Bausewein C, Simon ST. Inhaled nebulized and intranasal opioids for the relief of breathlessness. <i>Curr</i> . 2014;8(3):208-12.	No quality assessment of included studies
Baxter DA, Shergis JL, Fazalbhoy A, Coyle ME. Muscle energy technique for chronic obstructive pulmonary disease: A systematic review. <i>Chiropractic and Manual Therapies</i> . 2019;27(1).	No selected intervention

Beaumont M, Mialon P, Le Ber C, Le Mevel P, Peran L, Meurisse O, et al. Effects of inspiratory muscle training on dyspnoea in severe COPD patients during pulmonary rehabilitation: controlled randomised trial. <i>Eur Respir J</i> . 2018;51(1):01.	Included in Beaumont2018
Benzo R, Vickers K, Novotny PJ, Tucker S, Hoult J, Neuenfeldt P, et al. Health Coaching and Chronic Obstructive Pulmonary Disease Rehospitalization. A Randomized Study. <i>Am J Respir Crit Care Med</i> . 2016;194(6):672-80.	Wrong population, wrong intervention
Bonnevie T, Gravier F, Medrinal C, Prieur G, Tardif C, Muir J, et al. Nasal vs oronasal interface during exercise under noninvasive ventilation in COPD: a randomized crossover study. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914677/full .	Abstract
Brighton LJ, Miller S, Farquhar M, Booth S, Deokhee Y, Gao W, Bajwah S, Man WDC, Higginson IJ, Maddocks M. Holistic services for people with advanced disease and chronic breathlessness: a systematic review and meta-analysis. <i>Thorax</i> . 2019;74:270-281.	Majority of studies included patients with cancer, only a minority included patients with COPD
Buchan K, Badlan K, Fletcher M, Kendrick A. Does exercising COPD patients on non invasive ventilation (NIV) enable them to walk further? A randomised controlled trial. <i>Eur Respir J</i> [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01767383/full .	Abstract
Buchan K, Badlan K, Fletcher M, Kendrick A. Does exercising with domiciliary non-invasive ventilation (NIV) improve quality of life (QOL) in patients with severe chronic obstructive pulmonary disease (COPD)? <i>Thorax</i> [Internet]. 2014; 69:[A66 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01039400/full .	Abstract
Butler SJ, Lee AL, Goldstein RS, Brooks D. Active Video Games as a Training Tool for Individuals With Chronic Respiratory Diseases: A SYSTEMATIC REVIEW. <i>Journal of Cardiopulmonary Rehabilitation and Prevention</i> . 2019;39(2):85-90.	Yoga only a part of the intervention in 1 selected study
Chai C, Liam C, Pang Y, Tan S, Ng D, Wong T. Dyspnea improvement in patients with lung diseases in a single session of mindful breathing: a randomized controlled study. <i>Respirology (Carlton, Vic)</i> [Internet]. 2018; 23:[197-8 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01763570/full .	Abstract
Charususin N, Gosselink R, Decramer M, Demeyer H, McConnell A, Saey D, et al. Randomised controlled trial of adjunctive inspiratory muscle training for patients with COPD. <i>Thorax</i> . 2018;73(10):942-50.	Wrong population (stable patients)
Chuang HY, Chang HY, Fang YY, Guo SE. The effects of threshold inspiratory muscle training in patients with chronic obstructive pulmonary disease: A randomised experimental study. <i>J Clin Nurs</i> . 2017;26(23-24):4830-8.	Wrong population (stable patients)
Clari M, Matarese M, Ivziku D, De Marinis MG. Self-Care of People with Chronic Obstructive Pulmonary Disease: A Meta-Synthesis. <i>Patient</i> . 2017;10(4):407-27.	No selected intervention
Collins E, O'Connell S, Jelinek C, Butler J, McBurney C, Gozali C, et al. Contrasting breathing retraining and helium-oxygen during exercise training in COPD: a randomized clinical trial. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2014; 189(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01476336/full .	Wrong population (stable patients)
Coultas D, Jackson B, Russo R, Peoples J, Ashmore J, Sloan J, et al. A lifestyle physical activity intervention for COPD improved mental health-related quality of life among severely impaired patients. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408789/full .	Abstract
Coultas D, Jackson B, Russo R, Peoples J, Ashmore J, Sloan J, et al. Six month results of a behavioral self-management intervention to enhance lifestyle physical activity among patients with COPD. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2014; 189(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01131496/full .	Abstract

Currow D, Ekstrom M, Fazekas B, Plummer J, Quinn S, McDonald C, et al. A phase III, multi-site, randomised, double blind, placebo controlled parallel arm study of daily extended release (ER) morphine for chronic breathlessness. <i>Eur Respir J</i> [Internet]. 2016; 48. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01361110/full .	Abstract
Currow D, Louw S, McCloud P, Fazekas B, Plummer J, McDonald C, et al. Regular extended release morphine for chronic breathlessness: a multi-centre double-blind randomised controlled trial. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01620879/full .	Abstract
Currow D, Louw S, McCloud P, Fazekas B, Plummer J, McDonald C, et al. Regular extended release morphine for chronic breathlessness: a multi-centre doubleblind RCT. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914752/full .	Abstract
Currow D, Watts GJ, Johnson M, McDonald CF, Miners JO, Somogyi AA, et al. A pragmatic, phase III, multisite, double-blind, placebo-controlled, parallel-arm, dose increment randomised trial of regular, low-dose extended-release morphine for chronic breathlessness: Breathlessness, Exertion And Morphine Sulfate (BEAMS) study protocol. <i>BMJ Open</i> . 2017;7(7):e018100.	Study protocol
Cutts S, Burls A, Akinlabi K, Hurst J, Mandal S, Mansell S. A randomised crossover trial investigating the effect of a portable positive pressure ventilation device on exercise tolerance in patients with COPD. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914754/full .	Abstract
de Araujo CL, Karloh M, Dos Reis CM, Palú M, Mayer AF. Pursed-lips breathing reduces dynamic hyperinflation induced by activities of daily living test in patients with chronic obstructive pulmonary disease: A randomized cross-over study. <i>Journal of rehabilitation medicine</i> . 2015;47(10):957-62.	Wrong population (stable patients)
Efficacy of short-term intrapulmonary percussive ventilation in patients with chronic obstructive pulmonary disease. <i>Disability and rehabilitation</i> 37 (10) (pp 899-903), 2015 Date of publication: 2015 [Internet]. 2015. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01193168/full	Double
Efficacy of short-term intrapulmonary percussive ventilation in patients with chronic obstructive pulmonary disease. <i>Disability and rehabilitation</i> 37 (10) (pp 899-903), 2015 Date of publication: 2015 [Internet]. 2015. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01193168/full	No full text available
Ekstrom M, Nilsson F, Abernethy AA, Currow DC. Effects of opioids on breathlessness and exercise capacity in chronic obstructive pulmonary disease. A systematic review. <i>Ann Am Thorac Soc</i> . 2015;12(7):1079-92.	Pharmacological intervention
Ferreira DH, Silva JP, Quinn S, Abernethy AP, Johnson MJ, Oxberry SG, et al. Blinded Patient Preference for Morphine Compared to Placebo in the Setting of Chronic Refractory Breathlessness--An Exploratory Study. <i>J Pain Symptom Manage</i> . 2016;51(2):247-54.	Wrong outcome
Fukuoka A, Ueda M, Ariyama Y, Iwai K, Kai Y, Kunimatsu M, et al. Effect of laughter yoga on pulmonary rehabilitation in patients with chronic obstructive pulmonary disease. <i>Journal of nara medical association</i> [Internet]. 2016; 67(1-3):[11-20 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01262172/full .	Stable COPD patients
Gass R, Merola P, Monteiro MB, Cardoso DM, Paiva DN, Teixeira PJ, et al. Effects of Expiratory Positive Airway Pressure on Exercise Tolerance, Dynamic Hyperinflation, and Dyspnea in COPD. <i>Respir Care</i> . 2017;62(10):1298-306.	Wrong intervention
Gimeno-Santos E, Frei A, Steurer-Stey C, De Batlle J, Rabinovich RA, Raste Y, et al. Determinants and outcomes of physical activity in patients with COPD: A systematic review. <i>Thorax</i> . 2014;69(8):731-9.	No focus on breathlessness

Gloeckl R, Heinzelmann I, Matthaehi M, Seeberg S, Damisch T, Jerrentrup A, et al. Benefits of an oxygen reservoir cannula versus a conventional nasal cannula during exercise in hypoxemic COPD patients: A crossover trial. <i>Respiration</i> . 2014;88(5):399-405.	Long-term oxygen therapy as life-sustaining treatment
Gloeckl R, Jarosch I, Schneeberger T, Lausen M, Fiedler C, Kenn K. Comparison of two demand oxygen delivery systems (liquid oxygen versus concentrator) during walking in hypoxemic COPD patients-preliminary results of a randomized, single-blinded cross-over trial. <i>American journal of respiratory and critical care medicine Conference: American thoracic society international conference, ATS 2017 United states</i> [Internet]. 2017; 195(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408997/full .	No full text available
Gloeckl R, Oversohl J, Andrianopoulos V, Stegemann A, Kenn K. Acute effects of non-invasive ventilation during exercise in hypercapnic COPD patients-preliminary results of a randomized cross-over trial. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01791881/full .	Abstract
Gloeckl R, Jarosch I, Schneeberger T, Fiedler C, Lausen M, Weingaertner J, et al. Comparison of supplemental oxygen delivery by continuous versus demand based flow systems in hypoxemic COPD patients – A randomized, single-blinded cross-over study. <i>Respir Med</i> . 2019;156:26-32.	Comparison of different systems, not intervention with no intervention
Guleria R, Arora S, Tiwari P, Mohan A, Kalaivani M, Madan K. Comparison of yoga with pulmonary rehabilitation on body composition, inflammatory biomarkers and dyspnoea in patients with COPD. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914876/full .	Abstract
Hardy W, Cropp A, Laman D, Jasko J, Nisha P. Portable positive pressure device to relieve dyspnea after exercise in COPD patients: a pilot study. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408883/full .	No full text available
Howard C, Dupont S. 'The COPD breathlessness manual': a randomised controlled trial to test a cognitive-behavioural manual versus information booklets on health service use, mood and health status, in patients with chronic obstructive pulmonary disease. <i>NPJ Prim Care Respir Med</i> . 2014;24:14076.	Wrong intervention
Janowiak P, Krajnik M, Podolec Z, Bandurski T, Damps-Konstanska I, Sobanski P, et al. Dosimetrically administered nebulized morphine for breathlessness in very severe chronic obstructive pulmonary disease: a randomized, controlled trial. <i>BMC pulm</i> . 2017;17(1):186.	Pharmacological intervention
Ko F, Cheung N-K, Rainer T, Lum C, Hui D. Intergrated care programme for patients with chronic obstructive pulmonary disease (COPD) - A randomized controlled trial. <i>Respirology (carlton, vic)</i> [Internet]. 2015; 20:[38- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01126367/full .	Abstract
Ko F, Cheung N-K, Rainer T, Lum C, Wong I, Hui D. Comprehensive care programme for patients with chronic obstructive pulmonary disease (COPD) -A randomized controlled trial (RCT). <i>Eur Respir J</i> [Internet]. 2015; 46. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01126663/full .	Wrong population (not exclusively with breathlessness)
Ko FW, Cheung NK, Rainer TH, Lum C, Wong I, Hui DS. Comprehensive care programme for patients with chronic obstructive pulmonary disease: a randomised controlled trial. <i>Thorax</i> . 2017;72(2):122-8.	Wrong population (not exclusively with breathlessness)
Kruis A, Boland M, Assendelft W, Gussekloo J, Tsiachristas A, Stijnen T, et al. Effectiveness of integrated disease management for primary care chronic obstructive pulmonary disease patients: results of cluster randomised trial. <i>Nederlands tijdschrift voor geneeskunde</i> [Internet]. 2015; 159(13). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01084183/full .	Wrong intervention
Kruis AL, Boland MR, Assendelft WJ, Gussekloo J, Tsiachristas A, Stijnen T, et al. Effectiveness of integrated disease management for primary care chronic	No selected intervention

obstructive pulmonary disease patients: results of cluster randomised trial. <i>Bmj</i> . 2014;349:g5392.	
Langer D, Ciavaglia C, Webb K, Preston M, Neder J, Gosselink R, et al. Inspiratory muscle training reduces respiratory neural drive (RND) during exercise in patients with COPD. <i>Eur Respir J</i> [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01081083/full .	Abstract
Lee A, Dolmage T, Rhim M, Goldstein R, Brooks D. Effects of listening to music during a constant endurance exercise test in people with COPD. <i>Respirology (carlton, vic)</i> [Internet]. 2017; 22(Suppl 2):[136 [tp-060] pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01370070/full .	Abstract
Leelarungrayub J, Pinkaew D, Puntumetakul R, Klaphajone J. Effects of a simple prototype respiratory muscle trainer on respiratory muscle strength, quality of life and dyspnea, and oxidative stress in COPD patients: a preliminary study. <i>Int J Chron Obstruct Pulmon Dis</i> . 2017;12:1415-25.	Wrong population
Lenferink A, Brusse-Keizer M, van der Valk PDLPM, Frith PA, Zwerink M, Monninkhof EM, et al. Self-management interventions including action plans for exacerbations versus usual care in patients with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2017;2017(8).	Wrong intervention (treatment of exacerbations)
Liao H, Pei W, Li H, Luo Y, Wang K, Li R, et al. Efficacy of long-term noninvasive positive pressure ventilation in stable hypercapnic COPD patients with respiratory failure: A meta-analysis of randomized controlled trials. <i>Int J Chron Obstruct Pulmon Dis</i> . 2017;12:2977-85.	Intervention is non-invasive ventilation
Lin FL, Yeh ML, Lai YH, Lin KC, Yu CJ, Chang JS. Two-month breathing-based walking improves anxiety, depression, dyspnoea and quality of life in chronic obstructive pulmonary disease: A randomised controlled study. <i>J Clin Nurs</i> . 2019;28(19-20):3632-40.	Wrong population (not advanced COPD)
Lisy K, White H, Pearson A. Overview of reviews: mechanical interventions for the treatment and management of chronic obstructive pulmonary disease. <i>Int J Nurs Pract</i> . 2014;20(6):701-8.	Only Cochrane reviews
Livermore N, Dimitri A, Sharpe L, McKenzie DK, Gandevia SC, Butler JE. Cognitive behaviour therapy reduces dyspnoea ratings in patients with chronic obstructive pulmonary disease (COPD). <i>Respir Physiol Neurobiol</i> . 2015;216:35-42.	Wrong intervention
Long A, Cartwright M, Reilly C. Fan therapy to the face during exercise improves breathlessness and recovery time in patients with chronic obstructive pulmonary disease: a pilot randomised cross over trial. <i>Thorax</i> [Internet]. 2018; 73:[A252- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01935307/full .	Abstract
Lu Y, Li P, Li N, Wang Z, Li J, Liu X, et al. Effects of Home-Based Breathing Exercises in Subjects With COPD. <i>Respir Care</i> . 2019.	No full text available
Marquez-Martin E, Ruiz FO, Ramos PC, Lopez-Campos JL, Azcona BV, Cortes EB. Randomized trial of non-invasive ventilation combined with exercise training in patients with chronic hypercapnic failure due to chronic obstructive pulmonary disease. <i>Respir Med</i> . 2014;108(12):1741-51.	Intervention is non-invasive ventilation
Maskey-Warzechowska M, Mierzejewski M, Gorska K, Golowicz R, Jesien L, Krenke R. Effects of Osteopathic Manual Therapy on Hyperinflation in Patients with Chronic Obstructive Pulmonary Disease: A Randomized Cross-Over Study. <i>Advances in experimental medicine and biology</i> . 2019.	Wrong intervention
McNamara RJ, Epsley C, Coren E, McKeough ZJ. Singing for adults with chronic obstructive pulmonary disease (COPD). <i>Cochrane Database Syst Rev</i> . 2017;2017(12).	Wrong population
Menadue C, Piper AJ, van 't Hul AJ, Wong KK. Non-invasive ventilation during exercise training for people with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2014;2014(5).	Intervention is non-invasive ventilation

Mitchell KE, Johnson-Warrington V, Apps LD, Bankart J, Sewell L, Williams JE, et al. A self-management programme for COPD: a randomised controlled trial. <i>Eur Respir J</i> . 2014;44(6):1538-47.	Wrong population
Mularski RA, Rocker G. Managing dyspnea in advanced chronic obstructive pulmonary disease: balancing all the evidence. <i>Ann Am Thorac Soc</i> . 2015;12(7):978-80.	Editorial
Nagata K, Kikuchi T, Horie T, Shiraki A, Kitajima T, Kadowaki T, et al. Domiciliary High-Flow Nasal Cannula Oxygen Therapy for Patients with Stable Hypercapnic Chronic Obstructive Pulmonary Disease. A Multicenter Randomized Crossover Trial. <i>Ann Am Thorac Soc</i> . 2018;15(4):432-9.	Long-term oxygen therapy as life-sustaining treatment
Nicolini A, Mollar E, Grecchi B, Landucci N. Comparison of intermittent positive pressure breathing and temporary positive expiratory pressure in patients with severe chronic obstructive pulmonary disease. <i>Arch Bronconeumol</i> . 2014;50(1):18-24.	Intervention is non-invasive ventilation
Nicolini A, Santo M, Ferrari-Bravo M, Barlascini C. Open-mouthpiece ventilation versus nasal mask ventilation in subjects with COPD exacerbation and mild to moderate acidosis: A randomized trial. <i>Respir Care</i> . 2014;59(12):1825-31.	Intervention is non-invasive ventilation
Nicolini A, Grecchi B, Ferrari-Bravo M, Barlascini C. Safety and effectiveness of the high-frequency chest wall oscillation vs intrapulmonary percussive ventilation in patients with severe COPD. <i>Int J Chron Obstruct Pulmon Dis</i> . 2018;13:617-25.	Wrong intervention
Nicolini A, Mascardi V, Grecchi B, Ferrari-Bravo M, Banfi P, Barlascini C. Comparison of effectiveness of temporary positive expiratory pressure versus oscillatory positive expiratory pressure in severe COPD patients. <i>Clin Respir J</i> . 2018;12(3):1274-82.	Breathlessness not an outcome
Nyberg A, Tistad M, Wadell K. Effects of an internet based tool for self-management in patients with COPD-a controlled pragmatic pilot trial. <i>Eur Respir J [Internet]</i> . 2017; 50(Suppl 61):[Oa515 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01926392/full .	Abstract
Ou Y, Lin Z, Wu W, Luo Q, Chen R. The efficacy of non-invasive mechanical ventilation as a rescue therapy for relieving dyspnea in patients with stable severe COPD. <i>Chest [Internet]</i> . 2016; 149(4 suppl. 1):[A347 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01161141/full .	Abstract
Ou Y-E, Lin Z-M, Wu W-L, Luo Q, Chen R-C. Efficacy of non-invasive ventilation as a rescue therapy for relieving dyspnea in patients with stable severe COPD. <i>Respir Med</i> . 2016;121:74-80.	Intervention is non-invasive ventilation
Panigrahi A, Sohani S, Amadi C, Joshi A. Role of music in the management of chronic obstructive pulmonary disease (COPD): a literature review. <i>Technol Health Care</i> . 2014;22(1):53-61.	Only PubMed, no quality assessment of included studies
Papp ME, Wandell PE, Lindfors P, Nygren-Bonnier M. Effects of yogic exercises on functional capacity, lung function and quality of life in participants with obstructive pulmonary disease: a randomized controlled study. <i>Eur J Phys Rehabil Med</i> . 2017;53(3):447-61.	Wrong population
Perkins-Porras L, Riaz M, Okekunle A, Zhelezna S, Chakravorty I, Ussher M. Feasibility study to assess the effect of a brief mindfulness intervention for patients with chronic obstructive pulmonary disease: A randomized controlled trial. <i>Chron</i> . 2018;15(4):400-10.	Wrong population
Ranjita R, Hankey A, Nagendra H, Mohanty S. Yoga-based pulmonary rehabilitation for the management of dyspnea in coal miners with chronic obstructive pulmonary disease: a randomized controlled trial. <i>Journal of Ayurveda and integrative medicine [Internet]</i> . 2016; 7(3):[158-66 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01752104/full .	Wrong population
Ricci C, Terzoni S, Gaeta M, Sorgente A, Destrebecq A, Gigliotti F. Physical training and noninvasive ventilation in COPD patients: a meta-analysis. <i>Respir Care</i> . 2014;59(5):709-17.	Intervention is non-invasive ventilation

Rossi V, Cirio S, Piran M, Bettinelli G, Zocchi L, Ceriana P, et al. High flow nasal cannula during walking in severe COPD patients: a randomized controlled trial. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01915269/full .	Abstract
Russo D, Romaggi C, Grecchi B, Nicolini A. Comparison of intrapulmonary percussive ventilation and high frequency chest wall oscillation in patients with severe COPD. <i>Eur Respir J</i> [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01099780/full .	Abstract
Schneeberger T, Gloeckl R, Stegemann A, Schonheit-Kenn U, Oversohl J, Andrianopoulos V, et al. Short-term effects of non-invasive ventilation during exercise in hypercapnic patients with very severe COPD-a randomized controlled cross-over trial. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01619129/full .	Abstract
Senthilnathan C, Abinaya P, Rajalaxmi V, Mohan KG, Subramanian S. Efficacy of physical training program on chronic obstructive pulmonary disease. <i>Biomedicine (india)</i> [Internet]. 2018; 38(2). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01650575/full .	No full text available
Simon ST, Higginson IJ, Booth S, Harding R, Weingartner V, Bausewein C. Benzodiazepines for the relief of breathlessness in advanced malignant and non-malignant diseases in adults. <i>Cochrane Database Syst Rev.</i> 2016;10:CD007354.	Pharmacological intervention
Smallwood N, Gaffney N, Gorelik A, Irving L, Le B, Philip J. Breathlessness and palliative oxygen therapy in advanced chronic obstructive pulmonary disease. <i>Intern Med J.</i> 2018;48(4):483-4.	Letter
Smith T, Roberts M, Cho J, Wheatley J. Non-pharmacological intervention to improve breathlessness mastery in COPD: pilot study. <i>Respirology (Carlton, Vic)</i> [Internet]. 2019; 24:[37- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01942247/full .	Abstract
Sutanto YS, Makhahah DN, Aphridasari J, Doewes M, Suradi, Ambrosino N. Videogame assisted exercise training in patients with chronic obstructive pulmonary disease: A preliminary study. <i>Pulmonology.</i> 2019;25(5):275-82.	Yoga only a part of the intervention
Testa A, Galeri S, Villafane JH, Corbellini C, Pillastrini P, Negrini S. Efficacy of short-term intrapulmonary percussive ventilation in patients with chronic obstructive pulmonary disease. <i>Disabil Rehabil.</i> 2015;37(10):899-903.	Wrong population
Tomruk M, Keles E, Ozalevli S, Alpaydin A. Effects of thoracic kinesio taping on pulmonary functions, respiratory muscle strength and functional capacity in COPD patients: a pilot randomized controlled study. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01791916/full .	Abstract
Tomruk M, Keleş E, Özalevli S, Alpaydin AÖ. Effects of thoracic kinesio taping on pulmonary functions, respiratory muscle strength and functional capacity in patients with chronic obstructive pulmonary disease: A randomized controlled trial. <i>Explore.</i> 2019.	Wrong intervention
Uronis HE, Ekstrom MP, Currow DC, McCrory DC, Samsa GP, Abernethy AP. Oxygen for relief of dyspnoea in people with chronic obstructive pulmonary disease who would not qualify for home oxygen: a systematic review and meta-analysis. <i>Thorax.</i> 2015;70(5):492-4.	Summary of Cochrane review
Valenza MC, Valenza-Pena G, Torres-Sanchez I, Gonzalez-Jimenez E, Conde-Valero A, Valenza-Demet G. Effectiveness of controlled breathing techniques on anxiety and depression in hospitalized patients with COPD: a randomized clinical Trial. <i>Respir Care.</i> 2014;59(2):209-15.	Wrong outcomes
von Trott P, Oei SL, Ramsenthaler C. Acupuncture for Breathlessness in Advanced Diseases: A Systematic Review and Meta-analysis. <i>Journal of Pain and Symptom Management.</i> 2019.	Wrong intervention

Wada J, Borges-Santos E, Silva R, Porras D, Paisani D, Silva C, et al. Effects of respiratory muscle stretching on thoracoabdominal mechanics, functional capacity and dyspnea in COPD patients. <i>Eur Respir J</i> [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01099782/full .	Abstract
Wada JT, Borges-Santos E, Porras DC, Paisani DM, Cukier A, Lunardi AC, et al. Effects of aerobic training combined with respiratory muscle stretching on the functional exercise capacity and thoracoabdominal kinematics in patients with COPD: a randomized and controlled trial. <i>Int J Chron Obstruct Pulmon Dis</i> . 2016;11:2691-700.	Wrong intervention
Wang T, Tan JY, Xiao LD, Deng R. Effectiveness of disease-specific self-management education on health outcomes in patients with chronic obstructive pulmonary disease: An updated systematic review and meta-analysis. <i>Patient Educ Couns</i> . 2017;100(8):1432-46.	Wrong population
Watson JS. Non-pharmacological management of chronic breathlessness in stable chronic obstructive pulmonary disease. <i>Br J Community Nurs</i> . 2018;23(8):376-81.	Narrative review
Williams MT, Cafarella P, Paquet C, Frith P. Cognitive Behavioral Therapy for Management of Dyspnea: A Pilot Study. <i>Respir Care</i> . 2015;60(9):1303-13.	Retrospective control group
Wu W, Guan L, Zhang X, Li X, Yang Y, Guo B, et al. Effects of two types of equal-intensity inspiratory muscle training in stable patients with chronic obstructive pulmonary disease: A randomised controlled trial. <i>Respir Med</i> . 2017;132:84-91.	Wrong population
Xiao C-M, Zhuang Y-C. Efficacy of liuzijue qigong in individuals with chronic obstructive pulmonary disease in remission. <i>J Am Geriatr Soc</i> [Internet]. 2015; 63(7):[1420-5 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01085644/full .	Wrong intervention
Yilmaz Yelvar GD, Çirak Y, Parlak Demir Y, Dalkılıç M, Bozkurt B. Immediate effect of manual therapy on respiratory functions and inspiratory muscle strength in patients with COPD. <i>Int J Chron Obstruct Pulmon Dis</i> . 2016;11(1):1353-7.	No control group
Yohannes AM, Junkes-Cunha M, Smith J, Vestbo J. Management of Dyspnea and Anxiety in Chronic Obstructive Pulmonary Disease: A Critical Review. <i>J Am Med Dir Assoc</i> . 2017;18(12):1096.e1-e17.	No quality assessment of included studies
Zhou L, Guan L, Wu W, Li X, Chen X, Guo B, et al. High-pressure versus low-pressure home non-invasive positive pressure ventilation with built-in software in patients with stable hypercapnic COPD: a pilot study. <i>Sci</i> . 2017;7(1):16728.	Intervention is non-invasive ventilaion
Zwerink M, Brusse-Keizer M, van der Valk PD, Zielhuis GA, Monninkhof EM, van der Palen J, et al. Self management for patients with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2014(3):CD002990.	Wrong population

Table 14. Overview of excluded studies based on full-text evaluation of research question 5 for the second search.

Reference	Reason for exclusion
Ankjaergaard KL, Tonnesen P, Laursen LC, Hansen EF, Andreassen HF, Wilcke JT. Home Non Invasive Ventilation (NIV) treatment for COPD patients with a history of NIV-treated exacerbation; a randomized, controlled, multi-center study. <i>BMC pulm</i> . 2016;16:32.	Outcome is mortality; no palliative intervention (QOL is a secondary outcome); study protocol
Bonnevie T, Gravier F, Medrinal C, Prieur G, Tardif C, Muir J, et al. Nasal vs oronasal interface during exercise under noninvasive ventilation in COPD: a randomized crossover study. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914677/full .	Abstract
Buchan K, Badlan K, Fletcher M, Kendrick A. Does exercising COPD patients on non invasive ventilation (NIV) enable them to walk further? A randomised controlled trial. <i>Eur Respir J</i> [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01767383/full .	Abstract

Cardoso DM, Fregonezi GAF, Jost RT, Gass R, Alberton CL, Albuquerque IM, et al. Acute effects of Expiratory Positive Airway Pressure (EPAP) on different levels in ventilation and electrical activity of sternocleidomastoid and parasternal muscles in Chronic Obstructive Pulmonary Disease (COPD) patients: a randomized controlled trial. <i>Braz J Phys Ther.</i> 2016;20(6):525-34.	Wrong intervention; wrong outcomes
Chykiamis N, Armstrong M, Spencer V, Lane N, Hartley T, Gray W, et al. Influence of the vita breath on exercise tolerance in patients with COPD. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914734/full .	Abstract
Chynkiamis N, Armstrong M, Lane N, Hartley T, Bourke S, Vogiatzis I. Effect of the vitabreath device on exercise capacity & symptoms in COPD. <i>Thorax</i> [Internet]. 2018; 73:[A7- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01934566/full .	Abstract
Cui L, Liu H, Sun L. Multidisciplinary respiratory rehabilitation in combination with non-invasive positive pressure ventilation in the treatment of elderly patients with severe chronic obstructive pulmonary disease. <i>Pakistan journal of medical sciences</i> [Internet]. 2019; 35(2):[500-5 pp.].	Intervention is non-invasive ventilation
Cutts S, Burls A, Akinlabi K, Hurst J, Mandal S, Mansell S. A randomised crossover trial investigating the effect of a portable positive pressure ventilation device on exercise tolerance in patients with COPD. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914754/full .	Abstract
Diaz de Teran T, Barbagelata E, Cilloniz C, Nicolini A, Perazzo T, Perren A, et al. Non-invasive ventilation in palliative care: a systematic review. <i>Minerva Med.</i> 2019;110(6):555-63.	No full text available
Effects of budesonide combined with noninvasive ventilation on PCT, sTREM-1, chest lung compliance, humoral immune function and quality of life in patients with AECOPD complicated with type II respiratory failure. <i>Open medicine (poland)</i> [Internet]. 2019; 14(1):[271-8 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01984553/full	Evaluates the added effect of budesonide
Gass R, Merola P, Monteiro MB, Cardoso DM, Paiva DN, Teixeira PJ, et al. Effects of Expiratory Positive Airway Pressure on Exercise Tolerance, Dynamic Hyperinflation, and Dyspnea in COPD. <i>Respir Care.</i> 2017;62(10):1298-306.	Proof-of-concept
Ghaemi F, Rahimi B. Comparing and investigating the effects of bi-level non-invasive ventilator with high and low inspiratory pressure in a group of patients suffering from COPD exacerbation over the period of 2015-2016. <i>Biosciences biotechnology research asia</i> [Internet]. 2016; 13(3):[1415-9 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01216031/full	Study about the optimal pressure
Gloeckl R, Andrianopoulos V, Stegemann A, Oversohl J, Schneeberger T, Schoenheit-Kenn U, et al. High-pressure non-invasive ventilation during exercise in COPD patients with chronic hypercapnic respiratory failure: A randomized, controlled, cross-over trial. <i>Respirology.</i> 2019;24(3):254-61.	NIV during exercise
Gloeckl R, Oversohl J, Andrianopoulos V, Stegemann A, Kenn K. Acute effects of non-invasive ventilation during exercise in hypercapnic COPD patients-preliminary results of a randomized cross-over trial. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01791881/full .	Wrong intervention
Gurgun A, Tuncel S, Karapolat H, Uluer H. The effect of adding noninvasive ventilation to supplemental oxygen during exercise training in severe COPD: a randomized controlled study. <i>Chest</i> [Internet]. 2015; 148(4). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01129032/full	Abstract
Han B, maoliang T, Liu H, Li B, Jun J, Yang G, et al. Impact of auto-titrating scale of epap in noninvasive ventilation (niv) on aecopd patients. <i>Chest</i> [Internet]. 2019; 156(4):[A957- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01996924/full	Abstract

Han B. Noninvasive positive pressure ventilation to relieve dyspnea of COPD patients during exercise training: a prospective study. <i>Chest</i> [Internet]. 2016; 149(4 suppl. 1):[A492 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01161133/full	Abstract
Hardy W, Cropp A, Laman D, Jasko J, Nisha P. Portable positive pressure device to relieve dyspnea after exercise in COPD patients: a pilot study. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408883/full .	Abstract
Hensel M, Strunden MS, Tank S, Gagelmann N, Wirtz S, Kerner T. Prehospital non-invasive ventilation in acute respiratory failure is justified even if the distance to hospital is short. <i>Am J Emerg Med</i> . 2019;37(4):651-6.	No separate data for COPD; exacerbation
Koopman M, Franssen F, Delbressine J, Wouters E, Mathew D, Vink T, et al. Oxygen and ventilation during exercise in hyperinflated desaturating COPD patients. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01788010/full .	Abstract
Liao H, Pei W, Li H, Luo Y, Wang K, Li R, et al. Efficacy of long-term noninvasive positive pressure ventilation in stable hypercapnic COPD patients with respiratory failure: A meta-analysis of randomized controlled trials. <i>Int J Chron Obstruct Pulmon Dis</i> . 2017;12:2977-85.	Found in first search
Macintyre EJ, Asadi L, McKim DA, Bagshaw SM. Clinical Outcomes Associated with Home Mechanical Ventilation: A Systematic Review. <i>Can Respir J</i> . 2016;2016.	Studies with only COPD-patients were excluded
Marquez-Martin E, Ruiz FO, Ramos PC, Lopez-Campos JL, Azcona BV, Cortes EB. Randomized trial of non-invasive ventilation combined with exercise training in patients with chronic hypercapnic failure due to chronic obstructive pulmonary disease. <i>Respir Med</i> . 2014;108(12):1741-51.	Found in first search
Menadue C, Piper AJ, van 't Hul AJ, Wong KK. Non-invasive ventilation during exercise training for people with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2014(5):CD007714.	Found in first search
Moga AM, de Marchie M, Saey D, Spahija J. Bi-level Positive Airway Pressure (BiPAP) with standard exhalation valve does not improve maximum exercise capacity in patients with COPD. <i>Copd</i> . 2015;12(1):46-54.	Intervention is non-invasive ventilation
Mulhall P, Criner G. Non-pharmacological treatments for COPD. <i>Respirology</i> . 2016;21(5):791-809.	Narrative review
Nicolini A, Mollar E, Grecchi B, Landucci N. Comparison of intermittent positive pressure breathing and temporary positive expiratory pressure in patients with severe chronic obstructive pulmonary disease. <i>Arch Bronconeumol</i> . 2014;50(1):18-24.	Found in first search
Nicolini A, Santo M, Ferrari-Bravo M, Barlascini C. Open-mouthpiece ventilation versus nasal mask ventilation in subjects with COPD exacerbation and mild to moderate acidosis: A randomized trial. <i>Respir Care</i> . 2014;59(12):1825-31.	Not relevant for research question
Osadnik CR, Tee VS, Carson-Chahhoud KV, Picot J, Wedzicha JA, Smith BJ. Non-invasive ventilation for the management of acute hypercapnic respiratory failure due to exacerbation of chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2017;7:CD004104.	Outcome is mortality and intubation
Ou Y-E, Lin Z-M, Wu W-L, Luo Q, Chen R-C. Efficacy of non-invasive ventilation as a rescue therapy for relieving dyspnea in patients with stable severe COPD. <i>Respir Med</i> . 2016;121:74-80.	Found in first search
Ou Y, Lin Z, Wu W, Luo Q, Chen R. The efficacy of non-invasive mechanical ventilation as a rescue therapy for relieving dyspnea in patients with stable severe COPD. <i>Chest</i> [Internet]. 2016; 149(4 suppl. 1):[A347 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01161141/full	Abstract
Perez-Bautista O, Venegas A, Uncal M, Hernandez-Zenteno R, Flores-Trujillo F, Velazquez-Montero A, et al. Non invasive positive pressure ventilation for reducing	Abstract

exacerbation in very severe chronic obstructive pulmonary disease (COPD). Eur Respir J [Internet]. 2016; 48. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01361056/full .	
Ricci C, Terzoni S, Gaeta M, Sorgente A, Destrebecq A, Gigliotti F. Physical training and noninvasive ventilation in COPD patients: a meta-analysis. Respir Care. 2014;59(5):709-17.	Found in first search
Russo D, Simonelli C, Paneroni M, Saleri M, Piroddi IMG, Cardinale F, et al. Is there an optimal level of positive expiratory pressure (PEP) to improve walking tolerance in patients with severe COPD? Arch Bronconeumol. 2016;52(7):354-60.	Wrong intervention
Schneeberger T, Gloeckl R, Stegemann A, Schonheit-Kenn U, Oversohl J, Andrianopoulos V, et al. Short-term effects of non-invasive ventilation during exercise in hypercapnic patients with very severe COPD-a randomized controlled cross-over trial. American journal of respiratory and critical care medicine [Internet]. 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01619129/full .	Abstract
Sellares J, Ferrer M, Anton A, Loureiro H, Bencosme C, Alonso R, et al. Discontinuing noninvasive ventilation in severe chronic obstructive pulmonary disease exacerbations: A randomised controlled trial. Eur Respir J. 2017;50(1).	Wrong intervention
Struik FM, Sprooten RTM, Kerstjens HAM, Bladder G, Zijnen M, Asin J, et al. Nocturnal non-invasive ventilation in COPD patients with prolonged hypercapnia after ventilatory support for acute respiratory failure: a randomised, controlled, parallel-group study. Thorax. 2014;69(9):826-34.	Included in review
Tuncel S, Gurgun A, Karapolat H, Uluer H. The effects of adding non-invasive positive pressure ventilation to supplemental oxygen during exercise training in severe COPD: a randomized controlled study. Eur Respir J [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01735298/full .	Abstract
Vitacca M, Kaymaz D, Lanini B, Vagheggini G, Ergun P, Gigliotti F, et al. Non-invasive ventilation during cycle exercise training in patients with chronic respiratory failure on long-term ventilatory support: A randomized controlled trial. Respirology. 2018;23(2):182-9.	Intervention is non-invasive ventilation
Vogiatzis I, Chynkiamis N, Armstrong M, Lane N, Hartley T, Gray W, et al. Intermittent use of portable NIV increases exercise tolerance in COPD: a randomised, cross-over trial. Journal of clinical medicine [Internet]. 2019; 8(1). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01926395/full	Wrong design
Walker DJ, Walterspacher S, Ekkernkamp E, Storre JH, Windisch W, Dreher M. Walking with Non-Invasive Ventilation Does Not Prevent Exercise-Induced Hypoxaemia in Stable Hypercapnic COPD Patients. Copd. 2015;12(5):546-51.	Wrong outcomes
Wilson ME, Majzoub AM, Dobler CC, Curtis JR, Nayfeh T, Thorsteinsdottir B, et al. Noninvasive Ventilation in Patients With Do-Not-Intubate and Comfort-Measures-Only Orders: A Systematic Review and Meta-Analysis. Crit Care Med. 2018;46(8):1209-16.	Intervention is non-invasive ventilation
Zhou L, Guan L, Wu W, Li X, Chen X, Guo B, et al. High-pressure versus low-pressure home non-invasive positive pressure ventilation with built-in software in patients with stable hypercapnic COPD: a pilot study. Sci. 2017;7(1):16728.	Found in first search
Zhou L, Li X, Guan L, Chen J, Guo B, Wu W, et al. Home noninvasive positive pressure ventilation with built-in software in stable hypercapnic COPD: a short-term prospective, multicenter, randomized, controlled trial. Int J Chron Obstruct Pulmon Dis. 2017;12:1279-86.	Included in review

Table 15. Overview of excluded studies based on full-text evaluation of research question 6.

Reference	Reason for exclusion
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Ahmadi Z, Currow DC, Ekstrom M. Palliative oxygen for chronic breathlessness: what new evidence? <i>Curr.</i> 2017;11(3):159-64.	Only Medline-search, no quality assessment of the included studies
Ambrosino N, Fracchia C. Strategies to relieve dyspnoea in patients with advanced chronic respiratory diseases. A narrative review. <i>Pulmonology.</i> 2019;25(5):289-98.	Narrative review
Ameer F, Carson KV, Usmani ZA, Smith BJ. Ambulatory oxygen for people with chronic obstructive pulmonary disease who are not hypoxaemic at rest. <i>Cochrane Database Syst Rev.</i> 2014(6):CD000238.	No pharmacological intervention
Barbetta C, Currow DC, Johnson MJ. Non-opioid medications for the relief of chronic breathlessness: current evidence. <i>Expert Rev Respir Med.</i> 2017;11(4):333-41.	No quality assessment of included studies
Barneche M, Dell'Era S, Roux N, Santos E, Terrasa S, Bykhovsky I, et al. High flow nasal cannula improves exercise capacity in COPD patients: crossover trial. <i>Eur Respir J [Internet].</i> 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914655/full .	Abstract
Barnestein-Fonseca P, Leiva-Fernández F, Vazquez-Alarcon R, Aguiar-Leiva V, Lobnig-Becerra M, Leiva-Fernández J. Can we improve the inhalation techniques in patient with COPD?. Tiepoc study. <i>Value in health [Internet].</i> 2015; 18(7):[A495-pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01107047/full .	Abstract
Barnestein-Fonseca P, Vazquez-Alarcon R, Leiva-Fernandez F, Aguiar-Leiva V, Lobnig-Becerra M, Leiva-Fernandez J. Inhalation technique evolution after training in COPD. The role of the device. <i>Value in health [Internet].</i> 2014; 17(7):[A600 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01037786/full .	Abstract
Bausewein C, Simon ST. Inhaled nebulized and intranasal opioids for the relief of breathlessness. <i>Curr.</i> 2014;8(3):208-12.	No quality assessment of included studies
Baxter DA, Shergis JL, Fazalbhoy A, Coyle ME. Muscle energy technique for chronic obstructive pulmonary disease: A systematic review. <i>Chiropractic and Manual Therapies.</i> 2019;27(1).	No selected intervention
Beaumont M, Forget P, Couturaud F, Reyckler G. Effects of inspiratory muscle training in COPD patients: A systematic review and meta-analysis. <i>Clin Respir J.</i> 2018;12(7):2178-88.	No pharmacological intervention
Beaumont M, Mialon P, Le Ber C, Le Mevel P, Peran L, Meurisse O, et al. Effects of inspiratory muscle training on dyspnoea in severe COPD patients during pulmonary rehabilitation: controlled randomised trial. <i>Eur Respir J.</i> 2018;51(1):01.	No pharmacological intervention
Benzo R, Vickers K, Novotny PJ, Tucker S, Hoult J, Neuenfeldt P, et al. Health Coaching and Chronic Obstructive Pulmonary Disease Rehospitalization. A Randomized Study. <i>Am J Respir Crit Care Med.</i> 2016;194(6):672-80.	Wrong population, wrong intervention
Bonnevie T, Gravier F, Medrinal C, Prieur G, Tardif C, Muir J, et al. Nasal vs oronasal interface during exercise under noninvasive ventilation in COPD: a randomized crossover study. <i>Eur Respir J [Internet].</i> 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914677/full .	Abstract
Borge CR, Hagen KB, Mengshoel AM, Omenaas E, Moum T, Wahl AK. Effects of controlled breathing exercises and respiratory muscle training in people with chronic obstructive pulmonary disease: Results from evaluating the quality of evidence in systematic reviews. <i>BMC pulm.</i> 2014;14(1).	No pharmacological intervention
Borge CR, Mengshoel AM, Omenaas E, Moum T, Ekman I, Lein MP, et al. Effects of guided deep breathing on breathlessness and the breathing pattern in chronic obstructive pulmonary disease: a double-blind randomized control study. <i>Patient Educ Couns.</i> 2015;98(2):182-90.	No pharmacological intervention
Buchan K, Badlan K, Fletcher M, Kendrick A. Does exercising COPD patients on non invasive ventilation (NIV) enable them to walk further? A randomised controlled	Abstract

trial. Eur Respir J [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01767383/full .	
Buchan K, Badlan K, Fletcher M, Kendrick A. Does exercising with domiciliary non-invasive ventilation (NIV) improve quality of life (QOL) in patients with severe chronic obstructive pulmonary disease (COPD)? Thorax [Internet]. 2014; 69:[A66 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01039400/full .	Abstract
Butler SJ, Lee AL, Goldstein RS, Brooks D. Active Video Games as a Training Tool for Individuals With Chronic Respiratory Diseases: A SYSTEMATIC REVIEW. Journal of Cardiopulmonary Rehabilitation and Prevention. 2019;39(2):85-90.	No pharmacological intervention
Chai C, Liam C, Pang Y, Tan S, Ng D, Wong T. Dyspnea improvement in patients with lung diseases in a single session of mindful breathing: a randomized controlled study. Respirology (Carlton, Vic) [Internet]. 2018; 23:[197-8 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01763570/full .	Abstract
Charususin N, Gosselink R, Decramer M, Demeyer H, McConnell A, Saey D, et al. Randomised controlled trial of adjunctive inspiratory muscle training for patients with COPD. Thorax. 2018;73(10):942-50.	Wrong population (stable patients)
Chuang HY, Chang HY, Fang YY, Guo SE. The effects of threshold inspiratory muscle training in patients with chronic obstructive pulmonary disease: A randomised experimental study. J Clin Nurs. 2017;26(23-24):4830-8.	Wrong population (stable patients)
Clari M, Matarese M, Ivziku D, De Marinis MG. Self-Care of People with Chronic Obstructive Pulmonary Disease: A Meta-Synthesis. Patient. 2017;10(4):407-27.	No selected intervention
Collins E, O'Connell S, Jelinek C, Butler J, McBurney C, Gozali C, et al. Contrasting breathing retraining and helium-oxygen during exercise training in COPD: a randomized clinical trial. American journal of respiratory and critical care medicine [Internet]. 2014; 189(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01476336/full .	Wrong population (stable patients)
Coultas D, Jackson B, Russo R, Peoples J, Ashmore J, Sloan J, et al. A lifestyle physical activity intervention for COPD improved mental health-related quality of life among severely impaired patients. American journal of respiratory and critical care medicine [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408789/full .	Abstract
Coultas D, Jackson B, Russo R, Peoples J, Ashmore J, Sloan J, et al. Six month results of a behavioral self-management intervention to enhance lifestyle physical activity among patients with COPD. American journal of respiratory and critical care medicine [Internet]. 2014; 189(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01131496/full .	Abstract
Currow D, Ekstrom M, Fazekas B, Plummer J, Quinn S, McDonald C, et al. A phase III, multi-site, randomised, double blind, placebo controlled parallel arm study of daily extended release (ER) morphine for chronic breathlessness. Eur Respir J [Internet]. 2016; 48. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01361110/full .	Abstract
Currow D, Louw S, McCloud P, Fazekas B, Plummer J, McDonald C, et al. Regular extended release morphine for chronic breathlessness: a multi-centre double-blind randomised controlled trial. American journal of respiratory and critical care medicine [Internet]. 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01620879/full .	Abstract
Currow D, Louw S, McCloud P, Fazekas B, Plummer J, McDonald C, et al. Regular extended release morphine for chronic breathlessness: a multi-centre doubleblind RCT. Eur Respir J [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914752/full .	Abstract
Currow D, Watts GJ, Johnson M, McDonald CF, Miners JO, Somogyi AA, et al. A pragmatic, phase III, multisite, double-blind, placebo-controlled, parallel-arm, dose increment randomised trial of regular, low-dose extended-release morphine for	Study protocol

chronic breathlessness: Breathlessness, Exertion And Morphine Sulfate (BEAMS) study protocol. <i>BMJ Open</i> . 2017;7(7):e018100.	
Cutts S, Burls A, Akinlabi K, Hurst J, Mandal S, Mansell S. A randomised crossover trial investigating the effect of a portable positive pressure ventilation device on exercise tolerance in patients with COPD. <i>Eur Respir J</i> [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914754/full .	Abstract
de Araujo CL, Karloh M, Dos Reis CM, Palú M, Mayer AF. Pursed-lips breathing reduces dynamic hyperinflation induced by activities of daily living test in patients with chronic obstructive pulmonary disease: A randomized cross-over study. <i>Journal of rehabilitation medicine</i> . 2015;47(10):957-62.	Wrong population (stable patients)
Efficacy of short-term intrapulmonary percussive ventilation in patients with chronic obstructive pulmonary disease. <i>Disability and rehabilitation</i> 37 (10) (pp 899-903), 2015 Date of publication: 2015 [Internet]. 2015. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01193168/full	Double
Efficacy of short-term intrapulmonary percussive ventilation in patients with chronic obstructive pulmonary disease. <i>Disability and rehabilitation</i> 37 (10) (pp 899-903), 2015 Date of publication: 2015 [Internet]. 2015. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01193168/full	No full text available
Ekstrom M, Ahmadi Z, Bornefalk-Hermansson A, Abernethy A, Currow D. Oxygen for breathlessness in patients with chronic obstructive pulmonary disease who do not qualify for home oxygen therapy. <i>Cochrane Database Syst Rev</i> . 2016;11:CD006429.	No pharmacological intervention
Farquhar MC, Prevost AT, McCrone P, Brafman-Price B, Bentley A, Higginson IJ, et al. The clinical and cost effectiveness of a Breathlessness Intervention Service for patients with advanced non-malignant disease and their informal carers: mixed findings of a mixed method randomised controlled trial. <i>Trials</i> . 2016;17:185.	No pharmacological intervention
Ferreira DH, Silva JP, Quinn S, Abernethy AP, Johnson MJ, Oxberry SG, et al. Blinded Patient Preference for Morphine Compared to Placebo in the Setting of Chronic Refractory Breathlessness--An Exploratory Study. <i>J Pain Symptom Manage</i> . 2016;51(2):247-54.	Wrong outcome
Fukuoka A, Ueda M, Ariyama Y, Iwai K, Kai Y, Kunimatsu M, et al. Effect of laughter yoga on pulmonary rehabilitation in patients with chronic obstructive pulmonary disease. <i>Journal of nara medical association</i> [Internet]. 2016; 67(1-3):[11-20 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01262172/full .	No pharmacological intervention
Gass R, Merola P, Monteiro MB, Cardoso DM, Paiva DN, Teixeira PJ, et al. Effects of Expiratory Positive Airway Pressure on Exercise Tolerance, Dynamic Hyperinflation, and Dyspnea in COPD. <i>Respir Care</i> . 2017;62(10):1298-306.	No pharmacological intervention
Gendron LM, Nyberg A, Saey D, Maltais F, Lacasse Y. Active mind-body movement therapies as an adjunct to or in comparison with pulmonary rehabilitation for people with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2018;10:CD012290.	No pharmacological intervention
Gimeno-Santos E, Frei A, Steurer-Stey C, De Batlle J, Rabinovich RA, Raste Y, et al. Determinants and outcomes of physical activity in patients with COPD: A systematic review. <i>Thorax</i> . 2014;69(8):731-9.	No focus on breathlessness
Gloeckl R, Heinzelmann I, Matthaeh M, Seeberg S, Damisch T, Jerrentrup A, et al. Benefits of an oxygen reservoir cannula versus a conventional nasal cannula during exercise in hypoxemic COPD patients: A crossover trial. <i>Respiration</i> . 2014;88(5):399-405.	No pharmacological intervention
Gloeckl R, Jarosch I, Schneeberger T, Fiedler C, Lausen M, Weingaertner J, et al. Comparison of supplemental oxygen delivery by continuous versus demand based flow systems in hypoxemic COPD patients – A randomized, single-blinded cross-over study. <i>Respir Med</i> . 2019;156:26-32.	No pharmacological intervention

Gloeckl R, Jarosch I, Schneeberger T, Lausen M, Fiedler C, Kenn K. Comparison of two demand oxygen delivery systems (liquid oxygen versus concentrator) during walking in hypoxemic COPD patients-preliminary results of a randomized, single-blinded cross-over trial. American journal of respiratory and critical care medicine Conference: american thoracic society international conference, ATS 2017 United states [Internet]. 2017; 195(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408997/full .	No full text available
Gloeckl R, Oversohl J, Andrianopoulos V, Stegemann A, Kenn K. Acute effects of non-invasive ventilation during exercise in hypercapnic COPD patients-preliminary results of a randomized cross-over trial. Eur Respir J [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01791881/full .	Abstract
Gu W-L, Liang Z-Y, Zhu C-B, Chen R-C. Clinical outcome of a novel breathing training maneuver in stable copd patients. International journal of clinical and experimental medicine [Internet]. 2018; 11(9):[9791- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01651127/full .	No pharmacological intervention
Guleria R, Arora S, Tiwari P, Mohan A, Kalaivani M, Madan K. Comparison of yoga with pulmonary rehabilitation on body composition, inflammatory biomarkers and dyspnoea in patients with COPD. Eur Respir J [Internet]. 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01914876/full .	Abstract
Hardy W, Cropp A, Laman D, Jasko J, Nisha P. Portable positive pressure device to relieve dyspnea after exercise in COPD patients: a pilot study. American journal of respiratory and critical care medicine [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408883/full .	No full text available
Higginson IJ, Bausewein C, Reilly CC, Gao W, Gysels M, Dzingina M, et al. An integrated palliative and respiratory care service for patients with advanced disease and refractory breathlessness: a randomised controlled trial. Lancet Respir Med. 2014;2(12):979-87.	No pharmacological intervention
Howard C, Dupont S. 'The COPD breathlessness manual': a randomised controlled trial to test a cognitive-behavioural manual versus information booklets on health service use, mood and health status, in patients with chronic obstructive pulmonary disease. NPJ Prim Care Respir Med. 2014;24:14076.	No pharmacological intervention
Kaminsky DA, Guntupalli KK, Lippmann J, Burns SM, Brock MA, Skelly J, et al. Effect of Yoga Breathing (Pranayama) on Exercise Tolerance in Patients with Chronic Obstructive Pulmonary Disease: A Randomized, Controlled Trial. J Altern Complement Med. 2017;23(9):696-704.	No pharmacological intervention
Ko F, Cheung N-K, Rainer T, Lum C, Hui D. Intergrated care programme for patients with chronic obstructive pulmonary disease (COPD) - A randomized controlled trial. Respirology (carlton, vic) [Internet]. 2015; 20:[38- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01126367/full .	Abstract
Ko F, Cheung N-K, Rainer T, Lum C, Wong I, Hui D. Comprehensive care programme for patients with chronic obstructive pulmonary disease (COPD) -A randomized controlled trial (RCT). Eur Respir J [Internet]. 2015; 46. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01126663/full .	No pharmacological intervention
Ko FW, Cheung NK, Rainer TH, Lum C, Wong I, Hui DS. Comprehensive care programme for patients with chronic obstructive pulmonary disease: a randomised controlled trial. Thorax. 2017;72(2):122-8.	No pharmacological intervention
Kruis A, Boland M, Assendelft W, Gussekloo J, Tsiachristas A, Stijnen T, et al. Effectiveness of integrated disease management for primary care chronic obstructive pulmonary disease patients: results of cluster randomised trial. Nederlands tijdschrift voor geneeskunde [Internet]. 2015; 159(13). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01084183/full .	Wrong intervention
Kruis AL, Boland MR, Assendelft WJ, Gussekloo J, Tsiachristas A, Stijnen T, et al. Effectiveness of integrated disease management for primary care chronic	No selected intervention

obstructive pulmonary disease patients: results of cluster randomised trial. <i>Bmj</i> . 2014;349:g5392.	
Langer D, Ciavaglia C, Webb K, Preston M, Neder J, Gosselink R, et al. Inspiratory muscle training reduces respiratory neural drive (RND) during exercise in patients with COPD. <i>Eur Respir J</i> [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01081083/full .	Abstract
Lee A, Dolmage T, Rhim M, Goldstein R, Brooks D. Effects of listening to music during a constant endurance exercise test in people with COPD. <i>Respirology (carlton, vic)</i> [Internet]. 2017; 22(Suppl 2):[136 [tp-060] pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01370070/full .	Abstract
Leelarungrayub J, Pinkaew D, Puntumetakul R, Klaphajone J. Effects of a simple prototype respiratory muscle trainer on respiratory muscle strength, quality of life and dyspnea, and oxidative stress in COPD patients: a preliminary study. <i>Int J Chron Obstruct Pulmon Dis</i> . 2017;12:1415-25.	No pharmacological intervention
Lenferink A, Brusse-Keizer M, van der Valk PDLPM, Frith PA, Zwerink M, Monninkhof EM, et al. Self-management interventions including action plans for exacerbations versus usual care in patients with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev</i> . 2017;2017(8).	No pharmacological intervention
Liao H, Pei W, Li H, Luo Y, Wang K, Li R, et al. Efficacy of long-term noninvasive positive pressure ventilation in stable hypercapnic COPD patients with respiratory failure: A meta-analysis of randomized controlled trials. <i>Int J Chron Obstruct Pulmon Dis</i> . 2017;12:2977-85.	No pharmacological intervention
Lin FL, Yeh ML, Lai YH, Lin KC, Yu CJ, Chang JS. Two-month breathing-based walking improves anxiety, depression, dyspnoea and quality of life in chronic obstructive pulmonary disease: A randomised controlled study. <i>J Clin Nurs</i> . 2019;28(19-20):3632-40.	No pharmacological intervention
Lisy K, White H, Pearson A. Overview of reviews: mechanical interventions for the treatment and management of chronic obstructive pulmonary disease. <i>Int J Nurs Pract</i> . 2014;20(6):701-8.	Only Cochrane reviews
Livermore N, Dimitri A, Sharpe L, McKenzie DK, Gandevia SC, Butler JE. Cognitive behaviour therapy reduces dyspnoea ratings in patients with chronic obstructive pulmonary disease (COPD). <i>Respir Physiol Neurobiol</i> . 2015;216:35-42.	Wrong intervention
Long A, Cartwright M, Reilly C. Fan therapy to the face during exercise improves breathlessness and recovery time in patients with chronic obstructive pulmonary disease: a pilot randomised cross over trial. <i>Thorax</i> [Internet]. 2018; 73:[A252- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01935307/full .	Abstract
Lu Y, Li P, Li N, Wang Z, Li J, Liu X, et al. Effects of Home-Based Breathing Exercises in Subjects With COPD. <i>Respir Care</i> . 2019.	No full text available
Marquez-Martin E, Ruiz FO, Ramos PC, Lopez-Campos JL, Azcona BV, Cortes EB. Randomized trial of non-invasive ventilation combined with exercise training in patients with chronic hypercapnic failure due to chronic obstructive pulmonary disease. <i>Respir Med</i> . 2014;108(12):1741-51.	No pharmacological intervention
Maskey-Warzechowska M, Mierzejewski M, Gorska K, Golowicz R, Jesien L, Krenke R. Effects of Osteopathic Manual Therapy on Hyperinflation in Patients with Chronic Obstructive Pulmonary Disease: A Randomized Cross-Over Study. <i>Advances in experimental medicine and biology</i> . 2019.	Wrong intervention
Mayer AF, Karloh M, Dos Santos K, de Araujo CLP, Gulart AA. Effects of acute use of pursed-lips breathing during exercise in patients with COPD: a systematic review and meta-analysis. <i>Physiotherapy</i> . 2018;104(1):9-17.	No pharmacological intervention
McNamara RJ, Epsley C, Coren E, McKeough ZJ. Singing for adults with chronic obstructive pulmonary disease (COPD). <i>Cochrane Database Syst Rev</i> . 2017;2017(12).	No pharmacological intervention

Menadue C, Piper AJ, van 't Hul AJ, Wong KK. Non-invasive ventilation during exercise training for people with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev.</i> 2014;2014(5).	No pharmacological intervention
Mitchell KE, Johnson-Warrington V, Apps LD, Bankart J, Sewell L, Williams JE, et al. A self-management programme for COPD: a randomised controlled trial. <i>Eur Respir J.</i> 2014;44(6):1538-47.	No pharmacological intervention
Mularski RA, Rocker G. Managing dyspnea in advanced chronic obstructive pulmonary disease: balancing all the evidence. <i>Ann Am Thorac Soc.</i> 2015;12(7):978-80.	Editorial
Nagata K, Kikuchi T, Horie T, Shiraki A, Kitajima T, Kadowaki T, et al. Domiciliary High-Flow Nasal Cannula Oxygen Therapy for Patients with Stable Hypercapnic Chronic Obstructive Pulmonary Disease. A Multicenter Randomized Crossover Trial. <i>Ann Am Thorac Soc.</i> 2018;15(4):432-9.	No pharmacological intervention
Neves LF, Reis MH, Plentz RD, Matte DL, Coronel CC, Sbruzzi G. Expiratory and expiratory plus inspiratory muscle training improves respiratory muscle strength in subjects with COPD: systematic review. <i>Respir Care.</i> 2014;59(9):1381-8.	No pharmacological intervention
Ngai SP, Jones AY, Tam WW. Tai Chi for chronic obstructive pulmonary disease (COPD). <i>Cochrane Database Syst Rev.</i> 2016(6):CD009953.	No pharmacological intervention
Nicolini A, Grecchi B, Ferrari-Bravo M, Barlascini C. Safety and effectiveness of the high-frequency chest wall oscillation vs intrapulmonary percussive ventilation in patients with severe COPD. <i>Int J Chron Obstruct Pulmon Dis.</i> 2018;13:617-25.	No pharmacological intervention
Nicolini A, Mascardi V, Grecchi B, Ferrari-Bravo M, Banfi P, Barlascini C. Comparison of effectiveness of temporary positive expiratory pressure versus oscillatory positive expiratory pressure in severe COPD patients. <i>Clin Respir J.</i> 2018;12(3):1274-82.	No pharmacological intervention
Nicolini A, Mollar E, Grecchi B, Landucci N. Comparison of intermittent positive pressure breathing and temporary positive expiratory pressure in patients with severe chronic obstructive pulmonary disease. <i>Arch Bronconeumol.</i> 2014;50(1):18-24.	No pharmacological intervention
Nicolini A, Santo M, Ferrari-Bravo M, Barlascini C. Open-mouthpiece ventilation versus nasal mask ventilation in subjects with COPD exacerbation and mild to moderate acidosis: A randomized trial. <i>Respir Care.</i> 2014;59(12):1825-31.	No pharmacological intervention
Nyberg A, Tistad M, Wadell K. Effects of an internet based tool for self-management in patients with COPD-a controlled pragmatic pilot trial. <i>Eur Respir J [Internet].</i> 2017; 50(Suppl 61):[Oa515 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01926392/full .	Abstract
Ou Y, Lin Z, Wu W, Luo Q, Chen R. The efficacy of non-invasive mechanical ventilation as a rescue therapy for relieving dyspnea in patients with stable severe COPD. <i>Chest [Internet].</i> 2016; 149(4 suppl. 1):[A347 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01161141/full .	Abstract
Ou YE, Lin ZM, Wu WL, Luo Q, Chen RC. Efficacy of non-invasive ventilation as a rescue therapy for relieving dyspnea in patients with stable severe COPD. <i>Respir Med.</i> 2016;121:74-80.	No pharmacological intervention
Panigrahi A, Sohani S, Amadi C, Joshi A. Role of music in the management of chronic obstructive pulmonary disease (COPD): a literature review. <i>Technol Health Care.</i> 2014;22(1):53-61.	Only PubMed, no quality assessment of included studies
Papp ME, Wandell PE, Lindfors P, Nygren-Bonnier M. Effects of yogic exercises on functional capacity, lung function and quality of life in participants with obstructive pulmonary disease: a randomized controlled study. <i>Eur J Phys Rehabil Med.</i> 2017;53(3):447-61.	No pharmacological intervention
Perkins-Porras L, Riaz M, Okekunle A, Zhelezna S, Chakravorty I, Ussher M. Feasibility study to assess the effect of a brief mindfulness intervention for patients	No pharmacological intervention

with chronic obstructive pulmonary disease: A randomized controlled trial. <i>Chron.</i> 2018;15(4):400-10.	
Qian Y, Wu Y, Rozman de Moraes A, Yi X, Geng Y, Dibaj S, et al. Fan Therapy for the Treatment of Dyspnea in Adults: A Systematic Review. <i>Journal of Pain and Symptom Management.</i> 2019;58(3):481-6.	No pharmacological intervention
Ranjita R, Hankey A, Nagendra H, Mohanty S. Yoga-based pulmonary rehabilitation for the management of dyspnea in coal miners with chronic obstructive pulmonary disease: a randomized controlled trial. <i>Journal of Ayurveda and integrative medicine [Internet].</i> 2016; 7(3):[158-66 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01752104/full .	No pharmacological intervention
Ricci C, Terzoni S, Gaeta M, Sorgente A, Destrebecq A, Gigliotti F. Physical training and noninvasive ventilation in COPD patients: a meta-analysis. <i>Respir Care.</i> 2014;59(5):709-17.	No pharmacological intervention
Rossi V, Cirio S, Piran M, Bettinelli G, Zocchi L, Ceriana P, et al. High flow nasal cannula during walking in severe COPD patients: a randomized controlled trial. <i>Eur Respir J [Internet].</i> 2018; 52. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01915269/full .	Abstract
Russo D, Romaggi C, Grecchi B, Nicolini A. Comparison of intrapulmonary percussive ventilation and high frequency chest wall oscillation in patients with severe COPD. <i>Eur Respir J [Internet].</i> 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01099780/full .	Abstract
Schneeberger T, Gloeckl R, Stegemann A, Schonheit-Kenn U, Oversohl J, Andrianopoulos V, et al. Short-term effects of non-invasive ventilation during exercise in hypercapnic patients with very severe COPD-a randomized controlled cross-over trial. <i>American journal of respiratory and critical care medicine [Internet].</i> 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01619129/full .	Abstract
Senthilnathan C, Abinaya P, Rajalaxmi V, Mohan KG, Subramanian S. Efficacy of physical training program on chronic obstructive pulmonary disease. <i>Biomedicine (india) [Internet].</i> 2018; 38(2). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01650575/full .	No full text available
Smallwood N, Gaffney N, Gorelik A, Irving L, Le B, Philip J. Breathlessness and palliative oxygen therapy in advanced chronic obstructive pulmonary disease. <i>Intern Med J.</i> 2018;48(4):483-4.	Letter
Smith T, Roberts M, Cho J, Wheatley J. Non-pharmacological intervention to improve breathlessness mastery in COPD: pilot study. <i>Respirology (Carlton, Vic) [Internet].</i> 2019; 24:[37- pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01942247/full .	Abstract
Sutanto YS, Makhbah DN, Aphridasari J, Doewes M, Suradi, Ambrosino N. Videogame assisted exercise training in patients with chronic obstructive pulmonary disease: A preliminary study. <i>Pulmonology.</i> 2019;25(5):275-82.	No pharmacological intervention
Swan F, Newey A, Bland M, Allgar V, Booth S, Bausewein C, et al. Airflow relieves chronic breathlessness in people with advanced disease: An exploratory systematic review and meta-analyses. <i>Palliat Med.</i> 2019;33(6):618-33.	No pharmacological intervention
Tan SB, Liam CK, Pang YK, Leh-Ching Ng D, Wong TS, Wei-Shen Khoo K, et al. The Effect of 20-Minute Mindful Breathing on the Rapid Reduction of Dyspnea at Rest in Patients With Lung Diseases: A Randomized Controlled Trial. <i>Journal of Pain and Symptom Management.</i> 2019;57(4):802-8.	No pharmacological intervention
Testa A, Galeri S, Villafane JH, Corbellini C, Pillastrini P, Negrini S. Efficacy of short-term intrapulmonary percussive ventilation in patients with chronic obstructive pulmonary disease. <i>Disabil Rehabil.</i> 2015;37(10):899-903.	No pharmacological intervention
Tomruk M, Keles E, Ozalevli S, Alpaydin A. Effects of thoracic kinesio taping on pulmonary functions, respiratory muscle strength and functional capacity in COPD patients: a pilot randomized controlled study. <i>Eur Respir J [Internet].</i> 2017; 50.	Abstract

Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01791916/full .	
Tomruk M, Keleş E, Özalevli S, Alpaydin AÖ. Effects of thoracic kinesio taping on pulmonary functions, respiratory muscle strength and functional capacity in patients with chronic obstructive pulmonary disease: A randomized controlled trial. <i>Explore</i> . 2019.	Wrong intervention
Uronis HE, Ekstrom MP, Currow DC, McCrory DC, Samsa GP, Abernethy AP. Oxygen for relief of dyspnoea in people with chronic obstructive pulmonary disease who would not qualify for home oxygen: a systematic review and meta-analysis. <i>Thorax</i> . 2015;70(5):492-4.	Summary of Cochrane review
Valenza MC, Valenza-Pena G, Torres-Sanchez I, Gonzalez-Jimenez E, Conde-Valero A, Valenza-Demet G. Effectiveness of controlled breathing techniques on anxiety and depression in hospitalized patients with COPD: a randomized clinical Trial. <i>Respir Care</i> . 2014;59(2):209-15.	No pharmacological intervention
von Trott P, Oei SL, Ramsenthaler C. Acupuncture for Breathlessness in Advanced Diseases: A Systematic Review and Meta-analysis. <i>Journal of Pain and Symptom Management</i> . 2019.	Wrong intervention
Wada J, Borges-Santos E, Silva R, Porras D, Paisani D, Silva C, et al. Effects of respiratory muscle stretching on thoracoabdominal mechanics, functional capacity and dyspnea in COPD patients. <i>Eur Respir J [Internet]</i> . 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01099782/full .	Abstract
Wada JT, Borges-Santos E, Porras DC, Paisani DM, Cukier A, Lunardi AC, et al. Effects of aerobic training combined with respiratory muscle stretching on the functional exercise capacity and thoracoabdominal kinematics in patients with COPD: a randomized and controlled trial. <i>Int J Chron Obstruct Pulmon Dis</i> . 2016;11:2691-700.	Wrong intervention
Wang T, Tan JY, Xiao LD, Deng R. Effectiveness of disease-specific self-management education on health outcomes in patients with chronic obstructive pulmonary disease: An updated systematic review and meta-analysis. <i>Patient Educ Couns</i> . 2017;100(8):1432-46.	No pharmacological intervention
Watson JS. Non-pharmacological management of chronic breathlessness in stable chronic obstructive pulmonary disease. <i>Br J Community Nurs</i> . 2018;23(8):376-81.	Narrative review
Williams MT, Cafarella P, Paquet C, Frith P. Cognitive Behavioral Therapy for Management of Dyspnea: A Pilot Study. <i>Respir Care</i> . 2015;60(9):1303-13.	Retrospective control group
Wu LL, Lin ZK, Weng HD, Qi QF, Lu J, Liu KX. Effectiveness of meditative movement on COPD: a systematic review and meta-analysis. <i>Int J Chron Obstruct Pulmon Dis</i> . 2018;13:1239-50.	No pharmacological intervention
Wu W, Guan L, Zhang X, Li X, Yang Y, Guo B, et al. Effects of two types of equal-intensity inspiratory muscle training in stable patients with chronic obstructive pulmonary disease: A randomised controlled trial. <i>Respir Med</i> . 2017;132:84-91.	No pharmacological intervention
Xiao C-M, Zhuang Y-C. Efficacy of liuzijue qigong in individuals with chronic obstructive pulmonary disease in remission. <i>J Am Geriatr Soc [Internet]</i> . 2015; 63(7):[1420-5 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01085644/full .	Wrong intervention
Yilmaz Yelvar GD, Çirak Y, Parlak Demir Y, Dalkılıç M, Bozkurt B. Immediate effect of manual therapy on respiratory functions and inspiratory muscle strength in patients with COPD. <i>Int J Chron Obstruct Pulmon Dis</i> . 2016;11(1):1353-7.	No control group
Yohannes AM, Junkes-Cunha M, Smith J, Vestbo J. Management of Dyspnea and Anxiety in Chronic Obstructive Pulmonary Disease: A Critical Review. <i>J Am Med Dir Assoc</i> . 2017;18(12):1096.e1-e17.	No quality assessment of included studies
Zhou L, Guan L, Wu W, Li X, Chen X, Guo B, et al. High-pressure versus low-pressure home non-invasive positive pressure ventilation with built-in software in patients with stable hypercapnic COPD: a pilot study. <i>Sci</i> . 2017;7(1):16728.	No pharmacological intervention

Zhou L, Li X, Guan L, Chen J, Guo B, Wu W, et al. Home noninvasive positive pressure ventilation with built-in software in stable hypercapnic COPD: a short-term prospective, multicenter, randomized, controlled trial. <i>Int J Chron Obstruct Pulmon Dis.</i> 2017;12:1279-86.	No pharmacological intervention
Zwerink M, Brusse-Keizer M, van der Valk PD, Zielhuis GA, Monninkhof EM, van der Palen J, et al. Self management for patients with chronic obstructive pulmonary disease. <i>Cochrane Database Syst Rev.</i> 2014(3):CD002990.	No pharmacological intervention

Table 16. Overview of excluded studies based on full-text evaluation of research question 7.

Reference	Reason for exclusion
Aliprandi P, Castelli C, Bernorio S, Dell'Abate E, Carrara M. Levocloperastine in the treatment of chronic nonproductive cough: comparative efficacy versus standard antitussive agents. <i>Drugs Exp Clin Res.</i> 2004;30(4):133-41.	No full text available
Andrews J, Sathe NA, Krishnaswami S, Melissa L. Nonpharmacologic airway clearance techniques in hospitalized patients: A systematic review. <i>Respir Care.</i> 2013;58(12):2160-86.	Intervention is airway clearance
Bausewein C, Simon ST. Shortness of breath and cough in patients in palliative care. <i>Dtsch.</i> 2013;110(33-34):563-72.	No quality assessment of included studies
Berkhof F, Doornewaard-ten HN, Uil S, Kerstjens H, van dB. Azithromycin and cough-specific health status in patients with chronic obstructive pulmonary disease and chronic cough: a randomised controlled trial. <i>Respir Res [Internet].</i> 2013; 14:[125 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01120350/full	Unclear how many patients in advanced stages; wrong intervention
Berkhof F, Ten HN, Uil S, Kerstjens H, Van DB. Randomized controlled trial of prophylactic azithromycin on cough-specific health status in patients with chronic obstructive pulmonary disease. <i>American journal of respiratory and critical care medicine [Internet].</i> 2013; 187. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01091817/full .	No selected intervention
Bolser DC. Pharmacologic Management of Cough. <i>Otolaryngol Clin North Am.</i> 2010;43(1):147-55.	Narrative review
Braman SS. Chronic cough due to chronic bronchitis: ACCP evidence-based clinical practice guidelines. <i>Chest.</i> 2006;129(1 Suppl):104S-15S.	Old guideline, based on PubMed search until 8/2004; nota bout palliative treatment of cough
Ceyhan BB, Karakurt S. Effect of oxolamine on cough sensitivity in COPD patients. <i>Respir Med.</i> 2002;96(1):61-3.	No information avout stadia, probably not palliative stadium
Chamberlain S, Garrod R, Birring SS. Cough suppression therapy: does it work? <i>Pulm Pharmacol Ther.</i> 2013;26(5):524-7.	Narrative review
Chong CF, Chen CC, Ma HP, Wu YC, Chen YC, Wang TL. Comparison of lidocaine and bronchodilator inhalation treatments for cough suppression in patients with chronic obstructive pulmonary disease. <i>Emerg Med J.</i> 2005;22(6):429-32.	Included in Molassiotis 2010
Chung KF. Clinical cough VI: the need for new therapies for cough: disease-specific and symptom-related antitussives. <i>Handb.</i> 2009(187):343-68.	Handbook
Field SK, Conley DP, Thawer AM, Leigh R, Cowie RL. Assessment and management of patients with chronic cough by Certified Respiratory Educators: a randomized controlled trial. <i>Can Respir J.</i> 2009;16(2):49-54.	Not exclusively COPD, no separate data for COPD
Field SK, Conley DP, Thawer AM, Leigh R, Cowie RL. Effect of the management of patients with chronic cough by pulmonologists and certified respiratory educators on quality of life: a randomized trial. <i>Chest.</i> 2009;136(4):1021-8.	Not exclusively COPD, no separate data for COPD
Henderson A, Bennett W, Zeman K, Wu J, Gladman C, Fuller F, et al. Effects of inhaled hypertonic saline on mucociliary clearance and clinical outcomes in patients with chronic bronchitis. <i>American journal of respiratory and critical care medicine</i>	Abstract

Conference: american thoracic society international conference, ATS 2017 United states [Internet]. 2017; 195(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408805/full .	
Holland AE, Button BM. Is there a role for airway clearance techniques in chronic obstructive pulmonary disease? <i>Chron</i> . 2006;3(2):83-91.	Narrative review
Irwin RS, Baumann MH, Bolser DC, Boulet LP, Braman SS, Brightling CE, et al. Diagnosis and management of cough executive summary: ACCP evidence-based clinical practice guidelines. <i>Chest</i> . 2006;129(1 SUPPL.):1S-23S.	Old guideline, unclear which methodology is used
Irwin RS, Madison JM. The diagnosis and treatment of cough. <i>N Engl J Med</i> . 2000;343(23):1715-21.	Narrative review
Jolley CJ, Birring SS. New drug targets for chronic cough: Research you can literally sink your teeth into! <i>Eur Respir J</i> . 2017;50(3).	Narrative review
Jones A, Rowe BH. Bronchopulmonary hygiene physical therapy in bronchiectasis and chronic obstructive pulmonary disease: a systematic review. <i>Heart Lung</i> . 2000;29(2):125-35.	Intervention is airway clearance
Jones AP, Rowe BH. WITHDRAWN: Bronchopulmonary hygiene physical therapy for chronic obstructive pulmonary disease and bronchiectasis. <i>Cochrane Database Syst Rev</i> . 2011(7):CD000045.	Same publication as Jones, Heart Lung 2000
Knobil K, Yates J, Horstman D, Darken P, Wire P. Combination of fluticasone and salmeterol (Advair Diskus®) improves cough in patients with chronic obstructive pulmonary disease. <i>Chest</i> 2002; san diego, CA [Internet]. 2002:[P288 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00792124/full .	Abstract
Koppitz M, Eschenburg C, Salzmann E, Rosewich M, Schubert R, Zielen S. Mucolytic effectiveness of tyloxapol in chronic obstructive pulmonary disease -A double-blind, randomized controlled trial. <i>PLoS ONE</i> . 2016;11(6).	No information about stadia, probably not palliative stadium
Laube B, Carson K, Sharpless G, Paulin L, Hansel N. Mucociliary Clearance in Former Tobacco Smokers with Both Chronic Obstructive Pulmonary Disease and Chronic Bronchitis and the Effect of Roflumilast. <i>Journal of aerosol medicine and pulmonary drug delivery</i> [Internet]. 2019. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01939839/full .	No selected intervention
McCorry DC, Lewis SZ. Methodology and grading of the evidence for the diagnosis and management of cough: ACCP evidence-based clinical practice guidelines. <i>Chest</i> . 2006;129(1 SUPPL.):28S-32S.	Old guideline, based on search until 8/2003
McGarvey L, Morice A, Smith J, Birring S, Chuecos F, Seoane B, et al. The effect of twice-daily acclidinium bromide on cough and sputum in patients with COPD: results from phase III studies. <i>Eur Respir J</i> [Internet]. 2014; 44. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01081155/full .	Wrong intervention
McGarvey L, Morice AH, Smith JA, et al. Effect of acclidinium bromide on cough and sputum symptoms in moderate-to-severe COPD in three phase III trials. <i>BMJ Open Respir Res</i> . 2016;3(1):e000148. Published 2016 Dec 8. doi:10.1136/bmjresp-2016-000148	Wrong intervention
Narayanan P, Meng O, Hyder AI, Izmi M, Ahmad I, Rehab M, et al. A pilot randomized control cross over study evaluating the effectiveness and safety of mechanical percussor compared with conventional chest physiotherapy in adults with productive cough. <i>Medical journal of malaysia</i> [Internet]. 2014; 69(1):[16-20 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00991381/full .	No separate results for COPD
Nicolini A, Grecchi B, Ferrari-Bravo M, Barlascini C. Safety and effectiveness of the high-frequency chest wall oscillation vs intrapulmonary percussive ventilation in patients with severe COPD. <i>Int J Chron Obstruct Pulmon Dis</i> . 2018;13:617-25.	Wrong outcomes
Nicolini A, Mascardi V, Grecchi B, Ferrari-Bravo M, Banfi P, Barlascini C. Comparison of effectiveness of temporary positive expiratory pressure versus	Wrong outcomes

oscillatory positive expiratory pressure in severe COPD patients. Clin Respir J. 2018;12(3):1274-82.	
Osadnik CR, McDonald CF, Jones AP, Holland AE. Airway clearance techniques for chronic obstructive pulmonary disease. Cochrane Database Syst Rev. 2012(3):CD008328.	Wrong outcomes
Park J, Lee JS, Rhee C, Oh YM. Effect of Indacaterol on Cough and Phlegm in Chronic Obstructive Pulmonary Disease Patients: A Meta-Analysis of Five Randomized Controlled Trials. J Korean Med Sci. 2015;30(10):1453-8.	No palliative patients ('stable COPD patients')
Pascoe S, Knight H, Chung K. DNK333 a dual NK1/NK2 receptor antagonist, does not inhibit cough in COPD. American thoracic society international conference, may 18-23, 2007, san francisco, california, USA [Internet]. 2007:[Poster #C30 p.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00651816/full .	Abstract
Poole P, Sathananthan K, Fortescue R. Mucolytic agents versus placebo for chronic bronchitis or chronic obstructive pulmonary disease. Cochrane Database Syst Rev. 2019;2019(5).	No selected intervention
Prabhu Shankar S, Chandrashekharan S, Bolmall CS, Baliga V. Efficacy, safety and tolerability of salbutamol + guaiphenesin + bromhexine (Ascoril) expectorant versus expectorants containing salbutamol and either guaiphenesin or bromhexine in productive cough: a randomised controlled comparative study. J Indian Med Assoc. 2010;108(5):313-4, 6-8, 20.	No full text available
Schaefer A, Kehr M, Giannetti B, Bulitta M, Staiger C. A randomized, controlled, double-blind, multi-center trial to evaluate the efficacy and safety of a liquid containing ivy leaves dry extract (EA 575®) vs. placebo in the treatment of adults with acute cough. Die pharmazie [Internet]. 2016; 71(9):[504-9 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01455260/full	Patients with acute cough, not necessarily COPD
Schildmann EK, Rémi C, Bausewein C. Levodropropizine in the management of cough associated with cancer or nonmalignant chronic diseaseA systematic review. Journal of Pain and Palliative Care Pharmacotherapy. 2011;25(3):209-18.	No selected intervention
Sethi S, Martinez F, Rabe K, Pizzichini E, McIvor A, Anzueto A, et al. Effect of roflumilast on cough and sputum in patients with severe or very severe chronic obstructive pulmonary disease (COPD) receiving inhaled combination therapy: evaluation of the exacerbation of chronic pulmonary disease tool-patient reported outcomes (exact-pro) subdomain scores. American journal of respiratory and critical care medicine Conference: american thoracic society international conference, ATS 2017 United states [Internet]. 2017; 195(no pagination). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01409059/full .	Abstract
Slinger C, Mehdi S, Milan S, Dodd S, Matthews J, Vyas A, et al. Speech and language therapy for management of chronic cough. Cochrane Database Syst Rev [Internet]. 2019; (7). Available from: http://dx.doi.org/10.1002/14651858.CD013067.pub2 .	No patients with COPD
Smith J, McGarvey L, Morice A, Birring S, Wedzicha J, Notari M, et al. Efficacy of acclidinium bromide 400 µg on the relief of cough symptoms in symptomatic patients with chronic obstructive pulmonary disease: a cough severity subgroup analysis. American journal of respiratory and critical care medicine [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01409214/full .	Abstract
Smith J, McGarvey L, Morice A, Birring S, Wedzicha J, Notari M, et al. The effect of acclidinium bromide 400 µg on the relief of daily symptoms associated with chronic obstructive pulmonary disease, including cough. American journal of respiratory and critical care medicine [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01408996/full .	Letter

Smith J, Owen E, Earis J, Woodcock A: Effect of codeine on objective measurement of cough in chronic obstructive pulmonary disease. <i>J Allergy Clin Immunol</i> 2006; 117: 831–5.	Included in Molassiotis 2010
Smith JA, Calverley PM. Cough in chronic obstructive pulmonary disease. <i>Pulm Pharmacol Ther.</i> 2004;17(6):393-8.	Narrative review
Strickland SL, Rubin BK, Drescher GS, Haas CF, O'Malley CA, Volsko TA, et al. AARC clinical practice guideline: effectiveness of nonpharmacologic airway clearance therapies in hospitalized patients. <i>Respir Care.</i> 2013;58(12):2187-93.	Based on review of Andrews 2013
The Effect of Acridinium on Symptoms Including Cough in COPD: a Phase IV, DoubleBlind, Placebo-Controlled, Parallel-Group Study. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2019. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-02002055/full .	No full text available
Tomruk M, Keles E, Ozalevli S, Alpaydin A. Effects of thoracic kinesio taping on pulmonary functions, respiratory muscle strength and functional capacity in COPD patients: a pilot randomized controlled study. <i>Eur Respir J</i> [Internet]. 2017; 50. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01791916/full .	No selected intervention
Wang X, Wei Y, Li F. Air impact-assisted intermittent subglottic secretion drainage improves the prognosis of chronic obstructive pulmonary disease patients with respiratory failure. <i>International journal of clinical and experimental medicine</i> [Internet]. 2019; 12(5):[6007-13 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01981625/full .	Wrong intervention
Xu L-H, Jiang M, Zou J-D, Zhu J, Xiong N-N. Phase II clinical trial to evaluate the anti-tussive effect of total alkaloid agent extracted from <i>Papaver Somniferum L.</i> on simple chronic bronchitis. <i>Chinese journal of evidence-based medicine</i> [Internet]. 2005; 5(2):[148-51 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00569370/full .	No full text available
Zare Z, Balouchi A, Shahdadi H, Bandadni E. The effect of honey on relieving coughs in elderly patients diagnosed with chronic obstructive pulmonary disease: a clinical trial. <i>International journal of pharmaceutical and clinical research</i> [Internet]. 2016; 8(8):[1218-21 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01180206/full .	Wrong intervention
Zeng GG, Xiao CH, Chen QW. Effects observation of Ketotifen Tablets combined with Carbocisteine Tablets in treating the control of chronic obstructive pulmonary disease. <i>China modern medicine [zhong guo dang dai yi yao]</i> [Internet]. 2016; 23(33):[129-31,34 pp.]. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01929066/full .	No full text available
Zujovic D, Zugic V. The randomized, double-blind, placebo-controlled study of efficacy and safety of propolis and n-acetylcysteine compared to placebo in adults in acute condition with sputum production. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2018; 197(MeetingAbstracts). Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01620896/full .	Abstract
Zujovic D. The randomized, double-blind, placebo-controlled study of efficacy and safety of propolis and N-acetylcysteine compared to placebo in adults in acute condition with sputum production. <i>American journal of respiratory and critical care medicine</i> [Internet]. 2017; 195. Available from: https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01409148/full .	Abstract