

Appendix 1: Search strategies of specific database**Ovid MEDLINE(R) (1946 to March 2021)**

#	Searches
1	respiratory diseases.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
2	chronic obstructive pulmonary disease.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
3	COPD.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
4	chronic obstructive airways disease.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
5	emphysema.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
6	bronchitis.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
7	bronchiectasis.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
8	interstitial lung disease.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

9	ILD.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
10	cystic fibrosis.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
11	pulmonary hypertension.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
12	PHT.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
13	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
14	Respiratory Tract Infections/ or Humans/ or Respiratory Tract Diseases/ or Asthma/ or Lung/ or Pulmonary Disease, Chronic Obstructive/
15	Pulmonary Disease, Chronic Obstructive/
16	Pulmonary Disease, Chronic Obstructive/
17	Asthma/ or Pulmonary Disease, Chronic Obstructive/ or Humans/ or Lung Diseases, Obstructive/ or Adult/
18	Emphysema/ or Pulmonary Emphysema/
19	Bronchitis, Chronic/ or Bronchitis/
20	Bronchiectasis/
21	Lung Diseases, Interstitial/
22	Adult/ or Humans/ or Lung Diseases, Interstitial/ or Pulmonary Fibrosis/
23	Cystic Fibrosis/
24	Hypertension, Pulmonary/
25	Humans/ or Hypertension, Pulmonary/
26	14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25
27	13 and 26
28	nitrate.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word,

	protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
29	beetroot.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
30	dietary nitrate.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
31	nitrate supplementation.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
32	28 or 29 or 30 or 31
33	Nitrates/
34	Vegetables/ or Nitrites/ or Nitrates/ or Dietary Supplements/ or Beverages/ or Humans/
35	Nitric Oxide/ or Nitrites/ or Diet/ or Nitrates/ or Blood Pressure/ or Humans/ or Dietary Supplements/
36	Oxygen Consumption/ or Exercise/ or Dietary Supplements/ or Nitrites/ or Nitrates/ or Nitric Oxide/ or Humans/
37	33 or 34 or 35 or 36
38	32 and 37
39	27 and 38

Embase (1947 to March 2021)

#	Searches
1	respiratory diseases.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
2	chronic obstructive pulmonary disease.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
3	COPD.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
4	chronic obstructive airways disease.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
5	emphysema.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
6	bronchitis.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
7	bronchiectasis.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
8	interstitial lung disease.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
9	ILD.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
10	cystic fibrosis.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
11	pulmonary hypertension.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]

12	PHT.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
13	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
14	Respiratory Tract Infections/ or Humans/ or Respiratory Tract Diseases/ or Asthma/ or Lung/ or Pulmonary Disease, Chronic Obstructive/
15	Pulmonary Disease, Chronic Obstructive/
16	Pulmonary Disease, Chronic Obstructive/
17	Asthma/ or Pulmonary Disease, Chronic Obstructive/ or Humans/ or Lung Diseases, Obstructive/ or Adult/
18	Emphysema/ or Pulmonary Emphysema/
19	Bronchitis, Chronic/ or Bronchitis/
20	Bronchiectasis/
21	Lung Diseases, Interstitial/
22	Adult/ or Humans/ or Lung Diseases, Interstitial/ or Pulmonary Fibrosis/
23	Cystic Fibrosis/
24	Hypertension, Pulmonary/
25	Humans/ or Hypertension, Pulmonary/
26	14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25
27	13 and 26
28	nitrate.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
29	beetroot.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
30	dietary nitrate.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
31	nitrate supplementation.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
32	28 or 29 or 30 or 31
33	Nitrates/
34	Vegetables/ or Nitrites/ or Nitrates/ or Dietary Supplements/ or Beverages/ or Humans/

35	Nitric Oxide/ or Nitrites/ or Diet/ or Nitrates/ or Blood Pressure/ or Humans/ or Dietary Supplements/
36	Oxygen Consumption/ or Exercise/ or Dietary Supplements/ or Nitrites/ or Nitrates/ or Nitric Oxide/ or Humans/
37	33 or 34 or 35 or 36
38	32 and 37
39	27 and 38

CINAHL (1960 to March 2021)

S1	respiratory diseases
S2	chronic obstructive pulmonary disease
S3	COPD
S4	chronic obstructive airways disease
S5	emphysema
S6	bronchitis
S7	bronchiectasis
S8	interstitial lung disease
S9	ILD
S10	cystic fibrosis
S11	pulmonary hypertension
S12	PHT
S13	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12
S14	nitrate
S15	beetroot
S16	dietary nitrate
S17	nitrate supplementation
S18	S14 OR S15 OR S16 OR S17
S19	S13 AND S18

Cochrane database - up to March 2021:

ID	Search
#1	respiratory diseases
#2	chronic obstructive pulmonary disease
#3	COPD
#4	chronic obstructive airways disease
#5	emphysema
#6	bronchitis
#7	bronchiectasis
#8	interstitial lung disease
#9	ILD
#10	cystic fibrosis
#11	pulmonary hypertension
#12	PHT
#13	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12
#14	nitrate
#15	beetroot
#16	dietary nitrate
#17	nitrate supplementation
#18	#14 OR #15 OR #16 OR #17
#19	#13 AND #18

PubMed – up to March 2021

- 1. respiratory diseases:** "respiration disorders"[MeSH Terms] OR ("respiration"[All Fields] AND "disorders"[All Fields]) OR "respiration disorders"[All Fields] OR ("respiratory"[All Fields] AND "diseases"[All Fields]) OR "respiratory diseases"[All Fields]
- 2. chronic obstructive pulmonary disease:** "pulmonary disease, chronic obstructive"[MeSH Terms] OR ("pulmonary"[All Fields] AND "disease"[All Fields] AND "chronic"[All Fields] AND "obstructive"[All Fields]) OR "chronic obstructive pulmonary disease"[All Fields] OR ("chronic"[All Fields] AND "obstructive"[All Fields] AND "pulmonary"[All Fields] AND "disease"[All Fields])
- 3. COPD:** "pulmonary disease, chronic obstructive"[MeSH Terms] OR ("pulmonary"[All Fields] AND "disease"[All Fields] AND "chronic"[All Fields] AND "obstructive"[All Fields]) OR "chronic obstructive pulmonary disease"[All Fields] OR "copd"[All Fields]
- 4. chronic obstructive airways disease:** "pulmonary disease, chronic obstructive"[MeSH Terms] OR ("pulmonary"[All Fields] AND "disease"[All Fields] AND "chronic"[All Fields] AND "obstructive"[All Fields]) OR "chronic obstructive pulmonary disease"[All Fields] OR ("chronic"[All Fields] AND "obstructive"[All Fields] AND "airways"[All Fields] AND "disease"[All Fields]) OR "chronic obstructive airways disease"[All Fields]
- 5. emphysema:** "emphysema"[MeSH Terms] OR "emphysema"[All Fields] OR "emphysemas"[All Fields] OR "pulmonary emphysema"[MeSH Terms] OR ("pulmonary"[All Fields] AND "emphysema"[All Fields]) OR "pulmonary emphysema"[All Fields]
- 6. bronchitis:** "bronchitis"[MeSH Terms] OR "bronchitis"[All Fields] OR "bronchitides"[All Fields]
- 7. bronchiectasis:** "bronchiectasies"[All Fields] OR "bronchiectasis"[MeSH Terms] OR "bronchiectasis"[All Fields] OR "bronchiectases"[All Fields]
- 8. interstitial lung disease:** "lung diseases, interstitial"[MeSH Terms] OR ("lung"[All Fields] AND "diseases"[All Fields] AND "interstitial"[All Fields]) OR "interstitial lung diseases"[All Fields]

- OR ("interstitial"[All Fields] AND "lung"[All Fields] AND "disease"[All Fields]) OR "interstitial lung disease"[All Fields]
9. **cystic fibrosis:** "cystic fibrosis"[MeSH Terms] OR ("cystic"[All Fields] AND "fibrosis"[All Fields]) OR "cystic fibrosis"[All Fields]
 10. **pulmonary hypertension:** "hypertension, pulmonary"[MeSH Terms] OR ("hypertension"[All Fields] AND "pulmonary"[All Fields]) OR "pulmonary hypertension"[All Fields] OR ("pulmonary"[All Fields] AND "hypertension"[All Fields])
 11. **PHT:** "lung"[MeSH Terms] OR "lung"[All Fields] OR "pulmonary"[All Fields]) AND "hypertension" [All Fields]
 12. **nitrate:** "nitration"[All Fields] OR "nitrates"[MeSH Terms] OR "nitrates"[All Fields] OR "nitrate"[All Fields]
 13. **beetroot:** "beetroot"[All Fields] OR "beetroots"[All Fields]
 14. **dietary:** "diet"[MeSH Terms] OR "diet"[All Fields] OR "dietary"[All Fields] OR "dietaries"[All Fields]
 15. **nitrate:** "nitration"[All Fields] OR "nitrates"[MeSH Terms] OR "nitrates"[All Fields] OR "nitrate"[All Fields]
 16. **nitrate:** "nitration"[All Fields] OR "nitrates"[MeSH Terms] OR "nitrates"[All Fields] OR "nitrate"[All Fields]
 17. **supplementation:** "supplemental"[All Fields] OR "supplementation"[All Fields] OR "supplementation"[All Fields] OR "supplementation's"[All Fields] OR "supplementations"[All Fields] OR "supplementation"[All Fields]