

**European Respiratory Society guidelines for the management of children and adolescents  
with bronchiectasis**  
**(Online Supplement- Search strategies used for PICO and narrative questions)**

**PICO QUESTIONS**

**PICO Question 1:** In children/adolescents suspected of bronchiectasis:

- (a) Should multidetector chest computed tomography (MDCT) scans with high-resolution CT (HRCT) be used instead of conventional HRCT alone for diagnosing bronchiectasis?
- (b) What CT criteria for broncho-arterial dilatation (BAR) should be used?

**Ovid MEDLINE(R) ALL**

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.ti,ab.
- 3 bronchoect\$.ti,ab.
- 4 1 or 2 or 3
- 5 Multidetector Computed Tomography/
- 6 Tomography, X-Ray Computed/
- 7 Diagnostic Imaging/
- 8 Tomography Scanners, X-Ray Computed/
- 9 HRCT.ti,ab.
- 10 computed tomography.ti,ab.
- 11 high resolution CT.ti,ab.
- 12 CT scan.ti,ab.
- 13 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
- 14 4 and 13
- 15 Bronchiectasis/dg [Diagnostic Imaging]
- 16 14 or 15
- 17 (controlled clinical trial or randomized controlled trial).pt.
- 18 (randomized or randomised).ab,ti.
- 19 placebo.ab,ti.
- 20 dt.fs.
- 21 randomly.ab,ti.
- 22 trial.ab,ti.
- 23 groups.ab,ti.
- 24 or/17-23
- 25 Animals/
- 26 Humans/
- 27 25 not (25 and 26)
- 28 24 not 27
- 29 16 and 28
- 30 cohort studies/
- 31 longitudinal studies/
- 32 follow-up studies/
- 33 prospective studies/
- 34 retrospective studies/
- 35 cohort.ti,ab.
- 36 longitudinal.ti,ab.

37 prospective.ti,ab.  
 38 retrospective.ti,ab.  
 39 Case-Control Studies/  
 40 Control Groups/  
 41 Matched-Pair Analysis/  
 42 retrospective studies/  
 43 ((case\* adj3 control\*) or (case adj3 comparison\*) or control  
 group\*).ti,ab.  
 44 or/30-43  
 45 16 and 44  
 46 29 or 45  
 47 limit 46 to yr="1982 -Current"  
 48 systematic review.pt.  
 49 Meta-Analysis.pt.  
 50 (systematic\$ adj3 review\$).ti,ab.  
 51 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 52 or/48-51  
 53 16 and 52  
 54 47 or 53

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Multidetector Computed Tomography] this term only  
 #5 MeSH descriptor: [Tomography, X-Ray Computed] this term only  
 #6 MeSH descriptor: [Diagnostic Imaging] this term only  
 #7 MeSH descriptor: [Tomography Scanners, X-Ray Computed] this term only  
 #8 HRCT:ti,ab  
 #9 computed tomography:ti,ab  
 #10 high resolution CT:ti,ab  
 #11 CT scan:ti,ab  
 #12 #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11  
 #13 #3 and #12  
 MeSH descriptor: [Bronchiectasis] this term only and with qualifier(s): [diagnostic imaging -  
 #14 DG]  
 #15 #13 or #14

#### **ClinicalTrials.gov (Advanced Search Form)**

Search field	Search terms
Study type	All studies
Condition	Bronchiectasis
Intervention	computed tomography OR HRCT OR CT scan OR Multidetector OR x-ray OR imaging OR high resolution

**PICO Question 2:** In children/adolescents with bronchiectasis, should asthma-type treatments (inhaled corticosteroids [ICS], short-acting beta<sub>2</sub> agonists [SABA], long-acting beta<sub>2</sub> agonists [LABA]), compared to no asthma-type treatment, be used routinely? Subgroup analyses for (a) short versus long-term and (b) stable versus exacerbation states.

**Ovid MEDLINE(R) ALL**

```

1      exp Bronchiectasis/
2      Bronchiect$.tw.
3      bronchoect$.tw.
4      1 or 2 or 3
5      exp Glucocorticoids/
6      (inhaled adj3 (steroid$ or corticosteroid$ or
7      glucocorticoid$)).ti,ab.
8      exp Fluticasone/
9      exp Budesonide/
10     Beclomethasone/
11     exp Mometasone Furoate/
12     exp Triamcinolone/
13     (fluticasone or budesonide or beclomethasone or ciclesonide
14     or flunisolide or mometasone or triamcinolone).ti,ab.
15     ICS.ti,ab.
16     or/5-13
17     exp Adrenergic beta-2 Receptor Agonists/
18     (beta$ adj2 agonist$).ti,ab.
19     (salmeterol or formoterol or indacaterol or olodaterol or
20     vilanterol).ti,ab.
21     (salbutamol or albuterol or terbutaline or bambuterol or
22     metaproterenol or levalbuterol).ti,ab.
23     (SABA or LABA).ti,ab.
24     exp Anti-Asthmatic Agents/
25     bronchodilator.ti,ab.
26     or/15-21
27     14 or 22
28     4 and 23
29     (controlled clinical trial or randomized controlled trial).pt.
30     (randomized or randomised).ab,ti.
31     placebo.ab,ti.
32     dt.fs.
33     randomly.ab,ti.
34     trial.ab,ti.
35     groups.ab,ti.
36     or/25-31
37     Animals/
38     Humans/
39     33 not (33 and 34)
40     32 not 35
41     cohort studies/
42     longitudinal studies/

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39 follow-up studies/  
 40 prospective studies/  
 41 retrospective studies/  
 42 cohort.ti,ab.  
 43 longitudinal.ti,ab.  
 44 prospective.ti,ab.  
 45 retrospective.ti,ab.  
 46 Case-Control Studies/  
 47 Control Groups/  
 48 Matched-Pair Analysis/  
 49 retrospective studies/  
 50 ((case\* adj3 control\*) or (case adj3 comparison\*) or control  
 group\*).ti,ab.  
 51 or/37-50  
 52 systematic review.pt.  
 53 Meta-Analysis.pt.  
 54 (systematic\$ adj3 review\$).ti,ab.  
 55 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 56 or/52-55  
 57 24 and (36 or 51)  
 58 limit 57 to yr="1982 -Current"  
 59 24 and 56  
 60 58 or 59

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Glucocorticoids] explode all trees  
 #5 (inhaled NEAR (steroid\* or corticosteroid\* or glucocorticoid\*))  
 #6 MeSH descriptor: [Fluticasone] explode all trees  
 #7 MeSH descriptor: [Budesonide] explode all trees  
 #8 MeSH descriptor: [Beclomethasone] this term only  
 #9 MeSH descriptor: [Mometasone Furoate] explode all trees  
 #10 MeSH descriptor: [Triamcinolone] explode all trees  
 fluticasone or budesonide or beclomethasone or ciclesonide or flunisolide or mometasone or  
 triamcinolone  
 #11  
 #12 ICS:TI,AB  
 #13 #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12  
 #14 MeSH descriptor: [Adrenergic beta-2 Receptor Agonists] explode all trees  
 #15 beta\* NEAR/2 agonist\*  
 #16 salmeterol or formoterol or indacaterol or olodaterol or vilanterol  
 #17 salbutamol or albuterol or terbutaline or bambuterol or metaproterenol or levalbuterol  
 #18 (SABA or LABA):TI,AB  
 #19 MeSH descriptor: [Anti-Asthmatic Agents] explode all trees  
 #20 bronchodilator:TI,AB  
 #21 #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20  
 #22 #3 AND (#13 OR #21)

### ClinicalTrials.gov (Advanced Search Form)

Search field	Search terms
Study type	all
Condition	Bronchiectasis
Intervention	fluticasone OR budesonide OR beclomethasone OR ciclesonide OR flunisolide OR mometasone OR triamcinolone OR salmeterol OR formoterol OR indacaterol OR olodaterol OR vilanterol OR salbutamol OR albuterol OR terbutaline OR bambuterol OR metaproterenol OR levalbuterol

**PICO Question 3:** should mucoactive agents (compared to no mucoactive agents) be used routinely? Subgroup analyses for (a) short versus long-term, (b) stable versus exacerbation states, and (c) type of mucoactive agent.

### Ovid MEDLINE(R) ALL

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.
- 3 bronchoect\$.tw.
- 4 1 or 2 or 3
- 5 exp Expectorants/
- 6 acetylcysteine/ or carbocysteine/
- 7 Mucociliary Clearance/de [Drug Effects]
- 8 Mannitol/
- 9 Saline Solution, Hypertonic/
- 10 Isotonic Solutions/
- 11 Sodium Chloride/
- 12 (mucolytic\$ or mucoactive\$ or muco-active\$ or mucokinetic\$).tw.
- 13 (n-acetylcystein\$ or acetylcystein\$ or n-acetyl-l-cystein\$ or NAC).tw.
- 14 bromhexine.tw.
- 15 carboxymethylcysteine.tw.
- 16 ambroxol.tw.
- 17 sobrerol.tw.
- 18 isobutyrylcysteine.tw.
- 19 methylcysteine.tw.
- 20 carbocysteine.tw.
- 21 erdosteine.tw.
- 22 neltexine.tw.
- 23 iodinated glycerol.tw.
- 24 Deoxyribonucleases/
- 25 Recombinant Proteins/
- 26 rhDNase.tw.
- 27 human DNase.tw.
- 28 mannitol.tw.
- 29 hyperosmolar\$.tw.
- 30 saline.tw.
- 31 or/5-30
- 32 4 and 31
- 33 (controlled clinical trial or randomized controlled trial).pt.

34 (randomized or randomised).ab,ti.  
 35 placebo.ab,ti.  
 36 dt.fs.  
 37 randomly.ab,ti.  
 38 trial.ab,ti.  
 39 groups.ab,ti.  
 40 or/33-39  
 41 Animals/  
 42 Humans/  
 43 41 not (41 and 42)  
 44 40 not 43  
 45 cohort studies/  
 46 longitudinal studies/  
 47 follow-up studies/  
 48 prospective studies/  
 49 retrospective studies/  
 50 cohort.ti,ab.  
 51 longitudinal.ti,ab.  
 52 prospective.ti,ab.  
 53 retrospective.ti,ab.  
 54 Case-Control Studies/  
 55 Control Groups/  
 56 Matched-Pair Analysis/  
 57 retrospective studies/  
 58 ((case\* adj3 control\*) or (case adj3 comparison\*) or control  
 group\*).ti,ab.  
 59 or/45-58  
 60 systematic review.pt.  
 61 Meta-Analysis.pt.  
 62 (systematic\$ adj3 review\$).ti,ab.  
 63 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 64 or/60-63  
 65 32 and (44 or 59)  
 66 limit 65 to yr="1982 -Current"  
 67 32 and 64  
 68 66 or 67

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Expectorants] explode all trees  
 #5 MeSH descriptor: [Acetylcysteine] explode all trees  
 #6 MeSH descriptor: [Carbocysteine] explode all trees  
 MeSH descriptor: [Mucociliary Clearance] this term only and with qualifier(s): [drug effects -  
 #7 DE]  
 #8 MeSH descriptor: [Mannitol] explode all trees  
 #9 MeSH descriptor: [Saline Solution, Hypertonic] this term only

- #10 MeSH descriptor: [Isotonic Solutions] this term only
- #11 MeSH descriptor: [Sodium Chloride] this term only
- #12 mucolytic\* or mucoactive\* or muco-active\* or mucokinetic\*
- #13 n-acetylcystein\* or acetylcystein\* or n-acetyl-l-cystein\* or NAC
- #14 bromhexine
- #15 carboxymethylcysteine
- #16 ambroxol
- #17 sobrerol
- #18 isobutyrylcysteine
- #19 methylcysteine
- #20 carbocysteine
- #21 erdosteine
- #22 neltexine
- #23 iodinated glycerol
- #24 MeSH descriptor: [Deoxyribonucleases] this term only
- #25 MeSH descriptor: [Recombinant Proteins] this term only
- #26 rhDNase
- #27 human DNase
- #28 mannitol
- #29 hyperosmolar\*
- #30 saline
- #31 {OR #4-#29}
- #32 #3 AND #31

#### ClinicalTrials.gov (Advanced Search Form)

Search field	Search terms
Study type	all studies
Condition	bronchiectasis
Intervention	Mucolytic OR expectorants OR acetylcysteine OR carbocysteine OR bromhexine OR carboxymethylcysteine OR ambroxol OR sobrerol OR isobutyrylcysteine OR methylcysteine OR erdosteine OR neltexine OR rhDNase OR human DNase OR mannitol OR hyperosmolar

**PICO Question 4:** In children/adolescents with bronchiectasis, should regular airway clearance techniques (ACT) (compared to no ACT) be undertaken? Subgroup analyses for (a) short versus long-term and (b) stable versus exacerbation states.

#### Ovid MEDLINE(R) ALL

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.
- 3 bronchoect\$.tw.
- 4 1 or 2 or 3
- 5 exp Physical Therapy Modalities/
- 6 (physiotherap\$ or physical therap\$).tw.
- 7 Respiratory therapy/
- 8 bronchopulmonary hygiene.tw.
- 9 ((airway\$ or chest\$ or lung\$ or sputum\$ or mucus\$ or tracheobronchial\$) adj3 (clearance\$ or drainage\$)).tw.

10 (active cycle or ACBT).tw.  
 11 sustained maximal inspirat\$.tw.  
 12 breathing exercise\$.tw.  
 13 ((postural or "gravity assisted" or gravity-assisted or autogenic) adj3  
 drainage).tw.  
 14 forced expiratory technique.tw.  
 15 resistance breath\$.tw.  
 16 positive expiratory pressure.tw.  
 17 (hi-PEP or "bubble-PEP" or "bottle-PEP" or "oscillating-PEP" or "oscillatory-  
 PEP" or "mouthpiece-PEP" or "pari-PEP").tw.  
 18 (flutter or desitin or cornet or acapella or scandipharm or percuss\$ or  
 vibrat\$ or vest).tw.  
 19 oscillat\$.tw.  
 20 lung flute.tw.  
 21 (DBE or TEE or SMI or GAD or CCPT or ELTGOL or FET or PEP or PEEP or  
 VRP1 HFCWO or OHFO or TPEP).ti,ab.  
 22 or/5-21  
 23 4 and 22  
 24 (controlled clinical trial or randomized controlled trial).pt.  
 25 (randomized or randomised).ab,ti.  
 26 placebo.ab,ti.  
 27 dt.fs.  
 28 randomly.ab,ti.  
 29 trial.ab,ti.  
 30 groups.ab,ti.  
 31 or/24-30  
 32 Animals/  
 33 Humans/  
 34 32 not (32 and 33)  
 35 31 not 34  
 36 cohort studies/  
 37 longitudinal studies/  
 38 follow-up studies/  
 39 prospective studies/  
 40 retrospective studies/  
 41 cohort.ti,ab.  
 42 longitudinal.ti,ab.  
 43 prospective.ti,ab.  
 44 retrospective.ti,ab.  
 45 Case-Control Studies/  
 46 Control Groups/  
 47 Matched-Pair Analysis/  
 48 retrospective studies/  
 49 ((case\* adj3 control\*) or (case adj3 comparison\*) or control group\*).ti,ab.  
 50 or/36-49  
 51 systematic review.pt.  
 52 Meta-Analysis.pt.  
 53 (systematic\$ adj3 review\$).ti,ab.



54 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 55 or/51-54  
 56 23 and (35 or 50 or 55)

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Physical Therapy Modalities] explode all trees  
 #5 physiotherap\* or physical therap\*  
 #6 MeSH descriptor: [Respiratory Therapy] explode all trees  
 #7 bronchopulmonary hygiene  
 ((airway\* or chest\* or lung\* or sputum\* or mucus or tracheobronchial\*) NEAR3 (clearance\* or drainage\*))  
 #8 active cycle or ACBT  
 #9 sustained maximal inspirat\*  
 #10 breathing exercise\*  
 #12 ((postural or "gravity assisted" or gravity-assisted or autogenic) NEAR3 drainage)  
 #13 forced expiratory technique  
 #14 resistance breath\*  
 #15 positive expiratory pressure  
 hi-PEP or "bubble-PEP" or "bottle-PEP" or "oscillating-PEP" or "oscillatory-PEP" or  
 #16 "mouthpiece-PEP" or "pari-PEP"  
 #17 flutter or desitin or cornet or acapella or scandipharm or percuss\* or vibrat\* or vest  
 #18 oscillat\*  
 #19 lung flute  
 (DBE or TEE or SMI or GAD or CCPT or ELTGOL or FET or PEP or PEEP or VRP1 HFCWO or  
 #20 OHFO or TPEP):TI,AB  
 #21 {OR #5-#20}  
 #22 #3 and #21

#### **ClinicalTrials.gov (Advanced Search Form)**

Search field	Search terms
Study type	all
Condition	Bronchiectasis
Intervention	physiotherapy OR physical therapy OR bronchopulmonary hygiene OR airway clearance OR active cycle OR positive expiratory pressure OR oscillate OR breathing exercise

**PICO Question 5:** In children/adolescents with bronchiectasis, should systemic courses of antibiotics (compared to no antibiotics) be used to treat an acute respiratory exacerbation (type and duration)?

#### **Ovid MEDLINE(R) ALL**

1 exp Bronchiectasis/  
 2 Bronchiect\$.tw.  
 3 bronchoect\$.tw.  
 4 1 or 2 or 3

5 exp Anti-Bacterial Agents/  
 6 antibiotic\$.tw.  
 7 (antibacterial\$ or anti-bacterial\$).tw.  
 8 (amoxycillin or amoxicillin).tw.  
 9 Ampicillin.tw.  
 10 Tetracyclin\$.tw.  
 11 Doxycyclin\$.tw.  
 12 Oxytetracyclin\$.tw.  
 13 Ciprofloxacin.tw.  
 14 Tobramycin.tw.  
 15 Co-amoxiclav.tw.  
 16 Augmentin.tw.  
 17 Cotrimoxazole.tw.  
 18 Penicillin.tw.  
 19 Septra.tw.  
 20 Bactrim.tw.  
 21 Cipro\$.tw.  
 22 Clavulin\$.tw.  
 23 ceftin\$.tw.  
 24 quinolone\$.tw.  
 25 trimethoprim\$.tw.  
 26 cephalosporin\$.tw.  
 27 cephalexin.tw.  
 28 macrolide\$.tw.  
 29 azithromycin\$.tw.  
 30 clarithromycin\$.tw.  
 31 erythromycin\$.tw.  
 32 roxithromycin\$.tw.  
 33 spiramycin\$.tw.  
 34 telithromycin\$.tw.  
 35 troleandomycin\$.tw.  
 36 josamycin\$.tw.  
 37 midecamycin\$.tw.  
 38 oleandomycin\$.tw.  
 39 solithromycin\$.tw.  
 40 or/5-39  
 41 4 and 40  
 42 (controlled clinical trial or randomized controlled  
 trial).pt.  
 43 (randomized or randomised).ab,ti.  
 44 placebo.ab,ti.  
 45 dt.fs.  
 46 randomly.ab,ti.  
 47 trial.ab,ti.  
 48 groups.ab,ti.  
 49 or/42-48  
 50 Animals/  
 51 Humans/

52 50 not (50 and 51)  
 53 49 not 52  
 54 cohort studies/  
 55 longitudinal studies/  
 56 follow-up studies/  
 57 prospective studies/  
 58 retrospective studies/  
 59 cohort.ti,ab.  
 60 longitudinal.ti,ab.  
 61 prospective.ti,ab.  
 62 retrospective.ti,ab.  
 63 Case-Control Studies/  
 64 Control Groups/  
 65 Matched-Pair Analysis/  
 66 retrospective studies/  
 67 ((case\* adj3 control\*) or (case adj3 comparison\*) or  
 control group\*).ti,ab.  
 68 or/54-67  
 69 systematic review.pt.  
 70 Meta-Analysis.pt.  
 71 (systematic\$ adj3 review\$).ti,ab.  
 72 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 73 or/69-72  
 74 41 and (53 or 68)  
 75 limit 74 to yr="1982 -Current"  
 76 41 and 73  
 77 75 or 76

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Anti-Bacterial Agents] explode all trees  
 #5 antibiotic\*  
 #6 antibacterial\* or anti-bacterial\*  
 #7 amoxycillin or amoxicillin  
 #8 Ampicillin  
 #9 Tetracyclin\*  
 #10 Doxycyclin\*  
 #11 Oxytetracyclin\*  
 #12 Ciprofloxacin  
 #13 Tobramycin  
 #14 Co-amoxiclav\*  
 #15 Augmentin  
 #16 Cotrimoxazole  
 #17 Penicillin  
 #18 Septra  
 #19 Bactrim

- #20 Cipro\*
- #21 Clavulin\*
- #22 ceftin\*
- #23 quinolone\*
- #24 trimethoprim\*
- #25 cephalosporin\*
- #26 cephalexin
- #27 macrolide\*
- #28 azithromycin\*
- #29 clarithromycin\*
- #30 erythromycin\*
- #31 roxithromycin\*
- #32 spiramycin\*
- #33 telithromycin\*
- #34 troleandomycin\*
- #35 josamycin\*
- #36 midecamycin\*
- #37 oleandomycin\*
- #38 solithromycin\*
- #39 {OR #4-#38}
- #40 #3 and #39

**ClinicalTrials.gov (Advanced Search Form)**

Search field	Search terms
Study type	all
Condition	Bronchiectasis
Intervention	Antibiotics

**PICO Question 6:** In children/adolescents with bronchiectasis, should eradication treatment be used (irrespective of symptoms) when there is a new isolate of a potentially pathogenic microorganism (compared to no eradication treatment)?

**Ovid MEDLINE(R) ALL**

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.
- 3 bronchoect\$.tw.
- 4 1 or 2 or 3
- 5 Disease Eradication/
- 6 Pseudomonas aeruginosa/
- 7 Pseudomonas Infections/
- 8 exp Haemophilus influenzae/
- 9 Haemophilus Infections/
- 10 exp Staphylococcal Infections/
- 11 exp Staphylococcus/
- 12 exp Streptococcus/
- 13 exp Streptococcal Infections/
- 14 Microbial Sensitivity Tests/

15 (eradication or eradicate).tw.  
 16 (eliminate or elimination).tw.  
 17 (Pseudomonas or Haemophilus or Staphylococcal or  
 Streptococcus or Streptococcal).tw.  
 18 (coloni?ation or decoloni?ation).tw.  
 19 or/5-18  
 20 4 and 19  
 21 Bronchiectasis/mi [Microbiology]  
 22 20 or 21  
 23 (controlled clinical trial or randomized controlled  
 trial).pt.  
 24 (randomized or randomised).ab,ti.  
 25 placebo.ab,ti.  
 26 dt.fs.  
 27 randomly.ab,ti.  
 28 trial.ab,ti.  
 29 groups.ab,ti.  
 30 or/23-29  
 31 Animals/  
 32 Humans/  
 33 31 not (31 and 32)  
 34 30 not 33  
 35 cohort studies/  
 36 longitudinal studies/  
 37 follow-up studies/  
 38 prospective studies/  
 39 retrospective studies/  
 40 cohort.ti,ab.  
 41 longitudinal.ti,ab.  
 42 prospective.ti,ab.  
 43 retrospective.ti,ab.  
 44 Case-Control Studies/  
 45 Control Groups/  
 46 Matched-Pair Analysis/  
 47 retrospective studies/  
 48 ((case\* adj3 control\*) or (case adj3 comparison\*) or  
 control group\*).ti,ab.  
 49 or/35-48  
 50 systematic review.pt.  
 51 Meta-Analysis.pt.  
 52 (systematic\$ adj3 review\$).ti,ab.  
 53 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 54 or/50-53  
 55 22 and (34 or 49)  
 56 limit 55 to yr="1982 -Current"  
 57 4 and 54  
 58 limit 57 to yr="2008 -Current"  
 59 56 or 58

### Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL

- #1 MeSH descriptor: [Bronchiectasis] explode all trees
- #2 Bronchiect\* or bronchoect\*
- #3 #1 or #2
- #4 MeSH descriptor: [Disease Eradication] explode all trees
- #5 MeSH descriptor: [Pseudomonas aeruginosa] this term only
- #6 MeSH descriptor: [Pseudomonas Infections] this term only
- #7 MeSH descriptor: [Haemophilus influenzae] explode all trees
- #8 MeSH descriptor: [Haemophilus Infections] this term only
- #9 MeSH descriptor: [Staphylococcal Infections] explode all trees
- #10 MeSH descriptor: [Staphylococcus] explode all trees
- #11 MeSH descriptor: [Streptococcus] explode all trees
- #12 MeSH descriptor: [Streptococcal Infections] explode all trees
- #13 MeSH descriptor: [Microbial Sensitivity Tests] this term only
- #14 eradication or eradicate
- #15 eliminate or elimination
- #16 Pseudomonas or Haemophilus or Staphylococcal or Streptococcus or Streptococcal
- #17 coloni?ation or decoloni?ation
- #18 {OR #4-#17}
- #19 #3 and #18
- #20 MeSH descriptor: [Bronchiectasis] explode all trees and with qualifier(s): [microbiology - MI]
- #21 #19 or #20

### ClinicalTrials.gov (Advanced Search Form)

Search field	Search terms
Study type	all
Condition	Bronchiectasis
Intervention	eradication OR elimination OR decolonization OR colonization OR Pseudomonas OR Haemophilus OR Staphylococcal OR Streptococcus OR Streptococcal

**PICO Question 7:** In children/adolescents with bronchiectasis and recurrent exacerbations, should long-term (≥2-months) antibiotics (compared to no antibiotics) be used to reduce exacerbations?

*All searches as for question 5*

### NARRATIVE QUESTIONS

**Narrative Question 1:** In children/adolescents with suspected or confirmed bronchiectasis, what standard tests that impact on clinical outcomes should be undertaken when managing this group of patients?

### Ovid MEDLINE(R) ALL

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.

3 bronchoect\$.tw.  
 4 1 or 2 or 3  
 5 exp "Predictive Value of Tests"/  
 6 ((aetiolog\$ or etiolog\$) adj5 (test\$ or investigat\$)).tw.  
 7 exp Hematologic Tests/  
 8 ((blood\$ or white cell\$) adj2 count\$).tw.  
 9 (serum adj3 (immunoglobulin\$ or IgE)).tw.  
 10 Aspergillosis, Allergic Bronchopulmonary/di [Diagnosis]  
 11 ((aspergillosis or Aspergillus or ABPA) adj5 (test\$ or investigat\$)).tw.  
 12 exp Ciliary Motility Disorders/di [Diagnosis]  
 13 Cystic Fibrosis/di [Diagnosis]  
 14 ((cystic fibrosis or ciliary dyskinesia) adj5 (test\$ or investigat\$)).tw.  
 15 Genetic Testing/  
 16 exp Bronchoalveolar Lavage/  
 17 bronchoalveolar lavage\$.tw.  
 18 Sputum/  
 19 (sputum\$ adj2 culture\$).tw.  
 20 (antibod\$ adj3 (test\$ or investigat\$ or response\$)).tw.  
 21 or/5-20  
 22 4 and 21  
 23 Bronchiectasis/et [Etiology]  
 24 22 or 23  
 25 (controlled clinical trial or randomized controlled trial).pt.  
 26 (randomized or randomised).ab,ti.  
 27 placebo.ab,ti.  
 28 dt.fs.  
 29 randomly.ab,ti.  
 30 trial.ab,ti.  
 31 groups.ab,ti.  
 32 or/25-31  
 33 Animals/  
 34 Humans/  
 35 33 not (33 and 34)  
 36 32 not 35  
 37 cohort studies/  
 38 longitudinal studies/  
 39 follow-up studies/  
 40 prospective studies/  
 41 retrospective studies/  
 42 cohort.ti,ab.  
 43 longitudinal.ti,ab.  
 44 prospective.ti,ab.  
 45 retrospective.ti,ab.  
 46 Case-Control Studies/  
 47 Control Groups/  
 48 Matched-Pair Analysis/  
 49 retrospective studies/

50 ((case\* adj3 control\*) or (case adj3 comparison\*) or control  
group\*).ti,ab.  
51 or/37-50  
52 systematic review.pt.  
53 Meta-Analysis.pt.  
54 (systematic\$ adj3 review\$).ti,ab.  
55 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
56 or/52-55  
57 24 and 51  
58 limit 57 to yr="1982 -Current"  
59 24 and 56  
60 58 or 59

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
#2 Bronchiect\* or bronchoect\*  
#3 #1 or #2  
#4 MeSH descriptor: [Predictive Value of Tests] explode all trees  
#5 ((aetiolog\* or etiolog\*) NEAR/5 (test\* or investigat\*)):TI,AB,KW  
#6 MeSH descriptor: [Hematologic Tests] explode all trees  
#7 ((blood\* or white cell\*) NEAR/2 count\*):TI,AB,KW  
#8 (serum NEAR/3 (immunoglobulin\* or IgE)):TI,AB,KW  
MeSH descriptor: [Aspergillosis, Allergic Bronchopulmonary] explode all trees and with qualifier(s): [diagnosis - DI]  
#9 DI]  
#10 ((aspergillosis or Aspergillus or ABPA) NEAR/5 (test\* or investigat\*)):TI,AB,KW  
#11 MeSH descriptor: [Ciliary Motility Disorders] explode all trees and with qualifier(s): [diagnosis - DI]  
#12 MeSH descriptor: [Cystic Fibrosis] explode all trees and with qualifier(s): [diagnosis - DI]  
#13 ((cystic fibrosis or ciliary dyskinesia) NEAR/5 (test\* or investigat\*)):TI,AB,KW  
#14 MeSH descriptor: [Genetic Testing] explode all trees  
#15 MeSH descriptor: [Bronchoalveolar Lavage] explode all trees  
#16 bronchoalveolar lavage\*:TI,AB,KW  
#17 MeSH descriptor: [Sputum] explode all trees  
#18 (sputum\* NEAR/2 culture\*):TI,AB,KW  
#19 (antibod\* NEAR/3 (test\* or investigat\* or response\*)):TI,AB,KW  
#20 {OR #4-#19}  
#21 MeSH descriptor: [Bronchiectasis] explode all trees and with qualifier(s): [etiology - ET]  
#22 #20 OR #21  
#23 #3 AND #22

#### **ClinicalTrials.gov (Advanced Search Form)**

Search field	Search terms
Study type	all
Condition	bronchiectasis
Other terms	etiology OR aetiology OR blood count OR serum immunoglobulin OR Bronchoalveolar Lavage OR sputum culture

Search field	Search terms
Study type	all



Condition	bronchiectasis
Other terms	cystic fibrosis test OR ciliary dyskinesia test OR aspergillosis test

**Narrative Question 2: In children/adolescents is bronchiectasis (a) reversible and/or (b) preventable?**

**Ovid MEDLINE(R) ALL**

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.
- 3 bronchoect\$.tw.
- 4 1 or 2 or 3
- 5 exp Primary Prevention/
- 6 Secondary Prevention/
- 7 prevent\$.ti,ab.
- 8 (reverse or reversible).ti,ab.
- 9 or/5-8
- 10 4 and 9
- 11 Bronchiectasis/pc [Prevention & Control]
- 12 10 or 11
- 13 (controlled clinical trial or randomized controlled trial).pt.
- 14 (randomized or randomised).ab,ti.
- 15 placebo.ab,ti.
- 16 dt.fs.
- 17 randomly.ab,ti.
- 18 trial.ab,ti.
- 19 groups.ab,ti.
- 20 or/13-19
- 21 Animals/
- 22 Humans/
- 23 21 not (21 and 22)
- 24 20 not 23
- 25 cohort studies/
- 26 longitudinal studies/
- 27 follow-up studies/
- 28 prospective studies/
- 29 retrospective studies/
- 30 cohort.ti,ab.
- 31 longitudinal.ti,ab.
- 32 prospective.ti,ab.
- 33 retrospective.ti,ab.
- 34 Case-Control Studies/
- 35 Control Groups/
- 36 Matched-Pair Analysis/
- 37 retrospective studies/
- 38 ((case\* adj3 control\*) or (case adj3 comparison\*) or control group\*).ti,ab.
- 39 or/25-38

40 systematic review.pt.  
 41 Meta-Analysis.pt.  
 42 (systematic\$ adj3 review\$).ti,ab.  
 43 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 44 or/40-43  
 45 12 and (24 or 39)  
 46 limit 45 to yr="1982 -Current"  
 47 12 and 44  
 48 46 or 47

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Primary Prevention] explode all trees  
 #5 MeSH descriptor: [Secondary Prevention] this term only  
 #6 prevent\*:ti,ab,kw  
 #7 (reverse or reversible).ti,ab,kw  
 #8 {OR #4-#7}  
 #9 #3 and #8  
 MeSH descriptor: [Bronchiectasis] explode all trees and  
 #10 with qualifier(s): [prevention & control - PC]  
 #11 #9 or #10

#### **ClinicalTrials.gov (Advanced Search Form)**

Search field	Search terms
Study type	all
Condition	Bronchiectasis
Intervention	prevent OR prevention OR reverse OR reversible

**Narrative Question 3:** In children/adolescents with bronchiectasis, should attention be paid to other paediatric systematic care issues (nutrition, aerobic and non-aerobic exercise, psychological support, equipment care, vaccinations, etc)?

#### **Ovid MEDLINE(R) ALL**

1 exp Bronchiectasis/  
 2 Bronchiect\$.tw.  
 3 bronchoect\$.tw.  
 4 1 or 2 or 3  
 5 exp Nutrition Therapy/  
 6 exp Diet/  
 7 exp Dietary Supplements/  
 8 nutrition assessment/  
 9 nutrition\$.tw.  
 10 diet\$.tw.  
 11 or/5-10  
 12 exp Exercise/  
 13 exp Exercise Therapy/

14 exp Exercise Test/  
 15 exp physical fitness/  
 16 Exercise Tolerance/  
 17 Rehabilitation/  
 18 exercis\$.tw.  
 19 (physical\$ adj2 activ\$).tw.  
 20 walk\$.tw.  
 21 or/12-20  
 22 exp Psychotherapy/  
 23 exp Psychology/  
 24 Psychoanalysis/  
 25 Psychosomatic Medicine/  
 26 ((behavior\* or behaviour\*) adj3 (treatment\* or therap\* or  
 intervention\* or activat\* or technique\* or modif\* or  
 change\*)).tw.  
 27 (cognitiv\* adj3 (behav\* or treatment\* or technique\* or therap\*  
 or intervention\* or restructur\* or reappraisal\*)).tw.  
 28 (counsel\* or talk\* near3 therap\*).tw.  
 29 (psychotherap\* or psychoanalytic\* or psychodynamic\* or  
 psychoanalysis\* or psychosomatic\*).tw.  
 30 or/22-29  
 31 exp Vaccines/  
 32 vaccin\$.tw.  
 33 (immuni?e or immuni?ation).tw.  
 34 or/31-32  
 35 Equipment Safety/  
 36 "Equipment and Supplies"/  
 37 exp Equipment Failure/  
 38 exp Maintenance/  
 39 ((equipment\* or device\* or inhaler\* or ventilat\*) adj5 (care or  
 maintain\* or maintenance or safe\* or inspect\*)).tw.  
 40 Patient Safety/  
 41 or/35-40  
 42 4 and 41  
 43 4 and (11 or 21 or 30 or 41)  
 44 Bronchiectasis/px, rh [Psychology, Rehabilitation]  
 45 43 or 44  
 46 (controlled clinical trial or randomized controlled trial).pt.  
 47 (randomized or randomised).ab,ti.  
 48 placebo.ab,ti.  
 49 dt.fs.  
 50 randomly.ab,ti.  
 51 trial.ab,ti.  
 52 groups.ab,ti.  
 53 or/46-52  
 54 Animals/  
 55 Humans/  
 56 54 not (54 and 55)

57 53 not 56  
 58 cohort studies/  
 59 longitudinal studies/  
 60 follow-up studies/  
 61 prospective studies/  
 62 retrospective studies/  
 63 cohort.ti,ab.  
 64 longitudinal.ti,ab.  
 65 prospective.ti,ab.  
 66 retrospective.ti,ab.  
 67 Case-Control Studies/  
 68 Control Groups/  
 69 Matched-Pair Analysis/  
 70 retrospective studies/  
 71 ((case\* adj3 control\*) or (case adj3 comparison\*) or control  
 group\*).ti,ab.  
 72 or/58-71  
 73 systematic review.pt.  
 74 Meta-Analysis.pt.  
 75 (systematic\$ adj3 review\$).ti,ab.  
 76 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 77 or/73-76  
 78 45 and (57 or 72)  
 79 limit 78 to yr="1982 -Current"  
 80 45 and 77  
 81 79 or 80

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Nutrition Therapy] explode all trees  
 #5 MeSH descriptor: [Diet] explode all trees  
 #6 MeSH descriptor: [Dietary Supplements] explode all trees  
 #7 MeSH descriptor: [Nutrition Assessment] this term only  
 #8 nutrition\*:ti,ab,kw  
 #9 diet\*:ti,ab,kw  
 #10 {OR #4-#9}  
 #11 MeSH descriptor: [Exercise] explode all trees  
 #12 MeSH descriptor: [Exercise Therapy] explode all trees  
 #13 MeSH descriptor: [Exercise Test] explode all trees  
 #14 MeSH descriptor: [Physical Fitness] explode all trees  
 #15 MeSH descriptor: [Exercise Tolerance] this term only  
 #16 MeSH descriptor: [Rehabilitation] this term only  
 #17 exercis\*:ti,ab,kw  
 #18 (physical\* NEAR2 activ\*):TI,AB,KW  
 #19 walk\*:ti,ab,kw  
 #20 {OR #11-#19}

- #21 MeSH descriptor: [Psychotherapy] explode all trees
- #22 MeSH descriptor: [Psychology] explode all trees
- #23 MeSH descriptor: [Psychoanalysis] this term only
- #24 MeSH descriptor: [Psychosomatic Medicine] this term only  
(behavior\* or behaviour\*) NEAR (treatment\* or therap\* or intervention\* or activat\* or
- #25 technique\* or modif\* or change\*)  
cognitiv\* NEAR (behav\* or treatment\* or technique\* or therap\* or intervention\* or
- #26 restructur\* or reappraisal\*)
- #27 counsel\*:TI,AB,KW
- #28 talk\* NEAR3 therap\*  
(psychotherap\* or psychoanalytic\* or psychodynamic\* or psychoanalysis\* or
- #29 psychosomatic\*):ti,ab,kw
- #30 {OR #21-#29}
- #31 MeSH descriptor: [Vaccines] explode all trees
- #32 vaccin\*:TI,AB,KW
- #33 (immunis\* or immuniz\*):ti,ab,kw
- #34 {OR #31-#33}
- #35 MeSH descriptor: [Equipment Safety] this term only
- #36 MeSH descriptor: [Equipment and Supplies] this term only
- #37 MeSH descriptor: [undefined] explode all trees
- #38 MeSH descriptor: [Maintenance] explode all trees  
(equipment\* or device\* or inhaler\* or ventilat\*) NEAR (care or maintain\* or
- #39 maintenance or safe\* or inspect\*)
- #40 MeSH descriptor: [Patient Safety] this term only
- #41 {OR #35-#40}
- #42 #3 AND (#10 OR #20 OR #30 OR #34 OR #41)
- #43 MeSH descriptor: [Bronchiectasis] explode all trees and with qualifier(s): [psychology -
- #43 PX, rehabilitation - RH]
- #44 #42 OR #43

#### ClinicalTrials.gov (Advanced Search Form)

Search field	Search terms
Study type	all
Condition	bronchiectasis
Intervention	diet OR exercise OR psych* OR CBT OR behavior OR cognitive OR vaccine OR equipment OR lifestyle

#### Narrative Question 4: When monitoring children/adolescents with bronchiectasis:

- a. How often should airway microbiology testing be conducted in outpatients?
- b. How frequently should patients be seen in outpatient clinics?
- c. How should cross-infection be minimised?

#### Ovid MEDLINE(R) ALL

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.
- 3 bronchoect\$.tw.
- 4 1 or 2 or 3
- 5 exp Microbiology/

6 exp Microbiota/  
 7 Sputum/mi [Microbiology]  
 8 exp Respiratory System/mi [Microbiology]  
 9 (microb\$ adj5 (sputum or analys\$ or sample\$ or assess\$ or culture\$  
 or test\$ or sequence\$)).tw.  
 10 or/5-9  
 11 4 and 10  
 12 exp Bronchiectasis/mi [Microbiology]  
 13 11 or 12  
 14 Outpatients/  
 15 outpatient clinics, hospital/  
 16 Ambulatory Care/  
 17 Ambulatory Care Facilities/  
 18 (outpatient\$ or out-patient\$).tw.  
 19 or/14-18  
 20 4 and 19  
 21 exp Infection Control/  
 22 exp Cross Infection/  
 23 Universal Precautions/  
 24 Disease Transmission, Infectious/  
 25 Equipment Contamination/  
 26 (cross infect\$ or cross-infect\$).tw.  
 27 (infection\$ adj2 (control\$ or reduc\$ or minimi\$ or prevent\$)).tw.  
 28 ((acquir\$ or nosocomial\$) adj2 infect\$).tw.  
 29 or/21-28  
 30 4 and 29  
 31 13 or 20 or 30  
 32 (controlled clinical trial or randomized controlled trial).pt.  
 33 (randomized or randomised).ab,ti.  
 34 placebo.ab,ti.  
 35 dt.fs.  
 36 randomly.ab,ti.  
 37 trial.ab,ti.  
 38 groups.ab,ti.  
 39 or/32-38  
 40 Animals/  
 41 Humans/  
 42 40 not (40 and 41)  
 43 39 not 42  
 44 cohort studies/  
 45 longitudinal studies/  
 46 follow-up studies/  
 47 prospective studies/  
 48 retrospective studies/  
 49 cohort.ti,ab.  
 50 longitudinal.ti,ab.  
 51 prospective.ti,ab.  
 52 retrospective.ti,ab.

53 Case-Control Studies/  
 54 Control Groups/  
 55 Matched-Pair Analysis/  
 56 retrospective studies/  
 57 ((case\* adj3 control\*) or (case adj3 comparison\*) or control  
 group\*).ti,ab.  
 58 or/44-57  
 59 systematic review.pt.  
 60 Meta-Analysis.pt.  
 61 (systematic\$ adj3 review\$).ti,ab.  
 62 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 63 or/59-62  
 64 31 and 58  
 65 31 and 63  
 66 64 or 65

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Microbiology] explode all trees  
 #5 MeSH descriptor: [Microbiota] explode all trees  
 #6 MeSH descriptor: [Sputum] this term only and with qualifier(s): [microbiology - MI]  
 MeSH descriptor: [Respiratory System] explode all trees and with qualifier(s):  
 #7 [microbiology - MI]  
 (microb\* NEAR/5 (sputum or analys\* or sample\* or assess\* or culture\* or test\* or  
 #8 sequence\*)):ti,ab,kw  
 #9 {OR #4-#8}  
 #10 #3 AND #9  
 MeSH descriptor: [Bronchiectasis] explode all trees and with qualifier(s): [microbiology -  
 #11 MI]  
 #12 #10 or #11  
 #13 MeSH descriptor: [Outpatients] this term only  
 #14 MeSH descriptor: [Outpatient Clinics, Hospital] this term only  
 #15 MeSH descriptor: [Ambulatory Care] this term only  
 #16 MeSH descriptor: [Ambulatory Care Facilities] this term only  
 #17 (outpatient\* or out-patient\*):ti,ab,kw  
 #18 {OR #13-#17}  
 #19 #3 AND #18  
 #20 MeSH descriptor: [Infection Control] explode all trees  
 #21 MeSH descriptor: [Cross Infection] explode all trees  
 #22 MeSH descriptor: [Universal Precautions] this term only  
 #23 MeSH descriptor: [Disease Transmission, Infectious] this term only  
 #24 MeSH descriptor: [Equipment Contamination] this term only  
 #25 (cross infect\* or cross-infect\*):ti,ab,kw  
 #26 (infection\* NEAR/2 (control\* or reduc\* or minimi\* or prevent\*)):ti,ab,kw  
 #27 ((acquir\* or nosocomial\*) NEAR/2 infect\$)  
 #28 {OR #20-#27}  
 #29 #3 AND #28

#30

#12 OR #19 OR #29

**ClinicalTrials.gov (Advanced Search Form)**

Study type	all
Condition	bronchiectasis
Intervention	microbiology OR microbiota OR infection control

**Narrative Question 5: When monitoring children/adolescents with bronchiectasis:**

- d. Are any routine tests that should be undertaken to detect complications when attending outpatient clinics?
- e. When should repeat chest CT-scans be undertaken?
- f. In gradually deteriorating (i.e. non acute) patients, what investigations should be undertaken?

**Ovid MEDLINE(R) ALL**

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.
- 3 bronchoect\$.tw.
- 4 1 or 2 or 3
- 5 Symptom Assessment/
- 6 monitor\$.tw.
- 7 surveillance.tw.
- 8 (observation or observations).tw.
- 9 complication\$.tw.
- 10 Tomography, X-Ray Computed/
- 11 HRCT.ti,ab.
- 12 computed tomography.ti,ab.
- 13 CT scan.ti,ab.
- 14 high resolution CT.ti,ab.
- 15 (or/10-14) and (repeat\$ or multiple).tw.
- 16 exp disease progression/
- 17 deteriorat\$.tw.
- 18 worsen\$.tw.
- 19 progression\$.tw.
- 20 or/5-9
- 21 or/16-19
- 22 15 or 20 or 21
- 23 4 and 22
- 24 (controlled clinical trial or randomized controlled trial).pt.
- 25 (randomized or randomised).ab,ti.
- 26 placebo.ab,ti.
- 27 dt.fs.
- 28 randomly.ab,ti.
- 29 trial.ab,ti.
- 30 groups.ab,ti.
- 31 or/24-30
- 32 Animals/
- 33 Humans/
- 34 32 not (32 and 33)



35 31 not 34  
 36 cohort studies/  
 37 longitudinal studies/  
 38 follow-up studies/  
 39 prospective studies/  
 40 retrospective studies/  
 41 cohort.ti,ab.  
 42 longitudinal.ti,ab.  
 43 prospective.ti,ab.  
 44 retrospective.ti,ab.  
 45 Case-Control Studies/  
 46 Control Groups/  
 47 Matched-Pair Analysis/  
 48 retrospective studies/  
 49 ((case\* adj3 control\*) or (case adj3 comparison\*) or control  
 group\*).ti,ab.  
 50 or/36-49  
 51 systematic review.pt.  
 52 Meta-Analysis.pt.  
 53 (systematic\$ adj3 review\$).ti,ab.  
 54 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 55 or/51-54  
 56 23 and 50  
 57 limit 56 to yr="1982 -Current"  
 58 23 and 55  
 59 57 or 58

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Symptom Assessment] this term only  
 #5 monitor\*:ti,ab,kw  
 #6 surveillance:ti,ab,kw  
 #7 (observation or observations):ti,ab,kw  
 #8 complication\*:ti,ab,kw  
 #9 #4 or #5 or #6 or #7 or #8  
 MeSH descriptor: [Tomography, X-Ray Computed] this  
 #10 term only  
 #11 HRCT:ti,ab  
 #12 computed tomography:ti,ab  
 #13 CT scan:ti,ab  
 #14 high resolution CT:ti,ab  
 (#10 or #11 or #12 or #13 or #14) and (repeat\* or  
 #15 multiple):ti,ab  
 #16 MeSH descriptor: [Disease Progression] explode all trees  
 #17 deteriorat\*:ti,ab,kw  
 #18 worsen\*:ti,ab,kw

- #19 progression\*:ti,ab,kw
- #20 #16 or #17 or #18 or #19
- #21 #9 or #15 or #20
- #22 #3 and #21

#### ClinicalTrials.gov (Advanced Search Form)

Search field	Search terms
Study type	all
Condition	Bronchiectasis
Other terms	Complications OR deterioration OR CT scan

**Narrative Question 6:** In children/adolescents with bronchiectasis, what criteria should be used to define an exacerbation?

#### Ovid MEDLINE(R) ALL

- 1 exp Bronchiectasis/
- 2 Bronchiect\$.tw.
- 3 bronchoect\$.tw.
- 4 1 or 2 or 3
- 5 exp disease progression/
- 6 exacerbation\$.tw.
- 7 5 or 6
- 8 4 and 7
- 9 Bronchiectasis/co [Complications]
- 10 8 or 9
- 11 (define or definition or defining).tw.
- 12 criteria.tw.
- 13 consensus.tw.
- 14 terminology.tw.
- 15 or/11-14
- 16 10 and 15

#### Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL

- MeSH descriptor: [Bronchiectasis]
- #1 explode all trees
- #2 Bronchiect\* or bronchoect\*
- #3 #1 or #2
- MeSH descriptor: [Disease Progression]
- #4 explode all trees
- #5 exacerbation\*
- #6 #4 or #5
- #7 #3 and #6
- MeSH descriptor: [Bronchiectasis]
- explode all trees and with qualifier(s):
- #8 [complications - CO]
- #9 #7 or #8
- #10 define or definition or defining
- #11 criteria
- #12 consensus

#13 terminology  
 #14 #10 or #11 or #12 or #13  
 #15 #14 and #9

**ClinicalTrials.gov (Advanced Search Form)**

Search field	Search terms
Study type	all
Condition	bronchiectasis exacerbation
Other search terms	definition

**Narrative Question 7:** In children/adolescents with bronchiectasis, what factors should be taken into account when considering surgical removal of the diseased lung?

**Ovid MEDLINE(R) ALL**

1 exp Bronchiectasis/  
 2 Bronchiect\$.tw.  
 3 bronchoect\$.tw.  
 4 1 or 2 or 3  
 5 Pneumonectomy/  
 6 exp Lung/ and surgery.tw.  
 7 (surg\$ or resection\$ or lobectomy\$ or pneumonectomy\$  
 or segmentectomy\$).tw.  
 8 or/5-7  
 9 4 and 8  
 10 exp Bronchiectasis/su [Surgery]  
 11 9 or 10  
 12 (controlled clinical trial or randomized controlled trial).pt.  
 13 (randomized or randomised).ab,ti.  
 14 placebo.ab,ti.  
 15 dt.fs.  
 16 randomly.ab,ti.  
 17 trial.ab,ti.  
 18 groups.ab,ti.  
 19 or/12-18  
 20 Animals/  
 21 Humans/  
 22 20 not (20 and 21)  
 23 19 not 22  
 24 cohort studies/  
 25 longitudinal studies/  
 26 follow-up studies/  
 27 prospective studies/  
 28 retrospective studies/  
 29 cohort.ti,ab.  
 30 longitudinal.ti,ab.  
 31 prospective.ti,ab.

32 retrospective.ti,ab.  
 33 Case-Control Studies/  
 34 Control Groups/  
 35 Matched-Pair Analysis/  
 36 retrospective studies/  
 37 ((case\* adj3 control\*) or (case adj3 comparison\*) or  
 control group\*).ti,ab.  
 38 or/24-37  
 39 systematic review.pt.  
 40 Meta-Analysis.pt.  
 41 (systematic\$ adj3 review\$).ti,ab.  
 42 (meta-analysis or metaanalysis or meta analysis).ti,ab.  
 43 or/39-42  
 44 11 and 38  
 45 limit 44 to yr="1982 -Current"  
 46 11 and 43  
 47 45 or 46

#### **Cochrane Library: Cochrane Database of Systematic Reviews & CENTRAL**

#1 MeSH descriptor: [Bronchiectasis] explode all trees  
 #2 Bronchiect\* or bronchoect\*  
 #3 #1 or #2  
 #4 MeSH descriptor: [Pneumonectomy] this term only  
 #5 MeSH descriptor: [Lung] explode all trees  
 #6 surgery:ti,ab,kw  
 #7 #5 and #6  
 (surg\* or resection\* or lobectomy\* or pneumonectomy\* or  
 segmentectomy\*):ti,ab,kw  
 #8  
 #9 #4 or #7 or #8  
 #10 #3 and #9  
 MeSH descriptor: [Bronchiectasis] explode all trees and with qualifier(s):  
 #11 [surgery - SU]  
 #12 #10 or #11

#### **ClinicalTrials.gov (Advanced Search Form)**

Search field	Search terms
Study type	all
Condition	bronchiectasis
Intervention	surgery OR resection OR lobectomy OR pneumonectomy OR segmentectomy