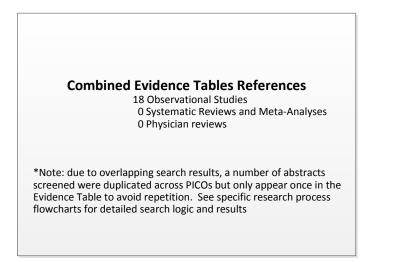


\*Information Resources: Ovid Medline, NCBI PubMed, National Guideline Clearinghouse, Guidelines International Network, TRIP Database, Choosing Wisely, Cochrane Database, Agency for Healthcare Research and Quality, and numerous specialty society websites Additional Internet and bibliographic searches were performed for all phases of research For use only in connection with development of AUC by the CDI Quality Institute's Multidisciplinary Committee Evidence Process for Cough/Dyspnea Research

### Systematic Literature Research – Ovid Medline Database



\*Information Resources:

Ovid EmBase and Medline, NCBI PubMed, National Guideline Clearinghouse, Guidelines International Network, TRIP Database, Choosing Wisely, Cochrane Database, Agency for Healthcare Research and Quality, and numerous specialty society websites Additional Internet and bibliographic searches were performed for all phases of research

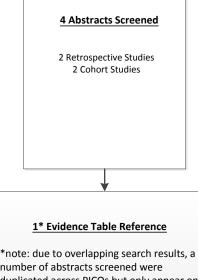
### Evidence Process for Cough/Dyspnea Guideline Research $_{\scriptscriptstyle 03/12/2019}$

#### Systematic Literature Research – Ovid Medline Database (01/01/2015 – 02/07/2019)

PICO: Chronic cough and/or dyspnea that persists after ruling out or empirically treating the most common causes (e.g., upper airway cough syndrome, GERD, non-asthmatic eosinophilic bronchitis, asthma) with obstructive ventilatory pattern and suspicion for bronchiectasis

- 1. Bronchiectasis
- 2. ("bronchiectases" or "bronchiectasis").mp.
- 3. (CT or HRCT or computed tomography or CTA or MRI or MRA or magnetic resonance or imaging or bone scan or scintigraphy or HDP or MDP or 99mTc or PET or SPECT or nuclear medicine or Ga-67 or Tc-99m WBC or In-111 WBC).mp.
- 4. (case adj2 (report or study or reports or studies)).mp.
- 5. (1 and 2) not 3
- 6. limit 4 to (english language and humans and yr="2015 -Current" and "all adult (19 plus years)")
- 7. limit 5 to ("diagnosis (maximizes sensitivity)" or "diagnosis (maximizes specificity)" or "diagnosis (best balance of sensitivity and specificity)")

220 results



number of abstracts screened were duplicated across PICOs but only appear once in the Evidence Table to avoid repetition

\*Information Resources:

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## Evidence Process for Cough/Dyspnea Guideline Research $_{\rm 03/12/2019}$

### Systematic Literature Research – Ovid Medline Database (01/01/2015 – 02/27/2019)

PICO: Chronic cough and/or dyspnea that persists after ruling out or empirically treating the most common causes (e.g., upper airway cough syndrome, GERD, non-asthmatic eosinophilic bronchitis, asthma) with restrictive ventilatory pattern and suspicion for interstitial lung disease (including occupational lung disease), or pleural / chest wall disease

- 1. Cough/
- 2. ("cough" or "coughs").mp.
- 3. exp Dyspnea/

4. ("breath shortness" or "breath shortnesses" or "breathlessnesses" or "dyspnea" or "dyspneas" or "shortness of breath" or "dyspneas" or "dyspneas").mp.

- 5.1 or 2 or 3 or 4
- 6. Occupational Exposure/
- 7. ("exposure, occupational" or "exposures, occupational" or "occupational exposure" or "occupational exposures").mp.
- 8. Occupational Diseases/

9. ("disease, occupational" or "diseases, occupational" or "illnesse, occupational" or "illnesses, occupational" or "occupational disease" or "occupational disease" or "occupational diseases" or "occupational diseases

- diseases" or "occupational illnesse" or "occupational illnesses").mp.
- 10.6 or 7 or 8 or 9
- **11.** 5 and 10
- 12. exp pneumoconiosis/
- 13. ("bagassosis" or "pneumoconioses" or "pneumoconiosis").mp.

14. ("anthracoses" or "anthracosis" or "black lung" or "black lung disease" or "black lung diseases" or "black lungs" or "coal miner lung" or "coal miner's lung" or "coal miner's lung" or "coal worker pneumoconiosis" or "coal worker's pneumoconiosis" or "coal worker's pneumoconiosis" or "coal workers pneumoconiosis" or "coalworker pneumoconiosis" or "coalworker's pneumoconiosis" or "lung, black" or "miner's lung, coal" or "miner's lungs, coal" or "pneumoconiosis, coal worker's or "pneumoconiosis, coal worker's" or "pneumoconiosis, coal worker's" or "pneumoconiosis, coalworker's" or "pneumoconiosis

- 15. ("asbestoses" or "asbestosis" or "idiopathic interstitial pneumonitis from asbestos exposure" or "pulmonary fibrosis from asbestos exposure" or "beryllioses" or "berylliosis" or "beryllium disease" or "brown lung" or "brown lung disease" or "brown lung diseases" or "brown lungs" or "byssinoses" or "byssinosis" or "caplan syndrome" or "caplan syndromes" or "caplan's syndrome" or "caplans syndrome" or "sideroses" or "siderosis" or "silicoses" or "silicosis").mp.
- 16. 12 or 13 or 14 or 15
- 17. Pleural Diseases/
- 18. ("disease, pleural" or "diseases, pleural" or "pleural disease" or "pleural diseases" or "chylothorax" or "empyema, pleural" or "empyema, thoracic" or "empyemas, pleural" or "empyemas, thoracic" or "pleural empyema" or "pleural empyemas" or "pyothorax" or "thoracic empyema" or "thoracic empyemas").mp.
- 19. 17 or 18
- 20. Lung Diseases, Interstitial/
- 21. ("diffuse parenchymal lung diseases" or "interstitial lung disease" or "interstitial lung diseases" or "interstitial pneumonia" or "interstitial pneumonias" or "interstitial pneumonities" or "lung disease, interstitial" or "lung diseases, interstitial" or "pneumonia, interstitial" or "pneumonia, interstitial" or "pneumonias, interstitial" or "pneumonities, interstitial" or "pneumonies, interstities, interst
- 22. 20 or 21
- 23. 11 or 16 or 19 or 22

24. (CT or HRCT or computed tomography or CTA or MRI or MRA or magnetic resonance or imaging or bone scan or scintigraphy or HDP or MDP or 99mTc or PET or SPECT or nuclear medicine or Ga-67 or Tc-99m WBC or In-111 WBC).mp.

- 25. 23 and 24
- 26. (case adj2 (report or study or reports or studies)).mp.
- 27. 25 not 26
- 28. limit 27 to ("diagnosis (maximizes sensitivity)" or "diagnosis (maximizes specificity)" or "diagnosis (best balance of sensitivity and specificity)")
- 29. limit 28 to (english language and humans and yr="2015 -Current" and "all adult (19 plus years)")

676 results; 631 results after duplicates from previous searches removed

13 Abstracts Screened 5 Prospective Studies 3 Retrospective Studies	 7* Evidence Table References	*note: due to overlapping search results, a number of abstracts screened were duplicated across PICOs but only appear once in the Evidence Table to avoid repetition
5 Cohort Studies		

\*Information Resources:

Ovid EmBase and Medline, NCBI PubMed, National Guideline Clearinghouse, Guidelines International Network, TRIP Database, Choosing Wisely, Cochrane Database, Agency for Healthcare Research and Quality, and numerous specialty society websites Additional Internet and bibliographic searches were performed for all phases of research

### Systematic Literature Research – Ovid Medline Database (01/01/2015 – 02/27/2019)

PICO: Chronic cough and/or dyspnea that persists after ruling out or empirically treating the most common causes (e.g., upper airway cough syndrome, GERD, non-asthmatic eosinophilic bronchitis, asthma) with obstructive ventilatory pattern and suspicion for: COPD/emphysema, severe or treatment-resistant asthma, or central airway disease

- 1. 1. Asthma/
- 2. ("asthma" or "asthma, bronchial" or "asthmas" or "bronchial asthma").mp.
- 3. exp Pulmonary Disease, Chronic Obstructive/

4. ("copd" or "airflow obstruction, chronic" or "airflow obstructions, chronic" or "coad" or "chronic airflow obstruction" or "chronic airflow obstructions" or "chronic obstructive lung disease" or "chronic obstructive pulmonary disease" or "pulmonary disease, chronic obstructive" or "bronchitis, chronic" or "chronic bronchitis" or "centriacinar emphysema" or "centrilobular emphysemas" or "centrilobular emphysema, centriacinar" or "emphysema, focal" or "emphysema, focal" or "emphysema, panacinar" or "emphysema, panacinar" or "emphysemas, panacinar" or "emphysemas" or "panacinar" or "emphysemas" or "panacinar emphysemas" or "panacinar emphysemas" or "panacinar emphysem

5. central airway disease.mp.

6. 1 or 2 or 3 or 4 or 5

7. (CT or HRCT or computed tomography or CTA or MRI or MRA or magnetic resonance or imaging or bone scan or scintigraphy or HDP or MDP or 99mTc or PET or SPECT or nuclear medicine or Ga-67 or Tc-99m WBC or In-111 WBC).mp.

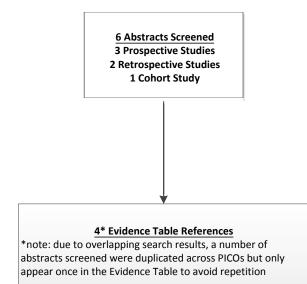
8.6 and 7

9. (case adj2 (report or study or reports or studies)).mp.

10. 8 not 9

- 11. limit 10 to ("diagnosis (maximizes sensitivity)" or "diagnosis (maximizes specificity)" or "diagnosis (best balance of sensitivity and specificity)")
- 12. limit 11 to (english language and humans and yr="2015 -Current" and "all adult (19 plus years)")

911 results, 809 results after duplicates from previous searches removed



\*Information Resources:

Ovid EmBase and Medline, NCBI PubMed, National Guideline Clearinghouse, Guidelines International Network, TRIP Database, Choosing Wisely, Cochrane Database, Agency for Healthcare Research and Quality, and numerous specialty society websites Additional Internet and bibliographic searches were performed for all phases of research

### Systematic Literature Research – Ovid Medline Database (01/01/2015 – 02/27/2019)

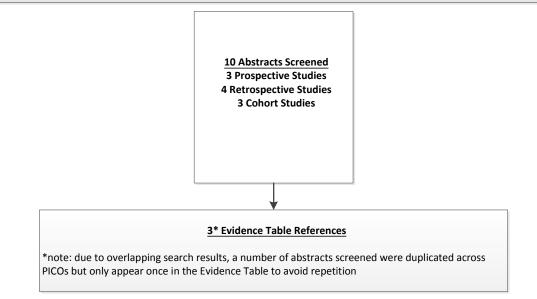
# PICO: Chronic cough in patients who have lived in areas with a high prevalence of tuberculosis or endemic parasite or fungal infections

- 1. 1. ("chronic cough" or "chronic coughs").mp.
- 2. Tuberculosis/
- 3. Parasitic Diseases/
- 4. Mycoses/
- 5. 2 or 3 or 4
- 6. 1 and 5
- 7. exp Tuberculosis, Pulmonary/
- 8. Mycobacterium Infections, Nontuberculous/
- 9. exp Lung Diseases, Parasitic/
- 10. Aspergillosis/ or exp pulmonary aspergillosis/ or exp lung diseases, fungal/
- 11. 7 or 8 or 9 or 10
- 12. 6 or 11

13. (CT or HRCT or computed tomography or CTA or MRI or MRA or magnetic resonance or imaging or bone scan or scintigraphy or HDP or MDP or 99mTc or

- PET or SPECT or nuclear medicine or Ga-67 or Tc-99m WBC or In-111 WBC).mp.
- 14. 12 and 13
- 15. (case adj2 (report or study or reports or studies)).mp.
- 16. 14 not 15
- 17. limit 16 to (english language and humans and "all adult (19 plus years)")
- 18. limit 17 to ("diagnosis (maximizes sensitivity)" or "diagnosis (maximizes specificity)" or "diagnosis (best balance of sensitivity and specificity)")
- 19. limit 18 to yr="2015 -Current"

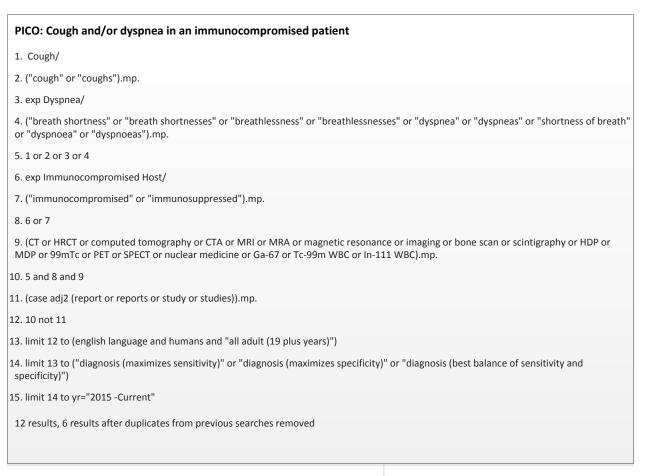
360 results, 286 results after duplicates from previous searches removed

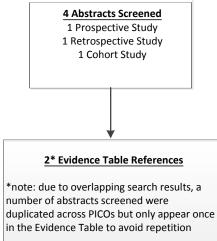


\*Information Resources:

Ovid EmBase and Medline, NCBI PubMed, National Guideline Clearinghouse, Guidelines International Network, TRIP Database, Choosing Wisely, Cochrane Database, Agency for Healthcare Research and Quality, and numerous specialty society websites Additional Internet and bibliographic searches were performed for all phases of research

### Systematic Literature Research – Ovid Medline Database (01/01/2015 – 02/28/2019)





\*Information Resources:

Ovid EmBase and Medline, NCBI PubMed, National Guideline Clearinghouse, Guidelines International Network, TRIP Database, Choosing Wisely, Cochrane Database, Agency for Healthcare Research and Quality, and numerous specialty society websites Additional Internet and bibliographic searches were performed for all phases of research

### Systematic Literature Research – Ovid Medline Database (01/01/2015 – 02/28/2019)

# PICO: Cough and/or dyspnea in patients with pneumonia that is not responding to treatment and/or with suspected complications (e.g., abscess)

1. exp Pneumonia/

2. ("experimental lung inflammation" or "experimental lung inflammations" or "inflammation, experimental lung" or "inflammation, lung" or "inflammation, pulmonary" or "lobar pneumonias" or "lung inflammations, pulmonary" or "lobar pneumonia" or "lobar pneumonias" or "lung inflammation" or "lung inflammation" or "lung inflammation, experimental" or "pneumonia" or "lung inflammations, lobar" or "pneumonia, lobar" or "pneumonias" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pulmonary inflammation" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pulmonary inflammation" or "pulmonary inflammation" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pulmonary inflammations" or "pulmonary inflammation" or "pulmonary inflammations").mp.

3. 1 or 2

4. ("complication" or "complications").mp.

5. ("comorbidity" or "comorbidities" or "co-morbidity" or "co-morbidities").mp.

6.4 or 5

7. (CT or HRCT or computed tomography or CTA or MRI or MRA or magnetic resonance or imaging or bone scan or scintigraphy or HDP or MDP or 99mTc or PET or SPECT or nuclear medicine or Ga-67 or Tc-99m WBC or In-111 WBC).mp.

8. 3 and 6 and 7

9. (case adj2 (report or study or reports or studies)).mp.

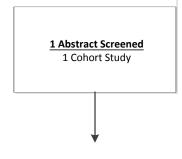
10. 8 not 9

11. limit 10 to (english language and humans and "all adult (19 plus years)")

12. limit 11 to ("diagnosis (maximizes sensitivity)" or "diagnosis (maximizes specificity)" or "diagnosis (best balance of sensitivity and specificity)")

13. limit 12 to yr="2015 -Current"

336 results, 192 results after duplicates from previous searches removed



### **0\* Evidence Table References**

\*note: due to overlapping search results, a number of abstracts screened were duplicated across PICOs but only appear once in the Evidence Table to avoid repetition

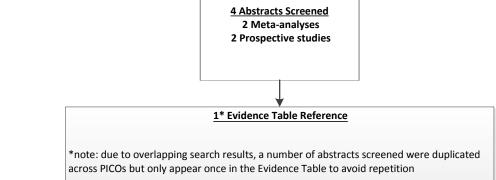
\*Information Resources:

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### Systematic Literature Research – Ovid Medline Database (01/01/2015 – 02/28/2019)

# PICO: Cough and/or dyspnea presenting with a high clinical suspicion for pneumonia and a negative or indeterminate initial chest radiograph

<ol> <li>exp Pneumonia/</li> <li>("experimental lung inflammation" or "experimental lung inflammations" or "inflammation, experimental lung" or "inflammation, lung" or "inflammation, pulmonary" or "lobar pneumonia" or "lobar pneumonias" or "lung inflammation, pulmonary" or "lobar pneumonia" or "lobar pneumonias" or "lung inflammation" or "pneumonias" or "lung inflammations" or "lung inflammations, experimental" or "pneumonia" or "lung inflammations" or "lung inflammations, experimental" or "pneumonia" or "pneumonia" or "pneumonias" or "lung inflammations" or "lung inflammations, experimental" or "pneumonia" or "pneumonias" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pneumonias" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pneumonias" or "pneumonias, lobar" or "pneumonitides" or "pneumonitis" or "pulmonary inflammation" or "pneumonias".</li> <li>Cough/</li> </ol>
<ul> <li>4. ("cough" or "coughs").mp.</li> <li>5. exp Dyspnea/</li> <li>6. ("breath shortness" or "breath shortnesses" or "breathlessness" or "breathlessnesses" or "dyspnea" or "dyspneas" or "shortness of breath" or "dyspnoea" or "dyspnoea" or "dyspnoeas".</li> <li>7. 1 or 2 or 3 or 4 or 5 or 6</li> </ul>
<ol> <li>8. (CT or HRCT or computed tomography or CTA or MRI or MRA or magnetic resonance or imaging or bone scan or scintigraphy or HDP or MDP or 99mTc or PET or SPECT or nuclear medicine or Ga-67 or Tc-99m WBC or In-111 WBC).mp.</li> <li>9. 7 and 8</li> <li>10. (case adj2 (report or study or reports or studies)).mp.</li> <li>11. 9 not 10</li> <li>12. limit 11 to (english language and humans and "all adult (19 plus years)")</li> </ol>
<ul> <li>13. limit 12 to ("diagnosis (maximizes sensitivity)" or "diagnosis (maximizes specificity)" or "diagnosis (best balance of sensitivity and specificity)")</li> <li>14. limit 13 to yr="2015 -Current"</li> </ul>
1250 results, 589 results after duplicates from previous searches removed



\*Information Resources:

Ovid EmBase and Medline, NCBI PubMed, National Guideline Clearinghouse, Guidelines International Network, TRIP Database, Choosing Wisely, Cochrane Database, Agency for Healthcare Research and Quality, and numerous specialty society websites Additional Internet and bibliographic searches were performed for all phases of research