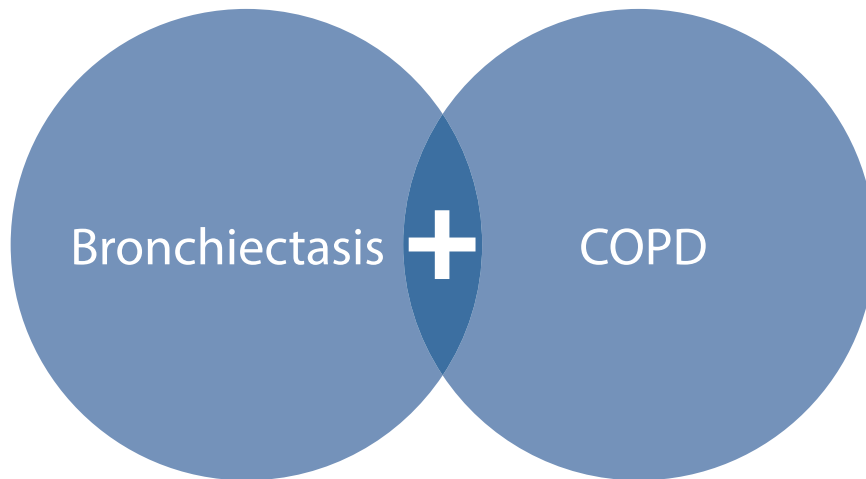
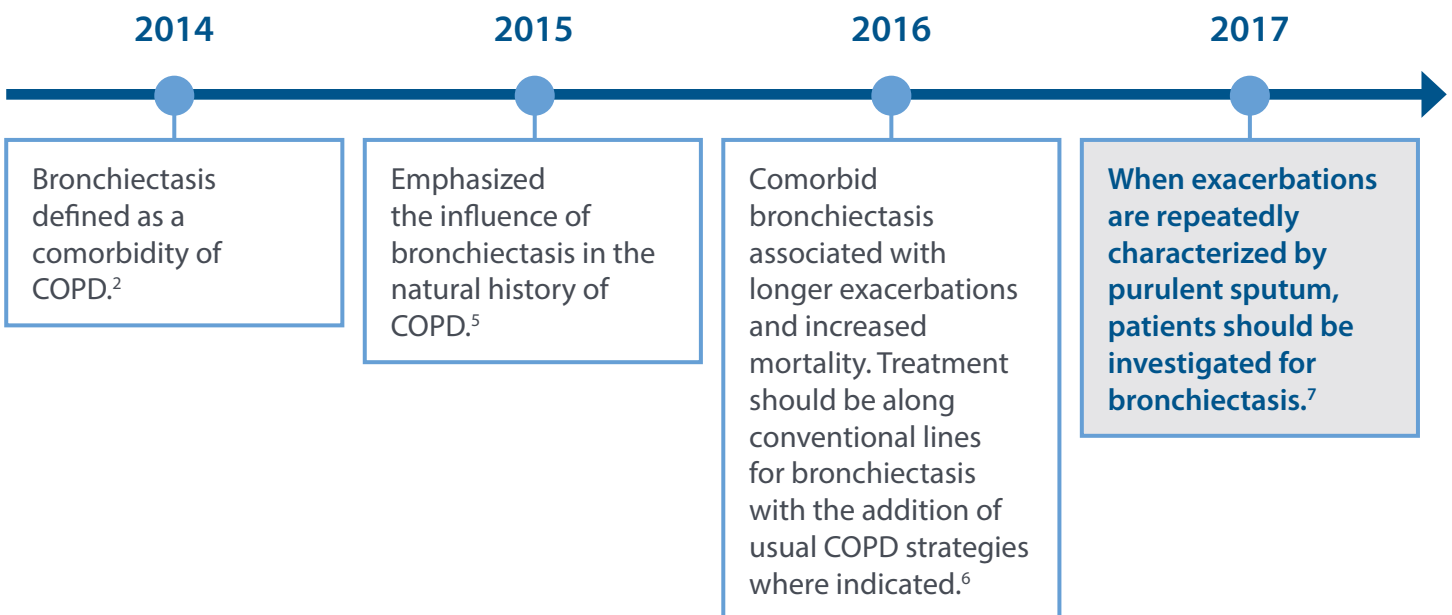


Bronchiectasis (BE) and Chronic Obstructive Pulmonary Disease (COPD)

Research on Bronchiectasis COPD Overlap Syndrome (BCOS) is emerging.¹⁻⁴



Global Initiative for COPD (GOLD) Guidelines on Bronchiectasis



BCOS Phenotype

- Clinical features/factors
 - Moderate to severe airflow obstruction^{1-4,8}
 - Increased daily sputum²
 - More frequent respiratory exacerbations^{3,9}
 - Higher rates of potential pathogenic microorganisms^{1,2,4,8}
 - At least 1 hospitalization⁴

BCOS Has Worse Outcomes

- Greater sputum production⁸
- More frequent respiratory exacerbations^{8,9}
- Longer duration of acute exacerbation^{1,4,8}
- Higher rate of pathogenic microorganisms in sputum^{1,4,8}
- Poorer lung function⁸
- Extended ICU and hospital length of stay⁸
- Increased mortality^{1,2,10}

Combining BE Management With COPD

- Bronchiectasis common in lower lobes^{11,12}
 - May reflect gravity-dependent retention of infected secretions
- Retained secretions:^{11,12}
 - Cause obstruction and damage of airways
 - Create an environment for bacteria to grow, which may lead to recurrent infections^{11,12}
- Airway clearance critical to management¹¹⁻¹⁴

HFCWO Improves Outcomes in BE

- Decrease in:
 - Hospitalizations^{15,17}
 - Office, emergency department and hospital outpatient visits¹⁵
 - Prescriptions/antibiotic use^{15,17}
- Improvement in:
 - Dyspnea and quality of life¹⁶
 - Several lung function parameters compared to CPT¹⁶
- Good–Excellent reported in:
 - Ability to clear lungs¹⁷
 - Overall respiratory health¹⁷

References

1. Lambert AA, Dransfield MT. COPD overlap syndromes: asthma and beyond. *Chronic Obstr Pulm Dis (Miami)*. 2016;3(1):459-465. doi: <http://dx.doi.org/10.15326/jcopdf.3.1.2015.0176>.
2. Martinez-Garcia MA, Miravittles M. Bronchiectasis in COPD patients: more than a comorbidity? *Int J Chron Obstruct Pulmon Dis*. 2017;12:1401-1411.
3. Martinez-Garcia MA. Prognostic value of bronchiectasis in patients with moderate-to-severe chronic obstructive pulmonary disease. *Am J Respir Crit Care Med*. 2013;187:823-831.
4. Arram EO, Elrakhawy MM. Bronchiectasis in COPD patients. *Egyptian Journal of Chest Diseases and Tuberculosis*. 2012;61:307-312.
5. Ni Y, Shi G, Yu Y, et al. Clinical characteristics of patients with chronic obstructive pulmonary disease with comorbid bronchiectasis: a systemic review and meta-analysis. *Int J Chron Obstruct Pulmon Dis*. 2015;10:1465-1475.
6. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. Updated 2016. www.goldcopd.org. Accessed October 10, 2017.
7. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease 2017 report. 2017.
8. Du Q, Jin J, Liu X, et al. Bronchiectasis as a comorbidity of chronic obstructive pulmonary disease: a systematic review and meta-analysis. *PLoS One*. 2016;11:e0150532.
9. Kosmas E, et al. Metropolitan Hospital, Neo Faliro, Greece. Bronchiectasis in patients with COPD: an irrelevant imaging finding or a clinically important phenotype? 2017. doi: <http://dx.doi.org/10.1016/j.chest.2016.08.994>. <http://journal.publications.chestnet.org/pdfaccess.ashx?url=/data/journals/chest/935778/>. Accessed May 8, 2017.
10. Gominne PC, Nawrot TS, Rutten D, et al. Mortality in non-cystic fibrosis bronchiectasis: a prospective cohort analysis. *Respir Med*. 2014;108:287-296.
11. Barker AF. (2002). Bronchiectasis. *N Engl J Med*. 2002;346:1383-1393.
12. King PT. The pathophysiology of bronchiectasis. *Internal Journal of COPD*. 2009;4:411-419.
13. American Thoracic Society. 2016. <https://www.thoracic.org/patients/patient-resources/breathing-in-america/resources/chapter-4-bronchiectasis>. Accessed September 22, 2017.
14. Tambascio J, et al. (2013). The Influence of purulence on ciliary and cough transport in bronchiectasis. *Respiratory Care*. 2013;58(12).
15. Weycker D, et al. Outcomes with High-Frequency Chest Wall Oscillation Among Patients with Non-CF Bronchiectasis or COPD. Poster presented at ATS 2016.
16. Nicolini A, et al. Effectiveness of treatment with high-frequency chest wall oscillation in patients with bronchiectasis. *BMC Pulm Med*. 2013;13.
17. Barto T, et al. Registry Outcomes for HFCWO Vest Therapy in Adult Patients with Bronchiectasis. Poster presented at ATS 2016.

©2017 Hill-Rom Services PTE Ltd. ALL RIGHTS RESERVED.
206834 rev 1 16-OCT-2017 ENG – US

For further information about products or services, please contact your local Hill-Rom representative or visit our webpage:

800-426-4224

www.respiratorycare.hill-rom.com

Enhancing outcomes for patients and their caregivers:

Hill-Rom