

COPD Evidence Summary

Cochrane Airways collaborated with National Institute for Health and Care Excellence (NICE) to deliver their Guideline on Chronic obstructive pulmonary disease in over 16s: diagnosis and management 2018. We delivered data from two reviews early and contributed a number of other reviews to the guidelines.

Inhaled combination therapy for COPD

A network meta-analysis (Oba 2018) supported the sections in inhaled combination therapy for COPD (1.2.11, 1.2.12, 1.2.15).

- In the NMA, LABA and LAMA was the highest ranked treatment group to reduce COPD exacerbations although there was some uncertainty in the results. The guideline recommended to
 - “offer LABA and LAMA to people who have spirometrically confirmed COPD and how do not have asthmatic features/features suggestion steroid responsiveness”
 - “Consider LABA and ICS for people who have spirometrically confirmed COPD and have asthmatic features/features suggesting steroid responsiveness”
- The Cochrane review also analysed at the drug, rather than class, level. The guideline committee did not “recommend a particular LAMA because they were not convinced that the evidence showed any meaningful differences in effectiveness between drugs in this class”.

Prophylactic antibiotics for COPD

An updated review on prophylactic antibiotics for COPD (Herath 2018) supported the section on oral prophylactic antibiotic therapy (1.2.41 to 1.2.49)

- The review showed that the use of continuous and intermittent prophylactic antibiotics reduced COPD exacerbations. All studies of continuous and intermittent antibiotics used macrolides prescribed at least three times per week.
- The guideline committee recommended that prophylactic antibiotics (usually azithromycin, a macrolide) could be considered for carefully selected patients
- However, even though there may be fewer exacerbations with antibiotics, there are considerable drawbacks of taking antibiotics:
 - adverse events associated with the antibiotics, which differed according to the antibiotic used;
 - people have to take antibiotics regularly for months or years;
 - potential increase in antibiotic resistance will have implications for both individual patients and the wider community through reducing the effectiveness of currently available antibiotics.

References

National Institute for Health and Care Excellence. Chronic obstructive pulmonary disease in over 16s: diagnosis and management. [NICE guideline \[NG115\]](#).

Oba Y, Keeney E, Ghathehorde N, Dias S. Dual combination therapy versus long-acting bronchodilators alone for chronic obstructive pulmonary disease (COPD): a systematic review and network meta-analysis. *Cochrane Database of Systematic Reviews* 2018, Issue 12. Art. No.: CD012620. DOI: [10.1002/14651858.CD012620.pub2](https://doi.org/10.1002/14651858.CD012620.pub2).

Herath SC, Normansell R, Maisey S, Poole P. Prophylactic antibiotic therapy for chronic obstructive pulmonary disease (COPD). *Cochrane Database of Systematic Reviews* 2018, Issue 10. Art. No.: CD009764. DOI: [10.1002/14651858.CD009764.pub3](https://doi.org/10.1002/14651858.CD009764.pub3).

Other reviews used in the guideline

van Agteren JEM, Hnin K, Grosser D, Carson KV, Smith BJ. Bronchoscopic lung volume reduction procedures for chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2017, Issue 2. Art. No.: CD012158. DOI: [10.1002/14651858.CD012158.pub2](https://doi.org/10.1002/14651858.CD012158.pub2).

van Agteren JEM, Carson KV, Tiong LU, Smith BJ. Lung volume reduction surgery for diffuse emphysema. *Cochrane Database of Systematic Reviews* 2016, Issue 10. Art. No.: CD001001. DOI: [10.1002/14651858.CD001001.pub3](https://doi.org/10.1002/14651858.CD001001.pub3).

Howcroft M, Walters EH, Wood-Baker R, Walters JAE. Action plans with brief patient education for exacerbations in chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2016, Issue 12. Art. No.: CD005074. DOI: [10.1002/14651858.CD005074.pub4](https://doi.org/10.1002/14651858.CD005074.pub4).

Lenferink A, Brusse-Keizer M, van der Valk PDLPM, Frith PA, Zwerink M, Monninkhof EM, van der Palen J, Effing TW. Self-management interventions including action plans for exacerbations versus usual care in patients with chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2017, Issue 8. Art. No.: CD011682. DOI: [10.1002/14651858.CD011682.pub2](https://doi.org/10.1002/14651858.CD011682.pub2).

McCabe C, McCann M, Brady AM. Computer and mobile technology interventions for self-management in chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2017, Issue 5. Art. No.: CD011425. DOI: [10.1002/14651858.CD011425.pub2](https://doi.org/10.1002/14651858.CD011425.pub2).

Zwerink M, Brusse-Keizer M, van der Valk PDLPM, Zielhuis GA, Monninkhof EM, van der Palen J, Frith PA, Effing T. Self management for patients with chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2014, Issue 3. Art. No.: CD002990. DOI: [10.1002/14651858.CD002990.pub3](https://doi.org/10.1002/14651858.CD002990.pub3).

Ekström 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. *Cochrane Database of Systematic Reviews* 2016, Issue 11. Art. No.: CD006429. DOI: [10.1002/14651858.CD006429.pub3](https://doi.org/10.1002/14651858.CD006429.pub3).

Cranston JM, Crockett A, Moss J, Alpers JH. Domiciliary oxygen for chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2005, Issue 4. Art. No.: CD001744. DOI: [10.1002/14651858.CD001744.pub2](https://doi.org/10.1002/14651858.CD001744.pub2).