CORRESPONDENCE

Triple inhaler therapy for COPD

The randomised controlled trial (GLISTEN) by Frith *et al*¹ showed significant improvements in trough FEV₁, health-related quality of life and rescue medication when long-acting muscarinic antagonists (LAMA: as either tiotropium or glycopyrronium) were added to inhaled corticosteroid/long-acting beta-agonist (ICS/LABA: as fluticasone/salmeterol) in 773 patients with moderate-to-severe COPD (FEV₁ 57.2%) over 12 weeks. The authors concluded that this was the first study, which conclusively demonstrates the benefits of triple therapy compared with dual therapy. In a retrospective cohort study using health informatics reported by Short *et al*,² 2853 patients with moderate-to-severe COPD were followed up over 4.65 years; of whom, 996 were receiving ICS/LABA (FEV₁ 62.7%) and 1857 receiving ICS/LABA/LAMA (FEV₁ 50.8%). Comparing outcomes using triple versus dual therapy, the adjusted HRs were 0.85 (95% CI 0.73 to 0.99) for hospital admissions, 0.71 (95% CI 0.63 to 0.80) for oral

corticosteroid bursts and 0.74 (95% CI 0.63 to 0.88) for all-cause mortality. Serial FEV₁ measurements over 4 years fell by 30 mL (95% CI 10 to 60 mL) in the triple therapy group. This, in turn, indicates the putative long-term clinically relevant benefits by adding LAMA to ICS/LABA in a real-life setting, especially where adherence rates are likely to be lower using two separate inhalers in comparison with what might occur in a medium-term randomised controlled trial. Hence, there may be long-term potential benefits conferred by the use of single-inhaler triple therapy when used in real life for patients with more severe COPD.

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REFERENCES

- 1 Frith PA, Thompson PJ, Ratnavadivel R, *et al*. Glycopyrronium once-daily significantly improves lung function and health status when combined with salmeterol/fluticasone in patients with COPD: the GLISTEN study—a randomised controlled trial. *Thorax* 2015;**70**:519–27.
- 2 Short PM, Williamson PA, Elder DH, *et al*. The impact of tiotropium on mortality and exacerbations when added to inhaled corticosteroids and long-acting beta-agonist therapy in COPD. *Chest* 2012;**141**: 81–6.