brought to you by I CORE





University of Dundee

Real world studies in infrequently exacerbating patients with COPD

Lipworth, Brian; Kuo, Chris

Published in: Chest

DOI:

10.1016/j.chest.2019.04.094

Publication date: 2019

Document Version Peer reviewed version

Link to publication in Discovery Research Portal

Citation for published version (APA):

Lipworth, B., & Kuo, C. (2019). Real world studies in infrequently exacerbating patients with COPD. Chest, 156(2), 415-416. https://doi.org/10.1016/j.chest.2019.04.094

General rights

Copyright and moral rights for the publications made accessible in Discovery Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from Discovery Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
 You may freely distribute the URL identifying the publication in the public portal.

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Download date: 27. Apr. 2021



If there is Online Only content that cannot be converted to a Word processing format, you may have to click the Supplemental Files icon on the menu bar in your Reviewer Center to access.

Real world studies in infrequently exacerbating patients with COPD

| Journal: | CHEST |
|-------------------------------|--|
| Manuscript ID | CHEST-19-0749 |
| Article Type: | Correspondence |
| Date Submitted by the Author: | 02-Apr-2019 |
| Complete List of Authors: | Lipworth, Brian; University of Dundee, Scottish Centre for Respiratory Research Kuo, Chris RuiWen; University of Dundee, Scottish Centre for Respiratory Research |
| Keywords: | COPD (CHRON. OBSTRUCT. PUL. DIS.), INHALED CORTICOSTEROIDS, Long acting bronchodilators |
| | |

SCHOLARONE™ Manuscripts

© 2019. This manuscript version is made available under the CC-BY-NC-ND 4.0 license http://creativecommons.org/licenses/by-nc-nd/4.0/

Real world studies in infrequently exacerbating patients with COPD

Brian Lipworth and Chris RuiWen Kuo

Scottish Centre for Respiratory Research

Ninewells Hospital and Medical School

University of Dundee

Scotland, UK, DD1 9SY

Competing Interests: Dr Lipworth has either received research grants, participated in advisory boards, acted as a speaker received support for equipment or to attend educational meetings from Boehringer Ingelheim, AstraZeneca, Chiesi, Novartis, GlaxoSmithKline, Sandoz, Cipla, Sanofi, Genentech, Mylan, Glenmark, Circassia, ERT, Thorasys. Dr Lipworth's son works for AstraZeneca. Dr Kuo has acted as a speaker for AstraZeneca, Pfizer, Bristol-Myers Squibb, and received support to attend educational meetings from Circassia.

Correspondence: b.j.lipworth@dundee.ac.uk

The benefits of inhaled corticosteroids (ICS) as dual or triple combination therapy are more pronounced in patients with the frequent exacerbating eosinophilic (FEE) phenotype of COPD, corresponding to GOLD group D¹. The real life study of Suissa et al² looked at a cohort of COPD patients in whom 82% had zero or one prior exacerbations, corresponding to GOLD group B. In infrequently exacerbating patients one might expect there to be little impact conferred by using an ICS in combination with a long acting beta-agonist (LABA). In such patients using two long acting bronchodilators as LABA along with long acting muscarinic antagonist (LAMA) has not been shown to be superior to LAMA alone (as tiotropium) in reducing exacerbations³. The low prevalence of patients with the FEE phenotype in the dataset of Suissa et al would preclude any meaningful post hoc analysis to investigate the putative benefits of ICS/LABA over LABA/LAMA.

We believe a more worthwhile real life study might perhaps be to compare patients taking LABA/LAMA versus ICS/LABA/LAMA, especially since randomised controlled and real world trials have shown clear superiority of triple therapy compared to ICS/LABA on exacerbations^{4,5}. An important point not considered by Suissa et al is the impact of different inhaler types in each group, which in turn might exhibit potential confounding effects on lung deposition and patient adherence. In this regard prospective randomised controlled trials have demonstrated triple therapy to be superior to LABA/LAMA when both are taken via the same single dry powder inhalers⁵.

We would therefore suggest extreme caution in extrapolating the findings of Suissa et al to patients with the FEE phenotype of COPD, where ICS containing dual or triple therapy is likely to be effective. Furthermore their findings of more pneumonias with ICS/LABA is likely to be specific to fluticasone propionate due to its increased lipophilicity and associated prolonged lung retention¹.

References

- Lipworth B, Kuo CR, Jabbal S. Current appraisal of single inhaler triple therapy in COPD. *Int J Chron Obstruct Pulmon Dis.* 2018;13:3003-3009.
- Suissa S, Dell'Aniello S, Ernst P. Comparative effectiveness and safety of LABA-LAMA versus LABA-ICS treatment of COPD in real world clinical practice. Chest. 2019.
- Calverley PMA, Anzueto AR, Carter K, et al. Tiotropium and olodaterol in the prevention of chronic obstructive pulmonary disease exacerbations (DYNAGITO): a double-blind, randomised, parallel-group, active-controlled trial. *Lancet Respir Med.* 2018;6(5):337-344.
- Short PM, Williamson PA, Elder DKJ, Lipworth SIW, Schembri S, Lipworth
 BJ. The Impact of Tiotropium on Mortality and Exacerbations When Added to
 Inhaled Corticosteroids and Long-Acting beta-Agonist Therapy in COPD.

 Chest. 2012;141(1):81-86.
- Lipson DA, Barnhart F, Brealey N, et al. Once-Daily Single-Inhaler Triple versus Dual Therapy in Patients with COPD. N Engl J Med.
 2018;378(18):1671-1680.