previously on inhaled corticosteroids, for whom there was a small number of events [$n = 5–8$ across groups], preventing meaningful conclusions), and across a broad range of eosinophil counts (1), suggesting that it is highly unlikely that this was a chance finding influenced by confounding.

We disagree with the suggestion that there may have been a different level of effort in retrieving deaths between groups. Our supplemental follow-up retrieved 52-week vital status for 99.65% of patients in the intent-to-treat population. For the 30 patients whose 52-week vital status remained unknown in the final retrieved dataset (including $n = 10$ on BGF 320 and $n = 5$ on GFF), we reported tipping-point analyses to examine the possible impact of these patients. If all 5 missing patients on GFF were alive and up to 8 of 10 patients on BGF 320 died the day after we last knew they were alive, the treatment comparison would remain significant (1). It is correct that not all retrieved deaths were included in the analysis and that the percentage of excluded deaths varied across groups. This is because the analysis only included deaths up to 52 weeks, and a greater percentage of deaths in the dual-therapy groups occurred within 52 weeks. We performed a sensitivity analysis including all retrieved deaths, regardless of how late they occurred (i.e., 37 deaths for BGF 320 and 64 deaths for GFF); this produced a hazard ratio of 0.46 (95% confidence interval, 0.30–0.71; $P = 0.0004$).

Overall, we agree that further trials assessing the benefits of triple therapy on mortality would be welcome. However, there would be substantial practical difficulties in conducting such trials, including the fact that two large studies (IMPACT [Informing the Pathway of Chronic Obstructive Pulmonary Disease Treatment] and ETHOS) have now shown a benefit of triple therapy on mortality, raising ethical questions on the appropriateness of randomizing this patient population to long-term dual therapy. As mentioned by Rogliani and Calzetta, clinical trial populations are only partially representative of real-life populations, and any future trials would have this same limitation. Nevertheless, many studies have now provided evidence that triple therapy reduces exacerbations and improves lung function and patient-reported outcomes compared with dual therapies (3). The findings from IMPACT and ETHOS on mortality add support for the benefit of these therapies in improving the lives of patients with chronic obstructive pulmonary disease.

Author disclosures

Fernando J. Martinez, M.D., M.S.*
Weill Cornell Medicine
New York, New York

Patrick Darken, Ph.D.
AstraZeneca
Wilmington, Delaware

Paul Dorinsky, M.D.
AstraZeneca
Durham, North Carolina

On behalf of all the authors

*Corresponding author (e-mail: fjm2003@med.cornell.edu).
†F.J.M. is Deputy Editor of AJRCCM. His participation complies with American Thoracic Society requirements for recusal from review and decisions for authored works.
made about results that are not adjusted for multiplicity when this context is understood. We have not singled out ACM because it occurred by chance. In fact, 33 of 34 predefined efficacy endpoints directionally favored FF/UMEC/VI over UMEC/VI in the overall IMPACT population, with 29 of the 33 having a \( P \) value <0.05 and 23 of these 29 having a \( P \) value <0.001.

The IMPACT study provides confidence in the reduction in ACM with FF/UMEC/VI treatment compared with long-acting muscarinic antagonist/long-acting \( \beta_2 \)-agonist treatment. IMPACT was a well-designed, well-conducted, large, global, multicenter trial. ACM was a predefined endpoint with a prespecified analysis plan. These data were reliable and of high quality, with independent adjudication of deaths and minimal missing data (0.4% of the 10,355 subjects in the ITT population).

In addition, we demonstrated clinical plausibility between ACM and reduction of severe (hospitalized) COPD exacerbations. Indeed, in IMPACT, there was a 34% reduction in the rate of severe COPD exacerbations with FF/UMEC/VI compared with UMEC/VI, further supporting the plausibility that the risk of death would also be reduced (2).

Similar findings in reduction in ACM more recently shown in the ETHOS (Efficacy and Safety of Triple Therapy in Obstructive Lung Disease) study (3) also strongly support that the IMPACT findings were not due to chance.

**Author disclosures** are available with the text of this letter at www.atsjournals.org.

David A. Lipson, M.D.*
GlaxoSmithKline
Collegeville, Pennsylvania

and

University of Pennsylvania
Philadelphia, Pennsylvania

MeiLan K. Han, M.D.‡
University of Michigan
Ann Arbor, Michigan

Robert Wise, M.D.
Johns Hopkins University
Baltimore, Maryland

Fernando J. Martinez, M.D.‡
Cornell University
New York, New York

On behalf of all the authors

ORCID IDs: 0000-0001-6732-4593 (D.A.L.); 0000-0002-8353-2349 (R.W.).

*Corresponding author (e-mail: david.a.lipson@gsk.com).
‡M.K.H. is Associate Editor and F.J.M. is Deputy Editor of AJRCCM. Their participation complies with American Thoracic Society requirements for recusal from review and decisions for authored works.

**References**

1. Lipson DA, Crim C, Criner GJ, Day NC, Dransfield MT, Halpin DMG, et al. Reduction in all-cause mortality with fluticasone furoate/umeclidinium/vilanterol in patients with chronic obstructive pulmonary disease. Am J Respir Crit Care Med 2020;201:

2. Lipson DA, Barnhart F, Brealey N, Brooks J, Criner GJ, Day NC, et al.; IMPACT Investigators. Once-daily single-inhaler triple versus dual therapy in patients with COPD. N Engl J Med 2018;378:

3. Martinez FJ, Rabe KF, Ferguson GT, Wedzicha JA, Singh D, Wang C, et al.; ETHOS investigators. Reduced all-cause mortality in the ETHOS trial of budesonide/glycopyrrolate/formoterol for COPD: a randomized, double-blind, multi-center parallel-group study. Am J Respir Crit Care Med [online ahead of print] 30 Nov 2020; DOI: 10.1164/rccm.202006-2618OC.

**Erratum: Culture Conversion in Patients Treated with Bedaquiline and/or Delamanid: A Prospective Multicountry Study**

Because of an error by our compositor, an incorrect affiliation was inadvertently inserted for Dr. Nino Chumburidze in the January 1, 2021 article by Franke and colleagues (1). Dr. Chumburidze should have been listed as being a member of the Medical Department, Doctors Without Borders, in Tbilisi, Georgia (not Sokhumi, Georgia). The Journal has replaced the online version of the article with a corrected version.

**Reference**

1. Franke MF, Khan P, Hewison C, Khan U, Huerga H, Seung KJ, et al. Culture conversion in patients treated with bedaquiline and/or delamanid: a prospective multicountry study. Am J Respir Crit Care Med 2021;203:111–119.

Copyright © 2021 by the American Thoracic Society