Hospitalization Due to COPD Exacerbation

To the Editor:

I read with interest the editorial of Rabe1 in CHEST (August 2012), and I want to share his claim on the quality of data sets not only for retrospective cohort studies but also for randomized controlled trials. It has been suggested that admission to hospital for acute exacerbations of COPD (AECOPD) allows the identification of a subgroup of patients with a poorer prognosis.2 The study of Soler-Cataluña et al3 confirmed that severe AECOPD, that is, exacerbation episodes requiring hospital management, exert a direct and independent effect on the survival of patients with COPD. García-Aymerich et al4 reported a 50% mortality rate at 5 years following at least one COPD hospitalization. Mortality rate after COPD-related admission was 55% at 5 years in a large cohort of Veterans Affairs patients (N = 51,353).5 When that rate was compared with other diseases, it was close to oncologic mortality range. The four most common malignancies in developed countries have the following 5-year relative survival rates: 73% to 89% for breast cancer, 50% to 99% for prostate cancer, and about 43% to 63% for colorectal cancer. Only lung cancer, which has the worst survival rate (12-18%), appeared far beyond AECOPD mortality.6

Does AECOPD hospitalization as a marker of severity constitute one more inexorable and unavoidable feature of COPD natural history? Individual interventional studies may not have enough power to show changes in hospitalization, but if full data sets were provided that would enable systematic analysis, there might be a chance to show a difference.

We could only find hospitalization data in three of the 14 included studies in a systematic review.7 AECOPD was reported with a wide spectrum of end points in each trial, such as the following: proportion of subjects with at least one exacerbation for all kind of severities; time to first AECOPD; duration of AECOPD; number of subjects treated with systemic corticosteroids, antibiotics, or both; and percentage of subjects with one or more AECOPD.

This issue seems relevant enough to request reporting AECOPD hospitalizations in absolute figures. Analyses of databases trying to assess drug safety of COPD drugs, as suggested by Rabe,1 might include drug efficacy, too.

Luis J. Nannini, MD, FCCP
Rosario, Santa Fe, Argentina

References
1. Rabe KF. Drug safety in COPD revisited: what is the number needed to analyze? CHEST. 2012;142(2):271-274.