

Commonly prescribed antibiotic reduces acute COPD attacks

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Adding a common antibiotic to the usual daily treatment regimen for chronic obstructive pulmonary disease (COPD) can reduce the occurrence of acute exacerbations and improve quality of life, reports new results from a clinical trial funded by the National Heart, Lung, and Blood Institute (NHLBI), part of the National Institutes of Health.

The study will appear in the Aug. 25 issue of the [New England Journal of Medicine](#).

"Acute exacerbations account for a significant part of COPD's health burden," said Susan B. Shurin, M.D., acting director of the NHLBI. "These promising results with azithromycin may help us reduce that burden and improve the lives of patients at risk."

COPD exacerbations are sudden onsets of worsened cough, wheeze, and labored breathing which are typically induced by bacterial and/or viral infection. Azithromycin is already prescribed for a wide variety of bacterial infections including pneumonia and strep throat.

Previous research suggested that this antibiotic might work for COPD exacerbations, but this study was the first to enroll a large number of COPD patients and treat exacerbations with this drug over a long time. Participants had a history of exacerbations in the previous year or needed [oxygen therapy](#).

The 570 [study participants](#) who took 250 milligrams of azithromycin

daily for a year in addition to their usual care averaged 1.48 acute COPD exacerbations annually, compared to 1.83 exacerbations for the 572 participants who received their usual care without azithromycin. The participants taking azithromycin also assessed their own breathing ability and overall well-being more favorably on questionnaires.

Eighty percent of the study participants were already taking other medications normally used to manage COPD, including [inhaled steroids](#) and long-acting bronchodilators.

"This study suggests that azithromycin's benefits extend beyond those of other therapies," noted James Kiley, Ph.D., director of the NHLBI's Division of [Lung Diseases](#). Kiley added that more research is needed to determine the long-term effects of azithromycin treatment and to identify which group of patients would benefit the most.

Side effects of azithromycin during the study were minimal. The presence of microbes resistant to azithromycin increased in some patients, although no one developed a clinically evident infection. A small fraction of participants receiving azithromycin were found to have slight hearing loss, which is a known side effect of the drug.

Azithromycin can also cause heart arrhythmias in susceptible people. No heart rhythm abnormalities were seen in study patients, though people with heightened risks for arrhythmias were not enrolled in the study.

Provided by National Institutes of Health

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