

Large study finds ICS therapy reduces pneumonia mortality

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Patients with chronic obstructive pulmonary disease (COPD) who are hospitalized for pneumonia and treated with inhaled corticosteroids (ICS) have decreased mortality when compared to those who are not treated with ICS, according to a retrospective analysis of almost 16,000 COPD patients admitted to VA hospitals.

The results were published online ahead of the print edition of the *American Thoracic Society's* [American Journal of Respiratory and Critical Care Medicine](#).

The use of ICS in COPD patients reduces exacerbations, but increases the rate [pneumonia](#). "It was therefore believed that it also increased mortality," said Eric Mortensen, MD, investigator at VERDICT (Veterans Evidence-based Research, Dissemination, and Implementation Center, a VA Health Services Research and Development program) and principal investigator on the study. "This was the first large rigorous study to examine whether this was in fact the case."

"This result is the opposite of what many experts have believed," said Dr. Mortensen. "We do, however, believe that this represents the reality because ours is one the largest studies, and employed a rigorous definition of pneumonia that previous studies did not."

Dr. Mortensen and colleagues examined the medical records of 15,768 COPD patients over the age of 65 who had been admitted to the VA hospitals for pneumonia between 2002 and 2007. About half of those

patients had been treated with ICS (52.5 percent) and half were not (47.5 percent).

When they analyzed all-cause mortality of the two groups for both 30- and 90-day intervals, there were significant differences between the groups: for 30-day mortality, 10.2 percent of ICS users died, compared to 13.6 percent of those who were not treated with ICS. For 90-day mortality, the difference was even more striking: 17.3 percent among the ICS users died, and 22.8 percent of those who didn't receive ICS.

Overall, those who were not treated with ICS had about a 25 percent greater mortality risk than those who were treated with ICS.

"These results have clear implications for current clinical practice, which has been informed in the past by a series of studies that found an increased risk of pneumonia with ICS use," said Dr. Mortensen. "In contrast, our study would suggest that ICS use may confer a survival benefit to these patients and may be employed when there are not contraindications. These results should reassure clinicians that they can give their COPD patients ICS without fearing that the increased risk of pneumonia will translate into higher risk of [mortality](#)."

The next "really big question," according to Dr. Mortensen is whether ICS might be useful to initiate in certain sub-populations hospitalized with pneumonia. "There is currently a large randomized, controlled trial getting started that is looking at using oral versus intravenous steroids for all pneumonia patients," Dr. Mortensen explained. "The potential question is if this is successful would it be as useful to start these patients on inhaled (rather than oral or intravenous) steroids."

More information: [Read the original study here.](#)

Provided by American Thoracic Society

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