

Admissions, deaths for COPD vary by season

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(HealthDay)—There is dramatic seasonal variation in rates of admissions for chronic obstructive pulmonary disease (COPD) exacerbation, according to a study presented at CHEST 2019, the annual

meeting of the American College of Chest Physicians, held from Oct. 19 to 23 in New Orleans.

Abhishek Chakraborti, M.D., from the Brookdale Hospital and Medical Center in Brooklyn, New York, and colleagues used the 2016 National Inpatient Sample and National Inpatient Database to identify patients with a principal diagnosis of acute COPD [exacerbation](#). Admissions were categorized by quarter and 30-day readmissions were evaluated (Q1: January/February/March; Q2: April/May/June; Q3: July/August/September; Q4: October/November).

For the study, 530,229 patients were included (58 percent female; mean age, 68 years). The researchers found that the highest proportion of admissions occurred in Q1 (33.7 percent), and patients admitted in Q1 also had the highest rates of readmission compared with other quarters (adjusted odds ratios: Q2, 0.93; Q4, 0.95). Mortality rates were also highest among patients admitted in Q1 (adjusted odds ratios: Q2, 0.84; Q3, 0.78; Q4, 0.84). Hospital length of stay was longer in Q1 versus admissions in other quarters (adjusted mean differences: Q2, -0.13 days; Q3, -0.22 days; Q4, -0.13 days). Total hospitalization costs were similar in Q1 and Q3, but were higher in Q4 (adjusted mean difference, \$163.3). In Q1, hospitalization charges were higher versus other quarters (adjusted mean differences: Q2, -\$590.77; Q3, -\$873.67).

"This study calls into action several questions. It is important to identify factors that contribute to increased rates of COPD exacerbations during the winter months, possible biomarkers, patterns of COPD exacerbations, specific phenotypes that may identify those who are more susceptible to exacerbations during Q1 season and, of course, preventive interventions," Michelle Cao, M.D., member of the American College of Chest Physicians Scientific Presentations and Awards Committee, said in a statement. "The study provides an opportunity to improve morbidity, mortality, and economic burdens associated with COPD."

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