**ASSESSMENT OF ANTIBIOTIC CHOICE IN PATIENTS ADMITTED WITH COPD EXACERBATION AT RISK FOR PSEUDOMONAS AERUGINOSA INFECTION.** Tanner Bross, Chelsea Landgraf, J. Drew Zimmer, Karrie Derenski, Cox Medical Center South, 3801 S. National Ave., Springfield, MO 65810. Tanner.Bross@coxhealth.com

The 2019 Global Initiative for Chronic Obstructive Lung Disease (GOLD) report recommends a 5-7 day course of antibiotics for any patient with all 3 cardinal symptoms of an acute exacerbation of chronic obstructive pulmonary disease (AECOPD), the presence of 2 of the 3 cardinal symptoms if increased sputum purulence is present, or the need for mechanical ventilation. While the report mentions consideration of *Pseudomonas aeruginosa* in patient at higher risk, it does not give guidance on antibiotics of choice for empiric coverage of the organism.

The purpose of this study is to determine at what rate antipseudomonal antibiotics are utilized in patients at higher risk for *P. aeruginosa* infection (defined as long-term oral systemic steroid use, previous *P. aeruginosa* isolated in a sputum culture within 1 year, previous use of an antipseudomonal antibiotic within 1 year, hospitalization within the past 90 days, or at least 2 COPD exacerbations within 1 year). The secondary purpose is to determine the 30- and 90-day readmission rates of these patients. Descriptive statistics will be used for baseline characteristics, and chi-squared tests will be used for all outcomes.

Patients admitted in 2018 with AECOPD who received at least one antibiotic and had at least one risk factor for *P. aeruginosa* will be included. Patients admitted to an intensive care unit or with a concurrent diagnosis of pneumonia or active cancer will be excluded.

Study results will be used to change protocols, as needed, to appropriately treat patients with AECOPD with *P. aeruginosa* risk factors.

**Learning Objective:**

- To identify antibiotic choices in patients admitted with AECOPD, at risk for *Pseudomonas aeruginosa* infections, in a community health center.