OBJECTIVES: Pneumonia-related 30-day readmission rates are publically reported as part of the Hospital Readmissions Reduction Program to improve quality of care for Medicare beneficiaries. We estimated the impact of pneumonia on inpa-
tient mortality and 30-day readmission rates in mechanically ventilated (MV) patients. METHODS: We performed a cohort study of MV patients using the Premier Perspective database (July 2012 to June 2014, inclusive). Patients on MV were identified and classified based on with those with a pneumonia-related diagnos-
tic code and those without. Patients were followed for the entire period of their hospitalization. Inpatient mortality and readmission rates for the thirty days post discharge were compared between the two groups using generalized linear models (GLMs). We estimated both outcomes using the binomial distribution, controlling for patient demographics, 3M™ All Patient Refined Diagnosis Related Group Severity and Mortality indices, and hospital characteristics. RESULTS: A total of 65,246 patients met criteria, of which 15,421 (23.6%) carried a pneumonia diagnosis. Pneumonia patients were older (64.2 vs 58.0 years, p<0.0001), more likely to have a primary diagnosis of mixed pneumonia (n=66, p<0.0001), on public insurance (75.6% vs 65.2%, p<0.0001). Comparing outcomes, pneu-
monia patients experienced significantly higher rates of mortality (25.5% vs. 18.1%, p<0.0001) and 30-day readmission (15.5% vs. 12.9%, p<0.0001). After adjustment for patient and institutional factors in the GLM, we found that the risk of death and readmissions remained statistically significant with odds ratios of 1.05 (95% CI: 1.01 to 1.10) for mortality and 1.11 (95% CI: 1.05 to 1.17) for 30-day readmission (p<0.024 and 0.0002, respectively). CONCLUSIONS: Pneumonia in MV patients increases the risk of mortality and 30-day readmissions. With penalties as high as 3% across all Medicare payments for readmission, efforts should continue to carefully evaluate the care of mechanically ventilated patients with pneumonia.

PSR4 MULTIMORBIDITY AND COPD MEDICATION RECEIPT AMONG MEDICAID BENEFICIARIES WITH NEWLY DIAGNOSED COPD

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OBJECTIVES: Multimorbidity is highly prevalent among individuals with Chronic Obstructive Pulmonary Disease (COPD). The association between multimorbidity and COPD medication management is not well researched. This study sought to examine the association between multimorbidity and receipt of COPD medications among Medicaid beneficiaries with newly diagnosed COPD. METHODS: Retrospective longitudinal dynamic cohort design was used and data were extracted from multiple years (2005-2008) of the Medicaid Analytic Extract (MAE) files. Medical beneficiaries with newly diagnosed COPD (N = 19,060) were identified using International Classification of Diseases Codes (ICD-9-CM) codes for COPD. ICD-9-CM codes for commonly co-occurring conditions with COPD were used to create multimorbidity variable. These conditions include cardiovascular diseases (CVD), depression, diabetes, hypertension, hyperlipidemia and osteoporosis. Medicaid beneficiaries with newly diagnosed COPD were categorized into following multimorbidity categories: 1) physical multimorbidity only, 2) mental multimorbidity only, 3) both physical and mental multimorbidity and 4) no multimorbidity. Receipt of COPD medications (short-acting, long-acting bronchodilators and inhaled corticosteroids) was identified using National Drug Codes. Bivariate relationships between multimorbidity and COPD medication receipt were analyzed by using chi-squared test of independence. The associations between multimorbidity and COPD medication receipt were analyzed with logistic and multinominal logistic regressions. RESULTS: Among Medicaid beneficiaries with newly diagnosed COPD, 74.9% had at least one co-occurring chronic condition. For example those with physical multimorbidity were less likely to receive short-acting bronchodilators (AOR: 0.82; 95% CI: 0.75, 0.89), long-acting bronchodilators (AOR: 0.86; 95% CI: 0.79, 0.93) and inhaled corticosteroids (AOR: 0.81; 95% CI: 0.75, 0.88) compared to those with no inflammation-related multimorbidity. CONCLUSIONS: Prevalence of multimorbidity is very high among Medicaid beneficiaries with newly diagnosed COPD. Our study findings suggest poor COPD medication management among those with multimorbidity.

PSR5 DRUG THERAPY FOR TREATMENT OF IDIOPATHIC PULMONARY FIBROSIS: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS

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OBJECTIVES: Idiopathic pulmonary fibrosis (IPF) is a rare, progressive form of fibrosing interstitial pneumonia which results in loss of lung function and pre-
mature mortality. The FDA first approved treatments for IPF in late 2014. The aim of this systematic review and network meta-analysis (NMA) is to perform a mixed treatment comparison of the efficacy of available pharmacologic treatments for IPF. METHODS: Medline, EMBASE, CENTRAL, and PROSPERO were searched for ran-
domed clinical trials in patients with IPF and supplemented with hand searches. Only randomized trials consisting exclusively of IPF patients were included. All stud-
ies were included if extracted by two independent reviewers. The primary outcome of interest was the similarity of these variables. Based on the MCID value for SGRQ of 4, exacerbations and HRU are not known. We conducted a systematic review of the literature to identify trials investigating the efficacy and safety of heliox. The route of administration was not related to success of heliox therapy. Fifty percent of patients did not need endotracheal intubation, and all responded favorably to heliox therapy. Fifty percent off patients did not need endotracheal intubation and all of those who responded to heliox. Fifty percent of patients did not need endotracheal intubation and all responded favorably to heliox therapy.

PSR8 REAL-WORLD OBSERVATIONAL STUDY OF ASSOCIATION BETWEEN STATIN MEDICATIONS AND COPD-SPECIFIC OUTCOMES

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OBJECTIVES: Disease modifying drugs are not yet available for the management of idiopathic pulmonary fibrosis (IPF). Current management is focused on symptom relief, due to its anti-inflammatory properties is under consideration for the manage-
ment of COPD. This study examined the relationship between statin therapy and death and hospitalization outcomes. Methods: We performed a cohort design using Medicare claims data from multiple years (2005-2008) was utilized. Statin therapy was identified from the prescription drug file using the National Drug Codes (NDC). COPD-specific outcomes such as hospitalizations, emergency room and/or intensive care unit. For qualitative variables proportions were used and for numeric variables were analyzed with averages and mean difference in the different treatment groups. The chi-square or Fisher exact test were used for data analysis. RESULTS: Fifty patients were included, of whom 59.6% were male. The mean age was 21.2 months (SD: 25.6). The two most frequent diagnoses were status asthmaticus (32.7%) and acute bronchitis (24.9%). Mortality was 5.8%. Success of heliox therapy was 76.9%. The route of administration was not related to the type of response. The duration of heliox therapy averaged 5.9 hours (SD 4.3) in patients who did not respond favorably and 8.0 hours (SD 5.6) in those who responded to heliox. Fifty percent off patients did not need endotracheal intubation and all responded favorably to heliox therapy. CONCLUSIONS: A high success rate with heliox therapy was found in this case series. Its use is recommended as an adjunct therapy in the management of acute respiratory insufficiency.

PSR7 THE USE OF HELIOX IN HOSPITALIZED CHILDREN FROM CARTAGENA COLOMBIA

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OBJECTIVES: To describe the use of heliox in a case series of patients admitted to emergency department or/and intensive care unit of children hospital “Napoleon Franco Pareja” in Cartagena, Colombia. METHODS: We performed the clinical features and results of heliox therapy in a series of children admitted to emergency room and/or intensive care unit. For qualitative variables proportions were used and for numeric variables were analyzed with averages and mean difference in the different treatment groups. The chi-square or Fisher exact test were used for data analysis. RESULTS: Fifty patients were included, of whom 59.6% were male. The mean age was 21.2 months (SD: 25.6). The two most frequent diagnoses were status asthmaticus (32.7%) and acute bronchitis (24.9%). Mortality was 5.8%. Success of heliox therapy was 76.9%. The route of administration was not related to the type of response. The duration of heliox therapy averaged 5.9 hours (SD 4.3) in patients who did not respond favorably and 8.0 hours (SD 5.6) in those who responded to heliox. Fifty percent off patients did not need endotracheal intubation and all responded favorably to heliox therapy. CONCLUSIONS: A high success rate with heliox therapy was found in this case series. Its use is recommended as an adjunct therapy in the management of acute respiratory insufficiency.