OBJECTIVES: Pneumonia-related 30-day readmission rates are publically reported as part of Medicare’s 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 2016). Patients on MV in 2012 were included and classified based on 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 die (5.8% vs 4.5%, p < 0.0001), and more likely to be placed on public insurance (75.6% vs 65.2%, p < 0.0001). Comparing outcomes, pneumo-
nia 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 regressions the risk of readmis-
sions 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.

PRS4 MULTIMORBIDITY AND COPD MEDICATION RECEIPT AMONG MEDICAID BENEFICIARIES: PREVALENCE-DIAGNOSIS AND TREATMENT

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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 lon-
gitudinal dynamic cohort design was used and data were extracted from multiple years (2005-2008) of Medicaid Analytic eXtract (MAX) files. Medicaid 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 included hypertension, cardiovascular disease (CVD), depression, diabetes mellitus, hyperglycemia, hyperlipidemia, and osteoporosis. Medicaid beneficiaries with newly diagnosed COPD were categorized into following multimorbidity categories: 1) physi-
cal 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 with logis-
tic and multinomial logistic regressions. Bivariate relationships between multimorbidity and COPD medications receipt were analyzed with bivari-
te and multinomial logistic regressions. RESULTS: Among Medicaid beneficiaries with newly diagnosed COPD, 74.9% had at least one co-occurring chronic condition. After controlling for patient characteristics, adults with multimorbidity were less likely to receive the most common COPD medications compared to those without any multimorbidity. For example, the physical multimorbidity group was less likely to receive short-
acting bronchodilators (AOR: 0.84; 95% CI: 0.72, 0.98), 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.

PRS5 DRUG TREATMENT 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 fibrotic 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 comparisons network analysis of available pharmacologic treatments for IPF. METHODS: Medline, Embase, CENTRAL, and PROSPERO were searched for ran-
domized 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 supplemented with those extracted by the Cochrane Airways Group. The primary outcome was the standardized mean difference between treatment and control of change in percent predicted forced vital capacity (FVC) from baseline to one year. RESULTS: Literature searches yielded 1,191 records of which 636 met our inclusion criteria. Fixed effects pairwise comparisons of the standardized mean difference (SMD) of intervention versus placebo suggested better performance of nintedanib relative to other treatments with a 4.9% (95%CI: 3.8-6.0) standardized improvement relative to placebo. CONCLUSIONS: Nintedanib is a new treat-
ment option for a disease where few options existed. Based on studies reviewed, nintedanib and NAC treatments did not slow disease progression as measured by change in percent FVC and their use in IFP should be limited.

PRS6 IMPACT OF CHANGE IN LUNG FUNCTION AND COPD-RELATED PATIENT OUTCOMES ON EXACERATIONS AND HOSPITALIZATIONS: A SYSTEMATIC REVIEW

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OBJECTIVES: We searched MEDLINE and Embase-indexed English-language publications from 2002 through October 1, 2014 for randomized controlled trials with ≥20 adult patients with COPD included trials described changes in FEV1or St. George’s Respiratory Questionnaire (SGRQ), as well as exacerbations or HRU. RESULTS: We identified 13 trials among 1,196 publications reporting changes in SGRQ or FEV1 and rate of exacerbation and hospitalization. We combined FEV1 pre-bronchodilator values with FEV1trough values given the similarity of these variables. Based on the MCID value for SGRQ of 4 exacerbations changed from 0.414 to 5.6/1-year among those not reaching SGRQ MCID, compared with a range of 0.42-1.07/year among those reaching SGRQ MCID. Using SIMULTANEOUSLY ANALYZED COPD, 2011 FEV1 of 0.65, the exacerbation rate changed from 0.414 to 6.1/1-year among those not reaching FEV1 MCID, compared to 0.69 to 1.02/year among those reaching FEV1 MCID. The rate of hospitalizations changed from 0.02-0.7/year among those reaching SGRQ MCID, and from 0.03-0.16/year among those reaching SGRQ MCID. Annual hospitalization rates due to exacerbations changed from 0.02-0.7/year among those not reaching FEV1 MCID, com-
pared to 0.001-0.16/year among those reaching FEV1 MCID. CONCLUSIONS: Preliminary results suggest a relationship between clinically meaningful improve-
ments in bronchodilator and patient-reported outcomes and annualized exacerbations and hospitalizations.

PRS7 THE USE OF HELIAX IN HOSPITALIZED CHILDREN FROM CARTAGENA COLOMBIA

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OBJECTIVES: To describe the use of heliox therapy in a case series of patients admitted to emergency department or/and intensive care unit of children hospital ‘Napoleón Franco Pareja’ in Cartagena, Colombia. METHODS: We described the clinical trials of chronic obstructive pulmonary disease (COPD), a pro-
drome for which few treatment options are available to date. Bronchodilation and patient-reported outcomes and annualized exacerba-
tions in bronchodilation and patient-reported outcomes and annualized exacerbations and hospitalizations.

PRS8 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). The aim of this study was to evaluate the potential of statins, due to its anti-inflammatory properties is under consideration for the manage-
ment of COPD. This study examined the relationship between statin therapy and clinical outcomes. Methods: Our cohort design using Medicaid 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 visits, and COPD-related mortality were included. Multivariable logistic regressions with Inverse Probability Treatment Weights (IPTW) were used to examine the relationship between statin therapy and COPD-specific outcomes. The relationship between multimorbidity, statin medications and COPD-specific outcomes was tested using an interaction term. Secondary analyses with