MedTech Pilot Program with the goal of translating discoveries into novel health technologies that address important unmet health needs. The MedTech Pilot Program is an innovative funding mechanism that seeks to (1) stimulate clinical translational research, (2) help promising projects bridge the gap between the bench and the patients' bedside, and (3) encourage collaborative, transdisciplinary work. Specifically, the Pilot Program offers up to $50,000 to support projects involving medical devices and mobile technologies used for (1) therapeutic applications and (2) device-based patient-specific (or POC) diagnostic applications. This analysis of the MedTech Pilot Program will: 1) describe the Program's structure and process; 2) highlight the intensive, hands-on mentorship and practical guidance awardees receive that enables them to more efficiently and effectively advance their projects toward patient care; and 3) characterize the progress of the 36 funded projects. METHODS/STUDY POPULATION: Key elements of the Pilot Program's infrastructure and mentoring processes as they relate to project outcomes were identified. Additionally, outcomes data were collected from two sources: (1) annual survey of Pilot Awardees and (2) publicly available information relevant to the pilot projects. RESULTS/ANTICIPATED RESULTS: The Pilot Program's framework and infrastructure has supported a diverse group of transdisciplinary projects. These projects were evaluated using both traditional and non-traditional metrics (e.g., patents, startups, publications). The initial investment of $1.5 million to fund 36 projects has led to over $88 million dollars in additional funding. Additionally, taking full advantage of the expertise in Silicon Valley, strong mentorship has helped advance projects along the clinical and translational path. DISCUSSION/SIGNIFICANCE OF IMPACT: The Pilot Program has benefited Stanford innovators and researchers by providing seed funding to help promising projects bridge the gap between the bench and the bedside. The intensive, hands-on mentorship, early pilot funding, and practical guidance pilot awardees receive effectively help translate their technologies into patient care.

3030

Symptom profile of chronic rhinosinusitis versus obstructive sleep apnea in a tertiary rhinology clinic

Keven Seung Yong Ji[1], Thomas J. Risoli, Maragatha Kuchibhatla, Lyndon Chan, Ralph Abi Hachem and David Jang
[1]Duke University

OBJECTIVES/SPECIFIC AIMS: Patients with undiagnosed obstructive sleep apnea (OSA) will often present to an otolaryngologist with symptoms of chronic rhinosinusitis (CRS). Differentiating CRS from OSA may help obviate unnecessary and costly work-up for CRS. This study analyzes symptom profiles of such patients to help identify which require polysomnography. METHODS/STUDY POPULATION: This is a three-year retrospective analysis of adult patients seen in an academic practice with a rhinologic chief complaint. The 22-Item Sinonasal Outcomes Test (SNOT-22) survey, which is a validated patient-reported outcome measure widely adopted for CRS featuring a symptom scale of 1 (least severe) to 5 (most severe), was completed by patients with untreated OSA confirmed on polysomnography without CRS (OSA group) and a control group of CRS patients (CRS group). Results were compared using Chi-square test (categorical) and Wilcoxon rank-sum test (continuous) with Bonferroni correction, and multiple logistic regression. RESULTS/ANTICIPATED RESULTS: 43 patients were included in the OSA group [mean apnea-hypopnea index: 27.9 (SD: 21.2)] and 124 patients were included in the CRS group. The CRS group demonstrated significantly higher scores in nasal ($p < 0.001$), extra-nasal ($p < 0.001$) and ear/facial symptom domains ($p = 0.001$) while the OSA group reported higher psychological ($p = 0.028$) and sleep symptom domain scores ($p = 0.052$). As for the cardinal symptoms of CRS, nasal discharge and loss of smell were significantly higher in the CRS group (both $p < 0.001$), whereas facial pain ($p = 0.117$) and nasal obstruction ($p = 0.198$) were not significantly different between the two groups. After adjustment, for every 1-point increase in a patient's score for ear pain, thick nasal discharge and loss of smell or taste, their odds of having CRS increased by a factor of 3.18 [(95% CI 1.61-6.29), $p = 0.001$], 1.60 [(95% CI 1.22-2.10], $p = 0.001$] and 1.36 [(95% CI 1.04-1.78), $p = 0.025$], respectively, compared to having OSA. OSA patients were more likely to choose a sleep-related symptom as a "most important complaint" (MIC) ($p < 0.001$). Facial pain and nasal obstruction were the most common MIC in the rhinologic domain for OSA patients, whereas thick nasal discharge and post-nasal discharge were the most common MIC for CRS patients. DISCUSSION/SIGNIFICANCE OF IMPACT: For patients presenting with rhinologic symptoms, the SNOT-22 can help identify those with undiagnosed OSA. OSA should be suspected in patients with sleep and psychological dysfunction as their primary complaints without the significant nasal drainage and anosmia that characterizes CRS.

3541

The association of corticosteroid use with inpatient mortality in acute exacerbation of idiopathic pulmonary fibrosis

Erica Farrand[1], Eric Vittinghoff, Brett Ley and Harold Collard
[1]University Of California, San Francisco

OBJECTIVES/SPECIFIC AIMS: Objective: To assess the impact of corticosteroid therapy on in-hospital mortality in IPF patients admitted with acute respiratory failure. METHODS/STUDY POPULATION: Methods: Patients with IPF were retrospectively identified in the University of California San Francisco medical center's electronic health records from January 1, 2010 to June 1, 2018. Cases with IPF were defined as age 50 years or older, having at least two codes one month apart for idiopathic fibrosing alveolitis or post-inflammatory fibrosis (ICD-9 516.3, 516.31 or 515.0 or ICD-10 codes J84.9, J84.10, J84.111 or J84.112), and a subsequent hospitalization for acute respiratory failure or acute respiratory symptoms. The prevalence of pre-selected co-morbidities, clinical events (ICU admission, mechanical ventilation, lung transplantation) and clinical outcomes were assessed. A propensity score model for corticosteroid use was constructed using a multivariable logistic regression with inclusion of corticosteroid-associated demographic and baseline variables (univariate p-value < 0.25). A marginal structural model (MSM) was used to address time-dependent confounding and mediating effects of ICU admission and mechanical ventilation by applying inverse probability weighting for receipt of corticosteroid treatment. Secondary outcome analysis was performed on patients who survived hospital admission. RESULTS/ANTICIPATED RESULTS: Results: A total of 132 patients with IPF and an acute respiratory admission were identified. 48 patients (36%) received corticosteroids during their admission. Applying inverse weighting to time-dependent co-variates (ICU admission and invasive mechanical ventilation) in a MSM, corticosteroid therapy was not associated with risk of in-hospital mortality (odds ratio 1.82; 95% CI, 0.47-6.99; $p = 0.39$). After adjusting for corticosteroid therapy using a propensity score, corticosteroid therapy remained unassociated

https://doi.org/10.1017/cts.2019.290 Published online by Cambridge University Press

with in-hospital mortality (odds ratio 1.53, 95% confidence interval [CI] 0.37, 6.29; p = 0.55). There was no difference in discharge disposition or time to hospital readmission by corticosteroid treatment. There was a possible increase in time to death following discharge in patients receiving corticosteroids (Figure). DISCUSSION/SIGNIFICANCE OF IMPACT: Conclusions: This study suggests that treatment of acute exacerbations of interstitial lung disease with corticosteroids does not improve short-term outcomes, including in-hospital mortality, all-cause non-elective re-hospitalization or death within 6 months of discharge. Further research in larger cohorts is needed to more definitively assess this relationship.

3371

The Devil is in the Details: Unbalanced Gains in Healthcare Access and Affordability in the Health Insurance Exchanges

Uriel Kim[1], Johnie Rose and Siran Koroukian
[1]Case Western Reserve University

OBJECTIVES/SPECIFIC AIMS: Evaluate how access and affordability has changed before and after the implementation HIEs in three subpopulations. The subpopulations are individuals who are currently insured through the HIE but were previously: 1. Insured through Employment-based insurance (PEBI subpopulation) 2. Insured through Private Insurance (PPI subpopulation) and 3. Uninsured (PU subpopulation). The three access and affordability measures are: Outcome measure 1. Did not fill a prescription in the past year due to cost Outcome measure 2. Could not get needed medical exam in the past year due to cost and Outcome measure 3. Had problems paying medical bills in the past year. METHODS/STUDY POPULATION: We analyzed the de-identified public use data from the 2012 and 2015 Ohio Medicaid Assessment Survey (OMAS). Sponsored by the Ohio Department of Medicaid, Ohio Department of Health, and the Ohio State University, the OMAS is a representative cross-sectional survey of non-institutionalized Ohio residents, regardless of their Medicaid status. In order to "longitudinalize" the 2012 and 2015 cross-sectional data of the OMAS, we employed a propensity score-based approach. We started with the 2015 OMAS, and carefully characterized each of the PEBI, PPI, and PU subpopulations along 17 demographic, health utilization, health behavior, and health status covariates using a propensity score model. Then, we identified controls for the three subpopulations within the 2012 OMAS data using the propensity scores. Finally, we estimated the odds ratios for the three outcome measures between 2012 and 2015. RESULTS/ANTICIPATED RESULTS: In 2015 there were approximately 201,381 adults (unweighted count = 996) who were insured through the HIE in Ohio. Of those individuals, 17.7% fell into the PEBI subpopulation, 17.6% fell into the PPI subpopulation, and 53.3% fell into the PU subpopulation; the balance of the respondents (11.4%) reported previously having Medicaid, or "Other" insurance. There are several key differences in the covariates at baseline between the three subpopulations. In general, the PU subpopulation tended to younger, more minority, more socioeconomically disadvantaged, and more likely to not have a primary care provider compared to both the PEBI and PPI subpopulations. In the 2012 data, we were able to identify 170 controls for the PEBI subpopulation, 167 controls for the PPI subpopulation, and 516 controls for the PU subpopulation. Compared to 2012, in 2016 (after the implementation of the HIEs):. Outcome measure 1: The PEBI subpopulation was more likely to report not filling a prescription in the past year due to cost (there were no significant changes in the PPI or PU subpopulations). Outcome measure 2: The PEBI subpopulation was more likely to report not getting a needed medical exam or medical supplies in the past year due to cost. The PPI subpopulation was less likely to report not getting a needed medical exam or medical supplies in the past year due to cost. There were no significant changes for the PU subpopulation for this outcome measure. Outcome measure 3: There were no changes in the "had problems paying medical bill in the past year" outcome across the three subpopulations. DISCUSSION/SIGNIFICANCE OF IMPACT: This is among the most detailed studies of health insurance exchanges known to the investigators. Analyzing outcomes at the subpopulation level illustrates that there have been unbalanced gains in access and affordability as a result of the HIEs. In general, those who were previously insured through employer-based insurance saw their access and affordability decrease; those previously insured through private insurance saw modest increases to access and affordability; and perhaps most surprising, those that were previously uninsured saw no changes to their access and affordability. Future studies will incorporate 2017 OMAS data (when it becomes available) to see if these trends persist over time. During this time of rapid health systems and health policy change, our study adds an important contribution to the discussion surrounding how to best deliver highly effective and efficient health care.

3232

Translational Science 2019

Paul C Adjei[1], Michael R. Jordan, Jennifer Chow and Janis Breeze
[1]Tufts Medical Center

OBJECTIVES/SPECIFIC AIMS: We hypothesize that VL testing varies by geographic sub-region, country, age, gender, mode of transmission, year of diagnosis, and country of origin; and also that a higher prevalence of VL testing may be associated with higher prevalence of population-level VL suppression. Our primary aim is to determine country- and regional-level factors that are associated with viral load testing amongst HIV patients. Our secondary aim is to explore the association between prevalence of viral load testing and viral load suppression at the population level. METHODS/STUDY POPULATION: This is a retrospective analysis of de-identified individual-level data reported to the European Surveillance System (TESSy). The TESSy is a database of communicable diseases (including HIV) for the ECDC and WHO European Regional Office. It captures data from 31 European Union/European Economic Area (EU/EEA) countries and 23 non-EU/EEA countries. Stored data is from year 2000. TESSy is used for data analysis and production of outputs for public health action. The patient cohort include adults older 18 years, whose last clinic attendance was reported in 2014 or later, or whose viral load test was reported in the year of the visit or the year before the year of their last reported clinic attendance. Patient demographic data include age, sex, mode of transmission, country of origin (migrants), country of diagnosis, geographic region, last clinic attendance, viral load and therapy status. Geographic region will be categorized into East, West and Centre as per WHO guidelines. Countries will be categorized and analyzed according to their European Union (EU)-, European Economic Area (EEA)- and income (GDP)-status, using current World Bank and International Monetary Fund (IMF) guidelines. All statistical analysis will be performed in R-Studio and R i386 3.0.2. Missing data will be characterized in terms of quantity (how much is missing) and pattern (random versus non-random) and impact on covariates to be tested. Multiple data imputations would be used in cases where

https://doi.org/10.1017/cts.2019.290 Published online by Cambridge University Press