rate (HR) and lowered heart rate variability (HRV). This study aimed to examine the relationship between cardiac reactivity and subjective response following intravenous (IV) alcohol in non-dependent drinkers. METHODS/STUDY POPULATION: Non-dependent drinkers (N = 46, average age = 25.2) completed a human laboratory IV alcohol self-administration (IV-ASA) session. Subjective response to alcohol was assessed using the Drug Effects Questionnaire (DEQ) and Alcohol Urge Questionnaire (AUQ). Drinking behavior was assessed using the Alcohol Timeline Followback (TLFB) and Alcohol Use Disorders Identification Test (AUDIT). HR was recorded using the Polar Pro Heart Rate monitor throughout the session. HRV measures were calculated using guidelines determined by the Task Force of the European Society of Cardiology and The North American Society of Pacing and Electrophysiology. RESULTS/ANTICIPATED RESULTS: Recent drinking history as measured by the AUDIT and TLFB was not significantly different by sex. Results showed heavier drinking measures (AUDIT and TLFB) were positively associated with HRV measures (all p-values < 0.02). Those who reported a greater increase in alcohol craving (AUQ score) and wanted more alcohol (DEQ) following an alcohol prime, showed a greater change in HRV (p < 0.005). When examining HRV change from baseline throughout the priming session, there was a significant sex interaction for NN50 (p = 0.003) and a trend for PNN50 (p-value < 0.07). DISCUSSION/SIGNIFICANCE OF IMPACT: Acute IV alcohol alters cardiac reactivity measures in non-dependent drinkers. Future directions include examining the role of sex in HRV changes during alcohol consumption during IV-ASA. Understanding the effect of alcohol on cardiac reactivity and physiology may help characterize those at risk for alcohol use disorders.

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Septic Shock Epidemiology and Sociodemographic Predictors of Mortality: Results from One Florida Data Trust Cohort

Lauren Page Black, Charlotte Hopson, Elizabeth DeVos, Rosemarie Fernandez, Faheem Guirgis, and Cynthia Garvan

1University Of Florida Clinical and Translational Science Institute; 2University of Florida College of Medicine - Jacksonville; 3University of Florida College of Medicine; 4University of Florida

OBJECTIVES/GOALS: Septic shock is a lethal condition. Research suggests that overall sepsis mortality varies by race, but less is known about demographic differences in septic shock mortality. Our objectives were to describe the septic shock population using a large, statewide data repository and identify demographic predictors of septic shock mortality. METHODS/STUDY POPULATION: We performed a retrospective review of patients with septic shock in the One Florida Data Trust from 2012-2018. Patients were classified as having septic shock if they received vasopressors and had either 1) an ICD-9 or 10 code for septic shock or 2) an ICD-9 or 10 code for infection and an ICD-9 or 10 code for organ dysfunction. Demographic data and place of residence prior to admission was collected. The primary outcome was 90 day mortality. T-test and chi-square tests were used to test association of individual predictors and mortality. Multiple logistic regression was used to identify predictors of mortality after adjustment for other variables. Level of significance was set at 0.05. SAS v9.4 (Cary, NC) was used for analyses. RESULTS/ANTICIPATED RESULTS: There were 11,790 patients with septic shock. The mean(SD) age was 61(16) years. With regard to race/ethnicity 66% identified as white, 27% as black, 3.7% as Hispanic, and 3.5% as other races (non-white, non-black, non-Hispanic). Most
SGRQ score is associated with treatment status for patients with non-tuberculous mycobacterial lung disease
Bryan Garcia1, Abigail Grady2, Lilian Christon2, Patrick Flume2, and Susan Dorman2
1Medical University of South Carolina; 2MUSC

OBJECTIVES/GOALS: The Saint Georges Respiratory Questionnaire (SGRQ) is used as a patient reported outcome tool for clinical research in COPD and bronchiectasis. We established a registry and biospecimen repository of bronchiectasis patients with and without NTM and report associations between clinical phenotype and SGRQ scores. METHODS/STUDY POPULATION: Patients were recruited in a cross-sectional format from the Bronchiectasis, Cystic Fibrosis, and NTM clinics at our institution. All patients provided at least one sputum sample in the six months prior to inclusion. Clinical and epidemiologically relevant data was obtained, and blood specimens were processed and preserved. Descriptive statistics are reported as means and standard deviations, p<0.05 considered significant. RESULTS/ANTICIPATED RESULTS: 72 NTM patients completed the SGRQ including 39 patients not on treatment (Colonized), 29 patients on NTM directed antibiotics, and 4 patients whose infection was cured in the past year. Among patients on treatment, 14 were treatment refractory (positive cultures beyond 12 months of therapy). The mean age of all NTM patients was 59.5±17.6 and 80.5% were female. Mean SGRQ Total scores were significantly higher among patients receiving treatment compared to patients considered colonized (35.7± 22.0 colonized group versus 48.8± 15.8 treatment group, p = 0.011). The SGRQ subdomain scores including Impacts (26.2± 26.2 colonized group versus 42.5± 17.0 treatment group, p = 0.01) and Activities (41.7± 31.8 colonized group versus 59.3± 24.5 treatment group, p = 0.018) were also significantly different between groups. DISCUSSION/SIGNIFICANCE OF IMPACT: We developed a cross sectional cohort of NTM patients and assessed associations between clinical phenotype and SGRQ score. Preliminary data suggests that female sex, treatment status, and therapeutic duration are associated with higher SGRQ scores. We intend to continue to assess the potential for specific SGRQ questions to be used for quantifying disease symptom severity for NTM patients.

Sleep Disorders and Diabetic Complications
Magda Shaheen1, Meleesa Nocera2, and Senait Teklehaimanot2
1David Geffen School of Medicine at UCLA; 2Charles R Drew University

OBJECTIVES/GOALS: Diabetes is a prevalent chronic illness that imposes health-related burdens including nephropathy, retinopathy and sleep disorders. The goal of this study was to examine the relation between both sleep disorders and sleep duration and diabetic chronic kidney disease (CKD) and retinopathy. METHODS/STUDY POPULATION: We analyzed data from the National Health and Nutrition Examination Survey 2005-2016 related to diabetic nephropathy and retinopathy, sleep disorders and duration, demographics, and risk factors among diabetics. The subjects were adults with diabetes type 2. Multiple logistic regression analysis was performed to look at the relationship between diabetic complications (CKD and retinopathy) and sleep disorders and sleep duration adjusting for demographics and risk factors. RESULTS/ANTICIPATED RESULTS: Of the 4087 diabetics, 45% had CKD; 19% had retinopathy, and 15% had sleep disorders. CKD and retinopathy were not associated with sleep disorders (p>0.05) but CKD was associated with sleep duration (Adjusted odds ratio = 1.014, 95% confidence interval = 1.001-1.027, p<0.05). Cardiovascular disease was a predictor of both CKD and nephropathy (P<0.05). Other predictors of CKD and nephropathy were age >60 years, Non-Hispanic Black, hypertension, low education level, and living under 200% of the Federal Poverty Level (P<0.05). DISCUSSION/SIGNIFICANCE OF IMPACT: Among diabetics, CKD and retinopathy were not associated with sleep disorders, and only CKD was associated with sleep duration. These findings may impact the management of diabetes in the future, since it has effects on a range of other health conditions.

Structural Neural Correlates of Social Functioning in First Episode Psychosis and Malleability in Response to Targeted Cognitive Training
Kathleen Miley1, Fang Yu, Ian Ramsay, and Sophia Vinogradov
1University of Minnesota CTSI

OBJECTIVES/GOALS: Development of interventions that improve social functioning (SF) in first episode psychosis (FEP) is hindered by a poor understanding of the neural mechanisms underlying SF deficits. This research aims to identify neural correlates of social functioning in FEP, and to evaluate whether this substrate is malleable in response to cognitive training. METHODS/STUDY POPULATION: This is a secondary data-analysis of participants in an ongoing randomized clinical trial investigating whether 12 weeks of targeted cognitive training is neuroprotective in FEP, versus treatment as usual. Baseline and post-training assessments include a brain MRI, three