

baseline variables. Each patient was followed at each clinic visit for 12 months for development of a physician-reported irAE.

For irAE, site and grade were recorded as documented by the provider. At diagnosis and each follow-up visit, we collected: 1) adjustments to ICI, immunosuppression, and hormone therapy.

Continuous variables were summarized using mean and standard deviation (SD) or median and interquartile range (IQR). Categorical variables were summarized using frequencies and percentages. Time to development and resolution of irAE were calculated using Kaplan-Meier curves.

**RESULTS/ANTICIPATED RESULTS:** Among 131 patients, two-thirds were men, and 60% were Caucasian with a mean age was 65 years. Nearly 40% had an Eastern Cooperative Oncology Group performance score of 2 or higher. A small proportion (3.1%) had an autoimmune disorder. Nearly half had lung cancer (49.6%), and several had received radiation (33.6%). Over 70% were former or current smokers. In total, 57 patients (43.5%) developed an irAE, resulting in a total of 95 irAE, at a median of 208 days (126 days, not reached). The most common irAE included dermatitis, thyroiditis, pneumonitis, and hepatitis. Of 95 irAE, half were grade 1, 30% were grade 2, and nearly 20% were grade 3 or higher. Median time to resolution was 85 days (56-183 days). **DISCUSSION/SIGNIFICANCE OF FINDINGS:** This study demonstrates that irAE are clinically impactful in this relatively unfit, medically complex population, which may be a more accurate reflection of patients receiving ICI in everyday practice. This study shows cases that this population is susceptible to irAE, although this needs to be examined in larger, prospective trials.

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### Quantification of Neonatal THC Exposure Following Prenatal Marijuana Use

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**ABSTRACT IMPACT:** Quantification of neonatal THC exposure will allow for better insight into how THC exposure correlates with neurodevelopmental outcomes. **OBJECTIVES/GOALS:**

Tetrahydrocannabinol (THC) use has become increasingly prevalent in recent years, including among pregnant women. However, few, if any, clinical studies have quantified precise in utero exposure levels of THC during pregnancy. Our study aims to fill this gap by using analytical methods to quantify THC in mother and baby following prenatal THC use. **METHODS/STUDY POPULATION:** Pregnant women were asked to give a self-report of all cannabis and cannabinoid use during pregnancy, including dose, frequency, and route of consumption. Upon arrival at the labor and delivery unit, maternal blood samples were collected. Immediately following birth and 24 hours after birth, umbilical cord and neonatal blood samples were collected, respectively. All blood samples were analyzed using tandem liquid chromatography-mass spectrometry (LC-MS) for the presence of THC, tetrahydrocannabinol carboxylic acid (THC-COOH), and hydroxy-tetrahydrocannabinol (THC-OH). Maternal THC and metabolite levels were compared to both cord and neonate samples. **RESULTS/ANTICIPATED RESULTS:** To date, we have collected 3 mother-infant sample dyads and 4 mother-infant control samples. We anticipate collecting a total of 20 mother-infant samples from each group. We will quantify levels of THC and its metabolites in maternal samples and compare these to cord and infant samples.

We expect that THC/metabolite levels will vary as a function of dose and frequency of consumption. We also expect that THC/metabolites will be higher in umbilical cord blood relative to neonatal blood.

**DISCUSSION/SIGNIFICANCE OF FINDINGS:** This study is among the first to directly measure exposure in the neonate following prenatal cannabis use. Quantification of THC/metabolite concentrations will be supplemented with developmental evaluations of infants at 6 and 12 months of age in order to gain better insight into how THC exposure correlates with neurodevelopmental outcomes.

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### Racial Disparities in Septic Shock Mortality: Results from the OneFlorida Data Trust Cohort

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**ABSTRACT IMPACT:** Identifying racial disparities in septic shock mortality, a common and lethal condition, can inform future research and policy efforts aimed at understanding the drivers these disparities and addressing the underlying factors in order to reduce disparities and improve health. **OBJECTIVES/GOALS:** Septic shock is a major public health problem with significant mortality. Existing data indicate racial disparities in sepsis incidence, but evidence is limited on differences in septic shock outcomes. Our objective was to determine the association between race and septic shock mortality in a statewide cohort while controlling for clinical factors. **METHODS/STUDY POPULATION:** This was a retrospective analysis of septic shock patients in the One Florida Data Trust between 2012-18. Data was collected regarding age, sex, race, insurance status, and selected comorbid conditions [liver disease, hypertension, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), end-stage renal disease (ESRD), and human immunodeficiency virus infection (HIV)]. To account for severity of illness, we assigned Sequential Organ Failure Assessment scores for components based on laboratory values (labSOFA), and collected data on mechanical ventilation use and initial lactate.

The primary outcome was 90-day mortality. The Least Absolute Shrinkage and Selection Operator (LASSO) method was used for variable selection for the multivariable regression model. **RESULTS/ANTICIPATED RESULTS:** There were 13,932 septic shock patients with a mean (SD) age of 61(16) years. Of these, 68% identified as white, 28% as black, 2.1% as Hispanic, and 2.0% as other races. 90-day mortality was 32% (n=4,437) and 59% required mechanical ventilation. Significant independent predictors of mortality in the regression model were age (OR 1.04; p<0.01), black race (1.72; p<0.01), lactate (1.10; p<0.01), mechanical ventilation (3.62; p<0.01), labSOFA (1.18; p<0.01), history of liver disease (1.75; p<0.01), hypertension (0.70; p<0.01), COPD (0.87; p<0.01), CHF (1.18; p<0.01), HIV (1.30; p=0.05), and the interaction between age and black race. Black patients had 1.72 times the odds of mortality compared to white patients. For every one-year decrease in age,