day-to-day clinical care for these infants. Implementation of this novel protocol will promote the early diagnosis and referral to treatment for NDD.

4142

## Implementation of Consent-to-Contact (CTC) initiative at an Academic Medical center: Initial operationalization and lessons learned

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OBJECTIVES/GOALS: The objectives of this presentation are to discuss 1) the implementation of Consent to Contact at an Academic Medical Center; 2) the access to lists of potential participants by study teams; and 3) the challenges and adjustments made to the initial conceptualized process. METHODS/STUDY POPULATION: Participant recruitment is critical to the success of all research studies. It is particularly challenging when investigators do not have a patient population from which to recruit. Thus, the University of Miami launched the CTC initiative in 2016 to facilitate study recruitment. Study investigators can request access to a registry of participants who agreed to be contacted and meet the initial study eligibility criteria. A multidisciplinary Operational Committee provides oversight and regulates access to the CTC registry. RESULTS/ANTICIPATED RESULTS: The registry has over 110K patients who have agreed to be contacted for eligible research studies. The demographic distribution of the patients in the registry mirrors the diversity of the UHealth population. As of January 2018, when the registry became available to the research community, 25 study teams from different departments, including the All of Us Research Program, have requested potential participant lists. The process of requesting access to patient lists is adapted to studies' needs, with particular reference to sensitive populations, such as HIV/AIDS, substance abuse, etc. Results on utilization and satisfaction of the CTC initiative are being collected and will be presented. DISCUSSION/ SIGNIFICANCE OF IMPACT: The CTC initiative allows UHealth patients to opt-in to the registry for research studies. The Operational Committee continues to monitor the successful consent of patients to participate in individual research studies and improving the request process.

4401

## Incidence, management, and outcomes of immunerelated adverse events (irAEs): an analysis of a multidisciplinary toxicity team for cancer immunotherapy related irAEs

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OBJECTIVES/GOALS: This study aims to assess the outcomes of a new virtual multidisciplinary immune-related toxicity (IR-tox) team implemented at Johns Hopkins Hospital. In particular, to understand if the IR-tox team's input reduced the number of inpatient hospitalizations for irAEs for referred patients. METHODS/STUDY POPULATION: Since August 2017, nearly 250 patient referrals to the IR-tox team have been created and stored in an electronic database. Through retrospective chart review, hospitalization and irAE management data will be collected for these patients to assess whether rates for suspected

irAEs have decreased. These rates will be compared against historical controls. We will assess the features of hospitalized patients, their immunotherapy regimens, and management to identify high-risk groups who may require early intervention. Additionally, we aim to understand what patient features are associated with IR-Tox team referral and subsequent hospitalization. RESULTS/ANTICIPATED RESULTS: The IR-tox team provided a new multidisciplinary channel to help physicians diagnose and manage complex ir AEs. The goal of the team was the reduce the number of irAE-related hospitalizations as, historically, 85% of high-grade irAEs have required hospitalization. A clinically meaningful reduction is defined as lowering the hospitalization rate to 75%. Planned analyses includes calculating the hospitalization rate, using descriptive statistics to summarize patient features, multivariate analyses to understand features associated with both IR-Tox team referral and hospitalization, and computing the relative risk reduction to assess the efficacy of subspecialist referral implementation. DISCUSSION/SIGNIFICANCE OF IMPACT: IrAEs are challenging to diagnose and treat. They contribute to a notable proportion of hospitalizations in those treated with immunotherapy. With expanding use of immunotherapy, widespread implementations of IR-Tox teams may help reduce hospitalizations and costs associated with care for irAEs.

4113

## Infusing a CTSA Program with Causal Pathway Thinking to Transform Evaluation from Operations to Impacts

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OBJECTIVES/GOALS: Innovations with positive health impact are a high priority for NCATS and CTSAs. Program design that uses the Causal Pathway approach incorporates performance indicators that assess impact. We applied Causal Pathway thinking to an ongoing national program to enhance the evaluation of program impact. We report Lessons Learned. METHODS/STUDY POPULATION: We conducted a day-long onsite workshop to introduce the model to the project team, build capacity, and map the existing program elements to Logic Models representing program Specific Aims. A local Causal Pathway (CP) champion was identified. Alignment of the Logic Models with the CP approach (input→activities→ outputs→effects/ impact) developed iteratively through biweekly, then monthly conferral among stakeholders. Key tasks included distinguishing among activities, outputs, and effects (impacts), and identification of performance indicators for each stage of the Causal Pathway. Visualization tools and an additional late stage half-day workshop were used to foster consensus. Implementation of the CP model tested the feasibility of collecting specific indicators and prompted model revisions. RESULTS/ ANTICIPATED RESULTS: Program leadership and team members (n = 30) participated in the kick-off workshop. Four Specific Aims were mapped to Logic Models. Multiple Causal Pathway (CP) diagrams, one for each project in the program, were developed and mapped to Aims. Alignment of CP threads to Aims and identification of performance indicators required iteration. CP threads converged onto common final Impacts, sometimes crossing to another Aim. Performance indicators for operations were readily accessible to team members, and less so for impacts. Assumptions about program effects were subjected to specific indicators. Over time, Leadership noticed more expression of CP thinking in daily activities. New projects developed during this period