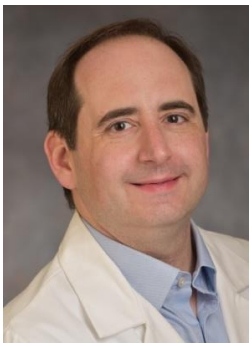
NIA IMPACT COLLABORATORY
TRANSFORMING DEMENTIA CARE

Demonstration Project Snapshot

Mitigation of Postoperative Delirium in High-Risk Patients



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"Postoperative delirium is a major cause of morbidity for patients with cognitive impairment. This project leverages state of the art augmented intelligence and machine learning to identify surgical patients with cognitive impairment and ensure they receive the best practices of modern medicine."

RATIONALE: Postoperative delirium is the most common complication after surgery and a major cause of morbidity in patients with cognitive impairment. Perioperative clinical decision support tools may decrease the incidence of this devastating and potentially preventable condition by increasing adherence to clinical best practices.

OBJECTIVE: To leverage our experience in informatics and postoperative delirium research to perform a prospective randomized controlled embedded pragmatic clinical trial to test the effectiveness of a clinical decision support system to promote adherence to best practices with the goal of decreasing postoperative delirium in patients with baseline cognitive impairment.

SETTING: Perioperative setting at Mount Sinai Health System, an integrated health system that encompasses 130 operating rooms.

POPULATION: Patients with cognitive impairment undergoing surgery.

INTERVENTION: The intervention consists of clinical decision support alerts in the electronic health record directed towards anesthesiologists caring for patients with preexisting cognitive impairment. This intervention will promote 12 evidence-based best practices during care for perioperative patients.

OUTCOMES: The primary clinical outcome is the incidence of postoperative delirium. We will also evaluate practice adherence and effectiveness to reduce postoperative delirium in key groups and study the influence of each practice on postoperative delirium prevention.

IMPACT: Our rigorous and innovative approach, based on established methods and executed by an experienced multidisciplinary team with access to unique resources and tested platforms, will lead to insights that are clinically relevant and change clinical practice for postoperative delirium prevention in patients with cognitive impairment.