



STROKE TANK: PITCH IT TO THE JUDGES!™

PARTICIPATING PROJECTS

“Code LVO”: A Regional System of Care to Rapidly and Efficiently Identify and Treat All Large Vessel Occlusions Eligible for Mechanical Thrombectomy

Christopher Zammit, MD - Assistant Professor, Department of Emergency Medicine, University of Rochester - Rochester, NY

Approximately 1/3 of acute ischemic strokes are due to emergent large vessel occlusions, yet they represent 90% of the mortality and 2/3 of the permanent disability caused by AISs. Given the proven efficacy of mechanical thrombectomy to drastically improve outcomes up to 24 hours after last known well time, systems of care must be engineered to identify all ELVOs that would qualify for MT. Furthermore, the efficacy of MT deteriorates over time, thus the execution of MT must be expeditious to optimize outcomes. Lastly, the haste necessary to optimize outcomes must not occur at the expense of wastefully using limited and expensive resources, particularly those required to rapidly transport these patients from distant facilities to endovascular-capable or comprehensive centers. Despite the importance of the efficacy and efficiency of systems of care, specific recommendations on the elements, structure, and function of such systems are lacking. Via an iterative and cross-institutional and cross-departmental collaborative process, a regional system of care for ELVOs, termed “Code LVO”, has been developed, vetted, and piloted with early suggestion of benefit in terms of process efficacies, efficiencies, and clinical outcomes.

Defining Stroke Recovery Across the Post-Acute Care Continuum

David Lin, MD - Clinical Fellow of Neurology, Department of Neurology, Massachusetts General Hospital - Boston, MA

Recovery of arm weakness after stroke is critical for functional independence. Clinical, neuroimaging (i.e. MRI), and neurophysiological (i.e. transcranial magnetic stimulation, TMS) assessments are being developed to provide predictions of upper extremity motor recovery after stroke. However, not all clinical centers have access to the technology required, and unpredictable length of stay and follow-up in the current post-acute care continuum make validation of these predictors challenging. More detailed, longitudinal predictors of upper extremity motor impairment, as well as an understanding of how recovery generalizes across International Classification of Functioning (ICF) domains, are needed to accurately capture stroke outcomes and better personalize rehabilitation. The proposed work will lead to a predictive algorithm for upper extremity impairment after stroke and a comprehensive understanding of how recovery of arm weakness affects outcomes and patient quality of life.

High Intensity Tele-speech Therapy for Stroke (HITS) - A Pilot Study

Sonia Mehta, MS - VA Connecticut Healthcare System & Jason J. Sico, MD, MHS - Director of Stroke Care for the VA Connecticut Healthcare System (VACHS) - West Haven, CT

The need for equitable and cost-effective post-stroke rehabilitation remains high as stroke incidence rates rise in the United States and abroad. In the sub-acute phase following stroke, intensive, high frequency, neuro-rehabilitation has been shown to improve outcomes exponentially, based on increasing evidence related to neural plasticity and brain reorganization. However, these models have also been associated with high-attrition rates. It is suspected that the burdens associated with travel, time, and finances on patient and caregiver is a dominating factor in attrition. Telemedicine provides accessibility to stroke victims in rural or urban environments with geographical, psychological or physical limitations that may make traveling for face-to-face therapy challenging. While data on telemedicine have been ongoing, few studies have reviewed the psychological and financial impacts of a speech therapy telemedicine model. There is considerable evidence to support the premise that this mode of delivery may improve the quality and frequency of speech, language and cognitive communicative therapy provided, and therein, positively improve quality of life.

Which Road to Recovery? Factors Influencing Post-Acute Discharge Destinations - A Delphi Study

Joel Stein, MD - Simon Baruch Professor & Chair, Department of Rehabilitation and Regenerative Medicine, Columbia University, Vagelos College of Physicians & Surgeons, Weill Cornell Medical College, New York-Presbyterian Hospital - New York, NY

Two-thirds of individuals who have a stroke require rehabilitation services. A patient's discharge destination from the hospital (IRF, SNF, or home) is associated with functional gains and rates of readmission to acute care. The process by which stroke survivors' post-acute level of care is selected has not been adequately studied, with research pointing to non-clinical factors playing a large role. Clinical resources to assist practitioners in making appropriate discharge destination decisions are also lacking. Our primary objective is to conduct a study using the Delphi method to identify key factors influencing the selection of post-acute level of care. This is Phase I of a multi-phase project to ultimately develop a validated decision support tool to aid in determining the most appropriate, evidence-based level of post-acute care for patients. Due to limited data regarding post-acute care discharge decision making, expert consensus will be achieved using the Delphi method, a structured, iterative process by which consensus is developed through a panel of experts. A Delphi methodological expert will work with the project's Steering Committee to facilitate the multi-round survey and voting process.