507

a. Determining the marginal cost differences and potential areas of improvement for a telerehabilitation versus outpatient occupational therapy session for stroke survivors

Corey Morrow[1], Michelle Woodbury[1] and Kit Simpson[1]
[1]Medical University of South Carolina; Parker Rhoden, MHA, Medical University of South Carolina

OBJECTIVES/GOALS: The objective of this study was to estimate the cost differences of a telerehabilitation versus outpatient session. A secondary objective was to identify areas to improve telerehabilitation delivery efficiency. We aim to improve the translation/adoption of telerehabilitation for clinical use. METHODS/STUDY POPULATION: This study used a time-driven activity-based costing (TDABC) approach including 1) observation of rehabilitation sessions and creation of manual time stamps, 2) structured and recorded interviews with two occupational therapists familiar with outpatient therapy and two therapists familiar with telerehabilitation, 3) collection of standard wages for providers, and 4) the creation of an iterative flowchart of both an outpatient and telerehabilitation session care delivery process. This study followed the reporting guidelines to ensure a standardization for TDABC research. RESULTS/ANTICIPATED RESULTS: Overall, telerehabilitation ($225.41) was more costly than outpatient therapy ($168.29) per session for a cost difference of $57.12. Primary time drivers of this finding were initial phone calls (0 mins for OP therapists versus 35 mins for TR) and post documentation (5 mins for OP versus 30 mins for TR) demands for telerehabilitation. DISCUSSION/SIGNIFICANCE: Telerehabilitation is an emerging platform with the potential to reduce costs, improve healthcare inequities, and facilitate better patient outcomes. Improvements in documentation practices, staffing, technology, and reimbursement structuring would allow for a more successful translation.

508

Comparing effectiveness and safety of levetiracetam loading doses among patients with status epilepticus.

Bertha De Los Santos[1], Brian J Barnes[2], Rose Cohen[3] and Halinder Mangat[4]
[1]University of Kansas Medical Center, [2]The University of Kansas School of Pharmacy, [3]The University of Kansas Health System and [4]University of Kansas School of Medicine.

OBJECTIVES/GOALS: Our long-term goal is to improve the clinical outcomes of patients with status epilepticus through increasing the level of evidence surrounding guidelines. The specific objective of our proposed work is to compare the outcomes and adverse drug events between the Neurocritical Care and American Epilepsy Society levetiracetam dose recommendations. METHODS/STUDY POPULATION: This is a retrospective, single site, cohort study comparing outcomes of hospitalized patients with status epilepticus treated with levetiracetam bolus at the University of Kansas Health System. Patients outcomes will be compared based on levetiracetam bolus dose received. The primary outcome will be seizure reoccurrence within 24 hours. Secondary outcomes include number of additional anti-epileptic drugs administered, cumulative dose of benzodiazepines administered within 24 hours of levetiracetam bolus administration and incidence of adverse drug reactions. All study data will be extracted retrospectively from the EPIC chart review following patient list generation through the HERON i2b2 database query. RESULTS/ANTICIPATED RESULTS: Aim 1 will characterize levetiracetam dosing among patients admitted to the University of Kansas Medical Center for status epilepticus during routine clinical care. We hypothesize that given the inconsistency in dosing recommendations from various professional societies and drug references, we will observe inconsistent dosing of levetiracetam among those hospitalized due to status epilepticus.
Aim 2 will evaluate effectiveness and safety across the various levetiracetam doses. We estimate that adherence to the higher weight-based dosing recommendations of the 2016 American Epilepsy Society guideline may result in improved outcomes with a similar frequency and severity of adverse drug events compared to lower/fixed-dose levetiracetam dose recommendation of the 2012 Neurocritical Care guideline. DISCUSSION/SIGNIFICANCE: Notable inconsistencies across the dosing recommendations for levetiracetam exist between the guidelines for treatment of status epilepticus and commonly used tertiary drug information databases. This variation in guidance may lead to differences in dosing and warrants further exploration to better support the management of status epilepticus.

509

Pilot Projects as Catalysts for Research Initiatives

Milan Patel[1], Judith Argon[2], Casandra Burrows[2] and Barbara Tafuto[2]
[1]New Jersey Institute of Technology and [2]Rutgers University

OBJECTIVES/GOALS: Pilot grants are small financial investments given out by CTSA hubs to facilitate new clinical and translational research projects. The New Jersey Alliance of Clinical and Translational Science (NJ ACTS) is one of 65 CTSA hubs. The goal of this project was to evaluate and improve the NJ ACTS program by learning from pilot programs across the consortium. METHODS/STUDY POPULATION: The initial research on pilot programs was conducted using the CTSA Search Solutions tool, a tool developed at NJ ACTS which provides links to individual pages by topic in all the hub websites. Using the tool, public information was accessed, including common award amounts, significant dates, and preferred categories of research. Then, a survey created in REDCap was distributed to colleagues at all CTSA hubs to gather additional information and thoughts on pilot programs. The data were compiled in an excel database to observe and analyze trends. These trends were graphically presented in figures developed from the data to see how NJ ACTS compares to other CTSA hubs in how they focus and operate their pilot programs. RESULTS/ANTICIPATED RESULTS: There are both similarities and differences between NJ ACTS and other hubs. NJ ACTS utilizes a REDCap form for its application, as do 14 other CTSA hubs. Surveys also show that NJ ACTS follows similar processes for: letter of intent and application due dates; having a standing review committee; and the categories of awards. Award categories for Clinical/Translational Innovation, Methodology/Infrastructure, and Partnership/Collaboration are shared with 47, 25, and 41 institutions, respectively. NJ ACTS requires collaboration between its multiple institutions, as do 28 other hubs. It does not, however, have a public notification of award date, and notifications tend to go out relatively late. NJ ACTS funded multiple proposals pertaining to COVID-19, something 11 other CTSA hubs did as well. DISCUSSION/SIGNIFICANCE: Although a new CTSA hub, NJ ACTSs Pilot Program operates comparably to more mature CTSA hubs. Using the survey data, NJ ACTS can implement modest changes, better serving its scientific community. CTSA Search

https://doi.org/10.1017/cts.2022.303 Published online by Cambridge University Press

Solutions has proven an excellent tool and can be used by any hub to understand how they compare and implement changes to improve their programs.

510

Independent and Combined Effectiveness of Multiple Micronutrient Supplementation and Responsive Caregiving Interventions to Support Early Child Development in Southwest Guatemala

Alysse Kowalski[1], Maureen Black[1] and RTI Internationa[l]
[1]University of Maryland School of Medicine

OBJECTIVES/GOALS: The objective of this study is to examine the independent and combined effectiveness of a multiple micronutrient supplementation and responsive caregiving intervention on early child development in southwestern Guatemala. METHODS/STUDY POPULATION: We conducted a double blind, 2 x 2, cluster randomized controlled trial combining micronutrient supplementation and responsive caregiving treatments. We enrolled 309 infants (6-18 months) and 387 preschoolers (36-52 months) at nutritional risk (height-for-age z-score < -1) (51% male; 17% indigenous ethnicity; 76% of caregivers completed â‰¤ primary school). The supplementation arm received a maize-soy product fortified with 21 micronutrients for 6 months; the control was fortified with B2. The responsive caregiving intervention was adapted from the UNICEF Care for Child Development program and delivered over 6 home visits. We examined changes in early child development from baseline (2015) to endline (2017) using the Bayley Scales of Infant and Toddler Development III and Bracken Scales of School Readiness. RESULTS/ANTICIPATED RESULTS: Among infants, age standardized Bayley cognitive development scores declined over time in each treatment arm. Infant Bayley motor development scores significantly increased in the combined multiple micronutrient supplementation + responsive caregiving arm (âˆ† = 3.67 [95% CI: 0.17, 7.17], p = 0.04). Among preschoolers, school readiness decreased over time in each treatment arm. The rates of change in infant development and preschooler school readiness did not differ between treatment arms. Further analysis will explore effect modification of the intervention by pre-specified child and household factors. DISCUSSION/SIGNIFICANCE: Combined multiple micronutrient supplementation and responsive caregiving supported motor development while cognitive and school readiness were not impacted by the intervention. These findings will inform the effectiveness and beneficiaries of multisectoral interventions to promote early child development in adverse environments.

511

Automation of Home Food Inventory Scoring to Standardize Reporting, Enhance Clinical Utility, and Operationalize Delivery of Personalized Behavioral Targets

Melanie Bean[1], Danyel Smith[2], Sarah Farthing[2], Elizabeth Adams[3], Thomas Naumann[2] and Morgan Meyer[2]
[1]Children's Hospital of Richmond at Virginia Commonwealth University, [2]Virginia Commonwealth University and [3]University of South Carolina

OBJECTIVES/GOALS: The Fulkerson Home Food Inventory (HFI) is widely used to assess the home food environment, a key target of behavioral weight loss trials. However, no standardized report is available. We created publicly available procedures to automate and standardize HFI reporting, yielding a personalized report to enhance this measures clinical utility. METHODS/STUDY POPULATION: Parents in the TEENS adolescent behavioral weight loss trial complete the HFI at 0-, 2-, 4-, 8-, and 12m and receive personalized reports at each timepoint. In REDCap, participants identify foods available in their home. HFI syntax is applied to calculate the obesogenic home food availability score. Categories of foods found are identified, with specific guidance provided to enhance their home food environment. Prior to automation, procedures were time intensive and error prone. To address this, HFI data are exported into Excel by a PowerShell (v7.2) command-line script using Python (v3.10) with the REDCap API. Results are calculated with F# (v6.0) using Microsoft Excel Interop API and inserted into a report template with F# using the Microsoft Publisher Interop API. This process is repeated at each timepoint. RESULTS/ANTICIPATED RESULTS: The new automated procedures significantly reduce time to generate reports and enhance accuracy. Procedures yield a 2-page individualized report that includes the obesogenic home food environment score and identifies categories of healthy items found (e.g., fruits, vegetables, whole grains) as well as areas of improvement (e.g., high-fat dairy products, processed meats). Specific items found in each category are identified. The report identifies food found in the home (e.g., chicken nuggets) with suggested healthier substitutions (e.g., lean chicken breast). This syntax and commands will be made publicly available for use in the scientific and clinical community. DISCUSSION/SIGNIFICANCE: These publicly available procedures optimize, automate, and standardize reporting for the HFI. Procedures improve efficiency within large-scale clinical trials and yield a personalized report to enhance the clinical utility of this measure and empower participants to make informed decisions about their health behaviors.

512

Patient and physical therapist experiences with integrating an eHealth pain self-management program into clinical care

Rogelio Coronado[1], Shannon Block[1], Katelyn Gonzalez[1], Bethany Rhoten[1], Carrie Brintz[1], Lindsey McKernan[1], Tricia Kirkhart[2], Stephen Wegener[2] and Kristin Archer[1]
[1]Vanderbilt University Medical Center and [2]Johns Hopkins University

OBJECTIVES/GOALS: eHealth programs centered on cognitive behavior therapy (CBT) can be supported by physical therapists to feasibly deliver psychologically-informed physical therapy (PIPT). This study assessed patient and physical therapist (PT) perspectives of adding a CBT-based eHealth program to physical therapy. METHODS/STUDY POPULATION: In our uncontrolled pilot study, PTs were trained in motivational interviewing (MI) to support patient engagement with a 7-module eHealth CBT-based pain self-management program that accompanied a course of PT. Interviews were conducted with a convenience sample of 13 patients with chronic back and/or neck pain and 9 PTs to evaluate experiences with the eHealth program, perceived benefits, barriers and facilitators to integration, and future recommendations for implementation from both perspectives. Interview data were recorded, transcribed, and analyzed using qualitative content analysis for core themes. RESULTS/ANTICIPATED RESULTS: Patients benefited from the eHealth program, especially relaxation (69% of respondents) and meditation/mindfulness (62%). Time and technology

https://doi.org/10.1017/cts.2022.303 Published online by Cambridge University Press