112 Developing Outpatient Registry to Capture Data Post Hospitalization

Bethany A. Schmoker, Shane urban, BSN, Arek J. Wiktor, MD FACS

UC Health University of Colorado Hospital, Strasburg, Colorado; University of Colorado Hospital, Denver, Colorado; University of Colorado Burn Center, Aurora, Colorado

Introduction: Per the 2019 ABA reverification requirements, a burn center must see >75% of all inpatients (IP) who require an outpatient (OP) follow-up after discharge. In prior years, we utilized the inpatient registry and built a report to track patient follow-up. With the report, we were able to compare the number of Burn Clinic return patients against admissions to get the percentage. This process required hours of focused effort. We sought to optimize the process for determining IP follow-up at our ABA verified burn center. In addition, we hoped to better quantify the efficacy of our OP clinic.

Methods: An OP registry was developed in December 2019 utilizing an automated report from our electronic medical record (EMR) and imported into a custom built, secure, web-based software platform designed to support data capture for research studies. Employing various automation techniques, we were able to eliminate the need for manual abstraction by our burn registry team. Metrics tracked in the OP registry included: type of patient visit (New Patient, Return Patient, and Telehealth), diagnoses, zip-codes of patient residence, payer methods, and total number of clinic encounters per year. We collected data from January 2020 through the present, with 2020 being the first full year in the OP registry. The initial effort required to design, automate, and import data was approximately 18 hours. The report import takes approximately 5 minutes.

Results: The OP registry has given us the ability to create a multitude of graphs from the OP clinic data, like the one shown. During the review period our OP clinic saw patients from 19 different US states, encompassing 2,710 total OP visits. The median number of monthly OP clinic visits was 235 [IQR 210-246], see graph 1. The median number of clinic visits per patient was 2 [IQR 1-4]. The majority of clinic visits were return patients (55%, n = 1595), new patients (31%, n = 914), and telehealth visits (14%, n = 399). Finally, our analysis of the OP Clinic Registry demonstrated that we saw 82% (309/374) of inpatients that required follow-up care, exceeding the expected 75% by the ABA.

Conclusions: The creation of an automated OP registry can assist the tracking of discharged patients and reduce the amount of effort needed to track ABA required metrics. In addition, this OP registry can be expanded to track both IP and OP outcomes. This is crucial for quality improvement for the burn program as a whole.

Correlative XV: Medical Care Non-Critical

C-353

114 Long Term Impact of Hospital Acquired Multi-drug Resistant Organisms on Health-related Quality of Life

Nathaniel K. Ashford, BS, Jamie Oh, MD, MS, Kara McMullen, MPH, Gretchen J. Carrougher, MN, RN, Sean A. Hickey, MD, Colleen M. Ryan, MD, Jeffrey C. Schneider, MD, Nicole S. Gibran, MD FACS, Barclay T. Stewart, MD, PhD

University of Washington, Seattle, Washington; University of Washington, Seattle, Washington; University of Washington, Portland, Oregon; Department of Surgery, The University of Washington, Seattle, Washington; Massachusetts General Hospital, Boston, Massachusetts; Harvard Medical School, Boston, Massachusetts; , Massachusetts; University of Washington, Wellfleet, Massachusetts; University of Washington, Seattle, Washington

Introduction: MDROs colonize wounds and cause infections for hospitalized burn patients, which may lead to increased infection risk, wound complications, longer (LOS) and more cost. Little is known about the long-term impacts of MDRO colonization and infection on burn survivors. We aimed to describe the impacts of colonization on long-term health-related quality of life (HRQoL), itch, and pain.

Methods: Data from adult participants in a multicenter longitudinal outcome study were used. Data was described and χ^2 and Kruskal-Wallis testing was applied to determine differences between the two groups. Outcomes included Veterans RAND 12 (VR-12) physical component summary score (PCS), and PROMIS 29 domains for pain intensity, fatigue, pain interference, physical function, and sleep disturbance. Pruritus was assessed using the 4-D Itch scale for total itch. Multilevel, multiple linear regressions were used for outcome measures at 6 m post-injury. Random effects regression with robust standard errors (SE) were used to evaluate the impacts over time.

Results: The study included 704 individuals and 92 were MDRO colonized (13%). Colonized patients had larger burns (25% TBSA, IQR 9-45 vs. 8% TBSA, IQR 3–20; $p < .001$), more operations (4, IQR 2-7 vs. 1, IQR 1-3; $p < .001$), more grafting (17% TBSA, IQR 3-46 vs. 3% TBSA, IQR 1- 9; $p < .001$), more ventilator days (2, IQR 0–8 vs. 0 IQR 0-0; $p < .001$), and longer LOS (34 days, IQR 17 – 64 vs. 16, IQR 9 - 27; $p < .001$). Adjusting for confounding covariables, such as demographics, colonization was associated with a lower PCS score (OR -0.33, 95% CI -0.68, -0.06; p=.018); a higher fatigue score (OR 0.46, 95% CI 0.13, 0.79; p = .007) and worse itch (OR 0.4, 95% CI -0.01, 0.75; p = .036). There was no association with pain intensity, pain interference, or sleep disturbance. Random effects regression indicated that colonization was associated with lower PCS (OR -5.0, 95% CI -8.60, -1.39; p = .007).

Conclusions: Impact of colonization extends beyond the immediate hospitalization and likely has long-term effects on HRQoL. Given our observation of lower physical function after MDRO, more granular research on taxa-specific effects, timing of colonization, and interventions are indicated to elucidate the impact on HRQoL.