Introduction: A variety of pain assessment tools exist for children, however none of the current scales were created specifically for family use. Further, none provide direct guidance with regards to pain treatment threshold. This study aimed to validate a novel, three faced, coloured coded (red, yellow, green), family-friendly pain tool, the Stoplight Pain Scale, by comparing it to the widely accepted and validated Faces Pain Scale-Revised (FPS-R). This novel tool has the capability to guide families with regards to treatment, as well as measure pain. **Methods:** A prospective observational cohort study was conducted at the Stollery Childrens Hospital emergency department (ED) (Edmonton, Alberta) from November, 2014 to February, 2017. Demographic information was collected, and patients (3-12 years) and their caregivers were asked to rate their pain using the novel Stoplight Pain Scale as well as the FPS-R. Pain was measured at presentation to the ED, immediately following painful procedures, and thirty minutes after analgesia administration. Patients and their caregivers also indicated their preferred scale for assessing pain. **Results:** A purposeful random sample of 227 patients were included for analyses; 61/227 (26.9%) of patients were 3-5 years old and 166/227 (73.1%) were 6-12 years old. 53/227 (23.3%) of patients had been previously hospitalized. Correlation between the two pain scales was consistently fair to moderate; using Kappa Statistics, a baseline correlation for Stoplight and FPS-R was fair for both caregivers (0.38, 95% CI 0.28 0.48) and patients (0.36 95% CI 0.27-0.45). The Stoplight Pain Scale had fair to moderate correlation between caregiver and patient scores, (0.37, 95% CI 0.27-0.47), compared to FPS-R which showed poor to fair agreement between caregiver and child scores (0.20, 95% CI 0.12-0.29). Regardless of age or hospitalization status, 64% of patients (139/218) and 54% caregivers (118/220) preferred the Stoplight Pain scale ($p = 0.001$). **Conclusion:** The Stoplight Pain Scale correlates moderately well with FPS-R, a validated pain assessment tool for children and shows good correlation between patients and caregivers assessment of reported pain. The Stoplight Pain Scale is a simple, easy to administer tool that may have a role in empowering family involvement in ED pain management. Future research should focus on at-home study of the tool.
Keywords: pain, measurement, self-report

MP43

Evaluation of an innovative web-based educational program to teach the management of alcohol withdrawal

B. Borgundvaag, MD, PhD, C. Thompson, MSc, S. McLeod, MSc, S. Perelman, MD, MSc, S. Lee, MD, S. Carver, BSc, T. Dear, BSc, Schwartz/Reisman Emergency Medicine Institute, Toronto, ON

Introduction: Ideal management of alcohol withdrawal syndrome (AWS) incorporates a symptom driven approach, whereby patients are regularly assessed using a standardized scoring system (Clinical Institute Withdrawal Assessment for Alcohol-Revised; CIWA-Ar) and treated according to severity. Accurate administration of the CIWA-Ar requires experience, yet there is no training program to teach this competency. The objective of this study was to develop and evaluate a web-based curriculum to teach clinicians how to accurately assess and treat AWS. **Methods:** This was a three-phase educational program consisting of a series of 3 e-learning modules of core competency material, in-person seminar to orient learners to high fidelity simulation, and summative evaluation in an OSCE setting using a standardized patient. To determine the ED impact of the AWS curriculum, we recorded how often the CIWA-Ar was appropriately applied in the ED pre and post training. ED length of stay, total dose of benzodiazepines administered in the ED, and number of prescriptions and unit benzodiazepine doses given upon discharge were also recorded. **Results:** 74 nurses from an academic ED completed the AWS curriculum. There were 130 and 126 patients in the pre and post AWS training periods, respectively. Management of AWS was not compliant with CIWA-Ar protocol in 78 (60.0%) and 46 (36.5%) patients pre and post AWS training, respectively (23.5%; 95% CI: 11.3%, 34.7%), resulting in administration of benzodiazepine when it was not required, or not giving benzodiazepines with a CIWA-Ar score of 10. There was an average of 4 CIWA-Ar scores per patient in both the pre and post implementation periods. Prior to AWS training, 144/560 (25.5%) CIWA-Ar scores resulted in a breach of protocol, compared to 64/547 (11.7%) following AWS training (13.8%; 95% CI: 9.3%, 18.3%). Median total dose of benzodiazepines administered in the ED was lower after the implementation of the AWS curriculum (40mg vs. 30mg; 10mg; 95% CI: 0mg, 20mg). ED length of stay and the amount of benzodiazepines given to patients at discharge were similar between groups. **Conclusion:** This AWS curriculum appears to be an effective way to train ED clinicians on the proper administration of the CIWA-Ar protocol, and results in improved patient care.
Keywords: alcohol withdrawal syndrome, emergency department, clinical institute withdrawal assessment for alcohol scale

MP44

TEC4Home heart failure: using home telemonitoring to decrease ED readmissions and clinical flow

H. Novak Lauscher, PhD, K. Ho, MD, J. L. Cordeiro, BAA (Hons), A. Bhullar, BSc, R. Abu Laban, BSc, MD, MHSc, J. Christenson, MD, H. Harps, N. Hawkins, MD, E. Karim, MSc, PhD, C. Kim Sing, MD, C. McGavin, BA, C. Mitton, BSc, MSc, PhD, T. Smith, MBA, Department of Emergency Medicine, University of British Columbia, Vancouver, BC

Introduction: Patients with Heart failure (HF) experience frequent decompensation necessitating multiple emergency department (ED) visits and hospitalizations. If patients are able to receive timely interventions and optimize self-management, recurrent ED visits may be reduced. In this feasibility study, we piloted the application of home telemonitoring to support the discharge of HF patients from hospital to home. We hypothesized that TEC4Home would decrease ED revisits and hospital admissions and improve patient health outcomes. **Methods:** Upon discharge from the ED or hospital, patients with HF received a blood pressure cuff, weight scale, pulse oximeter, and a touchscreen tablet. Participants submitted measurements and answered questions on the tablet about their HF symptoms daily for 60 days. Data were reviewed by a monitoring nurse. From November 2016 to July 2017, 69 participants were recruited from Vancouver General Hospital (VGH), St. Pauls Hospital (SPH) and Kelowna General Hospital (KGH). Participants completed pre-surveys at enrollement and post-surveys 30 days after monitoring finished. Administrative data related to ED visits and hospital admissions were reviewed. Interviews were conducted with the monitoring nurses to assess the impact of monitoring on patient health outcomes. **Results:** A preliminary analysis was conducted on a subsample of participants ($n = 22$) enrolled across all 3 sites by March 31, 2017. At VGH and SPH ($n = 14$), 25% fewer patients required an ED visit in the post-survey reporting compared to pre-survey. During the monitoring period, the monitoring nurse observed seven likely avoided ED admissions due to early intervention. In total, admissions were reduced by 20% and total hospital length of stay reduced by 69%. At KGH ($n = 8$), 43% fewer patients required an ED visit in the post-survey reporting compared to the pre-survey. Hospital admissions were reduced by 20% and total hospital length of stay reduced by 50%. Overall, TEC4Home participants from all sites showed a significant

https://doi.org/10.1017/cem.2018.197 Published online by Cambridge University Press