Keywords: asymptomatic bacteriuria, quality improvement and patient safety, urine cultures

LO39

Using an ambulatory zone to improve physician initial assessment times in a tertiary care hospital emergency department

A. Verma, BSc, MD, MHSc, I. Cheng, MD, MSc, PhD, K. Pardhan, MD, L. Notario, BN, MSc, W. Thomas-Boaz, BN, MN, D. Shelton, MD, MSc, Sunnybrook Health Sciences Centre, Toronto, ON

Background: Increasing Emergency Department (ED) stretcher occupancy with admitted patients at our tertiary care hospital has contributed to long Physician Initial Assessment (PIA) times. As of Oct 2019, median PIA was 2.3 hours and 90th percentile PIA was 5.3 hours, with a consequent 71/74 PIA ranking compared to all Ontario EDs. Ambulatory zone (AZ) models are more commonly used in community EDs compared to tertiary level EDs. An interdisciplinary team trialled an AZ model for five days in our ED to improve PIA times. **Aim Statement:** We sought to decrease the median PIA for patients in our ED during the AZ trial period as compared to days with similar occupancy and volume. **Measures & Design:** The AZ was reserved for patients who could walk from a chair to stretcher. In this zone, ED rooms with stretchers were for patient assessment only; when waiting for results or receiving treatment, patients were moved into chairs. We removed nursing assignment ratios to increase patient flow. Our outcome measure was the median PIA for all patients in our ED. Our balancing measure was the 90th percentile PIA, which could increase if we negatively impacted patients who require stretchers. The median and 90th percentile PIA during the AZ trial were compared to similar occupancy and volume days without the AZ. Additional measures included ED Length of Stay (LOS) for non-admitted patients, and patients who leave without being seen (LWBS). Clinicians and patients provided qualitative feedback through surveys. **Evaluation/Results:** The median PIA during the AZ trial was 1.5 hours, compared to 2.1 hours during control days. Our balancing measure, the 90th percentile PIA was 3.7 hours, compared to 5.0 during control days. A run chart revealed both median and 90th percentile PIA during the trial were at their lowest points over the past 18 months. The number of LWBS patients decreased during the trial; EDLOS did not change. The majority of patients, nurses, and physicians felt the trial could be implemented permanently. **Discussion/Impact:** Although our highly specialized tertiary care hospital faces unique challenges and high occupancy pressures, a community-hospital style AZ model was successful in improving PIA. Shorter PIA times can improve other quality metrics, such as timeliness of analgesia and antibiotics. We are working to optimize the model based on feedback before we cycle another trial. Our findings suggest that other tertiary care EDs should consider similar AZ models.

Keywords: patient flow, physician initial assessment, quality improvement and patient safety

LO40

Safe anticoagulation initiation for atrial fibrillation in the emergency department (the SAFE pathway)

C. Kirwan, BSc, S. Ramsden, BSc, A. Kibria, J. Carter, BSc, X. Tong, MD, J. Huang, MD, R. McArthur, PharmD, N. Clayton, RA, K. de Wit, MBChB, MD, MSc, McMaster University, Hamilton, ON

Background: Atrial fibrillation (AF) is a risk for stroke. The Canadian Cardiovascular Society advises patients who are CHADS65 positive should be started on oral anticoagulation (OAC). Our local emergency department (ED) review showed that only 16% of CHADS65 positive patients were started on OAC and that 2% of our patients were diagnosed with stroke within 90 days. We implemented a new pathway for initiation of OAC in the ED (the SAFE pathway). **Aim Statement:** We report the effectiveness and safety of the SAFE pathway for initiation of OAC in patients treated for AF in the ED. **Measures & Design:** A multidisciplinary group of physicians and pharmacist developed the SAFE pathway for patients who are discharged home from the ED with a diagnosis of AF. Step 1: contraindications to OAC, Step 2: CHADS65 score, Step 3: OAC dosing if indicated. The pathway triggers referral to AF clinic, family physician letter and follow up call from the ED pharmacist. Patients are followed for 90 days by a structured medical record review and a structured telephone interview. We record persistence with OAC, stroke, TIA, systemic arterial embolism and major bleeding (ISTH criteria). Patient outcomes are fed back to the treating ED physician. **Evaluation/Results:** The SAFE pathway was introduced in two EDs in June 2018. In total, 177 patients have had the pathway applied. The median age was 70 (interquartile range (IQR) 61-78), 48% male, median CHADS2 score 2 (IQR 0-2). 19/177 patients (11%) had a contraindication to initiating OAC. 122 patients (69%) had no contraindication to OAC and were CHADS65 positive. Of these 122 patients, 109 were given a prescription for OAC (96 the correct dose, 9 too high a dose and 4 too low a dose). 6 patients declined OAC and the physician did not want to start OAC for 7 patients. 73/122 were contacted by phone at 90 days, 15 could not be reached and 34 have not completed 90 days of follow up since their ED visit. Of the 73 who were reached by phone after 90 days, 65 were still taking an anticoagulant. To date, 1 patient who declined OAC (CHADS2 score of 2) had a stroke within 90 days and one patient prescribed OAC had a gastrointestinal bleed. **Discussion/Impact:** The SAFE pathway appears safe and effective although we continue to evaluate and improve the process.

Keywords: anticoagulation, atrial fibrillation, quality improvement and patient safety

LO41

The development of a standardized provincial massive hemorrhage protocol with a built-in continuous quality improvement framework

C. Yeh, MD, PhD, S. Cope, BSc, T. Thompson, BAHSc, S. McGilvray, MD, A. Petrosoniak, MD, MSc, V. Chin, BSc, K. Karkouti, MD, MSc, A. Nathens, MD, MPH, PhD, K. Murto, MD, S. Beno, MD, A. McDonald, MD, A. Beckett, MD, H. Hanif, BSc, MLT, A. Collins, MD, B. Nascimento, MD, MSc, S. Rizoli, MD, PhD, M. Sholzberg, MDCM, MSc, K. Pavenski, MD, J. Callum, MD, University of Toronto, Toronto, ON

Background: Massive hemorrhage protocols (MHPs) streamline the complex logistics required for prompt care of the bleeding patient, but their uptake has been variable and few regions have a system to measure outcomes from these events. **Aim Statement:** We aim to implement a standardized MHP with uniform quality improvement (QI) metrics to increase uptake of evidence-based MHPs across 150-hospitals in Ontario between 2017 and 2021. **Measures & Design:** We performed ongoing PDSA cycles; 1) stakeholder analysis by surveying the Ontario Regional Blood Coordinating Network (ORBCoN), 2) problem characterization and Ishikawa analysis for key QI metrics based on areas of MHP variability in 150 Ontario hospitals using a web-based survey, 3) creation of a consensus MHP via a modified Delphi process, 4) problem characterization at ORBCoN for

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