

**Introduction:** Little is known about the variety of roles volunteers play in the emergency department (ED), and the potential impact they have on patient experience. The objective of this scoping review was to identify published and unpublished reports that described volunteer programs in EDs, and determine how these programs impacted patient experiences or outcomes. **Methods:** Electronic searches of Medline, EMBASE, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews and CINAHL were conducted and reference lists were hand-searched. A grey literature search was also conducted (Web of Science, ProQuest, Canadian Business and Current Affairs Database ProQuest Dissertations and Theses Global). Two reviewers independently screened titles and abstracts, reviewed full text articles, and extracted data. **Results:** The search strategy yielded 4,589 potentially relevant citations. After eliminating duplicate citations and articles that did not meet eligibility criteria, 87 reports were included in the review. Of the included reports, 18 were peer-reviewed articles, 6 were conference proceedings, 59 were magazine or newspaper articles, and 4 were graduate dissertations or theses. Volunteer activities were categorized as non-clinical tasks (e.g., provision of meals/snacks, comfort items and mobility assistance), navigation, emotional support/communication, and administrative duties. 52 (59.8%) programs had general volunteers in the ED and 35 (40.2%) had volunteers targeting a specific patient population, including pediatrics, geriatrics, patients with mental health and addiction issues and other vulnerable populations. 20 (23.0%) programs included an evaluative component describing how ED volunteers affected patient experiences and outcomes. Patient satisfaction, follow-up and referral rates, ED and hospital costs and length of stay, subsequent ED visits, medical complications, and malnutrition in the hospital were all reported to be positively affected by volunteers in the ED. **Conclusion:** This scoping review demonstrates the important role volunteers play in enhancing patient and caregiver experience in the ED. Future volunteer engagement programs implemented in the ED should be formally described and evaluated to share their success and experience with others interested in implementing similar programs in the ED. **Keywords:** emergency department, patient experience, volunteers

### P093

#### Quality assurance programs for tests pending at discharge from emergency departments: a systematic review

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**Introduction:** Emergency department (ED) care allows for the rapid assessment of patient concerns, but often leads to tests being performed that are not finalized or reviewed prior to patients leaving the ED. The follow-up for these tests pending at discharge (TPADs), most commonly final diagnostic imaging (DI) reports and microbiology cultures, is a major medico-legal concern for ED providers and significant safety concern for patients. We therefore performed a systematic review of the literature to identify existing ED quality assurance (QA) processes to address TPADs relating to final DI reports and microbiology cultures. **Methods:** Comprehensive literature searches were developed with a medical librarian and conducted in Ovid Medline, EMBASE, Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, and CINAHL from inception through May 8, 2018. Studies were included if they described an intervention or program designed to follow-up relevant ED TPADs, and excluded if they pertained to

communication between departments or clinicians only rather than with patients. Study selection was performed independently by two reviewers in two steps (title and abstract review, then full-text review), with all discrepancies resolved by consensus with a senior reviewer. The primary outcome was the description of any QA process to follow-up on TPADs and secondary outcomes included quantifiable results of successful interventions or programs. **Results:** From the 11,685 articles identified, 58 were selected for full-text review, and 12 met eligibility criteria. In the included studies, the responsibility for following up on TPADs was owned by different members of the care team (e.g., ED physicians, nurses or radiologists) and recorded in a variety of ways (e.g., electronic medical record, paper chart, system designed for TPADs). Follow-up pathways with variable standardization were described, ranging from dedicated assignment for TPAD duties with protected/remunerated time to do so, to follow-up completion done by the first clinician to receive the TPAD result. Studies that evaluated their QA process implementation found that more patients were notified of abnormal test results, follow-up times decreased, and fewer unnecessary antibiotics were used. **Conclusion:** A variety of QA processes have been implemented to follow up on ED TPADs in terms of personnel involved, charting and logistics, and when evaluated, they have improved patient care.

**Keywords:** patient discharge, patient safety, quality improvement

### P094

#### Evaluation of the National Early Warning Score (NEWS) to guide the orientation of patients with sepsis in the emergency department

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**Introduction:** The Canadian Triage and Acuity Scale (CTAS) identifies the level of urgency when patients arrive to the Emergency department (ED). Sepsis is challenging to recognize and is associated with significant mortality (30 to 50%). The integration of the COP criteria allows for earlier detection and management of sepsis. The CTAS's validity and reliability are debated. The NEWS score has been suggested to allow a timely recognition of sepsis. Objectives: To describe patient orientation at ED triage with the NEWS vs. the CTAS and COP criteria and to identify the NEWS's ability to detect patients who will require admission to critical care. **Methods:** Design: A retrospective cohort study of ED 225 patients (January-November 2018) is constituted. **Participants:** Patients were included if they were aged  $\geq 18$ , consulting to the ED, presented one of the 32 diagnoses included in the CMI-10. **Measurements:** Retained variables are sex, age, CTAS score and level of care. The NEWS score was calculated from triage vital signs. Main outcome was Patient orientation after ED triage using CTAS vs the NEWS score. Descriptive statistics to determine patient orientation based on the NEWS and CTAS were performed. Fisher tests ( $\alpha = 0.05$ ) were used to assess a possible association between both triage scales and identify the NEWS's ability to detect patients who will require admission to critical care during. Sample size was calculated in order to detect a 15% difference between actual orientation and theoretical orientation based on the NEWS. **Results:** The retained cohort (45% men) were aged  $66 \pm 21$  years. 67% were admitted, 14% of which to a critical care unit. Average length of hospital stay was  $6.3 \pm 7.8$  days. Primary objective: patient orientation after triage using CTAS vs the NEWS was: 29% vs. 18% for high risk patients; 2% vs. 67% for low risk patients

( $p < 0.0001$ ), respectively. Secondary objective: Among patients with stable NEWS score, 53% were admitted to hospital among patients with medium NEWS score, 9% of patients were admitted to the critical care ( $p = 0.0003$ ) **Conclusion:** Patient orientation after ED triage using CTAS vs the NEWS is significantly different. The NEWS alone does not seem to be able to detect patients who will require admission to critical care. Future studies exploring an aggregate scoring system combining the NEWS and CTAS could be performed to determine if sepsis recognition and patient orientation can be improved

**Keywords:** Canadian Triage and Acuity Scale, National Early Warning Score (NEWS), sepsis detection

#### P095

##### Preparing emergency patients and providers study: Clinician and patient satisfaction with communication tool

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**Introduction:** Effective communication to develop a shared understanding of patient/caregiver (P/C) expectations is critical during emergency department (ED) encounters. However, there is limited research examining the use of communication tools of P/C expectations to improve communication in the ED. The objective of this study was to examine satisfaction with a patient expectations questionnaire, known as the PrEPP tool, and its impact on communication and management of patients in the ED. **Methods:** The PrEPP tool collected P/C expectations over 3 phases of the study. In phase 1, the PrEPP tool was distributed to all P/Cs (CTAS score of 2 to 5) in four EDs in Nova Scotia. In phase 2 the PrEPP tool was refined to a 5-item questionnaire. In phase 3 the PrEPP tool was re-implemented over a six-month period. Follow-up surveys were distributed to P/Cs via email (phase 1, 3) and HCPs on iPads in the ED (phase 3) to determine the impact of the tool on communication and management of patients. Entries were compiled on a REDCap database and descriptive statistics were used to analyze responses related to satisfaction. The PrEPP tool collected P/C expectations over 3 phases of the study. In phase 1, the PrEPP tool was distributed to all P/Cs (CTAS score of 2 to 5) in four EDs in Nova Scotia. In phase 2 the PrEPP tool was refined to a 5-item questionnaire. In phase 3 the PrEPP tool was re-implemented over a six-month period. Follow-up surveys were distributed to P/Cs via email (phase 1, 3) and HCPs on iPads in the ED (phase 3) to determine the impact of the tool on communication and management of patients. Entries were compiled on a REDCap database and descriptive statistics were used to analyze responses related to satisfaction. **Results:** In Phase 1, 11418 PrEPP tools and 147 surveys (29% response rate) were collected from January-June 2016. The majority of P/Cs found the PrEPP questionnaire easy to complete (95.9%) and felt HCPs met their expectations (87.1%). In Phase 3, 951 P/C (31.1% response rate) and 128 HCP surveys were collected. Of P/C respondents 45.9% felt PrEPP helped to communicate expectations, while 49.7% said that they would like to use it on future ED visits. The majority of P/C respondents (75.4%) indicated their expectations were met during their visit to the ED. Of those whose expectations were not met, 69% felt their expectations were not discussed. The majority of HCP respondents (90.4%) indicated they used the PrEPP tool at least sometimes. Also, 78.4% said it influenced patient communication and 42% indicated the tool influenced management of patients at least sometimes. **Conclusion:**

Obtaining expectations early in the patient encounter may provide opportunities for improved communication in the ED. P/Cs found the PrEPP tool easy to use to communicate their expectations and HCPs felt it influenced communication and management of patients in the ED. Further qualitative thematic analysis is needed to explore how the PrEPP tool impacted ED visits.

**Keywords:** communication, emergency department, patient expectations

#### P096

##### Prospective pilot implementation of a clinical decision aid for acute aortic syndrome

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**Introduction:** The RAPID RIP clinical decision aid was developed to identify patients at high-risk for acute aortic syndrome (AAS) who require investigations. It stratifies patients into low (no further testing) intermediate (D-dimer if no alternative diagnosis) and High risk (Computed tomography (CT) aorta). Our objectives were to assess its impact on: a) Documentation of high risk features/pre test probability for AAS b) D-dimers ordered c) CT ordered and d) Emergency department length of stay. **Methods:** We conducted a prospective pilot before/after study at a single tertiary-care emergency department between August and September 2018. Consecutive alert adults with chest, abdominal, flank, back pain or stroke like symptoms were included. Patients with pain >14 days or secondary to trauma were excluded. **Results:** We enrolled 1,340 patients, 656 before and 684 after implementation, including 0 AAS. Documentation of pre test probability assessment increased (0% to 3%,  $p < 0.009$ ) after implementation. The proportion who had D-dimer performed increased (5.8% to 9.2% ( $p < 0.2$ ), while the number of CT to rule out AAS remained stable (0.59% versus 0.58%;  $p = 0.60$ ). The mean length of ED stay was stable (2.31+/-2.0 to 2.28+/-1.5 hours;  $p = 0.45$ ) and slightly decreased in those with pre test probability documented (2.1+/-1.4  $p < 0.09$ ). The specificity of the decision aid for CT was 100% (95%CI 71.5- 100%). If it were applied to all patients with high-risk clinical features of AAS the specificity would be 92.6% (95%CI 90.1-94.6%). **Conclusion:** Implementation of the RAPID RIP increased documentation of important high-risk features for AAS. The RAPID RIP strategy increased use of D-dimer without increasing the number of CT and had a trend towards decreased length of stay.

**Keywords:** acute aortic syndrome, clinical decision aid

#### P097

##### The characteristics and effectiveness of interventions targeting chronic pain patients in the emergency department: A systematic review and meta-analysis

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**Introduction:** Patients with chronic non-cancer pain (CNCP) and opioid-use disorders make up a category of patients who present a challenge to emergency department (ED) providers and healthcare administrators. Their conditions predispose them to frequent ED utilization. This problem has been compounded by a worsening opioid epidemic that has rendered clinicians apprehensive about how they approach pain care. A systematic review has not yet been