

**Introduction:** The objective of the study was to evaluate the acute pain intensity evolution in ED discharged patients using Group-based trajectory modeling (GBTM). This method identified patient groups with similar profiles of change over time without assuming the existence of a particular pattern or number of groups. **Methods:** This was a prospective cohort study of ED patients aged  $\geq 18$  years with an acute pain condition ( $\leq 2$  weeks) and discharged with an opioid prescription. Patients completed a 14-day diary assessing daily pain intensity level (0-10 numeric rating scale) and pain medication use. **Results:** Among the 372 included patients, six distinct post-ED pain intensity trajectories were identified: two started with severe levels of pain, one remained with severe pain intensity (12.6% of the sample) and the other ended with moderate pain intensity level (26.3%). Two other trajectories had severe initial pain, one decreased to mild pain (21.7%) and the other to no-pain (13.8%). Another trajectory had moderate initial pain which decreased to a mild level (15.9%) and the last one started with mild pain intensity and had no pain at the end of the 14-day (9.7%). The pain trajectory patterns were significantly associated with age, type of painful conditions, pain intensity at ED discharge, and with opioid consumption. **Conclusion:** Acute pain resolution following an ED visit seems to progress through six different trajectory patterns that are more informative than simple linear models and could be useful to adapt acute pain management in future research.

**Keywords:** pain, trajectory

#### P031

##### **Naltrexone initiation for alcohol use disorder in the emergency department: A systematic review**

E. Deschner, MD, C. Walsh, MI, MA, S. Spithoff, MD, S. McLeod, MSc, B. Borgundvaag, MD, PhD, E. Bearss, MD, J. Foote, MD, J. Gravel, MD, MSc, Western University, London, ON

**Introduction:** Alcohol use disorder (AUD) is a chronic relapsing and highly comorbid disease. Patients suffering from AUD are frequently seen in the emergency department (ED) presenting intoxicated or in withdrawal. Brief interactions in the ED are often the only portal of entry to the healthcare system for many of these patients. Oral naltrexone and long acting injectable naltrexone are effective treatment options for AUD associated with decreased cravings, shorter length of hospital stay, and lower cost of healthcare utilization. This study's objective was to perform a systematic review of the literature evaluating initiation of naltrexone in the ED. **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. Randomized controlled trials (RCTs) comparing initiation of naltrexone in patients ( $\geq 18$  years) to standard care in the ED were included. Two reviewers independently screened titles and abstracts, reviewed full text articles for inclusion, assessed quality of the studies, and extracted data. **Results:** The search strategy yielded 183 potentially relevant citations. After eliminating duplicate citations and studies that did not meet eligibility criteria, 10 articles were retrieved for full text review. There were no published RCTs that examined naltrexone initiation in the ED. There is one ongoing study being conducted in New York, which aims to assess naltrexone initiation in the ED and measure health outcomes and quality of life of study participants, as well as potential healthcare cost savings. **Conclusion:** The lack of published research in this area demonstrates a significant gap in knowledge. It is clear that well-designed RCTs are needed to evaluate the effectiveness of initiating naltrexone for those with AUD at the ED visit.

**Keywords:** alcohol use disorder, emergency department, naltrexone

#### P032

##### **Video-based learning modules as an adjunct for teaching emergency medicine procedural skills**

J. Dong, BSc, MD, S. Agarwal, BSc, J. Wojtowicz, MD, E. Hanel, MD, McMaster University, Hamilton, ON

**Innovation Concept:** Competence in procedural skills is vital within the emergency department. Challenging procedures such as cricothyroidotomy are difficult to master as they are rare and hard to train for. Additionally, common procedures such as chest tube insertions require practice to become sufficiently competent. Opportunities to hone these skills are essential in residency training. This project aimed to create instructional video modules for specific emergency medicine (EM) procedures and to gauge its utility as an adjunctive resource for procedural learning in the EM residency curriculum. **Methods:** Tutorial videos for clamshell thoracotomy, cricothyroidotomy, and chest tube insertion were filmed within a cadaver lab with step-by-step instructions. The footage was edited and overlaid with a prepared audio narration using Camtasia®/Apple® Video Editing software. These videos were embedded within modules that included foundational knowledge relevant to the procedures including anatomy, physiology and pathophysiology. The modules were peer-edited by licensed EM staff physicians and distributed to EM residents and staff physicians for analysis. Qualitative and quantitative analysis relied upon participants' answers to questions and a Modified Task Value Scale (measures the value of a module for overall learning), respectively. **Curriculum, Tool or Material:** Ten participants were included in the analysis, including EM residents ( $n = 6$ ) and staff emergency physicians ( $n = 4$ ). Qualitative feedback suggested that positive aspects of the modules included visuals, content, narration, and review of anatomy. Negative aspects included the lack of indications for procedures, technical details, real patient examples, and a speed up function. Quantitative feedback resulted in scores of 4 and above out of 5 (1 = lowest value, 5 = highest value) on the Motivated Task Value Scale across all aspects for all the modules. Furthermore, analysis revealed an average score of 3.9/5 for inclination to access more modules such as these, and a score of 4.4/5 for overall perception of the modules. **Conclusion:** Participants found the video modules valuable to their learning, both qualitatively and quantitatively. This study was limited by a small sample size of modules and a low number of participants. Furthermore, a more detailed analysis with further measures, including self-efficacy and self-confidence, would yield more comprehensive conclusions. However, video modules provide an effective and easily accessible adjunctive tool to acquire skill and confidence with EM procedures, for medical learners and staff physicians.

**Keywords:** EM procedural skills, innovations in EM education, video-based learning

#### P033

##### **Clinical and laboratory characteristics of patients presenting to a tertiary care centre emergency department with invasive Group A Streptococcus infections**

K. Dudar, BA, MPH, S. Littlefield, BSc, MSc, M. Garnett, BHSc, MD, Northern Ontario School of Medicine, Thunder Bay, ON

**Introduction:** According to the Public Health Agency of Canada, the rate of invasive Group A Streptococcus (iGAS) has more than doubled