

years old. **Conclusion:** The higher smoking prevalence demonstrated in ED patients highlights the need for a targeted intervention program that is feasible for the fast-paced environment. Quit attempts have been demonstrated to be more efficacious with repeated interventions, which could be achieved by training ED staff to conduct brief motivational interviews and faxing referrals to a smokers' quit line for follow-up. Furthermore, pediatric ED's could be a valuable location for cigarette smoking screening, as the majority began smoking in their adolescence.

Keywords: cigarette smoking, primary prevention, smoking cessation

LO38

Assessment of pain and provision of non-pharmacologic analgesia to children by prehospital providers in Southwestern Ontario: a cross-sectional study

J. Teefy, MD, H. Mustafa, BSc, N. Poonai, MD, K. VanAarsen, MSc, A. Dukelow, MD, London Health Sciences Centre, London, ON

Introduction: There is abundant evidence that in children, assessment and pharmacologic treatment of pain by prehospital providers is suboptimal. Most paediatric calls are performed by primary care paramedics who are unable to administer pharmacologic analgesia to children but can administer non-pharmacologic therapies. We sought to describe the proportion of children provided non-pharmacologic analgesia by prehospital providers. **Methods:** We reviewed all ambulance call reports (ACR) of children age 0-17 years with an acutely painful condition (headache, abdominal pain, possible fracture, head/ears/eyes/nose/throat pain, back pain, and unclassified pain) who were transported to the Children's Hospital, London Health Sciences Centre between 2008 and 2017. We excluded ACRs lacking data pertaining to the primary outcome. Data collection was recorded by two blinded assessors using a study-specific Excel™ sheet. The primary outcome was the proportion of children offered non-pharmacologic analgesia. We performed a hierarchical stepwise logistic regression on the primary outcome using covariates defined a priori: age, sex, visible deformity, documentation of pain score, and complaint. **Results:** Of 19782 ACRs, we report the preliminary results of 500 ACRs reviewed from Jan 1 to Feb 22, 2016. Of the 403 ACRs eligible for analysis, the median (IQR) age was 13 (8) years and 174 (43.2%) were females. 309/403 (76.7%) calls involved primary (as opposed to advanced) care paramedics. Pain assessments were performed in 171/403 (42.4%) calls, most commonly the 0-10 verbal numeric rating scale [128/171 (74.8%)] and the median (IQR) score was 7 (4) (n = 128). Non-pharmacologic analgesia was offered in 72/403 (17.9%) of calls, most commonly ice (37/72, 51%) and splint (29/72, 40%). In the multivariate model, significant predictors of non-pharmacologic analgesia included older age (OR 1.1; 95% CI: 1.1, 1.2; p = 0.01) and visible deformity (OR 8.2; 95% CI: 2.5, 30.2; p = 0.001). Sex (p = 0.62), documentation of pain score (p = 0.81), and complaint (p = 0.05) were not significant predictors. **Conclusion:** In this preliminary analysis, the provision of non-pharmacologic analgesia to children in Southwestern Ontario by prehospital providers was suboptimal despite moderate to severe levels of pain. Less than half of patients had pain assessments documented. There is a clear need for education surrounding pain assessment and non-pharmacologic analgesic options in children among prehospital providers.

Keywords: pain, pediatrics, prehospital

LO39

Systematic review of emergency department practice change interventions for improving asthma outcomes

K. Hurley, MD, E. Fitzpatrick, MN, L. MacEachern, BSc, MA, J. Curran, PhD, IWK Health Centre, Halifax, NS

Introduction: Emergency departments (ED) play a vital role in asthma care for patients of all ages. Our objective was to review and synthesize all practice change interventions in ED settings that focused on improving the health outcomes of adults and children with asthma. **Methods:** This study was a systematic review adhering to the methods outlined by the Effective Practice and Organization of Care (EPOC) Cochrane Review Group. We developed a search strategy with a library scientist for the following databases: AMED, CINAHL, Embase, ERIC, MEDLINE, HealthStar, CENTRAL, DARE and Cochrane's EPOC and Airways registers. We also hand searched the Journal of Asthma, Pediatrics and Chest. Two reviewers independently reviewed titles, abstracts and full text using predetermined criteria. Data were extracted by two independent reviewers who used a structured abstraction form and assessed risk of bias. All discrepancies were resolved by consensus. **Results:** Our search strategy yielded 8,878 titles and abstracts for review. A total of 214 studies underwent full text screening and we extracted data from 27 studies. Risk of bias was judged as low in 10 studies, moderate in 8 studies and high in 9 studies. A range of interventions were employed, with education (n = 14) and reminders (n = 8) being the most prevalent. In pediatric settings, most studies targeted changing the behaviour of parents (n = 11). Four studies targeted health care providers and four studies targeted both providers and parents. We identified a major deficit in the use of behaviour change theory to guide intervention design. The most common primary outcomes of interest were unscheduled return visits (n = 14), primary care follow-up (n = 9), quality of life (n = 5) and ED length of stay (n = 4). We were not able to perform a meta-analysis due to heterogeneity in interventions and outcomes. **Conclusion:** Although we found a range of interventions used to improve asthma care in EDs, there was significant variation in reported primary outcomes. Both unscheduled return visits and primary care follow-ups, the most common primary outcomes, varied in the timeframe and manner in which they were collected. Most interventions were educational and based on an assumption that education would change behaviour. Future research in this area would benefit from standardized outcome measures and intervention designs based upon models of behaviour change model.

Keywords: asthma, practice change

LO40

Services for emergency department patients experiencing early pregnancy complications: a survey of Ontario hospitals

R. Glicksman, BSc, S. McLeod, MSc, J. Thomas, MD, MSc, C. Varner, MD, MSc, Mount Sinai Hospital - University of Toronto, Toronto, ON

Introduction: Women experiencing complications of early pregnancy frequently seek care in the emergency department (ED), as most have not yet established care with an obstetrical provider. The primary objective of this study was to explore the services available (ED management, ultrasound access, and follow-up care) for ED patients experiencing early pregnancy loss or threatened early pregnancy loss in Ontario hospitals. **Methods:** The emergency medicine