

the associated pain and its management. Our primary objective was to quantify the pain experienced by children with acute gastroenteritis in the 24-hours prior to emergency department (ED) presentation. Secondary objectives included describing maximum pain, analgesic use, discharge recommendations, and factors that influenced analgesic use in the ED. **Methods:** Study participants were recruited into this prospective cohort study by the Alberta Provincial Pediatric EnTeric Infection TEam between January 2014 and September 2017. This study was conducted at two Canadian pediatric EDs; the Alberta Children's Hospital (Calgary) and the Stollery Children's Hospital (Edmonton). Eligibility criteria included <18 years of age, acute gastroenteritis (□ 3 episodes of diarrhea or vomiting in the previous 24 hours), and symptom duration □ 7 days. The primary study outcome, caregiver-reported maximum pain in the 24-hours prior to presentation, was assessed using the 11-point Verbal Numerical Rating Scale. **Results:** We recruited 2136 patients, median age 20.8 months (IQR 10.4, 47.4); 45.8% (979/2136) female. In the 24-hours prior to enrolment, 28.6% (610/2136) of caregivers reported that their child experienced moderate (4-6) and 46.2% (986/2136) severe (7-10) pain in the preceding 24-hours. During the emergency visit, 31.1% (664/2136) described pain as moderate and 26.7% (571/2136) as severe. In the ED, analgesia was provided to 21.2% (452/2131) of children. The most commonly administered analgesics in the ED were ibuprofen (68.1%, 308/452) and acetaminophen (43.4%, 196/452); at home, acetaminophen was most commonly administered (77.7%, 700/901), followed by ibuprofen (37.5%, 338/901). Factors associated with analgesia use in the ED were greater pain scores during the visit, having a primary-care physician, shorter illness duration, fewer diarrheal episodes, presence of fever and hospitalization. **Conclusion:** Although children presenting to the ED with acute gastroenteritis experience moderate to severe pain, both prior to and during their emergency visit, analgesic use is limited. Future research should focus on appropriate pain management through the development of effective and safe pain treatment plans.

Keywords: gastroenteritis, pain, pediatrics

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Hyoscine butylbromide (Buscopan) for abdominal pain in children: a randomized controlled trial

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Introduction: Abdominal pain is one of the most frequent reasons for an emergency department (ED) visit. Most cases are functional and no therapy has proven effective. Our objective was to determine if hyoscine butylbromide (HBB) (Buscopan™) is effective for children who present to the ED with functional abdominal pain. **Methods:** We conducted a randomized, blinded, superiority trial comparing HBB 10 mg plus acetaminophen placebo to oral acetaminophen 15 mg/kg (max 975 mg) plus HBB placebo using a double-dummy approach. We included children 8-17 years presenting to the ED at London Health Sciences Centre with colicky abdominal pain rated >40 mm on a 100 mm visual analog scale (VAS). The primary outcome was VAS pain score at 80 minutes post-administration. Secondary outcomes included adverse effects; caregiver satisfaction with pain management using a five-item Likert scale; recidivism and missed surgical diagnoses within 24-hours of discharge. Analysis was based on intention to treat. **Results:** We analyzed 225 participants (112

acetaminophen; 113 HBB). The mean (SD) age was 12.4 (3.0) years and 148/225 (65.8%) were females. Prior to enrollment, the median (IQR) duration of pain prior was 2 (4.5) hours and analgesia was provided to 101/225 (44.9%) of participants. The mean (SD) pre-intervention pain scores in the acetaminophen and HBB groups were 62.7 (15.9) mm and 60.3 (17.3) mm, respectively. At 80 minutes, the mean (SD) pain scores in the acetaminophen and HBB groups were 30.1 (28.8) mm and 29.4 (26.4) mm, respectively and there were no significant differences adjusting for pre-intervention scores ($p=0.96$). The median (IQR) caregiver satisfaction was high in the acetaminophen [5 (2)] and HBB [5 (1)] groups ($p=0.79$). The median (IQR) length of stay between acetaminophen [235 (101)] and HBB [234 (103)] was not significantly different ($p=0.53$). The proportion of participants with a return visit for abdominal pain was 4/112 (3.5%) in the acetaminophen group and 6/113 (5.3%) in the HBB group. The most common adverse effect was nausea (9% in each group) and there were no significant differences in adverse effects between acetaminophen (26/112, 23.2%) and HBB (31/113, 27.4%) ($p=0.52$). There were no missed surgical diagnoses. **Conclusion:** For children with presumed functional abdominal pain who present to the ED, both acetaminophen and HBB produce a clinically important (VAS < 30 mm) reduction in pain and should be routinely considered in this clinical setting.

Keywords: abdominal pain, Buscopan, paediatric

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Prevalence of cigarette smoking amongst adult emergency department patients

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Introduction: Tobacco smoking is a priority public health concern, and a leading cause of death and disability globally. While the smoking prevalence in Canada is approximately 13-18%, the proportion of smokers among emergency department (ED) patients has been found to be significantly higher. This disparity primes the emergency department as a critical environment to provide smoking cessation counselling and support. **Methods:** A verbal questionnaire was administered to adult patients (18+) presenting to Royal University, Saskatoon City, and St. Paul's Hospital ED's. Patients were excluded if they were underage, too ill, or physically/mentally unable to complete the questionnaire independently. Patients' smoking habits were also correlated with Fagerstrom tobacco dependence scores, chief complaints, Canadian Triage Acuity Scale (CTAS) scores, and willingness to partake in ED specific cessation counselling. Data were analyzed using IBM SPSS software to determine smoking prevalence and compared to Statistics Canada data using chi-square tests. **Results:** In total, 1190 eligible patients were approached, and 1078 completed the questionnaire. Adult Saskatoon ED patients demonstrated a cigarette smoking prevalence of 19.6%, which is significantly higher than the general adult Saskatchewan public at 15.1% ($p<0.0001$). Comparing smoking and non-smoking cohorts, there are no significant differences in CTAS scores ($p=0.60$). Of the proposed cessation interventions, ED cessation counselling was most popular among patients (62.4%), followed by receiving a pamphlet (56.2%), and being contacted by a smokers' quit line (49.5%). Out of the smoking cohort, 51.4% indicated they want to quit smoking, and would be willing to partake in ED-specific cessation counselling, if available. Additionally, 88.1% of current smokers started smoking when they were less than 19