

management of ambulatory patients with urgent health concerns reflects the assumption that primary care facilities can offer high-quality and more affordable ambulatory emergency care. However, no performance assessment framework has been developed for ambulatory emergency care and consequently, quality of care provided in these alternate settings has never been formally compared. **Primary objective:** To identify structure, process and outcome indicators for ambulatory emergency care. **Methods:** We will identify and develop quality indicators (QIs) for ambulatory emergency care using a RAND/UCLA Appropriateness Method (RAM) composed of three different steps. First, we will perform a scoping literature review to inventory 1) all previously recommended QIs assessing care provided to ambulatory emergency patients in the ED or the primary care settings; 2) all conditions evaluated with the retrieved QIs; and 3) all outcomes measured by the same QIs. Second, a steering committee composed of the research team and of international experts in performance assessment in emergency and primary care will be presented with the lists of QI-related conditions and outcomes. They will be asked to identify potential outcome indicators for ambulatory emergency care by generating any relevant combinations of one condition and one outcome (e.g. acute asthma exacerbation/re-consultation). Committee members will be given the latitude to use and pair any conditions or outcomes not included in the lists as long as they think the resulting indicators are compatible with the study objectives. Using a structured nominal group approach, they will combine their suggestions and refine the list of potential QIs. This list of potential outcome indicators composed of pairs “condition/outcome” will be merged with the list of already published QIs identified during the literature review. Third, as per the RAM standards, we will assemble an international multidisciplinary panel (n = 20) of patients, emergency and primary care providers, researchers and decision makers, after recommendations from international emergency and primary care associations, and from the Canadian Strategy for Patient-Oriented Research (SPOR) Support Units. Through iterative rounds of ratings using both web-based survey tools and videoconferencing, panelists will independently assess all candidate QIs. They will be asked to rate on a nine-level scale to what extent each QI is a relevant and useful measure of ambulatory emergency care quality. From one round to the next, QIs with a median panelist rating score of one to three will be excluded. Those with a median score of seven or more will be automatically included in the final list. QIs with median score of four to six will be retained for future deliberations among the panelists. Rounds of ratings will be conducted until all QIs are classified. Impact: The QIs identified will be used to develop a performance assessment framework for ambulatory emergency care. This will represent an essential step toward testing the assumption that EDs and primary care walk-in clinics provide equivalent care quality to low acuity patients.

#### GD03

##### **Hyoscine butylbromide (Buscopan) versus acetaminophen for non-surgical abdominal pain in children: a randomized controlled superiority trial**

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**Background:** Children with abdominal pain in the emergency department (ED) are at particular risk of suboptimal analgesia due to fears of missing appendicitis and absent guidelines. Many still experience pain at discharge. Acetaminophen is the most commonly used analgesic and efficacy of hyoscine butylbromide (HBB) is supported by adult evidence. However, no evidence exists for either agent in children with

abdominal pain. **Objective:** To determine if HBB is superior to acetaminophen for abdominal pain in children. **Methods:** We will consecutively recruit children 8-17 years presenting to the ED with presumed non-surgical abdominal pain rated >4/10 on the Faces Pain Scale – Revised (FPS-R) and described as colicky, excluding: Suspected appendicitis or bowel obstruction-Anticholinergic, analgesic, or antispasmodic <12 hours-Peritoneal inflammation-Unable to swallow pills-Hypersensitivity to either intervention-Medically unstable-Previous bowel obstruction, abdominal surgery, myasthenia gravis, liver disease, glaucoma, or recent abdominal trauma (<48 hours)-Toxin ingestion (<24 hours)-Vomiting-Pregnancy Randomization and allocation concealment will be pharmacy-controlled and performed using a computerized random number generator and sequentially numbered, opaque, sealed envelopes, respectively. The physician, research assistant, nurse, and participant will be blinded. Due to perceptible differences, participants will be randomized in a double-dummy approach to: HBB 10 mg tablet + acetaminophen placebo OR-Acetaminophen 15 mg/kg liquid (maximum 975 mg) + HBB placebo. The primary outcome will be the difference from baseline on the FPS-R at 120 minutes, reflecting HBB’s time to peak plasma concentration. The FPS-R has been validated in children > five years. Secondary outcomes include: Pain scores at 15, 30, 45, 60, 80, 100, and 120 minutes post-intervention (FPS-R and 100 mm visual analog scale)-Discharge pain score-Rescue analgesia-Time to achieve a 20% reduction in pain-Adverse effects-Recidivism < 48 hours-Missed surgical diagnoses (National Ambulatory Care Reporting System (NACRS) database)-Caregiver satisfaction (five-item Likert scale). Using the intention to treat principle, ordinal, ratio, and categorical data will be analyzed using the Mann-Whitney, paired t-test, and Pearson’s chi-square, respectively and summarized using 95% confidence intervals. Assuming a standard deviation of 2 faces, 83 children per group will be required to detect a 1-face difference at 5% significance with 90% power. Increasing by 20% equals 100 participants per group. P values <0.05 will be considered significant. An institutional audit revealed 380 eligible patients per year during research assistant availability. Given a 30% refusal rate, we expect five participants enrolled per week for 40 weeks. **Importance:** Our findings will guide evidence-based analgesic choices for children with non-surgical abdominal pain in the ED.

#### GD04

##### **A blinded, randomized controlled trial of opioid analgesics for the management of acute fracture pain in older adults discharged from the emergency department**

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**Background:** Emergency department (ED) providers are frequently challenged with how best to treat acute pain in older patients, specifically when non-opioid analgesics are ineffective or contraindicated. Studies have documented older patients presenting to the ED with painful conditions are less likely to receive pain medications than younger patients, and this oligoanalgesia has been associated with increased risk of delirium and longer hospital stays. Given the concerns for drug interactions, side effects, over-sedation and addiction, emergency physicians often report uncertainty regarding the ideal choice of opioid analgesic in older adults. There are no guidelines informing best practice for the management of acute pain in this population. **Objective:** The primary objective is to compare the efficacy of codeine, oxycodone and hydromorphone for acute fracture pain in older patients discharged from the ED. **Methods:** This will be a blinded, randomized controlled