

performance improvement (PPI) sessions: 1) improve physicians' receptiveness to their practice data, and 2) encourage physicians to both identify opportunities for practice change and create action plans. **Methods:** Peer facilitators were trained to facilitate PPI sessions using the CAFF model. In Calgary, 51/180 emergency physicians have attended at least one of the six PPI sessions. The sessions were evaluated using surveys, commitment to change forms, and the Feedback Orientation Scale (FOS). The FOS is a scale developed to measure a participant's orientation to performance feedback across the four domains of utility, accountability, social awareness, and feedback self-efficacy. **Curriculum, Tool, or Material:** The PLP has developed and implemented CAFF as a framework to help foster socially constructed learning in audit and group feedback sessions. The CAFF model ensures that the aforementioned four key factors are considered for design and implementation of audit and group feedback. The PLP found that establishing the meaning and credibility of the data is a necessary precursor to reflection and action planning. **Conclusion:** The FOS was completed for 25/32 physicians. The mean FOS score improved by 0.339 ($p < 0.001$; $z = -3.863$). While the mean scores all four domains increased, 'Feedback Self-Efficacy' increased the most by .0620 ($p < 0.001$; $z = -3.999$). Participants reported that examples of changes made by the peer facilitators were particularly helpful. Evaluations from the sessions suggested physicians overwhelmingly agreed or strongly agreed that the peer comparison was valuable, that the reports helped them reflect on their practice, and that the session helped them identify learning opportunities and strategies to change their practice.

Keywords: innovations in EM education, physician practice reports, practice improvement

MP30

Reducing unnecessary oral contrast in patients undergoing enhanced abdomen/pelvis computed tomography in the emergency department: A multicentre project

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Background: Traditionally, radiologists have routinely recommended oral contrast agents (such as Telebrix®) for patients undergoing a computed tomography of the abdomen/pelvis (CTAP), but recent evidence has shown limited diagnostic benefits for most emergency department (ED) patients. Additionally, the use of oral contrast has numerous drawbacks, including patient nausea/vomiting, risk of aspiration and delays to CTAP completion and increased ED length of stay (LOS). **Aim Statement:** The aim was to safely reduce the number of ED patients receiving oral contrast prior to undergoing CTAP and thereby reduce ED length of stay. **Measures & Design:** An evidence-based ED protocol was developed in collaboration with radiology. PDSA cycle #1 was implementation at a pilot site to identify potential barriers. Challenges identified included the need to change the electronic order sets to reflect the new protocol, improved communication with frontline providers and addition of an online BMI calculator. PDSA cycle #2 was widespread implementation across all 4 ED's in the Calgary zone. The protocol was incorporated into all relevant electronic ED order sets to act as a physician prompt. Using administrative data, we extracted and analyzed data using descriptive and inferential statistics for the outcomes and balancing measures from a period of 12 months pre- and 12 months post-intervention. **Evaluation/Results:** A total of 14,868 and 17,995

CTAP exams were included in the pre and post periods, respectively. There was a reduction in usage of oral contrast from 71% to 30% ($P < 0.0001$) in the pre- and post-study period, respectively. This corresponded to a reduction in average time of CT requisition to CT report completed from 3.30 hours to 2.31 hours (-0.99 hrs, $P = 0.001$) and a reduction in average ED LOS from 11.01 hours to 9.92 hours (-1.08 hrs, $P < 0.0001$). The protocol resulted in a reduction of 19,434.6 patient hrs in the ED. Run charts demonstrate change was sustained over time. Our protocol did not demonstrate an increase in rates of repeat CTAP ($P = 0.563$) at 30 days, nor an increase in patient re-admission within 7 days ($P = 0.295$). **Discussion/Impact:** Successful implementation of an ED and radiology developed protocol significantly reduced the use of oral contrast in patients requiring enhanced CTAP as part of their diagnostic work up and, thereby, reduced overall ED LOS without increasing the need for repeat examinations within 30 days or re-admission within 7 days.

Keywords: computed tomography, oral contrast, quality improvement and patient safety

MP31

Optimizing ketorolac dosing by leveraging computerized order entry

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Background: Ketorolac has long been used to manage pain in the Emergency Department and has the advantage of being the only parenteral NSAID formulation. Despite multiple studies demonstrating an analgesic ceiling dose of 10mg for intravenous ketorolac, higher doses (30-60mg) are commonly ordered. Use of optimal doses of ketorolac (10mg) has the advantage of lower side effects and cost. **Aim Statement:** The aim of this project was to increase the usage of the optimal dose parenteral ketorolac (10mg) without increasing the use of additional, concomitant or rescue opioids (balancing measures). **Measures & Design:** This pre-/post-intervention comparison study (May 1, 2016 to April 30, 2018) included all patients ≥ 18 years of age that received parenteral ketorolac at one of 4 EDs in the Calgary zone. All data was captured via administrative data records. Stakeholders (ED leadership, analgesia committee, nursing and pharmacy) provided feedback and support for the project. Our multi-modal intervention included modifying all ED computerized order sets such that the default parenteral ketorolac dose was 10mg (post-intervention) from 30mg (pre-intervention), education (dissemination of evidence to support the changes to clinicians) and our pharmacy securing 10mg vials of ketorolac. At their discretion, physicians' were still able to order other doses of ketorolac. **Evaluation/Results:** During the 2 year study period, 19290 patient records were identified where parenteral ketorolac was administered during the ED visit. Baseline characteristics were similar between the pre/post periods. Prior to the change in default dosing, 10.5% of orders were for ketorolac 10mg compared to 87% in the post-intervention period ($p < 0.000$). Statistical process charts support the above results and demonstrate that the changes have been sustained. There were no differences in patients receiving ketorolac as the only analgesic between the pre/post periods (42% vs 42%, $p = 0.396$), nor were there significant changes in concomitant opioid usage (46% vs 46%, $p = 0.817$), or rescue analgesia (11% vs 12%, $p = 0.097$). **Discussion/Impact:** In this large cohort, our multi-modal intervention, resulted in a significant increase in optimal ketorolac parenteral dosing without a significant change in additional opioid use. The results support the utility of

computerized order set changes as the cornerstone of an effective and rapid knowledge translation strategy to align physician practice with best evidence.

Keywords: computerized provider order entry, ketorolac, quality improvement and patient safety

MP32

Using physician practice reports and feedback sessions to reduce low value care in bronchiolitis

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Background: Despite strong evidence recommending supportive care as the mainstay of management for most infants with bronchiolitis, prior studies suggest that many of these patients receive low-value interventions. Providing clinicians with their practice reports and peer comparator data or an achievable benchmark of care (audit and feedback) has been shown to be an effective strategy to improve adherence to guidelines. **Aim Statement:** To decrease low-value care (use of any or all of chest radiographs, viral testing and salbutamol) in infants with bronchiolitis by delivering individual physician reports in addition to Group Facilitated Feedback Sessions (GFFS) to pediatric emergency physicians (PEPs). **Measures & Design:** Our cohort included 3,883 patients ≤ 12 months old that presented to two emergency departments with a diagnosis of bronchiolitis from April 1, 2013 to April 30, 2018. Using administrative data we captured baseline characteristics and interventions. Consenting PEPs received two audit and feedback (A&F) reports which included their individual and peer comparator data. Two multi-disciplinary GFFS (including inpatient pediatricians, nurse, learners and respiratory therapists) presented data and identified barriers and enablers of reducing low-value care. The primary outcome was the proportion of patients who received any low-value intervention, and was analyzed using statistical process control charts. Process measures (consent to obtain report, attendance and evaluations from the feedback session) and balancing measures were also captured. **Evaluation/Results:** 78% of PEPs consented to receive their A&F reports. Patient baseline characteristics were similar in the baseline ($n = 3109$) and intervention period ($n = 774$). Following the baseline physician reports and the GFFS, low-value care decreased from 42.6% to 27.1% (absolute difference: -15.5%; 95% confidence interval (CI): -19.8% to -11.2%) and 78.9% to 64.4% (absolute difference: -14.5%; 95% CI: -21.9% to -7.2%) in patients who were not admitted and admitted, respectively. Balancing measures such as ICU admission (absolute difference: -0.6%; 95% CI: -5.7% to 4.4%) and ED revisit within 72 hours (absolute difference: -0.1%; 95% CI: -3.1% to 3.0% non-admitted patients, 1.0%; 95% CI: -1.2% to 3.2% admitted patients) were unchanged. **Discussion/Impact:** The combination of audit and feedback and a GFFS significantly reduced low-value care for pediatric patients with bronchiolitis by PEP's.

Keywords: bronchiolitis, audit and feedback, quality improvement and patient safety

MP33

Provincial spread of buprenorphine/naloxone initiation in emergency departments for opioid agonist treatment: a quality improvement initiative

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Background: Since January 1, 2016 2358 people have died from opioid poisoning in Alberta. Buprenorphine/naloxone (bup/nal) is the recommended first line treatment for opioid use disorder (OUD) and this treatment can be initiated in emergency departments and urgent care centres (EDs). **Aim Statement:** This project aims to spread a quality improvement intervention to all 107 adult EDs in Alberta by March 31, 2020. The intervention supports clinicians to initiate bup/nal for eligible individuals and provide rapid referrals to OUD treatment clinics. **Measures & Design:** Local ED teams were identified (administrators, clinical nurse educators, physicians and, where available, pharmacists and social workers). Local teams were supported by a provincial project team (project manager, consultant, and five physician leads) through a multi-faceted implementation process using provincial order sets, clinician education products, and patient-facing information. We used administrative ED and pharmacy data to track the number of visits where bup/nal was given in ED, and whether discharged patients continued to fill any opioid agonist treatment (OAT) prescription 30 days after their index ED visit. OUD clinics reported the number of referrals received from EDs and the number attending their first appointment. Patient safety event reports were tracked to identify any unintended negative impacts. **Evaluation/Results:** We report data from May 15, 2018 (program start) to September 31, 2019. Forty-nine EDs (46% of 107) implemented the program and 22 (45% of 49) reported evaluation data. There were 5385 opioid-related visits to reporting ED sites after program adoption. Bup/nal was given during 832 ED visits (663 unique patients): 7 visits in the 1st quarter the program operated, 55 in the 2nd, 74 in the 3rd, 143 in the 4th, 294 in the 5th, and 255 in the 6th. Among 505 unique discharged patients with 30 day follow up data available 319 (63%) continued to fill any OAT prescription after receiving bup/nal in ED. 16 (70%) of 23 community clinics provided data. EDs referred patients to these clinics 440 times, and 236 referrals (54%) attended their first follow-up appointment. Available data may under-report program impact. 5 patient safety events have been reported, with no harm or minimal harm to the patient. **Discussion/Impact:** Results demonstrate effective spread and uptake of a standardized provincial ED based early medical intervention program for patients who live with OUD.

Keywords: opioid agonist treatment, opioids

MP34

Block that Hip! Improving rates of ultrasound-guided fascia iliaca compartment blocks for hip fracture analgesia in the emergency department: a quality improvement initiative

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Background: In patients with acute hip fracture, a fascia iliaca compartment block (FICB) has been shown to provide effective non-opioid analgesia, reduce the incidence of pneumonia, and potentially decrease the rate of delirium [1]. However, this procedure was infrequently used in the St. Michael's Hospital (SMH) emergency department (ED). **Aim Statement:** Our aim was to increase the proportion of patients with hip fracture receiving FICB in the ED to 50% in six months. **Measures & Design:** We completed two