**Conclusion:** Our initial results show a positive impact in regards to the process of children returning to learn and play after a concussion. Specifically, the increased communication between physician, teacher, and parent seems to benefit and improve the child's recovery process.
**Keywords:** concussion, interview, pediatric

## P077

**Predicting positive practice improvement: a model for understanding how data and self-perception lead to practice change**
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**Introduction:** Despite studies highlighting the inaccuracies of self-assessment, practicing physicians continue to rely on self-perception to maintain clinical competence. Many approaches have been proposed to augment physician performance. In the realm of Quality Improvement (QI), Audit and Feedback (A&F) has a modest effect. Educators have proposed coaching interventions and academic constructs have invoked training for early-career clinicians. Very few of these are driven by the perceptions and the needs of the end-user - the physicians. We currently lack a model to understand physicians' perceptions of their own practice data and an understanding of the factors which would enable practice change. In this study, we sought to develop a model for data feedback which may best help physicians change practice. **Methods:** In a previous study, we conducted a needs analysis of 105 physicians in the Hamilton-Niagara area in order to understand which data metrics were most valuable to physicians. Using the survey results, we designed an interview guide that was used as a qualitative study of physicians' perspectives on A&F. By intentional sampling, we recruited 15 physicians amongst gender groups, types of practice (academic vs community) and durations of practice. We conducted this interview with all 15 participants which were then transcribed. We then performed thematic analysis and extraction of all interviews using a realist framework. These were then translated into broader themes and, by using a grounded theory framework, created a model to understand how physicians relate practice data to their own sense of self. Interviews were anonymized and no identifying data was shared as part of the interview. All interviewees consented to participation at the outset and could withdraw at any time. **Results:** Via stakeholder interviews from 15 key informants, we developed a model for the understanding of how a physician's sense of self and the nature of the data (quantity and quality) may be combined to understand the likelihood of practice change and the adoption of the change strategy. Using this model, it is possible to understand the conditions under which A&F would provide the greatest opportunity for practice change. **Conclusion:** Physician identity intersects with A&F data to shed insights on practice improvement. Understanding the core identity constructs of different physician groups may allow for increased uptake in A&F processes.
**Keywords:** audit and feedback, performance measurement, quality improvement

## P078

**Impact of vaping on lung health and visits to the emergency department: a cross-sectional study**
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**Introduction:** Despite being legal in Canada, the vaporized liquid of vaping systems contains several chemicals presenting unknown risks to lung health and little is known about their use in patients visiting the emergency department (ED). This study explores associations between exposure to inhaled products and respiratory presentations in the ED. **Methods:** A cross-sectional lung health survey among patients presenting to a Canadian ED was conducted, exploring the association between inhaled toxic exposures (e.g., vaping, cannabis and cigarette smoking) and visits related to respiratory symptoms. Eligible participants were ambulatory (CTAS 2 to 5), stable, adults ($\geq 17$ years) visiting the ED from July to November, 2019. Results are described as frequencies and percentages (categorical variables) and medians with interquartile range (IQR, continuous variables). Univariate and multivariate logistic regression models report associations as odds ratios (OR) with 95% confidence intervals (CIs). The Health Research Ethics Board approved the study. **Results:** From 1433 eligible patients, 1024 (71%) completed the survey. The median age was 43.5 (IQR: 29, 60), and 51% were female. Overall, 177 (17%) reported $\geq 1$ respiratory symptoms and 83 (8%) reported using any vaping products. In a univariate regression analysis, exposure to vaping was positively associated with ED visits related to respiratory symptoms (OR 2.11, 95% CI: 1.26 to 3.54). In the multivariate model, vaping and a previous diagnosis of $\geq 1$ respiratory conditions showed positive association with respiratory-related ED visits (OR 1.86, 95% CI: 1.03 to 3.33; and OR 2.13, 95% CI: 1.50 to 3.02, respectively). There was evidence of an additive effect of the combined exposure to cigarettes and vaping and respiratory-related ED visits (OR 3.22, 95% CI: 1.61 to 6.43). Smoking cannabis and cigarettes alone were not associated with increased risk of respiratory-related visits. **Conclusion:** Using vaping products increased the occurrence of respiratory-related ED visits, particularly in people with pre-existing lung conditions. A dose-response relationship exists where the risk is highest in patients inhaling a combination of toxins. Contrary to previous assumptions, the use of vaping products has a negative impact on lung health.
**Keywords:** adverse effects, e-cigarettes, vaping

## P079

**Clinical handover from emergency medical services to the trauma team: A gap analysis**
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**Background:** Clinical handover between emergency medical services (EMS) and the hospital trauma team can be subject to errors that may negatively affect patient care. Thus far, there has been limited evaluation of the quality of EMS handover. As such, we sought to characterize handover practices from EMS to the trauma team, identify areas for improvement, and determine if there is a need for standardization of current handover practices. **Aim Statement:** Identify areas for improvement in handover from EMS to the trauma team, specifically examining handover content, structure, and discordances between different team members regarding handover expectations. **Measures & Design:** Data were prospectively collected over a nine week period by a trained observer at Canada's largest level one trauma centre. A randomized scheduled was used to capture a representative breadth of handovers. Data collected included outcome measures such as duration of handover, structure of the handover, and information shared, process measures such as questions and interruptions from the trauma team, and perceptions of the handover from nurses, trauma team leaders (TTLs) and EMS according to a bidirectional Likert scale. **Evaluation/Results:** Of 410 trauma team activations, 79 verbal