study was designed to explore lung health in the ED. **Methods:** We investigated the prevalence of exposure to vaping, tobacco and cannabis among patients presenting to a Canadian ED from July to November 2019. Ambulatory (CTAS 2 to 5), stable, adult (≥ 17 years) patients were prospectively identified and invited to complete a survey addressing factors related to lung health (previous diagnosis of respiratory conditions and respiratory symptoms at the ED presentation) and information on current exposure to vaping, tobacco and cannabis smoking. Categorical variables are reported as frequencies and percentages; continuous variables are reported as medians with interquartile range (IQR). The study was approved by the Health Research Ethics Board. **Results:** Overall, 1024 (71%) of 1433 eligible patients completed the survey. The median age was 43.5 (IQR: 29, 60), and 51% were female. A total of 351 (31%) participants reported having been previously diagnosed with ≥1 respiratory conditions, and 177 (17%) were visiting the ED as a result of ≥1 respiratory symptoms (e.g., cough, shortness of breath, wheezing). Daily tobacco smoking was reported by 190 (19%), and 83 (8%) reported using vaping/e-cigarette products. Cannabis use within 30 days was described by 80 (15%) respondents. Exposure to tobacco and vaping products was reported by 39 (4%) participants, 63 (6%) reported using tobacco in combination with cannabis smoking, and 3% reported combining vaping and cannabis use. **Conclusion:** Patients seeking care in the ED are exposed to a large quantity of inhaled toxins. Vaping products, considered the cause of the most recent epidemic of severe lung injury, are used in isolation and in combination with other smoking products in Canada. These exposures should be documented and may increase the risk of lung health injuries and exacerbations of chronic respiratory conditions.

Keywords: cannabis, tobacco, vaping

MP51

The relationship between entrustment scores in the simulated and workplace environments among emergency medicine residents

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Introduction: The Emergency Medicine Specialty Committee of the Royal College of Physicians and Surgeons of Canada (RCPSC) has specified that resuscitation Entrustable Professional Activities (EPAs) can be assessed in either the workplace or simulation environments; however, there is minimal evidence that such clinical performance correlates. We sought to determine the relationship between assessments in the workplace versus simulation environments among junior emergency medicine residents. **Methods:** We conducted a prospective observational study to compare workplace and simulation resuscitation performance among all first-year residents (n = 9) enrolled in the RCPSC-Emergency Medicine program at the University of Ottawa. All scores from Foundations EPA #1 (F1) were collected during the 2018-2019 academic year; this EPA focuses on initiating and assisting in the resuscitation of critically ill patients. Workplace performance was assessed by clinical supervisors by direct observation during clinical shifts. Simulation performance was assessed by trained simulation educators during regularly-scheduled sessions. We present descriptive statistics and within-subjects analyses of variance. **Results:** We collected a total of 104 workplace and 36 simulation assessments. Interobserver reliability of simulation assessments was high (ICC = 0.863). We observed no correlation between mean EPA scores assigned in the workplace and simulation environments (Spearman's rho=−0.092, p = 0.813). Scores in both environments improved significantly over time ($F(1,8) = 18.79$, $p < 0.001$, $\eta p2 = 0.70$), from 2.9(SD = 1.2) in months 1-4 to 3.5(0.2) in months 9-12 (p = 0.002). Workplace scores (3.4(0.1)) were consistently higher than simulation scores (2.9(0.2)) ($F(1,8) = 7.16$, p = 0.028, $\eta p2 = 0.47$). **Conclusion:** We observed no correlation between EPA F1 ratings of resuscitation performance between the workplace and simulation environments. Further studies should seek to clarify this relationship to inform our ongoing use of simulation to assess clinical competence.

Keywords: entrustment, resuscitation, simulation

MP52

Effectiveness of an outpatient parenteral antibiotic therapy clinic for adults with non-purulent cellulitis

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Introduction: Emergency department (ED) patients with cellulitis that are treated with intravenous (IV) antibiotics may be eligible for outpatient parenteral antibiotic therapy (OPAT). The primary objective of this study was to determine whether the implementation of an OPAT clinic results in decreased hospitalization and return ED visits for patients treated with IV antibiotics. **Methods:** We conducted a before-after implementation study involving adults (age >=18 years) that presented to two tertiary care EDs with cellulitis and were treated with IV antibiotics. The intervention was referral to an infectious disease physician within one week of the index ED visit at the newly created OPAT clinic. The primary outcomes were hospital admission and return ED visits within 14 days. Secondary outcomes were treatment failure (admission after 48 hours of OPAT) and adverse events (e.g. vomiting, diarrhea). We conducted an interrupted time series analysis from January to December both pre-intervention (2013) and post-intervention (2015), with 24 monthly data points. The year of clinic implementation (2014) was considered a transition period. A segmented non-linear regression autoregressive error model was used to aggregate the monthly data to evaluate the effectiveness of the intervention. **Results:** A total of 1,666 patients met inclusion criteria: 858 pre-intervention (mean age 59 years, 53.1% male) and 808 post-intervention (mean age 62 years, 54.5% male). Hospitalization rates were not significantly higher one year after clinic implementation (p = 0.53) although there was a non-statistically significant gradual increase of 0.8% per month (95%CI -0.3% to 1.9%). One year after introduction of the OPAT clinic, return ED visits were significantly lower (change in intercept -24.4%, 95%CI -34.2% to -14.6%; p < 0.001), followed by an additional drop of 1.4% per month (95%CI -2.1% to -0.6%; p = 0.002). By the end of the study, return visits were 40.7% lower (95%CI 25.6% to 55.9%) than if the intervention had not been introduced. Treatment failure rates were <2% and adverse events were <5% in both groups. **Conclusion:** Implementation of an OPAT clinic significantly reduced return ED visits for cellulitis, which is critically important given the current ED overcrowding crisis. There was no significant change in hospital admission rates. There were low rates of treatment failures and adverse events. An OPAT clinic should be considered to reduce ED crowding while maintaining safe patient care.

Keywords: cellulitis, infectious disease, outpatient parenteral antibiotic therapy