

**MP11****Evaluation of a pharmacist-led antimicrobial stewardship service in a pediatric emergency department**

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**Introduction:** We implemented a pharmacist-led antimicrobial stewardship (AMS) service for patients discharged from the pediatric emergency department (PED). This service, supported by a collaborative practice agreement, allows pharmacists to follow up with patients and independently stop, start, or adjust antimicrobial agents based on culture results. The primary objective of our study was to evaluate the impact of this service on the rate of return visits to the PED within 96 hours. The secondary objective was to evaluate the appropriateness of the prescribed antimicrobial agent at follow up. **Methods:** This study was completed as a retrospective chart review 6 months pre-implementation (January 1st, 2016 to June 31st, 2016) and 6 months post-implementation (February 1st, 2017 to July 31st, 2017) of a pharmacist-led AMS service. A research assistant extracted data from electronic medical records using a standardized data collection form. All patients discharged from the PED with a suspected infection whose cultures fell within the parameters of the collaborative practice agreement were included in this study. Data were reported descriptively and compared using a two-sided chi-square test. **Results:** This study included 1070 patient encounters pre-implementation and 1040 patient encounters post-implementation of the AMS service. The most commonly reviewed culture was urine (38% pre-implementation and 41% post-implementation). The rate of return visits to the PED within 96 hours was 12.0% (129/1070) pre-implementation vs 10.0% (100/1049) post-implementation phase ( $p = 0.07$ ). A significantly higher percentage of inappropriate antimicrobial therapy was identified at the time of follow up in the pre-implementation phase (7.0%, 68/975) compared to the post-implementation phase (5.0%, 46/952),  $p = 0.047$ . **Conclusion:** Although this pharmacist-led AMS service did not affect the rate of return visits within 96 hours, it may have led to more judicious use of antimicrobial agents.

**Keywords:** antimicrobial stewardship, pediatric emergency department

**MP12****Preparing emergency patients and providers study: patient expectations and factors leading to presentation**

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**Introduction:** Effective communication to develop a shared understanding of patient expectations is critical to a positive encounter in the Emergency Department (ED). However, there is limited research examining Patient/Caregiver (P/C) expectations in the ED and what factors lead to P/C presentation. This study aims to address this gap by answering the following questions: 1) What are common P/C reported factors affecting ED presentation? 2) What are common P/C expectations of an ED visit? 3) How do P/C expectations vary based on ED site or factors affecting presentation in the ED? **Methods:** The Preparing Emergency Patients and Providers (PrEPP) tool was designed to collect P/C expectations, worries, perceived causes of symptoms, and factors affecting presentation from a convenience sample of patient visits to the emergency department

(ED). The PrEPP tool was provided to all P/Cs with CTAS 2-5 when they registered at one of 4 EDs in the Halifax area from January to June 2016. Completed tools were collected in a REDCap database where qualitative data was coded into categories (i.e. presenting illness, injury). Descriptive and chi-squared statistical analyses were performed. **Results:** In total, 11,418 PrEPP tools were collected; representing 12% of the total ED visits to the 4 ED sites during the study period. The main factors affecting ED presentation were: self-referral 68%, family/friends 20%, telehealth 8%, unable to see their GP 7%, GP referral 6%, or walk-in-clinic 5%. P/Cs main causes of worry were: presenting illness 19%, injury 15%, or pain 14%. The main expectations for the ED visit were to get a: physician's opinion 73%, x-ray 40%, or blood test 20%. Most P/Cs indicated they did not expect medication during (63%), or after (66%), their ED visit. There were significant differences in P/C expectations between adult and pediatric EDs ( $\chi^2 = 720.949$ ,  $df = 14$ ,  $P = 0.000$ ) and those P/Cs unable or able to access primary care prior to ED presentation ( $\chi^2 = 38.980$ ,  $df = 1$ ,  $P = 0.000$ ). The rate of expecting a physician's opinion at the pediatric ED was higher than the adult ED (77.6% vs 70.9%), while lower for expecting CT/MRIs (4.6% vs 11.4%). P/Cs who were unable to access primary care prior to ED presentation expected services which were available at primary care at a higher rate than those who accessed primary care (58.5% vs 36.7%). **Conclusion:** Our findings identify some of the factors that influence P/C's decision to present to the ED and their expectations of the ED visit.

**Keywords:** communication, emergency department, patient expectations

**MP13****Association between the quantity of subcutaneous fat and the inter-device agreement of two tissue oximeters**

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**Introduction:** Near-infrared spectroscopy (NIRS) can be used to monitor the oxygen saturation of hemoglobin in any given superficial tissue. However, the measurements provided by different oximeters can vary a lot. Little is known about the specific patient characteristics that could affect the inter-device agreement of tissular oximeters. This study aimed to evaluate the association between the quantity of subcutaneous fat (assessed by skinfold thickness) and the inter-device agreement of two tissue oximeters, the INVOS 5100c and the Equanox 7600. **Methods:** In this prospective cohort study, tissue saturations and skinfold thickness were measured at four different sites on both sides of the body in healthy adult ( $\geq 18$  years old) volunteers. The association between the quantity of subcutaneous fat (assessed by skinfold thickness) and the inter-device agreement (absolute difference between the oximetry values provided by the two oximeters) was first assessed with a Pearson's correlation and a scatter plot. Subsequently, a linear mixed model was used to evaluate the impact of the subcutaneous fat and other covariables (age, sex) on the inter-device agreement while adjusting for the repeated measurements across different sites for the same volunteers. **Results:** From January to March 2015, 53 healthy volunteers were included in this study with ages ranging between 20 and 81 years old, on which a total of 848 measures were taken. Higher skinfold measures were associated with an increase in the difference between measures provided by both oximeters (Slope = -0.59, Pearson correlation coefficient