

pharmacists evaluated patients prospectively to evaluate causal associations between the drug regimens and patient presentations. After completion of the prospective study, a research pharmacist and physician independently reviewed the charts of all ADE patients, abstracted data using an electronic form and applied 3 preventability algorithms. The main outcome was a probably or definitely preventable ADE defined as avoidable by adhering to best medical practice, appropriate monitoring, taking a history of prior ADEs, compliance with recommended therapy, and avoidance of errors. Reviewers discussed discordant ratings until reaching consensus. We used kappa scores to evaluate between rater agreement, and investigated risk factors for preventability using logistic regression. Sample size was based on enrolment into the parent studies. **Results:** We reviewed the charts of 670 patients diagnosed with 725 ADEs. We excluded 44 patients with incomplete assessments. The inter-rater agreement in categorizing ADEs as preventable was 0.51 (95%CI 0.42-0.59). We deemed 61% (95%CI 57-65%) of ADEs preventable. Of preventable events, 30% were due to non-adherence, 24% to adverse reactions, and 15% to an excessive dose, and 29% required hospital admission. Among preventable events, 8% were due to warfarin, 5% hydrochlorothiazide, 3% acetylsalicylic acid, and 3% insulin. On multivariate analysis, mental health diagnoses were associated with preventable ADEs (OR 2.1, 95% CI 1.3-3.3,  $p = 0.002$ ). **Conclusion:** In this large multi-centre cohort, preventable events made up the majority of ADEs, and utilized substantial hospital resources. Strategies to reduce ED visits due to ADEs should target improving adherence behavior, and developing interventions for patients with mental health diagnoses and on high-risk medications.

**Keywords:** adverse drug events, patient safety, prevention

#### P062

##### **SOS: Summer of Smoke—a mixed-methods, community-based study investigating the health effects of a prolonged, severe wildfire season on a subarctic population**

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**Introduction:** Between June 15 and Aug 31st 2014, Canada's Northwest Territories (pop 44,000: Stats Can), a subarctic region which is over 2°C warmer than it was in the 1950's, experienced an unprecedented number of forest fires, with 385 fires and approximately 3.4 million hectares of forest affected. This resulted in one of Canada's most severe and prolonged urban smoke exposures for the capital city of Yellowknife and surrounding Aboriginal communities. Our objective was to obtain a big-picture sense of the health impact of the Summer of Smoke on the population of these communities through a mixture of quantitative and qualitative analysis. **Methods:** We analyzed PM<sub>2.5</sub> levels, salbutamol dispensations, clinic and hospital cardiorespiratory variables, and in-depth video interviews with community members from Yellowknife, N'Dilo, Dettah and Kakisa. **Results:** 49% of days June15-Aug31 in 2014 had a PM<sub>2.5</sub> over 30 mcg/m<sup>3</sup>, as compared to 3% in 2012 and 9% in 2013 and 2015. Max daily PM<sub>2.5</sub> in 2014 was 320.4 mcg/m<sup>3</sup>. There was a 22% increase in outpatient salbutamol dispensations in 2014 compared to the average of 2012, 2013 and 2015. More cough, pneumonia and asthma were seen in clinics compared to 2012-2015 ( $P < 0.001$ ). There was a 42% increase in respiratory ER visits in 2014 compared to 2012-13, but no change in cardiac variables. The respiratory effect was most pronounced in children 0-4 (114% increase in ER visits). Qualitative analysis demonstrates themes of fear, isolation, lack of physical activity, alteration of traditional summertime

activities for both aboriginal and non-aboriginal subjects, elements of resilience and expectation for future smoky summers in the context of a changing climate. **Conclusion:** Prolonged wildfire seasons have a profound effect on overall wellbeing. Responses to help minimize mental and physical impacts such as the creation of clean-air community shelters, recreation programming, initiatives to support community cohesion, and "go outside when it is not smoky" messaging require further study.

**Keywords:** wildfires, respiratory, mental health

#### P063

##### **Perceptions and reflections of Ethiopian emergency medicine graduates regarding the Toronto Addis Ababa Academic Collaboration in Emergency Medicine (TAAAC-EM) Curriculum: a qualitative evaluation study**

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**Introduction:** The first-ever EM postgraduate training program in Ethiopia was launched at Addis Ababa University in 2010. EM faculty from the University of Toronto were invited to design and implement an EM rotation-based curriculum with tri-annual teaching trips to support the overall AAU EM program. To date, three cohorts of EM specialists ( $n = 15$ ) have graduated from the three-year program. After six years of implementation, we undertook a qualitative evaluation of the TAAAC-EM curriculum. **Methods:** Data collection took place in 2016 in Ethiopia via in-person graduate interviews ( $n = 12$ ). Participants were interviewed by a trained research assistant who used a semi-structured interview guide. Standard interview, transcription and analysis protocols were utilized. Qualitative software (QSR-NVIVO 9) was used for thematic grouping and analysis. **Results:** Graduates of AAU's EM residency training program reported very positive experiences with the TAAAC-EM curriculum overall. All graduates acknowledged the positive impact of TAAAC-EM's emphasis on bedside teaching, a unique component of the TAAAC-EM model compared to traditional teaching methods at AAU. Graduates felt that TAAAC-EM teachers were effective in creating a novel culture of EM at AAU and in role-modeling ethical, evidence-based EM practice. When asked about specific areas for program improvement, the following themes emerged: 1) a desire to shift delivery of the didactic clinical epidemiology curriculum to the senior residency years (PGY2-3) to coincide with completion of a required residency research project; 2) a desire for increased simulation and procedural teaching sessions and 3) the need for more nuanced context specificity in the curriculum delivery to incorporate local guidelines and practice patterns. A lack of educational supports during non-TAAAC-EM visits was also identified as an area for further work. **Conclusion:** Interviewing graduates of AAU's EM residency training program proved important for determining areas of curriculum improvement for future trainees. It also provided critical input to TAAAC-EM strategic planning discussions as the partnership considers expanding its scope beyond Addis Ababa.

**Keywords:** emergency medicine education, postgraduate medical education, global health partnership

#### P064

##### **Coastal family practice residency: simulation curriculum needs assessment survey**

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**Introduction/Innovation Concept:** Medical simulation is becoming increasingly useful for healthcare education. Simulation-based crisis