infarction, subarachnoid hemorrhage, and pediatric sepsis). Submitted audits and their AEs/quality issues were analyzed by a team of emergency physicians with quality improvement (QI) expertise, and qualitative metrics were derived. Using the general inductive method, we conducted a qualitative analysis with Health Quality Ontario (HQO), and HQO completed an independent analysis of the submitted narrative reports. Our objective is to report on the qualitative and quantitative metrics of the program, and to explore emerging themes from the AEs/quality issues identified. **Results:** There were 36,304 72-hour RVs flagged, which represent 0.99% of all 3,672,708 ED visits in the province of Ontario for the 86 EDs participating in the first year of the program. Overall, 2,584 audits were conducted. For the audits involving all-cause 72-hour RVs, 571 (24%) of cases had AEs/quality issues identified. Of the 219 audits involving sentinel diagnoses, 107 (49%) audits identified AEs/quality issues. The qualitative analysis revealed 11 themes, which were classified into three groups : issues related to patient characteristics or actions (elder care, patient risk profile, left without being seen); issues related to actions or processes of the ED team (physician cognitive lapses, handover/communication, high risk medications, documentation, radiology, vital signs); and healthcare system issues (imaging/test availability, discharge planning). Over one hundred local QI projects were completed or planned as a result of the audits performed. **Conclusion:** The RVQP promotes a culture of quality by highlighting potential AEs and quality themes that can then be targeted to increase patient safety and quality of care in Ontario EDs. Numerous QI projects were undertaken in the first year of the program, and future efforts will monitor the completion and success of these. The program can be easily adapted in other jurisdictions.
Keywords: return visits, healthcare quality

LO08
PROM-ED: the development and testing of a patient-reported outcome measure for use with emergency department patients who are discharged home

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Introduction: Patient-reported outcome measures (PROM) are questionnaires that can be used to elicit care outcome information from patients. We sought to develop and validate the first PROM for adult patients without a primary mental health or addictions presentation receiving emergency department (ED) care and who were not hospitalized. **Methods:** PROM development used a multi-phase process based on national and international guidance (FDA, NQF, ISPOR). Phase 1: ED outcome conceptual framework qualitative interviews with ED patients post-discharge informed four core domains (previously published). Phase 2: Item generation scoping review of the literature and existing instruments identified candidate questions relevant for each domain for inclusion in tool. Phase 3: Cognitive debriefing existing and newly written questions were tested with ED patients post-discharge for comprehension and wording preference. Phase 4: Field and validity testing revised tool pilot tested on a national online survey panel and then again at 2 weeks (test-retest). Phase 5: Final item reduction using a Delphi process involving ED clinicians, researchers, patients and system administrators. Phase 6: Validation - psychometric testing of PROM-ED 1.0. **Results:** Four core outcome domains were defined in Phase 1: (1) understanding; (2) symptom relief; (3) reassurance and (4) having

a plan. The domains informed a review of existing relevant questionnaires and instruments and the writing of additional questions creating an initial long-form questionnaire. Eight patients participated in cognitive debriefing of the long-form questionnaire. Expert clinicians, researchers and patient partners provided input on item refinement and reduction. Four hundred forty-four patients completed a second version of the long-form questionnaire (add in retest numbers) which informed the final item reduction process by a modified Delphi method involving 21 diverse contributors. The questionnaire was validated and underwent final revisions to create the 21 questions that constitute PROM-ED 1.0. **Conclusion:** Using accepted PROM instrument development methodology, we developed the first outcome questionnaire for use with adult ED patients who are not hospitalized. This questionnaire can be used to systematically gather patient-reported outcome information that could support and inform improvement work in ED care.
Keywords: health outcomes, patient-centred care, quality measurement

LO09
Population-based analysis of the effect of a comprehensive, systematic change in an emergency medical services resource allocation plan on 24 hour mortality

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Introduction: Resource allocation planning (RAP) for emergency medical services (EMS) systems determines optimal resources for patient needs in order to minimize morbidity and mortality. The British Columbia Emergency Health Services developed a new RAP using an evidenced informed methodology, statistical analysis of outcomes and with further clinical input from EMS physicians, paramedics and allied EMS providers. The revised RAP was implemented on a pan provincial basis in fall of 2013. It is unknown how the modifications will affect outcomes of EMS cases. Population-based analysis was used to determine the effect of a comprehensive RAP changes by comparing 24-hour mortality before and after province-wide implementation of the revised RAP. **Methods:** The primary outcome, 24-hour mortality, was obtained through linked provincial health administrative data. All adult cases with evaluable outcome data were included in the analysis. A pre and post methodology was used to evaluate the effect of post-RAP revision (post-RAP-revision) on 24-hour mortality compared to pre-RAP revision (pre-RAP-revision). Multivariable logistic regression was used to adjust for variations in other significant factors associated with 24-hour mortality. The interrupted time series (ITS) estimated any immediate changes in the level or trend of outcome after the start of the revised RAP implementation (fall of 2013), while simultaneously controlling for pre-existing trends. **Results:** The cohort is comprised of 562,546 cases (April 2012 March 2015). In the multivariate model, adjusted for age, sex, urban/metro region, season, day hour, and MPDS determinant, the probability of dying within 24 hours of EMS call was 7% lower in the post-RAP-revision cohort (OR = 0.936; 95% CI: 0.886-0.989; P = 0.018). A sub-group analysis of immediately life-threatening cases demonstrated similar effect (OR = 0.890; 95% CI: 0.808-0.981; P = 0.019) **Conclusion:** Our results demonstrate that a comprehensive, evidence informed reconstruction of a provincial EMS RAP is feasible. Despite considerable change in crew level response and resource allocation, there was significant decrease in 24 hour mortality in a large pan-provincial population based patient cohort.
Keywords: emergency medical services, resource allocation, mortality