

significance of hypoxia in asymptomatic older ED patients with no apparent acute illness. **Methods:** ED patients >75 years with a documented room air pulse oximetry reading <92% were eligible. Exclusion criteria included dyspnea, chest pain, SBP <100mmHg, HR >120 or <50; sustained tachypnea (RR >20); acute cardiopulmonary conditions, delirium or acutely altered mentation. Eligible patients were separated into two groups: 1) Sustained hypoxia: two or more SpO<sub>2</sub> readings <92% 2) Unsustained hypoxia: one SpO<sub>2</sub> reading <92%. 30-day adverse events were tracked using a Sunrise Emergency Care record review. Adverse outcomes investigated included death, MI, CHF, PE, cardioversion, ICU admission, intubation, ED revisit or re-hospitalization. Patient characteristics studied were age, sex, arrival mode, triage complaint, CTAS level, pulse, BP, RR, weight, residence (independent, assisted living, facility), comorbidities, PHN, referral, disposition, and test results (CXR, troponin, ECG, CT). Follow-up phone calls were completed after 30 days to assess patient status and confirm ED revisit. **Results:** A total of 876 ED patients >75 years were screened and 30-day follow-up data was analyzed for 34 enrolled patients. The sustained hypoxia group (n = 23) showed higher rates of 30-day adverse outcomes of death, ED re-visitation, MI, CHF, a severe episode of COPD, PE and ICU stays compared to the unsustained hypoxia group (n = 11). Administrative data of 31,095 patients >75 years from four Calgary EDs in 2017 was also analyzed and 7,771 (20%) were hypoxic at triage (SpO<sub>2</sub> <92%). Adverse outcomes and mortality were significant in discharged hypoxic patients (especially if SpO<sub>2</sub> <90%). **Conclusion:** ED re-visits, cardiorespiratory complications, and mortality were significant in discharged sustained hypoxic patients, especially if O<sub>2</sub> sat <90%. Pulse oximetry assessment of oxygen saturation in seniors' care facilities and physicians' offices may be important in screening for future adverse health outcomes in elderly patients.

**Keywords:** geriatrics, hypoxia, pulse oximetry

#### P069

##### Does specialist referral influence emergency department return rate for patients with renal colic? A retrospective cohort study

A. Kanji, BA, P. Atkinson, MBChB, MA, P. Massaro, BSc, MD, MASc, R. Pawsey, MD, T. Whelan, MD, University of Manitoba, Winnipeg, MB

**Introduction:** Renal colic is a common presentation which exerts a significant burden on healthcare infrastructure. A significant proportion of patients managed with observation may return to the Emergency Department (ED) prior to spontaneous passage due to inadequate analgesia. It is unclear whether early urologist consultation would limit the burden of renal stones by reducing returns to the ED. We wished to determine whether urologist referral from the ED department is associated with fewer returns to the ED with renal colic. **Methods:** We conducted a retrospective chart review using RECORD methodology of consecutive patients diagnosed with CT-confirmed, ureteric or renal calculi in our ED over a two-year period. Disposition was categorized as either hospital admission, outpatient urologist referral, follow up with primary care, or no follow up. The primary outcome was the 30-day ED re-presentation for renal colic. Multivariate logistic regression was used to identify predictors for ED-return. **Results:** In total, 232 patients met our inclusion criteria. Urgent or outpatient urologist referral was not associated with a significantly lower ED return rate when compared to patients with no follow-up. Surprisingly, urologic intervention and stent placement were both independent predictors for ED return (OR: 2.03; 95% CI:

(1.06-3.88); p:0.03) and (OR:2.08; 95% CI: (1.07-4.05)). **Conclusion:** A significant proportion of patients who underwent urologist-led intervention returned to the ED with renal colic. Further study may help clarify the role of early urologist referral for renal calculi, as this may not reduce ED return rates when compared to conservative management.

**Keywords:** emergency department, renal colic, specialist referral

#### P070

##### Mental health consultations for emergency department patients in crisis: Insights into quality improvement opportunities from a multicenter analysis

B. Kelliher, BSc, D. Wang, MSc, E. Lang, MD, University of Calgary, Calgary, AB

**Introduction:** Mental health and addiction presentations are on the increase in Canadian Emergency Departments (EDs) and are placing strains on existing resources. The purpose of this study is to examine practice variations and opportunities for improved mental health (MH) consultation practices across four adult EDs. **Methods:** We conducted a retrospective analysis of administrative data from Alberta Health Services (AHS) at urban Calgary Zone EDs from 2015 to 2018 regarding MH consults requested and patients admitted to inpatient psych. Individual MD and overall referral rates as well as admission rates for patients consulted to MH were considered. Time of day and patient ETOH level were also examined as potential influencing factors. CEDIS codes were used to identify MH complaints. **Results:** 73,536 MH related visits were included, 29,228 received a MH consult with 10,648 admitted to an inpatient MH unit (36.4%). The admission rate among consults requested varied considerably among the 200 MDs who evaluated more than 50 patients with MH complaints; median 35.9%, IQR – 25.0 to 47.5. The average consultation rate for ETOH positive patients was 28.4% median 26.35%, IQR – 21.2 to 35.0%. During regular working hours (08:00-17:00), there were 33,599 MH visits, 15,035 received a psych consult with 5,976 admitted to an inpatient MH unit. The admission rate among consults was 39.8%. For the remaining hours(17:01-07:59) there were 39,939 MH visits, 14,191 received a psych consult with 4,672 admitted to an inpatient MH unit. The admission rate among consults was 32.9%. **Conclusion:** Varying MD thresholds for MH consultation are reflected in a wide range of admission rates among patients consulted for MH evaluation in the ED. ETOH and timing of presentation are factors which modulate the likelihood of admission. There may be opportunities to improve MH referrals from the ED by providing consultation feedback to providers.

**Keywords:** quality improvement and patient safety

#### P071

##### A three-year analysis of adult protection patients in the emergency department

N. Kelly, BN, MN, C. Crooks, MSW, S. Campbell, MD, N. Daniels, QEII/Dalhousie, Halifax, NS

**Introduction:** While boarding of patients in the emergency department (ED) has been well documented and is carefully monitored, the time spent in emergency beds by patients waiting for Adult Protection (AP) placement is often relatively unnoticed, as they are not flagged as 'admitted'. These patients have no emergency needs, yet consume considerable ED resources, often in excess of patients requiring emergency care. Staff familiarity with this issue may also