

since it first became a notifiable disease in 2000. Our objectives were to describe the clinical and laboratory characteristics of iGAS in a geographic area that sees a relatively high volume of cases annually. **Methods:** We conducted a retrospective chart review of all adult and pediatric patients presenting to the Thunder Bay Regional Health Sciences Centre Emergency Department from January 2016 to December 2017 with a hospital discharge diagnosis of iGAS infection using ICD-10 codes. Patient demographics, host characteristics, triage vital signs, laboratory values, culture sites, and disposition were analyzed using univariate and bivariate statistics. **Results:** Forty-five cases of iGAS were identified over 2 years, with a mean age of 45 years (SD 18). The most prevalent associations were male sex (69%), diabetes mellitus (44%), current or previous alcohol abuse (38%), and current or previous intravenous drug use (33%). Prevalence of iGAS was roughly two times the national average in 2016 (11.5 per 100,000) and four times the national average in 2017 (25.5 per 100,000). Mean triage vital signs included a systolic blood pressure of 126 mmHg (SD 24), diastolic blood pressure of 73 mmHg (SD 16), temperature of 37.3°C (SD 1.4), oxygen saturation of 97% (SD 2), heart rate of 113 beats per minute (SD 22), and respiratory rate of 22 breaths per minute (SD 7). Mean laboratory values revealed a white blood cell count of 17,500 cells/ $\mu$ L (SD 9,800) and C-reactive protein of 243 mg/L (SD 144). A higher Laboratory Risk Indicator for Necrotizing Fasciitis (LRINEC) score was positively correlated with longer hospital length of stay ( $r = 0.46$ ,  $p < 0.01$ ). **Conclusion:** Despite its morbidity and mortality, iGAS infections often present insidiously with only mild abnormalities in triage vital signs, and require a high index of suspicion by the emergency physician for a prompt diagnosis, particularly in at-risk populations such as patients with diabetes mellitus or those who misuse alcohol or drugs.

**Keywords:** Streptococcal infections, *Streptococcus pyogenes*, vital signs

#### P034

##### Identifying unmet palliative care needs in the emergency department

J. Duffy, BA, S. Crump, BN, BSocSc, E. O'Connor, MD, MSc, University of Limerick, Toronto, ON

**Introduction:** The goal of palliative care (PC) is to improve quality of life for both patients and families facing a life-limiting illness. Many individuals in need of PC present to the Emergency Department (ED) with symptomatic complaints. Therefore, the ED may be a good place to connect patients with PC teams. Unfortunately, a lack of communication between patients and medical teams may result in admission to hospital even if this no longer aligns with the goals of care. The aims of this study were to identify the proportion of ED patients with unmet PC needs and to determine if access to rapid outpatient PC follow-up could reduce unnecessary admissions. **Methods:** University Health Network (UHN) is an urban academic centre with EDs at two sites, Toronto General Hospital (TGH) and Toronto Western Hospital (TWH). A consecutively enrolled sample of 417 patients that presented to these EDs between July 1-August 14, 2018 was taken. ED nurses and physicians were asked to complete a content validated PC screening tool on all eligible patients. Patients were eligible for screening if they (1) were >18 years of age, (2) had been designated a level 2-5 according to the Canadian Triage and Acuity Score, and (3) had been triaged to the subacute or acute areas of the department. **Results:** Across both sites, 45% of patients screened had a life-limiting illness and 30% had unmet PC needs.

Among those with unmet PC needs, 79% had no identifiable involvement with a PC team. TWH had fewer patients with a life-limiting illness compared to TGH (31% vs 57%), but higher rates of unmet PC needs (81% vs 59%, confidence interval for the difference: 8%-34%,  $p = .003$ ) and less PC involvement (6% vs 24%, confidence interval for the difference: 4%-30%,  $p < .01$ ). 73% of patients at UHN with unmet PC needs were likely to be admitted to hospital. In 14% ( $n = 17$ ) of these cases, admissions were felt by physicians to have potentially been avoided if rapid PC follow-up was available. **Conclusion:** A high percentage of patients presenting to the EDs at UHN have life-limiting illnesses with unmet PC needs. A rapid access outpatient PC clinic, available for referral from the ED, may help to both connect patients with the resources they need and avoid admission to hospital.

**Keywords:** emergency, palliative, unmet

#### P035

##### Impact of EMS direct referral to community care on emergency department utilization

A. Dukelow, MD, M. Lewell, MD, J. Loosley, S. Pancino, K. Van Aarsen, MSc, Hospital, London, ON

**Introduction:** The Community Referral by Emergency Medical Services (CREMS) program was implemented in January 2015 in Southwestern Ontario. The program allows Paramedics interacting with a patient to directly refer those in need of home care support to their local Community Care Access Centre (CCAC) for needs assessment. If indicated, subsequent referrals are made to specific services (e.g. nursing, physiotherapy and geriatrics) by CCAC. Ideally, CREMS connects patients with appropriate, timely care, supporting individual needs. Previous literature has indicated CREMS results in an increase of home care services provided to patients. **Methods:** The primary objective of this project is to evaluate the impact of the CREMS program on Emergency Department utilization. Data for all CCAC referrals from London-Middlesex EMS was collected for a thirteen month period (February 2015-February 2016). For all patients receiving a new or increased service from CCAC the number of Emergency Department visits 2 years before referral and 2 years after referral were calculated. A related samples Wilcoxon Signed Rank Test was performed to examine the difference in ED visits pre and post referral to CCAC. **Results:** There were 213 individuals who received a new or increased service during the study timeframe. Median [IQR] patient age was 77 [70-85.5]. 113/213 (53%) of patients were female. The majority of patients 135/213 (63.4%) were a new referral to CCAC. The median [IQR] number of hospital visits before referral was 3 [1-5] and after referral was 2 [0-4]. There was no significant difference in the overall number of ED visits before versus after referral (955 vs 756 visits,  $p = 0.051$ ). **Conclusion:** Community based care can improve patient experience and health outcomes. Paramedics are in a unique position to assess patients in their home to determine who might benefit from home care services. CREMS referrals for this patient group showed a trend towards decreased ED visits after referral but the trend was not statistically significant.

**Keywords:** community care, emergency medical service

#### P036

##### Digoxin immune fab treatment for digoxin and non-digoxin cardioactive steroid toxicity: a scoping review

J. Duncan, N. Murphy, MDCM, E. Fitzpatrick, BSc, MN, R. Nelson, MD, K. Hurley, MD, MHI, IWK Health Centre, Halifax, NS