with no PC, the 79 (15.8%) patients with PC involvement had a higher one year mortality rate (70.9% vs. 18.8%, p < 0.0001), more ED visits/year for HF (0.82 vs. 0.52, p < 0.0001), and more hospital admissions/year for HF (1.4 vs. 0.85, p < 0.0001). Using the heart failure palliative care score criteria, 60 patients had scores ≥2. Compared to those with scores <2, these patients had a higher 1-year mortality rate (50% vs. 24%, p < 0.0001) and more ED visits/year for HF (0.83 vs. 0.54, p < 0.01). Only 40.0% of these high risk patients had any PC involvement. Conclusion: We found that few HF patients had PC services involved in their care. Using this novel HF palliative care referral score, we were able to identify patients with a significantly greater risk of mortality and morbidity. This study provides evidence that the ED is an appropriate setting to identify and refer high risk HF patients who would likely benefit from earlier PC involvement and may be a future avenue for PC access for these patients.

Keywords: palliative care, heart failure, emergency department

LO04
Very low concentrations of high-sensitivity troponin T at presentation can rapidly exclude acute myocardial infarction in a significant proportion of ED chest pain patients
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Introduction: Chest pain is one of the most common presenting complaints to emergency departments (EDs) across the world, and the exclusion of acute myocardial infarction (AMI) using troponin testing is central to the care of many of these patients. Testing strategies using conventional troponin assays require repeat testing over many hours to avoid missed diagnoses. This study aims to validate the ability of very low concentrations of troponin at presentation to exclude AMI in ED chest pain patients. Methods: This prospective cohort study was conducted at a single urban tertiary centre and regional percutaneous coronary intervention site in Calgary, Alberta. Patients were eligible for enrolment if they presented to the ED with chest pain, were 25-years or older and required biomarker testing to rule out AMI at the discretion of the attending emergency physician. Patients were excluded if they had clear acute ischemic ECG changes, new arrhythmia or renal failure requiring hemodialysis. High-sensitivity troponin T (Roche Elecsys hs-cTnT) results were obtained in all patients at presentation. Relevant outcomes were obtained from administrative data. The primary outcome was AMI within 30-days of ED visit, the secondary outcome was 30-day major adverse cardiac events (MACE). The study was REB approved. Results: A total of 1,016 patients were enrolled from August 2014-September 2016, of which 174 (17.1%) patients had an initial troponin below the limit of blank (<3 ng/L) and 369 (36.3%) had a level below the limit of detection (<5 ng/L). The sensitivity and negative predictive value (NPV) of a troponin below limit of blank (<3 ng/L) for 30-day AMI were 100% (95% CI 89.3%-100%) and 100% (95% CI 97.8-100%), respectively. The sensitivity and NPV of a troponin below limit of detection (<5 ng/L) for 30-day AMI were 93.8% (95% CI 80.0-98.3%) and 99.5% (95% CI 98.1-99.9%) respectively. Sensitivity for 30-day MACE at both cutoffs was lower: 96.1% (95% CI 92.5-98.0%) for <3 ng/L, and 88.4% (95% CI 83.3-92.1%) for <5 ng/L, respectively. Conclusion: A high sensitivity troponin T result below the limit of blank is highly sensitive at excluding AMI and identifies patients at reasonably low risk of 30-day MACE. A result below the limit of detection will identify a larger population of patients as low risk but has a greater risk of missed AMI and MACE.

Keywords: chest pain, troponin, myocardial infarction

LO05
In patients presenting to the ED with STEMI, is the provision of morphine associated with worse patient outcomes?
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Introduction: ST-elevation myocardial infarction (STEMI) presenting to the ED is a significant health burden. The provision of IV morphine with doses titrated to provide comfort is recommended in the AHA STEMI Guidelines, yet there is limited evidence of safety in this setting. The primary objective of this study was to measure potential harm associated with the provision of IV morphine in STEMI patients presenting to the ED. Methods: This was a two centre retrospective chart review from an urban, inner city, academic ED with an annual census of 85,000 visits, and an affiliated community hospital with 35,000 annual visits. Consecutive patients from April 2009 to January