objective was to validate the sensitivity of this clinical decision aid. **Methods:** Our validation cohort was recruited from a retrospective review of all cases of AAS diagnosed at three tertiary care emergency departments and one cardiac referral center from 2002-2019. Inclusion criteria: >18 years old, non-traumatic, symptoms <14 days and AAS confirmed on computed tomography, transesophageal echocardiography, intraoperatively or postmortem. The clinical decision aid assigns an overall score of 0-7 based on high risk pain features, risk factors, physical examination and clinical suspicion. Sensitivity with 95% confidence intervals are reported. Based on a national survey, a miss rate of <1% was predefined for the validation threshold. **Results:** Data was collected from 2002-2019 yielding 222 cases of AAS (mean age of 65 (SD 14.1) and 66.7% male). Kappa for data abstraction was 0.9. Of the 222 cases of AAS (type A = 125, type B = 95, IMH = 2), 35 (15.7%) were missed on initial assessment. Patients were risk stratified into low (score = 0, 2 (0.9%)) moderate (score = 1, 42 (18.9%)) and high risk (score ≥2,178 (80.2%)) groups. A score ≥1 had a sensitivity of 99.1% (95% CI 96.8-99.9%) in the detection of AAS. The clinical decision aid missed 0.9% (95% CI 0.3-3%) of cases. **Conclusion:** The Canadian clinical practice guideline's AAS clinical decision aid is a highly sensitive tool that uses readily available clinical information. Although the miss rate was <1%, the 95% confidence intervals crossed the predefined threshold. Further validation is needed in a larger population to ensure the miss rate is below an acceptable level.

Keywords: acute aortic syndrome, aortic dissection, vascular

MP06

Using electrocardiogram-to-activation time to assess emergency physicians' diagnostic delay of acute coronary occlusion

J. McLaren, MD, L. Chartier, MDCM, MPH, University of Toronto, Toronto, ON

Introduction: Electrocardiogram (ECG) diagnosis of acute coronary occlusion has been broadening in recent years, from classic ST-Elevation Myocardial Infarction (STEMI) criteria to STEMI-equivalents and rules for subtle occlusions. However, there is no quality metric focused on emergency physicians' decision-making. We hypothesized that the time from initial emergency department (ED) ECG to activation of Code STEMI could quantify diagnostic delay associated with automated interpretation, classic STEMI criteria, and other signs of occlusion. **Methods:** This multicentre retrospective study reviewed all ED Code STEMI patients with confirmed culprit lesions from two urban academic EDs over a three-year period (Jan 2016 to Dec 2018). We reviewed charts to calculate ECG-to-Activation (ETA) time, measured from the time stamp on the initial ED ECG to the time a Code STEMI was activated (based on the hospital call centre log). We examined ECGs to determine: 1) if automated computer interpretation labelled "STEMI" or not; and 2) whether they met classic STEMI criteria, STEMI-equivalent patterns, or rules for subtle occlusion, based on a priori criteria from published guidelines or studies. All ECGs were reviewed by the lead author (JTTM) and those not obviously meeting classic STEMI criteria were independently reviewed by the other author. **Results:** There were 180 Code STEMIs from the ED with culprit lesions, including 177 with complete information. Average ETA time was 46.5 minutes (95% Confidence Interval [CI] 36.3-56.7min). Automated interpretation labelled 55.4% of initial ECGs as "STEMI" (ETA 13.9 min, 95%CI 9.8-18.0min), and 44.6% not as "STEMI" (ETA 86.9min, 95%CI 67.9-105.9min). Initial ECGs included 62.1% with classic STEMI criteria (ETA 17.3min, 95%CI 12.8-21.8min), 11.3% with STEMI-equivalents (ETA 49.5min, 95%CI 29.5-69.5min), 18.1% with subtle occlusions (ETA 118.3min, 95%CI 81.5-155.1min) and 8.5% with no initial sign of occlusion (ETA 102.9min, 95%CI 53.9-151.9min). Inter-rater reliability was very good (Cohen's kappa 0.84). **Conclusion:** Over 90% of Code STEMI patients with culprit lesions had initial ECGs diagnostic of acute coronary occlusion, but automated interpretation and classic STEMI criteria only identified 55.4% and 62.1%, respectively. STEMI-equivalents and subtle occlusions were associated with significant diagnostic delays. ETA time can serve as a quality metric for emergency physicians and may help guide ED quality improvement initiatives.

Keywords: acute coronary occlusion, electrocardiogram, ST elevation myocardial infarction

MP07

Identification of barriers and facilitators for implementation of the Canadian Syncope Risk Score

N. Hudek, PhD, B. Rowe, MD, MSc, J. Brehaut, PhD, B. Ghaedi, MSc, P. Nguyen, BSc, J. Presseau, PhD, A. McRae, MD, PhD, J. Yan, MD, MSc, R. Ohle, MD, C. Fabian, MD, N. Le Sage, MD, PhD, E. Mercier, MD, MSc, M. Hegdekar, MD, P. Archambault, MD, M. Sivilotti, MD, MSc, V. Thiruganasambandamoorthy, MSc, Ottawa Hospital Research Institute, Ottawa, ON

Introduction: Wide variability exists in emergency department (ED) syncope management. The Canadian Syncope Risk Score (CSRS) was derived and validated to predict the probability of 30-day serious outcomes after ED disposition. The objective was to identify barriers and facilitators among physicians for CSRS use to stratify risk and guide disposition decisions **Methods:** We conducted semi-structured interviews with physicians involved in ED syncope care at 8 Canadian sites. We used purposive sampling, contacting ED physicians, cardiologists, internists, and hospitalists until theme saturation was reached. Interview questions were designed to understand whether the CSRS recommendations are consistent with current practice, barriers and facilitators for application into practice, and intention for future CSRS use. Interviews were conducted via telephone or videoconference. Two independent raters coded interviews using an inductive approach to identify themes, with discrepancies resolved through consensus. Our methods were consistent with the Knowledge to Action Framework, which highlights the need to assess barriers and facilitators for knowledge use and for adapting new interventions into local contexts. **Results:** We interviewed 14 ED physicians, 7 cardiologists, and 10 hospitalists/internists across 8 sites. All physicians reported the use of electrocardiograms for patients with syncope, a key component in the CSRS criteria. Almost all physicians reported that the low risk recommendation (discharge without specific follow-up) was consistent with current practice, while less consistency was seen for moderate (15 days outpatient monitoring) and high risk recommendations (outpatient monitoring and/or admission). Key barriers to following the CSRS included a lack of access to outpatient monitoring and uncertainty over timely follow-up care. Other barriers included patient/family concerns, social factors, and necessary bloodwork. Facilitators included assisting with patient education, reassurance of their clinical gestalt, and optimal patient factors (e.g. reliability to return, support at home, few comorbidities). **Conclusion:** Physicians are receptive to using the CSRS tool for risk stratification and decision support. Implementation should address identified barriers, and adaptation

https://doi.org/10.1017/cem.2020.154 Published online by Cambridge University Press