

chiefs of 71 Ontario hospital EDs with an annual census of more than 30,000 ED patient visits in 2017 were invited to complete a 30-item, online questionnaire using modified Dillman methodology. These hospitals constitute greater than 85% of the annual ED visits in Ontario, creating a sample reflective of the services available to most women older than 18 years old seeking care for early pregnancy complications in the province. **Results:** Respondents from 63 EDs across Ontario completed the survey (response rate 88.7%). Of the EDs surveyed, 34 (54.0%) reported they did not have access to early pregnancy clinic services for women who presented to the ED with early pregnancy complications that were safe to discharge home. At these hospitals, it was found that patients were followed up in 14 (41.2%) EDs for the same complications including pregnancy of unknown location and threatened abortion. Respondents also stated that radiologist-interpreted ultrasound was only available to 22 (34.9%) of hospital sites 24 hours a day, 7 days per week for women with early pregnancy complications. Of hospital site respondents, 55 (87.3%) reported point-of-care ultrasound (POCUS) use in the ED for patients with early pregnancy complications, and 27 (49.1%) reported the ED had access to transvaginal ultrasound probes for POCUS assessment by emergency physicians. Additionally, the proportion of ED physicians who were certified as Canadian Emergency Ultrasound independent practitioners ranged from 10% to 100%. **Conclusion:** The results of this study highlight the reliance of some hospitals on the ED to provide ongoing follow-up care to patients experiencing complications of early pregnancy. The lack of clinical resources and specialized personnel in Ontario hospital EDs makes supporting these women longitudinally unrealistic, exposing them to undue risk and complications.

Keywords: early pregnancy complications, ectopic pregnancy, miscarriage

LO41

Evaluating paramedic comfort, confidence, and cultural competency in providing care to trans populations in a provincial ambulance system

L. Kengis, J. Goldstein, PhD, R. Urquhart, PhD, K. McIver, BA, Dalhousie University, Halifax, NS

Introduction: Close to 2 million transgender (trans) individuals live in the United States and Canada. Trans communities frequently report emergency care avoidance and negative health care experiences. Of note, there is currently no research on the paramedic perspective of caring for trans populations. Our objective was to explore paramedic comfort, confidence, and cultural competency in providing emergency care to trans individuals. **Methods:** A cross-sectional, semi-structured electronic survey was administered by email to paramedics registered with the College of Paramedics of Nova Scotia (n = 1225) from April 9th to May 7th, 2018. The survey included previously validated questions from other medical settings. Three survey reminders were sent at weekly intervals following survey initiation. A 4-point Likert scale and qualitative open-ended questions were included to evaluate paramedic comfort, confidence, and cultural competency. Descriptive statistics were used to describe respondent characteristics. Open ended questions pertaining to paramedic needs were evaluated using constant comparative analyses consisting of open coding to identify themes. **Results:** Of the 387 paramedics who participated (response rate = 32%), 77.8% (n = 301) worked ground ambulance in a mixed rural/urban location (32.6%, n = 126)

within Nova Scotia (94.5%; n = 365). Most respondents were between the ages of 41-50 (29.5%; n = 114), with > 20 years' experience (25.1%; n = 97), and male sex assigned at birth (56.1%; n = 217). Over half (54.8%; n = 212) identified as cisgender men. The majority (66.1%; n = 256) reported caring for a patient who identified as trans. 74.7% (n = 289) have never had formal education on trans health. Only 4.1% (n = 16) felt very knowledgeable about providing optimal care to trans communities and 26.6% (n = 103) felt very comfortable in providing optimal care. Most (70%; n = 271) were interested in obtaining formal education. 41.9% (n = 162) reported observing transphobia in the work place. **Conclusion:** The frequency of trans patient contact by paramedics is perceived to be high. Although comfort and knowledge are relatively low and transphobia witnessed in the work place relatively high, there was strong interest and expressed need for education on trans related health.

Keywords: emergency medicine, paramedic, transgender

LO42

Is point-of-care ultrasound a reliable predictor of outcome during atraumatic, non-shockable cardiac arrest? A systematic review and meta-analysis

E. Lalande, MD, T. Burwash-Brennan, MD, K. Burns, MD, P. Atkinson, MBChB, MA, M. Lambert, MD, B. Jarman, MSc, MBBS, H. Lamprecht, PhD, MBChB, A. Banerjee, MSc, MBBS, M. Woo, MD, University of Ottawa, Department of Emergency Medicine, Ottawa, ON

Introduction: Point-of-Care Ultrasound (PoCUS) is being increasingly utilized during cardiac arrests for prognosis. Following the publication of recent studies, the goal of this study was to systematically review and analyze the literature to evaluate the accuracy of PoCUS in predicting return of spontaneous circulation (ROSC), survival to hospital admission (SHA), and survival to hospital discharge (SHD) in adult patients with non-traumatic, non-shockable out-of-hospital or emergency department cardiac arrest. **Methods:** A systematic review and meta-analysis was completed. A search of Medline, EMBASE, Cochrane, CINAHL, ClinicalTrials.gov and the World Health Organization Registry was completed from 1974 until August 24th 2018. Adult randomized controlled trials and observational studies were included. The QUADAS-2 tool was applied by two independent reviewers. Data analysis was completed according to PRISMA guidelines and with a random effects model for the meta-analysis. Heterogeneity was assessed using I-squared statistics.

Results: Ten studies (1,485 participants) were included. Cardiac activity on PoCUS had a pooled sensitivity of 59.9% (95% confidence interval 36.5%-79.4%) and specificity of 91.5% (80.8%-96.5%) for ROSC; 74.7% (58.3%-86.2%) and 80.5% (71.7%-87.4%) for SHA; and 69.4% (45.5%-86.0%) and 74.6% (59.8%-85.3%) for SHD. The sensitivity of cardiac activity on PoCUS for predicting ROSC was 24.7% (6.8%-59.4%) in the asystole subgroup compared with 77% (59.4%-88.5%) within the PEA subgroup. Cardiac activity on PoCUS, compared to an absence had an odd ratio of 15.9 (5.9-42.5) for ROSC, 9.8 (4.9-19.4) for SHA and 5.7 (2.1-15.6) for SHD. Positive likelihood ratio (LR) was 6.65 (3.16-14.0) and negative LR was 0.27 (0.12-0.61) for ROSC. **Conclusion:** Cardiac activity on PoCUS was associated with improved odds for ROSC, SHA, and SHD among adults with non-traumatic asystole and PEA. We report lower sensitivity and higher negative likelihood ratio, but with greater heterogeneity compared to previous systematic reviews. PoCUS may