

improvement in health-related quality of life and in self-care behaviour pre- to 90 days post-monitoring. A full analysis of the 69 patients will be complete in February 2018. **Conclusion:** Preliminary findings indicate that home telemonitoring for HF patients can decrease ED revisits and improve patient experience. The length of stay data may also suggest the potential for early discharge of ED patients with home telemonitoring to avoid or reduce hospitalization. A stepped-wedge randomized controlled trial of TEC4Home in 22 BC communities will be conducted in 2018 to generate evidence and scale up the service in urban, regional and rural communities. This work is submitted on behalf of the TEC4Home Healthcare Innovation Community.

**Keywords:** emergency department readmissions, transition of care, home telemonitoring

## Posters Presentations

### P001

**Age-adjusted D-dimer and two-site compression point of care ultrasonography to rule out acute deep vein thrombosis - a pilot study**

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**Introduction:** Deep vein thrombosis (DVT) can lead to significant morbidity and mortality if not diagnosed and treated promptly. Currently, few methods aside from venous duplex scanning can rule out DVT in patients presenting to the Emergency Department (ED). Current screening tools, including the use of the subjective Wells score, frequently leads to unnecessary investigations and anticoagulation. In this study, we sought to determine whether two-site compression point-of-care ultrasound (POCUS) combined with a negative age-adjusted D-dimer test can accurately rule out DVT in ED patients irrespective of the modified Wells score. **Methods:** This is a single-center, prospective observational study in the ED of the Jewish General Hospital in Montreal. We are recruiting a convenience sample of patients presenting to the ED with symptoms suggestive of DVT. All enrolled patients are risk-stratified using the modified Wells criteria for DVT, then undergo two-site compression POCUS, and testing for age-adjusted D-dimer. Patients with DVT unlikely according to modified Wells score, negative POCUS and negative age-adjusted D-dimer are discharged home and receive a three-month phone follow-up. Patients with DVT likely according to modified Wells score, a positive POCUS or a positive age-adjusted D-dimer, will undergo a venous duplex scan. A true negative DVT is defined as either a negative venous duplex scan or a negative follow-up phone questionnaire for patients who were sent home without a venous duplex scan. **Results:** Of the 42 patients recruited thus far, the mean age is 56 years old and 42.8% are male. Twelve (28.6%) patients had DVT unlikely as per modified Wells score, negative POCUS and negative age-adjusted D-dimer and were discharged home. None of these patients developed a DVT on three-month follow-up. Thirty patients (71.4%) had either a DVT likely as per modified Wells score, a positive POCUS or a positive age-adjusted D-dimer and underwent a venous duplex scan. Of those, six patients had a confirmed DVT (3 proximal & 3 distal). POCUS detected all proximal DVTs, while combined POCUS and age-adjusted D-dimer detected all proximal and distal DVTs. None of the patients with a negative POCUS and age-adjusted D-dimer were found to have a DVT. **Conclusion:** Two-site compression POCUS combined with a negative age-adjusted D-dimer test appears to accurately rule out DVT in ED patients without the need for follow-up duplex venous scan. Using this approach would alleviate

the need to calculate the Wells score, and also reduce the need for radiology-performed duplex venous scan for many patients.

**Keywords:** acute deep vein thrombosis, age-adjusted D-dimer, point-of-care ultrasonography

### P002

**Prehospital analgesia with intra-nasal ketamine: a randomized double-blind pilot study**

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**Introduction:** Primary care paramedics (PCPs) have limited options to provide analgesia during transport thus timely pain relief is often significantly delayed. Inhaled nitrous oxide is considered usual care for PCPs, but is limited in effectiveness. Intranasal (IN) ketamine has been shown to provide effective analgesia with no deleterious effects on cardiorespiratory function thus may provide rapid, easily-administered and well-tolerated analgesia in prehospital transports. **Methods:** This was a randomized double-blind pilot series. Patients with an acute painful condition reporting a pain score of 5 or more on an 11-point verbal numeric rating scale (VNRS) were included. Exclusion criteria were age under 18 years, known intolerance to ketamine, non-traumatic chest pain, altered mental status, pregnancy and nasal occlusion. Patients were randomized to 0.75 mg/kg of IN ketamine or IN saline. All patients received inhaled nitrous oxide. The primary outcome was the proportion of patients experiencing a reduction in VNRS pain score of two points or more (clinically significant pain reduction) at 30 minutes. Secondary outcomes were patient-reported comfort, patient and provider satisfaction, and incidence of adverse events. **Results:** 40 patients were enrolled, 20 in each group. 80% of IN ketamine patients compared to 60% of placebo patients reported a 2-point reduction in VNRS pain score by 30 minutes. 50% of ketamine vs. 25% of placebo patients reported feeling moderately or much better. 85% of ketamine vs 75% of placebo patients reported any improvement in subjective comfort. 80% of ketamine patients reported minor adverse effects compared to 52% of placebo patients. No serious adverse effects were reported. **Conclusion:** The addition of IN ketamine to usual care with nitrous oxide appears to result in a greater proportion of patients reporting a clinically significant reduction in VNRS pain score and improved subjective comfort, with a greater incidence of minor adverse effects. These findings will be used to power a definitive randomized double-blind trial.

**Keywords:** analgesia, prehospital, ketamine

### P003

**Which factors predict resuscitation outcomes in patients arriving to the emergency department in cardiac arrest? A SHoC series study**

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**Introduction:** The decision as to whether to end resuscitation for pre-hospital cardiac arrest (CA) patients in the field or in the emergency department (ED) is commonly made based upon standard criteria. We studied the reliability of several easily determined criteria as predictors of resuscitation outcomes in a population of adults in CA transported to the ED. **Methods:** A retrospective database and chart analysis was completed for patients arriving to a tertiary ED in cardiac arrest,