Abstracts S127

## Canadian Cardiovascular Society (CCS) Poster HEART FAILURE: CLINICAL AND BASIC SCIENCE POSTERS

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AN INVESTIGATION OF A NON-INVASIVE JUGULAR VENOUS PRESSURE POINT OF CARE DEVICE TO DIAGNOSE AND ASSESS HEART FAILURE IN LONG TERM AND PRIMARY CARE: A MIXED METHOD APPROACH

## V Chetram, A Costa, V Boscart, R Mckelvie, GA Heckman

#### Waterloo, Ontario

Heart Failure (HF) patients often experience a poor prognosis evidenced by frequent hospitalizations and limited survival. Appropriate management of HF is contingent on an accurate diagnosis. Part of the physical examination for suspected or worsening HF is assessing JVP and this can be a difficult, often underutilized maneuver. The Mespere CVP System is a commercially available device providing a JVP measure and waveform. Our aims in this study are to explore the usability, perceived barriers and acceptability of the device in the primary and long term care (LTC) as well the inter-rater reliability and validity of the device in LTC.

A sequential, mixed method design was used where the exploratory qualitative study preceded and informed the quantitative design. Qualitative data was collected through four focus group interviews where participants were presented with a training module and had an opportunity to use the device on a volunteer. The quantitative component consists of a random sample of 32 LTC residents and six health care professionals to determine the inter-rater reliability of the device in regular practice, compared to family physicians and specialists. Two LTC nurses will use the device to measure JVP, while two family physicians and two specialists will use physical assessment. All raters will be blinded to each others' measures.

Findings from the qualitative design indicate a high degree of acceptability and minimally perceived barriers in LTC. Barriers in LTC include resident behaviour and concern over the accuracy of measure when the device is utilized by nurses. In primary care, perceived adequacy with current clinical skills, severe time constraints and a perceived high confidence in accurate diagnosis impacted upon the low acceptability. Usability was high in both settings. Our study is ongoing and the reliability and validity data will be presented in October 2015.

Our findings thus far confirm the lack of confidence among front-line care providers in assessing the JVP in long term and primary care. LTC clinicians were more favorably predisposed than primary care clinicians to consider the device as useful. This may be the result of perceived adequacy of the device in assisting with HF care, perceived time constraint differences between settings, and differing perceptions of the role of the emergency department on frail

patients. This work will help to inform solutions to adopting such technology in these settings. The quantitative results will help to further define the potential role of the device in each setting.

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# ENVIRONMENTAL SCAN OF SELF-IDENTIFIED HEART FAILURE CLINICS IN ONTARIO

### KI Harkness, R McKelvie, K Kingsbury

Toronto, Ontario

**BACKGROUND:** As part of the Provincial strategy for heart failure (HF) management proposed by the Cardiac Care Network (CCN), an environmental scan was conducted to determine the current state of dedicated HF outpatient services in Ontario.

**METHODS:** From December 2013 -June 2014, self-identified HF clinics were invited to complete an electronic survey regarding referral patterns, clinic volumes, team members, patient characteristics, services provided and program evaluation activities.

**RESULTS:** HF clinics were located in tertiary care Academic Centres (AC) (n=17), Community Hospitals (CH) (n=8), and Family Health Teams (FHT) (n=17). Two Local Health Integration Networks (LHINs) did not have any outpatient HF clinics while some other LHINs had 7 HF clinics. Patient referral volumes varied between locations with median annual patient referrals of n=240 (AC), n=80 (CH) and n=10 (FHT). HF clinic median weekly patient visits were higher in AC (n= 45 weekly) versus in CH sites (n= 28 weekly). The median number of weekly visits in a hospital-based site were similar to annual median clinic visits in a FHT (n=35 yearly). Clinics with both physician and nurse representation varied between locations (88% AC; 50% CH; 41% FHT). Additional allied health support was present in most locations: (50% AC, 62% CH, 58% FHT). All HF clinics provided patient education. All AC-and CH locations and 47% of FHT titrated evidenced-based medications. The majority of clinics, regardless of location, provided care for patients >65 years of age. Approximately 60% of AC- and CH primarily cared for patients with advanced vs mild HF symptoms. Referral volumes and patient hospitalization rates were the most common data used for program evaluation. Over 70% of AC and CH and 41% of FHT collect these data.

**CONCLUSION:** Findings from this survey highlight regional differences for access to HF outpatient care in Ontario. Furthermore, the bulk of the outpatient HF care in Ontario is provided at tertiary care AC sites. The CCN provincial strategy identifies the need for different levels of HF care intensity, as guided by patient risk complexity and while the survey data show some variability in the types of services provided by current HF clinics, standard criteria to define the services within HF clinics of different intensity needs further development.