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.