

00207 **The Impact of a Telemonitoring Over Structured Telephone Support on Heart Failure Patients - A Preliminary Analysis**

Aung Khin Chaw Yu¹, Tong Shao Chuen¹, Chow Wai Leng¹, Adeline Phang¹, Angela Ng¹, Edris Atikah Ahmad¹, Pang Sze Yunn², Erazo Fernando², Yap Mei Foon¹, Michael Macdonald¹, Gerard Leong¹, Sheldon Lee¹

¹Changi General Hospital, ²Philips ASEAN Pacific

Aims: This study aims to compare the impact of a telemonitoring programme (TM) on heart failure (HF) patients with structured telephone support (STS) on healthcare utilization.

Methodology: Patients admitted for HF from November 2014 to February 2016 were enrolled into a year-long telemonitoring programme comprising nurse-managed structured telephone support augmented with an online platform providing education content and remote vital signs and symptom monitoring. This analysis was based on 150 HF patients enrolled into TM (Intervention group) and 55 patients after rejecting TM (Control group received STS). The Self-Care of Heart Failure Index (SCHFI), measuring the three self-care domains; and Dutch Heart Failure Knowledge Scale (DHFKS), measuring HF knowledge levels, Patient Activated Measure (PAM) measuring patient activation were administered at the beginning and at the end of the programme. Group comparisons of categorical and continuous variables were performed using chi-squared test or analysis of variance, as appropriate.

Result: The mean age of the patients (TM group) was 57.9 years old and 63.9 years for STS. TM had higher baseline self-maintenance scores (65.9 versus 58.9). Significant difference in adjusted 180-days all-cause bed days (TM: 5 versus STS: 9.8 days), adjusted 180-days HF-related bed days (TM: 1.2 versus STS: 6 days) and adjusted 12-months HF-related bed days (TM: 2.2 versus STS: 6.6 days) were observed. Significant increase in mean maintenance (pre- 65.9; post- 76.7, $p < 0.001$) and confidence scores (pre-58.7; post- 72.2, $p < 0.01$) were observed in TM group at 12-months. However, no differences in all-cause and HF-related readmission rates and mortality rates were observed between TM and STS.

Conclusion: Preliminary results show that TM was more effective than STS in reducing all-cause and HF-related total bed days at 180-days with sustained effects at 12-months for HF-related total bed days.