We conclude that the use of 8.1 G5F8 dendrimers are safe and effective delivery vehicles for the AID peptide.

http://dx.doi.org/10.1016/j.hlc.2019.06.117

Performance Outcome Measure
Comparison between Multidisciplinary Team Approaches and Traditional Cardiologist Care Approaches within GenesisCare Cardiology for Patients with Heart Failure

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Introduction: The 2018 Australian Heart Failure (HF) guidelines recommend inclusion of key process and outcome measures into HF care models to optimise outcomes.

Methods: We retrospectively compared conformance with these recommendations in a 1:1 comparison study of 400 patients managed for HF within the multidisciplinary GenesisCare HF Management Clinics (GC-HFMC) and the traditional GenesisCare Cardiologist clinic (GC-TCC) between 1st July 2016–31st June 2018.

Results: Both models achieved high conformance with pharmacological management strategies. The GC-HFMC achieved higher rates for non-pharmacological measures. The high adherence with performance measures within the GC-HFMC translated into excellent clinical outcomes with very low 30-day and 1-year HF-admission rates (1.6% and 8.1%), 30-day and 1-year all-cause mortality (0.5% and 5.6%). Outcome measurement was not routinely collected within the GC-TCC.

Conclusion: This study supports the development of quality, evidence-based multidisciplinary HF clinics to achieve the best outcomes for Australian HF patients.

http://dx.doi.org/10.1016/j.hlc.2019.06.118

Persistent Renal Dysfunction Preceding Left-Ventricular Assist Device Implantation Predicts Increased Mortality and Diminished Left-Ventricular Unloading

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Background: A significant proportion of left-ventricular assist device (LVAD) recipients have pre-implantation renal dysfunction. However, the renal and clinical outcomes for these patients have not been explored in an Australian cohort.

Methods: Data were retrospectively collected for 120 consecutive LVAD recipients at a single health service. Patients with persistent renal dysfunction pre-LVAD were defined as having an average eGFR <60 ml/min/1.73 m² in the eight weeks preceding LVAD insertion (Group 1, n = 38), and were compared to patients with average eGFR >60 ml/min/1.73 m² in the same time frame (Group 2, n = 82).

Results: Improvement in eGFR between pre-LVAD and 6-months post-LVAD was similar in Groups 1 and 2 (16 ± 22 vs 23 ± 26 ml/min/1.73 m², p = 0.18). At six months post-LVAD, Group 1 patients demonstrated significantly higher left-atrial volume index (54 ± 31 ml/m² vs 41 ± 19 ml/m², p = 0.01) and pulmonary capillary wedge pressure (PCWP) (16 ± 7 mmHg vs 11 ± 5 mmHg, p = 0.03). In a multivariate regression analysis controlling for pre-LVAD PCWP, LV end-diastolic diameter, LV ejection fraction and body surface area, eGFR pre-LVAD was found to be an independent predictor of PCWP 6 months post-LVAD (β = 0.43, p = 0.001). All-cause mortality was higher for Group 1 patients at 1 month (6% vs 18%, p = 0.03) and 6 months (7% vs 24%, p = 0.02) post-LVAD. Mean time to transplant waitlisting was higher in Group 1 (4.8 ± 1.8 months vs 3.7 ± 1.5 months, p = 0.01).

Conclusion: Patients with concomitant heart failure and persistent renal dysfunction may demonstrate partial renal recovery following LVAD implantation. However, these patients are less likely to achieve optimal reduction in pulmonary pressures and have higher rates of LVAD mortality.

http://dx.doi.org/10.1016/j.hlc.2019.06.119

Predictors and Consequences of Optimal Mechanical Unloading in LVAD Recipients

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Background: Left-ventricular assist devices (LVADs) elicit reverse remodelling by mechanically unloading the left