Abstracts

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Characteristics, Management and Outcomes of Patients after an Index Heart Failure Admission

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Background: Heart failure (HF) is a worldwide health issue that is associated with substantial in-hospital and post-discharge mortality, as well as high rates of readmission.

Aims: To describe patient characteristics, management and outcomes after index HF hospitalisation.

Methods: We extracted all index HF admissions to John Hunter and Belmont hospitals in 2014, with an ICD I50 code as a principal diagnosis.

Results: 289 patients were identified, 20% had HFrEF (EF <50%), 28% had HFrEF (EF ≥50%) and 51% did not have an identifiable cause. The aetiology for acute decompensation of HF was arrhythmia (24%), infection (18%), ischaemia (9%), non-adherence (6%) and 42% had no identifiable cause. The most common comorbidities were hypertension (75%), chronic kidney disease (45%), ischaemic heart disease (43%), and atrial fibrillation/flutter (43%). Of 289 patients, 46% had iron studies and 68% of those had iron deficiency anaemia. On admission, 52% of the patients were on ACEi/ARB, beta-blocker (67%), ACEi/ARB (63%), and MRA (50%); respectively, 1-year all-cause mortality was 26%, 1-year all-cause readmission rate was 55% and 1-year HF readmission rate was 26%.

Conclusion: HF patients have multiple comorbidities and precipitants of HF decompensation. Index HF hospitalisation, irrespective of HF aetiology, was associated with significant 1-year morbidity and mortality despite prescription of guideline-directed HF therapies during that admission.

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Clinical Outcomes for Patients with Left Ventricular Non-Compaction

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Background: Left ventricular non-compaction (LVNC) is characterised by prominent LV trabeculae. The diagnosis is based on clinical and morphologic criteria but remains difficult without a gold standard. The most commonly used CMR criteria defines LVNC as an end-diastolic non-compacted to compacted ratio of >2.3 (Peterson, 2005).

Methods/results: Between 2008 and 2015 we clinically followed up 108 patients with an average age of 45.5 ± 3.3 years (59 males) that satisfied the Peterson criteria. The average follow-up time was 75 ± 23 months. Amongst this group, 69 patients had normal LV systolic function and 31 had abnormal LV systolic dysfunction (LVEF ≤55%). We evaluated the CMR scans for LV wall thickness, NC location, maximal NC/C ratio and scar. We then followed up all patients for ICD insertion, shock and death; Table. Comparing the two groups, there was no statistically significant difference in LV wall thickness, NC/C ratio or NC location; however, the LV dysfunction group had a higher incidence of scar (p = 0.0333). ICDs and death were also higher in the LV dysfunction group (RR = 3.39, 95% CI 1.31 to 8.56 p = 0.0141 and RR = 30.3, 95% CI 1.76 to 521.47, p = 0.0006, respectively).

Conclusion: In patients with LVNC, the risk of ICD and death is significantly higher in those with LV dysfunction irrespective of NC/C ratio, location of NC and scar.

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Cost Consequence Analysis for Optimising Medical Therapy in an Australian Heart Failure with Reduced Ejection Fraction (HFrEF) Cohort

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Heart failure poses a substantive economic burden on the Australian healthcare system, with known underutilisation of evidence-based pharmacotherapy. Herewith, we estimate the annual cost of optimising pharmacotherapy for heart failure with reduced ejection fraction (HFrEF) in an Australian adult cohort across 6 metropolitan hospitals in NSW. This retrospective cohort study applied best available data to determine the relative risk reduction in mortality and heart failure-related rehospitalisation for guideline-based medical therapies (Beta-blockers, ACE-Inhibitors, NCP Converting Enzyme Inhibitors, Diuretics, Aldosterone Antagonists and Ibrutinide). Our cohort comprised ≈ 26% of annual heart failure