ANALYSIS OF TIMING OF PATIENTS REFERRED TO A NATIONAL TERTIARY ADVANCED HEART FAILURE CLINIC

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Background A hub and spoke healthcare model for national heart failure (HF) management is encouraged internationally. At the heart of this model is the necessity for recognition of patients developing advanced heart failure. Our aim was to understand referral patterns to a National Advanced HF clinic including triggers for referral and burden of disease at review.

Methods Patients reviewed at the National Advanced HF clinic between May 2019 and February 2021 were included in an advanced HF registry. Patient outcomes included immediate hospital admission, mechanical support, heart transplant and death. Information such as New York Heart Association (NYHA) class, ESC 2018 ‘I need help’ parameters and ‘total HF hospital admissions in the previous year’ were documented.

Results There were a total of 56 patients included in the registry of which 28.6% (n=16) of patients required immediate admission. Of the admitted group, mean NYHA class was 3±1.1 compared to NYHA class 2±0.8 in those not admitted (p<0.001). The mean number of ‘I need help’ markers in the admitted group were significantly higher (6.2±2.4 Vs 2.8±2.2, p=0.001) and frequency of hospital admissions in the previous year were double that of the not admitted group (2.3±1.8 Vs 1.1±1.2, p=0.03). Of those admitted the 2 main reasons for referral were 1. intolerance of neurohormonal agents (40%) and 2. >1 HF hospitalisations (40%). Ultimately 75% of those admitted required inotropes and 43.8% (n=7) went on to have a ventricular assist device (VAD) (3 CentriMag devices and 4 durable LVADs). In total 56.3% (n=9) were listed for inpatient heart transplant. Of those 3 patients died on the active waiting list (2 CentriMag devices & 1 on inotropes). A total of 18.9% (n=3) proceeded to inpatient heart transplant. In the admitted group the mortality rate was 37.5% (n=6), 67% of which occurred during the index admission. This overall death rate was significantly higher than that of the not needing admission group (37.5% Vs 5%, p=0.03).

Conclusions This study signifies real world data surrounding advanced HF referrals to a national tertiary centre. It highlights the magnitude of patients referred at a significantly advanced stage reflected by almost a third requiring immediate inpatient admission. This translated to a significantly higher mortality rate within this cohort. Importantly, the mean NYHA class was 1 point higher in the admitted group. Although this alone cannot be used to trigger patient referral to an advanced HF clinic, as it is used universally, transition from class 2 to 3 should prompt a review of the patient using a model such as ‘I need help’ to question the need for referral. Notably of those admitted, 80% of referrals were triggered by only 2 markers within this model suggesting the usefulness of these 2 parameters for identifying a particularly advanced group of HF patients. Further work is needed however to evaluate which parameters will identify patients at an earlier stage of disease.