

Title: Enhancing access to diagnosis and treatment for heart failure.

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INTRODUCTION: Heart failure (HF) is a chronic syndrome that affects all age groups. HF affects approximately ninety thousand people in Ireland and more than fifteen million people in Europe. The prevalence of HF is increasing because of the ageing population, improved care and survival from coronary events. The rates of hypertension, atrial fibrillation, diabetes, obesity, stroke and coronary disease, which directly contribute to the incidence of HF, are predicted to increase by a further forty to sixty percent. Therefore the demand on healthcare services and waiting lists will be impacted. The aim of our project was to create easier access to heart failure services to allow faster diagnosis and commencement of medication in order to prevent patients becoming unstable and requiring hospital admission.

AIM: Care is delivered nearer to the patients' home via a primary care centre. Patients referred by GP with signs and symptoms of HF are seen within 4 weeks by a consultant or 2 weeks by Advanced Nurse Practitioner (ANP), same day ECHO, given diagnosis and commenced treatment. Patients are followed up by HF nurse on regular basis for titration of medication. These medications have been shown to be lifesaving. All heart failure patients discharged from hospital will have early supported discharge from an ANP or HF nurse. All patients are reviewed by dietician. All GP's have access to NT Pro BNP, which allows for more appropriate referrals.

THE TEAM: The hospital business manager, hospital laboratory scientist, cardiac physiologist, patient with HF, dietician, consultant cardiologist, community GP, Advanced Nurse Practitioner HF and HF nurses. We met on a monthly basis face to face and virtually when we had COVID19 restrictions in place.

METHODS: Funding was sought and approved to have NT Pro BNP processed in the hospital laboratory. ECHO machine in the community. 1 whole time equivalent (WTE) HF nurse, WTE

HF dietician, 1 WTE cardiac physiologist and 0.5 WTE lab scientist.

Education was given to the GP's on how to interpret the NT Pro BNP results. This would facilitate more appropriate referrals to the HF clinic. A referral proforma provided to the GP's so they could make direct referral to the community heart failure clinic. The following clinics were established.

-Monthly Consultant led HF diagnostic clinic for patients with signs and symptoms of HF and NT Pro BNP >300 pg/ml (NICE guidelines)

-Weekly ANP led diagnostic clinic for those with signs and symptoms of HF and NT Pro BNP >2000 pg/ml (ESC and NICE guidelines)

-Same day ECHO for patients attending diagnostic clinic.

-All patients seen by dietician.

-All GP's now had access to NT Pro BNP.

RESULTS: 9 month review of project

Using the NT Pro BNP for those on the waiting list for general cardiology, which is a 2 year waiting list, 24.3% of those waiting for HF review were removed as their NT Pro BNP was normal. The GP's made more appropriate referrals for these patients e.g. respiratory review.

Patient on our team suggested that patients would benefit from a phone call a few days post discharge as this is a very vulnerable time for patients both physically and emotionally.

We have now incorporated this into our practice and it is very well received by patients. Over 90% of patients with a new diagnosis of HF are on all base line dose of HF medication within a 4 week period. This avoids the majority of cardiac remodelling.

77% of patients who attended the diagnostic clinic were given a diagnosis of HF.

50 patients completed the "patient experience survey" reported high satisfaction rates with easier access and improvement in self-care.

NT Pro BNP was reduced by 47%

NYHA class was improved by 60%

LVEF was improved by 13%- many of these patients were now outside the need for device implant.

61 patient admission avoidances.

Average length of stay was reduced from 9.7 days to 7 days

Readmission rate was reduced from 16.7% to 11%