

Abstract for submission to Maltese Cardiology Conference 2021.

Authors: Dr. Sana Mubashir, Dr. Andrew Cassar Maempel, Dr. Cynthia Farrugia, Dr. Darren Borg, Prof Julian Mamo.

Title of Study

An audit to determine whether NT pro-BNP is investigated in patients with heart failure in accordance with the current practice guidelines.

Background

Heart failure (HF) is a clinical syndrome which is caused by functional or structural defects causing impairment in ventricular filling or ejection of blood to the systemic circulation to meet the systemic needs. HF affects 26 million people worldwide. On the awareness day for HF, Dr Xuereb said that this affects 1-2% of the Maltese population. N-terminal proBNP is a significant indicator for the clinical diagnosis of HF and cardiac dysfunction. NICE suggests using a single measurement of NT-proBNP to rule out acute or chronic HF on the basis of threshold values. If its value is above threshold, it guides towards further investigations and assessment. This audit aims to ensure implementation of best clinical practice for the investigation of HF and to improve the accuracy of diagnosing HF in the patients presenting under the care of two consultants (medical versus cardiology) at the Mater Dei Hospital.

Methods

Retrospective collection of data was done from patients with heart failure selected by simple random sampling. Medical notes and databases were used as sources of

information. Spreadsheet was used to analyse the data against the NICE Guidelines. Data protection policy was followed.

Results

From 100 patients, 50 were admitted to medicine and 50 were admitted to cardiology. NT pro-BNP was measured in 88% of patients, equally in both groups. 92% of cardiology patients vs 48% of medicine patients had an echo performed. Only 18% of patients on the medical ward had cardiology input. 98% of patients in medicine had diuretic therapy changed compared to 12% patients in cardiology ($p < 0.01$). 50% of patients in cardiology had Beta blocker modified compared to 2% in medicine ($p < 0.01$). Entresto was given to 12% patients in cardiology and not prescribed to any patient in medicine ($p < 0.01$). All patients in the medicine have raised NT-proBNP whereas 97% of patients have raised NT-proBNP in Cardiology. In terms of LV overload, 14% in cardiology vs 22% of patients in medicine had it.

Conclusion

While most patients admitted had an NT pro-BNP checked, echocardiography was performed less often than guidelines advise on medical wards. Cardiology input was usually not done in the medical ward and this led to reduced levels of disease modifying medications in those admitted to medical wards.