

An elevated Natriuretic Peptide (NP) level is associated with increased risk of cardiovascular disease, even in those patients where echocardiography is normal or shows only minor abnormalities.

**1. If no NTproBNP test available refer to STOP HF unit in St Michaels Hospital Dun Laoghaire**

**2. If NTproBNP test available check test and refer those with NTproBNP >125pg/ml to DL.**

**3. Two Natriuretic Peptide tests are available depending on your laboratory - BNP and NTproBNP Both are used in STOPHF. In St Michaels Hospital BNP is used but in NTproBNP is used in St. Vincent Hospital. In reviewing values it is important to take note of which test is being reported as they are not directly interchangeable.**

**See Key**

Key	Normal	Intermediate	Elevated
NTproBNP	<125pg/ml	125-250pg/ml	>250pg/ml
BNP	<20pg/ml	20-50pg/ml	>50pg/ml

Suggestions for the management of cardiovascular risk according to *NP level		
NP Result	<125pg/ml	Satisfactory
Action	Repeat NP in 3 years	
NP Result	125-250pg/ml	Intermediate
Action	Repeat NP in 1 year	
NP Result	>250pg/ml	Elevated
Action	Echocardiogram + Repeat NP in 1 year	
*Natriuretic Peptide results is reflective of the NT-proBNP assay		

Categorisation of patient type according to *NP and echocardiogram	
Type 1	Normal NP <125pg/ml
Type 2	Indeterminate NP 125-250pg/ml
Type 3	Abnormal NP >250pg/ml, no significant abnormalities on echocardiogram with no left ventricular diastolic dysfunction (LAVI <34, LVEF >50%, mild valvular disease)
Type 4	Abnormal NP >250pg/ml, isolated left ventricular diastolic dysfunction
Type 5	Abnormal NP >250pg/ml, left ventricular systolic dysfunction (LVEF <50%) with or without left ventricular diastolic dysfunction
Type 6	Abnormal NP >250pg/ml, and other echocardiogram findings of note
*Natriuretic Peptide results is reflective of the NT-proBNP assay LAVI = left atrial volume index; LVEF = left ventricular ejection fraction	

How to manage patient according to patient type?	
<b>Type 1</b>	
1. Continue current management 2. Repeat NT-proBNP in 3 years	
<b>Type 2</b>	
1. Optimise CV risk factor control 2. Repeat NT-proBNP in 1 year	
<b>Type 3</b>	
1. Emphasize importance of lifestyle measures a. <i>Weight loss, diet, exercise, and smoking cessation.</i> 2. Is blood pressure controlled? a. <i>Consider ambulatory blood pressure monitoring to detect masked hypertension or non-dipping at night even if normal</i> 3. If BP is controlled, is the patient on an ACE inhibitor or angiotensin receptor blocker? a. <i>If not consider adding or switching to one of these agents</i> 4. Are lipids controlled? a. <i>Add or increase statin dose.</i> 5. Recheck NT-proBNP level in one year a. <i>If remains elevated, repeat echocardiogram</i>	
<b>Type 4</b>	
1. Consider virtual consult to discuss 2. Clarify if any symptoms 3. Has a cause been identified and managed e.g. hypertension, diabetes, ischemia 4. Optimise risk factor control as per type 3	
<b>Type 5</b>	
1. Referral to local cardiologist if not already in service	
<b>Type 6</b>	
1. Advice on need for further referral or repeat imaging will be provided on the report form	