Mater Misericordiae University Hospital

Referral form for Advanced Heart Failure therapies (Heart Transplant or LVAD)

Strictly Confidential

This form has been designed to streamline the referral process for potential heart transplant and left ventricular assist device candidates. The aim is for potential candidates to be identified more easily and be triaged appropriately. It is not mandatory for Acute HF / Cardiogenic shock pathway referrals, although of course the more information the better.

Note: It is anticipated that patients will be referred according to the criteria / triggers set out in the Referral pathways (see Section on website).

Please remember that active smoking and BMI > 30 are contraindications for transplant listing.

Key Points

1	Please complete all sections - any questions which are not applicable should be marked as N/A.
2	When specific results are not available but have been requested please mark as Pending.
3	Copies of imaging that are not available on NIMMS (Cath, CT, MRI, ultrasound etc) should be sent on CD along with this form. **Please include local MRN when imaging has been done in another hospital**.
4	Copies of complete reports of investigations can be appended to this referral form but the summary must be completed in the appropriate referral section. Serial echo and catherisation reports are very helpful and should be included when available. **Recent ECHO within last one year should be included please**.
5	**Referrals need to be signed off by a named consultant cardiologist**.

Completed forms alongside copies of relevant reports including cardiac investigations to be sent to **hearttransplantandvadreferrals@mater.ie.**

Please send CDs of imaging studies by post to:
National Heart and Lung Transplant Centre
Mater Misericordiae University Hospital
Eccles Street, Dublin 7.

Personal Details

Patient name				
Patient age			Date of Birth	
Weight (kg)			Height (m)	
BMI			Dry weight (kg)	
Interpreter required	*Yes* ☐	*No* ☐	*Language*	
Patient address				
Post code				
Patient telephone no			Patient mobile no	
Education level				

Referring Consultant

Consultant name				
Referring hospital				
Telephone *(direct)*		Telephone *(admin)*		
Email *(direct)*		Email *(admin)*		
Is patient aware of referral for transplant assessment			*Yes* ☐	*No* ☐

Referral Type

Pathway 1 *Chronic HFrEF pathway – specify diagnosis*	
Pathway 2 *Non HFrEF pathway – specify diagnosis*	
Pathway 3 *AHF/1st presentation*	
Pathway 4 *Other - specify*	
Please give history of when and how diagnosis was made	

Heart Failure Staging

Date / year of HF diagnosis	
Etiology (list if multiple)	
HF Hospitalisation History *(Volume overload ± arrhythmia ± hypotension/renal fn/issue with medication) Past year (list/dates), Previous, First)*	

NYHA Class (average most days in past 1 month)			
EF (currently)			
EF History	*Date*	*1st*	*Subsequent*
Equivalent dose frusemide (mg)	*Currently*	*6-12 months ago*	
SBP average			
NTproBNP	*Recent*	*1-3 months ago*	*6-12 months ago*
ICD	*(if yes date of implant, brand of device, S vs DC & box changes)*		
CRT	*(if yes date of implant, brand of device & box changes)*		
Appropriate ICD shock(s) ± ATP	*Never*	*Past (list/year)*	*Recent (<6-12 months)*
Pulmonary hypertension -PVR(s)			

I NEED HELP Criteria **Please tick Yes or No to all boxes**

Criteria		
Inotropes *(Previous / ongoing requirement for any inotrope)*	*Yes* ☐	*No* ☐
NYHA *(Class/Natriuretic peptide. Persisting NYHA class III-IV, Persistent high BNP/NTpro-BNP)*	*Yes* ☐	*No* ☐
End-organ dysfunction *(Worsening renal or liver dysfunction in the setting of HF)*	*Yes* ☐	*No* ☐
Ejection fraction *(Very low ejection fraction < 20%)*	*Yes* ☐	*No* ☐
Defibrillator shocks *(Recurrent appropriate defibrillator shocks)*	*Yes* ☐	*No* ☐
Hospitalizations/Hyponatremia *(>1 HF hospitalization past 12 months Serum Na <133mEq/L)*	*Yes* ☐	*No* ☐
Edema/Escalating diuretics *(Persisting fluid overload Increasing diuretic need)*	*Yes* ☐	*No* ☐
Low blood pressure *(Consistently low BP with systolic < 90-100mmHg)*	*Yes* ☐	*No* ☐
Prognostic medications *(Inability to up titrate (or need to decrease/stop) RAASi/ARNI/MRA BB)*	*Yes* ☐	*No* ☐
Lab Abnormality cut offs *(NTproBNP>100pg/ml, Creatinine > 160umol/L, Liver dysfunction – any due to HF)*	*Yes* ☐	*No* ☐

Cardiovascular History / Risk Factors **Please tick Yes or No to all boxes**

CAD	*Yes* ☐	*No* ☐
If Yes provide details (most recent LHC, prior PCI)		

CABG	***Yes*** ☐	***No*** ☐
If Yes provide details (year and grafts)		
Valve intervention	***Yes*** ☐	***No*** ☐
If Yes provide details (Mitraclip, TAVR)		
Valve or shunt surgery	***Yes*** ☐	***No*** ☐
If Yes provide details (year and type)		
Afib / flutter	***Yes*** ☐	***No*** ☐
If Yes provide details (paroxysmal, persistent, permanent)		
Sustained VT / VF	***Yes*** ☐	***No*** ☐
If Yes provide details		
PVC burden	***Yes*** ☐	***No*** ☐
If Yes provide details (>5% -Holter/date)		
NSVT	***Yes*** ☐	***No*** ☐
If Yes provide details		
Ablation	***Yes*** ☐	***No*** ☐
If Yes provide details (AF, AFl, VT, PVC)		
CVA / TIA	***Yes*** ☐	***No*** ☐
If Yes provide details		
PVD	***Yes*** ☐	***No*** ☐
If Yes provide details		
Peripheral embolism	***Yes*** ☐	***No*** ☐
If Yes provide details		
Hyperlipidaemia	***Yes*** ☐	***No*** ☐
If Yes provide details		

Diabetes	*Yes* ☐	*No* ☐
If Yes provide details		
Smoking history	*Yes* ☐	*No* ☐
If Yes provide details (never, Current, Ex (specify time) and Pack / Year)		
Alcohol history	*Yes* ☐	*No* ☐
If Yes provide details (current [units], Hx of excess/abuse, years abstinent)		
Other recreational cardiotoxin use	*Yes* ☐	*No* ☐
If Yes provide details (cocaine / amphetamines / ecstasy / other)		

Current Medication

Name	Taking		Specify Type	Dose
Furosemide	*Yes* ☐	*No* ☐		
Bumetanide	*Yes* ☐	*No* ☐		
Metolazone	*Yes* ☐	*No* ☐		
Salcubitril/valsartan	*Yes* ☐	*No* ☐		
ACEi/ARB	*Yes* ☐	*No* ☐		
Beta Blocker	*Yes* ☐	*No* ☐		
MRA	*Yes* ☐	*No* ☐		
Digoxin	*Yes* ☐	*No* ☐		
SGLT2i	*Yes* ☐	*No* ☐		
Amiodarone	*Yes* ☐	*No* ☐		
Other Anti-arrhythmic	*Yes* ☐	*No* ☐		
Aspirin	*Yes* ☐	*No* ☐		
Clopidogrel	*Yes* ☐	*No* ☐		
Ticagrelor	*Yes* ☐	*No* ☐		
NOAC	*Yes* ☐	*No* ☐		
Warfarin	*Yes* ☐	*No* ☐		
Statin	*Yes* ☐	*No* ☐		

Notes (eg intolerances / allergies / recent changes etc.)

12 Lead ECG

Rhythm				
Heart rate				
Paced rhythm			*Type of pacing*	
Conduction Abnormality	***1st HB***	***RBBB***	***LBBB***	***IVCD***

TTE Echo **Most recent**

Date	
EF	
LVIDd (cm)	
IVSd (cm)	
MR / grade	
AS or AI	*(If Yes give severity)*
Prosthetic valve	*(If Yes give type, gradient, if competent)*
RV function	*(Include Qualitative and quantitative such as TAPSE, S')*
TR / grade	
Estimated sPAP	

Advanced Cardiac Imaging **Please attach reports and CDs as appropriate**

Cardiac MRI	**Date**
Please provide summary	
Cardiac CT/CTCA	**Date**
Please provide summary	

PET / FDG (cardiac / sarcoid)	Date
Please provide summary	

CPET

CPET completed	
Date	
REF	
VO2 max result	
Percentage predicted peak VO2	
VE / VCO2	

RHC

Date (most recent)		
ABP (S / D / mean)		
RA		
RV		
PA (S / D)		
Mean PA		
PCWP		
PA sat		
ART sat		
CO (tick which method)	*Ass. Fick* ☐	*TD* ☐
PVR		
SVR		

Mental Health History

Please attach supporting documentation (scope reports, CT results, consultation letters)

Depression	*Yes* ☐	*No* ☐
If Yes provide details		

Bipolar	*Yes* ☐	*No* ☐
If Yes provide details		
Anxiety	*Yes* ☐	*No* ☐
If Yes provide details		
Schizophrenia	*Yes* ☐	*No* ☐
If Yes provide details		
Medications	*Yes* ☐	*No* ☐
If Yes provide details		

Neurological Condition

Epilepsy	*Yes* ☐	*No* ☐
If Yes provide details (last seizure, SAH / ICH, vascular)		
Cognitive impairment	*Yes* ☐	*No* ☐
If Yes provide details (etiology, MMSE / Mini-cog)		

Prior Non-Cardiac Surgeries

If Yes provide details (list and give dates)

Relevant Bloods (most recent) **(Please attach formal report)**

Urea		Bilirubin		Hb	
NT Pro BNP		**Creatinine**		**ALT**	
MCV		**MCV**		**Hs-Troponin**	

eGFR		GGT		WCC/lymphs	
Sodium		ALk Phos		Plts	
HBA1c		Potassium		Albumin	
Serum Fe		TChol/LDL		Magnesium	
INR		TSat		Ferritin	
Uric acid		ESR		Serum FLCs	
Please attach any other deemed relevant					

Details of Consultant Completing Referral form

Title and name **(please print)**	
Signature	
Date	