

**NATIONAL CENTRE FOR DISEASE INFORMATICS AND RESEARCH**

Indian Council of Medical Research, Bengaluru

*(A Study on the Magnitude and Pattern of Causes of Heart Failure – A Feasibility Study)***I IDENTIFYING INFORMATION**1. Name of Participating Centre ..... Centre Code 2. HF Registration Number   
*(First 2 digits are for year of registration and the next 5 digits for actual registration number)*

3.1 Name of the Source of Registration (OPD/ICU/Ward Name) .....

3.2 Hospital Registration Number 3.2.1 OPD Number .....

3.2.2 IPD Number .....

4. Date of hospital admission / attendance   
*dd mm yy*5. Full Name of the Patient *(at least one name is compulsory)*.....  
*First Name**Second Name**Last Name*6. Place of Residence: Place of Usual Residence *(where the person has been residing for the past one year, at least)*Urban / Semi-Urban Areas (Town / Mandal / Block) Rural Areas (Gram Panchayat / Hamlet) 

House No. ....

House No. and Ward .....

Road/Street Name .....

Name of Gram Panchayat / Village, etc:

Area/Locality .....

Name of Sub-Unit of District (Taluk / Tehsil / Other):

Name of City/Town .....

Name of District (In Capitals) ..... Postal Pin Code 

Mobile No. (patient) ..... Mobile No. (primary caregiver) .....

Email ID ..... Aadhaar No. (If available) .....

7. Date of Birth   
*dd mm yy* 7.1. Completed Age (In Years) *(darken ● the appropriate circle below)*8. Education (1) Nil  (2) Primary  (3) Secondary  (4) Graduate & Higher 9. Gender (1) Male  (2) Female  (3) Other **II History and Clinical Examination** *multiple choice, tick (✓) on all applicable options*10. Family History of (1) Diabetes  (2) Hypertension  (3) CAD   
(4) Stroke  (5) Sudden Death  (6) Cardiomyopathy

11 Risk Factors **(darken ● the appropriate circle below)**

	Status			Duration in Years for current users
	Current	Past	Never	
11.1 Tobacco Smoking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
11.2 Tobacco Smokeless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
11.3 Alcohol Intake	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
11.4 History of Chemotherapy <input type="radio"/> Yes <input type="radio"/> No				

12. Etiology **multiple choice, tick (✓) on all applicable options**

- |                                |                          |                              |                          |
|--------------------------------|--------------------------|------------------------------|--------------------------|
| (1) Ischemic heart disease     | <input type="checkbox"/> | (2) Cardiomyopathy           | <input type="checkbox"/> |
| (3) Rheumatic Heart Disease    | <input type="checkbox"/> | (4) Non Rheumatic VHD        | <input type="checkbox"/> |
| (5) Hypertensive Heart Disease | <input type="checkbox"/> | (6) Tachyarrhythmias         | <input type="checkbox"/> |
| (7) Congenital Heart Disease   | <input type="checkbox"/> | (8) Inflammatory Myocarditis | <input type="checkbox"/> |
| (9) Miscellaneous              | <input type="checkbox"/> |                              |                          |

13. **(only if 12.2 is selected)** In case of Cardiomyopathy being etiologic factor, define the type of cardiomyopathy **(darken ● the appropriate circle below)**

- Alcoholic  Dilated  Hypertrophic  Peripartum  Restrictive   
 Arrhythmogenic right ventricular cardiomyopathy  Others (Specify)  .....

14. Co-morbidities **multiple choice, tick (✓) on all applicable options**

- |                            |                          |                            |                          |                     |                          |
|----------------------------|--------------------------|----------------------------|--------------------------|---------------------|--------------------------|
| (1) Diabetes               | <input type="checkbox"/> | (2) Hypertension           | <input type="checkbox"/> | (3) Anemia          | <input type="checkbox"/> |
| (4) Chronic Kidney Disease | <input type="checkbox"/> | (5) COPD                   | <input type="checkbox"/> | (6) Hyperthyroidism | <input type="checkbox"/> |
| (7) Hypothyroidism         | <input type="checkbox"/> | (8) HIV                    | <input type="checkbox"/> | (9) Sleep Apnea     | <input type="checkbox"/> |
| (10) Takayasu Arteritis    | <input type="checkbox"/> | (11) Others (Specify)..... |                          |                     | <input type="checkbox"/> |

Clinical Examination **(in case, any vitals values are missing write 999)**

Vitals At Admission				Vitals At Discharge			
15. Weight ( in Kg.)				15.1. Weight ( in Kg.)			
16. Height (in Cm.)							
17. Heart Rate (per minute)				17.1. Heart Rate (per minute)			
18. Systolic Blood Pressure (mmHg)				18.1. Systolic Blood Pressure (mmHg)			
19. Diastolic Blood Pressure (mmHg)				19.1. Diastolic Blood Pressure (mmHg)			
20. NYHA Class (I, II, III, IV)				20.1 NYHA Class (I, II, III, IV)			
<b>21. Clinical Symptoms and Signs at the time of diagnosis <u>Tick (✓) wherever applicable</u></b>							
(1) Dyspnea				(8) S3 Sound			
(2) Peripheral Oedema				(9) Murmur			
(3) Paroxysmal Nocturnal Dyspnea				(10) Pleural Effusion/ Ascites			
(4) Orthopnea				(11) Elevated Jugular Venous Pressure			
(5) Fatigue				(12) Hepato Jugular Reflex			
(6) Palpitations				(13) Cardiomegaly			
(7) Lung Rales				(14) Hepatomegaly			

Clinical Diagnosis **(darken ● the appropriate circle below)**

22. Type of HF, Acute de novo HF  Acute Decompensated HF  Chronic HF

23. Date of Diagnosis 

dd	mm	yy	

**III Diagnostic Workup**

24. Date of Investigation

<i>dd</i>	<i>mm</i>	<i>yy</i>		

*In case of any investigation not done write 999 in corresponding box (ex- Hb not done write 999)*

25. Complete Blood Count		27. Lipid Profile	
25.1 Hemoglobin (g/dL)		27.1 Cholesterol (mg/dl)	
25.2 Packed Cell Volume (%)		27.2 Triglycerides (mg/dl)	
25.3 RBC Count (million/mm <sup>3</sup> )		27.3 HDL (mg/dl)	
25.4 Total Leucocyte Count (1000/mm <sup>3</sup> )		27.4 LDL (mg/dl)	
25.5 Lymphocytes (%)		28. Urine Analysis	
25.6 Monocytes (%)		28.1 Micro Albumin (mg/dl)	
25.7 Neutrophils (%)		28.2 Albumin (mg/dl)	
25.8 Eosinophils (%)		28.3 Urine Sugar (Nil/Trace/+/++/+++)	
25.9 Basophils (%)		29. Thyroid Hormones	
25.10 Random Blood Glucose (mg/dl)		29.1 T3 (ng/dl)	
25.11 Platelet Count (lakhs/mm <sup>3</sup> )		29.2 T4 (ng/dl)	
26. Electrolytes		29.3 Thyroid Stimulating Hormone (μIU/ml)	
26.1 Blood Urea Nitrogen (mEq/L)		30. Biomarkers and Cardiac Enzymes	
26.2 Serum Creatinine (mg/dl)		30.1 BNP (pg/ml)	
26.3 Serum Sodium (mEq/L)		30.2 NT-proBNP (pg/ml)	
26.4 Serum Potassium (mEq/L)		30.3 Creatinine Kinase – MB (IU/L)	
26.5 Serum Chloride (mEq/L)		30.4 Troponin T / Troponin I (ng/dl)	
26.6 Bicarbonates (mEq/L)		31. Iron Deficiency Anemia	
26.7 Serum Magnesium (mEq/L)		31.1 Ferritin (ng/ml)	
26.8 Serum Calcium (mEq/L)		31.2 Transferrin (mg/dl)	
32 Other tests if any done (Specify)			

33. Lead ECG date

<i>dd</i>	<i>mm</i>	<i>yy</i>		

*(darken ● the appropriate circle below)*

ECG Findings	
33.1 Rhythm	(1) Sinus Rhythm <input type="radio"/> (2) Atrial Fibrillation/Flutter <input type="radio"/> (3) Pacemaker Rhythm <input type="radio"/> (4) Complete Heart Block <input type="radio"/>
33.2 Bundle Branch	(1) None detected <input type="radio"/> (2) LBBB <input type="radio"/> (3) RBBB <input type="radio"/>
33.3 QRS Width	(1) 100-120 ms <input type="radio"/> (2) >120 ms <input type="radio"/>
33.4 QT Interval	(1) ≤400 ms <input type="radio"/> (2) >400 ms <input type="radio"/>
33.5 Left Ventricular Hypertrophy	(1) Yes <input type="radio"/> (2) No <input type="radio"/>
33.6 Right Ventricular Hypertrophy	(1) Yes <input type="radio"/> (2) No <input type="radio"/>
33.7 Left Atrial Enlargement	(1) Yes <input type="radio"/> (2) No <input type="radio"/>
33.8 Right Atrial Enlargement	(1) Yes <input type="radio"/> (2) No <input type="radio"/>
33.9 Premature Ventricular Contraction	(1) Yes <input type="radio"/> (2) No <input type="radio"/>

34. Chest X-ray, available , date 

dd	mm	yy	

  
 not available  (if not available selected then skip to 35)

<b>34.1 Chest X-ray findings (darken ● the appropriate circle below)</b>	
(1) Normal <input type="radio"/>	(2) Cardiomegaly <input type="radio"/>
(3) Pulmonary Congestion <input type="radio"/>	(4) Pleural Effusion <input type="radio"/>
(5) Pulmonary Hypertension <input type="radio"/>	(6) Others (Specify) ..... <input type="radio"/>

35. Two Dimensional Echocardiogram with Doppler, Date 

dd	mm	yy	

<b>Two dimensional Echocardiogram findings</b>				
35.1 Left Ventricular EF value (%)				
35.2 Left Ventricular diastolic function (darken ● the appropriate circle below)	(1) Normal	<input type="radio"/>		
	(2) Grade I (abnormal relaxation pattern)	<input type="radio"/>		
	(3) Grade II (pseudo normal filling dynamics)	<input type="radio"/>		
	(4) Grade III (reversible restrictive filling)	<input type="radio"/>		
	(5) Grade IV (irreversible restrictive filling)	<input type="radio"/>		
35.3 Left ventricular wall motion (darken ● the appropriate circle below)	(1) Score 1(Normokinesis) <input type="radio"/>	(2) Score 2 (Hypokinesis) <input type="radio"/>		
	(3) Score 3 (akinesis) <input type="radio"/>	(4) Score 4 (dyskinesis) <input type="radio"/>		
	(5) Score 5 (aneurysm) <input type="radio"/>	(9) Not Available <input type="radio"/>		
35.4 Valve Dysfunction				
	Mitral Valve	Tricuspid Valve	Semilunar (Aortic)	Semilunar (Pulmonary)
35.4.1 Regurgitation (None/Mild/Moderate/Severe)				
35.4.2 Stenosis (None/Mild/Moderate/Severe)				
35.4.3 Mechanical Valve Dysfunction (None/Mild/Moderate/Severe)				
35.5 Pericardial Effusion	(1) None <input type="radio"/> (2) Mild <input type="radio"/> (3) Moderate <input type="radio"/> (4) Severe <input type="radio"/>			
<b>Echo Dimensions (in case any dimensions not available write 999 in corresponding box)</b>				
35.6 LVDD (mm)			35.7 LVSD (mm)	
35.9 LVPWD (mm)			35.10 LV mass (g)	
			35.11 LAD (mm)	

36. Coronary angiogram, done Yes  No  (If No selected skip to 37)

36.1 Left Coronary Artery (LCA),  
 Normal  Abnormal (Specify)  .....

36.2 Right Coronary Artery (RCA),  
 Normal  Abnormal (Specify)  .....

36.3 Left Anterior Descending Artery (LAD),  
 Normal  Abnormal (Specify)  .....

36.4 Circumflex Artery (LCX),  
 Normal  Abnormal (Specify)  .....

36.5 Please mention final impression of the coronary angiogram report  
 .....  
 .....

37. Other investigations (MRI/CT Scan), done Yes  No  *(If No selected skip to 38)*

If yes mention the findings (MRI, CT Scan) *(Please mention final impression of the report)*

.....

.....

.....

.....

38. Final Diagnosis (before treatment initiation) .....

.....

38.1 How was diagnosis of HF, confirmed *(multiple choice, tick (✓) on all applicable options)*

Clinically  Echocardiogram  Biomarker

**IV HF Directed Treatment**

39. Pharmacologic / Implantable devices Treatment <i>(Tick (✓) wherever applicable)</i> <i>applicable to admitted patients only</i>			
(1) Loop Diuretics	<input type="checkbox"/>	(10) Digoxin	<input type="checkbox"/>
(2) ACE Inhibitors	<input type="checkbox"/>	(11) Statins	<input type="checkbox"/>
(3) β Blockers	<input type="checkbox"/>	(12) Nitrates	<input type="checkbox"/>
(4) Angiotensin Receptor Blocker	<input type="checkbox"/>	(13) Anticoagulants	<input type="checkbox"/>
(5) Mineralocorticoid Receptor Antagonist	<input type="checkbox"/>	(14) Inotropic Support	<input type="checkbox"/>
(6) Angiotensin Receptor-Nepriylsin Inhibitor	<input type="checkbox"/>	(15) Cardiac resynchronization therapy	<input type="checkbox"/>
(7) Ivabradine	<input type="checkbox"/>	(16) Implantable Defibrillator	<input type="checkbox"/>
(8) Hydralazine	<input type="checkbox"/>	(17) Pacemakers	<input type="checkbox"/>
(9) Other Diuretics	<input type="checkbox"/>	(18) Others (Specify) .....	<input type="checkbox"/>

40. Pharmacologic Treatment at discharge / OPD <i>(Tick (✓) wherever applicable)</i>			
(1) Loop Diuretics	<input type="checkbox"/>	(9) Other Diuretics	<input type="checkbox"/>
(2) ACE Inhibitors	<input type="checkbox"/>	(10) Digoxin	<input type="checkbox"/>
(3) β Blockers	<input type="checkbox"/>	(11) Statins	<input type="checkbox"/>
(4) Angiotensin Receptor Blocker	<input type="checkbox"/>	(12) Nitrates	<input type="checkbox"/>
(5) Mineralocorticoid Receptor Antagonist	<input type="checkbox"/>	(13) Anticoagulants	<input type="checkbox"/>
(6) Angiotensin Receptor-Nepriylsin Inhibitor	<input type="checkbox"/>	(14) Inotropic Support	<input type="checkbox"/>
(7) Ivabradine	<input type="checkbox"/>	(15) Others (Specify) .....	<input type="checkbox"/>
(8) Hydralazine	<input type="checkbox"/>		<input type="checkbox"/>

41. Non Pharmacologic Treatment <i>(Tick (✓) wherever applicable)</i>			
(1) Education of monitoring symptoms	<input type="checkbox"/>	(7) Education on physical activity	<input type="checkbox"/>
(2) Education on Wt. Maintenance	<input type="checkbox"/>	(8) Physiotherapy	<input type="checkbox"/>
(3) Sodium restriction	<input type="checkbox"/>	(9) Social Support	<input type="checkbox"/>
(4) Cardiac Rehabilitation	<input type="checkbox"/>	(10) Fluid Restriction	<input type="checkbox"/>
(5) Continuous Positive Airway Pressure	<input type="checkbox"/>	(11) Others (Specify) .....	<input type="checkbox"/>
(6) Compliance with medication	<input type="checkbox"/>		<input type="checkbox"/>

**V Outcome**

42. Outcome - Discharge  / Death  (*darken*  *the appropriate circle below*)

42.1 Date of Discharge 

--	--	--	--	--	--

  
*dd mm yy*

42.2 Date of Death 

--	--	--	--	--	--

  
*dd mm yy*

In case of death, please mention

- 42.2.1 Cause of Death – Progressive Heart Failure  Not Related to Heart Failure   
 Sudden Cardiac  Sudden Non Cardiac  Unknown   
 Others (Specify)  .....

42.2.2 Cause of Death as per Death Certificate

**Immediate cause** .....

State the disease, injury or complication due to (or as a consequence of) which caused death, not the mode of dying such as heart failure, asthenia, etc.

**Antecedent cause** .....

Morbid conditions, if any, giving rise to (or as a consequence of) the above Cause, stating underlying conditions

**Other significant conditions** contributing to the death but not related to the disease or conditions causing it  
 .....

43. Name of Person Completing Form (in capitals) .....

43.1 Signature of PI/Co-PI.....

43.2 Date 

--	--	--	--	--	--

  
*dd mm yy*



**NATIONAL CENTRE FOR DISEASE INFORMATICS AND RESEARCH**

Indian Council of Medical Research, Bengaluru

*(A Study on the Magnitude and Pattern of Causes of Heart Failure – A Feasibility Study)**[Follow-up form]***I IDENTIFYING INFORMATION**

1. Name of Participating Centre ..... Centre Code
2. HF Registration Number   
(Use the number allocated during admission to the patient)
3. Full Name of the Patient (at least one name is compulsory)  
.....  
First Name Second Name Last Name

**II FOLLOW-UP DETAILS** (*darken* ● *the appropriate circle below*)

<b>4. Follow up at ≤ 30 days' post discharge/ attendance of registration episode</b> ○	<b>5. Follow up at 31 ≤ 90 days' post discharge/ attendance of registration episode</b> ○	<b>6. Follow up at 90 ≤ 180 days' post discharge/ attendance of registration episode</b> ○
4.1 Follow-up date <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> dd mm yy	5.1 Follow-up date <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> dd mm yy	6.1 Follow-up date <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> dd mm yy
4.2 Type of visit Hospital ○ Home ○ Telephone ○ Postal ○	5.2 Type of visit Hospital ○ Home ○ Telephone ○ Postal ○	6.2 Type of visit Hospital ○ Home ○ Telephone ○ Postal ○
4.3 Status of Patient at follow-up Alive ○ Dead ○ Not Known ○	5.3 Status of Patient at follow-up Alive ○ Dead ○ Not Known ○	6.3 Status of Patient at follow-up Alive ○ Dead ○ Not Known ○
<b>If Dead selected as status at follow up in 4.3/5.3/6.3, skip to 7.1 and mention the date of death and ascertain the cause of death. For Not known cases at 4.3/5.3/6.3 skip to 8 and end the form</b>		
4.4 NYHA classification Class I ○ Class II ○ Class III ○ Class IV ○	5.4 NYHA classification Class I ○ Class II ○ Class III ○ Class IV ○	6.4 NYHA classification Class I ○ Class II ○ Class III ○ Class IV ○
4.5 If Echo done at follow-up, mention Ejection fraction (%) <input type="text"/> <input type="text"/> <input type="text"/>	5.5 If Echo done at follow-up, mention Ejection fraction (%) <input type="text"/> <input type="text"/> <input type="text"/>	6.5 If Echo done at follow-up, mention Ejection fraction (%) <input type="text"/> <input type="text"/> <input type="text"/>
<b>4.6 Current Medication</b> (1) Loop Diuretics <input type="checkbox"/> (2) ACE Inhibitors <input type="checkbox"/> (3) β Blockers <input type="checkbox"/> (4) Angiotensin Receptor Blocker <input type="checkbox"/>	<b>5.6 Current Medication</b> (1) Loop Diuretics <input type="checkbox"/> (2) ACE Inhibitors <input type="checkbox"/> (3) β Blockers <input type="checkbox"/> (4) Angiotensin Receptor Blocker <input type="checkbox"/>	<b>6.6 Current Medication</b> (1) Loop Diuretics <input type="checkbox"/> (2) ACE Inhibitors <input type="checkbox"/> (3) β Blockers <input type="checkbox"/> (4) Angiotensin Receptor Blocker <input type="checkbox"/>

Follow up at ≤ 30 days	Follow up at 31 ≤ 90 days	Follow up at 90 ≤ 180 days																																				
(5) Mineralocorticoid Receptor Antagonist <input type="checkbox"/>	(5) Mineralocorticoid Receptor Antagonist <input type="checkbox"/>	(5) Mineralocorticoid Receptor Antagonist <input type="checkbox"/>																																				
(6) ARNI <input type="checkbox"/>	(6) ARNI <input type="checkbox"/>	(6) ARNI <input type="checkbox"/>																																				
(7) Ivabradine <input type="checkbox"/>	(7) Ivabradine <input type="checkbox"/>	(7) Ivabradine <input type="checkbox"/>																																				
(8) Hydralazine <input type="checkbox"/>	(8) Hydralazine <input type="checkbox"/>	(8) Hydralazine <input type="checkbox"/>																																				
(9) Other Diuretics <input type="checkbox"/>	(9) Other Diuretics <input type="checkbox"/>	(9) Other Diuretics <input type="checkbox"/>																																				
(10) Digoxin <input type="checkbox"/>	(10) Digoxin <input type="checkbox"/>	(10) Digoxin <input type="checkbox"/>																																				
(11) Statin <input type="checkbox"/>	(11) Statin <input type="checkbox"/>	(11) Statin <input type="checkbox"/>																																				
(12) Nitrates <input type="checkbox"/>	(12) Nitrates <input type="checkbox"/>	(12) Nitrates <input type="checkbox"/>																																				
(13) Anticoagulants <input type="checkbox"/>	(13) Anticoagulants <input type="checkbox"/>	(13) Anticoagulants <input type="checkbox"/>																																				
(14) Inotropic Support <input type="checkbox"/>	(14) Inotropic Support <input type="checkbox"/>	(14) Inotropic Support <input type="checkbox"/>																																				
4.7 Outcome at follow-up OP Consultation & sent back <input type="radio"/> Re-admission <input type="radio"/> Date of Readmission <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>dd</i></td><td><i>mm</i></td><td><i>yy</i></td><td></td><td></td><td></td></tr></table> IPD Number .....							<i>dd</i>	<i>mm</i>	<i>yy</i>				5.7 Outcome at follow-up OP Consultation & sent back <input type="radio"/> Re-admission <input type="radio"/> Date of Readmission <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>dd</i></td><td><i>mm</i></td><td><i>yy</i></td><td></td><td></td><td></td></tr></table> IPD Number .....							<i>dd</i>	<i>mm</i>	<i>yy</i>				6.7 Outcome at follow-up OP Consultation & sent back <input type="radio"/> Re-admission <input type="radio"/> Date of Readmission <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>dd</i></td><td><i>mm</i></td><td><i>yy</i></td><td></td><td></td><td></td></tr></table> IPD Number .....							<i>dd</i>	<i>mm</i>	<i>yy</i>			
<i>dd</i>	<i>mm</i>	<i>yy</i>																																				
<i>dd</i>	<i>mm</i>	<i>yy</i>																																				
<i>dd</i>	<i>mm</i>	<i>yy</i>																																				

If readmission selected in 4.7/5.7/6.7 then enter the date of readmission along with IPD number and fill the new form for the particular readmission event with same HF registration number and skip to 8 and end the current form.

7. In case of death please provide the following information (*darken* ● *the appropriate circle below*)

7.1 Date of Death 

<i>dd</i>	<i>mm</i>	<i>yy</i>			

7.2 Cause of Death – Progressive Heart Failure  Not Related to Heart Failure   
Sudden Cardiac  Sudden Non Cardiac  Unknown   
Others (Specify)  .....

7.3 Cause of Death as per Death Certificate

**Immediate cause** .....

**Antecedent cause** .....

**Other significant conditions** contributing to the death but not related to the disease or conditions causing it .....

8. Name of Person Completing Form (in capitals) .....

8.1 Signature of PI/Co-PI.....

8.2 Date 

<i>dd</i>	<i>mm</i>	<i>yy</i>			



