ARIC

HEART FAILURE HOSPITAL RECORD ABSTRACTION FORM

General Instructions:

The Heart Failure Hospital Record Abstraction Form is completed for all heart failure-eligible cohort hospitalizations. Refer to this form's question-by-question instructions for detailed information on each data item.

ID NUMBER: | | | | | | | |

FORM NAME: | H | F | A | DATE: 10/08/2021

VERSION: | F |

CONTACT YEAR NUMBER: | | |

0.a. Hospital code number: | | |

0.b. Medical Record Number:

0.c. Date of discharge (for nonfatal case) or death:

		–			–				

Month Day Year

0.d. What was the disposition of the patient on discharge?

Deceased..…… D
Alive ……. A

SECTION I: SCREENING FOR DECOMPENSATION OR NEW ONSET

1. Was there evidence of the following conditions?	Yes	No/Not Recorded
a. Increasing or new onset shortness of breath	☐	☐
b. Increasing or new onset edema	☐	☐
c. Increasing or new onset paroxysmal nocturnal dyspnea	☐	☐
d. Increasing or new onset orthopnea	☐	☐
e. Increasing or new onset hypoxia	☐	☐
2. Was there evidence in the doctor's notes that the reason for this hospitalization was heart failure?	☐	☐
3. Is this a cohort participant? (*DMS will auto fill with a "Y"*)	☐	☐

4. Did the patient have new onset or progressive symptoms/signs of heart failure:	Yes	No/Not Recorded
a. At the time of admission to the hospital?	☐	☐
b. During this hospitalization?	☐	☐

If the response to both item 4a and 4b, is 'No/Not Recorded', skip items 5

5. Date of new onset or progression of symptoms/signs known (mm-dd-yyyy): ☐☐–☐☐–☐☐☐☐

   a. If exact date unknown, estimate weeks prior to this hospitalization: ☐☐

6. Did the physician's note or discharge summary indicate any of the following specific types of heart failure? (check all that apply)

	Yes	No/ Not Recorded	
a. Ischemic cardiomyopathy	☐	☐	
b. Idiopathic/dilated cardiomyopathy	☐	☐	
j. Other specific cardiomyopathy/heart failure	☐	☐ →	Go to item 7

j.1. If other cardiomyopathy, specify _____

SECTION II: HISTORY OF HEART FAILURE

7. Prior to this hospitalization was there a history of any of the following:

	Yes	No/Not Recorded	Unsure
a. Diagnosis of heart failure	☐	☐	☐
b. Prior hospitalization for heart failure	☐	☐	☐
c. Treatment for heart failure	☐	☐	☐

8. Was cardiac imaging performed prior to this hospitalization? Yes ☐ No/Unk ☐

→ Go to item 10.

8.a. Lowest Ejection Fraction recorded: ☐☐ % — If recorded, go to item 8b.

8.a.1. Qualitative description:

Normal…….. N
Decreased mildly……. D
Decreased moderately……M
Decreased severely…… S
None of the above……O

8. b. Year of lowest ejection fraction (yyyy): ☐☐☐☐

8.c. Type of imaging:

1. MUGA ☐
2. ECHO ☐
3. Cath/LV gram ☐
4. CT ☐
5. MRI ☐
6. Other ☐
7. Unknown ☐

SECTION III: MEDICAL HISTORY

10. Respiratory

	History of? Yes	No/NR
a. Asthma [G]	☐	☐
b. Chronic bronchitis/COPD [G]	☐	☐
c. Other chronic lung disease	☐	☐
d. Pulmonary embolus	☐	☐
e. Coughing, phlegm, wheezing [G]	☐	☐
f. Sleep apnea	☐	☐

11. Cardiovascular

	History of? Yes	No/NR
a. Angina [G]	☐	☐
b. Arrhythmia		
1) Atrial fibrillation/atrial flutter	☐	☐
2) Heart block or other bradycardia	☐	☐
3) Ventricular fibrillation or tachycardia	☐	☐
e. Cardiac procedures		
1) CABG	☐	☐
2) PCI	☐	☐
3) Valve surgery	☐	☐
4) Pacemaker	☐	☐
5) Defibrillator	☐	☐
g. Coronary heart disease (within year) [G]	☐	☐
h. Coronary heart disease (ever) [G]	☐	☐
j. Hypertension	☐	☐
k. Myocardial infarction	☐	☐
l. Pulmonary hypertension	☐	☐
m. Peripheral vascular disease	☐	☐
o. Valvular heart disease	☐	☐

If Yes, go to item 11j.

12. Gastrointestinal / Endocrine

a. Diabetes	☐	☐

13. Renal

a. Dialysis	☐	☐

SECTION III: MEDICAL HISTORY (continued)

14. Neurology

	History of? Yes	No/NR
a. Stroke/TIA	☐	☐
b. Depression	☐	☐

16. Were any of the following medical problems listed as precipitating factors (i.e. precipitated the onset of this event)?

	Yes	No/NR
d. Noncompliance with diet	☐	☐
e. Noncompliance with medication	☐	☐
g. Pneumonia	☐	☐
j. Angina/Myocardial infarction	☐	☐
k. Atrial fibrillation/flutter	☐	☐

SECTION IV: PHYSICAL EXAM – VITAL SIGNS

	At hospital admission (or at onset of event)	At hospital discharge (or last recorded)
17. Blood pressure:	a. ☐☐☐ / b. ☐☐☐ mmHg	
18. Heart rate: [B, F, N]	a. ☐☐☐ bpm	
19. Height:	a. ☐☐☐.☐☐☐ a.1. ☐ cm/ in (c=cm, i=in)	
20. Weight: [F]	a. ☐☐☐.☐☐☐ a.1. ☐ lbs/ kg b. ☐☐☐.☐☐☐	
	b.1. ☐ lbs\ kg (l=lbs, k=kg)	

SECTION V: DIAGNOSTIC TESTS

25. Was an electrocardiogram performed during this hospitalization? Yes No/NR → Go to item 27.

26. Did the patient have any of the following ECG abnormalities at any time during this hospitalization?

	Yes	No/Not Recorded
c. Atrial fibrillation / atrial flutter [G]	☐	☐ → c.1. On telemetry? Yes ☐ No ☐
e. Left bundle branch block	☐	☐
f. Ventricular tachycardia	☐	☐ → f.1. On telemetry? Yes ☐ No ☐

27. Was a chest X-ray performed during this hospitalization? Yes ☐ No/NR ☐ → Go to item 29.

28. Did the patient have any of the following signs on chest X-ray at any time during this hospitalization?

	Yes	No/Unknown
b. Alveolar/pulmonary edema [B, F, N]	☐	☐
c. Interstitial pulmonary edema [B, F, N]	☐	☐
d. Cardiomegaly [B, F]	☐	☐
e. Cephalization/upper zone redistribution [B, N]	☐	☐
g. Bilateral pleural effusion [B, F, N]	☐	☐
h. Unilateral pleural effusion [F, N]	☐	☐
k. Cardiothoracic ratio ≥ 0.5 [B]	☐	☐
l. Congestive heart failure/ Pulmonary vascular congestion	☐	☐

SECTION V: DIAGNOSTIC TESTS (continued)

29. Was a transthoracic echocardiogram performed? Yes ☐ No/NR ☐ → Go to item 30

If the response to item 29 is YES, complete items 29a-29c3, and 29d1-29d14.;
If the response is No/NR skip items 29a-29c3, and 29d1-29d14

First transthoracic echocardiogram performed after onset or progression of heart failure.

a. Date (mm-dd-yyyy): ☐☐–☐☐–☐☐☐☐

b. Ejection fraction: ☐☐ %

c. Wall thickness: septal: ☐☐.☐☐☐ c.1. units ☐ (c=cm, m=mm)

c.2. posterior: ☐☐.☐☐☐ c.3. units ☐ (c=cm, m=mm)

d. Record the following if present on transthoracic echocardiogram:

	Mild	Moderate	Severe	None	Present	NR
1. Left ventricular hypertrophy (LVH)	☐	☐	☐	☐	☐	☐
2. Impaired LV systolic function	☐	☐	☐	☐	☐	☐
3. Impaired RV systolic function	☐	☐	☐	☐	☐	☐
4. Aortic regurgitation	☐	☐	☐	☐	☐	☐
5. Aortic stenosis	☐	☐	☐	☐	☐	☐
6. Tricuspid regurgitation	☐	☐	☐	☐	☐	☐
7. Mitral regurgitation	☐	☐	☐	☐	☐	☐
8. Mitral stenosis	☐	☐	☐	☐	☐	☐

9. Estimated RVSP/PASP: ☐☐☐ mmHg a. TR jet velocity: ☐.☐☐☐ m/s

10. Pulmonary hypertension ☐

	Yes	No/Unknown/NR
11. Regional wall motion abnormality	☐	☐
12. Dilated left ventricle	☐	☐
13. Dilated right ventricle	☐	☐
14. Diastolic dysfunction	☐	☐

SECTION V: DIAGNOSTIC TESTS (continued)

30. Was a transesophageal echocardiogram performed? Yes ☐ No/NR ☐ → Go to item 32

First transesophageal echocardiogram performed after onset or progression of event.

a. Date (mm-dd-yyyy): ☐☐–☐☐–☐☐☐☐

b. Ejection fraction: ☐☐ %

c. Record the following if present on transesophageal echocardiogram:

	Mild	Moderate	Severe	None	Present	NR
1. Impaired LV systolic function	☐	☐	☐	☐	☐	☐
2. Impaired RV systolic function	☐	☐	☐	☐	☐	☐

	Yes	No/Unknown/NR
3. Regional wall motion abnormality	☐	☐
4. Dilated left ventricle	☐	☐
5. Dilated right ventricle	☐	☐

32. Was coronary angiography performed? Yes ☐ No/NR ☐ → Go to item 37.

a. Date (mm-dd-yyyy) : ☐☐–☐☐–☐☐☐☐

b. Record the following:

1. Ejection fraction: ☐☐ %

2. Coronary stenosis:

	0 %	1-24 %	25-49 %	50-74 %	75-94 %	95-99 %	100 %	NR
a. Left main:	☐	☐	☐	☐	☐	☐	☐	☐
b. Left anterior descending artery and branches:	☐	☐	☐	☐	☐	☐	☐	☐
c. Left circumflex/marginal artery:	☐	☐	☐	☐	☐	☐	☐	☐
d. Right coronary artery and branches:	☐	☐	☐	☐	☐	☐	☐	☐
e. Intermediate ramus:	☐	☐	☐	☐	☐	☐	☐	☐

3. Were coronary bypass grafts present? Yes ☐ No/NR ☐ → Go to Item 37.

a. Number of occluded grafts: ☐☐

SECTION VI: BIOCHEMICAL ANALYSES

	a. Worst*	b. Last	c. Upper Limit Normal
37. Hemoglobin (g/dL)	☐☐.☐	☐☐.☐	
38. Hematocrit (%)	☐☐.☐	☐☐.☐	
39. BNP (pg/mL)	☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐
40. ProBNP (pg/mL)	☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐	☐☐☐☐☐☐
41. Troponin T (ng/mL)	☐☐☐☐.☐☐☐	☐☐☐☐.☐☐☐	☐☐☐☐.☐☐☐
42. Troponin I (ng/mL)	☐☐☐☐.☐☐☐	☐☐☐☐.☐☐☐	☐☐☐☐.☐☐☐
43. Sodium (mEq/L)	☐☐☐	☐☐☐	

Items 44.a1.-44.c2. deleted and captured on the CEL form

45. BUN (mg/dL) a. Worst*: ☐☐☐ b. Last: ☐☐☐

* Worst = highest value with exception of hemoglobin, hematocrit, and sodium. For these items worst is the lowest value (ᴸ)

SECTION VII: MEDICATIONS

	Prior to hospitalization or progression in hospital		At hospital discharge	
	Yes	No/NR	Yes	No/NR
59. ACE inhibitors	☐	☐	a. ☐	☐
60. Angiotensin II receptor blockers	☐	☐	a. ☐	☐
60.b. Angiotensin Receptor-Neprilysin Inhibitor (ARNI)	☐	☐	b.1. ☐	☐
62. Anticoagulants	☐	☐	a. ☐	☐
64. Antiplatelets				
a. Aspirin	☐	☐	a.1. ☐	☐
b. Other	☐	☐	b.1. ☐	☐
65. Beta blockers	☐	☐	a. ☐	☐
67. Digitalis [G]	☐	☐	a. ☐	☐
68. Diuretics [G]	☐	☐	a. ☐	☐
69. Aldosterone Blocker	☐	☐	a. ☐	☐
70. Lipid lowering agents				
a. Statins	☐	☐	a.1. ☐	☐
b. Other	☐	☐	b.1. ☐	☐
71. Nitrates	☐	☐	a. ☐	☐
72. Hydralazine	☐	☐	a. ☐	☐
72.b. SGLT2 (Sodium-glucose co-transporter-2) Inhibitor	☐	☐	b.1. ☐	☐
72.c. Soluble guanylate cyclase stimulator	☐	☐	c.1. ☐	☐

73. IV drugs during this hospitalization?

a. IV inotropes: ☐ Yes ☐ No/NR

b. IV diuretics: ☐ Yes ☐ No/NR

SECTION VIII: ADMINISTRATIVE

77. Time taken to abstract (mins): ☐☐☐

78. Abstractor number: ☐☐☐

79. Date abstract completed (mm-dd-yyyy): ☐☐–☐☐–☐☐☐☐