ARIC

HEART FAILURE HOSPITAL RECORD ABSTRACTION FORM

ID NUMBER: | | | | | | |

FORM NAME: H F A

DATE: 10/01/2015

VERSION: D

CONTACT YEAR NUMBER: | |

FORM SEQUENCE NUMBER: | |

General Instructions:

The Heart Failure Hospital Record Abstraction Form is completed for heart failure-eligible Community Surveillance hospitalizations. See Surveillance Procedure Manual for sampling rules. It should also be completed for all heart failure-eligible cohort hospitalizations. Refer to this form's question by question instructions for detailed information on each data item.

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 → Go to 0.e.
Alive ……………. A

DISCHARGED ALIVE

	Yes	No/Not reported
0.d.1. Discharged to home/routine discharge	☐	☐
0.d.2. Discharged to home health care	☐	☐
0.d.3. Discharged/transferred to short-term care facility (e.g. inpatient rehabilitation center)	☐	☐
0.d.4. Discharged to outpatient rehabilitation services/ home physical therapy	☐	☐
0.d.5. Discharged/transferred to long-term care facility (e.g., skilled nursing facility, nursing home)	☐	☐
0.d.6. Discharged to hospice care (inpatient or outpatient)	☐	☐
0.d.7. Left against medical advice	☐	☐
0.d.8. Transferred to another hospital	☐	☐
0.d.9. Disposition not stated	☐	☐

DECEASED

0.e. Was an autopsy performed?.............Yes……..Y
No…….. N

0.f. Was the patient either dead on arrival or did he/she die in the emergency room?
Yes……… Y
No………. N

ADVANCED DIRECTIVES

	Yes	No/Unknown
0.g. Was this patient on comfort care or hospice care at any time during this hospitalization?	☐	☐
0.h Was this patient a DNR (Do Not Resuscitate) at any time during this hospitalization?	☐	☐

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?	☐	☐
3.a. Does this cohort hospitalization have the following 428 or I50.x code?	☐	☐

- ***If any response to items 1-2 is "Yes", go to Item 3.***
- ***If Item 3 is "Yes" and Item 3a is No, but cohort member does not meet any of the screening criteria (HF1a-e and HF2=No) go to Item 44. If all response to items 1-3 is "No /Not Recorded" go to Item 77.***

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

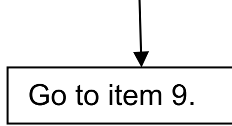
j.1. If other cardiomyopathy, specify ______________________________

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 ☐



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

9. General

	History of? Yes	No/NR
b. Excess alcohol use	☐	☐
c. Illicit drug use	☐	☐
d. Anemia	☐	☐
f. Connective tissue disease	☐	☐
h. Current smoker	☐	☐
i. Thyroid disease	☐	☐

10. Respiratory

	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

	Yes	No/NR
a. Angina [G]	☐	☐
b. Arrhythmia		
1) Atrial fibrillation/atrial flutter	☐	☐
2) Heart block or other bradycardia	☐	☐
3) Ventricular fibrillation or tachycardia	☐	☐

SECTION III: MEDICAL HISTORY (continued)

11. Cardiovascular (continued)

	History of? Yes	No/NR
e. Cardiac procedures		
1) CABG	☐	☐
2) PCI	☐	☐
3) Valve surgery	☐	☐
4) Pacemaker	☐	☐
5) Defibrillator	☐	☐
g. Coronary heart disease (within year) [G]	☐	☐ — If Yes, go to item 11j.
h. Coronary heart disease (ever) [G]	☐	☐
j. Hypertension	☐	☐
k. Myocardial infarction	☐	☐
l. Pulmonary hypertension	☐	☐
m. Peripheral vascular disease	☐	☐
o. Valvular heart disease	☐	☐

12. Gastrointestinal / Endocrine

	Yes	No/NR
a. Diabetes	☐	☐

13. Renal

	Yes	No/NR
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: PHYSICAL EXAM AND SYMPTOMS - FINDINGS

22. Did the patient have any of the following GENERAL signs or symptoms?

	Anytime during hospitalization or at admission	
	Yes	No/NR
a. Lower extremity edema [G, F, N]	☐	☐
b. Jugular venous distension (JVD) [B, F, N]	☐	☐
c. Hepatojugular reflux [F]	☐	☐
d. Hepatomegaly [F, N, B]	☐	☐
e. Leg fatigue on walking [B]	☐	☐

23. Did the patient have any of the following RESPIRATORY signs or symptoms?

	Anytime during hospitalization or at admission	
	Yes	No/NR
a. Cough [F]	☐	☐
b. Dyspnea (Rest) [B] (If Yes, enter yes for 23c, 23d, 23e and 23f)	☐	☐
c. Dyspnea (Walking) [B, F, N]	☐	☐
d. Dyspnea (Climbing or exertion) [B, F, N]	☐	☐
e. Stops for breath when walking [N]	☐	☐
f. Stops for breath after 100 yards [N]	☐	☐
g. Rhonchi [G]	☐	☐
h. Paroxysmal nocturnal dyspnea [B,F,G]	☐	☐
i. Orthopnea [B]	☐	☐
j. Pulmonary basilar rales [B, G, F, N]	☐	☐
k. Rales (more than basilar) [B, G, F, N]	☐	☐
l. Wheezing [B]	☐	☐

SECTION V: PHYSICAL EXAM AND SYMPTOMS - FINDINGS (continued)

24. Did the patient have any of the following CARDIOVASCULAR signs or symptoms?

	Anytime during hospitalization Yes	No/NR
a. S3 (gallop) [B, F]	☐	☐
c. Chest Pain [G]	☐	☐

SECTION VI: DIAGNOSTIC TESTS

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 VI: 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 ☐ (1=cm, 2=mm)

c.2. posterior: ☐☐.☐☐☐ c.3. units ☐ (1=cm, 2=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

	Mild	Moderate	Severe	None	Present	NR
10. Pulmonary hypertension	☐	☐	☐	☐	☐	☐

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

SECTION VI: DIAGNOSTIC TESTS (continued)

30. Was a transesophageal echocardiogram performed? Yes ☐ No/NR ☐ → Go to item 31.

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	☐	☐

SECTION VI: DIAGNOSTIC TESTS (continued)

31. Was a right cardiac catheterization performed? Yes ☐ No/NR ☐ → Go to item 32.

    a. Date (mm-dd-yyyy) : ☐☐–☐☐–☐☐☐☐

32. Was coronary angiography performed? Yes ☐ No/NR ☐ → Go to item 33.

    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 33.

       a. Number of occluded grafts: ☐☐

SECTION VI: DIAGNOSTIC TESTS (continued)

33. Was a cardiac radionuclide ventriculogram performed? Yes ☐ No/NR → Go to item 34.

a. Date: ☐☐–☐☐–☐☐☐☐ (mm-dd-yyyy) b. Ejection fraction: LV: ☐☐ % c. RV: ☐☐ %

34. Was a cardiac Magnetic Resonance Imaging (MRI) performed? Yes ☐ No/NR ☐ → Go to item 35.

a. Date: ☐☐–☐☐–☐☐☐☐ (mm-dd-yyyy) b. Ejection fraction: LV: ☐☐ % c. RV: ☐☐ %

35. Was a cardiac CT scan performed? Yes ☐ No/NR ☐ → Go to item 36.

a. Date: ☐☐–☐☐–☐☐☐☐ (mm-dd-yyyy) b. Ejection fraction: LV: ☐☐ % c. RV: ☐☐ %

36. Was a stress test performed? Yes ☐ No/NR ☐ → Go to item 37.

a. Date: ☐☐–☐☐–☐☐☐☐ (mm-dd-yyyy)

c. Ejection fraction: LV: ☐☐ %

SECTION VII: 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)	☐☐☐	☐☐☐	

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

44. Record the value of the first, last, and highest measurements of serum creatinine (mg/dL):

a1: First: ☐☐ ☐☐ a2. date: ☐☐–☐☐–☐☐☐☐ (mm/dd/yyyy)

b1. Last (if more than one): ☐☐ ☐☐ b2. date: ☐☐–☐☐–☐☐☐☐ (mm/dd/yyyy)

c1 Highest of remaining values (if more than two): ☐☐ ☐☐ c2. date: ☐☐–☐☐–☐☐☐☐ (mm/dd/yyyy)

Note: "When Item 44 is completed for cohort member who did not meet any of the screening criteria (HFA1a-e=N, HFA2=N, AND HFA3A=N), go to item 77"

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 IX: 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. ☐	☐
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. ☐	☐

73. IV drugs during this hospitalization?

a. IV inotropes: ☐ Yes ☐ No/NR

b. IV diuretics: ☐ Yes ☐ No/NR

SECTION XI: ADMINISTRATIVE

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

78. Abstractor number: ☐☐☐

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