OMB# 0925-0491

EXPIRATION DATE XX/XXXX

Heart Failure Hospital Record Abstraction Form with Supplemental Information

ID NUMBER: | | | | | | | | Contact Year Number: | | Form Name: HFS-A

Version A: 11/21/2007

Last Name: | | | | | | | | | | | | Initials: | |

Form Sequence Number: | |

Note: *This form will only be done on a subset of participants. This form includes HFAB (Core Prototype) and supplemental diagnostic material.*

General Instructions:

The Heart Failure Hospital Record Abstraction Form with Supplemental Information is completed for heart failure-eligible Community Surveillance hospitalizations on a selected %. See Surveillance Procedure Manual for sampling rules. 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
Alive …….. A → Go to item 1.

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

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 a 428 code?	☐	☐

If any one of Q1a-e =Y or Q2 =Y, skip →

If any response to items 1-3 is YES, go to item 4. If all are NO or not recorded, go to item 77. **If item 3 is yes but cohort member does not meet any of the screening criteria (HFA1a-e or HFA2), and does not have a 428 code, 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 and 5a.

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	☐	☐
k. Unknown/Not recorded	☐	☐

If No/Not Recorded, go to item 6k.

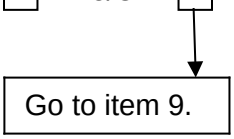
j.1. If other cardiomyopathy, specify _____

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: ☐☐ %

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
a. AIDS/HIV	☐	☐
b. Excess alcohol use	☐	☐
c. Illicit drug use	☐	☐
d. Anemia	☐	☐
e. Cancer (excluding skin cancer)	☐	☐
f. Connective tissue disease	☐	☐
g. Ex-smoker	☐	☐
h. Current smoker	☐	☐
i. Thyroid disease	☐	☐

10. Respiratory

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

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
c. Infectious/bacterial endocarditis	☐	☐
d. Cardiac arrest	☐	☐
e. Cardiac procedures		
1) CABG	☐	☐
2) PCI	☐	☐
3) Valve surgery	☐	☐
4) Pacemaker	☐	☐
5) Defibrillator	☐	☐
f. Congenital heart disease	☐	☐
g. Coronary heart disease (within year) [G]	☐	☐ — If Yes, go to item 11.i.
h. Coronary heart disease (ever) [G]	☐	☐
i. Electrocardioversion/defibrillation	☐	☐
j. Hypertension	☐	☐
k. Myocardial infarction	☐	☐
l. Pulmonary hypertension	☐	☐
m. Peripheral vascular disease	☐	☐
n. Rheumatic heart disease	☐	☐
o. Valvular heart disease	☐	☐

12. Gastrointestinal / Endocrine

a. Diabetes	☐	☐
b. Hyperlipidemia	☐	☐
c. Liver disease	☐	☐

13. Renal

a. Dialysis	☐	☐

SECTION III: MEDICAL HISTORY (continued)

14. Neurology

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

15. Other significant medical condition: _____

16.r. Was Angina or Myocardial infarction listed as a precipitating factor (i.e. precipitated the onset of this event)?

Yes	No/NR
☐	☐

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	c. ☐☐☐ / d. ☐☐☐ 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 (l=lbs, k=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]	☐	☐
b. S4 (gallop)	☐	☐
c. Chest Pain [G]	☐	☐

SECTION VI: 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/Unknown	
a. MI (age undetermined)	☐	☐	
b. Ischemic changes or ST-T changes	☐	☐	
c. Atrial fibrillation / atrial flutter [G]	☐	☐	c.1. On telemetry? Yes ☐ No ☐
d. Left ventricular hypertrophy	☐	☐	
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
a. Alveolar infiltrates	☐	☐
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]	☐	☐
f. Congestive heart failure	☐	☐
g. Bilateral pleural effusion [B, F, N]	☐	☐
h. Unilateral pleural effusion [F, N]	☐	☐
i. Pulmonary vascular congestion	☐	☐
j. Kerley B lines	☐	☐
k. Cardiothoracic ratio ≥ 0.5 [B]	☐	☐

SECTION VI: DIAGNOSTIC TESTS (continued)

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

Skip 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					
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) : ☐☐–☐☐–☐☐☐☐

b. Record the following measurements from the catheterization report::

1. Right atrial pressure (mean): ☐☐ mmHg
2. Pulmonary arterial pressure: ☐☐☐ / ☐☐ mmHg
3. Pulmonary wedge pressure: ☐☐ mmHg
4. Cardiac output: ☐☐ . ☐ liters/min
5. Cardiac index: ☐☐ . ☐ liters/min/m^2 BSA

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 32.b.4.

a. Number of occluded grafts: ☐☐

4. Mitral regurgitation: Mild ☐ Moderate ☐ Severe ☐ None ☐ Present ☐ NR ☐

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)

b. Normal ☐ Abnormal ☐ Equivocal ☐ Not diagnostic ☐

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)	☐☐☐	☐☐☐	
44. Serum creatinine (mg/dL)	☐☐.☐	☐☐.☐	
45. BUN (mg/dL)	☐☐☐	☐☐☐	

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

SECTION VIII: INTERVENTIONS

	Yes	No/Unknown/NR
46. Cardiac (electrophysiologic) ablation therapy	☐	☐
47. Implantable cardiac defibrillator	☐	☐
48. Cardioversion	☐	☐
49. Pacemaker placement (non-biventricular)	☐	☐
50. Biventricular pacemaker (CRT)	☐	☐
51. Coronary Artery Bypass Graft	☐	☐
52. Percutaneous Coronary Intervention (PCI)/stent	☐	☐
53. Valve replacement/repair	☐	☐
54. Intra Aortic Balloon Pump (IABP)	☐	☐
55. Hemofiltration/dialysis	☐	☐
56. Listed/received transplant of heart	☐	☐
57. Left ventricular assist device	☐	☐

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. ☐	☐
61. Antiarrhythmics				
a. Amiodarone	☐	☐	a.1. ☐	☐
b. Other	☐	☐	b.1. ☐	☐
62. Anticoagulants	☐	☐	a. ☐	☐
63. Anti-inflammatory	☐	☐	a. ☐	☐
64. Antiplatelets				
a. Aspirin	☐	☐	a.1. ☐	☐
b. Other	☐	☐	b.1. ☐	☐
65. Beta blockers	☐	☐	a. ☐	☐
66. Calcium channel 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 X: COMPLICATIONS FOLLOWING EVENT

	Yes	No/Unknown
74. Cardiac arrest	☐	☐
75. Stroke	☐	☐
76. Myocardial infarction	☐	☐

SECTION XI: ADMINISTRATIVE

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

78. Abstractor number: ☐☐☐

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