



HCHS/SOL HEART FAILURE ABSTRACTION FORM (HTF)

PARTICIPANT ID NUMBER:

FORM CODE: HTF
VERSION: A 5/29/12

ADMINISTRATIVE INFORMATION

0A. Completion Date: / /
Month Day Year

0B. Staff ID:

Event ID:

Event date: / /

Instructions: Answers are derived from the medical records received. Do not complete this form until all records are received (or classified as unobtainable) as indicated on the Verification of ICD Discharge Codes Form

A. GENERAL INFORMATION

1. Was the event (choose one):
- 1= In hospital only
 - 2= Emergency Dept. visit only(ED)
 - 3= Both ED and in hospital
 - 4= Observation care only
 - 5= Both ED and observation care
 - 6= unsure/unknown

2. Date of arrival: (mm/dd/yyyy) / /

a. Time of arrival : 1 = A.M., 2 = P.M.

b. Date of admission / /

3. Date of discharge: (mm/dd/yyyy) / /

a. Time of discharge : 1 = A.M., 2 = P.M.

4. What was the primary admitting diagnosis code?

5. What was the primary discharge diagnosis code?

- | | <u>No/NR</u> | <u>Yes</u> |
|--|---|---|
| 6. Did an emergency medical service unit transport the patient to this hospital? | 0 <input style="width: 20px; height: 20px;" type="text"/> | 1 <input style="width: 20px; height: 20px;" type="text"/> |
| 7. Was the patient transferred to this hospital from another hospital? | 0 <input style="width: 20px; height: 20px;" type="text"/> | 1 <input style="width: 20px; height: 20px;" type="text"/> |
| 8. Was the patient's code status ever "no-code" or "DNR" (do not resuscitate)? | 0 <input style="width: 20px; height: 20px;" type="text"/> | 1 <input style="width: 20px; height: 20px;" type="text"/> |
| 9. Was the patient alive at discharge? | 0 <input style="width: 20px; height: 20px;" type="text"/> | 1 <input style="width: 20px; height: 20px;" type="text"/> |

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B. SIGNS AND SYMPTOMS

I. Signs and Symptoms

10. Did the patient have any of the following signs or symptoms at the time of event?

	<u>No</u>	<u>Yes</u>	<u>NR</u> Not recorded
a. Paroxysmal nocturnal dyspnea (PND)	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
b. Orthopnea?	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
c. Shortness of breath?	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
d. Edema?	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
e. Hypoxia	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
f. Dyspnea (at rest) or tachypnea (RR>22)	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
g. Dyspnea (walking or on exertion)	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>

II. Physicians' diagnoses

11. Was there evidence in the doctor's notes that the reason for this event was an exacerbation of heart failure?	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
12. Did the patient have new onset or progressive signs/symptoms of heart failure prior to presentation in ED or hospital?	0 <input type="checkbox"/>	1 <input type="checkbox"/>	9 <input type="checkbox"/>
13. Did the physician's note or discharge summary indicate the presence of any of the following specific types of heart failure? (check all that apply)	<u>No/NR</u>	<u>Yes</u>	
a. Diastolic heart failure	0 <input type="checkbox"/>	1 <input type="checkbox"/>	
b. Systolic heart failure	0 <input type="checkbox"/>	1 <input type="checkbox"/>	
c. Right-sided heart failure	0 <input type="checkbox"/>	1 <input type="checkbox"/>	
d. Ischemic cardiomyopathy	0 <input type="checkbox"/>	1 <input type="checkbox"/>	
e. Idiopathic/dilated cardiomyopathy	0 <input type="checkbox"/>	1 <input type="checkbox"/>	
f. Myocarditis	0 <input type="checkbox"/>	1 <input type="checkbox"/>	
g. Peripartum cardiomyopathy	0 <input type="checkbox"/>	1 <input type="checkbox"/>	
h. Other specific cardiomyopathy/heart failure	0 <input type="checkbox"/>	1 <input type="checkbox"/>	

1. If other cardiomyopathy, specify type _____

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III. Prior cardiac testing

14. Was cardiac imaging performed prior to this hospitalization? No/NR 0 **skip to 15** Yes 1

a. *Is quantitative EF available?* NO 0 **skip to 14c** Yes 1

b. Lowest LV ejection fraction recorded: % **skip to 14d**

c. Qualitative description of ejection fraction:

- Normal..... N
- Mildly reduced.....M
- Decreased moderately.....D
- Severely reduced.....S
- None of the above.....O
- Unsure-Not available.....U

d. Time (months) from recording of above reported ejection fraction to the start of this hospitalization (or ER visit): .

e. Type of Imaging from which ejection fraction was obtained:

- 1. ECHO
- 2. MUGA
- 3. Catheterization with ventriculography
- 4. CT
- 5. MRI
- 6. Other
- 7. Unknown

C. MEDICAL HISTORY

	<u>No/NR</u>	<u>Yes</u>
15. Prior to this event was there a history of any of the following:		
a. Diagnosis of heart failure, <i>IF NO/NR then skip to 15d</i>	0 <input type="checkbox"/>	1 <input type="checkbox"/>
b. Prior hospitalization for heart failure	0 <input type="checkbox"/>	1 <input type="checkbox"/>
c. Treatment for heart failure	0 <input type="checkbox"/>	1 <input type="checkbox"/>
d. Valvular heart disease	0 <input type="checkbox"/>	1 <input type="checkbox"/>
e. Rheumatic heart disease (RHD)	0 <input type="checkbox"/>	1 <input type="checkbox"/>
f. Congenital heart disease	0 <input type="checkbox"/>	1 <input type="checkbox"/>
g. Coronary heart disease (ever)	0 <input type="checkbox"/>	1 <input type="checkbox"/>
h. Coronary heart disease (within year)	0 <input type="checkbox"/>	1 <input type="checkbox"/>
i. Angina	0 <input type="checkbox"/>	1 <input type="checkbox"/>

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- | | <u>No/NR</u> | <u>Yes</u> |
|---|----------------------------|----------------------------|
| j. Myocardial infarction | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| k. Atrial fibrillation/atrial flutter | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| l. Heart block or other bradycardia | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| m. Ventricular fibrillation or tachycardia | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| n. Hypertension | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| o. Diabetes | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| p. Chronic Obstructive Pulmonary Disease (COPD) | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| q. Cor pulmonale | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| r. Pulmonary hypertension | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| s. End Stage Renal Disease (ESRD) | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |

D. SURGICAL HISTORY

- | | <u>No/NR</u> | <u>Yes</u> |
|--|----------------------------|----------------------------|
| 16. Past cardiac procedures | | |
| a. CABG | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| b. Percutaneous coronary intervention (PCI) | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| c. Valve surgery | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| d. Pacemaker | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| e. Automatic Internal Cardiac Defibrillator (AICD) | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| f. Ablation for arrhythmia | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| g. Cardiac transplant | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| h. Ventricular Assist Device (VAD) | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |

E. HOSPITAL COURSE

- | | <u>No/NR</u> | <u>Yes</u> |
|---|----------------------------|----------------------------|
| 17. Current or Active Problems | | |
| a. Myocardial Infarction | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| b. Shock or Cardiogenic Shock | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| c. Ventricular Fibrillation, Cardiac Arrest or Asystole | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| d. Ventricular Tachycardia | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |

No/NR Yes

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- e. Atrial Fibrillation/Atrial Flutter 0 1
- f. COPD exacerbation 0 1
- g. Cardiac Surgery – CABG or valvular surgery 0 1
- h. Non-cardiac surgery 0 1
- i. Pulmonary Embolus 0 1
- j. Pneumonia 0 1
- k. Renal failure or renal insufficiency 0 1

F. PHYSICAL EXAM (at admission or at onset of event, depending on presentation of event)

18. First available weight or BMI 18a. 1= Weight in lbs
2= Weight in Kg
3= BMI

19. Did the patient have any of the following signs?

- | | <u>No</u> | <u>Yes</u> | <u>NR</u>
Not recorded |
|-------------------------------------|----------------------------|----------------------------|----------------------------|
| a. Jugular venous distension (JVD) | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 9 <input type="checkbox"/> |
| b. Crackles or rales | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 9 <input type="checkbox"/> |
| c. Wheezing | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 9 <input type="checkbox"/> |
| d. Rhonchi | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 9 <input type="checkbox"/> |
| e. S3 gallop | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 9 <input type="checkbox"/> |
| f. Lower extremity edema-unilateral | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 9 <input type="checkbox"/> |
| g. Lower extremity edema-bilateral | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 9 <input type="checkbox"/> |

G. DIAGNOSTIC TESTS (obtained during this visit/admission or within 24 hours of the visit)

20. Was a chest X-ray performed during this event? No/NR 0 Yes 1
skip to 21

If yes, did the patient have any of the following signs on chest x-ray at any time during this event?

- | | <u>No/NR</u> | <u>Yes</u> |
|--|----------------------------|----------------------------|
| a. Pulmonary edema or CHF | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| b. Cardiomegaly or Cardiothoracic ratio ≥ 0.5 | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> |

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No/NR Yes

c. Pulmonary vascular congestion or Interstitial edema 0 1

d. Bilateral or unilateral pleural effusion 0 1

21. Was a chest/lung CT scan or CT angiogram (CTA) performed during this hospitalization? 0 1

Skip to 22

If Yes, did the patient have any of the following signs on CT scan at any time during this hospitalization?

a. Pulmonary edema or pulmonary vascular congestion 0 1

b. Cardiomegaly 0 1

c. Bilateral or unilateral pleural effusion 0 1

d. Enlarged superior or inferior vena cava 0 1

e. Enlarged Pulmonary arteries 0 1

22. Was a transthoracic echocardiogram (TTE) performed? 0 1

Skip to 23

a. Date (mm/dd/yyyy) / /

b. Left Ventricular Ejection Fraction: %

<u>Record the following if present on echocardiogram:</u>	<u>None</u>	<u>Present</u>	<u>Mild</u>	<u>Mod</u>	<u>Severe</u>	<u>NR</u>
c. Left ventricular hypertrophy (LVH).....	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	9 <input type="checkbox"/>
d. Impaired LV systolic function	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	9 <input type="checkbox"/>
e. Impaired RV systolic function.....	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	9 <input type="checkbox"/>
f. Pulmonary hypertension	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	9 <input type="checkbox"/>
g. Diastolic dysfunction	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	9 <input type="checkbox"/>

23. Was a transesophageal echocardiogram (TEE) performed? 0 1

skip to 24

First transesophageal echocardiogram (TEE) performed after onset of event:

a. Date (mm/dd/yyyy) / /

b. Ejection fraction: b.1. LV % b.2. RV %

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No/NR

Yes

24. Was coronary angiography performed?

0

1

skip to 25

a. Date: (mm/dd/yyyy) //

b. LV Ejection fraction: %

No/NR

Yes

c. 70% or greater obstruction of any coronary artery

0

1

No/NR

Yes

25. Was a cardiac multiple-gated acquisition scan (MUGA) or RVG performed?

0

1

skip to 26

a. Ejection fraction: LV: %

b. RV: %

26. Was a cardiac Magnetic Resonance Imaging (MRI) performed? 0

1

skip to 27

a. Ejection fraction: LV: %

b. RV: %

27. Did any imaging/diagnostic test performed during this visit or within 24 hours of the visit show:

a. Ejection fraction: LV: %

No/NR

Yes

b. Stress test positive for ischemia?

0

1

c. Regional wall motion abnormalities

0

1

d. Dilated left ventricle

0

1

e. Dilated right ventricle

0

1

f. Impaired left ventricular systolic function

0

1

g. Left ventricular diastolic dysfunction

0

1

h. Ventricular Septal Defect (VSD)

0

1

i. Atrial Septal Defect (ASD)

0

1

j. Patent Ductus Arteriosus (PDA)

0

1

k. Artificial heart valve

0

1

l. Hypertrophic Obstructive Cardiomyopathy (HOCM)

0

1

m. Valvular Heart Disease

0

1

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H. LABORATORY TESTS

a. Worst*

b. Last

c. Upper Limit Normal

28. BNP (pg/mL) .

29. ProBNP (pg/mL) .

30. Troponin

Is there a troponin value available? No 0 Yes 1

a. Enter "<", if appropriate .

b. .

Skip 30c if no troponin available

c. If troponin value available, then what type of Troponin was this?

1. Troponin, type not specified
2. Troponin I
3. Troponin T
4. High Sensitivity Troponin (HS)
5. Unsure

a. Worst* = highest value except for hemoglobin, hematocrit and sodium

31. Sodium (mEq/L)

32. Serum creatinine (mg/dL) .

33. BUN (mg/dL)

34. Hemoglobin (g/dL) .

35. Hematocrit (%) .

I. TREATMENTS

36. Were any of the following treatments given during this visit?

No/NR

Yes

a. Cardioversion or Defibrillation

0

1

b. Aortic balloon pump

0

1

c. Percutaneous coronary intervention (PCI)

0

1

d. CPAP or BIPAP

0

1

e. Mechanical Ventilation

0

1

f. Thoracentesis (therapeutic or diagnostic)

0

1

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- g. Ventricular Assist Device (VAD)
- h. Heart transplant
- i. Hemodialysis or hemofiltration

<u>No/NR</u>	<u>Yes</u>
0 <input type="checkbox"/>	1 <input type="checkbox"/>
0 <input type="checkbox"/>	1 <input type="checkbox"/>
0 <input type="checkbox"/>	1 <input type="checkbox"/>

J. MEDICATIONS

A. Admission Medications

B. At Discharge

	<u>No/NR</u>	<u>Yes</u>		<u>No/NR</u>	<u>Yes</u>
37. Medication list available?	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
	Skip 38a-46a			Skip 38b-46b	
38. ACE inhibitors	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
39. Angiotensin II receptor Blockers	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
40. Beta blockers	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
41. Digitalis	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
42. Diuretics	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
43. Aldosterone blocker	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
44. Lipid lowering agents	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
45. Nitrates	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>
46. Hydralazine	0 <input type="checkbox"/>	1 <input type="checkbox"/>		0 <input type="checkbox"/>	1 <input type="checkbox"/>

47. Were any of the following medications given during this hospitalization?

	<u>No/NR</u>	<u>Yes</u>
a. IV inotropes	0 <input type="checkbox"/>	1 <input type="checkbox"/>
b. IV diuretics	0 <input type="checkbox"/>	1 <input type="checkbox"/>
c. Oral diuretics	0 <input type="checkbox"/>	1 <input type="checkbox"/>