

HF Uploader 3.7 Coding Instructions

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Specifications for Standard Version of HF

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Introduction

Due to limited time and resources, sites occasionally utilize the option of uploading patient data into the Patient Management Tool. With Uploader 2.0, you can upload all patient data into the current version of the HF PMT, creating patient forms automatically. The data elements, obtained from your current vendor or data collection system, will be uploaded in a batch form from an appropriately-formatted comma-delimited (.csv) text file. In order to use this time-saving functionality, we ask that your hospital create the .csv file for upload in a specified format provided by Quintiles in this coding manual.

Once the file is in the correct format and you have alerted the Help Desk that you wish to upload data, you will see an upload link when you log into the PMT, which you can utilize to upload your file and auto-generate PMT forms. Uploader 2.0 will only pull those data elements specified in the .csv file your site creates, after which you may need to complete the forms manually. During the upload, a “Duplicate Check” will take place. If a record in the upload file matches the Patient ID, Admit Date, Date of Birth, Sex, Diagnosis, and Discharge Date of a previously existing record in the database, it will be flagged as a possible Duplicate. Once a possible duplicate has been identified, you will be given the choice to Overwrite the existing record, Add as a New Admission, or Do Not Upload. The Uploader will also allow for the entry of medications; however it does not currently support adding the dosage and frequency of those medications.

To upload data into the Patient Management Tool, your site must compile information in the format described in this document. It is expected that your current vendor/IS department will help you to generate the file. Once the .csv file has been generated, you will need to log-in to your site’s HF PMT account via the internet to upload the file.

The uploader cannot be used to “remove” data by overwriting a value to blank. If an element is currently populated on the form, it will not be updated to blank if the upload file has a blank value in the element column.

Please print this document in color.

Required Data Elements

The following fields are the minimally required data elements needed in order to save the standard HF PMT data entry form as complete.

Legend

- Required elements are indicated in **Bold**
- **Red elements** are used in Achievement or Quality measures, but not required to save a form as complete.
- **Red & Bold elements** are required and used in Achievement or Quality Measures

Required Variables: HF	oh_ef	jc_arbdisc	hf_contra_icd_list
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patient_os_id	oh_ef_na	jc_arbdiscontra	hf_crt_prescribed
jc_arrdatetime	jc_lvsd	oh_warfarin_disc	hf_contra_crt
jc_admitdate	hfs_ekg_na	aha_anticoagtype	hf_contra_crt_list
aha_admitsource	aha_ekg_mor	hf_contra_warfarin_disc	jc_smokingcessation
jc_dob	jc_lvf	jc_betadisc	jc_actlevel
jc_gender	hfs_oralmeds	oh_betablocker_disc	jc_followup
hf_race	aha_ptambulatday2	oh_betablocker_disc	aha_followsched
sp_ethnic	aha_dvtprophylaxis	hf_classbb	hfs_fuvisitdate
dyn_medhist	aha_dvtpe	jc_betadiscontra	aha_fulocation
jc_hxsmoking	hfs_fluvacc	aha_betadiscontratype	aha_reasnofu
oh_priorhf	hfs_pnevacc	oh_aldosterone_disc	aha_phonesched
aha_diagnosis	jc_discdatetime	hf_contra_aldosterone_disc	aha_phone
dyn_atrialfib	hfs_inpatdeath	hf_contra_aldoster_disc_list	jc_sympworse
hf_atrialfFlutter	jc_disposition	hf_isosorbide	jc_diet
oh_heartrate	gs_othfacility	hf_contraisosorbide	jc_medications
aha_systolic	jc_comfortonly2	hf_othcontraisosorbide	jc_weightmonitor
aha_diastolic	oh_discbpsyst	aha_icdcounseling	oh_hfmgmnt
oh_scr	oh_discbpdias	aha_icdreason	hfs_referalaha
oh_scr_u	jc_acedisc	aha_noicdcounseling	hfs_provision
oh_scr_na	jc_acediscontra	hf_icd_prescribed	hfs_advancedcare
aha_ekg	aha_arni		

Formatting the file - Data for Uploader 2.3 must be submitted in the following file format:

The Basics

- Comma-delimited file (.csv) format
- Each .csv file may not contain more than 500 records of patient data
- Each row will contain data for **one record** (patient);
- Each row is separated by **carriage returns**
- Each column contains only one unique **Database Name**, no repetitions.

- Each column will contain values for different data elements; a sample order is given in the "**Data Elements**" sheet, but the uploader will accept any column order.
- Column names must match the **HF Data Element Name** specified in the "Data Elements" sheet
- Cell Values in the upload file must match the **Database Value** specified in the "Data Elements" sheet.
- **Empty cells** = non-submitted fields
- No **special characters** are allowed in cells outside of specifications
- Fields are separated with commas
- Fields must be delimited with double-quotes if the field itself contains commas
- Fields with embedded double-quote characters must be enclosed within double-quote characters, and the embedded double-quote characters must be represented by a pair of double-quote characters.
- Uploading a record with a patient_os_id that already exists will lead to that data being uploaded as a patient readmission for that patient_os_id
- The file should be uploaded, in general, for a period of **1 month** at a time - *More frequent uploads may cause unnecessary duplications of patients*
- Partial data may be uploaded however the file must contain the following:
 - **Required Data:** The following data must be included for each record being uploaded
 - Patient ID (patient_os_id) and Discharge Date (jc_discdatetime)
 - Column headers are also required for jc_admitdate and jc_dob
 - **Highly Recommended Data:** The following data is highly recommended to be included for each record being uploaded (This would enhance the level of error checking so that the uploader can accurately assess whether the patient record already exists in the system. The user will be asked to determine whether the patient in the upload file should overwrite the existing data or be uploaded as a readmission).
 - Admit Date (jc_admitdatetime), Age (aha_age), Gender (jc_gender), and Diagnosis (aha_diagnosis)
- Fields with the Element Type "MULTI-SELECT" should be entered in one column with all values separated by colons (i.e. 1:4 in the sample below).

Row 1 (required)

- Row 1 must specify the Data Element Name per the "Data Element" List, starting with patient_os_id in cell A1.
- All Data Element Names must be in lower case, listed in order and correctly spelled.
- Please ensure that there are no empty cells between the first and last Data Element Name

Row 2

- Starting with row 2 (cell A2), patient data should be listed per the allowable values in the "Data Element" List.

Note: Please check your file for possible duplicate admissions BEFORE submission!

Tip: If you are uploading multiple admissions for the same patient, a new form will be created under that same Patient ID. Therefore, it is important that you make sure that you are not uploading a patient admission that has already been entered into the system.

Sample HF Upload File (screenshot)

Below is a partial screenshot of a HF standard upload file in correct format (viewed in a CSV editing program):

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
patient_os_id	jc_arrdatetime	jc_arrdatetime_precision	jc_admitdate	jc_transothed	jc_admitsource	jc_admitttype	aha_location
test1	11/21/2003 22:35	5	11/22/2003	2	8	2	
test2	11/21/2003 18:15	5	11/21/2003	2	8	2	
test3	10/08/2003 12:02	5	10/08/2003		3	2	
test4	11/13/2003 11:23	5	11/13/2003	2	8	2	

If this file is created in Excel, it must be saved as a .csv file. Note that this screenshot only captures 7 elements, while the actual file will contain more elements.

Hint: Excel has a tendency to drop leading zeros and terminating decimals in cells containing numeric data. If you are creating the file in Excel, it is useful to change the format of numeric cells from “Number” to “Text.” To do so, right-click the cell and select “Format Cell.” Then select “Text” under the “Category” list. When finished, be sure to save the upload file as a .csv.

Data Elements

Column Explanations

- Data Element Description: Description of the element, as it appears on the form
- Data Element Name: Name of the element in the HF database. **Use this name for the column headings of the upload file.**
- Data Element Options Text: Available options for data elements, such drop-down lists or radio buttons. Included for reference only.
- Allowable Data Element Value: **These are the acceptable values for the upload file for each data element.**
- Upload Element Format: Information on the field format (i.e. alphanumeric vs. numeric)
- Max Field Length: The maximum number of characters allowed in each field
- Notes: Any additional information about formatting (i.e. MM/DD/YYYY).

Note: Your upload file will include column headings from the “Data Element Name” column and values matching the “Allowable Data Element Value” column. All other columns in the table are for reference only!

Data Element Description	Data Element Name	Data Element Options Text	Allowable Data Element Value	Element Format	Max Field Length	Notes	Measures
Patient ID	patient_os_id			Alphanumeric Text	17		
Hospital Arrival Date and Time	jc_arrdatetime			Date/Time		MM/DD/YYYY HH:MN	Quality
Arrival Date/Time Precision	jc_arrdatetime_precision	MM/DD/YYYY HH24:MM	5	Numeric			Quality
		MM/DD/YYYY	3				
		Unknown	0				
Arrival Location	acc_arvloc						
Admit Date	jc_admitdate			Date		MM/DD/YYYY	Achievement, Quality
Transferred from another ED	jc_transothed	Yes	1	Numeric			
		No	2				
Point of Origin for Admission or Visit	aha_admitsource	1 Non-Health Care Facility Point of Origin	2	Numeric			
		2 Clinic	3				
		4 Transfer From a Hospital (Different Facility)	5				
		5 Transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)	6				
		6 Transfer from another Health Care Facility	7				
		7 Emergency room	8				
		9 Information not available	10				
		F Transfer from Hospice and is Under a Hospice Plan of Care or Enrolled in a Hospice Program	14				
Admission Type (HF Core Measure)	jc_admittype	Emergency	2	Numeric			
		Urgent	3				
		Elective	4				

		Newborn	5				
		Trauma Center	6				
		Information not available	7				
Internal Tracking ID	aha_additionalid2			Alphanumeric Text	20		
Date of Birth	jc_dob			Date		MM/DD/YYYY	Achievement, Quality
Demographics: Age	aha_age			Numeric (Hidden)			
Gender	jc_gender	Male	1	Numeric			
		Female	2				
		Unknown	3				
Race	hf_race	American Indian or Alaska Native	3	MULTI-SELECT			Quality
		Black or African American	2				
		White	5				
		Asian	4				
		Native Hawaiian or Pacific Islander	6				
		UTD	8				
If race "Asian" is checked	jc_asian	Asian Indian	1	MULTI-SELECT			
		Chinese	2				
		Filipino	3				
		Japanese	4				
		Korean	5				
		Vietnamese	6				
		Other Asian	7				
If race "Native Hawaiian or Pacific Islander" is checked	jc_hawpac	Native Hawaiian	1	MULTI-SELECT			
		Guamanian or Chamorro	2				
		Samoan	3				
		Other Pacific Islander	4				
If "Hispanic Ethnicity" yes,	jc_hisp	Mexican, Mexican American, Chicano/a	1	MULTI-SELECT			
		Puerto Rican	2				
		Cuban	3				
		Another Hispanic, Latino or Spanish Origin	4				

Hispanic Ethnicity	sp_ethnic	Yes	1	Numeric			
		No/UTD	2				
Payment Source	jc_pmtsrece	Medicare (Title 18)	1	MULTI-SELECT			
		Medicaid (Title 19)	2				
		Medicare-Private/HMO/Other	5				
		Private/HMO/Other	3				
		No Insurance/Not Documented/UTD	4				
Patient ID 2	jc_ptid2			Alphanumeric Text	20		
Patient ID Type	jc_ptidtype	HIC #	2	Numeric			
		Social Security #	3				
		Other ID	4				
Zip Code	jc_zip1			Numeric	5		
Zip Code Extension	jc_zip2			Numeric	4		
Homeless (Historic)	jc_homeless		(Null) or 1	Numeric			
Medical History (Select All that Apply)	dyn_medhist	Anemia	14	MULTI-SELECT			Quality
		Atrial Fib (Chronic or Recurrent)	1				
		Atrial Flutter (Chronic or Recurrent)	2				
		CAD	9				
		CardioMEMs (implantable hemodynamic monitor)	29				
		COPD or Asthma	3				
		CRT-D (cardiac resynchronization therapy with ICD)	27				
		CRT-P (cardiac resynchronization therapy-pacing only)	26				
		CVA/TIA	11				
		Depression	19				
		Diabetes	31				
		Dialysis (chronic)	16				

		Familial hypercholesterolemia	32			
		Heart failure	13			
		Hyperlipidemia	6			
		Hypertension	7			
		ICD only	12			
		Pacemaker	15			
		Peripheral Vascular Disease	8			
		Prior CABG	23			
		Prior MI	10			
		Prior PCI	22			
		Renal insufficiency - chronic (SCr>2.0)	17			
		Sleep-Disordered Breathing	30			
		Valvular Heart Disease	24			
		Ventricular assist device	28			
Medical History - None	dyn_medhistnone		(Null) or 1	Boolean		
Sleep-Disordered Breathing Type	sleep_type	Obstructive	1	MULTI-SELECT		
		Central	2			
		Mixed	3			
		Unknown/Not Documented	4			
Sleep-Disordered Breathing Equipment Used at Home	sleep equip	O2	1	MULTI-SELECT		
		CPAP	2			
		Adaptive Servo-Ventilation	3			
		None	4			
		Unknown/Not Documented	5			
Diabetes Type	dmttype	Type I	1	Single-Select		
		Type II	2			
Diabetes Duration	dmduration	<5 years	1	Single-Select		
		5 - <10 years	2			
		10 - <20 years	3			
		>=20 years	4			
		Unknown	5			

History of cigarette smoking? (in the past 12 months)	jc_hxsmoking	Yes	1	Numeric			
		No	2				
Ischemic/CAD	oh_ischemic		(Null) or 1	Numeric			
Non-Ischemic	oh_nonischemic		(Null) or 1	Numeric			
Non-Ischemic etiology	oh_nonischemic_etiology	Hypertensive	1	MULTI-SELECT			
		Alcohol/other drug	3				
		Chemotherapy	4				
		Viral	5				
		Postpartum	6				
		Familial	7				
		Other Etiology	8				
		Unknown Etiology	9				
HF Hospital admissions	oh_hfhospadm	0	1	Numeric			
		1	2				
		2	3				
		>2	4				
		Unknown	5				
Known history of HF prior to this admission?	oh_priorhf	Yes	1	Numeric			Quality
		No	2				
Patient listed for transplant	oh_transplant		(Null) or 1	Numeric			
Heart Failure Diagnosis	aha_diagnosis	Heart Failure, primary diagnosis, with CAD	130				Achievement, Quality
		Heart Failure, primary diagnosis, no CAD	4				
		Heart Failure, Secondary Diagnosis	3				
Atrial Fib	dyn_atrialfib	Yes	1	Numeric			Quality
		No	2				
Documented as New Onset - Atrial Fib	dyn_atrialfib_new		(Null) or 1	Numeric			

Atrial Flutter (At presentation or during hospitalization)	hf_atrialflutter	Yes No	1 2	Numeric			Quality
Documented as New Onset – Atrial Flutter	hf_atrialflutter_new		(Null) or 1	Numeric			
New Diagnosis of Diabetes	aha_diagdm	Yes No Not Documented	1 2 3				
Basis for Diagnosis	aha_diagdmbasis	HbA1c Fasting Blood Sugar Oral Glucose Tolerance Test Other	1 2 3 4	Numeric			
Characterization of HF	oh_hfcharacter	Acute pulmonary edema Dizziness/syncope Dyspnea Pulmonary congestion Volume overload/Weight Gain Worsening fatigue Other ICD Shock/Sustained Ventricular Arrhythmia	2 3 8 10 9 5 7 11	Numeric			
Other Conditions Contributing to HF Exacerbation	dyn_othercondition	Ischemia/ACS Uncontrolled HTN Pneumonia/respiratory process Worsening renal failure Arrhythmia Noncompliance - dietary Noncompliance - medication Other	1 2 3 4 5 6 7 8	MULTI-SELECT			
Medications at Admission							
Patient on no meds prior to admission	aha_nopriormeds		(Null) or 1	Numeric			

ACE inhibitor	oh_ace_inhibitor		(Null) or 1	Numeric			
Aldosterone antagonist	oh_aldosterone_ant		(Null) or 1	Numeric			
Angiotensin receptor blocker	oh_arb		(Null) or 1	Numeric			
Angiotensin Receptor Neprilysin Inhibitor (ARNI)	oh_arni		(Null) or 1	Numeric			
Antiarrhythmic	oh_antiarrhythmic		(Null) or 1	Numeric			
Antiplatelet	oh_antiplatelet		(Null) or 1	Numeric			
Aspirin	oh_aspirin		(Null) or 1	Numeric			
Beta-Blocker	aha_bbprior						
Ca channel blocker	oh_ca_channel_block		(Null) or 1	Numeric			
Anti-hyperglycemic medications:	oh_dm		(Null) or 1	Numeric			
Anti-hyperglycemic medications	dmmedspecadm	DPP-4 Inhibitors	1	MULTI-SELECT			
		GLP-1 receptor agonist	2				
		Insulin	3				
		Metformin	4				
		SGLT2 Inhibitor	5				
		Sulfonylurea	6				
		Thiazolidinedione	7				
		Other oral agents	8				
		Other injectable/subcutaneous agents	9				
Digoxin	oh_digoxin		(Null) or 1	Numeric			
Diuretic	oh_diuretic		(Null) or 1	Numeric			
Thiazide	oh_thiazide		(Null) or 1	Numeric			
Loop	oh_loop		(Null) or 1	Numeric			
Hydralazine	oh_hydralazine		(Null) or 1	Numeric			
Lipid lowering agent (Any)	oh_lipid_lowering_agent		(Null) or 1	Numeric			
Statin	oh_statin		(Null) or 1	Numeric			
Other Lipid lowering agent	oh_lipid_lwrng_agent_othe r		(Null) or 1	Numeric			
Omega-3 fatty acid supplement	hfs_omega		(Null) or 1	Numeric			
Renin Inhibitor	hfs_renin		(Null) or 1	Numeric			

Nitrate	oh_nitrate		(Null) or 1	Numeric			
Anticoagulation therapy	oh_warfarin		(Null) or 1	Numeric			
Type of Anticoagulation Therapy	oh_anticoag	Warfarin	1	Numeric			
		Direct Thrombin Inhibitor	2				
		Factor Xa Inhibitor	3				
		Other	4				
Admission Medications: Other	oh_admit_med_other		(Null) or 1	Numeric			
Symptoms (closest to admission)	dyn_admsymptoms	Chest pain	1	MULTI-SELECT			
		Decreased appetite/early satiety	2				
		Dizziness/lightheadedness/syncope	3				
		Dyspnea at rest	4				
		Dyspnea on exertion	5				
		Fatigue	6				
		Orthopnea	7				
		Palpitations	8				
		PND	9				
Height	oh_height			Numeric	3		
Height units	oh_heightunits	in	1	Numeric			
		cm	2				
Height Not Documented	oh_height_nwd		(Null) or 1	Numeric			
Admission Weight	oh_weight			Numeric	3		
Weight units	oh_weightunits	lbs	1	Numeric			
		kg	2				
Weight Not Documented	oh_weight_nwd		(Null) or 1	Numeric			
Waist Circumference	aha_waist			Numeric	3		
Waist Circumference units	aha_waistunits	in	1	Numeric			
		cm	2				

Not Documented	aha_waist_nd		(Null) or 1	Numeric			
BMI	aha_bmi			Decimal	5		
Heart Rate	oh_heartrate			Numeric	3		
Heart Rate ND	oh_hr_nd		(Null) or 1	Numeric			
Blood Pressure: Systolic	aha_systolic			Numeric	3		
Blood Pressure: Diastolic	aha_diastolic			Numeric	3		
Blood Pressure ND	aha_bp_nd		(Null) or 1	Numeric			
Total Cholesterol	oh_chol_total			Numeric	4		
HDL	oh_chol_hdl			Numeric	3		
Lipids: LDL	aha_ldl			Numeric	3		
Triglycerides	oh_triglycerides			Numeric	4		
Lipids Not Done	oh_lipid_na		(Null) or 1	Numeric			
HbA1C	oh_hba1c			Numeric	4		
HbA1C Not Done	oh_hba1c_na		(Null) or 1	Numeric			
Respiratory Rate	oh_resprate			Numeric	2		
JVP	oh_jvd	Yes	1	Numeric			
		No	2				
		Unknown	3				
JVP cm	oh_jvd_cm	N/A	22	Numeric			
		1	2				
		2	3				
		3	4				
		4	5				
		5	6				
		6	7				
		7	8				
		8	9				
		9	10				
		10	11				
		11	12				
		12	13				
		13	14				
		14	15				
		15	16				
		16	17				
		17	18				

		18		19			
		19		20			
		20		21			
Rales	oh_rales	Yes		1	Numeric		
		No		2			
		Unknown		3			
Rales Location	oh_rales_location	< 1/3		2	Numeric		
		>= 1/3		3			
		N/A		4			
Lower extremity edema	oh_lowerextremity_edema	Yes		1	Numeric		
		No		2			
		Unknown		3			
Lower extremity edema degree	oh_lowerextremity_edema_deg	trace		2	Numeric		
		1+		3			
		2+		4			
		3+		5			
		4+		6			
		N/A		7			
Sodium value	oh_sodium				Numeric		
Sodium units	oh_sodium_u	mEq/L		2	Numeric		
		mmol/L		3			
		mg/dL		4			
NA Not Drawn	oh_sodium_na		(Null) or 1		Numeric		
Serum Creatinine	oh_scr				Numeric		
Serum Creatinine Units	oh_scr_u	mg/dL		2	Numeric		
		micromol/L		3			
SCr Not Drawn	oh_scr_na		(Null) or 1		Numeric		
Hemoglobin	oh_hemoglobin				Numeric		
Hemoglobin units	oh_hemoglobin_u	g/dL		2	Numeric		
		g/L		3			
HGb Not Drawn	oh_hemoglobin_na		(Null) or 1		Numeric		
BUN	oh_bun				Numeric	3	
BUN Units	oh_bun_units	mg/dL		2	Numeric		
		umol/L		3			

BUN not done	oh_bun_na		(Null) or 1	Numeric			
Albumin	hfs_albumin			Numeric	4		
Albumin Units	hfs_albumin_u	g/dL	1	Numeric			
		g/L	2				
Albumin not available	hfs_albumin_na		(Null) or 1	Numeric			
BNP	oh_bnp			Numeric			
BNP Units	oh_bnp_units	pg/mL	2	Numeric			
		pmol/L	3				
		ng/L	4				
BNP Not Drawn	oh_bnp_na		(Null) or 1	Numeric			
NBNP	oh_nbnp			Numeric			
NBNP Units	oh_nbnp_units	pg/mL	2	Numeric			
		ng/L	3				
NBNP Not Drawn	oh_nbnp_na		(Null) or 1	Numeric			
Troponin	oh_troponin			Numeric			
Troponin units	oh_troponin_u	ng/mL	2	Numeric			
		ug/L	3				
Troponin Not Drawn	oh_troponin_na		(Null) or 1	Numeric			
Troponin: T and I	oh_labs_tandi	T	1	Numeric			
		I	2				
Troponin: Normal vs Abnormal	oh_labs_troponin_n_abn	Normal	1	Numeric			
		Abnormal	2				
K	aha_potassium_adm			Numeric	2		
K: units	aha_potassium_u_adm	mEq/L	1	Numeric			
		mmol/L	2	Numeric			
		mg/dL	3	Numeric			
K: Not Available	aha_potassium_adm_na		(Null) or 1	Numeric			
Ferritin	oh_ferritin			Decimal	2		
EKG QRS Duration (ms)	aha_ekg			Numeric	3		Quality
EKG Not Available	hfs_ekg_na		(Null) or 1	Numeric			
EKG QRS Morphology	aha_ekg_mor	Normal	1	Numeric			
		LBBB	2				
		RBBB	3				
		NS-IVCD	4				
		Paced	6				

		Not Available	5				
Fasting Blood Glucose (mg/dL)	aha_fastingblood			Numeric	4		
Fasting Blood Glucose Not Available	hfs_fastingblood_na		(Null) or 1	Numeric			
Procedures	aha_procedures	No Procedures	1	MULTI-SELECT			Quality
		Atrial Fibrillation Ablation or Surgery	126				
		Cardiac Cath/Coronary angiography	2				
		Cardiac Valve Surgery	11				
		Cardioversion	115				
		CardioMEMs (implantable hemodynamic monitor)	127				
		Coronary artery bypass graft	10				
		CRT-D (cardiac resynchronization therapy with ICD)	113				
		CRT-P (cardiac resynchronization therapy-pacing only)	125				
		Dialysis	123				
		Dialysis or Ultrafiltration unspecified	116				
		Intra-aortic balloon pump	117				
		ICD only	114				
		Left Ventricular assist device	118				
		Mechanical ventilation	119				
		Pacemaker	112				
		PCI	3				
		PCI with stent	4				
		Right Cardiac Catheterization	108				
		Stress Testing	122				
		Transplant (Heart)	120				
		Ultrafiltration	124				
Ejection Fraction Percentage	oh_ef			Numeric	2		Achievement, Quality
Ejection Fraction Obtained	oh_ef_obtained	this admission	2	Numeric			

		W/in the last year	5			
		> 1 year ago	6			
Ejection Fraction Not Available	oh_ef_na	Not applicable	7	Numeric		Achievement, Quality
		Normal or mild dysfunction	2			
		Qualitative moderate/severe dysfunction	3			
		Performed/results not available	4			
		Planned after discharge	5			
		Not performed	6			
Ejection Fraction - Qualitative Obtained:	dyn_ef_na_obtained	This Admission	2	Numeric		
		W/in the last year	3			
		> 1 year ago	4			
Documented LVSD	jc_lvsd	Yes	1	Numeric		
		No	2			
LVF	jc_lvf	Yes	1	Numeric		Achievement
		No	2			
		Not done, reason documented	3			
Oral Medications during hospitalization	hfs_oralmeds			MULTI-SELECT		
		Ace Inhibitor	1			
		ARB	2			
		Beta Blocker	3			
		Aldosterone antagonist	4			
		Hydralazine nitrate	5			
		None	6			
		ARNI	7			
Parenteral Therapy - Continuous infusion	hfs_ptcontinfus		(Null) or 1	Numeric		
Parenteral Therapy - Dobutamine	hfs_ptdobutamine		(Null) or 1	Numeric		
Parenteral Therapy - Dopamine	hfs_ptdopamine		(Null) or 1	Numeric		
Parenteral Therapy - Intermittent bolus	hfs_ptinterbolus		(Null) or 1	Numeric		

Parenteral Therapy - Iron	hfs_iron		(Null) or 1	Numeric			
Parenteral Therapy - Loop diuretics	hfs_ptloop		(Null) or 1	Numeric			
Parenteral Therapy - Milrinone	hfs_ptmilrinone		(Null) or 1	Numeric			
Parenteral Therapy - Nesiritide	hfs_ptnesiritide		(Null) or 1	Numeric			
Parenteral Therapy - Nitroglycerine	hfs_ptnitroglycerine		(Null) or 1	Numeric			
Parenteral Therapy - None	hfs_ptnone		(Null) or 1	Numeric			
Parenteral Therapy - Vasopressin antagonist	hfs_ptvasoant		(Null) or 1	Numeric			
Parenteral Therapy - Other IV vasodilator	hfs_otheriv		(Null) or 1	Numeric			
Was the patient ambulating at the end of hospital day 2?							Quality
	aha_ptambulatday2	Yes	1	Numeric			
		No	2				
		Not Documented	3				
Was DVT prophylaxis initiated by the end of hospital day 2?							Quality
	aha_dvtprophylaxis	Yes	1	Numeric			
		No/ Not Documented	2				
		Contraindicated	3				
If Yes	hfs_dvtyes	Low dose unfractionated heparin (LDUH)	1	MULTI-SELECT			
		Low molecular weight heparin (LMWH)	2				
		Warfarin	3				
		Intermittent pneumatic compression devices (IPC)	4				
		Factor Xa Inhibitor	6				
		Direct thrombin inhibitor	7				
		Venous foot pumps (VFP)	8				
		Other	9				

Was DVT or PE (pulmonary embolus) documented?	aha_dvtpe	Yes	1	Numeric			
		No/Not Documented	2				
Influenza Vaccination	hfs_fluvacc	Influenza vaccine was given during this hospitalization during the current flu season	1	Numeric			Quality
		Influenza vaccine was received prior to admission during the current flu season, not during this hospitalization	2				
		Documentation of patient's refusal of influenza vaccine	3				
		Allergy/sensitivity to influenza vaccine or if medically contraindicated	4				
		Vaccine not available	5				
		None of the above/Not documented/UTD	6				
Pneumococcal Vaccination	hfs_pnevacc	Pneumococcal vaccine was given during this hospitalization	1				Quality
		Pneumococcal vaccine was received in the past, not during this hospitalization	2				
		Documentation of patient's refusal of pneumococcal vaccine	3				
		Allergy/sensitivity to pneumococcal vaccine	4				
		None of the above/Not documented/UTD	5				
Discharge Date and Time	jc_discdatetime			Date/Time		MM/DD/YYYY HH:MN	Achievement, Quality
Discharge Date/Time Precision	jc_discdatetime_precision	MM/DD/YYYY HH24:MM	5	Numeric			
		MM/DD/YYYY	3				
		Unknown	0				

For patients discharged on or after 04/01/2011: What was the patient's discharge disposition on the day of discharge?	jc_disposition	1 – Home	1	Numeric			Achievement, Quality
		2 – Hospice – Home	2				
		3 – Hospice – Health Care Facility	3				
		4 – Acute Care Facility	4				
		5 – Other Health Care Facility	5				
		6 – Expired	6				
		7 – Left Against Medical Advise/AMA	7				
		8 – Not Documented or Unable to Determine (UTD)	8				
If Other Health Care Facility	gs_othfacility	A - Skilled Nursing Facility (SNF)	1	Numeric			
		B - Inpatient Rehabilitation Facility (IRF)	2				
		C - Long Term Care Hospital (LTCH)	3				
		D - Intermediate Care facility (ICF)	4				
		Other	5				
If Home, special discharge circumstances	aha_special	Homeless	1	Numeric			
		Prison/Incarcerated	2				
		International	3				
		None/UTD	4				
		Home Health Care	5				
If expired, primary cause of death	oh_if_exp_death	Cardiovascular	1	Numeric			
		Non-cardiovascular	2				
		Unknown	3				
Primary cause of death - cardiovascular	oh_expired_cardio	Acute coronary syndrome	2	Numeric			

		Worsening heart failure	4				
		Sudden death	3				
		Other cardiovascular	5				
Comfort Measures Only?	jc_comfortonly	Yes	1	Numeric			Achievement, Quality
		No	2				
Earliest Documentation of Comfort Measures Only?	jc_comfortonly2	Day 0 or 1	1	Numeric			Achievement, Quality
		Day 2 or after	2				
		Timing unclear	3				
		Not Documented/UTD	4				
Symptoms	oh_symptoms	Worse	2	Numeric			
		Unchanged	3				
		Better, symptomatic	4				
		Better, asymptomatic	5				
		Unable to determine	6				
Discharge Weight	oh_discweight			Numeric	20-999		
Discharge Weight Units	oh_discweightunits	lbs	1	Numeric			
		kg	2				
Not Well Documented	oh_discweight_nwd		(Null) or 1	Boolean			
Discharge Heart rate	oh_dischr			Numeric	0-399		
Discharge Heart Rate ND	oh_dischrnd		(Null) or 1	Boolean			
Discharge Blood Pressure Systolic - Supine	oh_discbpsyst			Numeric	3		
Discharge Blood Pressure Diastolic - Supine	oh_discbpdias			Numeric	3		
Blood Pressure ND	oh_discbp_nd		(Null) or 1	Numeric			
JVP at Discharge	oh_jvddisc	Yes	1	Numeric			
		No	2				
		Unknown	3				
JVP cm at Discharge	oh_jvdcmdisc	N/A	22	Numeric			
		1	2				

		2	3			
		3	4			
		4	5			
		5	6			
		6	7			
		7	8			
		8	9			
		9	10			
		10	11			
		11	12			
		12	13			
		13	14			
		14	15			
		15	16			
		16	17			
		17	18			
		18	19			
		19	20			
		20	21			
Rales at discharge	oh_alesdisc	Yes	1	Numeric		
		No	2			
		Unknown	3			
Rales location at discharge	oh_aleslocdis	< 1/3	2	Numeric		
		>= 1/3	3			
		N/A	4			
Edema at discharge	oh_edemadisc	Yes	1	Numeric		
		No	2			
		Unknown	3			
Edema degree at discharge	oh_edema_deg_disc	trace	2	Numeric		
		1+	3			
		2+	4			
		3+	5			
		4+	6			
		N/A	7			
BUN at discharge	hfs_bun_dc			Numeric	3	
Bun DC units	hfs_bun_dc_u	mg/dL	1	Numeric		

		micromol/L	2				
Bun DC N/A	hfs_bun_dc_na		(Null) or 1	Numeric			
BNP at Discharge	oh_bnp_disc			Numeric			
BNP Units at Discharge	oh_bnp_units_disc	pg/mL	2	Numeric			
		pmol/L	3				
		ng/L	4				
BNP at Discharge Not Drawn	oh_bnp_disc_na		(Null) or 1	Numeric			
Serum Creatinine at Discharge	oh_scr_disc			Numeric			
Serum Creatinine Units at Discharge	oh_scr_u_disc	mg/dL	2	Numeric			
		micromol/L	3				
SCr at Discharge Not Drawn	oh_scr_disc_na		(Null) or 1	Numeric			
Na (Sodium)	oh_sodium_disc			Numeric	3		
Units	oh_sodium_u_disc	mEq/L	2	Numeric			
		mmol/L	3				
		mg/dL	4				
Sodium Not Done	oh_sodium_disc_na		(Null) or 1	Numeric			
NBNP (pg/mL)	aha_nbnp_disc			Numeric	4		
NBNP Not Documented	aha_nbnp_disc_na		(Null) or 1	Numeric			
K (Potassium)	oh_potassium_disc			Numeric			
Units	oh_potassium_u_disc	mEq/L	2	Numeric			
		mmol/L	3				
		mg/dL	4				
Potassium not Done	oh_potassium_disc_na		(Null) or 1	Numeric			
ACEI prescribed at discharge	jc_acedisc	Yes	1	Numeric			Achievement
		No	2				
Medications/Therapies : ACE Specify	jc_acespe	Accupril (Quinapril HCl)	2	Numeric			
		Aceon	4				
		Altace (Ramipril)	5				
		Capoten (Captopril)	9				
		Lotensin (Benazepril HCl)	26				

		Mavik	29				
		Monopril (Fosinopril sodium)	32				
		Prinivil (Lisinopril)	35				
		Vasotec (Enalapril maleate)	47				
		Zestril (Lisinopril)	50				
		Other	51				
Contraindication to ACEI at discharge	jc_acediscontra	Yes	1	Numeric			Achievement
		No	2				
Contraindications or Other Documented Reason(s) For Not Providing ACEI:	aha_acediscontraspec	Hypotensive patient who was at immediate risk of cardiogenic shock	1	MULTI-SELECT			Achievement
		Hospitalized patient who experienced marked azotemia	2				
		Other	3				
		Patient Reason	4				
		System Reason	5				
ARB prescribed at discharge	jc_arbdisc	Yes	1	Numeric			Achievement
		No	2				
ARB	aha_arb	Atacand (Candesartan)	2	Numeric			
		Avalide, Avapro (Irbesartan)	3				
		Micardis (Telmisartan)	6				
		Cozaar, Hyzaar (Losartan)	4				
		Diovan, Diovan HCT (Valsartan)	5				
		Teveten (Eprosartan)	7				
		Verdia (Tasosartan)	8				
		Other ARB	9				
Contraindication to ARB at discharge	jc_arbdiscontra	Yes	1	Numeric			Achievement
		No	2				
Contraindication or Other Documented Reason(s) For Not Providing ARB	aha_arbdiscontraspec	Hypotensive patient who was at immediate risk of cardiogenic shock	1	MULTI-SELECT			Achievement

		Hospitalized patient who experienced marked azotemia	2			
		Other	3			
		Patient Reason	4			
		System Reason	5			
ARNI prescribed at discharge	jc_amidisc	Yes	1	Numeric		
		No	2			
ARNI	aha_arni	Entresto (sacubitril/valsartan)	1	Numeric		
		Other	2			
		Unknown	3			
Contraindication to ARNI at discharge	jc_arnidiscontra	Yes	1	Numeric		
		No	2			
Contraindications or Other Documented Reasons(s) for Not Providing ARNI at Discharge:	aha_arnidiscontraspec	ACE inhibitor use within the prior 36 hours	1			
		Allergy	2			
		Hyperkalemia	3			
		Hypotension	4			
		Other medical reasons	5			
		Patient Reason	6			
		Renal dysfunction defined as creatinine > 2.5 mg/dL in men or > 2.0 mg/dL in women	7			
		System Reason	8			
Reasons for not switching to ARNI at discharge:	aha_reasonsarni			Single-Select		
		Yes	1			
		No	2			
		ARNI was prescribed at discharge	3			
New onset heart failure	aha_arnionset			Boolean		
NYHA Class I	aha_arniclass1			Boolean		
NYHA Class IV	aha_arniclass4			Boolean		

Not previously tolerating ACEI or ARB	aha_arniaceiarb			Boolean			
ASA prescribed at discharge	jc_asadisc	Yes	1	Numeric			
		No	2				
Contraindication(s) to ASA at discharge	jc_asadiscontra	Yes	1	Numeric			
		No	2				
Anticoagulation therapy at discharge	oh_warfarin_disc	Yes	1	Numeric			Quality
		No	2				
Anticoagulation therapy type	aha_anticoagtype	Warfarin	1	Numeric			
		Direct thrombin inhibitor	2				
		Factor Xa inhibitor	3				
		Other	4				
Contraindication to Anticoagulation therapy at Discharge	hf_contra_warfarin_disc	Yes	1	Numeric			Quality
		No	2				
Anticoagulation therapy at discharge - Medication	oh_warfarin_disc_medication	Coumadin (warfarin)	1	Numeric			
		argatroban	2				
		Pradaxa (dabigatran)	3				
		Iprivask (desirudin)	4				
		Refludan (lepirudin)	5				
		Other Direct Thrombin Inhibitor	6				
		Arixtra (fondaparinux)	7				
		Bevyxxa (betrixaban)	13				
		Eliquis (apixaban)	11				
		Xarelto (rivaroxaban)	8				
		Other factor Xa Inhibitor	9				
		Other	10				
Anticoagulation therapy contraindication(s) (check all that apply)	hf_contra_warfarin_disc_list	Allergy to or complication r/t anticoagulation therapy (hx or current)	1	MULTI-SELECT			

		Risk for bleeding or discontinued due to bleeding	3			
		Patient/Family refused	7			
		Serious side effect to medication	8			
		Terminal illness/Comfort Measures Only	9			
Clopidogrel at Discharge	oh_clopidogrel_disc	Yes	1	Numeric		
		No	2			
Contraindication to Clopidogrel	dyn_contra_clopidogrel_disc	Yes	1	Numeric		
		No	2			
Other antiplatelets Prescribed at Discharge?	aha_antiplateletsyesno	Yes	1	Numeric		
		No	2			
Other Antiplatelets (first dropdown list)	aha_antiplatelets1	Ticlid (Ticlopidine)	6	Numeric		
		Aggrenox (Dipyridamole)	5			
		Prasugrel (Effient)	7			
		Brilinta (Ticagrelor)	9			
		Other	8			
Other Antiplatelets (second dropdown list)	aha_antiplatelets2	Ticlid (Ticlopidine)	6	Numeric		
		Aggrenox (Dipyridamole)	5			
		Prasugrel (Effient)	7			
		Brilinta (Ticagrelor)	9			
		Other	8			
Beta blocker prescribed at discharge	jc_betadisc	Yes	1	Numeric		Achievement
		No	2			
If yes, Class of Beta Blocker	hf_classbb	Evidence-Based Beta Blocker	1	Numeric		Achievement
		Non Evidence-Based Beta Blocker	2			
		Unknown Class	3			

Beta Blocker at Discharge	oh_betablocker_disc	Bisoprolol	3	Numeric		Achievement
		Blocadren (Timolol maleate)	9			
		Coreg (Carvedilol)	4			
		Inderal (Propranolol HCl)	11			
		Kerlone (Betaxolol HCl)	12			
		Levatol (Penbutolol sulfate)	13			
		Lopressor (Metoprolol)	5			
		Sectral (Acebutolol HCl)	14			
		Tenormin (Atenolol)	2			
		Toprol (Metoprolol succinate)	6			
		Visken (Pindolol)	15			
		Other	7			
Contraindication(s) to Beta blockers at discharge	jc_betadiscontra	Yes	1	Numeric		Achievement
		No	2			
Contraindications or Other Documented Reason(s) For Not Providing Beta Blockers:	aha_betadiscontratype	Low blood pressure	1	MULTI-SELECT		Achievement
		Fluid overload	2			
		Asthma	3			
		Patient recently treated with an intravenous positive inotropic agent	4			
		Other	5			
		Patient Reason	6			
		System Reason	7			
Aldosterone antagonist at discharge	oh_aldosterone_disc	Yes	1	Numeric		Quality
		No	2			
If Yes, Medication	hf_aldosterone	Aldactone (Spironolactone)	1	Numeric		
		Inspra (Eplerenone)	2			

Contraindication to or reason against Aldosterone antagonist at Discharge	hf_contra_aldosterone_disc	Yes	1	Numeric		Quality
		No	2			
Aldosterone antagonist contraindication(s) (check all that apply)	hf_contra_aldoster_disc_list	Allergy due to aldosterone receptor antagonist	1	MULTI-SELECT		Quality
		Hyperkalemia	2			
		Renal dysfunction defined as creatinine >2.5 mg/dL in men or >2.0 mg/dL in women	3			
		Other medical reasons	7			
		Other contraindications	4			
		Patient Reason	5			
		System Reason	6			
Anti-hyperglycemic Medications Prescribed at Discharge?	presdmtx	Yes	1	Single-Select		
		No	2			
		NC	3			
Anti-hyperglycemic Medication Class 1	classdmtx1	Biguanide	1	Single-Select		
		DPP-4 Inhibitor	2			
		GLP-1 receptor agonist	3			
		Insulin	4			
		SGLT2 Inhibitor	5			
		Sulfonylurea	6			
		Thiazolidinedione	7			
		Other subcutaneous/injectable agents	8			
		Other oral agents	9			
Anti-hyperglycemic Medication List 1	meddmtx1	Metformin	1	Single-Select		
		Alogliptin	2			
		Linagliptin	3			

		Saxagliptin	4			
		Sitagliptin	5			
		Dulaglutide	6			
		Exenatide	7			
		Exenatide extended release	8			
		Liraglutide	9			
		Lixisenatide	10			
		Semaglutide	12			
		Insulin	13			
		Canagliflozin	14			
		Dapagliflozin	15			
		Empagliflozin	16			
		Ertugliflozin	17			
		Glimepiride	18			
		Glipizide	19			
		Glyburide	20			
		Pioglitazone	21			
		Rosiglitazone	22			
		Other subcutaneous/injectable agents	23			
		Other oral agents	24			
Anti-hyperglycemic Medication Class 2	classdmtx2	Biguanide	1	Single-Select		
		DPP-4 Inhibitor	2			
		GLP-1 receptor agonist	3			
		Insulin	4			
		SGLT2 Inhibitor	5			
		Sulfonylurea	6			
		Thiazolidinedione	7			
		Other subcutaneous/injectable agents	8			
		Other oral agents	9			
Anti-hyperglycemic Medication List 2	meddmtx2	Metformin	1	Single-Select		
		Alogliptin	2			
		Linagliptin	3			
		Saxagliptin	4			
		Sitagliptin	5			

		Dulaglutide	6			
		Exenatide	7			
		Exenatide extended release	8			
		Liraglutide	9			
		Lixisenatide	10			
		Semaglutide	12			
		Insulin	13			
		Canagliflozin	14			
		Dapagliflozin	15			
		Empagliflozin	16			
		Ertugliflozin	17			
		Glimepiride	18			
		Glipizide	19			
		Glyburide	20			
		Pioglitazone	21			
		Rosiglitazone	22			
		Other subcutaneous/injectable agents	23			
		Other oral agents	24			
Anti-hyperglycemic Medication Class 3	classdmtx3	Biguanide	1	Single-Select		
		DPP-4 Inhibitor	2			
		GLP-1 receptor agonist	3			
		Insulin	4			
		SGLT2 Inhibitor	5			
		Sulfonylurea	6			
		Thiazolidinedione	7			
		Other subcutaneous/injectable agents	8			
		Other oral agents	9			
Anti-hyperglycemic Medication List 3	meddmtx3	Metformin	1	Single-Select		
		Alogliptin	2			
		Linagliptin	3			
		Saxagliptin	4			
		Sitagliptin	5			
		Dulaglutide	6			
		Exenatide	7			

		Exenatide extended release	8			
		Liraglutide	9			
		Lixisenatide	10			
		Semaglutide	12			
		Insulin	13			
		Canagliflozin	14			
		Dapagliflozin	15			
		Empagliflozin	16			
		Ertugliflozin	17			
		Glimepiride	18			
		Glipizide	19			
		Glyburide	20			
		Pioglitazone	21			
		Rosiglitazone	22			
		Other subcutaneous/injectable agents	23			
		Other oral agents	24			
Anti-hyperglycemic Medication Class 4	classdmtx4	Biguanide	1	Single-Select		
		DPP-4 Inhibitor	2			
		GLP-1 receptor agonist	3			
		Insulin	4			
		SGLT2 Inhibitor	5			
		Sulfonylurea	6			
		Thiazolidinedione	7			
		Other subcutaneous/injectable agents	8			
		Other oral agents	9			
Anti-hyperglycemic Medication List 4	meddmtx4	Metformin	1	Single-Select		
		Alogliptin	2			
		Linagliptin	3			
		Saxagliptin	4			
		Sitagliptin	5			
		Dulaglutide	6			
		Exenatide	7			
		Exenatide extended release	8			
		Liraglutide	9			

		Lixisenatide	10			
		Semaglutide	12			
		Insulin	13			
		Canagliflozin	14			
		Dapagliflozin	15			
		Empagliflozin	16			
		Ertugliflozin	17			
		Glimepiride	18			
		Glipizide	19			
		Glyburide	20			
		Pioglitazone	21			
		Rosiglitazone	22			
		Other subcutaneous/injectable agents	23			
		Other oral agents	24			
Was there a documented reason for not prescribing a medication with proven CVD benefit?	dmtxreason	Yes	1	Single-Select		
		No/ND	2			
Diabetes - Insulin treated	histdmins		(null) or 1	Boolean		
Diabetes - Non-insulin treated	histdmnonins		(null) or 1	Boolean		
Diabetic Tx	aha_dmtx	None prescribed/ND	1	MULTI-SELECT		
		None – contraindicated	2			
		Insulin	3			
		Oral agents	4			
		Other subcutaneous/injectable agents	5			
Taking any diabetic medication prior to admission?	aha_dmtxprior	Yes	1	Numeric		
		No	2			
		ND	3			

Lipid Lowering Medication(s) Prescribed at Discharge?	aha_cholredyesno	Yes	1	Numeric			
		No	2				
Lipid Lowering Medication Class (assoc'd w/ first list)	aha_cholred1class	Absorption inhibitor	1	Single-Select			
		Binding resin	2				
		Combination	3				
		Fibrate	4				
		Niacin	5				
		Omega 3 fatty acids	6				
		PCSK9 inhibitor	9				
		Statins	7				
		Other	8				
Lipid Lowering Medication Class (assoc'd w/ second list)	aha_cholred2class	Absorption inhibitor	1	Single-Select			
		Binding resin	2				
		Combination	3				
		Fibrate	4				
		Niacin	5				
		Omega 3 fatty acids	6				
		Statins	7				
		PCSK9 inhibitor	9				
		Other	8				
Lipid Lowering Medication Class (assoc'd w/ third list)	aha_cholred3class	Absorption inhibitor	1	Single-Select			
		Binding resin	2				
		Combination	3				
		Fibrate	4				
		Niacin	5				
		Omega 3 fatty acids	6				
		Statins	7				
		PCSK9 inhibitor	9				

		Other	8				
Lipid Lowering Medication(s) (first dropdown list)	aha_cholred1	Crestor (Rosuvastatin)	102	Numeric			
		Lescol (Fluvastatin)	6				
		Lipitor (Atorvastatin)	5				
		Lopid (Gemfibrozil)	11				
		Mevacor (Lovastatin)	4				
		Niaspan (Niacin ER)	103				
		Omega III fatty acid	101				
		Praluent (Alirocumab)	106				
		Pravachol (Pravastatin)	7				
		Repatha (Evolocumab)	107				
		Slo-Niacin/Niacor (Niacin)	9				
		Tricor (Fenofibrate)	10				
		Vytorin (Ezetimibe/Simvastatin)	104				
		Zetia (Ezetimibe)	105				
		Zocor (Simvastatin)	3				
		Other	100				
Lipid Lowering Medication(s) (second dropdown list)	aha_cholred2	Crestor (Rosuvastatin)	102	Numeric			
		Lescol (Fluvastatin)	6				
		Lipitor (Atorvastatin)	5				
		Lopid (Gemfibrozil)	11				
		Mevacor (Lovastatin)	4				
		Niaspan (Niacin ER)	103				
		Omega III fatty acid	101				
		Praluent (Alirocumab)	106				
		Pravachol (Pravastatin)	7				
		Repatha (Evolocumab)	107				
		Slo-Niacin/Niacor (Niacin)	9				
		Tricor (Fenofibrate)	10				
		Vytorin (Ezetimibe/Simvastatin)	104				
		Zetia (Ezetimibe)	105				
		Zocor (Simvastatin)	3				
		Other	100				

Lipid Lowering Medication(s) (third dropdown list)	aha_cholred3	Crestor (Rosuvastatin)	102	Numeric		
		Lescol (Fluvastatin)	6			
		Lipitor (Atorvastatin)	5			
		Lopid (Gemfibrozil)	11			
		Mevacor (Lovastatin)	4			
		Niaspan (Niacin ER)	103			
		Omega III fatty acid	101			
		Praluent (Alirocumab)	106			
		Pravachol (Pravastatin)	7			
		Repatha (Evolocumab)	107			
		Slo-Niacin/Niacor (Niacin)	9			
		Tricor (Fenofibrate)	10			
		Vytorin (Ezetimibe/Simvastatin)	104			
		Zetia (Ezetimibe)	105			
		Zocor (Simvastatin)	3			
		Other	100			
Contraindication to Lipid-Lowering medication at Discharge	hf_contra_lipid_lowering	Yes	1	Numeric		
		No	2			
Cholesterol Reducer: Taking Prior to Admission	aha_cholredprior	Yes	1	Numeric		
		No	2			
Omega 3 prescribed	hfs_omegapres	Yes	1	Numeric		
		No	2			
Omega 3 contraindications	hfs_omegaconta	Yes	1	Numeric		
Hydralazine Nitrate – Prescribed?	hf_isosorbide	Yes	1	Numeric		Quality
		No	2			
Hydralazine Nitrate – Contraindicated?	hf_contraisosorbide	Yes	1	Numeric		Quality
		No	2			

Hydralazine Nitrate - Contraindications or Other Documented Reason(s) For Not Providing Hydralazine Nitrate	hf_othconraisosorbide	Medical reason	1	Numeric			
		Patient reason	2				
		System reason	3				
Ivabradine - Prescribed?	hf_ivabradine			Single-Select			
		Yes	1				
		No	2				
Ivabradine - Contraindicated?	hf_contraiva			Single-Select			
		Yes	1				
		No	2				
Ivabradine - Contraindications or Other Documented Reason(s) For Not Providing Ivabradine:	hf_othcontraiva			MULTI-SELECT			
		Allergy to Ivabradine	1				
		NYHA class I or IV	2				
		Not treated with maximally tolerated dose beta blockers or beta blockers contraindicated	3				
		New Onset HF	4				
		Not in sinus rhythm	5				
		Patient 100% atrial or ventricular paced	6				
		Other medical reasons	7				
		Patient reasons	8				
		System reasons	9				
Ca channel blocker at Discharge	aha_othcalcium		(Null) or 1	Numeric			
Antiarrhythmic at DC	hfs_antiarr		(Null) or 1	Numeric			
Amiodarone at DC	hfs_amiodaronedc		(Null) or 1	Numeric			
Dofetilide at DC	hfs_dofetilidedc		(Null) or 1	Numeric			
Sotalol at DC	hfs_sotaloldc		(Null) or 1	Numeric			

Procainamide at DC - Historic	hfs_procainamide		(Null) or 1	Numeric			
Renin Inhibitor at DC	hfs_renindc		(Null) or 1	Numeric			
Digoxin at Discharge	aha_othdigoxin		(Null) or 1	Numeric			
Other at DC	hfs_oth		(Null) or 1	Numeric			
Ranolazine at DC	aha_ran		(Null) or 1	Numeric			
Diuretic at Discharge	aha_othdiuretic		(Null) or 1	Numeric			
Loop at Discharge	aha_othloop		(Null) or 1	Numeric			
Thiazide at Discharge	aha_oththiazide		(Null) or 1	Numeric			
Nitrate at Discharge	aha_othnitrate		(Null) or 1	Numeric			
Other anti-hypertensive at Discharge	aha_othantihyper		(Null) or 1	Numeric			
Other Medication at Discharge	aha_othother		(Null) or 1	Numeric			
ICD Counseling	aha_icdcounseling	Yes	1	Numeric			Quality
		No	2				
Reason for not counseling?	aha_icdreason	Yes	1	Numeric			
		No	2				
Documented Medical Reason(s) for Not Counseling?	aha_noicdcounseling	ICD or CRT-D device in patient	1	MULTI-SELECT			Quality
		Multiple of significant comorbidities	2				
		Limited life expectancy	3				
		other reasons not eligible for ICD (e.g. EF>35%, new onset HF)	4				
		other reasons for not counseling	5				
ICD therapy placed or prescribed at Discharge	hf_icd_prescribed	Yes	1	Numeric			Quality
		No	2				
Reason for not placing or prescribing ICD therapy at Discharge	hf_contra_icd	Yes	1	Numeric			Quality

		No	2				
Documented medical reason(s) for not placing or prescribing ICD therapy	hf_contra_icd_list	Contraindications	1	MULTI-SELECT			
		Not receiving an optimal medical therapy	3				
		Any other physician documented reason including AMI in prior 40 days, recent revascularization, recent onset HF	2				
		Patient Reason	4				
		System Reason	5				
CRT therapy placed or prescribed at Discharge	hf_crt_prescribed	Yes	1	Numeric			Quality
		No	2				
CRT-P Placed or Prescribed	hf_crtp	Yes	1	Numeric			Quality
		No	2				
Reason for not placing or prescribing CRT therapy at Discharge	hf_contra_crt	Yes	1	Numeric			Quality
		No	2				
Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Contraindications	1	Multi-Select			
		Not receiving an optimal medical therapy	3				
		Not NYHA functional Class III or ambulatory Class IV	4				

		Any other physician documented reason including AMI in prior 40 days, recent revascularization, recent onset of HF	2			
		QRS duration <120 ms	5			
		Patient Reason	6			
		System Reason	7			
Adult Smoking cessation/counseling	jc_smokingcessation	Yes	1	Numeric		
		No	2			
Smoking Cessation Therapies Prescribed	aha_smokcesmeds	Counseling Only	1	MULTI-SELECT		
		Over the Counter Nicotine Replacement Therapy	2			
		Prescription Medications	3			
		Other	4			
Smoking Treatment Not Specified	aha_treatnotsp		(Null) or 1	Boolean		
Address Activity Level	jc_actlevel	Yes	1	Numeric		
		No	2			
Address Follow-up	jc_followup	Yes	1	Numeric		
		No	2			
Follow-up Visit Scheduled	aha_followsched	Yes	1	Numeric		Achievement
		No	2			
Follow Up Visit Date	hfs_fuvisitdate			Date/Time	MM/DD/YYYY HH:MN	Achievement, Quality
Follow Up Visit Date Precision	hfs_fuvisitdate_precision	MM/DD/YYYY HH24:MM	5	Numeric		Achievement, Quality
		MM/DD/YYYY	3			
		Unknown	0			
Location of first follow-up visit	aha_fulocation	Office Visit	1	Numeric		Achievement
		Home Health Visit	2			
		Telehealth	4			
		Not Documented	3			

Medical or Patient Reason for no follow-up appointment being scheduled	aha_reasnofu	Yes	1	Numeric			Achievement
		No	2				
Follow up Phone Call Scheduled	aha_phonesched	Yes	1	Numeric			
		No	2				
Date of first follow-up phone call	aha_phone	MM/DD/YYYY	3	Date			
		Unknown	0				
Follow-up appointment scheduled for diabetes management	dxfupsched	Yes	1	Single-Select			
		No	2				
Date of diabetes management follow-up visit	dxfupscheddt	MM/DD/YYYY	3	Date			
		Unknown	0				
Address Symptoms Worsening	jc_sympworse	Yes	1	Numeric			
		No	2				
Address Diet	jc_diet	Yes	1	Numeric			
		No	2				
Address Medications	jc_medications	Yes	1	Numeric			
		No	2				
Address Weight Monitoring	jc_weightmonitor	Yes	1	Numeric			
		No	2				
Referred to Cardiac Rehab Program	aha_cardiacrehab	Yes	1	Numeric			
		No	2				
		N/A	4				
		Not Documented	5				
Risk Intervention: Weight Management	aha_weightintervention	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				

Activity Level/ Recommendations	aha_activity	Yes		Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
TLC (Therapeutic Lifestyle Change) Diet	aha_choldiet	Yes		Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
Anticoagulation Therapy Education	oh_warfarin_instr	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
Was Diabetes Teaching Provided?	aha_dmteaching	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
PT/INR planned followup	oh_ptinr_followup	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
Referral to Sleep Study	oh_sleepstudy	Yes	1				
		No	2				
		Not Documented	3				
		Not Applicable	4				
Outpatient HF management	oh_hfmgmnt	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
If Yes,	hfs_hfmgmntyes	Telemanagement	1				
		Home visit	2				
		Clinic-based	3				

Referral to AHA My HF Guide/Heart Failure Interactive Workbook	hfs_referalaha	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
Provision of at least 60 minutes of Heart Failure Education by a qualified education	hfs_provision	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
Advanced Care Plan/Surrogate Decision Maker Documented Or Discussed?	hfs_advancedcare	Yes	1	Numeric			
		No	2				
		Not Documented	3				
		Not Applicable	4				
Advance Directive Executed	ac_advdir	Yes	1	Numeric			
		No	2				
Care Transition Record Transmitted	ac_care	By the seventh post-discharge day	1	Numeric			
		Exists, but not transmitted by the seventh post-discharge day	2				
		No Care Transition Record/UTD	3				
All were included	ac_ctrall		(Null) or 1	Numeric			
Discharge Medications	ac_dcmed	Yes	1	Numeric			
		No	2				
Follow-up Treatment(s) and Service(s) Needed	ac_futreat	Yes	1	Numeric			
		No	2				

Procedures Performed During Hospitalization	ac_pxhosp	Yes	1	Numeric			
		No	2				
Reason for Hospitalization	ac_reas	Yes	1	Numeric			
		No	2				
Treatment(s)/Service(s) Provided	ac_treat	Yes	1	Numeric			
		No	2				
Race	sp_race	American Indian or Alaska Native	3	Numeric			
		Black or African American	2				
		White	5				
		Asian	4				
		Native Hawaiian or Pacific Islander	6				
Principal ICD-9 Diagnosis	jc_principaldiagnosis			Numeric			Achievement, Quality
Principal ICD-10 Diagnosis	jc_princicd10diagnosis			Alphanumeric	7		Achievement, Quality
Other ICD-9 Diagnosis 1	jc_otherdiagnosis1			Numeric			
Other ICD-9 Diagnosis 2	jc_otherdiagnosis2			Numeric			
Other ICD-9 Diagnosis 3	jc_otherdiagnosis3			Numeric			
Other ICD-9 Diagnosis 4	jc_otherdiagnosis4			Numeric			
Other ICD-9 Diagnosis 5	jc_otherdiagnosis5			Numeric			
Other ICD-9 Diagnosis 6	jc_otherdiagnosis6			Numeric			
Other ICD-9 Diagnosis 7	jc_otherdiagnosis7			Numeric			
Other ICD-9 Diagnosis 8	jc_otherdiagnosis8			Numeric			
Other ICD-9 Diagnosis 9	jc_otherdiagnosis9			Numeric			

Other ICD-9 Diagnosis 10	jc_otherdiagnosis10			Numeric			
Other ICD-9 Diagnosis 11	jc_otherdiagnosis11			Numeric			
Other ICD-9 Diagnosis 12	jc_otherdiagnosis12			Numeric			
Other ICD-9 Diagnosis 13	jc_otherdiagnosis13			Numeric			
Other ICD-9 Diagnosis 14	jc_otherdiagnosis14			Numeric			
Other ICD-9 Diagnosis 15	jc_otherdiagnosis15			Numeric			
Other ICD-9 Diagnosis 16	jc_otherdiagnosis16			Numeric			
Other ICD-9 Diagnosis 17	jc_otherdiagnosis17			Numeric			
Other ICD-9 Diagnosis 18	jc_otherdiagnosis18			Numeric			
Other ICD-9 Diagnosis 19	jc_otherdiagnosis19			Numeric			
Other ICD-9 Diagnosis 20	jc_otherdiagnosis20			Numeric			
Other ICD-9 Diagnosis 21	jc_otherdiagnosis21			Numeric			
Other ICD-9 Diagnosis 22	jc_otherdiagnosis22			Numeric			
Other ICD-9 Diagnosis 23	jc_otherdiagnosis23			Numeric			
Other ICD-9 Diagnosis 24	jc_otherdiagnosis24			Numeric			
Other ICD-10 Diagnosis	jc_othericd10diag			Alphanumeric		Multiple other ICD-10 diagnosis codes can be entered in the same column separated by colon (:)	
Principal Procedure	jc_principalprocedure			Numeric	7		

Principal ICD-10 Procedure	princicd10procedure			Alphanumeric	7		
Principal Procedure Date	jc_principalprocedurdt			Date		MM/DD/YYYY	
Principal ICD-10 Procedure Date	jc_princicd10procedurdt			Date		MM/DD/YYYY	
Principal Procedure Date UTD	jc_princproced_dtutd		(Null) or 1	Numeric			
Principal ICD-10 Procedure Date UTD	jc_princicd10proced_dtutd		(Null) or 1	Numeric			
Other Procedure 1	jc_otherprocedure1			Numeric			
Other Procedure 1 Date	jc_otherproceduredat1			Date		MM/DD/YYYY	
Other Procedure 1 Date UTD	jc_otherproceduredat1_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 1	jc_othericd10proc1			Alphanumeric			
Other ICD-10 Procedure Date 1	jc_othericd10procdate1			Date		MM/DD/YYYY	
Other ICD-10 Procedure 1 Date UTD	jc_othericd10procdate1_utd		(Null) or 1	Numeric			
Other Procedure 2	jc_otherprocedure2			Numeric			
Other Procedure 2 Date	jc_otherproceduredat2			Date		MM/DD/YYYY	
Other Procedure 2 Date UTD	jc_otherproceduredat2_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 2	jc_othericd10proc2			Alphanumeric			
Other ICD-10 Procedure 2 Date	jc_othericd10procdate2			Date		MM/DD/YYYY	
Other ICD-10 Procedure 2 Date UTD	jc_othericd10procdate2_utd		(Null) or 1	Numeric			
Other Procedure 3	jc_otherprocedure3			Numeric			
Other Procedure 3 Date	jc_otherproceduredat3			Date		MM/DD/YYYY	
Other Procedure 3 Date UTD	jc_otherproceduredat3_utd		(Null) or 1	Numeric			

Other ICD-10 Procedure 3	jc_othericd10proc3			Alphanumeric			
Other ICD-10 Procedure 3 Date	jc_othericd10procdate3			Date		MM/DD/YYYY	
Other ICD-10 Procedure 3 Date UTD	jc_othericd10procdate3_utd		(Null) or 1	Numeric			
Other Procedure 4	jc_otherprocedure4			Numeric			
Other Procedure 4 Date	jc_otherproceduredatetime4			Date		MM/DD/YYYY	
Other Procedure 4 Date UTD	jc_otherproceduredatetime4_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 4	jc_othericd10proc4			Alphanumeric			
Other ICD-10 Procedure 4 Date	jc_othericd10procdate4			Date		MM/DD/YYYY	
Other ICD-10 Procedure 4 Date UTD	jc_othericd10procdate4_utd		(Null) or 1	Numeric			
Other Procedure 5	jc_otherprocedure5			Numeric			
Other Procedure 5 Date	jc_otherproceduredatetime5			Date		MM/DD/YYYY	
Other Procedure 5 Date UTD	jc_otherproceduredatetime5_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 5	jc_othericd10proc5			Alphanumeric			
Other ICD-10 Procedure 5 Date	jc_othericd10procdate5			Date		MM/DD/YYYY	
Other ICD-10 Procedure 5 Date UTD	jc_othericd10procdate5_utd		(Null) or 1	Numeric			
Other Procedure 6	jc_otherprocedure6			Numeric			
Other Procedure 6 Date	jc_otherproceduredatetime6			Date		MM/DD/YYYY	
Other Procedure 6 Date UTD	jc_otherproceduredatetime6_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 6	jc_othericd10proc6			Alphanumeric			
Other ICD-10 Procedure 6 Date	jc_othericd10procdate6			Date		MM/DD/YYYY	

Other ICD-10 Procedure 6 Date UTD	jc_othericd10procdate6_utd		(Null) or 1	Numeric			
Other Procedure 7	jc_otherprocedure7			Numeric			
Other Procedure 7 Date	jc_otherproceduredatetime7			Date		MM/DD/YYYY	
Other Procedure 7 Date UTD	jc_otherproceduredatetime7_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 7	jc_othericd10proc7			Alphanumeric			
Other ICD-10 Procedure 7 Date	jc_othericd10procdate7			Date		MM/DD/YYYY	
Other ICD-10 Procedure 7 Date UTD	jc_othericd10procdate7_utd		(Null) or 1	Numeric			
Other Procedure 8	jc_otherprocedure8			Numeric			
Other Procedure 8 Date	jc_otherproceduredatetime8			Date		MM/DD/YYYY	
Other Procedure 8 Date UTD	jc_otherproceduredatetime8_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 8	jc_othericd10proc8			Alphanumeric			
Other ICD-10 Procedure 8 Date	jc_othericd10procdate8			Date		MM/DD/YYYY	
Other ICD-10 Procedure 8 Date UTD	jc_othericd10procdate8_utd		(Null) or 1	Numeric			
Other Procedure 9	jc_otherprocedure9			Numeric			
Other Procedure 9 Date	jc_otherproceduredatetime9			Date		MM/DD/YYYY	
Other Procedure 9 Date UTD	jc_otherproceduredatetime9_utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 9	jc_othericd10proc9			Alphanumeric			
Other ICD-10 Procedure 9 Date	jc_othericd10procdate9			Date		MM/DD/YYYY	
Other ICD-10 Procedure 9 Date UTD	jc_othericd10procdate9_utd		(Null) or 1	Numeric			
Other Procedure 10	jc_otherprocedure10			Numeric			
Other Procedure 10 Date	jc_otherproceduredatetime10			Date		MM/DD/YYYY	

Other Procedure 10 Date UTD	jc_otherproceduredatetime10_		(Null) or 1	Numeric			
Other ICD-10 Procedure 10	jc_othericd10proc10			Alphanumeric			
Other ICD-10 Procedure 10 Date	jc_othericd10procdate10			Date		MM/DD/YYYY	
Other ICD-10 Procedure 10 Date UTD	jc_othericd10procdate10_u		(Null) or 1	Numeric			
Other Procedure 11	jc_otherprocedure11			Numeric			
Other Procedure 11 Date	jc_otherproceduredatetime11			Date		MM/DD/YYYY	
Other Procedure 11 Date UTD	jc_otherproceduredatetime11_		(Null) or 1	Numeric			
Other ICD-10 Procedure 11	jc_othericd10proc11			Alphanumeric			
Other ICD-10 Procedure 11 Date	jc_othericd10procdate11			Date		MM/DD/YYYY	
Other ICD-10 Procedure 11 Date UTD	jc_othericd10procdate11_u		(Null) or 1	Numeric			
Other Procedure 12	jc_otherprocedure12			Numeric			
Other Procedure 12 Date	jc_otherproceduredatetime12			Date		MM/DD/YYYY	
Other Procedure 12 Date UTD	jc_otherproceduredatetime12_		(Null) or 1	Numeric			
Other ICD-10 Procedure 12	jc_othericd10proc12			Alphanumeric			
Other ICD-10 Procedure 12 Date	jc_othericd10procdate12			Date		MM/DD/YYYY	
Other ICD-10 Procedure 12 Date UTD	jc_othericd10procdate12_u		(Null) or 1	Numeric			
Other Procedure 13	jc_otherprocedure13			Numeric			
Other Procedure 13 Date	jc_otherproceduredatetime13			Date		MM/DD/YYYY	
Other Procedure 13 Date UTD	jc_otherproceduredatetime13_		(Null) or 1	Numeric			

Other ICD-10 Procedure 13	jc_othericd10proc13			Alphanumeric			
Other ICD-10 Procedure 13 Date	jc_othericd10procdate13			Date		MM/DD/YYYY	
Other ICD-10 Procedure 13 Date UTD	jc_othericd10procdate13_u td		(Null) or 1	Numeric			
Other Procedure 14	jc_otherprocedure14			Numeric			
Other Procedure 14 Date	jc_otherproceduredatetime14			Date		MM/DD/YYYY	
Other Procedure 14 Date UTD	jc_otherproceduredatetime14_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 14	jc_othericd10proc14			Alphanumeric			
Other ICD-10 Procedure 14 Date	jc_othericd10procdate14			Date		MM/DD/YYYY	
Other ICD-10 Procedure 14 Date UTD	jc_othericd10procdate14_u td		(Null) or 1	Numeric			
Other Procedure 15	jc_otherprocedure15			Numeric			
Other Procedure 15 Date	jc_otherproceduredatetime15			Date		MM/DD/YYYY	
Other Procedure 15 Date UTD	jc_otherproceduredatetime15_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 15	jc_othericd10proc15			Alphanumeric			
Other ICD-10 Procedure 15 Date	jc_othericd10procdate15			Date		MM/DD/YYYY	
Other ICD-10 Procedure 15 Date UTD	jc_othericd10procdate15_u td		(Null) or 1	Numeric			
Other Procedure 16	jc_otherprocedure16			Numeric			
Other Procedure 16 Date	jc_otherproceduredatetime16			Date		MM/DD/YYYY	
Other Procedure 16 Date UTD	jc_otherproceduredatetime16_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 16	jc_othericd10proc16			Alphanumeric			

Other ICD-10 Procedure 16 Date	jc_othericd10procdate16			Date		MM/DD/YYYY	
Other ICD-10 Procedure 16 Date UTD	jc_othericd10procdate16_u td		(Null) or 1	Numeric			
Other Procedure 17	jc_otherprocedure17			Numeric			
Other Procedure 17 Date	jc_otherproceduredatetime17			Date		MM/DD/YYYY	
Other Procedure 17 Date UTD	jc_otherproceduredatetime17_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 17	jc_othericd10proc17			Alphanumeric			
Other ICD-10 Procedure 17 Date	jc_othericd10procdate17			Date		MM/DD/YYYY	
Other ICD-10 Procedure 17 Date UTD	jc_othericd10procdate17_u td		(Null) or 1	Numeric			
Other Procedure 18	jc_otherprocedure18			Numeric			
Other Procedure 18 Date	jc_otherproceduredatetime18			Date		MM/DD/YYYY	
Other Procedure 18 Date UTD	jc_otherproceduredatetime18_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 18	jc_othericd10proc18			Alphanumeric			
Other ICD-10 Procedure 18 Date	jc_othericd10procdate18			Date		MM/DD/YYYY	
Other ICD-10 Procedure 18 Date UTD	jc_othericd10procdate18_u td		(Null) or 1	Numeric			
Other Procedure 19	jc_otherprocedure19			Numeric			
Other Procedure 19 Date	jc_otherproceduredatetime19			Date		MM/DD/YYYY	
Other Procedure 19 Date UTD	jc_otherproceduredatetime19_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 19	jc_othericd10proc19			Alphanumeric			
Other ICD-10 Procedure 19 Date	jc_othericd10procdate19			Date		MM/DD/YYYY	

Other ICD-10 Procedure 19 Date UTD	jc_othericd10procdate19_u td		(Null) or 1	Numeric			
Other Procedure 20	jc_otherprocedure20			Numeric			
Other Procedure 20 Date	jc_otherproceduredate20			Date		MM/DD/YYYY	
Other Procedure 20 Date UTD	jc_otherproceduredate20_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 20	jc_othericd10proc20			Alphanumeric			
Other ICD-10 Procedure 20 Date	jc_othericd10procdate20			Date		MM/DD/YYYY	
Other ICD-10 Procedure 20 Date UTD	jc_othericd10procdate20_u td		(Null) or 1	Numeric			
Other Procedure 21	jc_otherprocedure21			Numeric			
Other Procedure 21 Date	jc_otherproceduredate21			Date		MM/DD/YYYY	
Other Procedure 21 Date UTD	jc_otherproceduredate21_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 21	jc_othericd10proc21			Alphanumeric			
Other ICD-10 Procedure 21 Date	jc_othericd10procdate21			Date		MM/DD/YYYY	
Other ICD-10 Procedure 21 Date UTD	jc_othericd10procdate21_u td		(Null) or 1	Numeric			
Other Procedure 22	jc_otherprocedure22			Numeric			
Other Procedure 22 Date	jc_otherproceduredate22			Date		MM/DD/YYYY	
Other Procedure 22 Date UTD	jc_otherproceduredate22_ utd		(Null) or 1	Numeric			
Other ICD-10 Procedure 22	jc_othericd10proc22			Alphanumeric			
Other ICD-10 Procedure 22 Date	jc_othericd10procdate22			Date		MM/DD/YYYY	
Other ICD-10 Procedure 22 Date UTD	jc_othericd10procdate22_u td		(Null) or 1	Numeric			

Other Procedure 23	jc_otherprocedure23			Numeric			
Other Procedure 23 Date	jc_otherproceduredatetime23			Date		MM/DD/YYYY	
Other Procedure 23 Date UTD	jc_otherproceduredatetime23_u td		(Null) or 1	Numeric			
Other ICD-10 Procedure 23	jc_othericd10proc23			Alphanumeric			
Other ICD-10 Procedure 23 Date	jc_othericd10procdate23			Date		MM/DD/YYYY	
Other ICD-10 Procedure 23 Date UTD	jc_othericd10procdate23_u td		(Null) or 1	Numeric			
Other Procedure 24	jc_otherprocedure24			Numeric			
Other Procedure 24 Date	jc_otherproceduredatetime24			Date		MM/DD/YYYY	
Other Procedure 24 Date UTD	jc_otherproceduredatetime24_u td		(Null) or 1	Numeric			
Other ICD-10 Procedure 24	jc_othericd10proc24			Alphanumeric			
Other ICD-10 Procedure 24 Date	jc_othericd10procdate24			Date		MM/DD/YYYY	
Other ICD-10 Procedure 24 Date UTD	jc_othericd10procdate24_u td		(Null) or 1	Numeric			
CPT Code Date	cptpickerdate	MM/DD/YYYY	3	Date			
		Unknown	0				
Payment Source - Medicare	jc_medicare	Medicare	1	Numeric			
		Non-Medicare	2				
Was this case sampled?	jc_sample	Yes	1	Numeric			
		No	2				
Additional Comments	aha_notes			Alphanumeric Text	250		

During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. AMI, CAC, HF, PN, PR, SCIP)?	jc_clinical	Yes	1	Numeric			
		No	2				
National Provider ID	jc_providernpi			Numeric			
PMT used concurrently or retrospectively or combination?	aha_pmtused	Concurrently	1	Numeric			
		Retrospectively	2				
		Combination	3				
Standardized Order Sets used?	aha_stdorder	Yes	1	Numeric			
		No	2				
Patient adherence contract/compact used?	aha_ptcontract	Yes	1	Numeric			
		No	2				
Discharge Checklist used?	aha_checklist	Yes	1	Numeric			

***ICD-9-CM format note:**

For ICD-9 codes with no decimals (such as 428), a decimal point is still required. Enter the value as such "428.". If you are creating the file in Excel, the decimal will be dropped unless the cell is saved as Text.

Appendix 1: Advanced Certification in Heart Failure (ACHF) data elements and codes

Data Element Description	Data Element Name	Data Element Options Text	Allowable Data Element Value	Element Format	Max Field Length
Was bisoprolol, carvedilol, or sustained-release metoprolol prescribed for LVSD at discharge?	achf_lvsdmeds	Y (Yes) Bisoprolol, carvedilol, or sustained-release metoprolol was prescribed for LVSD at discharge	1	Numeric	
		N (No) Bisoprolol, carvedilol, or sustained-release metoprolol was not prescribed for LVSD at discharge or unable to determine from medical record documentation	2		
Is there documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge?	achf_nolvsdmeds	Y (Yes) There is documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge.	1	Numeric	
		N (No) There is no documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge, OR unable to determine from medical record documentation.	2		
Was documentation present in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider?	achf_advancecare	Yes	1	Numeric	
		No	2		
Was there documentation that the post-discharge evaluation was conducted with the patient and/or caregiver(s) within 72 hours of hospital discharge?	achf_postdc75hrs	Y (Yes) There is documentation that the post-discharge evaluation was conducted with the patient and/or caregiver(s) within 72 hours of hospital discharge.	1	Numeric	
		N (No) There is no documentation that the post-discharge evaluation was conducted with the patient and/or caregiver(s) within 72 hours of hospital discharge OR unable to determine from medical record documentation.	2		

Was a follow-up appointment for an office or home health visit for management of heart failure scheduled within 7 days post-discharge and documented including location, date, and time?	achf_postappt7days	Yes	1	Numeric	
		No	2		
Is there documentation by a physician/APN/PA in the medical record of a reason for not scheduling a post-discharge appointment within 7 days?	achf_nopostdc75hrs	Yes	1	Numeric	
		No	2		

Appendix 2: Heart Failure Optional data elements and codes

Data Element Description	Data Element Name	Data Element Options Text	Allowable Data Element Value	Element Format	Max Field Length
Optional 1	oh_optional1			Alphanu meric Text	20
Optional 2	oh_optional2			Alphanu meric Text	20
Optional 3	oh_optional3			Alphanu meric Text	20
Optional 4	oh_optional4			Alphanu meric Text	20
Optional 5	oh_optional5			Alphanu meric Text	20
Optional 6	oh_optional6			Alphanu meric Text	20
Optional 7	oh_optional7			Alphanu meric Text	20
Optional 8	oh_optional8			Alphanu meric Text	20
Optional 9	oh_optional9			Alphanu meric Text	20
Optional 10	oh_optional10			Alphanu meric Text	20
Optional 11	cust_optional11			Site List	
Optional 12	cust_optional12			Site List	

Appendix 3: Heart Failure Follow Up data elements and codes

Data Element Description	Data Element Name	Data Element Options Text	Allowable Data Element Value	Element Format	Max Field Length	Notes
Date of Hospital Discharge	fu_discdatetime			Date		MM/DD/YYYY
	fu_discdatetime_precision	MM/DD/YYYY HH24:MM	5	Single-Select		
		MM/DD/YYYY	3			
Date of 30 Day Follow-up	fu_30dayfollowupdate			Date		MM/DD/YYYY
Date of 30 Day Follow-up Precision	fu_30dayfollowupdate_precision	MM/DD/YYYY	3	Single-Select		
Follow-Up Conducted (check all that apply):	fu_followupconducted	In person	1	Multi-Select		
		By phone	2			
		Chart review	3			
		Contact with medical provider	4			
		Not Done	5			
Date the follow-up appointment was completed	fu_datecompleted			Date		MM/DD/YYYY
Date the follow-up appointment was completed Precision	fu_datecompleted_precision	MM/DD/YYYY	3	Single-Select		
Died within 30 days of discharge?	fu_died	Yes	1	Single-Select		
		No	2			
		Unknown/NA	3			
Date of Death	fu_dateofdeath			Date		
Date of Death Precision	fu_dateofdeath_precision	MM/DD/YYYY	3	Single-Select		
		Unknown	0			
Cause of Death:	fu_causedeath	Cardiovascular	1			
		Non-Cardiovascular	2			
		Unknown/NA	3			

If Cardiovascular:	fu_ifcardio	Acute Coronary Syndrome	1	Single-Select	
		Sudden Death	2		
		Heart Failure	3		
		Other Cardiovascular	5		
		Stroke (all types)	4		
ER visits w/o hospitalization:	fu_ernohosp	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
*Hospitalizations within 30 days of discharge:	fu_hospitalizations	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
*Date of First Post Discharge Hospitalization	fu_datepostdisc			Date	
*Date of First Post Discharge Hospitalization Precision	fu_datepostdisc_precision	MM/DD/YYYY	3	Single-Select	
		Unknown	0		
Specify EP Procedure:	fu_epspecify	Single Chamber	1	Single-Select	
		Dual Chamber	2		
		CRT-P	3		
		CRT-D (Bi-V Pacemakers)	4		
		ICD	5		
		Ablation	6		
Date of First Post Discharge Physician Office Visit	fu_datefirstvisit			Date	
Date of First Post Discharge Physician Office Visit Precision	fu_datefirstvisit_precision	MM/DD/YYYY	3	Single-Select	
		Unknown	0		
Chest Pain	fu_cpsymp		(Null) or 1	Boolean	
Shortness of Breath	fu_breathsymp		(Null) or 1	Boolean	
Unable to Ambulate without Assistance	fu_amsymp		(Null) or 1	Boolean	
Any blood work since hospital discharge?	fu_bloodsincdisc	Yes	1	Single-Select	
		No	2		

		Unknown	3		
Chemistries:	fu_chem	Done	1	Single-Select	
		Not Done	2		
		Unknown/NA	3		
K+	fu_k			Decimal	1.8 - 8.0
Creatinine	fu_creatinine			Decimal	0 - 999.9
systolic	fu_bpsys			Integer	0 - 300
Diastolic	fu_bpdias			Integer	0 - 300
Heart rate (bpm)	fu_hr			Integer	
Height	fu_height			Integer	30 - 250
height units	fu_heightunits	in	1	Single-Select	
		cm	2		
Body Mass Index	fu_bmi			Decimal	0 - 999.0
BUN	fu_bun			Integer	0 - 300
Glucose	fu_glucose			Integer	40 - 1000
Lipid Profile	fu_lipid	Done, with lipid panel	1	Single-Select	
		Not Done	2		
		Unknown/NA	3		
HDL	fu_hdl			Integer	0 - 300
LDL	fu_ldl			Integer	5 - 500
Hemoglobin	fu_hemoglobin			Decimal	0 - 999.9
HbA1c	fu_hba1c			Decimal	0 - 99.9
BNP	fu_bnp			Decimal	0 - 9999.9
CRP (high sensitivity)	fu_crp			Integer	
Echocardiogram	fu_echo		(Null) or 1	Boolean	
Qualitative LV dysfunction	fu_ifnolvef	Severe	1	Single-Select	
		Moderate	2		
		Mild	3		
		Normal	4		
Cardiac Cath	fu_cardiaccath		(Null) or 1	Boolean	
ACEI Prescribed at Discharge?	fu_aceiprescribedatdisc	Yes	1	Single-Select	
		No	2		
ACEI dosing	fu_aceidosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		

		Documented contraindication, intolerance, other physician documented reason	5		
ACEI missed doses	fu_aceimisseddose	Yes	1		
		No	2		
		Unknown/NA	3		
ACEI- If missed any dose, taking >80% of doses	fu_aceiifmissed	Yes	1	Single-Select	
		No	2		
ARB Prescribed at Discharge?	fu_arbprescribeddisc	Yes	1	Single-Select	
		No	2		
ARB dosing	fu_arbdosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		
		Documented contraindication, intolerance, other physician documented reason	5		
ARB missed doses	fu_arbmisseddose	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
ARB- If missed any dose, taking >80% of doses	fu_arbifmissed	Yes	1	Single-Select	
		No	2		
Aldosterone Antagonist Prescribed at Discharge	fu_aaprescribeddisc	Yes	1	Single-Select	
		No	2		
Aldosterone Antagonist Dosing	fu_aadosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		

		Documented contraindication, intolerance, other physician documented reason	5		
Aldosterone Antagonist- If missed dose, taking >80% of doses	fu_aaifmissed	Yes	1	Single-Select	
		No	2		
New Aldosterone Antagonist	fu_aldant	Yes	1	Single-Select	
		No	2		
ARNI Prescribed at Discharge?	fu_arniprescribeddisc	Yes	1		
		No	2		
ARNI dosing	fu_arnidosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		
		Documented contraindication, intolerance, other physician documented reason	5		
ARNI missed doses	fu_arnimisseddose	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
ARNI - If missed any dose, taking >80% of doses	fu_arniifmissed	Yes	1	Single-Select	
		No	2		
Beta-Blocker Prescribed at Discharge	fu_bbprescribeddisc	Yes	1	Single-Select	
		No	2		
Beta-Blocker dosing	fu_bbdosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		

		Documented contraindication, intolerance, other physician documented reason	5		
Beta-Blocker missed doses	fu_bbmisseddose	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
Beta-Blocker- If missed any dose, taking >80% of doses	fu_bbifmissed	Yes	1	Single-Select	
		No	2		
Hydralazine Nitrate Prescribed at Discharge	fu_hydraprescribeddisc	Yes	1	Single-Select	
		No	2		
Hydralazine Nitrate dosing	fu_hydradosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		
		Documented contraindication, intolerance, other physician documented reason	5		
Hydrazaline Nitrate missed doses	fu_hydramisseddose	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
Hydrazaline Nitrate- If missed any doses, taking >80% of doses	fu_hydraifmissed	Yes	1	Single-Select	
		No	2		
ASA Prescribed at Discharge?	fu_asaprescribeddisc	Yes	1	Single-Select	
		No	2		
ASA dosing	fu_asadosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		

		Documented contraindication, intolerance, other physician documented reason	5		
ASA missed doses	fu_asamisseddose	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
ASA- If missed any dose, taking >80% of doses	fu_asaifmissed	Yes	1	Single-Select	
		No	2		
Clopidogrel Prescribed at Discharge?	fu_clopprescribeddisc	Yes	1	Single-Select	
		No	2		
Clopidogrel Dosing	fu_clopdosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		
		Documented contraindication, intolerance, other physician documented reason	5		
Clopidogrel missed doses	fu_clopmisseddose	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
Clopidogrel- If missed any dose, taking >80% of doses	fu_clopifmissed	Yes	1	Single-Select	
		No	2		
Lipid Lowering Medication(s) dosing	fu_lldosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		
		Documented contraindication, intolerance, other physician documented reason	5		

Lipid Lowering Medication(s)- If missed any dose, taking >80% missed dose	fu_llifmissed	Yes	1	Single-Select	
		No	2		
Diabetic TX Prescribed at Discharge	fu_diabtxprescribeddisc	None prescribed/ND	1	Multi-Select	
		Insulin	2		
		None - contraindicated	3		
		Oral agents	4		
Diabetic Tx dosing	fu_diabtxdosing	Continued dose unchanged	1	Single-Select	
		Continued dose increased	2		
		Continued dose decreased	3		
		Discontinued since hospital discharge	4		
		Documented contraindication, intolerance, other physician documented reason	5		
Diabetic Tx missed doses	fu_diabtxmisseddose	Yes	1	Single-Select	
		No	2		
		Unknown/NA	3		
Diabetic Tx- If missed dose, taking >80% of doses	fu_diabtxifmissed	Yes	1	Single-Select	
		No	2		
Other medications- Ca channel blocker	fu_cachannel		(Null) or 1	Boolean	
Ca Channel blocker	fu_cachannelblock		(Null) or 1	Boolean	
Digoxin	fu_digoxin		(Null) or 1	Boolean	
Diuretic	fu_diuretic		(Null) or 1	Boolean	
Diabetes education	fu_diabed		(Null) or 1	Boolean	
Diet counseling	fu_diet		(Null) or 1	Boolean	
Specify Diet Counseling	fu_dietspecify	Salt restriction	1	Single-Select	
		Therapeutic Lifestyle Changes Diet	2		
How to activate emergency medical care system (e.g., 911)	fu_activateemcs		(Null) or 1	Boolean	

Cardiovascular risk factors	fu_cardiorisk		(Null) or 1	Boolean	
Activity guidelines	fu_actguide		(Null) or 1	Boolean	
Cardiac rehabilitation (at least one outpatient visit)	fu_cardrehab		(Null) or 1	Boolean	
Heart Failure disease management program (at least one outpatient visit)	fu_hfrehab		(Null) or 1	Boolean	
Canadian Angina Index (if CAD or ACS patient):	fu_canangina	Class I	1	Single-Select	
		Class II	2		
		Class III	3		
		Class IV	4		
Been on a calorie-restricted diet?	fu_calorierestrict	Yes	1	Single-Select	
		No	2		
		Unknown	3		

Appendix 4: Heart Failure Diabetes data elements and codes

Data Element Description	Data Element Name	Data Element Options Text	Allowable Data Element Value	Element Format	Max Field Length	Notes
Diabetes Type	dmtype	Type I	1	Single-Select		
		Type II	2			
		ND	3			
Diabetes Duration	dmduration	<5 years	1	Single-Select		
		5 - <10 years	2			
		10 - <20 years	3			
		>=20 years	4			
Anti-hyperglycemic medications	dmmedspecadm	Unknown	5	MULTI-SELECT		
		DPP-4 Inhibitors	1			
		GLP-1 receptor agonist	2			
		Insulin	3			
		Metformin	4			
		SLGT2 Inhibitor	5			
		Sulfonylurea	6			
		Thiazolidinedione	7			
Anti-hyperglycemic Medications Prescribed at Discharge?	presdmtx	Other oral agents	8	Single-Select		
		Other injectable/subcutaneous agents	9			
		Yes	1			
		No	2			
Anti-hyperglycemic Medication Class 1	classdmtx1	NC	3	Single-Select		
		Biguanide	1			
		DPP-4 Inhibitor	2			
		GLP-1 receptor agonist	3			
		Insulin	4			

		SGLT2 Inhibitor	5		
		Sulfonylurea	6		
		Thiazolidinedione	7		
		Other subcutaneous/injectable agents	8		
		Other oral agents	9		
Anti-hyperglycemic Medication List 1	meddmtx1	Metformin	1	Single-Select	
		Alogliptin	2		
		Linagliptin	3		
		Saxagliptin	4		
		Sitagliptin	5		
		Dulaglutide	6		
		Exenatide	7		
		Exenatide extended release	8		
		Liraglutide	9		
		Lixisenatide	10		
		Semaglutide	12		
		Insulin	13		
		Canagliflozin	14		
		Dapagliflozin	15		
		Empagliflozin	16		
		Ertugliflozin	17		
		Glimepiride	18		
		Glipizide	19		
		Glyburide	20		
		Pioglitazone	21		
		Rosiglitazone	22		

		Other subcutaneous/injectable agents	23		
		Other oral agents	24		
Anti-hyperglycemic Medication Class 2	classdmtx2	Biguanide	1	Single-Select	
		DPP-4 Inhibitor	2		
		GLP-1 receptor agonist	3		
		Insulin	4		
		SGLT2 Inhibitor	5		
		Sulfonylurea	6		
		Thiazolidinedione	7		
		Other subcutaneous/injectable agents	8		
		Other oral agents	9		
Anti-hyperglycemic Medication List 2	meddmtx2	Metformin	1	Single-Select	
		Alogliptin	2		
		Linagliptin	3		
		Saxagliptin	4		
		Sitagliptin	5		
		Dulaglutide	6		
		Exenatide	7		
		Exenatide extended release	8		
		Liraglutide	9		
		Lixisenatide	10		
		Semaglutide	12		
		Insulin	13		
		Canagliflozin	14		
		Dapagliflozin	15		

		Empagliflozin	16		
		Ertugliflozin	17		
		Glimepiride	18		
		Glipizide	19		
		Glyburide	20		
		Pioglitazone	21		
		Rosiglitazone	22		
		Other subcutaneous/injectable agents	23		
		Other oral agents	24		
Anti-hyperglycemic Medication Class 3	classdmtx3	Biguanide	1	Single-Select	
		DPP-4 Inhibitor	2		
		GLP-1 receptor agonist	3		
		Insulin	4		
		SGLT2 Inhibitor	5		
		Sulfonylurea	6		
		Thiazolidinedione	7		
		Other subcutaneous/injectable agents	8		
		Other oral agents	9		
Anti-hyperglycemic Medication List 3	meddmtx3	Metformin	1	Single-Select	
		Alogliptin	2		
		Linagliptin	3		
		Saxagliptin	4		
		Sitagliptin	5		
		Dulaglutide	6		
		Exenatide	7		

		Exenatide extended release	8		
		Liraglutide	9		
		Lixisenatide	10		
		Semaglutide	12		
		Insulin	13		
		Canagliflozin	14		
		Dapagliflozin	15		
		Empagliflozin	16		
		Ertugliflozin	17		
		Glimepiride	18		
		Glipizide	19		
		Glyburide	20		
		Pioglitazone	21		
		Rosiglitazone	22		
		Other subcutaneous/injectable agents	23		
		Other oral agents	24		
Anti-hyperglycemic Medication Class 4	classdmtx4	Biguanide	1	Single-Select	
		DPP-4 Inhibitor	2		
		GLP-1 receptor agonist	3		
		Insulin	4		
		SGLT2 Inhibitor	5		
		Sulfonylurea	6		
		Thiazolidinedione	7		
		Other subcutaneous/injectable agents	8		
		Other oral agents	9		

Anti-hyperglycemic Medication List 4	meddmtx4	Metformin	1	Single-Select	
		Alogliptin	2		
		Linagliptin	3		
		Saxagliptin	4		
		Sitagliptin	5		
		Dulaglutide	6		
		Exenatide	7		
		Exenatide extended release	8		
		Liraglutide	9		
		Lixisenatide	10		
		Semaglutide	12		
		Insulin	13		
		Canagliflozin	14		
		Dapagliflozin	15		
		Empagliflozin	16		
		Ertugliflozin	17		
		Glimepiride	18		
		Glipizide	19		
		Glyburide	20		
		Pioglitazone	21		
		Rosiglitazone	22		
		Other subcutaneous/injectable agents	23		
		Other oral agents	24		
Was there a documented reason for not prescribing a medication with proven CVD benefit?	dmtxreason	Yes	1	Single-Select	
		No/ND	2		

Follow-up appointment scheduled for diabetes management	dxfupsched	Yes	1	Single-Select	
		No	2		
Date of diabetes management follow-up visit	dxfupscheddt	MM/DD/YYYY	3	Date	
		Unknown	0		

Troubleshooting

d. File-Level Error Checks

The Uploader will check for validity in certain general items in each .csv file. Errors found will reject the file and prevent it from Uploading.

Error Message	Meaning
"File exceeds size limit. Upload files may not contain more than 500 records of patient data."	<p><u>File size:</u> Each .csv file may not contain more than 500 records of patient data. <i>This should ensure that the Upload does not fail due to memory issues and should reduce the processing time for each Upload file.</i></p>
"File does not meet .csv formatting requirements."	<p><u>Valid .csv formatting:</u></p> <ul style="list-style-type: none"> • Each record is on a separate line • Fields are separated with commas • Leading and trailing whitespace are ignored – <i>This enhancement adds user-friendliness since the current Uploader requires removal of any excess whitespace.</i> • Embedded commas – Fields must be delimited with double-quotes if the field itself contains commas • Embedded double-quotes – Fields with embedded double-quote characters must be enclosed within double-quote characters, and the embedded double-quote characters must be represented by a pair of double-quote characters. • Always Delimiting – Fields may always be delimited with double quotes, the delimiters will be parsed and discarded by the reading applications. <i>This enhancement also adds user-friendliness, accepting double quotes if present or not.</i>

“[insert column header text as present in Upload file] is not a valid variable name for HF.”	<u>Column headers:</u> If a column header does not match a data element name in the PMT database. The Uploader will verify that the column headers are valid data element names in the PMT database. (Note: This check ignores the additional system column headers created by the PMT Data Download Tool.) – <i>This enhancement makes it easy to Upload the .csv file created by the Data Download Tool.</i>
“Row 1 of the Upload file must contain valid column headers from HF's Upload file specifications.”	<u>Column headers:</u> If the file does not contain any column headers.
“[insert duplicated column header text as present in Upload file] is present more than once in the Upload file. Each column header must be unique.”	<u>Column headers:</u> If the file contains any duplicate column headers.
“Your account is not configured with any form groups for HF. Please contact the Help Desk for further assistance.”	<u>Column headers:</u> If you do not have access to any of the form groups applicable to the study (HF or Stroke) into which you are Uploading (and therefore the column headers are invalid).

b. File-Level Error Checks: General Data Content

The Uploader will check each data element value being Uploaded to see if they are valid entries. Errors found will reject the file and prevent it from Uploading.

Error Message	Meaning
<p>“[Insert Patient ID]: Invalid value present for data element [insert Brief Description] ([insert column header text]).”</p> <p><i>If any of the patient-level file errors to the right are found</i></p>	<p><u>Text variables:</u> The Uploader will verify that the rules for a Text variable present in the file have been met for each row of patient data that is not blank under that data element column.</p> <ul style="list-style-type: none"> • Check for length, types of characters allowed (as defined in the Instructions). <p><u>Integer variables:</u> The Uploader will verify that the rules for an Integer variable present in the file have been met for each row of patient data that is not blank under that data element column.</p> <ul style="list-style-type: none"> • Check for min/max values (as defined in the Instructions), numeric characters only. <p><u>Decimal variables:</u></p>

	<p>The Uploader will verify that the rules for a Decimal variable present in the file have been met for each row of patient data that is not blank under that data element column.</p> <ul style="list-style-type: none"> • Check for decimal precision, min/max values (as defined in the Instructions), numeric characters only.
	<p><u>Date variables:</u> The Uploader will verify that the rules for a Date variable present in the file have been met for each row of patient data that is not blank under that data element column.</p> <ul style="list-style-type: none"> • Check for precisions allowed (as defined in the Instructions), MM/DD/YYYY or MM/DD/YYYY HH:MM formatting. • If a corresponding “precision” column does not exist for a Date data element, the precision should default to “5” (MM/DD/YYYY HH:MM).
	<p><u>Multi-Select variables:</u> The Uploader will verify that the rules for a Multi-Select variable present in the file have been met for each row of patient data that is not blank under that data element column.</p> <ul style="list-style-type: none"> • Check for valid values (as defined in the Instructions), proper formatting of “[number]:[number]” (i.e. multiple values are separated by colons, if more than one value is indeed being Uploaded).
	<p><u>Select variables:</u> The Uploader will verify that the rules for a Single-Select variable present in the file I met for each row of patient data that is not blank under that data element column.</p> <ul style="list-style-type: none"> • Check for proper formatting, valid values (as defined in the Instructions).
	<p><u>Boolean variables:</u> The Uploader will verify that the rules for a Boolean variable present in the file have been met for each row of patient data that is not blank under that data element column.</p> <ul style="list-style-type: none"> • The only valid value is “1”
	<p><u>ICD-10 Code variables:</u> The Uploader will verify that a valid ICD-10 code is present in the file for each row of patient data that is not blank under an ICD-10 Code data element column. ICD-10 codes should be input with NO DECIMALS OR DOTS ranging in 3-7 characters in length.</p> <ul style="list-style-type: none"> • The data elements to check are jc_principd10diagnosis

	, jc_othericd10diag2-10, princicd10procedure, jc_othericd10proc2-5, gs_icd10stroke, gs_icd10stroke, tq_icd10, tq_princicd10dx • This step need not verify that the code applies to the study; it only needs to verify that the code is a valid ICD-10 code (based on the Discharge date contained in the Upload file).
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c. Specify Patient ID Type

Once the file has passed these initial steps, you will then be asked to specify if you would like to use the Patient IDs specified in the Upload file or create system-generated IDs.

If the system-generated ID option is selected, then the next step is skipped.

d. Check Inactive Patient IDs

If you specify that you would like to use the IDs from the Upload file, the Uploader will perform checks to identify IDs that are already used in the system by Inactive patients (i.e. deleted patients).

Error Message	Meaning
<p>“The following Patient IDs are already in use for inactive patients at your site. You may proceed with the Upload without including these patients or cancel to make corrections to your file. ”</p> <p>[List applicable Patient IDs below this message]</p>	<p>If a Patient ID in the .csv file matches an ID that exists for the site in their list of Inactive Patients.</p>

Change Log

Date	Data Element Description	Data Element Name	Change
4/12/2007	Payment Source	jc_pmtsrce	Added new code "Medicare-Other"
4/12/2007	First PCI Time only	jc_pci_timeonly	Added new field
4/12/2007	First PCI Time UTD	jc_pci_timeonly_utd	Added new field
4/12/2007	Principal Procedure Date UTD	jc_princproced_dtutd	Added new field
4/12/2007	Other Procedure 1 Date UTD	jc_otherproceduredat1_utd	Added new field
4/12/2007	Other Procedure 2 Date UTD	jc_otherproceduredat2_utd	Added new field
4/12/2007	Other Procedure 3 Date UTD	jc_otherproceduredat3_utd	Added new field
4/12/2007	Other Procedure 4 Date UTD	jc_otherproceduredat4_utd	Added new field
4/12/2007	Other Procedure 5 Date UTD	jc_otherproceduredat5_utd	Added new field
5/1/2007	Cardiac Diagnosis	aha_diagnosis	Added new code "Confirmed AMI – STEMI/non-STEMI unspecified"
6/18/2007	ICD-9-CM Diagnosis fields	jc_principaldiagnosis & jc_otherdiagnosis#	Added note about formatting
7/13/2007	Reason for Delay in Fibrinolytic Therapy	jc_delayfibrinolytic	Added new field
7/13/2007	Reason for Delay in PCI	jc_delaypci	Added new field
7/13/2007	Non-Primary PCI	jc_nonprimepci	Added new field
7/13/2007	Beta-blocker Prior to Admission	oh_betablocker	Added new field
10/26/2007	Point of Origin for Admission or Visit	jc_admitsource	Added new codes and updated text
10/26/2007	Clinical Trial	jc_clinical	Added new field
10/26/2007	National Provider ID	jc_npi	Added new field

1/3/2007			Added tips about Excel formatting to Sample HF File section
2/25/2008	Location	aha_location	Removed Field
2/25/2008	Amlodipine	oh_amlodipine	Removed Field
2/25/2008	Protocol Drug therapy – CV	oh_cv_only	Removed Field
2/25/2008	CV Only: Specify	oh_cv_only_specify	Removed Field
2/25/2008	Protocol drug therapy	oh_protocol_drug_ther	Removed Field
2/25/2008	Beta Blocker at Discharge	oh_betablocker	Removed Field
2/25/2008	Heart Sounds: S3	oh_heartsounds_s3	Removed Field
2/25/2008	Heart Sounds: S4	oh_heartsounds_s4	Removed Field
2/25/2008	Heart Sounds: Systolic murmur	oh_heartsounds_sysmur	Removed Field
2/25/2008	Hepatomegaly	oh_hepatomegaly	Removed Field
2/25/2008	ACE Contraindications	aha_acecontraindications	Removed Field
2/25/2008	Reason for no ARB at discharge.	Dyn_arbcontraindications	Removed Field
2/25/2008	ASA Contraindications	aha_asacontra	Removed Field
2/25/2008	Reason for no beta blocker	oh_nobb_reason	Removed Field
2/25/2008	Other Meds at Discharge	aha_othdiscmeds	Removed Field
2/25/2008	Contraindication to Hydralazine at Discharge	hf_contra_hydralaz_disc	Removed Field
2/25/2008	Low sodium diet	dyn_soddiet	Removed Field
2/25/2008	Medical History (Select All that Apply)	dyn_medhist	Removed Codes: Alcohol (18), Diabetes – Insulin use not documented (21)
2/25/2008	Ischemic etiology	oh_ischemic_etiology	Removed Code: History of CABG or PCI (1)
2/25/2008	Non-Ischemic etiology	oh_nonischemic_etiology	Removed Code: Valvular (2)

2/25/2008	Warfarin contraindication(s)	hf_contra_warfarin_disc_list	Removed Codes: Excess risk of fall documented by physician (4), Pregnancy (2), Documentation of medical reason(s) or patient reason(s) by a licensed healthcare professional (5), Other (6)
2/25/2008	Medical History (Select All that Apply)	dyn_medhist	Added Codes: Prior PCI (22), Prior CABG (23), Valvular Heart Disease (24), Prior CABG/PCI Undetermined (25)
2/25/2008	Characterization of HF	oh_hfcharacter	Added Code: ICD Shock/Sustained Ventricular Arrhythmia (11)
2/25/2008	Procedures	aha_procedures	Added Codes: Other PCI (Bare metal & drug alluding) (121), Stress Testing General (122)
2/25/2008	Warfarin contraindication(s)	hf_contra_warfarin_disc_list	Added Codes: Patient/Family refused (7), Serious side effect to medication (8), Terminal illness/Comfort Measures Only (9)
2/25/2008	Patient on no meds prior to admission	aha_nopriormeds	Added new field
2/25/2008	Beta-Blocker	aha_bbprior	Added new field
2/25/2008	K	aha_potassium_adm	Added new field
2/25/2008	K: units	aha_potassium_u_adm	Added new field
2/25/2008	K: Not Available	aha_potassium_adm_na	Added new field
2/25/2008	EKG QRS Duration (ms)	aha_ekg	Added new field
2/25/2008	Was the patient ambulating at the end of hospital day 2?	aha_ptambulatday2	Added new field
2/25/2008	Was DVT prophylaxis initiated by the end of hospital day 2?	aha_dvtprophylaxis	Added new field
2/25/2008	Was DVT or PE (pulmonary embolus) documented?	aha_dvtpe	Added new field
2/25/2008	NBNP at Discharge (pg/mL)	aha_nbnp_disc	Added new field
2/25/2008	NBNP Not Available	aha_nbnp_disc_na	Added new field
2/25/2008	Lipid Lowering Medication Class (assoc'd w/ first list)	aha_cholred1class	Added new field

2/25/2008	Lipid Lowering Medication Class (assoc'd w/ second list)	aha_cholred2class	Added new field
2/25/2008	Lipid Lowering Medication Class (assoc'd w/ third list)	aha_cholred3class	Added new field
2/25/2008	Ca channel blocker	aha_othcalcium	Added new field
2/25/2008	Digoxin	aha_othdigoxin	Added new field
2/25/2008	Diuretic	aha_othdiuretic	Added new field
2/25/2008	Loop	aha_othloop	Added new field
2/25/2008	Thiazide	aha_oththiazide	Added new field
2/25/2008	Nitrate	aha_othnitrate	Added new field
2/25/2008	Other anti-hypertensive	aha_othantihyper	Added new field
2/25/2008	Other	aha_othother	Added new field
2/25/2008	CRT therapy placed or prescribed at Discharge	hf_crt_prescribed	Added new field
2/25/2008	Reason for not placing or prescribing CRT therapy at Discharge	hf_contra_crt	Added new field
2/25/2008	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Added new field
2/25/2008	Other documented reason(s) for not placing or prescribing CRT therapy at Discharge	hf_other_crt	Added new field
2/25/2008	PMT used concurrently or retrospectively or combination?	aha_pmtused	Added new field
2/25/2008	Standardized Order Sets used?	aha_stdorder	Added new field
2/25/2008	Fasting Blood Glucose (mg/dL)	aha_fastingblood	Added new field
2/25/2008	New Diagnosis of Diabetes	aha_diagdm	Added new field

2/25/2008	Basis for Diagnosis	aha_diagdmbasis	Added new field
2/25/2008	Waist Circumference	aha_waist	Added new field
2/25/2008	Waist Circumference units	aha_waistunits	Added new field
2/25/2008	Not Documented	aha_waist_nd	Added new field
2/25/2008	Diabetic Tx	aha_dmtx	Added new field
2/25/2008	Taking any diabetic medication prior to admission?	aha_dmtxprior	Added new field
2/25/2008	Was Diabetes Teaching Provided?	aha_dmteaching	Added new field
4/3/2008	Rales Location	oh_rales_location	Data Element Options Text corrected for this field. No change to the database, just a documentation error in previous version of these instructions.
5/7/2008	Discharge Status	jc_discstatus	Changed code text: From: 05-Dsch/Trans to another type of institution not defined elsewhere in this code list (e.g. children's hospitals, cancer hospitals excluded from Medicare PPS, etc.) To: 70-Discharged/transferred to another Type of Health Care Institution not Defined Elsewhere in this Code List (See Code 05)
			Added new code: 05-Discharged/transferred to a Designated Cancer Center or Children's Hospital
5/7/2008	First In-Hospital LDL-Cholesterol Qualitative Description	jc_firstldldes	Added new field
5/7/2008	First In-Hospital LDL-Cholesterol Value	jc_firstldlval	Added new field
5/7/2008	First In-Hospital LDL-Cholesterol Value UTD	jc_firstldlvalutd	Added new field
5/7/2008	Lipid Lowering Agent Prescribed at Discharge	jc_lipiddisc	Added new field
5/7/2008	Plan for LDL-Cholesterol Test	jc_ldltestplan	Added new field

5/7/2008	Pre-Arrival LDL-Cholesterol Qualitative Description	jc_preldldes	Added new field
5/7/2008	Pre-Arrival LDL-Cholesterol Value	jc_preldlval	Added new field
5/7/2008	Pre-Arrival LDL-Cholesterol Value UTD	jc_preldlvalutd	Added new field
5/7/2008	Pre-Arrival Lipid Lowering Agent	jc_prelipidmed	Added new field
5/7/2008	Reason for No LDL-Cholesterol Testing	jc_reasonnoldltest	Added new field
5/7/2008	Reason for No Lipid Lowering Therapy	jc_reasonnolipidmed	Added new field
5/7/2008	In-Hospital LDL-Cholesterol Test	jc_inhospldltest	Added new field
5/7/2008	Pre-Arrival LDL-Cholesterol Test	jc_preldltest	Added new field
5/7/2008	First Documentation of Comfort Measures Only	jc_comfortonly2	Added new field
5/13/2008	Diabetic Tx	aha_dmtx	Added code: Other subcutaneous/injectable agents
8/4/2008		oh_nobb_reason	Removed from list of HF Fields required for Recognition measures
8/4/2008		oh_betablocker_disc	Removed from list of HF Fields required for Recognition measures
11/11/2008	Payment Source- Medicare	jc_medicare	Added new field
1/29/2009	Albumin	hfs_albumin	Added new field
1/29/2009	Albumin not available	hfs_albumin_na	Added new field
1/29/2009	Albumin Units	hfs_albumin_u	Added new field
1/29/2009	Amiodarone at DC	hfs_amiodaronedc	Added new field
1/29/2009	Antiarrhythmic at DC	hfs_antiarr	Added new field

1/29/2009	BUN discharge	hfs_bun_dc	Added new field
1/29/2009	Bun DC N/A	hfs_bun_dc_na	Added new field
1/29/2009	Bun DC units	hfs_bun_dc_u	Added new field
1/29/2009	Dofetilide at DC	hfs_dofetilidedc	Added new field
1/29/2009	DVT if Yes	hfs_dvtyes	Added new field
1/29/2009	EKG Not Available	hfs_ekg_na	Added new field
1/29/2009	Fasting Blood Glucose Not Available	hfs_fastingblood_na	Added new field
1/29/2009	Influenza Vaccination	hfs_fluvacc	Added new field
1/29/2009	Follow Up Visit Date	hfs_fuvisitdate	Added new field
1/29/2009	Outpatient HF management programs	hfs_hfmgmntyes	Added new field
1/29/2009	*In-hospital Death	hfs_inpatdeath	Added new field
1/29/2009	GWTG HF Mortality Risk Score	hfs_mortalityrisk	Added new field
1/29/2009	Omega-3 fatty acid supplement	hfs_omega	Added new field
1/29/2009	Omega 3 contraindications	hfs_omegaconta	Added new field
1/29/2009	Omega 3 prescribed	hfs_omegapres	Added new field
1/29/2009	Oral Medications during hospitalization	hfs_oralmeds	Added new field
1/29/2009	Parenteral Therapy – Other IV vasodilator	hfs_otheriv	Added new field
1/29/2009	Pneumococcal Vaccination	hfs_pnevacc	Added new field
1/29/2009	Procainamide at DC	hfs_procaïnamide	Added new field
1/29/2009	Parenteral Therapy – Continuous infusion	hfs_ptcontinfus	Added new field
1/29/2009	Parenteral Therapy – Dobutamine	hfs_ptdobutamine	Added new field
1/29/2009	Parenteral Therapy – Dopamine	hfs_ptdopamine	Added new field

1/29/2009	Parenteral Therapy – Intermittent bolus	hfs_ptinterbolus	Added new field
1/29/2009	Parenteral Therapy – Loop diuretics	hfs_ptloop	Added new field
1/29/2009	Parenteral Therapy – Milrinone	hfs_ptmilrinone	Added new field
1/29/2009	Parenteral Therapy – Nesiritide	hfs_ptnesiritide	Added new field
1/29/2009	Parenteral Therapy – Nitroglycerine	hfs_ptnitroglycerine	Added new field
1/29/2009	Parenteral Therapy – None	hfs_ptnone	Added new field
1/29/2009	Parenteral Therapy – Vasopressin antagonist	hfs_ptvasoant	Added new field
1/29/2009	Renin Inhibitor	hfs_renin	Added new field
1/29/2009	Renin Inhibitor DC	hfs_renindc	Added new field
1/29/2009	Sotalol at DC	hfs_sotaloldc	Added new field
1/29/2009	Procedures	aha_procedures	Updated Codes
1/29/2009	Was the patient ambulating at the end of hospital day 2?	aha_ptambulatday2	Updated Codes
1/29/2009	Was DVT or PE (pulmonary embolus) documented?	aha_dvtpe	Updated Codes
1/29/2009	Was DVT prophylaxis initiated by the end of hospital day 2?	aha_dvtprophylaxis	Updated Codes
1/29/2009	Documented medical reason(s) for not placing or prescribing ICD therapy	hf_contra_icd_list	Updated Codes
1/29/2009	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Updated Codes
1/29/2009	Was DVT or PE (pulmonary embolus) documented?	aha_dvtpe	Updated Codes
1/29/2009	Oral Medications during hospitalization	hfs_oralmeds	Updated Codes
1/29/2009	Point of Origin for Admission or Visit	jc_admitsource	Updated Codes
1/29/2009	Heart Rate	oh_hearttrate	Now Required for HF Recognition Measure

1/29/2009	Blood Pressure: Systolic	aha_systolic	Now Required for HF Recognition Measure
1/29/2009	Blood Pressure: Diastolic	aha_diastolic	Now Required for HF Recognition Measure
1/29/2009	Was the patient ambulating at the end of hospital day 2?	aha_ptambulatday2	Now Required for HF Recognition Measure
1/29/2009	Oral Medications during hospitalization	hfs_oralmeds	Now Required for HF Recognition Measure
1/29/2009	Was DVT prophylaxis initiated by the end of hospital day 2?	aha_dvtprophylaxis	Now Required for HF Recognition Measure
1/29/2009	*In-hospital Death	hfs_inpatdeath	Now Required for HF Recognition Measure
1/29/2009	Is there physician/APN/PA documentation of comfort measures only during the hospital stay?	jc_comfortonly	Now Required for HF Recognition Measure
1/29/2009	Comfort measures only: Earliest	jc_comfortonly2	Now Required for HF Recognition Measure
1/29/2009	During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. AMI, HF)?	jc_clinical	Now Required for HF Recognition Measure
1/29/2009	Discharge Blood Pressure Systolic	oh_discbpsyst	Now Required for HF Recognition Measure
1/29/2009	Discharge Blood Pressure Diastolic	oh_discbpdias	Now Required for HF Recognition Measure
1/29/2009	Warfarin at discharge	oh_warfarin_disc	Now Required for HF Recognition Measure
1/29/2009	Contraindication to Warfarin at Discharge	hf_contra_warfarin_disc	Now Required for HF Recognition Measure
1/29/2009	Aldosterone antagonist at discharge	oh_aldosterone_disc	Now Required for HF Recognition Measure
1/29/2009	Contraindication to or reason against Aldosterone antagonist at Discharge	hf_contra_aldosterone_disc	Now Required for HF Recognition Measure
1/29/2009	Hydralazine Nitrate – Prescribed?	hf_isosorbide	Now Required for HF Recognition Measure
1/29/2009	Hydralazine Nitrate – Contraindicated?	hf_contraisosorbide	Now Required for HF Recognition Measure

1/29/2009	ICD therapy placed or prescribed at Discharge	hf_icd_prescribed	Now Required for HF Recognition Measure
1/29/2009	Reason for not placing or prescribing ICD therapy at Discharge	hf_contra_icd	Now Required for HF Recognition Measure
1/29/2009	CRT therapy placed or prescribed at Discharge	hf_crt_prescribed	Now Required for HF Recognition Measure
1/29/2009	Reason for not placing or prescribing CRT therapy at Discharge	hf_contra_crt	Now Required for HF Recognition Measure
1/29/2009	Follow Up Visit Date	hfs_fuvisitdate	Now Required for HF Recognition Measure
1/29/2009	One of the Parenteral Therapies or None	One of the Parenteral Therapies or None	Now Required for HF Recognition Measure
2/17/2009	Admit Date	jc_admitdate	In "Formatting the File" section: Column headers are also required for jc_admitdate and jc_dob
2/17/2009	Date of Birth	jc_dob	In "Formatting the File" section: Column headers are also required for jc_admitdate and jc_dob
3/27/2009	Payment Source – Medicare	jc_medicare	Updated responses from "Yes/No" to "Medicare/Non-Medicare"
6/9/2009	Discharge Blood Pressure Systolic – Supine	oh_discbpsyst	Updated label by adding "Supine"
6/9/2009	Discharge Blood Pressure Diastolic – Supine	oh_discbpdias	Updated label by adding "Supine"
9/22/2009	Beta Blocker at Discharge	oh_betablocker_disc	Added code 3 – Bisoprolol
1/19/2010	Discharge Status	jc_discstatus	Added code 24 (21-Dsch/Trans to court/law enforcement)
4/19/2010			Removed all references to CAD
7/21/2010	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Added code 3 – Not an optimal medical therapy
7/21/2010	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Added code 3 – Not an optimal medical therapy Added code 4 – Not NYHA functional Class III or ambulatory Class IV
1/26/2010	Patient adherence contract/compact used?	aha_ptcontract	Added new field

1/26/2010	Discharge Checklist used?	aha_checklist	Added new field
3/1/2011	Comfort Measures Only	jc_comfortonly2	Updated element listed in the Required Data Elements list from jc_comfortonly to jc_comfortonly2
3/1/2011	Point of Origin for Admission or Visit	jc_admitsource	Removed element from list of Required Data Elements
3/7/2011	Was DVT or PE (pulmonary embolus) documented?	aha_dvtpe	Removed code 3 for "Not Documented". Code 2 represents "No/Not Documented"
4/9/2011	For patients discharged on or after 04/01/2011: What was the patient's discharge disposition on the day of discharge?	jc_disposition	Added new field
4/9/2011	Other Diagnosis Codes	jc_otherdiagnosis16 – 24	Added new fields
4/9/2011	Other Procedure Codes	jc_otherprocedure 6 -24	Added new fields
4/9/2011	Other Procedure Date	jc_otherproceduredatetime 6 -24	Added new fields
4/9/2011	Other Procedure Date UTD	jc_otherproceduredatetime_utd 6 -24	Added new fields
5/6/2011	Anticoagulation Therapy	oh_warfarin	Updated data element description from Warfarin to Anticoagulation Therapy
5/9/2011	Anticoagulation Therapy at Discharge	oh_warfarin_disc	Updated data element description from Warfarin to Anticoagulation Therapy
5/9/2011	Warfarin contraindication(s)	hf_contra_warfarin_disc_list	Updated text for code 1 to Allergy to or complication r/t anticoagulation therapy (hx or current)
5/9/2011	Anticoagulation Therapy Education	oh_warfarin_instr	Updated brief description to Anticoagulation Therapy Education
5/9/2011	Anticoagulation Type	aha_anticoagtype	Added new field
5/6/2011	Contraindications or Other Documented Reason(s) For Not Providing ACEI:	aha_acediscontraspec	Added new field
5/9/2011	Contraindication or Other Documented Reason(s) For Not Providing ARB:	aha_arbdiscontraspec	Added new field
5/9/2011	Contraindications or Other Documented Reason(s) For Not Providing Beta Blockers:	aha_betadiscontratype	Added new field
5/9/2011	ICD Counseling	aha_icdcounseling	Added new field

5/9/2011	Documented Medical Reason(s) for Not Counseling?	aha_noicdcounseling	Added new field
5/10/2011	Location of first follow-up visit:	aha_fulocation	Added new field
5/10/2011	Medical Reason for no documentation of follow-up appointment being scheduled?	aha_reasnofu	Added new field and listed it as an achievement.
5/10/2011	Date of first follow-up phone call:	aha_phone	Added new field
10/1/2011	Point of Origin for Admission or Visit	aha_admitsource	Replaced element jc_admitsource with aha_admitsource. Updated codes and code values (differences from previous element).
10/1/2011	Medical History (Select all that apply)	dyn_medhist	Added code 28
10/1/2011	Ischemic etiology	oh_ischemic_etiology	Retired field
10/1/2011	Known history of HF prior to this admission?	oh_priorhf	Updated field format from checkbox to Yes/No and updated element description.
10/1/2011	Cardiac Diagnosis	aha_diagnosis	Removed all codes except for 130 and 4.
10/1/2011	Procedures	aha_procedures	Added code 126
10/1/2011	If Yes (DVT prophylaxis)	hfs_dvtyes	Added codes that were missing 5-9 and updated code text.
10/1/2011	Beta-blockers within 24 hours after hospital arrival	jc_beta24	Removed CAD element
10/1/2011	Contraindications(s) to Beta-blockers on arrival	jc_betaarrcontra	Removed CAD element
10/1/2011	If Other Health Care Facility	gs_othfacility	Added and listed in red as an achievement.
10/1/2011	Other Antiplatelets (first dropdown list)	aha_antiplatelets1	Added code 7
10/1/2011	Other Antiplatelets (second dropdown list)	aha_antiplatelets2	Added code 7
10/1/2011	Aldosterone antagonist contraindication(s) (check all that apply)	hf_contra_aldoster_disc_list	Added codes 5 and 6
10/1/2011	Other documented reason(s) for not providing Aldosterone antagonist at Discharge (check all that apply)	hf_other_aldosterone	Removed

10/1/2011	Hydralazine Nitrate - Contraindications or Other Documented Reason(s) For Not Providing Hydralazine Nitrate	hf_othconraisosorbide	Added
10/1/2011	Reason for not counseling?	aha_icdreason	Added
10/1/2011	Documented Medical Reason(s) for Not Counseling?	aha_noicdcounseling	Added codes 4 and 5
10/1/2011	Documented medical reason(s) for not placing or prescribing ICD therapy	hf_contra_icd_list	Added codes 4 and 5
10/1/2011	Other documented reason(s) for not placing or prescribing ICD therapy at Discharge	hf_other_icd	Removed
10/1/2011	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Added codes 4 and 5
10/1/2011	Other documented reason(s) for not placing or prescribing CRT therapy at Discharge	hf_other_crt	Removed
10/1/2011	Follow-up Visit Scheduled	aha_followsched	Added
10/1/2011	Follow up Phone Call Scheduled	aha_phonesched	Added
10/1/2011	Referral to AHA Heart Failure Interactive Workbook	hfs_referalaha	Added
10/1/2011	Provision of at least 60 minutes of Heart Failure Education by a qualified education	hfs_provision	Added
10/1/2011	Advanced Care Plan/Surrogate Decision Maker Documented Or Discussed?	hfs_advancedcare	Added
10/1/2011	CPT Code	cptpicker	Added
10/1/2011	CPT Code Date	cptpickerdate	Added
10/1/2011	First In-Hospital LDL-Cholesterol Qualitative Description	jc_firstldldes	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	First In-Hospital LDL-Cholesterol Value	jc_firstldlval	Removed (previous AMI field that no longer applies to dataset)

10/1/2011	First In-Hospital LDL-Cholesterol Value UTD	jc_firstldlvalutd	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Lipid Lowering Agent Prescribed at Discharge	jc_lipiddisc	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Plan for LDL-Cholesterol Test	jc_ldltestplan	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Pre-Arrival LDL-Cholesterol Qualitative Description	jc_preldldes	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Pre-Arrival LDL-Cholesterol Value	jc_preldlval	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Pre-Arrival LDL-Cholesterol Value UTD	jc_preldlvalutd	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Pre-Arrival Lipid Lowering Agent	jc_prelipidmed	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Reason for No LDL-Cholesterol Testing	jc_reasonnoldltest	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Reason for No Lipid Lowering Therapy	jc_reasonnolipidmed	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	In-Hospital LDL-Cholesterol Test	jc_inhospldltest	Removed (previous AMI field that no longer applies to dataset)
10/1/2011	Pre-Arrival LDL-Cholesterol Test	jc_preldltest	Removed (previous AMI field that no longer applies to dataset)
01/10/2012	Anticoagulation therapy at discharge - Medication	oh_warfarin_disc_medication	Added
01/10/2012			Updated formatting to clearly identify elements which are required, which are used in Achievement or Quality measures, and which are required and used in Achievement or Quality measures.
04/01/2012	Warfarin at discharge - Medication	oh_warfarin_disc_medication	Added code 11 Eliquis (apixaban), Updated code 1 to Coumadin (warfarin)
04/01/2012	Other Antiplatelets (first dropdown list)	aha_antiplatelets1	Added code 9 - Brilinta (Ticagrelor) – Sequence: 4
04/01/2012	Other Antiplatelets (second dropdown list)	aha_antiplatelets2	Added code 9 - Brilinta (Ticagrelor) - Sequence: 4
04/01/2012	CRT-P Placed or Prescribed?	hf_crtp	Added
04/01/2012	Diabetic Medications Prior to Admission	oh_dm	Added
05/01/2012	Outpatient HF Management	oh_hfmgmnt	Inserted code 2 for “No”.

10/01/2012	If race "Asian" is checked	jc_asian	Added field and codes.
10/01/2012	If race "Native Hawaiian or Pacific Islander" is checked	jc_hawpac	Added field and codes. Updated code 1.
10/01/2012	If "Hispanic Ethnicity" yes,	jc_hisp	Added field and codes.
10/01/2012	Type of Anticoagulation Therapy	oh_anticoag	Added field and codes.
10/01/2012	Other at DC	hfs_oth	Added field and codes.
10/01/2012	Ranolazine at DC	aha_ran	Added field and codes.
10/01/2012	Race	sp_race	Updated sp_race from drop down to radio Buttons. Updated the sequence and column numbers.
10/01/2012	Hydralazine Nitrate – Prescribed?	hf_isosorbide	Corrected field names , replacing capital H with h
10/01/2012	Hydralazine Nitrate – Contraindicated?	hf_contraisosorbide	Corrected field names , replacing capital H with h
10/01/2012	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Corrected the code list and the code values.
3/27/2013	EKG QRS Morphology	aha_ekg_mor	Added
3/27/2013	Atrial Flutter (At presentation or during hospitalization)	hf_atrialf flutter	Added
3/27/2013	Documented as New Onset – Atrial Flutter	hf_atrialf flutter_new	Added
3/27/2013	If yes, Class of Beta Blocker	hf_classbb	Added
3/27/2013	Aldosterone: If Yes, Medication	hf_aldosterone	Added
3/27/2013	Aldosterone: Dosage	hf_aldosterone_dose	Added
3/27/2013	Aldosterone: Frequency	hf_aldosterone_freq	Added
3/27/2013	Aldosterone antagonist contraindication(s) (select all that apply)	hf_contra_aldoster_disc_list	Added code 7 “Other medical reasons” Updated code 4 as “Other contraindications”
3/27/2013	Medical History (Select All that Apply)	dyn_medhist	Removed code 25 “Prior CABG/PCI Undetermined”
3/27/2013	Race	hf_race	Added

3/27/2013	Race	sp_race	No longer used for Quality Measures. Moved down to Admin/Joint Commission tab.
3/27/2013	For patients discharged prior to 04/01/2011: Discharge Status	jc_discstatus	Removed
7/8/2013	Documented medical reason(s) for not placing or prescribing ICD therapy	hf_contra_icd_list	Updated code 3 to be "Not receiving an optimal medical therapy"
7/8/2013	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Updated code 3 to be "Not receiving an optimal medical therapy"
10/2013	Beta Blocker at Discharge	oh_betablocker_disc	Removed code 10 "Cartrol (Cartelol)"
10/2013	If Yes	hfs_dvtyes	Updated to MULTI-SELECT and removed code 5 "Graduated compression stockings (GCS)"
10/2013	Payment Source	jc_pmtsorce	Updated codes 3 and 5 to include "Private/HMO"; changed to bold
10/2013	Payment Source - Medicare	jc_medicare	Moved between cptpickerdate and jc_sample; changed to bold
10/2013	In-hospital Death	hfs_inpatdeath	Removed
10/2013	Advance Directive Executed	ac_advdir	Added
10/2013	Care Transition Record Transmitted	ac_care	Added
10/2013	All were included	ac_ctrall	Added
10/2013	Discharge Medications	ac_dcmed	Added
10/2013	Follow-up Treatment(s) and Service(s) Needed	ac_futreat	Added
10/2013	Procedures Performed During Hospitalization	ac_pxhosp	Added
10/2013	Reason for Hospitalization	ac_reas	Added
10/2013	Treatment(s)/Service(s) Provided	ac_treat	Added
10/2013	If Home, special discharge circumstances	aha_special	Added
10/2013	Medical Reason for no follow-up appointment being scheduled?	aha_reasnofu	Updated label from "Medical Reason for no follow-up appointment being scheduled?" to "Medical or Patient Reason for no follow-up appointment being scheduled?"

4/2014	Care Transition Record Transmitted	ac_care	Updated code 2 label to “Exists, but not transmitted by the seventh post-discharge day”
4/2014	Documented Reason(s) for Not Placing or Prescribing ICD Therapy?	hf_contra_icd_list	Updated code 2 label to remove “not an optimal medical therapy” and add “recent revascularization”
4/2014	Appendix 1		Added appendix for ACHF data elements and codes
12/2014	If Home, special discharge circumstances	aha_special	Added code 5 “Home Health Care”
12/2014	Beta Blocker at Discharge	oh_betablocker_disc	Updated code 11 text
05/2015	Address Activity Level	jc_actlevel	No longer required—marked field as optional
05/2015	Address Follow-up	jc_followup	No longer required—marked field as optional
05/2015	Address Symptoms Worsening	jc_sympworse	No longer required—marked field as optional
05/2015	Address Diet	jc_diet	No longer required—marked field as optional
05/2015	Address Medications	jc_medications	No longer required—marked field as optional
05/2015	Address Weight Monitoring	jc_weightmonitor	No longer required—marked field as optional
09/2015	Principal Diagnosis	jc_principcd10diagnosis	Updated for ICD-10
09/2015	Other Diagnosis	jc_othericd10diag(2-24)	Updated for ICD-10
09/2015	Principal Procedure	princicd10procedure	Updated for ICD-10
09/2015	Other Procedure	jc_othericd10proc(2-24)	Updated for ICD-10
10/2015	ARNi prescribed at discharge	jc_arnidisc	New medication class added
10/2015	ARNi	aha_arni	New medication class added
10/2015	ARNi Dosage	aha_arnidose	New medication class added
10/2015	ARNi Frequency	aha_arnifreq	New medication class added
10/2015	Contraindication to ARNi at discharge	jc_arnidisccontra	New medication class added
10/2015	Contraindications or Other Documented Reasons(s) for Not Providing ARNi at Discharge:	aha_arnidisccontraspec	New medication class added

10/2015	Other Diagnosis	jc_othericd10diag	Updated instructions for multiple other diagnoses
12/2015	Oral Medications during Hospitalization	hfs_oralmeds	Added ARNI
12/2015	Required data elements		Added aha_arni
12/2015	BNP at Discharge	oh_bnp_disc	Updated Data element Description
12/2015	BNP Units at Discharge	oh_bnp_units_disc	Updated Data element Description
3/2016	Medical History	dyn_medhist	Added new code for 'CardioMEMS (implantable hemodynamic monitor)'
3/2016	Procedures	aha_procedures	Added new code for 'CardioMEMS (implantable hemodynamic monitor)'
10/2016	Oral Medications during hospitalization	hfs_oralmeds	Updated Data Element Options Text for Data Element Value 7
10/2016	ARNI prescribed at discharge	jc_arnidisc	Updated Data Element Description
10/2016	ARNI	aha_arni	Updated Data Element Description
10/2016	ARNI Dosage	aha_arnidose	Updated Data Element Description
10/2016	ARNI Frequency	aha_arnifreq	Updated Data Element Description
10/2016	Contraindication to ARNI at discharge	jc_arnidisccontra	Updated Data Element Description
10/2016	Contraindications or Other Documented Reasons(s) for Not Providing ARNI at Discharge:	aha_arnidisccontraspec	Updated Data Element Description
10/2016	Reasons for not switching to ARNI at discharge:	aha_reasonsarni	Added
10/2016	New onset heart failure	aha_arnionset	Added
10/2016	NYHA Class I	aha_arniclass1	Added
10/2016	NYHA Class IV	aha_arniclass4	Added
10/2016	Not previously tolerating ACEI or ARB	aha_arniaceiarb	Added
10/2016	Ivabradine - Prescribed?	hf_ivabradine	Added

10/2016	Ivabradine - Contraindicated?	hf_contraiva	Added
10/2016	Ivabradine - Contraindications or Other Documented Reason(s) For Not Providing Ivabradine:	hf_othcontraiva	Added
1/2017	National Provider ID	jc_providernpi	Updated data element name from "jc_npi" to "jc_providernpi"
3/2017	Arrival Location	acc_arvloc	
3/2017	ED Disposition	acc_eddisp	
3/2017	Date/time of ED Discharge	acc_eddisctm	
3/2017	Observation Disposition	acc_obsdisp	
3/2017	Date/time of Observation Discharge	acc_obsdsptm	
3/2017	BNP Date/Time	acc_bnpdt	
3/2017	NT-proBNP Date/Time:	acc_nbnpdt	
3/2017	Date/Time of first electrocardiogram	acc_ekgdt	
3/2017	Date of evaluation of Left Ventricular Ejection Fraction (if not during this hospitalization, please provide date of most recent)	acc_dtlvefev	
3/2017	Transition record received by patient/family at discharge:	acc_trecdisc	
3/2017	Care Transition record transmitted to receiving facility, physician or healthcare provider:	acc_ctrhcp	
3/2017	If yes, date/time:	acc_ctrtime	
3/2017	Medication Reconciliation completed on arrival	acc_recnarvl	
3/2017	Precipitant Identification Attempted	acc_piatmpt	

3/2017	Precipitant Identification Identified	acc_piident	
3/2017	NYHA Class on arrival	acc_nyvaarvl	
3/2017	Early Stabilization Medications - Loop diuretics - Administered	acc_loopadmn	
3/2017	Early Stabilization Medications - Loop diuretics - Route	acc_looprte	
3/2017	Early Stabilization Medications - Loop diuretics - Date/Time	acc_loopdate	
3/2017	Early Stabilization Medications - Vasodilator/Nitrates - Administered	acc_vasoadmn	
3/2017	Early Stabilization Medications - Vasodilator/Nitrates - Route	acc_vasorte	
3/2017	Early Stabilization Medications - Vasodilator/Nitrates - Date/Time	acc_vasodate	
3/2017	Date/Time first seen by provider (MD,NP,PA)	acc_dateseen	
3/2017	Non-invasive positive pressure performed	acc_ninvperf	
3/2017	Interventions/ Assessments/ Diagnostics Performed in ED - NYHA/Symptoms with activity performed	acc_nyhaperf	
3/2017	Echocardiography performed in ED	acc_echoperf	
3/2017	Echocardiography performed in ED - LVEF	acc_echolvef	
3/2017	HF ED order set utilized	acc_hfedutil	
3/2017	Observation - Cardiology Consult	acc_cardcons	
3/2017	Observation - Functional Assessment	acc_funcasmt	

3/2017	Observation - Response to therapy	acc_respthr	
3/2017	Observation - NYHA/symptoms with activity performed	acc_nyhasymp	
3/2017	HF Observation order set utilized	acc_hforder	
3/2017	Inpatient - Admission location	acc_admnloc	
3/2017	Inpatient - Admitted by	acc_admtby	
3/2017	Inpatient - Heart Failure Stage	acc_hfstage	
3/2017	In-Hospital Events - Worsening Renal Function	acc_wrsrenal	
3/2017	In-Hospital Events - Transfer to higher intensity of care (within 48 hours)	acc_trnsint	
3/2017	In-Hospital Events - Cardiac Arrest	acc_crdarst	
3/2017	In-Hospital Events - Stroke	acc_strk	
3/2017	In-Hospital Events - Myocardial Infarction	acc_myoinf	
3/2017	Daily Assessments - Electrolytes	acc_daelec	
3/2017	Daily Assessments - Renal function	acc_darenal	
3/2017	Daily Assessments - Functional Status	acc_dafunc	
3/2017	Daily Assessments - Physical Exam	acc_daphys	
3/2017	Daily Assessments - Intake/Output	acc_daintake	
3/2017	Daily Assessments - Weight	acc_daweight	
3/2017	Cardiology Consult	acc_cardcnst	

3/2017	HF inpatient order set utilized	acc_hfinpord	
3/2017	NYHA Class at discharge	acc_nyhadisc	
3/2017	Home inotrope infusion	acc_homeintr	
3/2017	Plan to Transplant	acc_plantrns	
3/2017	Plan to Implant Mechanical Circulatory Support	acc_planimpl	
3/2017	Patient/family education on self-care documented	acc_patedu	
3/2017	Referral to Advanced therapy facility or HF specialist	acc_refadvhf	
07/2017	Heart Failure Diagnosis	aha_diagnosis	Updated field display label Updated code text for 130, 4 Added new code 3
06/2018	Referral to AHA My HF Guide/Heart Failure Interactive Workbook	hfs_referalaha	Updated field display label
06/2018	Medical History (Select All that Apply)	dyn_medhist	Added new code 30
06/2018	Sleep-Disordered Breathing Type	sleep_type	Added new element
06/2018	Sleep-Disordered Breathing Equipment Used at Home	sleep_equip	Added new element
06/2018	Ferritin	oh_ferritin	Added new element
06/2018	Parenteral Therapy - Iron	hfs_iron	Added new element
06/2018	Warfarin at discharge - dosage	oh_warfarin_disc_dose	Added element
06/2018	Lipid Lowering Medication Class (assoc'd w/ first list)	aha_cholred1class	Added code 9 Updated element format
06/2018	Lipid Lowering Medication Class (assoc'd w/ second list)	aha_cholred2class	Added code 9 Updated element format
06/2018	Lipid Lowering Medication Class (assoc'd w/ third list)	aha_cholred3class	Added code 9 Updated element format

06/2018	Lipid Lowering Medication(s) (first dropdown list)	aha_cholred1	Added codes 106 & 107
06/2018	Lipid Lowering Medication(s) (second dropdown list)	aha_cholred2	Added codes 106 & 107
06/2018	Lipid Lowering Medication(s) (third dropdown list)	aha_cholred3	Added codes 106 & 107
06/2018	Lipid Lowering Medication Dosage (assoc'd w/ first list)	aha_cholred1dose	Added element
06/2018	Lipid Lowering Medication Dosage (assoc'd w/ second list)	aha_cholred2dose	Added element
06/2018	Lipid Lowering Medication Dosage (assoc'd w/ third list)	aha_cholred3dose	Added element
06/2018	Lipid Lowering Medication Frequency (assoc'd w/ first list)	aha_cholred1freq	Added element
06/2018	Lipid Lowering Medication Frequency (assoc'd w/ second list)	aha_cholred2freq	Added element
06/2018	Lipid Lowering Medication Frequency (assoc'd w/ third list)	aha_cholred3freq	Added element
06/2018	Location of first follow-up visit:	aha_fulocation	Added code 4
06/2018	Referral to Sleep Study	oh_sleepstudy	Added new element
06/2018	Medical History - None	dyn_medhistnone	Added new element
07/2018	Medical History (Select All that Apply)	dyn_medhist	Removed code 20
08/2018	Appendix 2: Heart Failure Optional data elements and codes	oh_optional1 oh_optional2 oh_optional3 oh_optional4 oh_optional5 oh_optional6 oh_optional7	Removed elements from Data Elements section and added them to Appendix 2

		oh_optional8 oh_optional9 oh_optional10	
09/2018	JVP cm	oh_jvd_cm	Removed duplicate codes 1 & 2
09/2018	Discharge Heart rate	oh_dischr	Updated max field length
09/2018	Homeless (Historic)	jc_homeless	Updated display label
09/2018	Discharge Weight	oh_discweight	Updated max field length
09/2018	Not Well Documented	oh_discweight_nwd	Updated element format
09/2018	Discharge Heart Rate ND	oh_dischrnd	Added element
09/2018	Procainamide at Discharge	hfs_procainamide	Updated display label
09/2018	Aspirin at discharge - dosage	oh_aspirin_disc_dose	Removed element
09/2018	Aspirin at discharge - frequency	oh_aspirin_disc_freq	Removed element
09/2018	Warfarin at discharge – dosage	oh_warfarin_disc_dose	Removed element
09/2018	ARNI Dosage	aha_arnidose	Removed element
09/2018	ARNI Frequency	aha_arnifreq	Removed element
09/2018	Dosage	hf_aldosterone_dose	Removed element
09/2018	Frequency	hf_aldosterone_freq	Removed element
09/2018	Lipid Lowering Medication Dosage (assoc'd w/ first list)	aha_cholred1dose	Removed element
09/2018	Lipid Lowering Medication Frequency (assoc'd w/ first list)	aha_cholred1freq	Removed element
09/2018	Lipid Lowering Medication Dosage (assoc'd w/ second list)	aha_cholred2dose	Removed element
09/2018	Lipid Lowering Medication Frequency (assoc'd w/ second list)	aha_cholred2freq	Removed element

09/2018	Lipid Lowering Medication Dosage (assoc'd w/ third list)	aha_cholred3dose	Removed element
09/2018	Lipid Lowering Medication Frequency (assoc'd w/ third list)	aha_cholred3freq	Removed element
10/2018	Follow-up Visit Scheduled	aha_followsched	Noted the element as an achievement measure and updated font color to red
11/2018	Smoking Cessation Therapies Prescribed	aha_smokcesmeds	Added element
11/2018	Smoking Treatment Not Specified	aha_treatnotsp	Added element
09/2019	N/A	N/A	Added a note to the Introduction section that a blank value in an element column will not overwrite existing data.
09/2019	Medical History (Select All that Apply)	dyn_medhist	Added codes 31 & 32
09/2019	Appendix 4: Heart Failure Diabetes data elements and codes	dmttype dmduration presdmtx dmmedspecadm classdmtx1 meddmtx1 classdmtx2 meddmtx2 classdmtx3 meddmtx3 classdmtx4 meddmtx5 dxfupsched dxfupscheddt	Added Appendix 4 for Diabetes data elements
09/2019	Diabetes Type	dmttype	Added element
09/2019	Diabetes Duration	dmduration	Added element

09/2019	Medical History (Select All that Apply)	dyn_medhist	Removed codes 4 & 5
09/2019	Diabetes - Insulin treated	histdmins	Added element
09/2019	Diabetes - Non-insulin treated	histdmnonins	Added element
09/2019	Anti-hyperglycemic medications:	oh_dm	Updated display label
09/2019	Anti-hyperglycemic Medications Prescribed at Discharge?	presdmtx	Added element
09/2019	Anti-hyperglycemic medications	dmmedspecadm	Added element
09/2019	Anti-hyperglycemic Medication Class 1	classdmtx1	Added element
09/2019	Anti-hyperglycemic Medication List 1	meddmtx1	Added element
09/2019	Anti-hyperglycemic Medication Class 2	classdmtx2	Added element
09/2019	Anti-hyperglycemic Medication List 2	meddmtx2	Added element
09/2019	Anti-hyperglycemic Medication Class 3	classdmtx3	Added element
09/2019	Anti-hyperglycemic Medication List 3	meddmtx3	Added element
09/2019	Anti-hyperglycemic Medication Class 4	classdmtx4	Added element
09/2019	Anti-hyperglycemic Medication List 4	meddmtx4	Added element
09/2019	Follow-up appointment scheduled for diabetes management	dxfupsched	Added element
09/2019	Date of diabetes management follow-up visit	dxfupscheddt	Added element
09/2019	Optional 11	cust_optional11	Added element to Appendix 2

09/2019	Optional 12	cust_optional12	Added element to Appendix 2
10/2019	Angiotensin Receptor Neprilysin Inhibitor (ARNI)	oh_arni	Added element
10/2019	Anti-hyperglycemic Medication List 1	meddmtx1	Removed code 11
10/2019	Anti-hyperglycemic Medication List 2	meddmtx2	Removed code 11
10/2019	Anti-hyperglycemic Medication List 3	meddmtx3	Removed code 11
10/2019	Anti-hyperglycemic Medication List 4	meddmtx4	Removed code 11
10/2019	Was there a documented reason for not prescribing a medication with proven CVD benefit?	dmtxreason	Updated display label
11/2019	N/A	N/A	Updated PDF filename title
11/2019	Documented medical reason(s) for not placing or prescribing CRT therapy	hf_contra_crt_list	Updated element format to Multi-Select
2/2020	Anti-hyperglycemic medications	dmmedspecadm	Updated code 5 text
2/2020	Diabetes Type	dmtype	Added code 3