NATIONAL HEART FAILURE AUDIT

User Guide

Dataset version 4.2.1

Valid from 1 April 2014

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Introduction

The National Heart Failure Audit was established in 2007 and has now collected over 200,000 records of heart failure-coded hospital admissions. The audit aims to capture data on clinical indicators which have a proven link to improved outcomes for heart failure patients, and to encourage the increased use of clinically recommended diagnostic tools, disease modifying treatments and referral pathways. The dataset is updated periodically to ensure that the data collected remains in line with contemporary clinical guidance, and clinical input is integral to the decision-making and running of the audit.

The role of the audit is to collect data on the treatment and management of heart failure patients, and to disseminate information to hospitals, government bodies and research groups to help highlight clinical practice and outcomes which do not meet optimal standards, and to drive service improvement. The audit reports on the variation in practice across England and Wales, and recommends compliance with evidence-based clinical guidelines in order to improve the quality of care and outcomes for patients with heart failure. Participation in the audit has been made compulsory for English NHS Trusts since April 2011 by the Department of Health's NHS Standard Contracts for Acute Hospital Services; participation in the audit has been mandatory in Wales since April 2012.

The National Heart Failure Audit is managed by NICOR (the National Institute for Cardiovascular Outcomes Research), which is based in the Institute of Cardiovascular Science at University College London. NICOR manages six national cardiac clinical audits. The audit is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and, along with the five other NICOR audits, is one of 40 audits in their National Clinical Audit and Patient Outcomes Programme (NCAPOP). Specialist clinical knowledge and clinical leadership for the National Heart Failure Audit is provided by the British Society of Heart Failure (BSH) and the audit Steering Group, which determines the strategic direction and development of the project and whose membership is made up of a variety of stakeholders in the audit, including cardiologists, specialist nurses, clinical audit and effectiveness managers, cardiac networks and patients.

This user guide corresponds to version 4.2.1 of the dataset, which is in effect from 1 April 2014, and which replaces the existing version 3.0 of the dataset. Version 4.2.1 has streamlined the existing dataset, to ensure duplicate or unnecessary data is not collected. A small number of additional fields will also enhance the risk adjustment of data, which is necessary for the development of accurate comparative mortality analysis. The user guide explains which patients to include in the audit and outlines the audit methodology and design. It also gives data definitions for all of the data items in the audit.

Contact details

Clinical and audit queries

The National Heart Failure Audit provides a helpdesk for all clinical queries and general enquiries about the audit, managed by the audit project manager.

E: hf-nicor@ucl.ac.uk

T: 0203 108 3927

Technical queries

All technical enquiries concerning Lotus Notes or any other IT issues should be directed to the NICOR helpdesk. If you are new to the audit, and need access to the data application, you should contact the NICOR helpdesk.

E: nicor-helpdesk@ucl.ac.uk

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NICOR

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London
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Data collection

Which patients to include

The audit collects data on all patients with an unscheduled admission to hospital who are discharged with a diagnosis of heart failure in the primary position (i.e. heart failure is the main condition treated or investigated during the episode of care) for the following ICD-10 codes:[1]

- I50.0 Congestive heart failure
- I50.1 Left ventricular failure
- I50.9 Heart failure, unspecified
- I11.0 Hypertensive heart disease with (congestive) heart failure
- I42.0 Dilated cardiomyopathy
- I25.5 Ischaemic cardiomyopathy
- I42.9 Cardiomyopathy, unspecified.

The National Heart Failure Audit reports only on heart failure patients in secondary care.

Number of patients

Hospitals are required to submit data on all of their heart failure patients. The number of records submitted to the audit will be compared to the number of heart failure admissions meeting the above criteria recorded by HES (in England) and PEDW (in Wales).

The National Heart Failure Audit will accept 70% of HES/PEDW recorded heart failure admissions as an acceptable minimum. Hospitals who fail to submit this number of records will be recorded as failing to meet participation standards, and this will be reported to HQIP and NHS England.

Ensuring representativeness

In order to ensure that a representative sample of heart failure patients is included in the audit, if you do not include 100% of patients, the audited patients must be selected at random. If the patients included in the audit are more likely to be those that were treated on a cardiology ward, or who survive to discharge, then the audit analysis, and in particular the hospital-level analysis, is likely to be unrepresentative.

One way of ensuring that a random sample is collected is to get a list of all of the patients who meet the audit inclusion criteria from your coding department each month, and work through the list chronologically by date of discharge.

Patient confidentiality and identification

The National Heart Failure Audit collects patient identifiable data in order to track life status by linkage with ONS mortality data, to link to HES readmission data, and to enable linkage with the other cardiac databases, such as MINAP and CRM.

[1] For more information on ICD-10 codes, see http://apps.who.int/classifications/icd10/browse/2010/en#/IX.

However, there are strict rules for the use of potential patient identifiers; although patient identifiers are entered into the National Heart Failure Audit, these can only be seen by staff at your own hospital with access to the database, and by specific NICOR staff who manage the database.

When datasets are released to third parties for secondary research purposes, the following safeguards are in place to protect patient identity:

- The patient's name is removed
- NHS number and hospital number are pseudonymised. This is done using an encryption key that the third party using the data does not have access to, which means that they cannot convert the details back to their original, identifiable form. Pseudonymised NHS number and hospital number are only released on a need-to-know basis, if it's essential for the research project.
- Date of birth is converted to age at admission.
- Postcode can be an identifier where small numbers of individuals share a post code in rural areas. Postcode is used to derive dependant variables such as grid northings and grid eastings (which are rounded to the nearest 1000 metres) and Index of Multiple Deprivation (England only). Only these derived fields are available for secondary use.
- Hospital identifier is also pseudonymised, so that third parties outside of NICOR cannot undertake identifiable hospital-specific analysis. The pseudonymised hospital name is only released on a need-to-know basis, if it's essential for the research project.

Patient consent

NICOR has section 251 approval from the National Information Governance Board, which allows us to collect and process patient identifiable data for all of the cardiovascular audits, including the National Heart Failure Audit, without requiring consent from individual patients. However we recommend that you tell patients that their anonymised data will be used for national audit and research purposes to improve patient care.

A patient leaflet, which can be printed and distributed to patients, along with more information about NICOR is available on the NICOR website here: www.ucl.ac.uk/nicor/patients.

Collecting and submitting data

There are 10 variables in a Patient Registration record and 136 variables in an Admission or Readmission record for the revised National Heart Failure Audit dataset, v4.2.1. The dataset items and definitions are detailed at the end of this document.

Pro formas to aid data collection can be found on the NICOR website here: www.ucl.ac.uk/nicor/audits/heartfailure/datasets. The core pro forma contains only the core and mandatory fields, which you should ensure are included in the records that you submit to the audit. The full pro forma contains all of the non-core fields as well – these are fields which you are not expected to include for the purposes of the National Clinical Audit, but that you can use for local 'deep-dive' audits or other more in-depth analysis.

A patient record contains patient identifiable and demographic details. An admission is defined as the first unscheduled admission to a given hospital where the patient is discharged with a primary diagnosis of heart failure. A readmission is any subsequent unscheduled admission where the patient is discharged with a primary diagnosis of heart failure, even if in a different audit year.

There must be a patient record in the database before an admission record can be submitted, and there must be an admission record in the database before a readmission record can be submitted.

Using the data application

Help notes on using the Lotus Notes data application can be found on the NICOR website at www.ucl.ac.uk/nicor/data/submitting. You can also find information on importing records from existing local databases on the same webpage.

Export

You can export the data that you submit to the audit into Excel, within a date range that you define, in order to analyse clinical practice and check data quality. There are a number of different export options, depending on whether you want to see admissions or readmissions, core data or the full dataset, and whether you wish to also see the user defined fields. You should make sure that you export your data regularly to check for systematic data entry errors and missing data.

Online analysis

The Lotus Notes 'Online Analysis' views, which are found in the left navigator panel above 'Import/Export, allow you to inspect your own data completeness, participation and casemix, and compare your clinical practice to the national aggregates for each month/ year. This allows you to check your local clinical practice regularly, to pick up on any problems or changes quickly, and to identify data collection and data entry problems.

You can also look at all of the records which are missing an NHS number – it's really important to include the NHS number wherever possible, as it is the main identifier used for linking to long term mortality and readmission data.

Ensuring data quality

National Heart Failure Audit data is used for performance monitoring and management purposes, so it is essential that the data you submit to the audit is accurate and representative of the management of heart failure patients in your hospital. The National Heart Failure Audit data application has a number of validation checks built into it to ensure that the data entered is not contradictory and is within permitted ranges, but those responsible for entering data need to monitor its quality in addition to this. Hospitals are bound by the Data Protection Act 1998 to ensure that the data should meet the necessary standards of completeness, accuracy and relevance.

You should register the audit with your Trust data protection officer, and identify someone in your hospital with overall responsibility for the audit. One person should be given overall responsibility for data collection, with additional clinical support if needed. Backup support must be identified for periods of leave; it is the responsibility of your Trust to support you in this. A clinical lead, usually a Consultant Cardiologist with a specific interest in heart failure, should also be identified, who takes overall clinical responsibility for the audit.

Current data collection manuals with definitions should be made available to all staff involved in data collection and entry, and data should ideally be entered as soon as possible after the patient has been discharged to ensure the greatest possible accuracy. You should establish systems to routinely check case inclusion/exclusion and to monitor the accuracy of discharge coding in your institution.

Validation checks

The data application has a series of in-built validation checks to help ensure high data quality. These include:

- Mandatory field checks, to make sure that all of the key data items are completed. The National Heart Failure Audit has a higher number of mandatory fields than most other National Clinical Audits, but there is always an 'unknown' option which can be used if you cannot find the data. This should be used as infrequently as possible, however, as 'unknown' will not be treated as a valid data value for data completeness analysis.

- Maximum and minimum values for drug dosages and physical examinations – usually these do not prevent you from entering a value which exceeds the boundaries, but give you a warning message.

- Checks on dates to ensure that a patient is not discharged before they were admitted, or referred for a follow-up appointment before they were discharged.

- Consistency checks, for example to make sure that a patient is not recorded as having an echo diagnosis of LVSD and also as having not had an echo.

A full list of validation checks for dataset v4.2.1 can be found on the NICOR website at http://www.ucl.ac.uk/nicor/heart-failure/datasets.

Data submission deadlines

The audit reporting period runs from 1 April to 31 March. You have two months at the end of the year to submit all of your data for the preceding audit year. Data collection ends on 31 May, or the nearest working day thereafter.

Use of National Heart Failure Audit data

National Heart Failure Audit data are used in many ways to facilitate improvement in patient care and outcomes.

Annual report

Audit reports aimed at healthcare professionals and the public are produced annually. They contain aggregate and hospital level analysis that concentrates on the last completed financial year.

Patient friendly report

A shorter, simplified version of the annual reports aimed specifically at patients with little or no prior knowledge of heart disease or clinical audit.

data.gov.uk

Hospital-level analysis is available for download on data.gov.uk in a machine readable format. This allows commissioners and healthcare improvement bodies to use the data for local monitoring and quality improvement initiatives.

Research

Use of anonymised National Heart Failure Audit data for research purposes is encouraged, and is overseen by HALO, the National Heart Failure Audit research group. For more information please see http://www.ucl.ac.uk/nicor/research.

Dataset revisions

The dataset is reviewed on a regular basis to ensure that the data items collected allow us to appraise performance in line with NICE guidelines and other evidence based guidance for the treatment and management of heart failure.

You will be notified of any changes to the dataset six months in advance of the roll-out date, and provided with updated pro formas. There will also be a period where you can feed back comments about the planned dataset changes, prior to the final revised dataset being signed off.

The updated NICOR application will be available to you automatically on the NICOR servers. Hospitals using commercial or locally developed applications to import data must ensure that these are updated to include all of the modifications in a revised dataset. Commercial software companies will be notified of the changes, but check with your provider if in doubt. If your software is locally developed, you will need to update the locally held options dictionary.

The dataset is available to download on the NICOR website here: www.ucl.ac.uk/nicor/audits/heart-failre/datasets. Information about the import format, for hospitals who wish to batch upload their records from an existing database can be found here: www.ucl.ac.uk/nicor/data/submitting.

Dataset v4.2.1

This section details all of the data items in dataset v4.2.1, explains data definitions, and outlines the rationale behind the collection of core data items. There are 10 variables in a patient record and 136 variables in an admission or readmission record.

Dataset items are labelled core (mandatory), core or non-core. **Core mandatory** means that a value must be included in this field for a record to be saved. **Core** means that you are expected to include this data, but you can save a record without a value in this field. **Non-core** covers all fields that are not expected to be included – you can use these fields for in-depth local audit or specific projects. There are also 30 'user defined' fields, which you can use to collect information that is not covered by the rest of the dataset. These fields are located at the end of the data entry form on Lotus Notes.

There are seven core (mandatory) variables and one core variable in the patient record; there are 44 core (mandatory) variables and three core variables in the admission/readmission record. There are 2 non-core variables in the patient record and 89 non-core variables in the admission/readmission record.

Key

Core (mandatory)
Core

Patient record: Dataset and data definitions

Core dataset	Field number	Field Description	Long Code	Definition	Justification
Core (mandatory)	1.01	Hospital identifier		This will be automatically populated based on the account with which you log into the database.	Identifies the hospital to which the patient was admitted, and used to judge case ascertainment against HES/PEDW data.
Core (mandatory)	1.02	Local patient identifier		The patient's hospital number or unique local identifier.	A hospital number is used to identify patients if the NHS number is not known. Local patient identifiers are also used to identify multiple entries and to categorise readmissions to the same hospital. Readmissions are a key outcome measure and used as an indicator of the quality of follow up care.

Core	1.03	NHS number		The patient's unique 10 digit NHS number with no spaces.	The patient's NHS number is the unique national identifier that will be used for event and mortality tracking. This will be encrypted before data transfer. Any other event or procedure recorded by NICOR will be linked using the NHS number.
Core (mandatory)	1.04	Patient name (surname)		The patient's surname, as used on official documentation.	Patient name is used as a check on NHS number for linkage to ONS life status data and HES data.
Core (mandatory)	1.05	Patient name (forename)		The patient's forename, as used on official documentation. Optionally, additional forenames can be included.	Patient name is used as a check on NHS number for linkage to ONS life status data and HES data.
Core (mandatory)	1.06	Date of birth		This must be a valid date, in the format *dd/mm/yyyy*. Patients must be over 16 years old to be entered into the database.	Date of birth is used to calculate the age of the patient, which is a major risk factor for mortality and readmission. It is also used as a check on NHS number in linkage.
Core (mandatory)	1.07	Patient sex	0. Not known	The sex of the patient at birth.	Sex is used to measure variation in care, and to explore the aetiology, severity and outcomes of heart failure in different demographic groups.
Core (mandatory)	1.07	Patient sex	1. Male		
Core (mandatory)	1.07	Patient sex	2. Female		
Core (mandatory)	1.07	Patient sex	9. Not specified		
Non-core	1.08a	Ethnic category	0. White	The self-determined ethnicity of the patient.	
Non-core	1.08a	Ethnic category	1. Mixed/Multiple ethnic groups		
Non-core	1.08a	Ethnic category	2. Asian/Asian British		
Non-core	1.08a	Ethnic category	3. Black/ African/ Caribbean/ Black British		
Non-core	1.08a	Ethnic category	4. Other ethnic group		
Non-core	1.08a	Ethnic category	9. Unknown		
Core (mandatory)	1.09	Postcode of usual address		The postcode of address nominated by the patient as their main permanent residence. Use pseudo postcodes for visitors.	Postcode is used as a check on NHS number for linkage to ONS life status data and HES data.
Non-core	1.13	GP name		The name of the patient's general practitioner	

Admission/readmission record: Dataset and data definitions

Core dataset	Field number	Field Description	Long Code	Units	Definition	Justification
Core (mandatory)	1.01	Hospital identifier			This will be automatically populated based on the account with which you log into the database	Identifies the hospital to which the patient was admitted, and used to judge case ascertainment against HES/PEDW data.
Core (mandatory)	1.02	Local patient identifier			The patient's hospital number or unique local identifier	A hospital number is used to identify patients if the NHS number is not known. Local patient identifiers are also used to identify multiple entries and to categorise readmissions to the same hospital. Readmissions are a key outcome measure and used as an indicator of the quality of follow up care.
Core (mandatory)	2.00	Date of admission			Date of admission to hospital. If date of admission to hospital and date of admission to ward are different (e.g. the patient was admitted to A &E before midnight, but moved to a ward after midnight) the earlier date should be used.	Used to calculate length of stay, and days from discharge to readmission.
Core (mandatory)	2.04	Main place of care	1. Cardiology		The ward in which the patient received the majority of their care. If the patient was treated for an equal amount of time on two wards, the latter ward of treatment should be recorded.	Used to examine variations in care and outcomes deriving from variation in treatment and management, and the association of this with ward of treatment during admission.
Core (mandatory)	2.04	Main place of care	2. General Medicine			
Core (mandatory)	2.04	Main place of care	3. Other			
Core (mandatory)	2.04	Main place of care	4. Care of the elderly			
Core (mandatory)	2.04	Main place of care	9. Unknown			
Core (mandatory)	2.04ai	Specialist input	1. Consultant cardiologist		The heart failure specialist clinicians that had input into the patient's care. Multiple values can be selected, but unknown cannot be selected in combination with other values.	Used to establish specialist input into a patient's care. NICE Quality Standard 11 (2011): People admitted to hospital because of heart failure receive input to their management plan from a multidisciplinary heart failure team.
Core (mandatory)	2.04ai	Specialist input	2. Other consultant with interest in HF			
Core (mandatory)	2.04ai	Specialist input	3. HF Specialist nurse			
Core (mandatory)	2.04ai	Specialist input	4. Other			
Core (mandatory)	2.04ai	Specialist input	5. Cardiology SpR			
Core (mandatory)	2.04ai	Specialist input	9. Unknown			
Core (mandatory)	3.01	Breathlessness	1. No limitation of physical activity		This is a standard breathlessness score used to assign New York	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical

Core (mandatory)	3.01	Breathlessness	2. Slight limitation of ordinary physical activity		Heart Association Classification on admission. 1=NYHA Class I: ordinary physical activity does not cause fatigue, breathlessness or palpitation 2=NYHA Class II: patients are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, breathlessness or angina pectoris 3=NYHA Class III: although patients are comfortable at rest, less than ordinary activity will lead to symptoms 4=NYHA Class IV: symptoms of congestive cardiac failure are present even at rest. Increased discomfort with any physical activity	examination. This includes severity of HF.
Core (mandatory)	3.01	Breathlessness	3. Marked limitation of ordinary physical activity			
Core (mandatory)	3.01	Breathlessness	4. Symptoms at rest or minimal activity			
Core (mandatory)	3.01	Breathlessness	9. Unknown			
Core (mandatory)	3.04	Peripheral oedema	0. No		Ankle or sacral oedema on admission 1=pitting oedema to the ankle 2=oedema between ankle and knee 3=oedema above the knee	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical examination. This includes severity of HF.
Core (mandatory)	3.04	Peripheral oedema	1. Mild			
Core (mandatory)	3.04	Peripheral oedema	2. Moderate			
Core (mandatory)	3.04	Peripheral oedema	3. Severe			
Core (mandatory)	3.04	Peripheral oedema	9. Unknown			
Core (mandatory)	4.00	IHD	0. No		History of myocardial infarction (MI), angina, ECG evidence of MI, CABG or angiogram documenting coronary artery disease.	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical examination. This includes severity of HF.
Core (mandatory)	4.00	IHD	1. Yes			
Core (mandatory)	4.00	IHD	9. Unknown			
Core (mandatory)	4.07	Device therapy (prior to or during this admission)	0. None		Device therapy either during this admission or at a previous time. If multiple devices have been implanted, the current device should be recorded. If the patient has previously has a device, and this has been removed, '0. None' should be selected. 1=cardiac resynchronisation therapy (CRT) defibrillator 2=CRT pacemaker 3=implantable cardioverter	NICE Clinical Guideline CG108: Treating heart failure due to LVSD: If symptoms persists consider CRT (pacing with or without a defibrillator)
Core (mandatory)	4.07	Device therapy (prior to or during this admission)	1. CRT-D			
Core (mandatory)	4.07	Device therapy (prior to or during this admission)	2. CRT-P			
Core (mandatory)	4.07	Device therapy (prior to or during this admission)	3. ICD			
Core (mandatory)	4.07	Device therapy (prior to or during this admission)	4. PM			
Core (mandatory)	4.07	Device therapy (prior to or during this admission)	9. Unknown			

Core (mandatory)	4.07	Device therapy (prior to or during this admission)	12. Declined by patient		defibrillator 4=pacemaker	
Non-core	4.08	Device mode (prior to or during this admission)	1. AAI		Device mode for devices fitted either during or prior to this admission. If multiple devices/modes have been used, the current device should be recorded.	
Non-core	4.08	Device mode (prior to or during this admission)	2. AAIR			
Non-core	4.08	Device mode (prior to or during this admission)	3. DDD			
Non-core	4.08	Device mode (prior to or during this admission)	4. DDDR			
Non-core	4.08	Device mode (prior to or during this admission)	5. OOO			
Non-core	4.08	Device mode (prior to or during this admission)	6. VVI			
Non-core	4.08	Device mode (prior to or during this admission)	7. VVIR			
Core (mandatory)	4.09	Valve disease	0. No		History of clinically diagnosed valve disease, moderate or severe stenosis or regurgitation on imaging, or an operative valve replacement/repair	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical examination. This includes severity of HF.
Core (mandatory)	4.09	Valve disease	1. Yes			
Core (mandatory)	4.09	Valve disease	9. Unknown			
Non-core	4.10	Congenital heart disease	0. No		A defect of the heart or great vessels that has been present since birth.	
Non-core	4.10	Congenital heart disease	1. Yes			
Non-core	4.10	Congenital heart disease	9. Unknown			
Core (mandatory)	4.12	Hypertension	0. No		Recorded BP >140/90 on at least two occasions prior to admission, or already receiving treatment (drug, dietary or lifestyle) for hypertension	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical examination. This includes severity of HF.
Core (mandatory)	4.12	Hypertension	1. Yes			
Core (mandatory)	4.12	Hypertension	9. Unknown			
Core (mandatory)	4.14	Diabetes	0. No		Diagnosis of diabetes prior to admission. This includes a confirmed diagnosis of diabetes and/or the use of an oral hypoglycaemic agent or insulin, and/or a fasting blood glucose >6.7, and/or a random blood glucose >11.	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical examination. This includes severity of HF.
Core (mandatory)	4.14	Diabetes	1. Yes			
Core (mandatory)	4.14	Diabetes	9. Unknown			
Core (mandatory)	4.14a	Asthma	0. No		History of childhood asthma and atopy, or asthma confirmed by respiratory physician for adult onset.	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical examination. This includes severity of HF.
Core (mandatory)	4.14a	Asthma	1. Yes			
Core (mandatory)	4.14a	Asthma	9. Unknown			
Non-core	4.15	Cerebral vascular accident (CVA)	0. No		A past neurological deficit of cerebrovascular cause, including	

Non-core	4.15	Cerebral vascular accident (CVA)	1. Yes		episodes that persist beyond 24 hours and transient ischaemic attacks lasting less than 24 hours.	
Non-core	4.15	Cerebral vascular accident (CVA)	9. Unknown			
Core (mandatory)	4.17	Chronic obstructive pulmonary disease (COPD)	0. No		History of COPD - chronic bronchitis, emphysema or their co-occurrence. Must be indicated by pulmonary function testing evidence i.e. FEV1<75% predicted value or use of beta agonist/steroid inhalers.	NICE Clinical Guideline CG108: Take a detailed history and perform a clinical examination. This includes severity of HF.
Core (mandatory)	4.17	Chronic obstructive pulmonary disease (COPD)	1. Yes			
Core (mandatory)	4.17	Chronic obstructive pulmonary disease (COPD)	9. Unknown			
Non-core	5.01	Alcohol (units/week)		Units/week	Average number of units of alcohol consumed per week.	
Non-core	5.02	Smoking history	1. Yes		Patient's history of smoking. 'Ex' is defined as not having smoked within a month of admission to hospital.	
Non-core	5.02	Smoking history	2. Ex			
Non-core	5.02	Smoking history	3. Never			
Non-core	7.01	ACE inhibitor (admission)	0. No		The ACE inhibitor that the patient was prescribed at point of admission to hospital (i.e. prescribed before admission). Contraindicated should be selected if an ACE inhibitor is not tolerated by the patient, e.g. if it causes a bad cough, low arterial pressure or renal dysfunction. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has.	
Non-core	7.01	ACE inhibitor (admission)	1. Captopril			
Non-core	7.01	ACE inhibitor (admission)	2. Enalapril			
Non-core	7.01	ACE inhibitor (admission)	3. Lisinopril			
Non-core	7.01	ACE inhibitor (admission)	4. Perindopril			
Non-core	7.01	ACE inhibitor (admission)	5. Ramipril			
Non-core	7.01	ACE inhibitor (admission)	7. Other ACEI			
Non-core	7.01	ACE inhibitor (admission)	8. Not applicable			
Non-core	7.01	ACE inhibitor (admission)	9. Unknown			
Non-core	7.01	ACE inhibitor (admission)	11. Contraindicated			
Non-core	7.02	ACE inhibitor dose (admission)		mg/day	ACE inhibitor dose on admission - do not include dose if ACE inhibitor is recorded as 'other'	
Non-core	7.03	ACE I contraindication (admission)	1. Cough		If ACE inhibitor was contraindicated on admission, the reason given. 1=The cause of cough should be investigated and ACEI stopped only when cough is very troublesome, persistent and not due to other causes. 2=A low pressure that is	
Non-core	7.03	ACE I contraindication (admission)	2. Low Arterial Pressure			
Non-core	7.03	ACE I contraindication (admission)	3. Renal dysfunction			
Non-core	7.03	ACE I contraindication (admission)	4. Other intolerance to ACE			

Non-core	7.03	ACE I contraindication (admission)	6. Hyperkalaemia		asymptomatic and is not comprising renal function or other end-organs is not a reason to stop an ACEI. 3=Serum creatinine exceeding 250umol/L. 6=Serum potassium >5.5mmol/L.	
Non-core	7.04	ARB (admission)	0. No		The ARB that the patient was prescribed at point of admission to hospital. Contraindicated should be selected if an ARB is not tolerated by the patient. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has.	
Non-core	7.04	ARB (admission)	1. Candesartan			
Non-core	7.04	ARB (admission)	2. Losartan			
Non-core	7.04	ARB (admission)	3. Valsartan			
Non-core	7.04	ARB (admission)	4. Other ARB			
Non-core	7.04	ARB (admission)	8. Not applicable			
Non-core	7.04	ARB (admission)	9. Unknown			
Non-core	7.04	ARB (admission)	11. Contraindicated			
Non-core	7.05	ARB dose (admission)		mg/day	ARB dose on admission - do not include dose if ARB is recorded as 'other'	
Non-core	7.06	Beta blocker (admission)	0. No		The beta blocker that the patient was prescribed at point of admission to hospital. Contraindicated should be selected if a beta blocker is not tolerated by the patient, e.g. if it causes bradycardia or heart block, low arterial pressure, worsening heart failure, intolerable fatigue or respiratory disease. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has.	
Non-core	7.06	Beta blocker (admission)	1. Bisoprolol			
Non-core	7.06	Beta blocker (admission)	2. Cardvedilol			
Non-core	7.06	Beta blocker (admission)	3. Nebivolol			
Non-core	7.06	Beta blocker (admission)	4. Other Beta blocker			
Non-core	7.06	Beta blocker (admission)	8. Not applicable			
Non-core	7.06	Beta blocker (admission)	9. Unknown			
Non-core	7.06	Beta blocker (admission)	11. Contraindicated			
Non-core	7.07	Beta blocker dose (admission)		mg/day	Beta blocker dose on admission - do not include dose if beta blocker is recorded as 'other'	
Non-core	7.08	Beta blocker contraindication (admission)	1. Bradycardia or Heart Block		If beta blocker was contraindicated on admission, the reason given. 9=Beta Blockers are only contraindicated if there is significant asthma. This is defined as history of childhood asthma and atopy, or	
Non-core	7.08	Beta blocker contraindication (admission)	2. Low Arterial Pressure			
Non-core	7.08	Beta blocker contraindication (admission)	3. Worsening Heart Failure			

Non-core	7.08	Beta blocker contraindication (admission)	4. Intolerable Fatigue		confirmed by respiratory physician for adult onset.	
Non-core	7.08	Beta blocker contraindication (admission)	6. Other Intolerance			
Non-core	7.08	Beta blocker contraindication (admission)	8. Asthma			
Non-core	7.08	Beta blocker contraindication (admission)	9. COPD			
Non-core	7.09	Loop diuretic (admission)	0. No		The loop diuretic that the patient was prescribed at point of admission to hospital. Contraindicated should be selected if a loop diuretic is not tolerated by the patient. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has.	
Non-core	7.09	Loop diuretic (admission)	1. Bumetanide			
Non-core	7.09	Loop diuretic (admission)	2. Ethancrynic acid			
Non-core	7.09	Loop diuretic (admission)	3. Frusemide			
Non-core	7.09	Loop diuretic (admission)	4. Torasemide			
Non-core	7.09	Loop diuretic (admission)	5. Other loop diuretic			
Non-core	7.09	Loop diuretic (admission)	9. Unknown			
Non-core	7.10	Loop diuretic dose (admission)		mg/day	Loop diuretic dose on admission - do not include dose if loop diuretic is recorded as 'other'	
Non-core	7.11	Thiazide or Metolazone (admission)	0. No		Thiazide or metolazone prescribed at point of admission to hospital. Contraindicated should be selected if thiazide or metolazone is not tolerated by the patient. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has.	
Non-core	7.11	Thiazide or Metolazone (admission)	1. Bendroflumethazide			
Non-core	7.11	Thiazide or Metolazone (admission)	2. Metolazone			
Non-core	7.11	Thiazide or Metolazone (admission)	3. Other Thiazide			
Non-core	7.11	Thiazide or Metolazone (admission)	9. Unknown			
Non-core	7.12	Thiazide dose (admission)		mg/day	Thiazide or metolazone dose on admission - do not include dose if thiazide is recorded as 'other'	
Non-core	7.13	MRA (admission)	0. No		The MRA that the patient was prescribed at point of admission to hospital. Contraindicated should be selected if an MRA is not tolerated by the patient, e.g. if it causes	
Non-core	7.13	MRA (admission)	1. Eplerenone			
Non-core	7.13	MRA (admission)	2. Spironolactone			
Non-core	7.13	MRA (admission)	8. Not applicable			
Non-core	7.13	MRA (admission)	9. Unknown			

Non-core	7.13	MRA (admission)	11. Contraindicated		hyperkalaemia, renal dysfunction or gynaecomastia. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has.	
Non-core	7.14	MRA contraindication (admission)	1. Hyperkalaemia		If MRA was contraindicated on admission, the reason given.	
Non-core	7.14	MRA contraindication (admission)	2. Renal Dysfunction			
Non-core	7.14	MRA contraindication (admission)	3. Gynaecomastia			
Non-core	7.14	MRA contraindication (admission)	4. Other intolerance			
Non-core	7.15	MRA dose (admission)		mg/day	MRA dose on admission - do not include dose if MRA is recorded as 'other'	
Non-core	7.16	Aspirin (admission)	0. No		Aspirin prescribed at point of admission to hospital	
Non-core	7.16	Aspirin (admission)	1. Yes			
Non-core	7.16	Aspirin (admission)	9. Unknown			
Non-core	7.17	Aspirin dose (admission)		mg/day	Aspirin dose on admission	
Non-core	7.18	Other oral anti-platelet (admission)	0. No		Any oral antiplatelet, other than aspirin, prescribed at point of admission to hospital	
Non-core	7.18	Other oral anti-platelet (admission)	1. Yes			
Non-core	7.18	Other oral anti-platelet (admission)	9. Unknown			
Non-core	7.20	Digoxin (admission)	0. No		Digoxin prescribed at point of admission to hospital	
Non-core	7.20	Digoxin (admission)	1. Yes			
Non-core	7.20	Digoxin (admission)	9. Unknown			
Non-core	7.21	Digoxin dose (admission)		mg/day	Digoxin dose on admission	
Non-core	7.22	CCB (admission)	0. No		The calcium channel blocker that the patient was prescribed at point of admission to hospital	
Non-core	7.22	CCB (admission)	1. Amlodipine			
Non-core	7.22	CCB (admission)	2. Felodipine			
Non-core	7.22	CCB (admission)	3. Diltiazem			
Non-core	7.22	CCB (admission)	4. Verapamil			
Non-core	7.22	CCB (admission)	5. Other CCB			
Non-core	7.22	CCB (admission)	6. Nifedipine			
Non-core	7.22	CCB (admission)	9. Unknown			

Non-core	7.23	CCB dose (admission)		mg/day	Calcium channel blocker dose on admission	
Non-core	7.24	Statin (admission)	0. No		Statin prescribed at point of admission to hospital	
Non-core	7.24	Statin (admission)	1. Yes			
Non-core	7.24	Statin (admission)	9. Unknown			
Non-core	7.25	Statin dose (admission)		mg/day	Statin dose on admission	
Non-core	7.26	Warfarin (admission)	0. No		Warfarin prescribed at point of admission to hospital	
Non-core	7.26	Warfarin (admission)	1. Yes			
Non-core	7.26	Warfarin (admission)	9. Unknown			
Non-core	7.27	INR (admission)			INR on admission	
Non-core	7.28	Warfarin dose (admission)		mg/day	Warfarin dose on admission	
Non-core	7.28a	Other oral anticoagulant (admission)	0. No		Any oral anticoagulant, other than warfarin, prescribed at point of admission to hospital	
Non-core	7.28a	Other oral anticoagulant (admission)	1. Dabigatran			
Non-core	7.28a	Other oral anticoagulant (admission)	2. Rivaroxaban			
Non-core	7.28a	Other oral anticoagulant (admission)	3. Other oral anticoagulant			
Non-core	7.28a	Other oral anticoagulant (admission)	9. Unknown			
Non-core	7.28b	Other oral anticoagulant dose (admission)		mg/day	Oral anticoagulant dose on admission	
Non-core	7.29	Amiodarone (admission)	0. No		Amiodarone prescribed at point of admission to hospital	
Non-core	7.29	Amiodarone (admission)	1. Yes			
Non-core	7.29	Amiodarone (admission)	9. Unknown			
Non-core	7.30	Amiodarone dose (admission)		mg/day	Amiodarone dose on admission	
Non-core	7.31	Allopurinol (admission)	0. No		Allopurinol prescribed at point of admission to hospital	
Non-core	7.31	Allopurinol (admission)	1. Yes			
Non-core	7.31	Allopurinol (admission)	9. Unknown			
Non-core	7.32	Allopurinol dose (admission)		mg/day	Allopurinol dose on admission	
Non-core	7.33	NSAID (admission)	0. No		Non-steroidal anti-inflammatory drug prescribed at point of admission to hospital	
Non-core	7.33	NSAID (admission)	1. Yes			
Non-core	7.33	NSAID (admission)	9. Unknown			
Non-core	7.34	Oral nitrates (admission)	0. No		Oral nitrates prescribed at point of admission to hospital	
Non-core	7.34	Oral nitrates (admission)	1. ISDN			
Non-core	7.34	Oral nitrates (admission)	2. ISMN			

Non-core	7.34	Oral nitrates (admission)	9. Unknown			
Non-core	7.35	Nitrate dose (admission)		mg/day	Oral nitrates dose on admission	
Non-core	7.36	Bronchodilators (admission)	0. No		Bronchodilators prescribed at point of admission to hospital	
Non-core	7.36	Bronchodilators (admission)	1. Yes			
Non-core	7.36	Bronchodilators (admission)	9. Unknown			
Non-core	7.37	Diabetes therapy (admission)	0. No		The diabetes therapy that the patient was prescribed at point of admission to hospital	
Non-core	7.37	Diabetes therapy (admission)	1. Dietary control			
Non-core	7.37	Diabetes therapy (admission)	2. Metformin			
Non-core	7.37	Diabetes therapy (admission)	3. Sulphonylurea			
Non-core	7.37	Diabetes therapy (admission)	4. Glitazone			
Non-core	7.37	Diabetes therapy (admission)	5. Other Oral			
Non-core	7.37	Diabetes therapy (admission)	6. Insulin			
Non-core	7.37	Diabetes therapy (admission)	9. Unknown			
Non-core	7.40	Ivabradine (admission)	0. No		Ivabradine prescribed at point of admission to hospital	
Non-core	7.40	Ivabradine (admission)	1. Yes			
Non-core	7.40	Ivabradine (admission)	9. Unknown			
Non-core	7.41	Ivabradine dose (admission)		mg/day	Ivabradine dose on admission	
Non-core	7.42	Hydralazine (admission)	0. No		Hydralazine prescribed at point of admission to hospital	
Non-core	7.42	Hydralazine (admission)	1. Yes			
Non-core	7.42	Hydralazine (admission)	9. Unknown			
Non-core	7.43	Hydralazine dose (admission)		mg/day	Hydralazine dose on admission	
Non-core	8.01	Height		cm	Height in cm - any recorded adult height that can be found in notes. If unknown, record as 0.	
Core (mandatory)	8.02a	Weight (admission)		kg	Weight in kilograms, measured on admission or first available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Possible risk factor.
Core (mandatory)	8.02	Weight (discharge)		kg	Weight in kilograms, measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Possible risk factor.

Core (mandatory)	8.04a	Heart rate (admission)	Heart rate (bpm)	bpm	Heart rate in beats per minute, measured on admission or first available recording after admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Possible risk factor.
Core (mandatory)	8.04	Heart rate (discharge)		bpm	Heart rate in beats per minute, measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Risk factor; used in risk adjusted models to determine mortality hazard.
Core (mandatory)	8.06a	Systolic blood pressure (admission)	Blood pressure - systolic (mmHg)	mmHg	Systolic blood pressure of patient in mmHG, measured on admission or first available recording after admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Possible risk factor.
Core (mandatory)	8.06	Systolic blood pressure (discharge)		mmHg	Systolic blood pressure of patient in mmHG, measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Risk factor; used in risk adjusted models to determine mortality hazard.
Core (mandatory)	9.01	Hb (discharge)		g/L	Haemoglobin level in grams per litre (g/L). Measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Risk factor; used in risk adjusted models to determine mortality hazard.
Core (mandatory)	9.02	Urea (discharge)		mg/dL	Urea level in milligrams per decilitre (mg/dL). Measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Risk factor; used in risk adjusted models to determine mortality hazard.

Core (mandatory)	9.03	Creatinine (discharge)		umol/L	Creatinine level in micromoles per litre (µmol/L). Measured on discharge or last available recording during admission.If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Risk factor; used in risk adjusted models to determine mortality hazard.
Core (mandatory)	9.04	Serum Sodium (discharge)		mEq/L	Sodium level in milliequivalents per litre (mEq/L). Measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Risk factor; used in risk adjusted models to determine mortality hazard.
Core (mandatory)	9.05	Serum Potassium (discharge)		mEq/L	Potassium level in milliequivalents per litre (mEq/L). Measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	Risk factor; used in risk adjusted models to determine mortality hazard.
Core	9.13	BNP		pg/ml	A record of the patient's B-type Natriuretic Peptide (BNP) level in picograms per millilitre (pg/mL). Measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	NICE recommended diagnostic tool for heart failure. Possible risk factor.
Core	9.14	NT-proBNP		pg/ml	A record of the patient's N-terminal prohormone of BNP (NT-proBNP) level in picograms per millilitre (pg/mL). Measured on discharge or last available recording during admission. If unknown, record as 0 - this will be counted as an incomplete field. If not measured, record as -1.	NICE recommended diagnostic tool for heart failure. Possible risk factor.

Core	9.16	QRS duration		ms	The QRS duration in millisecond (ms), if an ECG was performed. If unknown, record as 0.	Possible risk factor. NICE technology appraisal 120 (Cardiac resynchronisation therapy for the treatment of heart failure): Cardiac resynchronisation therapy with a pacing device (CRT-P) is recommended as a treatment option for people with heart failure who fulfil all the following criteria: a) They are currently experiencing or have recently experienced NYHA class III–IV symptoms. b) They are in sinus rhythm: i) either with a QRS duration of 150 ms or longer estimated by standard electrocardiogram (ECG) ii) or with a QRS duration of 120–149 ms estimated by ECG and mechanical dyssynchrony that is confirmed by echocardiography.
Core (mandatory)	9.21	ECG	1. Sinus rhythm		Results of an electrocardiogram (ECG/EKG) performed during the admission. 1=An ECG was performed, and heartbeat was normal. 2=An ECG was performed showing atrial fibrillation. 3=An ECG was performed showing left bundle branch block 4=An ECG was performed showing a previous myocardial infarction 5=An ECG was performed showing	NICE Clinical Guideline CG108: All patients should have an ECG performed in order to evaluate possible aggravating factors and alternative diagnoses.
Core (mandatory)	9.21	ECG	2. Atrial fibrillation			
Core (mandatory)	9.21	ECG	3. LBBB			
Core (mandatory)	9.21	ECG	4. Previous MI			
Core (mandatory)	9.21	ECG	5. RBBB			
Core (mandatory)	9.21	ECG	8. Other			
Core (mandatory)	9.21	ECG	9. Unknown			

Core (mandatory)	9.21	ECG	10. No ECG		right bundle branch block 8=An ECG was performed showing a rhythm not listed above OR an electrocardiogram was performed but information about heart rhythm is unknown. 9=Information about ECG is not available. 10=An ECG was not performed during this admission. Multiple options can be selected but note that 9 and 10 cannot be selected in combination with any other values.	
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	0. Normal		Results of echocardiography, or other gold standard test (including MRI, nuclear scan, angiogram and CT scan) during this admission or in the 12 months prior to admission. 0= An echo (or other test) was undertaken, and heart function was normal. 1=Moderate or severe left ventricular systolic dysfunction (e.g. a left ventricular ejection fraction (LVEF) <40% or eyeball method of assessment). 2=Moderate or severe left ventricular hypertrophy reported on an imaging test (e.g. LV posterior wall dimension in diastole >1.3cm and/or septal dimension >1.3cm). 3=Moderate or severe stenosis or regurgitation on imaging, or an operative valve replacement/repair. Prosthetic valves do not need to be included here. 4=Moderate or severe diastolic	NICE Quality Standard 3 (2011): People referred for specialist assessment including echocardiography, either because of suspected heart failure and previous myocardial infarction or suspected heart failure and high serum natriuretic peptide levels, are seen by a specialist and have an echocardiogram within 2 weeks of referral. NICE Quality Standard 4 (2011): People referred for specialist assessment including echocardiography because of suspected heart failure and intermediate serum natriuretic peptide levels are seen by a specialist and have an echocardiogram within 6 weeks of referral.
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	1. LV systolic dysfunction			
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	2. LV hypertrophy			
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	3. Valve disease			
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	4. Diastolic dysfunction			
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	5. Increased left atrial size			
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	8. Other			
Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	9. Unknown			

Core (mandatory)	9.23	Echo (or other gold standard test e.g. MRI, nuclear scan or angiogram)	10. No echo		dysfunction. 5=Enlarged left atrium 8=An echo was undertaken and some other diagnosis was given OR its outcome is unknown. 9=Information about the performance of a gold standard test is not available. 10=An echo was not performed during this admission or in the previous 12 months. Multiple options can be selected but note that 0, 9 and 10 cannot be selected in combination with any other values.	
Non-core	9.29	MRI systolic dysfunction	0. No		Systolic dysfunction diagnosed through MRI scan	
Non-core	9.29	MRI systolic dysfunction	1. Yes			
Non-core	9.29	MRI systolic dysfunction	9. Unknown			
Non-core	9.33	Chest x-ray cardiothoracic ratio			Cardiothoracic ratio (ratio of the maximal horizontal cardiac diameter and the maximal horizontal thoracic diameter) measured using a chest x-ray.	
Non-core	9.35	Chest x-ray pulmonary oedema	0. No		Pulmonary oedema, diagnosed using a chest x-ray.	
Non-core	9.35	Chest x-ray pulmonary oedema	1. Yes			
Non-core	9.35	Chest x-ray pulmonary oedema	9. Unknown			
Core (mandatory)	11.01	ACE inhibitor (discharge)	0. No		The ACE inhibitor that the patient was prescribed at point of discharge. Contraindicated should be selected if an ACE inhibitor is not tolerated by the patient, e.g. if it causes a bad cough, low arterial pressure or renal dysfunction. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the	NICE Quality Standard 7 (2011): People with chronic heart failure due to left ventricular systolic dysfunction are offered angiotensin-converting enzyme inhibitors (or angiotensin II receptor antagonists licensed for heart failure if there are intolerable side effects with angiotensin-converting enzyme inhibitors) and beta-blockers licensed for heart failure, which are gradually
Core (mandatory)	11.01	ACE inhibitor (discharge)	1. Captopril			
Core (mandatory)	11.01	ACE inhibitor (discharge)	2. Enalpril			
Core (mandatory)	11.01	ACE inhibitor (discharge)	3. Lisinopril			
Core (mandatory)	11.01	ACE inhibitor (discharge)	4. Perindopril			
Core (mandatory)	11.01	ACE inhibitor (discharge)	5. Ramipril			
Core (mandatory)	11.01	ACE inhibitor (discharge)	7. Other ACEI			
Core (mandatory)	11.01	ACE inhibitor (discharge)	8. Not applicable			
Core (mandatory)	11.01	ACE inhibitor (discharge)	9. Unknown			

Core (mandatory)	11.01	ACE inhibitor (discharge)	10. Drug therapy stopped		patient has. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	increased up to the optimal tolerated or target dose with monitoring after each increase.
Core (mandatory)	11.01	ACE inhibitor (discharge)	11. Contraindicated			
Core (mandatory)	11.01	ACE inhibitor (discharge)	12. Declined by patient			
Non-core	11.02	ACE inhibitor dose (discharge)		mg/day	ACE inhibitor dose at discharge - do not include dose if ACE inhibitor is recorded as 'other'	
Non-core	11.03	ACE I contraindication (discharge)	1. Cough		If ACE inhibitors were contraindicated at discharge, the reason given. 1=The cause of cough should be investigated and ACEI stopped only when cough is very troublesome, persistent and not due to other causes. 2=A low pressure that is asymptomatic and is not comprising renal function or other end-organs is not a reason to stop an ACEI. 3=Serum creatinine exceeding 250umol/L. 6=Serum potassium >5.5mmol/L.	
Non-core	11.03	ACE I contraindication (discharge)	2. Low Arterial Pressure			
Non-core	11.03	ACE I contraindication (discharge)	3. Renal dysfunction			
Non-core	11.03	ACE I contraindication (discharge)	4. Other intolerance to ACE			
Non-core	11.03	ACE I contraindication (discharge)	6. Hyperkalaemia			
Core (mandatory)	11.04	ARB (discharge)	0. No		The ARB that the patient was prescribed at point of discharge. Contraindicated should be selected if an ARB is not tolerated by the patient. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	NICE Quality Standard 7 (2011): People with chronic heart failure due to left ventricular systolic dysfunction are offered angiotensin-converting enzyme inhibitors (or angiotensin II receptor antagonists licensed for heart failure if there are intolerable side effects with angiotensin-converting enzyme inhibitors) and beta-blockers licensed for heart failure, which are gradually increased up to the optimal tolerated or target dose with monitoring after each increase.
Core (mandatory)	11.04	ARB (discharge)	1. Candesartan			
Core (mandatory)	11.04	ARB (discharge)	2. Losartan			
Core (mandatory)	11.04	ARB (discharge)	3. Valsartan			
Core (mandatory)	11.04	ARB (discharge)	4. Other ARB			
Core (mandatory)	11.04	ARB (discharge)	8. Not applicable			
Core (mandatory)	11.04	ARB (discharge)	9. Unknown			
Core (mandatory)	11.04	ARB (discharge)	10. Drug therapy stopped			
Core (mandatory)	11.04	ARB (discharge)	11. Contraindicated			
Core (mandatory)	11.04	ARB (discharge)	12. Declined by patient			
Non-core	11.05	ARB dose (discharge)		mg/day	ARB dose at discharge - do not include dose if ARB is recorded as 'other'	
Core (mandatory)	11.06	Beta blocker (discharge)	0. No		The beta blocker that the patient was prescribed at point of	NICE Quality Standard 7 (2011): People with chronic heart failure due to
Core (mandatory)	11.06	Beta blocker (discharge)	1. Bisoprolol			

Core (mandatory)	11.06	Beta blocker (discharge)	2. Carvedilol		discharge. Contraindicated should be selected if a beta blocker is not tolerated by the patient, e.g. if it causes bradycardia or heart block, low arterial pressure, worsening heart failure, intolerable fatigue or respiratory disease. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	left ventricular systolic dysfunction are offered angiotensin-converting enzyme inhibitors (or angiotensin II receptor antagonists licensed for heart failure if there are intolerable side effects with angiotensin-converting enzyme inhibitors) and beta-blockers licensed for heart failure, which are gradually increased up to the optimal tolerated or target dose with monitoring after each increase.
Core (mandatory)	11.06	Beta blocker (discharge)	3. Nebivolol			
Core (mandatory)	11.06	Beta blocker (discharge)	4. Other Beta blocker			
Core (mandatory)	11.06	Beta blocker (discharge)	8. Not applicable			
Core (mandatory)	11.06	Beta blocker (discharge)	9. Unknown			
Core (mandatory)	11.06	Beta blocker (discharge)	10. Drug therapy stopped			
Core (mandatory)	11.06	Beta blocker (discharge)	11. Contraindicated			
Core (mandatory)	11.06	Beta blocker (discharge)	12. Declined by patient			
Non-core	11.07	Beta blocker dose (discharge)		mg/day	Beta blocker dose at discharge - do not include dose if beta blocker is recorded as 'other'	
Non-core	11.08	Beta blocker contraindication (discharge)	1. Bradycardia or Heart Block		If beta blockers were contraindicated at discharge, the reason given. 8=Asthma is defined as history of childhood asthma and atopy, or confirmed by respiratory physician for adult onset.	
Non-core	11.08	Beta blocker contraindication (discharge)	2. Low Arterial Pressure			
Non-core	11.08	Beta blocker contraindication (discharge)	3. Worsening Heart Failure			
Non-core	11.08	Beta blocker contraindication (discharge)	4. Intolerable Fatigue			
Non-core	11.08	Beta blocker contraindication (discharge)	6. Other Intolerance			
Non-core	11.08	Beta blocker contraindication (discharge)	8. Asthma			
Non-core	11.08	Beta blocker contraindication (discharge)	9. COPD			
Core (mandatory)	11.09	Loop diuretic (discharge)	0. No		The loop diuretic that the patient was prescribed at point of discharge. Contraindicated should be selected if a loop diuretic is not tolerated by the patient. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has. Drug therapy stopped	NICE Clinical Guideline CG108: Treating Heart failure due to LVSD: Offer diuretics for congestion and fluid retention.
Core (mandatory)	11.09	Loop diuretic (discharge)	1. Bumetanide			
Core (mandatory)	11.09	Loop diuretic (discharge)	2. Ethancrynic acid			
Core (mandatory)	11.09	Loop diuretic (discharge)	3. Furosemide			
Core (mandatory)	11.09	Loop diuretic (discharge)	4. Torasemide			
Core (mandatory)	11.09	Loop diuretic (discharge)	5. Other loop diuretic			
Core (mandatory)	11.09	Loop diuretic (discharge)	8. Not applicable			
Core (mandatory)	11.09	Loop diuretic (discharge)	9. Unknown			

Core (mandatory)	11.09	Loop diuretic (discharge)	10. Drug therapy stopped		should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Core (mandatory)	11.09	Loop diuretic (discharge)	11. Contraindicated			
Core (mandatory)	11.09	Loop diuretic (discharge)	12. Declined by patient			
Non-core	11.10	Loop diuretic dose (discharge)		mg/day	Loop diuretic dose at discharge - do not include dose if loop diuretic is recorded as 'other'	
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	0. No		Thiazide or metolazone prescribed at point of discharge. Contraindicated should be selected if thiazide or metolazone is not tolerated by the patient. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	NICE Clinical Guideline CG108: Treating Heart failure due to LVSD: Offer diuretics for congestion and fluid retention.
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	1. Bendroflumethazide			
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	2. Metolazone			
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	3. Other thiazide			
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	8. Not applicable			
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	9. Unknown			
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	10. Drug therapy stopped			
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	11. Contraindicated			
Core (mandatory)	11.11	Thiazide or metolazone (discharge)	12. Declined by patient			
Non-core	11.12	Thiazide or metolazone dose (discharge)		mg/day	Thiazide or metolazone dose at discharge - do not include dose if thiazide is recorded as 'other'	
Core (mandatory)	11.13	MRA (discharge)	0. No		The MRA that the patient was prescribed at point of discharge. Contraindicated should be selected if an MRA is not tolerated by the patient, e.g. if it causes hyperkalaemia, renal dysfunction or gynaecomastia. Not indicated should be selected if this therapy is not clinically indicated for the type of heart failure that the patient has.	NICE Clinical Guideline CG108: Treating Heart failure due to LVSD: for second-line treatment consider adding an aldosterone antagonist.
Core (mandatory)	11.13	MRA (discharge)	1. Eplerenone			
Core (mandatory)	11.13	MRA (discharge)	2. Spironolactone			
Core (mandatory)	11.13	MRA (discharge)	3. Other ARA			
Core (mandatory)	11.13	MRA (discharge)	8. Not applicable			
Core (mandatory)	11.13	MRA (discharge)	9. Unknown			
Core (mandatory)	11.13	MRA (discharge)	10. Drug therapy stopped			
Core (mandatory)	11.13	MRA (discharge)	11. Contraindicated			

Core (mandatory)	11.13	MRA (discharge)	12. Declined by patient		Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.14	MRA contraindication (discharge)	1. Hyperkalaemia		If MRAs were contraindicated at discharge, the reason given.	
Non-core	11.14	MRA contraindication (discharge)	2. Renal Dysfunction			
Non-core	11.14	MRA contraindication (discharge)	3. Gynaecomastia			
Non-core	11.14	MRA contraindication (discharge)	4. Other			
Non-core	11.15	MRA dose (discharge)		mg/day	MRA dose at discharge - do not include dose if MRA is recorded as 'other'	
Non-core	11.16	Aspirin (discharge)	0. No		Aspirin prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.16	Aspirin (discharge)	1. Yes			
Non-core	11.16	Aspirin (discharge)	9. Unknown			
Non-core	11.16	Aspirin (discharge)	10. Drug therapy stopped			
Non-core	11.17	Aspirin dose (discharge)		mg/day	Aspirin dose at discharge.	
Non-core	11.18	Other oral anti-platelet (discharge)	0. No		Any oral antiplatelet, other than aspirin, prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.18	Other oral anti-platelet (discharge)	1. Yes			
Non-core	11.18	Other oral anti-platelet (discharge)	9. Unknown			
Non-core	11.18	Other oral anti-platelet (discharge)	10. Drug therapy stopped			
Core (mandatory)	11.20	Digoxin (discharge)	0. No		Digoxin prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	NICE Clinical Guideline CG108: Treating Heart failure due to LVSD:If symptoms persits consider digoxin.
Core (mandatory)	11.20	Digoxin (discharge)	1. Yes			
Core (mandatory)	11.20	Digoxin (discharge)	8. Not applicable			
Core (mandatory)	11.20	Digoxin (discharge)	9. Unknown			
Core (mandatory)	11.20	Digoxin (discharge)	10. Drug therapy stopped			
Core (mandatory)	11.20	Digoxin (discharge)	11. Contraindicated			
Core (mandatory)	11.20	Digoxin (discharge)	12. Declined by patient			
Non-core	11.21	Digoxin dose (discharge)		mg/day	Digoxin dose at discharge.	
Non-core	11.22	CCB (discharge)	0. No		The calcium channel blocker that	

Non-core	11.22	CCB (discharge)	1. Amlodipine		the patient was prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.22	CCB (discharge)	2. Felodipine			
Non-core	11.22	CCB (discharge)	3. Diltiazem			
Non-core	11.22	CCB (discharge)	4. Verapamil			
Non-core	11.22	CCB (discharge)	5. Other CCB			
Non-core	11.22	CCB (discharge)	6. Nifedipine			
Non-core	11.22	CCB (discharge)	9. Unknown			
Non-core	11.22	CCB (discharge)	10. Drug therapy stopped			
Non-core	11.23	CCB dose (discharge)		mg/day	Calcium channel blocker dose at discharge.	
Non-core	11.24	Statin (discharge)	0. No		Statin prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.24	Statin (discharge)	1. Yes			
Non-core	11.24	Statin (discharge)	9. Unknown			
Non-core	11.24	Statin (discharge)	10. Drug therapy stopped			
Non-core	11.25	Statin dose (discharge)		mg/day	Statin dose at discharge.	
Non-core	11.26	Warfarin (discharge)	0. No		Warfarin prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.26	Warfarin (discharge)	1. Yes			
Non-core	11.26	Warfarin (discharge)	9. Unknown			
Non-core	11.26	Warfarin (discharge)	10. Drug therapy stopped			
Non-core	11.27	INR (discharge)		mg/day	INR at discharge.	
Non-core	11.28	Warfarin dose (discharge)		mg/day	Warfarin dose at discharge.	
Non-core	11.28a	Other oral anticoagulant (discharge)	0. No		Any oral anticoagulant, other than warfarin, prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.28a	Other oral anticoagulant (discharge)	1. Dabigatran			
Non-core	11.28a	Other oral anticoagulant (discharge)	2. Rivaroxaban			
Non-core	11.28a	Other oral anticoagulant (discharge)	3. Other oral anticoagulant			
Non-core	11.28a	Other oral anticoagulant (discharge)	9. Unknown			
Non-core	11.28a	Other oral anticoagulant (discharge)	10. Drug therapy stopped			

Non-core	11.28b	Other oral anticoagulant dose (discharge)		mg/day	Oral anticoagulant dose at discharge.	
Non-core	11.29	Amiodarone (discharge)	0. No		Amiodarone prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.29	Amiodarone (discharge)	1. Yes			
Non-core	11.29	Amiodarone (discharge)	9. Unknown			
Non-core	11.29	Amiodarone (discharge)	10. Drug therapy stopped			
Non-core	11.30	Amiodarone dose (discharge)		mg/day	Amiodarone dose at discharge.	
Non-core	11.31	Allopurinol (discharge)	0. No		Allopurinol prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.31	Allopurinol (discharge)	1. Yes			
Non-core	11.31	Allopurinol (discharge)	9. Unknown			
Non-core	11.31	Allopurinol (discharge)	10. Drug therapy stopped			
Non-core	11.32	Allopurinol dose (discharge)		mg/day	Allopurinol dose at discharge.	
Non-core	11.33	NSAID (discharge)	0. No		Non-steroidal anti-inflammatory drug prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.33	NSAID (discharge)	1. Yes			
Non-core	11.33	NSAID (discharge)	9. Unknown			
Non-core	11.33	NSAID (discharge)	10. Drug therapy stopped			
Non-core	11.34	Oral nitrates (discharge)	0. No		Oral nitrates prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.34	Oral nitrates (discharge)	1. ISDN			
Non-core	11.34	Oral nitrates (discharge)	2. ISMN			
Non-core	11.34	Oral nitrates (discharge)	9. Unknown			
Non-core	11.34	Oral nitrates (discharge)	10. Drug therapy stopped			
Non-core	11.35	Nitrates dose (discharge)		mg/day	Oral nitrates dose at discharge.	
Non-core	11.36	Bronchodilators (discharge)	0. No		Bronchodilators prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.36	Bronchodilators (discharge)	1. Yes			
Non-core	11.36	Bronchodilators (discharge)	9. Unknown			
Non-core	11.36	Bronchodilators (discharge)	10. Drug therapy stopped			
Non-core	11.37	Diabetes therapy (discharge)	0. No		The diabetes therapy that the patient was prescribed at point of discharge. Drug therapy stopped	
Non-core	11.37	Diabetes therapy (discharge)	1. Dietary control			
Non-core	11.37	Diabetes therapy (discharge)	2. Metformin			

Non-core	11.37	Diabetes therapy (discharge)	3. Sulphonylurea		should be selected if the patient was taking a diabetes therapy when admitted, and it was stopped during the admission.	
Non-core	11.37	Diabetes therapy (discharge)	4. Glitazone			
Non-core	11.37	Diabetes therapy (discharge)	5. Other Oral			
Non-core	11.37	Diabetes therapy (discharge)	6. Insulin			
Non-core	11.37	Diabetes therapy (discharge)	9. Unknown			
Non-core	11.37	Diabetes therapy (discharge)	10. Drug therapy stopped			
Non-core	11.40	Ivabradine (discharge)	0. No		Ivabradine prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.40	Ivabradine (discharge)	1. Yes			
Non-core	11.40	Ivabradine (discharge)	9. Unknown			
Non-core	11.40	Ivabradine (discharge)	10. Drug therapy stopped			
Non-core	11.41	Ivabradine dose (discharge)		mg/day	Ivabradine dose at discharge.	
Non-core	11.42	Hydralazine (discharge)	0. No		Hydralazine prescribed at point of discharge. Drug therapy stopped should be selected if the patient was taking this therapy when admitted, and it was stopped during the admission.	
Non-core	11.42	Hydralazine (discharge)	1. Yes			
Non-core	11.42	Hydralazine (discharge)	9. Unknown			
Non-core	11.42	Hydralazine (discharge)	10. Drug therapy stopped			
Non-core	11.43	Hydralazine dose (discharge)		mg/day	Hydralazine dose at discharge.	
Core (mandatory)	14.00	Confirmed diagnosis of heart failure	0. No		0=The diagnosis of heart failure has been excluded by imaging or by a cardiologist during this admission. 1=The diagnosis of heart failure has been confirmed by imaging or BNP testing either during this admission or at a previous time. In some cases a clinician may justifiably diagnose heart failure in the absence of echocardiography. 9=No information about imaging or BNP is available to support a diagnosis of heart failure.	NICE Clinical Guideline CG108: Only patients with a confirmed diagnosis should be prescribed NICE recommended drug treatments and managed in accordance with NICE clinical guidelines. Also used to determine accuracy of HES coding.
Core (mandatory)	14.00	Confirmed diagnosis of heart failure	1. Yes			
Core (mandatory)	14.00	Confirmed diagnosis of heart failure	9. Unknown			
Core (mandatory)	15.00	Referral to heart failure nurse follow-up	0. No		Referred for follow-up with a heart failure specialist nurse - this could be at a hospital or community-based clinic. This should record referral at	NICE Quality Standard 12 (2011): People admitted to hospital for heart failure are discharged only when stable and receive a clinical assessment by a
Core (mandatory)	15.00	Referral to heart failure nurse follow-up	1. Yes			

Core (mandatory)	15.00	Referral to heart failure nurse follow-up	9. Unknown		the point of discharge, so no should be selected if the patient will, or is likely to be referred to a heart failure nurse service following discharge.	multidisciplinary heart failure team within 2 weeks of discharge.
Core (mandatory)	15.01	Referral to cardiac rehabilitation	0. No		Referred to a cardiac rehabilitation programme. Cardiac rehabilitation usually involves an exercise-based programme that includes educational and psychological support, but can occur without an exercise component if the patient cannot tolerate exercise. This should record referral at the point of discharge, so no should be selected if the patient will, or is likely to be referred to a cardiac rehabilitation programme following discharge.	NICE Quality Standard 8 (2011): People with stable chronic heart failure and no precluding condition or device are offered a supervised group exercise-based cardiac rehabilitation programme that includes education and psychological support.
Core (mandatory)	15.01	Referral to cardiac rehabilitation	1. Yes			
Core (mandatory)	15.01	Referral to cardiac rehabilitation	8. Not applicable			
Core (mandatory)	15.01	Referral to cardiac rehabilitation	9. Unknown			
Core (mandatory)	15.01	Referral to cardiac rehabilitation	12. Declined by patient			
Non-core	15.03	Referral for cardiothoracic surgery	0. No		Referred for cardiothoracic surgery at discharge.	NICE Clinical Guideline CG108: Coronary revascularisation should not be routinely considered in patients with heart failure due to systolic left ventricular impairment, unless they have refractory angina.
Non-core	15.03	Referral for cardiothoracic surgery	1. Yes			
Non-core	15.03	Referral for cardiothoracic surgery	9. Unknown			
Non-core	15.04	Referral for transplant	0. No		Referred for a heart transplant at discharge.	NICE Clinical Guideline CG108: Specialist referral for transplantation should be considered in patients with severe refractory symptoms or refractory cardiogenic shock.
Non-core	15.04	Referral for transplant	1. Yes			
Non-core	15.04	Referral for transplant	9. Unknown			
Non-core	15.05	Referral to palliative care services	0. No		Referred to specialist palliative care services at discharge.	NICE Quality Standard 13 (2011): People with moderate to severe chronic heart failure, and their carer(s), have access to a specialist in heart failure and a palliative care service.
Non-core	15.05	Referral to palliative care services	1. Yes			
Non-core	15.05	Referral to palliative care services	8. Not applicable			
Non-core	15.05	Referral to palliative care services	9. Unknown			
Core (mandatory)	15.07	Referral to cardiology follow-up	0. No		Referred to follow-up with or involving a cardiologist. This should record referral at the point of discharge, so no should be selected	NICE Quality Standard 12 (2011): People admitted to hospital for heart failure are discharged only when stable and receive a clinical assessment by a
Core (mandatory)	15.07	Referral to cardiology follow-up	1. Yes			

Core (mandatory)	15.07	Referral to cardiology follow-up	9. Unknown		if the patient will, or is likely to be referred to cardiology follow-up following discharge.	multidisciplinary heart failure team within 2 weeks of discharge.
Core (mandatory)	15.10	Date of discharge			The date on which the patient was discharged from hospital, or the date of death if the patient died in hospital.	Used to measure length of stay, and to determine the month and year of discharge (used for assigning patients to a particular audit year, and for online analysis)
Core (mandatory)	15.11	Heart failure management plan	0. No		The personalised pre-discharge management plan that is drawn up for the patient prior to discharge. Ideally this should be discussed with the patient and their carers, and should include advice about lifestyle, medicines, weight management, monitoring signs and symptoms, disease prognosis and palliative care if appropriate. A discharge plan should be communicated to the primary care team, including discussion of up-titration and continuation of medicines and ongoing care outside of hospital. The discharge plan should take into account patient and carer wishes, and the level of care and support that can be provided in the community.	NICE Quality Standard 10 (2011): People admitted to hospital because of heart failure have a personalised management plan that is shared with them, their carer(s) and their GP.
Core (mandatory)	15.11	Heart failure management plan	1. A heart failure pre-discharge management plan is in place			
Core (mandatory)	15.11	Heart failure management plan	2. A heart-failure management plan has been discussed with the patient			
Core (mandatory)	15.11	Heart failure management plan	3. A heart failure management plan has been communicated to the primary care team			
Core (mandatory)	15.11	Heart failure management plan	4. All of the above			
Core (mandatory)	15.11	Heart failure management plan	9. Unknown			
Core (mandatory)	15.12	Review appointment with the heart failure MDT	0. No		Review appointment with a member of the heart failure multi-disciplinary team, following discharge. This could be a consultant cardiologist, other consultant with interest in heart failure, heart failure nurse specialist, primary care physician with specific remit for heart failure patients or a heart failure specialist pharmacist. This should not be speculative, and yes should only be selected if the date of the appointment is decided.	NICE Quality Standard 12 (2011): People admitted to hospital for heart failure are discharged only when stable and receive a clinical assessment by a multidisciplinary heart failure team within 2 weeks of discharge.
Core (mandatory)	15.12	Review appointment with the heart failure MDT	1. Yes			
Core (mandatory)	15.12	Review appointment with the heart failure MDT	9. Unknown			

Core (mandatory)	15.13	Date of review appointment			If a review appointment has been arranged, the date of the appointment. NICE recommends that the appointment should be within 2 weeks of discharge. If multiple follow-up appointments, e.g. with HFSN and cardiologist, record the date of the first one here. This field is only mandatory if 15.12=1.Yes, otherwise, leave blank.	NICE Quality Standard 12 (2011): People admitted to hospital for heart failure are discharged only when stable and receive a clinical assessment by a multidisciplinary heart failure team within 2 weeks of discharge.
Core (mandatory)	15.14	Stable on oral therapy after discharge planning	0. No		Stability on oral therapy prior to discharge. Stability means that a patient's prescription levels have not been changed, and that their weight and renal function are stable, for 48 hours prior to discharge. This should cover all	NICE Quality Standard 12 (2011): People admitted to hospital for heart failure are discharged only when stable and receive a clinical assessment by a multidisciplinary heart failure team within 2 weeks of discharge.
Core (mandatory)	15.14	Stable on oral therapy after discharge planning	1. Yes			
Core (mandatory)	15.14	Stable on oral therapy after discharge planning	9. Unknown			
Core (mandatory)	15.15	Death in hospital	0. No		Patient deceased before being discharged from hospital. If yes, date of discharge should be date of death.	Used to calculate correct denominators for online analysis. In annual reports and research, life status and life status date are obtained by linkage to ONS mortality data.
Core (mandatory)	15.15	Death in hospital	1. Yes			