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THE CANADIAN CARDIOVASCULAR SOCIETY DATA DICTIONARY

A CCS Consensus Document

ATRIAL FIBRILLATION/FLUTTER DATA ELEMENTS AND DEFINITIONS

FINAL VERSION v1.1

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Background

The Canadian Cardiovascular Society Data Dictionary is comprised of multiple "chapter" data elements and definitions that reflect national input and consensus on definitions within several spheres of cardiovascular disease, treatment and subspecialty expertise.

This Chapter's data elements and definitions are specific to **Atrial Fibrillation (AF) / Atrial Flutter (AFL)** and should be considered as a supplement to the Core Elements Chapter.

This Dictionary also contains the supporting data elements and definitions for the Canadian Cardiovascular Society Quality Indicators E-Catalogues for Atrial Fibrillation/Atrial Flutter. The data elements in this dictionary have been identified into classification levels as follows:

> **Essential**: Are deemed as a minimum recommended data element to be used as a standard to enable reporting of key quality indicators and to allow cross-comparison with other centres using these common data elements.
>
> **Specialized**: Are deemed as an expanded set of recommended data element to be used for more in-depth data collection and analysis.

Visit www.ccs.ca/ for the latest version of the CCS Quality Indicators E-Catalogues for AF/AFL and other areas.

Definitions

The following are the definitions of terminology and key outcome indicators used throughout this data dictionary, as well as terminology and key outcome indicators used by the Atrial Fibrillation/Flutter quality indicators e-catalogues.

TERMINOLOGY	
TERM	**DEFINITION**
Atrial Fibrillation (AF)	Atrial fibrillation is a supraventricular tachyarrhythmia characterized by uncoordinated atrial activation with consequent deterioration of atrial mechanical function. On the electrocardiogram (ECG), AF is described by the replacement of consistent P waves by rapid oscillations or fibrillatory waves that vary in size, shape, and timing, associated with an irregular, frequently rapid ventricular response when atrioventricular (AV) conduction is intact. [Modified from Source: J Am Coll Cardiol 2006;45:e155]
Typical Atrial Flutter (AFL)	Atrial flutter in the typical form is characterized by a saw-tooth pattern of regular atrial activation called flutter (*ƒ*) waves on the ECG, particularly visible in leads II, III, aVF, and V1. In the untreated state, the atrial rate in atrial flutter typically ranges from 240 to 320 beats per minute, often around 300 per minute, with *ƒ* waves inverted in ECG leads II, III, and aVF and upright in lead V1. The direction of activation in the right atrium (RA) may be reversed, resulting in *ƒ* waves that are upright in leads II, III, and aVF and inverted in lead V1. Atrial flutter commonly occurs with 2:1 AV block, resulting in a regular or irregular ventricular rate of 120 to 160 beats per minute (most characteristically about 150 beats per minute). [Modified from Source: J Am Coll Cardiol 2006;45:e155]
Atypical Atrial Flutter (AFL)	In the atypical form there is regular, organized atrial activity in the ECG in 3 or more leads but not the typical saw tooth pattern in the inferior leads and the rhythm often originates in the left atrium. It is defined as the absence of a typical sawtooth pattern when there was clear evidence of regular, organized atrial activity in other leads (particularly lead V_2) within this range of rates and often but not always with a fixed AV conduction (2:1, 3:1, etc.) and a regular ventricular rate. [Modified from Source: Europace 2012;12:804]
Electrocardiographic documentation (ECG)	12-lead ECG, rhythm strip, Holter monitor, intracardiac electrograms or event recorder
Nonvalvular AF/AFL	By convention, the term “nonvalvular AF/AFL” is restricted to cases in which the rhythm disturbance occurs in the absence of rheumatic mitral valve disease, a prosthetic heart valve, or mitral valve repair. [Modified from Source: J Am Coll Cardiol 2006;45:e157]
Valvular AF/AFL	Conversely, “valvular AF/AFL” is used to describe cases in which the rhythm disturbance occurs in the presence of rheumatic mitral valve disease, a prosthetic heart valve, or mitral valve repair.
Rheumatic mitral valve disease	As rheumatic mitral regurgitation cannot be reliably diagnosed without a pathological specimen, “rheumatic mitral valve disease” is defined as mitral stenosis (usually an echocardiographic diagnosis) that is moderate or greater in severity (valve area ≤1.5 cm^2 [Source: BSE Echocardiography: Guidelines for Valve Quantification]).
Newly Diagnosed AF/AFL	First electrocardiographic documentation occurred within the last 6 months, whether or not there were previous symptoms compatible with AF/AFL AND whether or not there has been more than one electrocardiographic documented episode within the period of time since the first electrocardiographic documentation. Date of Newly Diagnosed AF/AFL (YYYYMMDD)
Qualifying AF/AFL	Episode of AF/AFL that resulted in first entry into the database, regardless of whether or not it is newly diagnosed. Date of Qualifying AF/AFL (YYYYMMDD)

KEY OUTCOME INDICATORS	
TERM	**DEFINITION**
Stroke	Stroke is an acute onset of a focal neurologic deficit of presumed vascular origin lasting for ≥24 hours or resulting in death. Stroke [is] [can be] categorized as ischemic or hemorrhagic or cause unknown (based on computed tomographic or magnetic resonance scanning or autopsy) [but in this instance all strokes are included]. Fatal stroke is defined as death from any cause within 30 days of stroke. [Modified from Source: Am Heart J 2009;157:810.e1] Stroke must be confirmed by imaging of the brain (computed tomographic or magnetic resonance scanning) or by autopsy. Date of Stroke (YYYYMMDD): date of onset of symptoms of stroke CHA_2DS_2VASc score at time of stroke = CHA_2DS_2-VASc Score 1. Score = 0 2. Score = 1 3. Score = 2 4. Score = 3 5. Score = 4 or greater 6. Score Unknown/Uncertain Antithrombotic therapy at time of stroke = Antithrombotic Therapy 1. No antithrombotic therapy 2. Anticoagulation only a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 3. Antiplatelet only 4. Anticoagulation and antiplatelet a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 5. Unknown/Uncertain
Contraindication to Anticoagulation	List of examples from the ROCKET AF Study: • Active internal bleeding • History of, or condition associated with, increased bleeding risk, including: o Major surgical procedure or trauma within 30 days before randomization o Clinically significant gastrointestinal bleeding within 6 months before randomization o History of intracranial, intraocular, spinal, or atraumatic intra-articular bleeding o Chronic hemorrhagic disorder o Known intracranial neoplasm, arteriovenous malformation, or aneurysm o Planned invasive procedure with potential for uncontrolled bleeding, including major surgery [Source: Am Heart J 2010;159:340-7.e1] Date when Contraindication was First Noted (YYYYMMDD)

Systemic Embolus	Systemic embolism is an acute vascular occlusion of the extremities or any organ (kidneys, mesenteric arteries, spleen, retina or grafts) and must be documented by angiography, surgery, scintigraphy, or autopsy. [Modified from Source: Am Heart J 2009;157:810.e1] Date of Systemic Embolus (YYYYMMDD): date of the onset of symptoms of systemic embolus CHA_2DS_2VASc Score at time of Systemic Embolus = CHA_2DS_2-VASc Score 1. Score = 0 2. Score = 1 3. Score = 2 4. Score = 3 5. Score = 4 or greater 6. Score Unknown/Uncertain Antithrombotic Therapy at Time of Systemic Embolus = Antithrombotic Therapy 1. No antithrombotic therapy 2. Anticoagulation only a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 3. Antiplatelet only 4. Anticoagulation and antiplatelet a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 5. Unknown/Uncertain
TIA	Same as stroke but symptoms resolve within <24h and no imaging evidence of cerebral infarct or hemorrhage. Date of TIA (YYYYMMDD): date of onset of symptoms of TIA CHA_2DS_2VASc at Time of TIA = CHA_2DS_2-VASc Score 1. Score = 0 2. Score = 1 3. Score = 2 4. Score = 3 5. Score = 4 or greater 6. Score Unknown/Uncertain Antithrombotic Therapy at Time of TIA = Antithrombotic Therapy 1. No antithrombotic therapy 2. Anticoagulation only a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 3. Antiplatelet only 4. Anticoagulation and antiplatelet a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 5. Unknown/Uncertain

Major Hemorrhage	Major hemorrhage is defined by ≥1 of the following criteria: • Overt bleeding associated with reduction in haemoglobin level of at least 2.0 g/L; • Overt bleeding leading to transfusion of at least 2 U of blood or packed cells; or • Symptomatic bleeding in a critical area or organ such as intraocular, intracranial, intraspinal or intramuscular with compartment syndrome, retroperitoneal bleeding, intra-articular bleeding, or pericardial bleeding. [Modified from Source: Am Heart J 2009;157:810.e2] In the AF Quality Indicators e-Catalogue the Cross-sectional Analysis is based on hospitalization for major hemorrhage as defined above. Date of Major Bleeding (YYYYMMDD) = date of onset of symptoms of bleeding or detection of overt bleeding when asymptomatic CHA_2DS_2VASc at Time of TIA = CHA_2DS_2-VASc Score 1. Score = 0 2. Score = 1 3. Score = 2 4. Score = 3 5. Score = 4 or greater 6. Score Unknown/Uncertain Antithrombotic Therapy at Time of Major Hemorrhage = Antithrombotic Therapy 1. No antithrombotic therapy 2. Anticoagulation only a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 3. Antiplatelet only 4. Anticoagulation and antiplatelet a. Warfarin or other vitamin K antagonist b. Dabigatran c. Rivaroxaban d. Apixaban 5. Unknown/Uncertain
CV Hospitalization	Primary reason for hospitalization was cardiovascular categorized by reason(s) for hospitalization (Check all that apply): 1. Rhythm management of AF/AFL 2. Bleeding 3. Acute HF 4. MI 5. Other Acute Coronary Syndrome 6. Rhythm management for other SVT 7. Bradycardia Management 8. Rhythm management for VT/VF/SCD 9. Other, specify Date of CV Hospitalization (YYYYMMDD)

Non-CV Hospitalization Only	Primary reason for hospitalization was non-cardiovascular and no secondary CV problem during hospitalization Date of Non-CV Hospitalization (YYYYMMDD)
Non-CV Hospitalization with Secondary CV Problem	Primary reason for hospitalization was non-cardiovascular but a secondary cardiovascular problem developed during hospitalization categorized by CV problem(s) (Check all that apply): 1. Rhythm management for AF/AFL 2. Bleeding 3. Acute HF 4. MI 5. Other Acute Coronary Syndrome 6. Rhythm management for other SVT 7. Bradycardia Management 8. Rhythm management for VT/VF/SCD 9. Other, specify Date of Non-CV Hospitalization with Secondary CV Problem (YYYYMMDD)
CV Emergency Department Visit (whether or not followed by hospital admission)	Primary reason for Emergency Department Visit was cardiovascular categorized by reason(s) for ER Visit (Check all that apply): 1. Rhythm management of AF/AFL 2. Bleeding 3. Acute HF 4. MI 5. Other Acute Coronary Syndrome 6. Rhythm management for other SVT 7. Bradycardia Management 8. Rhythm management for VT/VF/SCD 9. Other, specify Date of CV Emergency Department Visit (YYYYMMDD)
Lost to Follow-up	Patient is permanently lost to any further follow-up due to moving or any other administrative or other reason they are no longer included in the database. Date of Last Contact (YYYYMMDD)
Death	Patient died and no longer available for follow-up. Date of Death (YYYYMMDD)

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PART 1 – PATIENT DEMOGRAPHICS, PHYSICAL EXAMINATION, MEDICAL HISTORY

– Indicate DATE of Data Collection (YYYYMMDD)

NOTE: The following data elements and definitions are specific to this Chapter and should be considered as a supplement to the Core Elements Data Dictionary Chapter.

DATA ELEMENT	CLASSIFICATION	DEFINITION
Symptoms with Prior Episodes of AF/AFL	ESSENTIAL	Identify the presence of the following symptoms, select all that apply: 1. Palpitations a. Yes b. No c. Unknown 2. Dyspnea a. Yes b. No c. Unknown 3. Dizziness, presyncope or syncope a. Yes b. No c. Unknown 4. Chest pain a. Yes b. No c. Unknown 5. Weakness or fatigue a. Yes b. No c. Unknown Identify the association. Is Atrial Fibrillation/Flutter (AF/AFL), when present, or therapy for AF/AFL, the likely cause of any of the above-listed symptoms (1-5), (as opposed to some other cause)? 1. Yes 2. No Assign a CCS-SAF score by determining the patient's functionality related to AF/AFL or therapy for AF/AFL during the last 4 weeks: 0 = Asymptomatic 1 = Minimal impact on QOL 2 = Minor impact on QOL 3 = Moderate impact on QOL 4 = Severe impact on QOL
Frequency of Prior Symptomatic Episodes with Atrial Fibrillation/Flutter	ESSENTIAL	Patient estimate of average interval between symptomatic episodes in days, weeks, or months. 1. Average interval, specify days, weeks or months 2. Not applicable (sporadic or single episode) 3. Not applicable (asymptomatic) 4. Not applicable (continuous)

Duration of Prior Symptomatic Episodes with Atrial Fibrillation/Flutter	ESSENTIAL	Patient estimate of duration of each of longest, shortest, and usual symptomatic episodes: Duration for longest episode: 1. Less than 48 hours a. less than 5 minutes b. 5 minutes to less than 6 hours c. 6 hours to less than 48 hours 2. 48 hours to 7 days 3. 7 days to 3 months 4. Longer than 3 months 5. Not applicable (asymptomatic) 6. Not applicable (continuous) Duration for shortest episode: 1. Less than 48 hours a. less than 5 minutes b. 5 minutes to less than 6 hours c. 6 hours to less than 48 hours 2. 48 hours to 7 days 3. 7 days to 3 months 4. Longer than 3 months 5. Not applicable (asymptomatic) 6. Not applicable (continuous) Duration for usual symptomatic episode: 1. Less than 48 hours a. less than 5 minutes b. 5 minutes to less than 6 hours c. 6 hours to less than 48 hours 2. 48 hours to 7 days 3. 7 days to 3 months 4. Longer than 3 months 5. Not applicable (asymptomatic) 6. Not applicable (continuous)
On antiarrhythmic drug medication during Electrical Cardioversion	SPECIALIZED	List generic name for antiarrhythmic medication used to augment electrical cardioversion from AF/AFL to normal sinus rhythm. 1. Amioderone 2. Flecanide 3. Dofetilide 4. Propafenone 5. Sotalol 6. Dronedarone 7. Procainamide 8. Ibutilide 9. Other, specify Indicate route of administration (intravenous or oral) and total daily dose and units. (Include total dose until cardioversion.)

Arrhythmia History - Supraventricular Tachycardias (SVT) Other Than Atrial Fibrillation/Flutter	SPECIALIZED	Indicate the patient's medical history with respect to SVT other than atrial flutter or atrial fibrillation. Select all that apply. 1. Yes, select all that apply a. AVRT due to Wolff-Parkinson-White syndrome (manifest accessory AV connection) b. AV nodal re-entrant tachycardias c. AVRT with Concealed accessory AV connection d. Atrial tachycardias e. Other supraventricular tachycardia (SVT) f. Unknown 2. No 3. Unknown
Family History of Arrhythmias	ESSENTIAL	Indicate if the patient has any family[1] history of atrial flutter or fibrillation. Indicate if there is a family history of other arrhythmias or conduction system disease preceding or unassociated with structural heart disease (e.g. Brugada Syndrome etc.). 1. Yes, select all that apply a. Atrial Fibrillation b. Atrial Flutter c. Other arrhythmias or conduction disease associated with AF/AFL, specify d. Unknown 2. No 3. Unknown Specific arrhythmia(s) or conduction problem(s) should be stated. [1]Family is defined as any direct blood relative of patient (parents, siblings, and children) who have been diagnosed
Evidence for Ventricular Dysfunction (Systolic or Diastolic) Due to Tachyarrhythmias	ESSENTIAL	Indicate if patient has congestive heart failure attributed to sustained (usually >1 week or often longer) tachycardia (usually more than 120 bpm, cycle length <500 ms) that is not attributable to any other cause and shows evidence for improvement after correction of tachycardia, with or without imaging evidence of systolic or diastolic dysfunction. 1. Yes 2. No 3. Unknown
History of Atrial Fibrillation/Flutter^	ESSENTIAL	^Refer to Core Elements chapter for definition.

Previously Used Therapeutic Strategies with Atrial Fibrillation/Flutter	SPECIALIZED	Indicate the types of therapeutic strategies that have been employed previously. Select all that apply. (Note: One therapy may apply to more than one category, e.g. amiodarone may be used for rate or rhythm control.) 1. Rate Control: a. Pharmacological b. Non-pharmacological i. Ablation only (AV junction modification) ii. Ablation with Pacing (AV junction ablation) c. Hybrid* d. None 2. Rhythm Control: a. Pharmacological b. Non-pharmacological i. Ablation ii. Anti-tachycardia Pacing c. Hybrid* d. None *Hybrid is defined as concurrent use of: Pharmacological and Non-pharmacological
Prior Transthoracic Electrical Cardioversion for Atrial Fibrillation/Flutter	SPECIALIZED	Indicate if previous transthoracic electrical cardioversion sessions were attempted and resulted in the absence of AF or AFL. A session may include multiple successive shocks. 1. Yes (i.e. Attempted) a. Successful b. Unsuccessful i. Never (No restoration of sinus rhythm) c. Successful with recurrence i. Immediate recurrence, within 1 minute ii. Early recurrence, 1 minute to 24 hours iii. Subacute recurrence, 24 hours to 14 days iv. Late recurrence, > 14 days d. Unknown 2. No (i.e. Not attempted) 3. Unknown
Prior Pharmacological Cardioversion for Atrial Fibrillation/Flutter	ESSENTIAL	Indicate if previous pharmacological cardioversion for AF/AFL was attempted and resulted in the absence of AF or AFL. 1. Yes (i.e. Attempted) a. Successful (i.e. giving the drug resulted in the absence of AF/Flutter) i. List all generic drug names previously used that resulted in the absence of AF or AFL. b. Unsuccessful i. List all generic drug names previously used that did not result in the absence of AF or AFL. 2. No (i.e. Not attempted) 3. Unknown

History of Sinus Bradycardia/Sick Sinus Syndrome	ESSENTIAL	Patient has a documented history[2] of symptoms due to sinus node dysfunction. 1. Yes If Yes, manifested by the following, select all that apply: a. Sinus bradycardia: Sinus rate 40 to 50 bpm with normal P-wave axis b. Severe sinus bradycardia: Sinus rate less than 40 bpm with normal P-wave axis c. Sinus arrest: Sudden absence of sinus activity d. Sinoatrial exit block: Loss of sinus activity at an interval fixed to that of the basic P-P interval e. Tachycardia-bradycardia syndrome: Paroxysmal tachycardias followed by bradycardia or pauses >4 seconds upon termination 2. No 3. Unknown
History of Atrioventricular (AV) Block	ESSENTIAL	Patient has a documented history of atrioventricular (AV) block and its highest degree: 1. Yes If yes, indicate the highest degree (Select only one): a. 1st Degree: P-R interval greater than 210 ms b. 2nd Degree: i. Mobitz I (Wenckebach): gradual PR prolongation until AV block ii. Mobitz II: fixed PR interval until AV block c. Advanced AV block (e.g. 2:1, 3:1) with an atrial rate <100 d. 3rd Degree (complete heart block): independent atrial and ventricular activity with an atrial rate <100 and faster than the ventricular rate 2. No 3. Unknown
History of ablation for other than Atrial Fibrillation/Flutter	SPECIALIZED	Patient has a documented history of ablation for other than AF or atrial flutter. 1. Yes If yes, specify indication, which may include: (Select all that apply) a. AVRT due to Wolff-Parkinson-White syndrome (manifest accessory AV connection) b. AV nodal re-entrant tachycardias c. AVRT with Concealed accessory AV connection d. Atrial tachycardia e. Ventricular tachycardia (VT) f. Other supraventricular tachycardia (SVT) 2. No 3. Unknown

[2] 'documented history' throughout this document means the patient has been told by a physician that they clearly have this diagnosis or there is a medical record of this diagnosis.

History of Valvular Heart Surgery	ESSENTIAL	Patient has a documented history of valvular heart surgery, specifying type(s) and valve(s). 1. Yes If Yes, indicate type of surgery and valve, select all that apply: a. Repair b. Replacement i. Bioprosthesis ii. Mechanical iii. TAVI c. Valve, select all that apply i. Aortic ii. Mitral iii. Other, specify 2. No 3. Unknown
Diabetes (Mellitus)^	ESSENTIAL	^ NOTE: This definition is specific to this Chapter and is intentionally different than the Diabetes (Mellitus) defined in the Core Elements chapter. Patient has documented history of diabetes mellitus diagnosed and /or treated by a physician prior to encounter. 1. Yes. If yes, indicate diabetes control (select more than one if applicable): a. None b. Diet c. Oral hypoglycemic agent d. Insulin e. Non-insulin injectables f. Other, specify 2. No 3. Unknown

History of Valvular Heart Disease	ESSENTIAL	Patient has a documented history of moderate or severe stenosis or regurgitation with or without previous valve surgery. 1. Yes (select all that apply) If Yes, indicate severity and valve a. Moderate stenosis, indicate valve(s) involved (select all that apply) i. Aortic ii. Mitral iii. Other, specify b. Severe stenosis, indicate valve(s) involved (select all that apply) i. Aortic ii. Mitral iii. Other, specify c. Moderate regurgitation, indicate valve(s) involved (select all that apply) i. Aortic ii. Mitral iii. Other, specify d. Severe regurgitation, indicate valve(s) involved (select all that apply) i. Aortic ii. Mitral iii. Other, specify 2. No 3. Unknown Date of onset (first diagnosis) may be helpful.
History of thyroid disease	ESSENTIAL	Patient has a documented history of hyperthyroidism or hypothyroidism. 1. Yes, If yes, indicate type: a. Hyperthyroidism, indicate if patient has a documented history of prior radioactive iodine treatment or prior medical treatment for hyperthyroidism i. Yes ii. No iii. Unknown b. Hypothyroidism i. Yes If yes, hormone replacement 1. Yes 2. No 3. Unknown ii. No iii. Unknown 2. No
Hypertension^	ESSENTIAL	^Refer to Core Elements chapter for definition.
History of Non-ischemic Cardiomyopathy	ESSENTIAL	Patient has a documented history of cardiomyopathy. 1. Yes If yes, indicate a. Hypertrophic i. Non-obstructive, non-hypertensive ii. Obstructive b. Dilated c. Other, specify 2. No 3. Unknown

History of chronic liver disease	ESSENTIAL	Patient has a documented history cirrhosis or chronic liver disease. 1. Yes 2. No 3. Unknown
History of Pulmonary Hypertension	ESSENTIAL	Patient has a documented history of a systolic pulmonary artery pressure >35 mm Hg measured at rest by right-heart catheterization or estimated from echocardiogram. 1. Yes If yes, specify etiology: a. Primary b. Secondary – Heart Disease c. Secondary – Lung Disease d. Mixed e. Unknown 2. No 3. Unknown
Prior Cerebrovascular Disease^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Prior Cerebrovascular Accident CVA / Stroke	ESSENTIAL	Patient has a documented history of cerebrovascular accident (CVA)/stroke (ischemic, hemorrhagic or unknown type) as evidenced by a persistent neurological deficit. 1. Yes 2. No 3. Unknown
History of Ischemic Heart Disease	ESSENTIAL	Patient has a documented history of <u>any</u> ischemic heart disease. 1. History of MI, Patient has had at least one documented MI prior to this encounter. NOTE: History (a patient provided history) of MI should be coded "yes" only for MIs that occurred prior to the first onset of symptoms that led to this episode of care. Code “No” if the patient's only MI occurred at any transferring facility (i.e. AF/AFL during acute MI). a. Yes b. No c. Unknown 2. History of Angina, Patient has a documented history of angina diagnosed and/or treated by a physician. a. Yes b. No c. Unknown 3. Prior PCI, Patient has had a previous PCI; includes any attempted PCI whether successful or not prior to this encounter. a. Yes b. No c. Unknown 4. Prior CABG, Patient has had a previous coronary artery bypass graft (CABG) surgery prior to this encounter. a. Yes b. No c. Unknown
Peripheral Arterial Disease^	ESSENTIAL	^Refer to Core Elements chapter for definition.

History of intracranial hemorrhage other than stroke	ESSENTIAL	Patient has a documented history of any prior bleeding into or around the brain that is not a stroke. 1. Yes a. If yes, categories include: i. Subarachnoid hemorrhage ii. Other (including subdural and epidural hematomas), specify iii. Unknown b. If yes, indicate whether documented by: i. CT ii. MRI 2. No 3. Unknown
History of other hemorrhage	ESSENTIAL	Patient has a documented history of bleeding. 1. Yes If yes, define according to the following criteria: a. Major: Overt bleeding leading to transfusion of at least 2 units of whole blood or erythrocytes, requiring hospitalization or surgery, resulting in permanent disability, or involving a critical anatomic site (retroperitoneal, pericardial, intraspinal, intracranial, atraumatic intra-articular, or intra-ocular bleeding associated with abrupt deterioration of visual acuity). b. Clinically overt (but not major) c. Occult (e.g. asymptomatic guaiac-positive stool). Include amount of hemoglobin drop and the time interval if data available. 2. No 3. Unknown
History of sleep apnea	ESSENTIAL	Patient has a documented history of sleep apnea. 1. Yes If yes, defined as: a. Obstructive sleep apnea: recurrent collapse of the pharynx during sleep b. Central sleep apnea: transient cessation of neural drive to respiratory muscles c. Mixed d. Unknown 2. No 3. Unknown
History of pacemaker insertion	ESSENTIAL	Indicate whether the patient has or has had a pacemaker inserted. 1. Yes a. If yes, select all that apply: i. Single chamber (atrial) ii. Single chamber (ventricular) iii. Dual chamber (both atrial and ventricular, but not CRT) iv. CRT of any type b. If yes, specify indication (Select all that apply): i. Sinus node dysfunction ii. AV block iii. Congestive heart failure iv. Atrial fibrillation v. Unknown 2. No
COPD^	ESSENTIAL	^Refer to Core Elements chapter for definition.

Asthma	ESSENTIAL	Patient has isolated asthma (reactive airways disease responding to bronchodilators) 1. Yes 2. No 3. Unknown
Current pacing mode	SPECIALIZED	Indicate the current pacing mode, select one: 1. VVI 2. DDD 3. DDI 4. AAI 5. Other (specify) Indicate Rate responsiveness: 1. Yes 2. No Indicate CRT: 1. Yes 2. No
History of intracardiac cardioverter defibrillator (ICD) insertion	SPECIALIZED	Indicate whether the patient has or has had an intracardiac defibrillator inserted. 1. Yes If yes, specify type: a. VVI b. DDD c. Other, specify 2. No Indicate Rate responsiveness: 1. Yes 2. No Indicate CRT: 1. Yes 2. No Specify indication, select one: 1. Secondary prevention of cardiac arrest 2. Primary prevention of cardiac arrest. High risk for ventricular tachycardia/fibrillation (e.g. ischemic cardiomyopathy, non-ischemic cardiomyopathy, hypertrophic cardiomyopathy, Brugada syndrome, long-QT syndrome, arrhythmogenic right ventricular cardiomyopathy) 3. Syncope with inducible ventricular tachycardia 4. Unexplained syncope 5. Other, specify

$CHADS_2$ score	ESSENTIAL	Indicate if any of the elements for $CHADS_2$ score are present in the medical record. Select all that apply. 1. History of Congestive Heart Failure a. Yes b. No 2. History of Hypertension a. Yes b. No 3. Age ≥75 years a. Yes b. No 4. History of Diabetes Mellitus a. Yes b. No 5. History of Prior Stroke, TIA (Transient ischemic attack) a. Yes b. No Indicate if the actual $CHADS_2$ score is calculated and present in the medical record. 1. Yes a. Specify the $CHADS_2$ score b. Indicate the Date of the current (most recent) $CHADS_2$ score 2. No
CHA_2DS_2-VASc score	ESSENTIAL	Indicate if the elements for CHA_2DS_2-VASc score are present in the medical record. 1. History of Congestive Heart Failure or LV dysfunction (severe systolic dysfunction where LVEF ≤40) a. Yes b. No 2. History of Hypertension a. Yes b. No 3. Age ≥75 years a. Yes b. No 4. History of Diabetes Mellitus a. Yes b. No 5. History of Prior Stroke or TIA (Transient ischemic attack) or systemic thrombo-embolism a. Yes b. No 6. Vascular disease (prior MI, peripheral arterial disease, aortic plaque) a. Yes b. No 7. Age 65 - 74 years a. Yes b. No 8. Female Sex a. Yes b. No Indicate if the actual CHA_2DS_2-VASc score is calculated and present in the medical record. 1. Yes a. Specify the CHA_2DS_2-VASc score b. Indicate the Date of the current (most recent) CHA_2DS_2-VASc score 2. No

AS-BLED score	ESSENTIAL	Indicate if the elements for HAS-BLED score are present in the medical record. 1. Hypertension (SBP >160 mm Hg) a. Yes b. No 2. Abnormal renal function (CrCI <50 ml/min) a. Yes b. No 3. Abnormal liver function a. Yes b. No 4. Prior Stroke a. Yes b. No 5. History of clinically significant bleeding a. Yes b. No 6. Labile INR (TTR <60%) a. Yes b. No 7. Elderly >75 a. Yes b. No 8. Drugs (Aspirin or nonsteroidal anti-inflammatory drug) a. Yes b. No Indicate if the actual HAS-BLED score is calculated and present in the medical record. 1. Yes a. Specify the HAS-BLED score b. Indicate the Date of the current (most recent) HAS-BLED score 2. No

PART 2 – BRIEF PATIENT SUMMARY

– Indicate DATE of Patient Summary (YYYYMMDD)

NOTE: The following data elements and definitions are specific to this Chapter and should be considered as a supplement to the Core Elements Data Dictionary Chapter.

DATA ELEMENT	CLASSIFICATION	DEFINITION
Classification of qualifying Atrial Fibrillation/Flutter episode	ESSENTIAL	Indicate Date of Qualifying AF/AFL (YYYYMMDD) Most recent or current presenting episode recorded that qualified the person for enrolment. 1. Newly Diagnosed a. Yes, indicate Date of Newly Diagnosed AF/AFL (YYYYMMDD) and type: i. Paroxysmal AF/AFL: AF/AFL is self-terminating within 7 days of recognized onset ii. Persistent AF/AFL: AF/AFL is not self-terminating within 7 days or is terminated electrically or pharmacologically iii. Longstanding persistent present >1 year iv. Permanent AF/AFL: Accepted AF/AFL and Cardioversion failed or not attempted b. No 2. Recurrent AF (≥2 episodes) a. Yes,: i. Paroxysmal AF/AFL: AF/AFL is self-terminating within 7 days of recognized onset ii. Persistent AF/AFL: AF/AFL is not self-terminating within 7 days or is terminated electrically or pharmacologically iii. Longstanding persistent present >1 year iv. Permanent AF/AFL: Accepted AF/AFL and Cardioversion failed or not attempted b. No *Newly-detected and Recurrent can in addition be characterized as paroxysmal, persistent, long-standing persistent or permanent. **NB: This is classification of an individual most recent or current presenting episode of AF/AFL. See below "Patient Classification" for classification of patient.**
Atrial Fibrillation/Flutter due to transient or reversible cause ("situational AFL/AF")	ESSENTIAL	Indicate whether the qualifying AF/AFL is due to a transient or reversible cause, i.e. "situational AF/AFL". 1. Yes If yes, select all that apply a. Postoperative from cardiac surgery b. Postoperative from non-cardiac thoracic surgery c. Postoperative from non-cardiac, non-thoracic surgery d. Pericarditis e. Lung disease f. Exacerbation of COPD g. Pneumonia h. Excessive adrenergic agent bronchial dilators i. Hyperthyroidism or overdose of hormone replacement therapy j. Alcohol excess k. Other "situational" AF/AFL, specify 2. No

Predominant cardiac diagnosis	Essential	Patient has a documented history of a predominant cardiac diagnosis of one of the following: 1. Yes If yes, please specify: a. Valvular heart disease; moderate to severe valve dysfunction or previous valve surgery b. Hypertrophic cardiomyopathy. Exclude concentric left ventricular of hypertrophy of hypertensive heart disease. c. Non-ischemic dilated cardiomyopathy d. Other cardiomyopathy, specify e. Ischemic heart disease, with or without left ventricular dysfunction (prior documented myocardial infarction, angina, coronary revascularization) f. Coronary artery disease without ischemic heart disease (stenosis of coronary artery on angiography greater than or equal to 50%; without #5) g. Congenital heart disease h. Other heart disease, specify i. Hypertension, with or without left ventricular hypertrophy and diastolic dysfunction 2. No underlying structural or functional heart disease or hypertension 3. Unknown
Patient classification according to Atrial Fibrillation/Flutter episodes	ESSENTIAL	Classify current status of the patient based on the episodes of AF/AFL within the past 12 months. Select one. 1. Newly Diagnosed: Patient with a first-ECG documented episode lasting less than 6 months or within 6 months if paroxysmal or cardioverted 2. Paroxysmal: Patient with history of 2 or more episodes of paroxysmal AF/AFL only 3. Persistent: Patient with history of 2 or more episodes of persistent AF/AFL only 4. Mixed Paroxysmal/Persistent: Patient with history of 2 or more episodes of AF/AFL of either paroxysmal or persistent type (at least 1 of each type) 5. Long standing persistent: continuous AF that has been present for >1 year 6. Permanent: Patient with history of 2 or more episodes of AF/AFL with at least 1 episode of permanent AF/AFL, or a first-detected episode lasting more than 6 months for which no attempt or no further attempt to restore sinus rhythm is planned **(See above "Qualifying Rhythm" for definitions of episode classification.)**

PART 3 – LABORATORY TESTS AND LVEF AT ENCOUNTER (MOST RECENT)

NOTE: The following data elements and definitions are specific to this Chapter and should be considered as a supplement to the Core Elements Data Dictionary Chapter.

DATA ELEMENT	CLASSIFICATION	DEFINITION
Hemoglobin	ESSENTIAL	Record the most recent hemoglobin (HGB) value in g/L and Date of test (YYYYMMDD).
Platelets	SPECIALIZED	Record most recent platelet count and include Date of test (YYYYMMDD).
Thyroid Function Tests	ESSENTIAL	Record the most recent thyroid function test results and Date of test (YYYYMMDD). 1. Thyroid-stimulating hormone level (mU/mL) 2. Free T4 (pmol/L) 3. Total T3 (nmol/L)
Liver function/ assessment	ESSENTIAL	Record the most recent liver function/assessment and Date of test (YYYYMMDD). (Select all that apply) 1. Total bilirubin (umol/L) 2. Alkaline phosphatase (U/L) 3. Aspartate transaminase (AST) (U/L) 4. Alanine transaminase (ALT) (U/L) 5. Other Specify
Potassium	ESSENTAIL	Record the most recent serum potassium (mmol/L) and Date of test (YYYYMMDD).
Magnesium	SPECIALIZED	Record the most recent serum magnesium (mmol/L) and Date of test (YYYYMMDD).
International Normalized Ratio (INR)	ESSENTIAL	Record the most recent INR and Date of test (YYYYMMDD).
(LV) function^	ESSENTIAL	^Refer to Core Elements chapter for definition
Creatinine and/or eGFR	ESSENTIAL	Indicate most recent value and Date of test (YYYYMMDD). 1. Creatinine µmol/L 2. eGFR ml/min/1.73m sq (provide method for estimation of GFR) a. Cockcroft-Gault b. Modified MDRD c. Other, please specify

PART 4 – OTHER TESTS AT ENCOUNTER (MOST RECENT)

A. ELECTROCARDIOGRAPHY

DATA ELEMENT	CLASSIFICATION	DEFINITION
Electrocardiography Date	ESSENTIAL	Indicate the Date of the Electrocardiography (YYYYMMDD).
Rhythm	ESSENTIAL	Indicate categories of rhythm present. Select all that apply: 1. Sinus rhythm 2. Atrial fibrillation 3. Atrial flutter 4. Paced a. Atrial paced – AAI, DDD, etc. b. Ventricular paced only – VVI* 5. Other, specify (e.g., ventricular tachycardia, supraventricular tachycardia) *can apply in addition to #1-3
Heart rate on ECG	ESSENTIAL	Heart rate (beats per minute) as measured on ECG. Recommended count QRS complexes over at least 10-15 seconds. If 10 seconds multiply by 6; 12 seconds multiply by 5; if 15 seconds multiply by 4.* *Automated ECG heart rates are often inaccurate during AF with HR >85 per minute
Previous MI	ESSENTIAL	Indicate whether pathological Q waves are present on ECG. 1. Yes 2. No 3. Unknown
Left ventricular hypertrophy	ESSENTIAL	Indicate presence of left ventricular hypertrophy. If yes, specify criteria. The following criteria have been validated prospectively in clinical studies. 1. Yes, if yes specify a. Sokolow-Lyon Voltage: S in V1 R V5 or V6 greater than 38 mm (does not require gender or age adjustment) b. Cornell Voltage: R avL S V3 greater than 20 mm in females or 28 mm in males c. Cornell Product: Cornell voltage times the QRS duration greater than 2440 (in females, 6 mm is added to their Cornell voltage) 2. No
Complete bundle-branch block	ESSENTIAL	Specify whether any of the following are present, defined as QRS more than 120 milliseconds. 1. Yes, if yes specify: a. Right bundle-branch block b. Left bundle-branch block c. Nonspecific intraventricular conduction delay 2. No

Pre-excitation	SPECIALIZED	PR interval <100 msec and indicate whether characteristic delta wave is present. 1. PR <100 msec a. Yes b. No 2. Delta wave a. Yes b. No
Atrial abnormality	ESSENTIAL	Indicate whether left, right, or biatrial abnormality is present. 1. Yes, specify a. Left b. Right c. Biatrial 2. No
P-wave duration	OPTIONAL	Indicate the longest/widest P-wave in any of the 12 leads (milliseconds).
PR interval	ESSENTIAL	Longest measured time from onset of P-wave to onset of QRS complex in any given ECG lead.
QT interval	SPECIALIZED	Indicate the QT interval: 1. Measurement of the average QT interval and heart rate of ECG recording of multiple (at least 3) ECG leads. • Regular RR intervals, only need one, use the longest of the 12 leads. • Irregular RR intervals, average across 3 consecutive beats NOTE: QT is measured from the earliest onset of the QRS to the latest termination of the T wave in these leads. (The U wave should be excluded from the measurement. The T wave should be extrapolated as the tangent to the maximum downstroke to the isoelectric baseline.)
Corrected QT (QTc) interval	SPECIALIZED	Indicate the corrected QT (QTc) interval. NOTE: The correction of the QT interval for heart rate (QTc) can be performed by many techniques, but the simplest and most widely used is the Bazett formula: QTc measured QT⁄square root of the preceding RR interval in seconds.

B. ECHOCARDIOGRAPHY

DATA ELEMENT	CLASSIFICATION	DEFINITION
Echocardiography Date	ESSENTIAL	Indicate the Date of the Echocardiography (YYYYMMDD).
Left atrial antero-posterior dimension	ESSENTIAL	Record the left atrial antero-posterior dimension, using the “leading edge to leading edge” method, in centimeters (cm), measured in the parasternal long-axis view at end-ventricular systole.
Left atrial volume index	ESSENTIAL	On two-dimensional imaging, using the left atrial areas traced in the four- and two-chamber views as calculated by the ASE recommended standardized methods* (ml/m sq). *Source: J Am Soc Echocardiogr 2005;18:1440-1463

Left ventricular AP diastolic dimension	SPECIALIZED	Record the left ventricular antero-posterior dimension measured at end ventricular diastole, in centimeters (cm).
Left ventricular AP systolic dimension	SPECIALIZED	Left ventricular antero-posterior dimension measured at the end of ventricular systole, in centimeters (cm).
Left Ventricular Systolic function	ESSENTIAL	NOTE: This definition is specific to this Chapter and is intentionally different than the 'LV Function' defined in the Core Elements chapter. Provide the most recent estimated or calculated left ventricular systolic function, as the percentage of blood emptied from the left ventricle at the end of the contraction. Enter actual number, if available. If actual number not available, select the appropriate category (*category source: CARDS*): 1. Normal (>50%) 2. Slightly reduced (41-50%) 3. Moderately reduced (31-40%) 4. Severely reduced (≤30%) 5. LV function not assessed 6. Unknown Indicate the method used: 1. Visual estimation 2. Apical two-chamber method of discs 3. Apical four-chamber method of discs 4. Biplane method of discs
Left ventricular diastolic function	SPECIALIZED	Indicate the left ventricular diastolic function, from the following categories: 1. Normal 2. Impaired relaxation (Grade I) 3. Pseudonormal (Grade II) 4. Restrictive (Grade III) 5. Not obtained
Left ventricular wall thickness	ESSENTIAL	Record the left ventricular end-diastolic thickness of septal and posterior walls as measured in the parasternal long-axis view, in centimeters (cm).

Thrombus with location	SPECIALIZED	Specify the Thrombus type, location and method used. Indicate the most dense. Specify Thrombus type: 1. Definite 2. Probable 3. Possible Specify location: 1. Left atrial appendage 2. Left atrium 3. Left ventricle Specify method used: 1. TTE 2. TEE
Spontaneous echo contrast with location	SPECIALIZED	Indicate the spontaneous echo contrast type, location and method used. Specify spontaneous echo contrast type: 1. None 2. Faint 3. Dense Specify location: 1. Left atrial appendage 2. Left atrium 3. Left ventricle Specify method used: 1. TTE 2. TEE
Left Atrial Appendage Velocity	SPECIALIZED	Record the left atrial appendage outflow velocity (cm/sec) pre-cardioversion. If applicable. Record the left atrial appendage outflow velocity (cm/sec) post cardioversion. If applicable.
Mitral valve morphology	ESSENTIAL	Indicate the predominant assessment mitral valve morphology, as: 1. Normal 2. Rheumatic 3. Prolapse 4. Flail 5. Prosthetic 6. Other abnormal, specify
Mitral stenosis	SPECIALIZED	Record the mitral valve area estimated, in cm^2, from the pressure half-time of the left ventricular inflow (220/pressure half-time). Record the calculation method: 1. Continuity equation 2. PISA 3. T1/2 time 4. Planimetry

Mitral regurgitation	ESSENTIAL	Using the ASE grading*, indicate the severity of mitral regurgitation: 1. None 2. Mild 3. Mild to moderate 4. Moderate 5. Moderate to severe 6. Severe *Source: Table 3, J Am Soc Echocardiogr 2003;16:777-802
Other valvular disease **(continued on next page)**	SPECIALIZED	List other valvular disease, by valve, disease and level of severity. Indicate all that apply. 1. Aortic a. Regurgitation i. None ii. Mild iii. Mild to moderate iv. Moderate v. Moderate to severe vi. Severe b. Stenosis i. None ii. Mild iii. Mild to moderate iv. Moderate v. Moderate to severe vi. Severe c. Record aortic valve area (cm) and area index (cm/1.73m sq) and specify method of calculation. 2. Tricuspid a. Regurgitation i. None ii. Mild iii. Mild to moderate iv. Moderate v. Moderate to severe vi. Severe b. Stenosis i. None ii. Mild iii. Mild to moderate iv. Moderate v. Moderate to severe vi. Severe

Other valvular disease (continued)	SPECIALIZED	3. Pulmonary a. Regurgitation i. None ii. Mild iii. Mild to moderate iv. Moderate v. Moderate to severe vi. Severe b. Stenosis i. None ii. Mild iii. Mild to moderate iv. Moderate v. Moderate to severe vi. Severe
Aortic plaque	ESSENTIAL	Indicate the presence of aortic plaque. 1. None 2. Small (less than 1 mm) 3. Moderate (1 to 4 mm) 4. Large (greater than 4 mm) 5. Mobile 6. Unknown

C. STRESS TEST WITH MYOCARDIAL PERFUSION IMAGING

DATA ELEMENT	CLASSIFICATION	DEFINITION
Stress Test Date	SPECIALIZED	Indicate the Date of the Stress Test (YYYYMMDD).
Stress Test	SPECIALIZED	1. Yes, continue to complete the remainder of the data elements within this section. 2. No, skip to next section 3. Unknown, skip to next section
Fixed defect/Old infarction	SPECIALIZED	Indication of fixed defect in keeping with old infarction. 1. Yes 2. No 3. Unknown
Ischemia Present/Absent	SPECIALIZED	Indicate the presence or absence of myocardial ischemia as indicated by regional reversible myocardial perfusion defect. 1. Present 2. Absent

Left Ventricular Systolic function	SPECIALIZED	NOTE: This definition is specific to this Chapter and is intentionally different than the 'LV Function' defined in the Core Elements chapter. Provide the most recent estimated or calculated left ventricular systolic function, as the percentage of blood emptied from the left ventricle at the end of the contraction. Enter actual number, if available. If actual number not available, select the appropriate category (*category source: CARDS*): 1. Normal (>50%) 2. Slightly reduced (41-50%) 3. Moderately reduced (31-40%) 4. Severely reduced (≤30%) 5. LV function not assessed 6. Unknown
Pulmonary Hypertension	SPECIALIZED	Lung uptake ratio indicating pulmonary hypertension. 1. Yes 2. No 3. Unknown

D. CARDIAC CATH/ANGIOGRAPHY

DATA ELEMENT	CLASSIFICATION	DEFINITION
Cardiac CATH/Angiography Date	SPECIALIZED	Indicate the Date of the Cardiac CATH/Angiography (YYYYMMDD).
Cardiac CATH/Angiography	SPECIALIZED	1. Yes, complete this section 2. No, skip to the next section 3. Unknown, skip to the next section
Coronary Lesions	SPECIALIZED	1. Normal (< 20% stenosis in all epicardial vessels) 2. Obstructive (> 50% in one or more vessels) a. Yes, if yes, select one: i. Single vessel. Indicate if LM or Prox LAD involvement 1. Neither 2. Yes, specify a. >50% LM b. >50% Prox LAD ii. Two vessel. Indicate if LM or Prox LAD involvement 1. Neither 2. Yes, (Select all that apply) a. >50% LM b. >50% Prox LAD iii. Three vessel. Indicate if LM or Prox LAD involvement 1. Neither 2. Yes, (Select all that apply) a. >50% LM b. >50% Prox LAD b. No

Segmental Wall Motion Abnormality	SPECIALIZED	1. Yes 2. No 3. Unknown
LV Aneurysm	SPECIALIZED	1. Yes 2. No 3. Unknown
Mitral Valve Disease	SPECIALIZED	Regurgitation 1. Yes, Indicate the severity of mitral regurgitation a. None b. Mild c. Mild to moderate d. Moderate e. Moderate to severe f. Severe 2. No Stenosis 1. Yes, Indicate the mean and peak gradient and valve area index 2. No
Aortic Valve Disease	SPECIALIZED	Regurgitation 1. Yes, Indicate the severity of mitral regurgitation a. None b. Mild c. Mild to moderate d. Moderate e. Moderate to severe f. Severe 2. No Stenosis 1. Yes, Indicate the mean and peak gradient and valve area index 2. No
LVEDP	SPECIALIZED	Record the LVEDP in mm Hg.

E. Cardiac Magnetic Resonance Imaging For Tissue Characterization

DATA ELEMENT	CLASSIFICATION	DEFINITION
Cardiac MRI Date	SPECIALIZED	Indicate the Date of the Cardiac Magnetic Resonance Imaging (YYYYMMDD).
Cardiac Magnetic Resonance	SPECIALIZED	1. Yes, continue to complete the remainder of the data elements within this section. 2. No, skip to next section 3. Unknown, skip to the next section
Edema – Ischemic	SPECIALIZED	Indicate the presence of edema typical for ischemia – regional and subendocardial. 1. Yes 2. No

Edema – Myocarditis	SPECIALIZED	Indicate the presence of edema typical for acute myocarditis – diffuse and mid-wall. 1. Yes 2. No
Late Gadolinium Enhancement - Ischemic Scar	SPECIALIZED	Indicate the presence of late gadolinium enhancement typical for ischemic scar - regional and subendocardial. 1. Yes 2. No
Late Gadolinium Enhancement – Other/Nonspecific	SPECIALIZED	Indicate the presence of late gadolinium enhancement – other/nonspecific e.g. secondary to valvular heart disease, hypertensive heart disease etc. 1. Yes 2. No
Other Infiltrative Cardiomyopathy	SPECIALIZED	Indicate the presence of other infiltrative cardiomyopathy. 1. Yes, Specify 2. No

PART 5 – NON-MEDICAL THERAPIES FOR ARRHYTHMIA

A. PRE-ENCOUNTER

– Indicate DATE of Data Collection (YYYYMMDD)

DATA ELEMENT	CLASSIFICATION	DEFINITION
Supraventricular tachycardia ablation	SPECIALIZED	Did the patient have a superventricular tachycardia ablation performed prior to this encounter? 1. Yes If yes, specify the following: a. Indications (may have more than one): i. Supraventricular tachycardia (e.g., AV node re-entry tachycardia, AV re-entry tachycardia, atrial tachycardia) ii. Atrial fibrillation iii. Atrial flutter iv. Other, specify b. For AF/atrial flutter, indicate approach taken (select all that apply): i. PV isolation ii. Focal (specify site and criteria) iii. Cavotricuspid isthmus iv. Other linear sites, specify v. Atrioventricular node ablation plus permanent pacemaker c. Indicate energy source (select all that apply): i. Radiofrequency ii. Cryoablation iii. Other, specify 2. No 3. Unknown
Arrhythmia Surgery/type	SPECIALIZED	Did the patient have arrhythmia surgery performed prior to this encounter? 1. Yes If yes, specify the following: a. Surgery i. Stand alone ii. Part of another heart surgery b. Type i. Maze ii. PV isolation iii. Focal (specify site and criteria) iv. Cavotricuspid isthmus v. Other linear sites, specify c. Approach i. Epicardial ii. Endocardial d. Energy source i. Radiofrequency ii. Cryoablation iii. Other, specify e. Other, specify 2. No 3. Unknown

Complications of non-pharmacological therapy for arrhythmia	SPECIALIZED	Prior to this encounter, did the patient experience any complications occurring from the initiation of non-pharmacological therapy within 28 days after non-pharmacological therapy? 1. Yes If yes, specify complication (Select all that apply) a. Cardiac perforation/Tamponade b. Thromboembolic complication (Stroke, TIA) c. Major vascular complication requiring repair or cessation of anticoagulation d. Atrio-esophageal fistula e. Death f. Other, specify 2. No 3. Unknown

B. DURING HEALTHCARE ENCOUNTER

– Indicate START DATE of current medical encounter (YYYYMMDD)

DATA ELEMENT	CLASSIFICATION	DEFINITION
Supraventricular tachycardia ablation	SPECIALIZED	Did the patient have a superventricular tachycardia ablation performed during this health care encounter? 1. Yes If yes, specify the following: a. Indications (may have more than one): i. Supraventricular tachycardia (e.g., AV node re-entry tachycardia, AV re-entry tachycardia, atrial tachycardia) ii. Atrial fibrillation iii. Atrial flutter iv. Other, specify b. For AF/AFL, indicate approach taken (select all that apply): i. PV isolation ii. Focal (specify site and criteria) iii. Cavotricuspid isthmus iv. Other linear sites, specify v. Atrioventricular node ablation plus permanent pacemaker c. Indicate energy source (select all that apply): i. Radiofrequency ii. Cryoablation iii. Other, specify 2. No 3. Unknown
Arrhythmia Surgery/type	SPECIALIZED	Did the patient have a arrhythmia surgery performed during this health care encounter? 1. Yes If yes, specify the following: a. Surgery i. Stand alone ii. Part of another heart surgery b. Type i. Maze ii. PV isolation iii. Focal (specify site and criteria) iv. Cavotricuspid isthmus v. Other linear sites, specify

		c. Approach i. Epicardial ii. Endocardial d. Energy source i. Radiofrequency ii. Cryoablation iii. Other, specify e. Other, specify 2. No 3. Unknown
Complications of non-pharmacological therapy for arrhythmia	SPECIALIZED	During this health care encounter, did the patient experience any complications occurring from the initiation of non-pharmacological therapy within 28 days after non-pharmacological therapy? 1. Yes If yes, specify complication (Select all that apply) a. Cardiac perforation/Tamponade b. Thromboembolic complication (Stroke, TIA) c. Major vascular complication requiring repair or cessation of anticoagulation d. Atrio-esophageal fistula e. Death f. Other, specify 2. No 3. Unknown

PART 6 – AF/AFL AND OTHER PERTINENT MEDICATIONS

NOTE: The following data elements and definitions are specific to this Chapter and should be considered as a supplement to the Medications section defined in the Core Elements Data Dictionary Chapter.

A. PRIOR HISTORY OF ANTITHROMBOTIC AND ANTIARRHYTHMIC MEDICATION

– Indicate DATE of data collection (YYYYMMDD)

NOTE: Complete this section if antithrombotic and/or antiarrhythmic medication has been used at any time in the past, but the patient is currently not taking the medication(s).

ANTITHROMBOTICS		
DATA ELEMENT	**CLASSIFICATION**	**DEFINITION**
Warfarin	ESSENTIAL	1. No, the patient has never taken warfarin 2. Yes, the patient has taken warfarin in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Other Vitamin K Antagonists	ESSENTIAL	1. No, the patient has never taken other vitamin K antagonists 2. Yes, the patient has taken other vitamin K antagonists in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Dabigatran	ESSENTIAL	1. No, the patient has never taken dabigatran 2. Yes, the patient has taken dabigatran in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Rivaroxiban	ESSENTIAL	1. No, the patient has never taken rivaroxiban 2. Yes, the patient has taken rivaroxiban in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Apixaban	ESSENTIAL	1. No, the patient has never taken apixaban 2. Yes, the patient has taken apixaban in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know

IV Heparin	SPECIALIZED	1. No, the patient has never taken IV heparin 2. Yes, the patient has taken IV heparin in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
SC Heparin	SPECIALIZED	1. No, the patient has never taken SC heparin 2. Yes, the patient has taken SC heparin in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know Note: includes unfractionated and low molecular weight heparin
Aspirin	ESSENTIAL	1. No, the patient has never taken aspirin 2. Yes, the patient has taken aspirin in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Clopidogrel	ESSENTIAL	1. No, the patient has never taken clopidogrel 2. Yes, the patient has taken clopidogrel in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Other anti-platelets	ESSENTIAL	1. No, the patient has never taken other anti-platelets 2. Yes, the patient has taken other anti-platelets in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Prasugrel	ESSENTIAL	1. No, the patient has never taken prasugrel 2. Yes, the patient has taken prasugrel in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Ticagrelor	ESSENTIAL	1. No, the patient has never taken ticagrelor 2. Yes, the patient has taken ticagrelor in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know

ANTIARRHYTHMIC MEDICATIONS		
Amiodarone	ESSENTIAL	1. No, the patient has never taken amiodarone 2. Yes, the patient has taken amiodarone in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Sotalol	ESSENTIAL	1. No, the patient has never taken sotalol 2. Yes, the patient has taken sotalol in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Flecainide	ESSENTIAL	1. No, the patient has never taken flelcainide 2. Yes, the patient has taken flelcainide in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Propafenone	ESSENTIAL	1. No, the patient has never taken propafenone 2. Yes, the patient has taken propafenone in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Dronedarone	ESSENTIAL	1. No, the patient has never taken dronedarone 2. Yes, the patient has taken dronedarone in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Dofetilide	ESSENTIAL	1. No, the patient has never taken dofetilde 2. Yes, the patient has taken dofetilde in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Other Antiarrhythmic Drugs	ESSENTIAL	1. No, the patient has never taken other antiarrhythmic drugs 2. Yes, the patient has taken other antiarrhythmic drugs in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know

IV ANTIARRHYTHMIC MEDICATIONS		
IV Ibutilide	ESSENTIAL	1. No, the patient has never taken IV ibutilide 2. Yes, the patient has taken IV ibutilide in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
IV Procainamide	ESSENTIAL	1. No, the patient has never taken IV procainamide 2. Yes, the patient has taken IV procainamide in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
IV Amiodarone	ESSENTIAL	1. No, the patient has never taken IV amiodarone 2. Yes, the patient has taken IV amiodarone in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Other IV AAD	ESSENTIAL	1. No, the patient has never taken other IV AAD 2. Yes, the patient has taken other IV AAD in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
RATE CONTROL MEDICATIONS		
Metoprolol	ESSENTIAL	1. No, the patient has never taken metoprolol 2. Yes, the patient has taken metoprolol in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Bisoprolol	ESSENTIAL	1. No, the patient has never taken bisoprolol 2. Yes, the patient has taken bisoprolol in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know

Carvediolol	ESSENTIAL	1. No, the patient has never taken carvediolol 2. Yes, the patient has taken carvediolol in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Atenolol	ESSENTIAL	1. No, the patient has never taken atenolol 2. Yes, the patient has taken atenolol in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Other beta blockers	ESSENTIAL	1. No, the patient has never taken other beta blockers 2. Yes, the patient has taken other beta blockers in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Diltiazem	ESSENTIAL	1. No, the patient has never taken diltiazem 2. Yes, the patient has taken diltiazem in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Verapamil	ESSENTIAL	1. No, the patient has never taken verapamil 2. Yes, the patient has taken verapamil in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Digoxin	ESSENTIAL	1. No, the patient has never taken digoxin 2. Yes, the patient has taken digoxin in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know
Other rate control medications	ESSENTIAL	1. No, the patient has never taken other rate control medications 2. Yes, the patient has taken other rate control medications in the past but is no longer taking it a. Not tolerated b. Ineffective c. Patient Refusal d. Other, specify 3. Don't know

B. AF/AFL AND OTHER PERTINENT MEDICATIONS AT ENCOUNTER

– Indicate the START DATE of this encounter (YYYYMMDD)

NOTE: Complete this section for antithrombotic and/or antiarrhythmic medication and/or other pertinent medication the patient is currently taking.

ANTITHROMBOTICS		
DATA ELEMENT	**CLASSIFICATION**	**DEFINITION**
Warfarin	ESSENTIAL	Indicate if the patient has been taking Warfarin routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other Vitamin K Antagonists	ESSENTIAL	Indicate if the patient has been taking Other Vitamin K Antagonists routinely just prior to this encounter. 1. Yes a. Specify what drugs were taken 2. No 3. Contraindicated 4. Blinded
Dabigatran	ESSENTIAL	Indicate if the patient has been taking Dabigatran routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Rivaroxiban	ESSENTIAL	Indicate if the patient has been taking Rivaroxiban routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Apixaban	ESSENTIAL	Indicate if the patient has been taking Apixaban routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
IV Heparin	SPECIALIZED	Indicate if the patient has been taking IV Heparin routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
SC Heparin	SPECIALIZED	Indicate if the patient has been taking SC Heparin routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded Note: includes unfractionated and low molecular weight heparin

Aspirin^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Clopidogrel^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Other anti-platelets	ESSENTIAL	Indicate if the patient has been taking other anti-platelets (e.g. Ticlopidine) routinely prior to this encounter. 1. Yes a. Specify what drugs were taken 2. No 3. Contraindicated 4. Blinded
Prasugrel^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Ticagrelor^	ESSENTIAL	^Refer to Core Elements chapter for definition.
ANTIARRHYTHMIC MEDICATIONS		
Amiodarone	ESSENTIAL	Indicate if the patient has been taking Amiodarone routinely prior to this encounter 1. Yes 2. No 3. Contraindicated 4. Blinded
Sotalol	ESSENTIAL	Indicate if the patient has been taking Sotalol routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Flecainide	ESSENTIAL	Indicate if the patient has been taking Flecainide routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Propafenone	ESSENTIAL	Indicate if the patient has been taking Propafenone routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Dronedarone	ESSENTIAL	Indicate if the patient has been taking Dronedarone routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Dofetilide	ESSENTIAL	Indicate if the patient has been taking Dofetilide routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other Antiarrhythmic drugs	ESSENTIAL	Indicate if patient has been taking any other antiarrhythmic drugs routinely prior to this encounter. 1. Yes a. Specify what drugs were taken 2. No 3. Contraindicated 4. Blinded

RATE CONTROL MEDICATIONS		
Metoprolol	ESSENTIAL	Indicate if the patient has been taking oral Metoprolol routinelyprior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Bisoprolol	ESSENTIAL	Indicate if the patient has been taking Bisoprolol routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Carvediolol	ESSENTIAL	Indicate if the patient has been taking Carvediolol routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Atenolol	ESSENTIAL	Indicate if the patient has been taking Atenolol routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other beta blockers	ESSENTIAL	Indicate if the patient has been taking any other beta blockers routinely prior to this encounter. 1. Yes a. Specify what drugs were taken 2. No 3. Contraindicated 4. Blinded
Diltiazem	ESSENTIAL	Indicate if the patient has been taking oral Diltiazem routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Verapamil	ESSENTIAL	Indicate if the patient has been taking oral Verapamil routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Digoxin	ESSENTIAL	Indicate if the patient has been taking oral Digoxin routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded

Other rate control medications	ESSENTIAL	Indicate if the patient has been taking any other rate control medications routinely prior to this encounter. 1. Yes a. Specify what drugs were taken 2. No 3. Contraindicated 4. Blinded
OTHER PERTINENT MEDICATIONS		
Nonsteroidal anti-inflammatory drugs (NSAIDs)	SPECIALIZED	Indicate if the patient has been taking any nonsteroidal anti-inflammatory drugs (NSAIDs) routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Thyroid replacement	SPECIALIZED	Indicate if the patient has been taking thyroid replacement medication routinely prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
Thyroid Suppression	SPECIALIZED	Indicate if medication to suppress hyperthyroidism was administered just prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded
ACE Inhibitors / Angiotensin II Receptor Blockers^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Aldosterone Blocking Agents^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Non-Dihydropyridine Calcium Channel Blockers^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Insulin^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Oral anti-hyperglycemics	SPECIALIZED	Indicate if the patient has been taking other oral anti-hyperglycemics routinely prior to this encounter. 1. Yes a. Specify what drugs were taken 2. No 3. Contraindicated 4. Blinded
Statins^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Other Lipid lowering agents	SPECIALIZED	Indicate if the patient has been taking any other lipid lowering agents routinely prior to this encounter. 1. Yes a. Specify what drugs were taken 2. No 3. Contraindicated 4. Blinded

Sympathomimetic Bronchodilators	SPECIALIZED	Indicate if the patient has been taking sympathomimetic bronchodilators routinely or episodically just prior to this encounter. 1. Yes 2. No 3. Contraindicated 4. Blinded

C. AF/AFL AND OTHER PERTINENT MEDICATIONS DURING HEALTHCARE ENCOUNTER

– Indicate END DATE of this encounter (YYYYMMDD)

ANTITHROMBOTICS		
DATA ELEMENT	**CLASSIFICATION**	**DEFINITION**
Warfarin	ESSENTIAL	Indicate if Warafin was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other Vitamin K Antagonists	ESSENTIAL	Indicate if Other Vitamin K Antagonists was administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded
Dabigatran	ESSENTIAL	Indicate if Dabigatran was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Rivaroxiban	ESSENTIAL	Indicate if Rivaroxiban was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Apixaban	ESSENTIAL	Indicate if Apixaban was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
IV Heparin	SPECIALIZED	Indicate if IV Heparin was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded

SC Heparin	SPECIALIZED	Indicate if SC Heparin was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded Note: includes unfractionated and low molecular weight heparin
Aspirin^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Clopidogrel^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Other anti-platelets	ESSENTIAL	Indicate if any other anti-platelets (eg. Ticlopidine) was administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded
Prasugrel^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Ticagrelor^	ESSENTIAL	^Refer to Core Elements chapter for definition.
ANTIARRHYTHMIC MEDICATIONS		
Pharmacologic Cardioversion Attempted	ESSENTIAL	Indicate if pharmacological cardioversion for Atrial Fibrillation/Flutter was attempted and resulted in the absence of AF or atrial flutter at any point in time during this health care encounter. 1. Yes (i.e. Attempted) a. Successful (i.e. giving the drug resulted in the absence of AF/Flutter) i. List all generic drug names previously used that resulted in the absence of AF or atrial flutter. b. Unsuccessful i. List all generic drug names previously used that did not result in the absence of AF or atrial flutter. 2. No (i.e. Not attempted) 3. Unknown
Amiodarone	ESSENTIAL	Indicate if Amiodarone was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Sotalol	ESSENTIAL	Indicate if Sotalol was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Flecainide	ESSENTIAL	Indicate if Flecainide was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded

Propafenone	ESSENTIAL	Indicate if Propafenone was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Dronedarone	ESSENTIAL	Indicate if Dronedarone was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Dofetilide	ESSENTIAL	Indicate if Dofetilide was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other Antiarrhythmic drugs	ESSENTIAL	Indicate if any other antiarrhythmic drugs were administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded
RATE CONTROL MEDICATIONS		
Metoprolol	ESSENTIAL	Indicate if oral Metoprolol was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Bisoprolol	ESSENTIAL	Indicate if Bisoprolol was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Carvediolol	ESSENTIAL	Indicate if Carvediolol was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Atenolol	ESSENTIAL	Indicate if Atenolol was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded

Other beta blocker	ESSENTIAL	Indicate if any other beta blockers were administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded
Diltiazem	ESSENTIAL	Indicate if Diltiazem was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Verapamil	ESSENTIAL	Indicate if Verapamil was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Digoxin	ESSENTIAL	Indicate if oral Digoxin was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other rate control medications	ESSENTIAL	Indicate if any other rate control medications were administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded
IV ANTIARRHYTHMIC MEDICATIONS		
IV Ibutilide	SPECIALIZED	Indicate if IV Ibutilide was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
IV Procainamide	SPECIALIZED	Indicate if IV Procainamide was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
IV Amiodarone	SPECIALIZED	Indicate if IV Amioderone was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded

Other IV AAD	SPECIALIZED	Indicate if any other IV AAD was administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded
OTHER PERTINENT MEDICATIONS		
Nonsteroidal anti-inflammatory drugs (NSAIDs)	SPECIALIZED	Indicate if nonsteroidal anti-inflammatory drugs (NSAIDs) were administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Thyroid replacement	SPECIALIZED	Indicate if thyroid replacement medication was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
Thyroid Suppression	SPECIALIZED	Indicate if medication to suppress hyperthyroidism was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
ACE Inhibitors / Angiotensin II Receptor Blockers^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Aldosterone Blocking Agents^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Non-Dihydropyridine Calcium Channel Blockers^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Insulin^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Other Oral anti-hyperglycemics	SPECIALIZED	Indicate if oral anti-hyperglycemics were administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded
Statins^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Other Lipid lowering agents^	SPECIALIZED	Indicate if any other lipid lowering agents were administered at any point in time during this episode of health care. 1. Yes a. Specify what drugs were administered 2. No 3. Contraindicated 4. Blinded

Sympathomimetic Bronchodilators	SPECIALIZED	Indicate if sympathomimetic bronchodilators were administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded

D. MEDICATIONS AT DISCHARGE

- Indicate DATE of discharge (YYYYMMDD)

ANTITHROMBOTICS		
DATA ELEMENT	**CLASSIFICATION**	**DEFINITION**
Warfarin	ESSENTIAL	Indicate if Warafin was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other Vitamin K Antagonists	ESSENTIAL	Indicate if Other Vitamin K was continued or prescribed at Discharge. 1. Yes a. Specify what drugs were continued or prescribed 2. No 3. Contraindicated 4. Blinded
Dabigatran	ESSENTIAL	Indicate if Dabigatran was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Rivaroxiban	ESSENTIAL	Indicate if Rivaroxiban was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Apixaban	ESSENTIAL	Indicate if Apixaban was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
IV Heparin	SPECIALIZED	Indicate if IV Heparin was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
SC Heparin	SPECIALIZED	Indicate if SC Heparin was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded Note: includes unfractionated and low molecular weight heparin

Aspirin^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Clopidogrel^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Other anti-platelets	ESSENTIAL	Indicate if other anti-platelets (e.g. Ticlopidine) were continued or prescribed at Discharge. 1. Yes a. Specify what drugs were continued or prescribed 2. No 3. Contraindicated 4. Blinded
Prasugrel^	ESSENTIAL	^Refer to Core Elements chapter for definition.
Ticagrelor^	ESSENTIAL	^Refer to Core Elements chapter for definition.
ANTIARRHYTHMIC MEDICATIONS		
Amiodarone	ESSENTIAL	Indicate Amiodarone was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Sotalol	ESSENTIAL	Indicate if Sotalol was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Flecainide	ESSENTIAL	Indicate if Flecainide was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Propafenone	ESSENTIAL	Indicate if Propafenone was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Dronedarone	ESSENTIAL	Indicate if Dronedarone was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Dofetilide	ESSENTIAL	Indicate if Dofetilide was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other Antiarrhythmic drugs	ESSENTIAL	Indicate if any other antiarrhythmic drugs were continued or prescribed at Discharge. 1. Yes a. Specify what drugs were continued or prescribed 2. No 3. Contraindicated 4. Blinded

RATE CONTROL MEDICATIONS		
Metoprolol	ESSENTIAL	Indicate if oral Metoprolol was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Bisoprolol	ESSENTIAL	Indicate Bisoprolol was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Carvediolol	ESSENTIAL	Indicate if Carvediolol was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Atenolol	ESSENTIAL	Indicate if Atenolol was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other beta blockers	ESSENTIAL	Indicate if any other beta blockers were continued or prescribed at Discharge. 1. Yes a. Specify what drugs were continued or prescribed 2. No 3. Contraindicated 4. Blinded
Diltiazem	ESSENTIAL	Indicate if Diltiazem was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Verapamil	ESSENTIAL	Indicate if Verapamil was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Digoxin	ESSENTIAL	Indicate if oral Digoxin was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Other rate control medications	ESSENTIAL	Indicate if other rate control medications was continued or prescribed at Discharge. 1. Yes a. Specify what drugs were continued or prescribed 2. No 3. Contraindicated 4. Blinded

OTHER PERTINENT MEDICATIONS		
Nonsteroidal anti-inflammatory drugs (NSAIDs)	SPECIALIZED	Indicate if nonsteroidal anti-inflammatory drugs (NSAIDs were continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Thyroid replacement	SPECIALIZED	Indicate if thyroid replacement medication was continued or prescribed at Discharge. 1. Yes 2. No 3. Contraindicated 4. Blinded
Thyroid Suppression	SPECIALIZED	Indicate if medication to suppress hyperthyroidism was administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded
ACE Inhibitors / Angiotensin II Receptor Blockers^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Aldosterone Blocking Agents^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Non-Dihydropyridine Calcium Channel Blockers^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Insulin^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Other Oral anti-hyperglycemics	SPECIALIZED	Indicate if oral anti-hyperglycemics was continued or prescribed at Discharge. 1. Yes a. Specify what drugs were continued or prescribed 2. No 3. Contraindicated 4. Blinded
Statins^	SPECIALIZED	^Refer to Core Elements chapter for definition.
Other Lipid lowering agents	SPECIALIZED	Indicate if other lipid lowering agents were continued or prescribed at Discharge. 1. Yes a. Specify what drugs were continued or prescribed 2. No 3. Contraindicated 4. Blinded
Sympathomimetic Bronchodilators	SPECIALIZED	Indicate if sympathomimetic bronchodilators were administered at any point in time during this episode of health care. 1. Yes 2. No 3. Contraindicated 4. Blinded

PART 7 – CARDIOVERSION AND ABLATION DURING ENCOUNTER

DATA ELEMENT	CLASSIFICATION	DEFINITION
Date of Cardioversion	ESSENTIAL	Indicated date of cardioversion (YYYYMMDD)
Cardioversion Type	ESSENTIAL	Indicate cardioversion type. 1. Electrical 2. Pharmacological
Electrical Cardioversion Site	ESSENTIAL	Indicate electrical cardioversion site. Indicate all that apply. 1. Transthoracic 2. Intracardiac/intravascular 3. Epicardial
Waveform	SPECIALIZED	Indicate waveform. 1. Monophasic, all types 2. Rectilinear biphasic 3. Truncated exponential biphasic 4. Other, specify
Number of shocks delivered	SPECIALIZED	Indicate the number of shocks delivered during current session.
Maximal energy used	SPECIALIZED	Indicate maximal energy used in current session.
On antiarrhythmic drug medication during Electrical Cardioversion	SPECIALIZED	List generic name for medication used to augment electrical cardioversion from AF/AFL to normal sinus rhythm. Indicate route of administration (intravenous or oral) and total daily dose and units. (Include total dose until cardioversion.)
Success of electric cardioversion	ESSENTIAL	Indicate if previous transthoracic electrical cardioversion sessions were attempted and resulted in the absence of AF or AFL. A session may include multiple successive shocks. 1. Yes (i.e. Attempted) a. Successful b. Unsuccessful i. Never (No restoration of sinus rhythm) ii. Immediate recurrent, within 1 minute c. Successful with recurrence i. Early recurrence, 1 minute to 24 hours ii. Subacute recurrence, 24 hours to 14 days iii. Late recurrence, > 14 days d. Unknown 2. No (i.e. Not attempted) 3. Unknown
Date of Pharmacologic Cardioversion	ESSENTIAL	Indicate date of pharmacologic cardioversion (YYYYMMDD)

Pharmacologic Cardioversion Attempted	ESSENTIAL	Indicate if previous pharmacological cardioversion for AF/AFL was attempted and resulted in the absence of AF or AFL. 1. Yes (i.e. Attempted) a. Successful (i.e. giving the drug resulted in the absence of AF/AFL) i. List all generic drug names previously used that resulted in the absence of AF or atrial flutter. b. Unsuccessful i. List all generic drug names previously used that did not result in the absence of AF or AFL. 2. No (i.e. Not attempted) 3. Unknown
Date of catheter ablation for Atrial Fibrillation/Flutter	ESSENTIAL	Indicate date of catheter ablation for atrial fibrillation/flutter (YYYYMMDD)
Indications for catheter ablation for Atrial Fibrillation/Flutter	ESSENTIAL	The reason for undergoing attempted ablative therapy (may be more than one): 1. Symptoms 2. Desire for drug-free lifestyle 3. Frequent ICD discharges 4. Other, specify
Catheter ablation for Atrial Fibrillation/Flutter performed during this encounter	SPECIALIZED	Indicate whether ablation was performed. 1. Yes 2. No Indications (may have more than one): 1. Supraventricular tachycardia (e.g., AV node re-entry tachycardia, AV re-entry tachycardia, atrial tachycardia) 2. Atrial fibrillation 3. Atrial flutter 4. Other, specify For AF/atrial flutter, indicate approach taken: 1. PV isolation 2. Focal (specify site and criteria) 3. Cavotricuspid isthmus 4. Other linear sites, specify 5. Atrioventricular node ablation plus permanent pacemaker Indicate energy source: 1. Radiofrequency 2. Cryoablation 3. Other, specify

PART 8 – MANAGEMENT STRATEGY AT DISCHARGE

- Indicate Date of Discharge (YYYYMMDD)

DATA ELEMENT	CLASSIFICATION	DEFINITION
Management Strategy at Discharge	ESSENTIAL	Current management strategies at discharge. Indicate all that apply: Rate Control, Select one: 1. Pharmacological 2. Nonpharmacological 3. Hybrid* Rhythm Control, Select one: 1. Pharmacological 2. Nonpharmacological 3. Hybrid* *Hybrid is defined as concurrent use of: pharmacological and nonpharmacological therapies or two or more nonpharmacological therapies.

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