

SUPPLEMENTAL MATERIAL

- **KiCS-AF Registry – Coder’s Data Dictionary**
- The list of ethical review board which approved the study
- **Supplemental Table 1:** Definitions of Cardiovascular death
- **Supplemental Table 2:** The number of patients who refused to participate in the KiCS-AF registry at each participating center

1. Patient Demographics	
Seq. # 1101	<p>Name : System ID</p> <p>Coding instruction : Indicate the patient's ID in the KiCS-AF registry (auto)</p> <p>Target Value : At the time of registration</p>
Seq. # 1104	<p>Name : Date of Birth</p> <p>Coding instruction : Indicate the patient's date of birth</p> <p>Target Value : At the time of registration</p>
Seq. # 1105	<p>Name : Sex</p> <p>Coding instruction : Indicate the patient's sex at birth</p> <p>Target Value : Status at the initial visit</p> <p>Selection : 1. Male 2. Female</p> <p>Supporting Definition : (none)</p>
Seq. # 1106	<p>Name : Encounter Date</p> <p>Coding instruction : Indicate the date of the patient encounter or visit to the MD office</p> <p>Target Value : At the time of registration</p>
Seq. # 1107	<p>Name : Registration Date</p> <p>Coding instruction : Indicate the patient's registration date to the KiCS-AF registry</p> <p>Target Value : At the time of registration</p>
Seq. # 1108	<p>Name : Referral from Emergency Department</p> <p>Coding instruction : Indicate if the patient referral from emergency department</p> <p>Target Value : At the time of registration</p> <p>Selection : 1. No (planned outpatient) 2. Yes</p>
Seq. # 1109	<p>Name : Symptoms at Encounter</p> <p>Coding instruction : Indicate the patient's symptoms related to atrial fibrillation on encounter</p> <p>Target Value : At the time of initial visit (Multiple-choice)</p> <p>Selection : 1. Palpitation 2. Dyspnea (at rest, on exertion) 3. Difficulty in activities 4. Dizziness 5. Fatigue 6. Chest pain 7. Syncope 8. No symptoms related with atrial fibrillation</p>
Seq. # 1110	<p>Name : Diagnosed AF with medical check-up/screening</p>

	<p>Coding instruction : Indicate if the patient has diagnosed atrial fibrillation with medical check-up/screening (eg. human dry dock)</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1111	Name : Height
	<p>Coding instruction : Indicate the patient's height in centimeters (cm).</p> <p>Target Value : At the time of initial visit</p>
Seq. # 1112	Name : Weight
	<p>Coding instruction : Indicate the patient's weight</p> <p>Target Value : At the time of initial visit</p>
Seq. # 1113	Name : Systolic Blood Pressure
	<p>Coding instruction : Indicate the patient's systolic blood pressure</p> <p>Target Value : At the time of initial visit</p>
Seq. # 1114	Name : Diastolic Blood Pressure
	<p>Coding instruction : Indicate the patient's diastolic blood pressure</p> <p>Target Value : At the time of initial visit</p>
Seq. # 1115	Name : Heart Rate
	<p>Coding instruction : Indicate the patient's heart rate</p> <p>Target Value : At the time of initial visit</p>
Seq. # 1116	Name : Heart Rhythm
	<p>Coding instruction : Indicate the patient's heart rhythm</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. Sinus Rhythm 2. Atrial Fibrillation 3. Atrial Flutter 4. Others</p>
Seq. # 1117	Name : Electrocardiogram Findings
	<p>Coding instruction : Indicate the findings of the patient's electrocardiogram</p> <p>Target Value : At the time of initial visit (Multiple-choice)</p> <p>Selection : 1. Left ventricular hypertrophy 2. Left bundle branch block 3. Right bundle branch block 4. 1st degree atrioventricular block 5. Nothing detected</p>
Seq. # 1118	Name : QTc Time in Electrocardiogram
	<p>Coding instruction : Indicate the patient's QTc time (meec) in the electrocardiogram</p> <p>Target Value : At the time of initial visit</p>

Seq. # 1119	<p>Name : QRS Time in Electrocardiogram</p> <p>Coding instruction : Indicate the patient's QRS Time (meec) in the electrocardiogram</p> <p>Target Value : At the time of initial visit</p>
2. Medication	
Seq. # 1201	<p>Name : Aspirin Prescribed</p> <p>Coding instruction : Indicate if the patient had Aspirin prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1202	<p>Name : Clopidogrel Prescribed</p> <p>Coding instruction : Indicate if the patient had Clopidogrel prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1203	<p>Name : Other Antiplatelet Agents Prescribed</p> <p>Coding instruction : Indicate if the patient had other Antiplatelet agents prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1204	<p>Name : Warfarin Prescribed</p> <p>Coding instruction : Indicate if the patient had warfarin prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes If chose "Yes", indicate dose (mg)</p>
Seq. # 1205	<p>Name : Dabigatran Prescribed</p> <p>Coding instruction : Indicate if the patient had dabigatran prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes If chose "Yes", indicate the dose (mg)</p> <p>Selection : 1. 150 mg 2. 220 mg 3. 300 mg</p>
Seq. # 1206	<p>Name : Rivaroxaban Prescribed</p> <p>Coding instruction : Indicate if the patient had rivaroxaban prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No</p>

	<p>2. Yes</p> <p>If chose "Yes", indicate the dose (mg)</p> <p>Selection : 1. 10 mg</p> <p>2. 15 mg</p>
Seq. # 1207	<p>Name : Apixaban Prescribed</p> <p>Coding instruction : Indicate if the patient had apixaban prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No</p> <p>2. Yes</p> <p>If chose "Yes", indicate the dose (mg)</p> <p>Selection : 1. 5 mg</p> <p>2. 10 mg</p>
Seq. # 1208	<p>Name : Edoxaban Prescribed</p> <p>Coding instruction : Indicate if the patient had edoxaban prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No</p> <p>2. Yes</p> <p>If chose "Yes", indicate the dose (mg)</p> <p>Selection : 1. 30 mg</p> <p>2. 60 mg</p>
Seq. # 1209	<p>Name : Initiation Date of Oral Anticoagulants</p> <p>Coding instruction : Indicate the documented date of starting anticoagulants</p> <p>Target Value : At the time of initial visit</p>
Seq. # 1210	<p>Name : ACE inhibitors/ ARBs Prescribed</p> <p>Coding instruction : Indicate if the patient had ACE inhibitors or ARBs prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No</p> <p>2. Yes</p>
Seq. # 1211	<p>Name : Beta Blockers Prescribed</p> <p>Coding instruction : Indicate if the patient had beta blockers prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No</p> <p>2. Yes</p>
Seq. # 1212	<p>Name : Calcium Antagonist Prescribed</p> <p>Coding instruction : Indicate if the patient had calcium antagonist prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No</p> <p>2. Yes</p>

Seq. # 1213	<p>Name : Digoxin Prescribed</p> <p>Coding instruction : Indicate if the patient had digoxin prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1214	<p>Name : Diuretics Prescribed</p> <p>Coding instruction : Indicate if the patient had diuretics prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1215	<p>Name : Statin Prescribed</p> <p>Coding instruction : Indicate if the patient had statins prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1216	<p>Name : Proton Pump Inhibitor Prescribed</p> <p>Coding instruction : Indicate if the patient had proton pump inhibitors prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1217	<p>Name : NSAIDs Prescribed</p> <p>Coding instruction : Indicate if the patient had NSAIDs prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1218	<p>Name : Antihyperuricemic Agents Prescribed</p> <p>Coding instruction : Indicate if the patient had antihyperuricemic agents prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1219	<p>Name : Antiarrhythmic Drugs Prescribed</p> <p>Coding instruction : Indicate if the patient had antiarrhythmic drugs prescribed</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1220	<p>Name : Vaughan-Williams Ia Drugs Prescribed</p> <p>Coding instruction : Indicate if the patient had Vaughan-Williams type Ia drugs prescribed</p> <p>Target Value : At the time of initial visit</p>

	Selection : 1. procainamide 2. quinidine 3. sibenzoлин 4. disopyramide
Seq. # 1221	Name : Vaughan-Williams Ib Drugs Prescribed Coding instruction : Indicate if the patient had Vaughan-Williams type Ib drugs prescribed Target Value : At the time of initial visit Selection : 1. aprindine 2. mexiletine
Seq. # 1222	Name : Vaughan-Williams Ic Drugs Prescribed Coding instruction : Indicate if the patient has Vaughan-Williams type Ic drugs prescribed Target Value : At the time of initial visit Selection : 1. pilsicainide 2. flecainide 3. propafenone
Seq. # 1223	Name : Vaughan-Williams III Drugs Prescribed Coding instruction : Indicate if the patient had Vaughan-Williams type III drugs prescribed Target Value : At the time of initial visit Selection : 1. sotalol 2. amiodarone
Seq. # 1224	Name : Vaughan-Williams IV Drugs Prescribed Coding instruction : Indicate if the patient has Vaughan-Williams type IV drugs prescribed Target Value : At the time of initial visit Selection : 1. bepridil
3. Past history about AF	
Seq. # 1301	Name : Type of AF Coding instruction : Indicate the type of the patient's Atrial Fibrillation Target Value : At the time of initial visit Selection : 1. Initial 2. Paroxysmal 3. Persistent 4. Permanent 5. Unknown
Seq. # 1302	Name : Diagnosis Date of AF Indicate the documented date of diagnosis of atrial fibrillation. If no Coding instruction : diagnosis date is recorded, indicate the first encounter date where atrial fibrillation was recorded. Target Value : At the time of initial visit

Seq. # 1303	<p>Name : Reversible Factors of AF</p> <p>Coding instruction : Indicate if the patient's AF is due to a transient and/or reversible cause.</p> <p>Target Value : At the time of initial visit</p> <p>Selection :</p> <ol style="list-style-type: none"> 1. None 2. Infectious diseases (ex. Pneumonia) 3. Active hyperthyroidism 4. Cardiac surgery within 3 months 5. Pregnancy 6. Other reversible cause
Seq. # 1304	<p>Name : AF management strategy - Rate Control/Rhythm Control</p> <p>Coding instruction : Indicate the management strategy for the patient's Atrial Fibrillation</p> <p>Target Value : At the time of initial visit</p> <p>Selection :</p> <ol style="list-style-type: none"> 1. Rate control 2. Rhythm control <p>Rate control is the attempted control of ventricular rate with no</p> <p>Supporting Definition : commitment to restore or maintain sinus rhythm. Rhythm control is the attempted restoration and/or maintenance of sinus rhythm.</p>
Seq. # 1305	<p>Name : History of defibrillation</p> <p>Coding instruction : Indicate if the patient has undergone defibrillation. If yes, indicate all dates the patient received a defibrillation.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection :</p> <ol style="list-style-type: none"> 1. No 2. Non-pharmacological 3. Pharmacological 4. Both non-pharmacological and pharmacological
Seq. # 1306	<p>Name : History of Catheter Ablation</p> <p>Coding instruction : Indicate if the patient has undergone catheter ablation</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection :</p> <ol style="list-style-type: none"> 1. No 2. Yes
Seq. # 1307	<p>Name : History of Surgical Ablation</p> <p>Coding instruction : Indicate if the patient has undergone surgical ablation (including "maze" surgery)</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection :</p> <ol style="list-style-type: none"> 1. No 2. Yes
Seq. # 1308	<p>Name : History of AV Node Ablation and/or Pacemaker Implantation</p>

	<p>Coding instruction : Indicate if the patient has undergone AV node ablation or pacemaker implantation</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1309	<p>Name : History of Left Atrial Appendage Closure</p> <p>Coding instruction : Indicate if the patient has undergone left atrial appendage closure</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
4. Past medical history	
Seq. # 1401	<p>Name : Heart Failure</p> <p>Coding instruction : Indicate if the patient has been diagnosed with heart failure (HF).</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes (Hospitalized within 1 year) 3. Yes (Not hospitalized) 4. Yes (Details unknown)</p>
Seq. # 1402	<p>Name : New York Heart Association Functional Classification for Heart Failure (if diagnosed with heart failure)</p> <p>Coding instruction : Indicate the patient's NYHA class if he/she was diagnosed with heart failure</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. I 2. II 3. III 4. IV</p> <p>Supporting Definition : (none)</p>
Seq. # 1403	<p>Name : Cardiomyopathy</p> <p>Coding instruction : Indicate if the patient has been diagnosed with cardiomyopathy</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes (dilated cardiomyopathy) 3. Yes (hypertrophic cardiomyopathy) 4. Yes (ischemic cardiomyopathy)</p>
Seq. # 1404	<p>Name : Sick Sinus Syndrome</p> <p>Coding instruction : Indicate if the patient has been diagnosed with sick sinus syndrome.</p> <p>Target Value : Any occurrence between birth and the initial visit</p>

	<p>Selection : 1. No 2. Yes</p> <p>Supporting Definition : (none)</p>
Seq. # 1405	<p>Name : Cardiac Devices</p> <p>Coding instruction : Indicate if the patient has been implanted cardiac devices.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes (permanent pacemaker) 3. Yes (implantable cardiac defibrillator) 4. Yes (cardiac resynchronization therapy)</p>
Seq. # 1406	<p>Name : Coronary Artery Disease</p> <p>Coding instruction : Indicate if the patient has been diagnosed with coronary artery disease.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p> <p>Supporting Definition : Documentation of CAD includes (but not limited to) angina pectoris, ischemic heart disease, or coronary artery disease.</p>
Seq. # 1407	<p>Name : Myocardial Infarction</p> <p>Coding instruction : Indicate if the patient has been diagnosed with myocardial infarction.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1408	<p>Name : Percutaneous Coronary Intervention</p> <p>Coding instruction : Indicate if the patient has undergone percutaneous coronary intervention (PCI).</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1409	<p>Name : Type of Stent</p> <p>Coding instruction : Indicate the used devices during PCI</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. Bare Metal Stent 2. Drug-Eluting Stent 3. Plain Old Balloon Angioplasty 4. Unknown</p>
Seq. # 1410	<p>Name : Coronary Artery Bypass Grafting</p>

	<p>Coding instruction : Indicate if the patient has undergone coronary artery bypass grafting (CABG).</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1411	<p>Name : Valvular Heart Disease</p> <p>Coding instruction : Indicate if the patient has been diagnosed with rheumatic mitral stenosis</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1412	<p>Name : Valve Surgery or Percutaneous Valvuloplasty</p> <p>Coding instruction : Indicate if the patient has undergone valve surgery or percutaneous valvuloplasty</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes (aortic valve) 3. Yes (mitral valve)</p> <p>Supporting Definition : Documentation of percutaneous valvuloplasty includes (but not limited to) percutaneous transvenous mitral commissurotomy, balloon aortic valvuloplasty, transcatheter aortic valve replacement, or mitral clip.</p>
Seq. # 1413	<p>Name : Congenital heart disease</p> <p>Coding instruction : Indicate if the patient has been diagnosed with congenital heart disease</p> <p>Target Value : The value on registration date</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1414	<p>Name : Pericarditis or Myocarditis</p> <p>Coding instruction : Indicate if the patient has been diagnosed with pericarditis or myocarditis</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1415	<p>Name : Hypertension</p> <p>Coding instruction : Indicate if the patient has been diagnosed with hypertension</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No</p>

	<p>2. Yes</p> <p>Supporting Definition : Hypertension is defined as documentation of SBP\geq140mmHg, DBP\geq90mmHg or taking any antihypertensive drugs</p>
Seq. # 1416	<p>Name : Dyslipidemia</p> <p>Coding instruction : Indicate if the patient has been diagnosed with dyslipidemia</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p> <p>Supporting Definition : Dyslipidemia is defined as documentation of LDL\geq140mg/dl, fasting TG\geq150mg/dl or any cholesterol-lowering drugs</p>
Seq. # 1417	<p>Name : Diabetes Mellitus</p> <p>Coding instruction : Indicate if the patient has been diagnosed with diabetes mellitus</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes (diet therapy) 3. Yes (drug therapy) 4. Yes (insulin therapy)</p> <p>Supporting Definition : Diabetes mellitus is defined as documentation of fasting BS \geq126mg/dl, random \geq200mg/dl of blood glucose or HbA1c\geq6.5, or taking any diabetes drugs..</p>
Seq. # 1418	<p>Name : Prior Stroke or TIA</p> <p>Coding instruction : Indicate if the patient has been diagnosed with symptomatic stroke or transit ischemic attack (TIA)</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes (stroke) 3. Yes (TIA)</p> <p>Supporting Definition : Stroke is defined as a new, sudden, focal neurologic deficit that persists beyond 24 hours (vs. TIA: reversible within 24 hours).</p>
Seq. # 1419	<p>Name : Cerebral Hemorrhage</p> <p>Coding instruction : Indicate if the patient has been diagnosed with cerebral hemorrhage</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1420	<p>Name : Gastrointestinal Bleeding</p> <p>Coding instruction : Indicate if the patient has been diagnosed with class 3 or more gastrointestinal bleeding on BARC criteria</p> <p>Target Value : Any occurrence between birth and the initial visit</p>

	<p>Selection : 1. No 2. Yes (within 6 months) 3. Yes (over 6 months ago)</p>
Seq. # 1421	<p>Name : Peripheral Vascular Disease</p> <p>Coding instruction : Indicate if the patient has been diagnosed with peripheral vascular disease</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1422	<p>Name : Chronic Obstructive Pulmonary Disease</p> <p>Coding instruction : Indicate if the patient has undergone chronic obstructive pulmonary disease (COPD).</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1423	<p>Name : Sleep Apnea</p> <p>Coding instruction : Indicate if the patient has been diagnosed with sleep apnea.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes (not using continuous positive airway pressure) 3. Yes (using continuous positive airway pressure)</p>
Seq. # 1424	<p>Name : Hyperthyroidism</p> <p>Coding instruction : Indicate if the patient has been diagnosed with hyperthyroidism.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1425	<p>Name : Dialysis</p> <p>Coding instruction : Indicate if the patient is undergoing dialysis, including hemodialysis and peritoneal dialysis</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1426	<p>Name : Malignant Tumor</p> <p>Coding instruction : Indicate if the patient has been diagnosed with malignant tumor that defines the patient's long-term prognosis</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>

Seq. # 1427	<p>Name : Smoking</p> <p>Coding instruction : Indicate if the patient is a smoker currently or quit within the past 12 months.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1428	<p>Name : Drug Addiction</p> <p>Coding instruction : Indicate if the patient has been diagnosed and treated or hospitalized with drug addiction</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1429	<p>Name : Alcohol Addiction</p> <p>Coding instruction : Indicate if the patient drinks more than 160g of pure alcohol/week.</p> <p>Target Value : Any occurrence between birth and the initial visit</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1430	<p>Name : Risk Assessment for Stroke on Medical Record</p> <p>Coding instruction : Indicate if the patient's CHADS2 score is listed on the medical record.</p> <p>Target Value : At the time of initial visit</p> <p>Selection : 1. No 2. Yes</p>
5. Examination	
Seq. # 1501	<p>Name : Transthoracic Echocardiography</p> <p>Coding instruction : Indicate if the patient has undergone transthoracic echocardiography within 6 months before and after the actual date of registration.</p> <p>Target Value : Any occurrence within 6 months before and after the date of registration.</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1502	<p>Name : Rhythm on transthoracic Echocardiography</p> <p>Coding instruction : Indicate the patient's heart rhythm on examination</p> <p>Target Value : The value within 6 months before and after the date of registration.</p> <p>Selection : 1. Sinus rhythm 2. Atrial fibrillation 3. Others</p>
Seq. # 1503	<p>Name : Left Ventricular Ejection Fraction (LVEF) Percent</p>

	<p>Coding instruction : Indicate the most recent documented left ventricular quantitative assessment</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1504	<p>Name : Left Ventricular End Diastolic Diameter (LVEDD)</p>
	<p>Coding instruction : Indicate the patient's left ventricular end diastolic diameter in centimeters.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1505	<p>Name : Left Ventricular End Systolic Diameter (LVESD)</p>
	<p>Coding instruction : Indicate the patient's left ventricular end systolic diameter in centimeters.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1506	<p>Name : Left Atrium Diameter (LA diameter)</p>
	<p>Coding instruction : Indicate the patient's left atrium diameter in centimeters.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1507	<p>Name : E-wave Velocity</p>
	<p>Coding instruction : Indicate the patient's e-wave velocity in centimeters per second.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1508	<p>Name : A-wave Velocity</p>
	<p>Coding instruction : Indicate the patient's a-wave velocity in centimeters per second.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1509	<p>Name : Deceleration Time of E-wave</p>
	<p>Coding instruction : Indicate the patient's deceleration time of e-wave in milliseconds.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1510	<p>Name : Early Diastolic Filling Velocity</p>
	<p>Coding instruction : Indicate the patient's early diastolic filling velocity (either IVS or LW basal) in centimeters per second.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1511	<p>Name : Aortic Stenosis</p>
	<p>Coding instruction : Indicate if the patient has been diagnosed with aortic stenosis</p> <p>Target Value : The value within 6 months before and after the date of registration.</p> <p>Selection : 1. Normal / trace 2. Mild 3. Moderate 4. Severe</p>
Seq. # 1512	<p>Name : Aortic Regurgitation</p>
	<p>Coding instruction : Indicate if the patient has been diagnosed with aortic regurgitation</p> <p>Target Value : The value within 6 months before and after the date of registration.</p> <p>Selection : 1. Normal / trace</p>

	2. Mild 3. Moderate 4. Severe
Seq. # 1513	Name : Mitral Stenosis
	Coding instruction : Indicate if the patient has been diagnosed with mitral stenosis
	Target Value : The value within 6 months before and after the date of registration.
	Selection : 1. Normal / trace 2. Mild 3. Moderate 4. Severe
Seq. # 1514	Name : Mitral Regurgitation
	Coding instruction : Indicate if the patient has been diagnosed with mitral regurgitation
	Target Value : The value within 6 months before and after the date of registration.
	Selection : 1. Normal / trace 2. Mild 3. Moderate 4. Severe
Seq. # 1515	Name : Tricuspid Regurgitation
	Coding instruction : Indicate if the patient has been diagnosed with tricuspid regurgitation
	Target Value : The value within 6 months before and after the date of registration.
	Selection : 1. Normal / trace 2. Mild 3. Moderate 4. Severe
Seq. # 1516	Name : Transesophageal Echocardiography
	Coding instruction : Indicate if the patient has undergone transesophageal echocardiography within 6 months.
	Target Value : Any occurrence within 6 months before and after the date of registration.
	Selection : 1. No 2. Yes
Seq. # 1517	Name : Rhythm on Transesophageal Echocardiography
	Coding instruction : Indicate the patient's heart rhythm on examination
	Target Value : The value within 6 months before and after the date of registration.
	Selection : 1. Sinus rhythm 2. Atrial fibrillation 3. Others
Seq. # 1518	Name : Thrombus in Left Atrium or Left Atrial Appendage

	<p>Coding instruction : Indicate if the patient has thrombus in left atrium or left atrial appendage during TEE</p> <p>Target Value : Any occurrence within 6 months before and after the date of registration.</p> <p>Selection : 1. No 2. Yes 3. Unknown</p>
Seq. # 1519	<p>Name : Spontaneous Echo Contrast</p> <p>Coding instruction : Indicate if the patient has spontaneous echo contrast.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1520	<p>Name : Left Atrial Appendage Velocity</p> <p>Coding instruction : Indicate the patient's left atrial appendage velocity in centimeters per second.</p> <p>Target Value : The value within 6 months before and after the date of registration.</p>
Seq. # 1521	<p>Name : Blood Test</p> <p>Coding instruction : Indicate if the patient has undergone blood tests within 3 months.</p> <p>Target Value : Any occurrence within 3 months before and after the date of registration.</p> <p>Selection : 1. No 2. Yes</p>
Seq. # 1522	<p>Name : Hemoglobin</p> <p>Coding instruction : Indicate the patient's hemoglobin (Hb) in grams per deciliter</p> <p>Target Value : The value within 3 months before and after the date of registration.</p>
Seq. # 1523	<p>Name : Blood Urea Nitrogen</p> <p>Coding instruction : Indicate the patient's blood urea nitrogen in milligrams per deciliter.</p> <p>Target Value : The value within 3 months before and after the date of registration.</p>
Seq. # 1524	<p>Name : Creatinine</p> <p>Coding instruction : Indicate the patient's creatinine in milligrams per deciliter.</p> <p>Target Value : The value within 3 months before and after the date of registration.</p>
Seq. # 1525	<p>Name : Total Bilirubin</p> <p>Coding instruction : Indicate the most recent documented total bilirubin in milligrams per deciliter.</p> <p>Target Value : The value within 3 months before and after the date of registration.</p>
Seq. # 1526	<p>Name : Uric Acid</p> <p>Coding instruction : Indicate the most recent documented uric acid in milligrams per deciliter.</p>

	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1527	Name : AST
	Coding instruction : Indicate the most recent documented AST in Units per liter.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1528	Name : ALT
	Coding instruction : Indicate the most recent documented ALT in Units per liter.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1529	Name : CRP
	Coding instruction : Indicate the most recent documented CRP in milligrams per deciliter.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1530	Name : PT-INR #1
	Coding instruction : Indicate the patient's 1st PT-INR.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1531	Name : PT-INR #2
	Coding instruction : Indicate the patient's 2nd PT-INR.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1532	Name : PT-INR #3
	Coding instruction : Indicate the patient's 3rd PT-INR.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1533	Name : PT-INR #4
	Coding instruction : Indicate the patient's 4th PT-INR.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1534	Name : PT-INR #5
	Coding instruction : Indicate the patient's 5th PT-INR.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1535	Name : APTT
	Coding instruction : Indicate the most recent documented APTT in seconds.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1536	Name : BNP
	Coding instruction : Indicate the most recent documented BNP measure in picograms per milliliter.
	Target Value : The value within 3 months before and after the date of registration.
Seq. # 1537	Name : D-dimer
	Coding instruction : Indicate the most recent documented D-dimer measure in micrograms per milliliter
	Target Value : The value within 3 months before and after the date of registration.

List of the name of committee which approved the KiCS-AF study

	Institution (Japanese)	Institution (English)	Name of committee (Japanese)	Name of committee (English)
1	慶應義塾大学医学部	Keio University, School of medicine	倫理委員会	Independent Ethics Committee
2	独立行政法人国立病院機構 東京医療センター	National Hospital Organization, Tokyo Medical Center	倫理委員会	Independent Ethics Committee
3	独立行政法人国立病院機構 埼玉病院	National Hospital Organization, Saitama Hospital	倫理委員会	Independent Ethics Committee
4	日野市立病院	Hino Municipal Hospital	倫理委員会	Independent Ethics Committee
5	さいたま市民病院	Saitama City Hospital	倫理委員会	Independent Ethics Committee
6	東京歯科大学市川総合病院	Tokyo Dental College, Ichikawa General Hospital	倫理審査委員会	Independent Ethics Committee
7	横浜市民病院	Yokohama Municipal Citizen's Hospital	倫理委員会	Independent Ethics Committee
8	立川病院	Tachikawa Hospital	倫理委員会	Independent Ethics Committee
9	北里大学北里研究所病院	Kitasato University, Kitasato Institute Hospital	研究倫理委員会	Independent Ethics Committee
10	済生会宇都宮病院	Saiseikai Utsunomiya Hospital	倫理委員会	Independent Ethics Committee
11	けいゆう病院	Keiyu Hospital	倫理委員会	Independent Ethics Committee

Supplemental Table 1. Definitions of the Cardiovascular death

Cardiovascular Death: Acute Myocardial Infarction (MI)	Death by any cardiovascular mechanism (arrhythmia, sudden death, heart failure, stroke, pulmonary embolus, pulmonary artery disease) within 30 d after an acute MI, related to the immediate consequences of the MI, such as progressive HF or recalcitrant arrhythmia. There may be assessable (attributable) mechanisms of cardiovascular death during this time period, but for simplicity, if the cardiovascular death occurs within 30 d of an acute MI, it will be considered a death due to MI.
Cardiovascular Death: Sudden Cardiac Death (SCD)	SCD was defined as unexpected and otherwise unexplained death in a previously stable patient or death from documented or presumed cardiac arrhythmia without a clear non-cardiovascular cause, including patients who were comatose and then died after attempted resuscitation. Patients who died and had been out of contact for more than 24 hours were classified as undetermined cause of death.
Cardiovascular Death: Heart Failure (HF)	Death associated with clinically worsening symptoms and/or signs of HF, regardless of HF etiology
Cardiovascular Death: Stroke	Death after a stroke that is either a direct consequence of the stroke or a complication of the stroke.
Cardiovascular Death: Other	Cardiovascular death not included in the above categories but with specific, known cause (e.g., pulmonary embolism, aortic dissection, aortic aneurysm or peripheral arterial disease)

Above definitions are accordance with the 2014 ACC/AHA Key Data Elements and Definitions for Cardiovascular Endpoint Events in Clinical Trials*

Hicks KA, Tchong JE, Bozkurt B, Chaitman BR, Cutlip DE, Farb A, et al. 2014 ACC/AHA Key Data Elements and Definitions for Cardiovascular Endpoint Events in Clinical Trials: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). *J Am Coll Cardiol* 2015; **66**: 403-469.

Supplemental Table 2.

The number of patients who refused to participate in the KiCS-AF registry at each participating center

Participating center	Number of patients who refused to participate	Number of patients who participate in the KiCS-AF registry	Refusal rate, %
Overall	42	1,322	3.1
Keio University Hospital	14	484	2.8
National Hospital Organization, Saitama Hospital	14	333	4.2
Hino Municipal Hospital	9	224	4.0
Tokyo Dental College, Ichikawa General Hospital	1	194	0.5
Saiseikai Utsunomiya Hospital	4	87	4.5

*The number of patients who refused to participate was only available for limited number of the participating center