

## DUQUE DATA COLLECTION FOR ACUTE MYOCARDIAL INFARCTION (AMI)

### Definitions

<b>Acute myocardial infarction (AMI)</b>	Acute myocardial infarction (AMI) can be defined from a number of different perspectives related to clinical, electrocardiographic (ECG), biochemical, and pathological characteristics. (European Society for Cardiology Management Guideline)
<b>Telemedicine</b>	The delivery of health care services, where distance is a critical factor, by health care professionals using information and communications technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interest of advancing the health of individuals and their communities. (World Health Organization)

### Diagnostic criteria

Patients age 18 years and older, with a principal diagnosis code of AMI according to;

- 1) ICD-9 410 or ICD-10 I21 or ICD-10 I22.

and

- 2) ECG changes associated with STEMI: new left bundle branch block [LBBB] or persistent ST-segment elevation  $\geq 1$  mm in two or more contiguous electrocardiographic leads

and

- 3) Blood sampling shows elevated serum markers of myocardial necrosis for creatine kinase MB form and troponins

### Identifying medical records from patients for inclusions in the DUQuE study

**Precondition** Patients having acute coronary syndromes and chest pain thought to be Acute Myocardial Infarction (AMI) in nature represent a large proportion of acute medical admissions, but are not necessarily easy to identify / locate unless admitted to a specialised cardiac ward. Please follow the guide below carefully to ensure consecutive inclusion of **35** AMI patients according to the specified inclusion and exclusion criteria, and the overall scientific soundness of the DUQuE study. Thank you!

Identify all patients age 18 years or older who were discharged from the hospital with a diagnosis of ICD-9; 410 or ICD-10; I21 or I22.

Review the most recent admissions first and make your way backwards in time

Find the patients medical record, go through each of the patients medical record and answer the questions. Keep going until you have **35** patients included in total. Please see the "Manual for chart reviewers" for more information on patient sampling.



DUQUE DATA COLLECTION SHEET FOR ACUTE MYOCARDIAL INFARCTION (AMI)						
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering		
<b>I01 COUNTRY AND HOSPITAL INFORMATION</b>						
I0101	Country	Country: please specify the country below			Fill in a number from 0-7	
		1	Czech Republic			
		2	England			
		3	France			
		4	Germany			
		5	Poland			
		6	Portugal			
		7	Spain			
		8	Turkey			
I0102	Hospital Name	Please specify the hospital name			Name of hospital	
		Text	Please fill in the name of the hospital			
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering	Patient id	
<b>I02 PATIENT DEMOGRAPHY</b>						
I0201	Patient date of birth	Please specify the patient's date of birth			Fill in exact date or fill in "9"	
		DD:MM:YY	Date of birth (DD-MM-YYYY)			
		9	Not specified			
I0202	Patient gender	Please specify the gender of the patient			Fill in 0, 1 or 9	
		0	Male			
		1	Female			
		9	Not specified			
<b>I03 ADMISSION</b>						
I0301	Date and time of symptom onset	The exact time (preferably within 10 minutes) when symptoms began. Where there is a prodrome of intermittent pain the time recorded should be the time of onset of those symptoms which led the patient to call for help. Where admission followed an out of hospital cardiac arrest, with no better information available, use the time of the arrest for onset of symptoms.			Fill in exact date OR "9"	
		DD:MM:YY	Date (DD:MM:YYYY)			
		9	Date not specified			
		HH:MM	Time (HH:MM)		Fill in exact time OR "99"	
		99	Time not specified			
I0302	Date and time of admission to the hospital	This field should be completed - all patients should have an admission date and time. This refers to when the patient was first admitted to you hospital. Even if precise times are unknown/ not specified, you should enter the date of admission to hospital.			Fill in exact date OR "9"	
		DD:MM:YY	Date (DD:MM:YYYY)			
		9	Date not specified			
		HH:MM	Time (HH:MM)		Fill in exact time OR "99"	
		99	Time not specified			

DUQUE DATA COLLECTION SHEET FOR ACUTE MYOCARDIAL INFARCTION (AMI)				
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering
I0303	Admission ward		The purpose of this question is to determine where immediate care took place. Refers to the unit to which the patient is admitted either from the Accident and Emergency (A&E) ward or directly by ambulance service and where patient has spend the majority of first 24 hours in hospital. If patient admitted direct to CAT lab, enter facility to which patient admitted on leaving lab.	
		0	This may be a cardiac care facility shared with intensive therapy unit (ITU) or high dependency unit (HDU), or might be part of a cardiac ward or general ward, but providing a higher level of monitoring and cardiac nursing numbers and expertise.	Fill in a number from 0-6 OR 9
1	A unit for the assessment of non-specific acute medical admissions.			
2	A medical ward without fixed monitoring facilities or additional cardiac nursing expertise.			
3	Intensive therapy unit, which is separate from a cardiac care unit, and is not the usual place of care for early infarction (post-arrest or when cardiac care unit is full, etc).			
4	To record for patients admitted to any other ward or who had infarction while already in hospital.			
5	A cardiac ward, having staff with specific cardiac nursing expertise, but without necessarily higher numbers of staff / patient or central monitoring facilities.			
6	A facility normally used primarily for patients after initial care on cardiac care unit.			
7	The patient spend the majority of the first 24 hours in an A&E department or an observation ward			
9	Not specified OR Patient died in the A&E department with in the first 24 hours			
<b>I04</b>	<b>DIAGNOSTIC</b>			<b>01</b>
I0401	Serum cholesterol		Was the serum cholesterol level assessed during hospital stay?	
		0	No	Fill in 0, 1 or 9
1	Yes			
9	Not specified			
			if yes, please specify the serum cholesterol value in mmol/L (5mmol/L ≈ 20mg/dL)	Fill in the mmol/L
				mmol/L
I0402	LDL-cholesterol		Was the LDL-cholesterol level assessed during hospital stay?	
		0	No	Fill in 0, 1 or 9
1	Yes			
9	Not specified			
			If yes, please specify the LDL- cholesterol value in mmol/L (5mmol/L ≈ 20mg/dL)	Fill in the mmol/L
				mmol/L
I0403	Triglycerides		Was the triglyceride level assessed during hospital stay?	
		0	No	Fill in 0, 1 or 9
1	Yes			
9	Not specified			
			if yes, please specify the triglyceride value in mmol/L (5mmol/L ≈ 20mg/dL)	Fill in the mmol/L
				mmol/L
I0404	Cardiac enzymes/markers raised?		Is the cardiac enzymes/markers raised? Is enzyme or marker activity less than twice the upper limit of normal for the hospital laboratory on any sample taken from the patient? For troponins assays the decision should be made on presence/absence of elevation beyond the upper reference limit (upper limit of normal for the local assay).	
		0	No	Fill in 0, 1 or 9
1	Yes			
9	If the patient dies before bloods are taken enter "Unknown".			

DUQUE DATA COLLECTION SHEET FOR ACUTE MYOCARDIAL INFARCTION (AMI)				
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering
I0405	Location of first ECG performed	Where was the first ECG performed? This refers to the 1st ECG recorded, not necessarily the final and diagnostic ECG. (A diagnostic ECG is verified by a cardiologist)		
		0	An ECG performed in any location by ambulance paramedic staff as a result of an emergency call. (A paramedic is a trained healthcare professional who specializes in emergency medical care, which is delivered outside of a clinical environment such as a hospital.)	Fill in a number from 0-2 OR 9
		1	In this hospital.	
		2	In the general practice or in a care facility/nursing home where the ECG was performed by a health care professional not specialised in AMI, e.g. a general practitioner.	
9	Not specified			
I0406	Date and time of in-hospital or out of hospital diagnostic ECG	Date and time of in-hospital or out of hospital diagnostic ECG (DD:MM.YYYY)		
		DD:MM:YY	Date (DD:MM:YYYY) 9 Date not specified	Fill in exact date OR "9"
		HH:MM	Time (HH:MM) 99 Time not specified	Fill in exact time OR "99"
I0407	Left ventricular ejection fraction	Please specify the left ventricular ejection fraction measured during this admission by echo, angio, radionuclide scan or MR study.		
		0	>=50%	Fill in a number from 0-3 OR 9
		1	30-49%	
		2	<30%	
3	Not assessed			
9	Unknown			
I05	<b>PATIENT HISTORY</b>			
I0501	Previous AMI	Any previously validated episode of acute myocardial infarction?		
		0	No	Fill in 0, 1 or 9
		1	Yes	
9	Not specified			
I0502	Previous angina	Any symptoms due to cardiac ischemia developing or already in existence at least two weeks prior to admission, and continuing up to admission?		
		0	No	Fill in 0, 1 or 9
		1	Yes	
9	Not specified			
I0503	Previous heart failure	Any previously validated diagnosis of heart failure on any therapeutic regime?		
		0	No	Fill in 0, 1 or 9
		1	Yes	
9	Not specified			

01

DUQUE DATA COLLECTION SHEET FOR ACUTE MYOCARDIAL INFARCTION (AMI)				
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering
I0504	Hypertension		Is the patient already receiving treatment (drug, dietary or lifestyle) for hypertension or with recorded BP > 140/80 on at least two occasions prior to admission?	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0505	Hypercholesterolaemia		Does the patient have an elevation of serum cholesterol requiring dietary or drug treatment?	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0506	Peripheral vascular disease		Does the patient show presence of peripheral vascular disease, either presently symptomatic or previously treated by intervention or surgery?. Include known Reno vascular disease and aortic aneurysm.	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0507	Cerebrovascular disease		Does the patient have a history of cerebrovascular ischemia? To include transient cerebral ischemic episodes as well as events with deficit lasting >24 hours.	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0508	Asthma or COPD		Any form of obstructive airways disease?	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0509	Chronic renal failure		Is the creatinine chronically >200 micro mol/L?	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0510	Liver disease		Any validated diagnosis of liver disease?	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0511	Cancer		Any validated diagnosis of cancer disease?	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9
I0512	Dementia		Any validated diagnosis of dementia?	
		0 No 1 Yes 9 Not specified		Fill in 0, 1 or 9

DUQUE DATA COLLECTION SHEET FOR ACUTE MYOCARDIAL INFARCTION (AMI)				
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering
I0513	Diabetes		Please specify the patient's status and treatment regarding know diabetes prior to this admission	
		0	A patient not known to be diabetic at the time of admission.	Fill in a number from 0-5 OR 9
1	Diabetic not receiving insulin or oral medication.			
2	Diabetic receiving oral medication prior to admission.			
3	Diabetic receiving insulin without additional oral medication.			
5	Diabetic receiving insulin and oral medication prior to admission.			
		9	Not specified	
<b>I06 FIBRINOLYTIC</b>				
I0601	Thrombolytic treatment		This refers to treatment given in your hospital or pre hospital arrival. If you have a service with out-hospital thrombolytic treatment this is also included here.	
		0	Thrombolytic treatment was given	Fill in 0, 1 or 9
1	Thrombolytic treatment was NOT given			
9	Not specified			
I0602	Date and time of thrombolytic treatment		If you answered yes (=0) to the above question (I0602), please state the time of onset of thrombolytic treatment. If you have a service with out-hospital thrombolytic treatment this is also included here.	
		DD:MM:YY	Date (DD:MM:YYYY)	Fill in exact date OR "9"
		9	Date not specified	
HH:MM	Time (HH:MM)	Fill in exact time OR "99"		
99	Time not specified			
I0603	In-hospital Percutaneous Coronary Intervention		This refers to PCI treatment given in your hospital.	
		0	PCI treatment was given	Fill in 0, 1 or 9
1	PCI treatment was NOT given			
9	Not specified			
I0604	Date and time of Percutaneous Coronary Intervention		If you answered yes (=0) to the above question (I0604), please state the time of onset of Percutaneous Coronary Intervention. Use time of first introduction of the first device. Balloon time is first device time (balloon, or stent or aspiration device etc) whether or not it establishes flow, but not guide wire (unless this establishes complete perfusion; normal flow which fills the distal coronary bed completely).	
		DD:MM:YY	Date (DD:MM:YYYY)	Fill in exact date OR "9"
		9	Date not specified	
HH:MM	Time (HH:MM)	Fill in exact time OR "99"		
99	Time not specified			
I0605	Reason reperfusion treatment not given		Please specify the reason(s) for reperfusion treatment NOT given. Perperfusion treatment refers to primary PCI and thrombolytic treatment.	
		0	A decision made in light of a local protocol. It may be checked against other recorded delays where initial diagnosis is definite myocardial infarction.	Fill in ALL appropriate numbers from 0-10 OR 99
1	An acute medical event preventing intended procedure from starting.			
2	Any technical / operator failure after starting interventional procedure, including no arterial access.			
3	Patient refused treatment			
4	An appropriate contraindication especially in older people.			
5	To be used where a decision was made not to treat a patient (severe coexisting morbidity, or dying).			
6	For use where there is advanced malignancy, dementia, progressive neurological disease, or other conditions having an immediate impact on prognosis. Includes other clinical reasons identified by the clinician.			
7	Because of co-morbidity, e.g., acute VSD, cardiac rupture; acute MR; coronary spasm, spontaneous dissection; thrombus treated with drug therapy (e.g. ReoPro and heparin), etc			
8	Angiographically normal coronaries / mild disease / Infarct Related Vessel unclear			
9	Surgical disease			
10	Other e.g. transferred to another hospital for perfusion			
99	Use when eligible patient fails to receive reperfusion treatment without a stated reason.			

01

DUQUE DATA COLLECTION SHEET FOR ACUTE MYOCARDIAL INFARCTION (AMI)					
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering	
<b>I07</b>	<b>DISCHARGE &amp; MEDICATION</b>			<b>01</b>	
<b>I0701</b>	Discharged on beta blocker	Discharged from hospital on oral beta adrenergic blocker treatment.			
		0 No 1 Yes 2 Patient declined treatment 3 Contraindicated, mark if applicable and specify later 4 For patients who die or are transferred to another hospital. 9 Not specified		Fill in a number from 0-4 OR 9	
		If contraindicated, please specify the reason below			
		0 Sinus bradycardia 1 Partial AV block 2 Asthma 3 Chronic obstructive pulmonary disease 4 Other contraindication not specified above 9 Not specified		Fill in a number from 0-4 OR 9	
<b>I0702</b>	Discharged on angiotensin converting enzyme inhibitor or angiotensin receptor blocker	Discharged from hospital on angiotensin converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB).			
		0 No 1 Yes 2 Patient declined treatment 3 Contraindicated, mark if applicable and specify later 4 For patients who die or are transferred to another hospital. 9 Not specified		Fill in a number from 0-4 OR 9	
		If contraindicated, please specify the reason below			
		0 Previous angioedema associated with ACE inhibitor therapy 1 Renal artery stenosis (bilateral, or unilateral with a solitary functioning kidney) 2 ACEI and ARB: Renal insufficiency 3 ARB: Pregnancy 4 Other contraindication not specified above 9 Not specified		Fill in a number from 0-4 OR 9	
<b>I0703</b>	Discharged on statin	Discharged from hospital on a statin.			
		0 No 1 Yes 2 Patient declined treatment 3 Contraindicated, mark if applicable and specify later 4 For patients who die or are transferred to another hospital. 9 Not specified		Fill in a number from 0-4 OR 9	
		If contraindicated, please specify the reason below			
		0 Active liver disease 1 Pregnancy and/or lactation 2 Persistent unexplained elevations in serum transaminases to above 3 times the upper limit of normal 3 Other contraindication not specified above 9 Not specified		Fill in a number from 0-3 OR 9	

DUQUE DATA COLLECTION SHEET FOR ACUTE MYOCARDIAL INFARCTION (AMI)				
Field Number	Field Prompt	Answer categories	Definition and notes	Guidance for answering
10704	Discharged on aspirin / other antiplatelet drugs	Discharged from hospital taking aspirin / other antiplatelet agents		Fill in a number from 0-4 OR 9
		0 No 1 Yes 2 Patient declined treatment 3 Contraindicated, mark if applicable and specify later 4 For patients who die or are transferred to another hospital. 9 Not specified		
		If contraindicated, please specify the reason below		
		0 Known allergy 1 Active peptic ulceration 2 History of recent intracranial bleeding 3 History of recent gastrointestinal bleeding 4 Pregnancy and/or lactation 5 Bleeding disorders including haemophilia, von Willebrand's disease, thrombocytopenia and severe liver disease 6 Other contraindication not specified above 9 Not specified		Fill in a number from 0-6 OR 9
<b>108</b>	<b>DISCHARGE &amp; DEATH</b>			<b>01</b>
10801	Date of discharge from hospital OR death	Discharge date should be completed for all patients, discharge date includes date of transfer to another hospital. If the patients is transferred to another hospital for the day e.g. for treatment, the patient is not regarded as discharged. Date of death should ONLY be completed if the patient died while in hospital.		
		DD-MM-YYYY	Date of discharge (DD:MM:YYYY)	Fill in exact date OR "9"
		9	Date of discharge not specified	
DD-MM-YYYY	Date of death (DD:MM:YYYY)	Fill in exact time OR "99"		
99	Not dead OR date of death not specified			