## Online Supplementary Table 5: Selection bias in individual studies

Title	Firt author	Journal	Year	Judgement on the risk	Quote	Comment
				of selection bias		
Myocardial Extracellular Volume Fraction Allows	Chen	J Magn Reson	2020	Low	This observational prospective cohort study included 24 consecutive	Consecutive recruitment was
Differentiation of Reversible Versus Irreversible		Imaging			STEMI patients (mean $\square$ SD, 62 $\square$ 10 years old, 75% men) after	performed.
Myocardial Damage and Prediction of Adverse Left					reperfusion.	
Ventricular Remodeling of ST-Elevation Myocardial						
Infarction						
Acute Microvascular Impairment Post-Reperfused STEMI	Borlotti	JACC Cardiovasc	2019	High	STEMI patients (mean □ SD, 62 □ 10 years old, 75% men) after	64 patients were included in four and
Is Reversible and Has Additional Clinical Predictive		Imaging				a half years. This makes consecutive
Value: A CMR OxAMI Study						recruitment unlikely.
Elevated serum uric acid affects myocardial reperfusion	Mandurino-Mirizzi	J Cardiovasc Med	2018	Unclear	reperfusion.	Recruitment was not described in
and infarct size in patients with ST-segment elevation						sufficient detail to evaluate whether
myocardial infarction undergoing primary percutaneous						consecutive recruitment was
coronary intervention						performed.
Dynamic changes in injured myocardium, very early after	Alkhalil	J Cardiov Magn	2018	Unclear	Patients presenting with STEMI to the Oxford Heart Centre and who	Recruitment was not described in
acute myocardial infarction, quantified using T1 mapping		Reson			underwent primary percutaneous coronary intervention (PCI) were	sufficient detail to evaluate whether
cardiovascular magnetic resonance					prospectively enrolled as part of the OxAMI Study [12, 13].	consecutive recruitment was
						performed.
CMR Native T1 Mapping Allows Differentiation of	Liu	Circ Cardiovasc	2017	Unclear	Sixty ST-segment-elevation MI patients undergoing primary	Recruitment was not described in
Reversible Versus Irreversible Myocardial Damage in ST-		Imaging			percutaneous coronary intervention (PPCI) within 12 hours of symptoms	sufficient detail to evaluate whether
Segment-Elevation Myocardial Infarction: An OxAMI					onset were pro- spectively enrolled as part of the OxAMI study (Oxford	consecutive recruitment was
Study (Oxford Acute Myocardial Infarction)					acute myocardial infarction).	performed.
Acute Infarct Extracellular Volume Mapping to Quantify	Garg	Circ Cardiovasc	2017	Unclear	Patients presenting with acute ST-segment–elevation myocardial	Recruitment was not described in
Myocardial Area at Risk and Chronic Infarct Size on		Imaging			infarction (STEMI) were prospectively recruited from a single UK tertiary	sufficient detail to evaluate whether
Cardiovascular Magnetic Resonance Imaging					center (study design: Figure 1).	consecutive recruitment was
						performed.

Segment Elevation Myocardial Infarction    SMART-AMI-CMR registry Between Jumany 2008 and June 2014, 515 conscience and underwent/CMR were considerated in this registry   Multi-vendor, multiscentre comparison of contrast enhanced SSFP and T2-STRC CMR for documenting myocardial infarction and underwent/CMR processes of contrast enhanced SSFP and T2-STRC CMR for documenting myocardial infarction and underwent/CMR processes within 1-8 days after primary PC1 for first sufficient detail in the CHILL MI and MITCO ARE trinis to evaluate whether concentrate recruitment was performed.    Transpring for assessment of myocardial infarction and new week post myocardial infarction and increases and infarction and new week post myocardial infarction and increases and infarction and infarct	Morphine Does Not Affect Myocardial Salvage in ST-	Gwag	Plos One	2017	Low	The study population was selected from the Samsung Medical Center	Consecutive recruitment was
Multi-vendor, multicentre comparison of contrast.  Multi-vendor, multicentre comparison of contrast.  Nordland  Ear Heart J  Cardiovasc Imaging  Dictional Imaging  Cardiovasc Imaging  Dictional Imaging  Cardiovasc Imaging  Car	Segment Elevation Myocardial Infarction					SMART-AMI-CMR registry. Between January 2008 and June 2014, 515	performed.
Multi-vendor, mu						consecutive patients who presented with acute myocardial infarction and	
chanced SSFP and T2-STIR CMR for determining myocardian at risk in ST-elevation myocardial infarction  Temporary for assessment of myocardial infarction  Temporary for assessment of myocardial infarction at one week post myocardial infarction  Ear J Radiol  Trials  2015  Low  Sxivy two patients with first acase ST-segment elevation myocardial infarction (STEMI) were consecutively recruited at Abendeen Royal Informacy from September 2011 to April 2013 as part of the Nitries in Acute Myocardial Infarction clinical trial [15].  Prognosis after ST-elevation myocardial infarction: a study on cardiac magnetic resonance imaging versus clinical routine  Consecutive pressure of myocardial infarct size in patients  A magnetic resonance imaging study  A magnetic resonance imaging study  A magnetic resonance imaging study  Consecutive meaning magnetic resonance of myocardial infarct size in patients  A magnetic resonance imaging study  Ear J Radiol  2014  Low  Of 512 clighted consecutive patients undergoing primary PCI for STEMI, Consecutive recruitment was performed.  Consecutive						underwentCMR were enrolled in this registry	
myocardium at risk in ST-elevation myocardial infarction  If mapping for assessment of myocardial injury and microvascular obstruction at one week post myocardial injury and microvascular obstruction at one week post myocardial infarction  Prognosis after ST-elevation myocardial infarction:  Trials  2014  Low  Sixty two patients with first acute ST-segment elevation myocardial infarction myocardial infarction (STEMI) were consecutively recruited at Aberdeen Royal Infarction (STEMI) were consecutively recruited at Aberdeen Royal Infarction (STEMI) were consecutively recruited at Aberdeen Royal Infarction (STEMI) were consecutive patients undergoing primary PCI for STIMI, CARL was conducted in 485 patients. The reasons for a lack of CMR were classrophibit (ne ±19), death prior to CMR (ne ±18), retisead (ne ±15), pacemaker (ne ±5), obesity (ne ±7) and reasons that could not be further clarified (ne ±10).  Impact of overweigt on myocardial infarct size in patients.  A magnetic resonance imaging study  Atherosclerosis  A magnetic resonance imaging study  Atherosclerosis  A magnetic resonance imaging study  Impact of owhite blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients withor great patients.  Soft and a segment of myocardial salvage, infarct size, and clinical outcomes in patients undergoing primary procurations in the patients of the magning study  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of white blood cell count on myocardial salvage.  Impact of w	Multi-vendor, multicentre comparison of contrast-	Nordlund	Eur Heart J	2016	Unclear	Patients from the CHILL-MI and MITOCARE trials (n 1/4 215) underwent	Recruitment was not described in
The mapping for assessment of myocardial injury and microvascular obstruction at one week post myocardial infurction  Ear J Radiol  2015  Low  Sixty two patients with first acute ST-segment elevation myocardial infurction (STEMI) were consecutively perturbed at Abenteen Royal Infurency from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction (and Infurency from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and infurency from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Infurency from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Informacy from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Informacy from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Informacy from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Informacy from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Informacy from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Informacy from September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarction and Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myocardial Infarct September 2011 to April 2013 as part of the Nitrites in Acute Myoca	enhanced SSFP and T2-STIR CMR for determining		Cardiovasc Imaging			CMR imaging at one occasion within 1-8 days after primary PCI for first-	sufficient detail in the CHILL-MI and
Trapping for assessment of myocardial injury and microvascular obstruction at one week post myocardial infarction  Eur J Radiol  2015  Low  Sixty two patients with first acute ST-segment elevation myocardial infarction (STEMI) were consecutively recruited at Aberdeen Royal Infarction (STEMI) were consecutively petitents undergoing primary PCI for STEMI, Consecutive recruitment was extended from the standard of the	myocardium at risk in ST-elevation myocardial infarction					time STEMI.	MITOCARE trials to evaluate
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Acute Myocardial Infarction clinical trial [15].  Prognosis after ST-elevation myocardial infarction: a study on cardiac magnetic resonance imaging versus clinical routine  Study on cardiac magnetic resonance imaging versus  clinical routine  Impact of overweigt on myocardial infarct size in patients  undergoing primary percutaneous coronary interventions:  A magnetic resonance imaging study  Atherosclerosis  A magnetic resonance imaging study  Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Acute Myocardial Infarction clinical trial [15].  Consecutive recruitment was performed.	microvascular obstruction at one week post myocardial					infarction (STEMI) were consecutively recruited at Aberdeen Royal	performed.
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Study on cardiac magnetic resonance imaging versus  CIMR was conducted in 438 patients. The reasons for a lack of CMR were claustrophobia (n = 19), death prior to CMR (n = 18), refusal (n = 15), pacemaker (n = 5), obesity (n = 7) and reasons that could not be further clarified (n = 10).  Impact of overweigt on myocardial infarct size in patients undergoing primary percutaneous coronary interventions:  A magnetic resonance imaging study  Atherosclerosis  ZO14  Low  From January 2006 to November 2009, 349 STEMI patients visited the emergency room at Samsung Medical Center. Among them, 62 patients performed.  performed.  Consecutive recruitment was performed.  performed.  Consecutive recruitment was performed.  Performed.  Consecutive recruitment was performed.  Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  Consecutive recruitment was performed.  Consecutive recruitment was performed.  Consecutive recruitment was performed.						Acute Myocardial Infarction clinical trial [15].	
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Impact of overweigt on myocardial infarct size in patients undergoing primary percutaneous coronary interventions:  A magnetic resonance imaging study  Atherosclerosis  A magnetic resonance imaging study  From January 2006 to November 2009, 349 STEMI patients visited the emergency performed.  Consecutive recruitment was performed.						pacemaker (n = 5), obesity (n = 7) and reasons that could not be further	
undergoing primary percutaneous coronary interventions:  A magnetic resonance imaging study  emergency room at Samsung Medical Center. Among them, 62 patients presented >12 h after symptom onset and 30 patients who did not receive primary PCI, but received coronary artery bypass surgery or thrombolysis, and were thus excluded from this study. Twenty-seven patients who refused to undergo CMR or did not undergo CMR because of hemodynamic instability were also excluded.  Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  emergency room at Samsung Medical Center. Among them, 62 patients presented >12 h after symptom onset and 30 patients who did not receive primary PCI, but received coronary artery bypass surgery or thrombolysis, and were thus excluded from this study. Twenty-seven patients who refused to undergo CMR or did not undergo CMR because of hemodynamic instability were also excluded.  Empact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  English Center. Among them, 62 patients performed.						clarified (n = 10).	
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primary PCI, but received coronary artery bypass surgery or thrombolysis, and were thus excluded from this study. Twenty-seven patients who refused to undergo CMR or did not undergo CMR because of hemodynamic instability were also excluded.  Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  Int J Cardiovasc  Imaging  Imaging  Int J Cardiovasc  Imaging  Imaging  Int J Cardiovasc  Imaging  Int J Cardiova	undergoing primary percutaneous coronary interventions:					emergency room at Samsung Medical Center. Among them, 62 patients	performed.
and were thus excluded from this study. Twenty-seven patients who refused to undergo CMR or did not undergo CMR because of hemodynamic instability were also excluded.  Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  Int J Cardiovasc 2014 Low From January 2006 to November 2009, a total of 349 STEMI patients performed.	A magnetic resonance imaging study					presented >12 h after symptom onset and 30 patients who did not receive	
refused to undergo CMR or did not undergo CMR because of hemodynamic instability were also excluded.  Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  refused to undergo CMR or did not undergo CMR because of hemodynamic instability were also excluded.  From January 2006 to November 2009, a total of 349 STEMI patients Consecutive recruitment was presented to Samsung Medical Center, Seoul, Korea. [] In total, 198 performed.						primary PCI, but received coronary artery bypass surgery or thrombolysis,	
Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  hemodynamic instability were also excluded.  Low  From January 2006 to November 2009, a total of 349 STEMI patients  presented to Samsung Medical Center, Seoul, Korea. [] In total, 198  performed.						and were thus excluded from this study. Twenty-seven patients who	
Impact of white blood cell count on myocardial salvage, infarct size, and clinical outcomes in patients undergoing  Imaging  Int J Cardiovasc 2014 Low From January 2006 to November 2009, a total of 349 STEMI patients Consecutive recruitment was presented to Samsung Medical Center, Seoul, Korea. [] In total, 198 performed.						refused to undergo CMR or did not undergo CMR because of	
infarct size, and clinical outcomes in patients undergoing Imaging presented to Samsung Medical Center, Seoul, Korea. [] In total, 198 performed.						hemodynamic instability were also excluded.	
	Impact of white blood cell count on myocardial salvage,	Chung	Int J Cardiovasc	2014	Low	From January 2006 to November 2009, a total of 349 STEMI patients	Consecutive recruitment was
primary percutaneous coronary intervention for ST-	infarct size, and clinical outcomes in patients undergoing		Imaging			presented to Samsung Medical Center, Seoul, Korea. [] In total, 198	performed.
	primary percutaneous coronary intervention for ST-					patients were enrolled in this study and followed prospectively (Fig. 1).	

segment elevation myocardial infarction: a magnetic						
resonance imaging study						
Intracoronary compared with intravenous bolus abciximab	Eitel	J Am Coll Cardiol	2013	Low	CMR substudy design. Consecutive patients enrolled at 8 sites were	Consecutive recruitment was
application during primary percutaneous coronary					included in the CMR substudy.	performed.
intervention in ST-segment elevation myocardial						
infarction: cardiac magnetic resonance substudy of the						
AIDA STEMI trial						
Remote ischemic post-conditioning of the lower limb	Crimi	JACC Cardiovasc	2013	Low	Patients. Between March 2009 and December 2011, 753 pPCI were	Consecutive recruitment was
during primary percutaneous coronary intervention safely		Interv			performed, including 224 anterior STEMI. The main reason for study	performed.
reduces enzymatic infarct size in anterior myocardial					ineligibility was severe multivessel disease that was likely to require	
infarction: a randomized controlled trial					staged PCI (Fig. 2) (23).	
The assessment of area at risk and myocardial salvage	Hadamitzky	JACC Cardiavasc	2013	Low	Included in this study were all patients with acute ST-segment elevation	Consecutive recruitment was
after coronary revascularization in acute myocardial		Imaging			myocardial infarction (STEMI) or non-ST-segment elevation myocardial	performed.
infarction: comparison between CMR and SPECT					infarction (NSTEMI) undergoing both contrast-enhanced CMR and	
					Tc99m sestamibi myocardial perfusion SPECT for assessment of	
					myocardial salvage after primary angioplasty between October 1, 2006,	
					and October 1, 2011.	
Right ventricular injury in ST-elevation myocardial	Grothoff	Circ Cardiovasc	2012	Low	Of 524 STEMI patients undergoing primary angioplasty, 450 were	Consecutive recruitment was
infarction: risk stratification by visualization of wall		Imaging			referred to CMR 24-96 hours after reperfusion. Rea- sons for not	performed.
motion, edema, and delayed-enhancement cardiac					undergoing CMR are listed in Figure 1.	
magnetic resonance						
Distal protection device aggravated microvascular	Yoon	Int J Cardiol	2012	Low	Individuals eligible for enrollment were consecutive patients aged over 30	Consecutive recruitment was
obstruction evaluated by cardiac MR after primary					and less than 80 years with STEMI presentation more than 30 min but less	performed.
percutaneous intervention for ST-elevation myocardial					than 12 h after symptom onset, with 2mm or more of ST-segment	
infarction					elevation in 2 or more contiguous leads or with presumably new left	
					bundle-branch block, in whom primary PCI was intended.	
Comparison of magnetic resonance imaging findings in	Xu	Int J Cardiovasc	2012	Unclear	Patients with AMI were prospectively enrolled between January 2008 and	Recruitment was not described in
non-ST-segment elevation versus ST-segment elevation		Imaging			December 2009.	sufficient detail to evaluate whether

myocardial infarction patients undergoing early invasive						consecutive recruitment was
intervention						performed.
T2-weighted cardiac MR assessment of the myocardial	Viallon	J Cardiov Magn	2012	Low	Thirty patients admitted to our intensive care unit for a first acute ST-	Consecutive recruitment was
area-at-risk and salvage area in acute reperfused		Reson			elevated myocardial infarction (STEMI) were consecutively included over	performed.
myocardial infarction: Comparison of state-of-the-art dark					a period of 4 months.	
blood and bright blood T2-weighted sequences						
A high loading dose of clopidogrel reduces myocardial	Song	Am Heart J	2012	Low	From January 2006 to November 2009, a total of 349 STEMI patients	Consecutive recruitment was
infarct size in patients undergoing primary percutaneous					presented to our hospital. Among them, 62 patients presented >12 hours	performed.
coronary intervention: a magnetic resonance imaging					after symptom onset, 17 patients under- went coronary artery bypass	
study					surgery because of extensive coronary artery disease, and 13 patients	
					received only medical treatment including thrombolytics. Primary PCI	
					was successfully performed in 257 patients with STEMI. [] Fifty	
					patients did not undergo CE-MRI because of hemodynamic instability (n	
					= 23), history of myocardial infarction (n = 10), requirement for	
					multivessel intervention during the index procedure $(n = 7)$ , prior	
					coronary artery bypass grafting (n = 6), and refusal to undergo CE-MRI (n $$	
					= 4). Of 207 patients who underwent CE-MRI, 9 patients were excluded	
					from the present analysis, including 3 patients with evidence of previous	
					myocardial infarction on CE-MRI, 1 patient with subacute stent	
					thrombosis before CE-MRI, and 5 patients with unavailable clopidogrel	
					loading dose data in the referring hospital. Finally, 198 patients were	
					included in this study.	
Microvascular resistance predicts myocardial salvage and	Payne	J Am Heart Assoc	2012	Low	Consecutive acute STEMI patients undergoing primary PCI at a regional	Consecutive recruitment was
infarct characteristics in st-elevation myocardial infarction					cardiac center were screened.	performed.
Quantification of myocardial area at risk: validation of	Moral	Rev Esp Cardiol	2012	Low	Between October 2008 and June 2010, 75 consecutive patients with ST-	Consecutive recruitment was
coronary angiographic scores with cardiovascular		(Engl Ed)			segment elevation AMI successfully reperfused through primary	performed.
magnetic resonance methods					percutaneous coronary intervention (PCI) and undergoing CMR within	
					the first week after reperfusion were prospectively studied in a single	
					center trial.	

Analysis of post-infarction salvaged myocardium by	Monmeneu	Rev Esp Cardiol	2012	Low	This prospective study included patients who, between February 2008 and	Consecutive recruitment was
cardiac magnetic resonance. Predictors and influence on		(Engl Ed)			August 2010, were admitted consecutively to a tertiary hospital with a	performed.
adverse ventricular remodeling					first STEMI, and underwent primary percutaneous coronary intervention	
					(PCI) or were treated with a pharmacoinvasive strategy (thrombolysis	
					during the first 12 h after the onset of symptoms, followed systematically	
					by PCI at least 3 h later; revascularization was carried out in those	
					patients with severe residual lesions),8 and evaluated by means of CMR	
					prior to hospital discharge and 6 months later.	
Aborted Myocardial Infarction: Evaluation of Changes in	Lee	AJR Am J	2012	Low	Of 412 consecutive patients who underwent cardiac MRI from January	Consecutive recruitment was
Area at Risk, Late Gadolinium Enhancement, and		Roentgenol			2006 to December 2007, we retrospectively reviewed 57 patients with	performed.
Perfusion Over Time and Comparison With Overt					STE- MI who underwent a successful percutaneous coronary intervention	
Myocardial Infarction					and optimal medical therapy.	
Cardiovascular magnetic resonance-derived	Husser	Int J Cardiol	2013	Unclear	We prospectively included patients admitted to our institution with a first	Recruitment was not described in
intramyocardial hemorrhage after STEMI: Influence on					STEMI from November 2001 to December 2010. Patients who died or	sufficient detail to evaluate whether
long-term prognosis, adverse left ventricular remodeling					had a reinfarction or otherwise complicated clinical course or cardiac	consecutive recruitment was
and relationship with microvascular obstruction					surgery as well as those who denied participation in the registry, were	performed.
					transferred to other hospitals after reperfusion or those who had	
					contraindications to CMR were not included in the study. Patients	
					underwent CMR at 1 week and, in order to evaluate LV remodeling, at 6	
					months after STEMI.	
Reliability of myocardial salvage assessment by cardiac	Desch	Int J Cardiovasc	2012	Low	Twenty consecutive patients presenting to a single tertiary care center	Consecutive recruitment was
magnetic resonance imaging in acute reperfused		Imaging			with STEMI reperfused by primary percutaneous coronary intervention	performed.
myocardial infarction					within 12 h after symptom-onset underwent 2 CMRI scans.	
Dynamic Changes in ST Segment Resolution After	Weaver	Heart Lung Circ	2011	Unclear	Patients with a first STEMI were prospectively enrolled at a single centre.	Recruitment was not described in
Myocardial Infarction and the Association with					STEMI was defined in accordance with consensus guidelines [22] and the	sufficient detail to evaluate whether
Microvascular Injury on Cardiac Magnetic Resonance					culprit artery was con- firmed on primary PCI. Only patients with TIMI	consecutive recruitment was
Imaging					0–2 flow were included in order to prevent the underestimation of ST	performed.
					elevation on presentation due to partial reperfusion.	
					T	

Reperfusion haemorrhage as determined by cardiovascular	Mather	Heart	2011	Unclear	We prospectively enrolled 53 patients hospitalised in our institution	Recruitment was not described in
MRI is a predictor of adverse left ventricular remodelling					between August 2008 and October 2009 with first presentation acute ST-	sufficient detail to evaluate whether
and markers of late arrhythmic risk					elevation myocardial infarction (MI) and treated successfully with PPCI	consecutive recruitment was
					within 12 h of symptom onset.	performed.
Timing of cardiovascular MR imaging after acute	Mather	Radiology	2011	Unclear	Fifty-seven patients were recruited.	Recruitment was not described in
myocardial infarction: effect on estimates of infarct						sufficient detail to evaluate whether
characteristics and prediction of late ventricular						consecutive recruitment was
remodeling						performed.
Myocardium at risk in ST-segment elevation myocardial	Fuernau	JACC Cardiovasc	2011	Low	In brief, between November 2006 and February 2008, 251 consecutive	Consecutive recruitment was
infarction comparison of T2-weighted edema imaging		Imaging			patients were enrolled and underwent primary percutaneous coronary	performed.
with the MR-assessed endocardial surface area and					intervention for STEMI (Fig. 1).	
validation against angiographic scoring						
The evaluation of an electrocardiographic myocardial	Engblom	J Electrocardiol	2011	Unclear	Patients with clinical signs of first-timeMI constituted the study	Recruitment was not described in
ischemia acuteness score to predict the amount of					population of interest. Patients were retrospectively included if they had	sufficient detail to evaluate whether
myocardial salvage achieved by early percutaneous					ST-elevation in 2 consecutive leads, no history of old MI, a single	consecutive recruitment was
coronary intervention Clinical validation with myocardial					occluded vessel (thrombolysis in myocardial infarction [TIMI] flow 0),	performed.
perfusion single photon emission computed tomography					followed by successful revascularization by pPCI (TIMI grade 3 flow).	
and cardiac magnetic resonance					For inclusion, the patients were also required to have imaging of MaR,	
					either by MPS approximately 3 hours after a prereperfusion injection of	
					technetium Tc 99m tetrofosmin or by T2-weighted CMR 1 week after the	
					acute event.	
Prognostic value and determinants of a hypointense infarct	Eitel	Circ Cardiovasc	2011	Low	Of 407 eligible consecutive STEMI patients, this prospective study	Consecutive recruitment was
core in T2-weighted cardiac magnetic resonance in acute		Imaging			included 346 patients (Figure 1).	performed.
reperfused ST-elevation-myocardial infarction						
Long-term prognostic value of myocardial salvage	Eitel	Heart	2011	Low	Of 267 consecutive patients with STEMI, this prospective CMR study	Consecutive recruitment was
assessed by cardiovascular magnetic resonance in acute					included 208 patients.	performed.
reperfused myocardial infarction						
Cardiovascular magnetic resonance of the myocardium at	Ubachs	J Cardiov Magn	2010	Unclear	Thirty-seven patients (age; $62 \pm 10$ , $32$ males) with first-time myocardial	Recruitment was not described in
risk in acute reperfused myocardial infarction: comparison		Reson			infarction, presenting with acute ST-elevation myocardial infarction	sufficient detail to evaluate whether
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of T2-weighted imaging versus the circumferential					(STEMI), due to a single occluded coronary artery as seen by	consecutive recruitment was
endocardial extent of late gadolinium enhancement with					angiography, were included in the study.	performed.
transmural projection						
Myocardial salvage by CMR correlates with LV	Masci	JACC Cardiovasc	2010	Low	Between May 2006 and January 2009, 297 consecutive acute ST-segment	Consecutive recruitment was
remodeling and early ST-segment resolution in acute		Imaging			elevation MI patients from three tertiary referral centres [156 at UZ	performed.
myocardial infarction					Leuven, Leuven, Belgium (Centre A), 73 at La Sapienza University	
					Hospital, Rome, Italy (Centre B), and 68 at Fondazione G. Monasterio,	
					Pisa, Italy (Centre C)] were prospectively studied by CMR at 1 week	
					(baseline) and 4 months (follow-up) after MI.	
A pilot study of rapid cooling by cold saline and	Gotberg	Circ Cardiovasc	2010	Unclear	From March 2007 to October 2009, patients were enrolled in this	Recruitment was not described in
endovascular cooling before reperfusion in patients with		Interv			prospective, randomized, single-center study to test the feasibility and	sufficient detail to evaluate whether
ST-elevation myocardial infarction					safety of an infusion of cold saline together with endovascular	consecutive recruitment was
					hypothermia, using the Celsius Control System (Innercool Therapies Inc,	performed.
					San Diego, Calif) as an adjunct therapy in patients with an acute STEMI	
					eligible for primary PCI.	
Quantification of myocardial area at risk with T2-weighted	Wright	JACC Cardiovasc	2009	Low	One hundred nineteen consecutive patients underwent CMR during the in-	Consecutive recruitment was
CMR: comparison with contrast-enhanced CMR and		Imaging			hospital phase.	performed.
coronary angiography						
Impact of primary coronary angioplasty delay on	Francone	J Am Coll Cardiol	2009	Low	Between October 2007 and May 2008, 75 consecutive patients with first	Consecutive recruitment was
myocardial salvage, infarct size, and microvascular					STEMI undergoing PPCI within 12 h after the onset of symptoms were	performed.
damage in patients with ST-segment elevation myocardial					prospectively enrolled in the study.	
infarction: insight from cardiovascular magnetic resonance						