Supplementary Table 1 – Overview of studies evaluating use of cardiac troponins for diagnosis of myocardial infarction in emergency chest pain presentations in CKD

Study	N	Biomarker	eGFR	Prediction of MI		
				Sensitivity	Specificity	AUC/PVs
Ballocca et al.[1] 2017	113	cTnI at 3.5 hr > 26.0 ng/L	<30	64%	49%	0.6
	113	cTnI at 3.5 hr > 26.0 ng/L	30–60	65%	45%	0.57
	113	Peak cTnI > 26.0 ng/L	<30	65%	88%	0.8
	113	Peak cTnI > 26.0 ng/L	30–60	79%	90%	0.88
	534	cTnT at 3.5 hrs > 14.0 ng/L	<30	59%	43%	0.52
	534	cTnT at 3.5 hrs > 14.0 ng/L	30–60	65%	45%	0.57
Chenevier-Gobeaux et al.[2] 2013	534	Peak cTnT > 14.0 ng/L	<30	83%	52%	0.74
	534	Peak cTnT > 14.0 ng/L	30–60	84%	54%	0.74
	291	Peak cTnT > 14.0 ng/L	>60	90%	86%	0.91
	75	Peak cTnT > 14.0 ng/L	≤60	100%	54%	NR
	75	Peak cTnT > 35.8 ng/L	≤60	94%	86%	0.96
Clemons et al.[3] 2021	60	Δ cTnT ≥ 5 ng/L*	≥60	52%	79%	PPV 73%, NPV 60%
	29	Δ cTnT < 5 ng/L*	<60	74%	63%	PPV 82%, NPV 50%
Gunsolus et al.[4] 2018	722	Presenting cTnI > SST	≥90	76%	95%	PPV 54%, NPV 98%
	421	cTnI > SST at 9 hrs	≥90	94%	94%	PPV 57%, NPV 100%
	445	Presenting cTnI > SST	60–89	62%	88%	PPV 39%, NPV 95%
	259	cTnI > SST at 9 hrs	60–89	93%	87%	PPV 57%, NPV 98%
	229	Presenting cTnI > SST	30–59	51%	79%	PPV 34%, NPV 88%
	149	cTnI > SST at 9 hrs	30–59	97%	68%	PPV 45%, NPV 99%
	81	Presenting cTnI > SST	<30	94%	61%	PPV 39%, NPV 98%
	51	cTnI > SST at 9 hrs	<30	100%	57%	PPV 27%, NPV 100%
	78	Presenting cTnI > SST	Dialysis	70%	40%	PPV 15%, NPV 90%
	42	cTnI > SST at 9 hrs	Dialysis	90%	41%	PPV 32%, NPV 93%

Kraus et al.[5] 2018	7,692	Presenting cTnI > 30 ng/L	≥60	88%	91%	PPV 63%, NPV 98%
	7,692	Presenting cTnT > 14 ng/L	≥60	85%	73%	PPV 39%, NPV 96%
	1,861	Presenting cTnI > 30 ng/L	<60	92%	82%	PPV 64%, NPV 97%
	1,861	Presenting cTnI > 54 ng/L	<60	82%	90%	PPV 74%, NPV 93%
	1,861	Presenting cTnT > 14 ng/L	<60	94%	26%	PPV 33%, NPV 92%
	1,861	Presenting cTnT > 50 ng/L	<60	66%	80%	PPV 57%, NPV 82%
Limkakeng et al.[6] 2021	1,799	Presenting cTnI > 120 ng/L	>60	98%	97%	PPV 80%, NPV 100%
	1,799	Presenting cTnI > 600 ng/L	>60	98%	98%	PPV 87%, NPV 100%
	331	Presenting cTnI > 120 ng/L	31–60	98%	93%	PPV 74%, NPV 100%
	331	Presenting cTnI > 600 ng/L	31–60	98%	97%	PPV 88%, NPV 100%
	65	Presenting cTnI > 120 ng/L	15–30	100%	82%	PPV 61%, NPV 100%
	65	Presenting cTnI > 600 ng/L	15–30	100%	88%	PPV 70%, NPV 100%
	76	Presenting cTnI > 120 ng/L	<15	94%	85%	PPV 63%, NPV 98%
	76	Presenting cTnI > 600 ng/L	<15	94%	93%	PPV 79%, NPV 98%
Martin et al.[7] 1998	56	Presenting cTnI > 800 ng/L	NR	94%	100%	PPV 100%, NPV 94%
Miller-Hodges et al.[8] 2017	3,822	Presenting cTnI ≥ 5 ng/L *	≥60	98%	64%	PPV 27%, NPV 100%
	3,822	Presenting cTnI > SST	≥60	99%	92%	PPV 62%, NPV 100%
	904	Presenting cTnI ≥ SST †	<60	99%	23%	PPV 30%, NPV 98%
	904	Presenting cTnI > SST	<60	98%	71%	PPV 50%, NPV 99%
Vasudevan et al.[9] 2017	343	Peak cTn > 99th percentile ††	≥60	NR	NR	0.98
	87	Peak cTn > 99th percentile ††	<60	NR	NR	0.93

AUC or predictive values are given according to which are reported by study authors. ACS = acute coronary syndrome. * indicates test for ACS rather than MI per se. † indicates test for composite outcome of MI at index presentation or re-admission with MI within 30 days. †† for this study, multiple troponin assays were used and the authors analysed troponins in multiples of the 99th percentile upper limit of normal for each assay. AUC = area under receiver operator curve. MI = myocardial infarction. NR = not reported. NPV = negative predictive value. PPV = positive predictive value. SST = sex-specific threshold of 16 ng/L in women and 34 ng/L in men. Δ indicates change in troponin value across ≥ 2 tests.

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