Appendix 3 (as supplied by the authors): Supplemental Tables 1–4

Supplemental Table 1. The cut-points and assigned points used in the CCS. The maximum score is 5 with the minimum score being 0.
CCS with hs-cTnI
i) An eGFR value <90 mL/min/1.73m^2 (derived from the CKD-EPI equation) was assigned a score of 1, with ≥90 mL/min/1.73m^2 assigned a score of 0, as ≥90 mL/min/1.73m^2 represents normal kidney function with this cutoff also being demonstrated in the ED setting as the optimal cutoff for risk-stratification for ACS. ii) A glucose ≥5.6 mmol/L was assigned a score of 1, with <5.6 mmol/L a score of 0, as this represents a low/normal glycemic status in patients, with this cut-point also applied in previous studies for ACS risk-stratification. iii) A low measurable hs-cTnI concentration was assigned a score of 0 for hs-cTnI <4 ng/L; a score of 1 for hs-cTnI 4-14 ng/L; a score of 2 for hs-cTnI 15-30ng/L; and a score of 3 for hs-cTnI >30 ng/L.
CCS with hs-cTnT

i) An eGFR value <90 mL/min/1.73m^2 (derived from the CKD-EPI equation) was assigned a score of 1, with ≥90 mL/min/1.73m^2 assigned a score of 0.

ii) A glucose ≥5.6 mmol/L was assigned a score of 1, with <5.6 mmol/L a score of 0.

iii) A low measurable hs-cTnT concentration was assigned a score of 0 for hs-cTnT <8 ng/L; a score of 1 for hs-cTnT 8-18ng/L; a score of 2 for hs-cTnT 19-30 ng/L; and a score of 3 for hs-cTnT >30 ng/L.

Supplemental Table 2. Performance of the CCS for 30-day MI/death as stratified by sex and compared to hs-cTn alone.

Laboratory Test	30-day MI/Death	No Outcome
Women		
CCS hs-cTnI		
>0	267	1346
0	0	173
Sensitivity (95%CI)	100% (98.6-100)	
NPV (95%CI)	100% (97.4-100)	
Negative Likelihood Ratio (95%CI)	0 (0-0.12)	
CCS hs-cTnT		
>0	267	1321
0	0	198
Sensitivity (95%CI)	100% (98.6-100)	
NPV (95%CI)	100% (97.7-100)	
Negative Likelihood Ratio (95%CI)	0 (0-0.11)	
hs-cTnI ≥5 ng/L	259	613
hs-cTnI < 5ng/L	8	906
Sensitivity (95%CI)	97.0% (94.2-98.7)	
NPV (95%CI)	99.1% (98.3-99.6)	
Negative Likelihood Ratio (95%CI)	0.05 (0.03-0.10)	
hs-cTnT ≥6 ng/L	262	872
hs-cTnT < 6ng/L	5	647
Sensitivity (95%CI)	98.1% (95.7-99.4)	
NPV (95%CI)	99.2% (98.2-99.7)	
Negative Likelihood Ratio (95%CI)	0.05 (0.02-0.10)	
CCS hs-cTnI		
5	134	55
<5	133	1464
Specificity (95%CI)	96.4% (95.3-97.3)	
PPV (95%CI)	70.9% (64.7-76.4)	
Positive Likelihood Ratio (95%CI)	13.9 (10.4-18.4)	
CCS hs-TnT		
5	129	85
<5	138	1434
Specificity (95%CI)	94.4% (93.1-95.5)	

PPV (95%CI)	60.3% (54.4-65.9)	
Positive Likelihood Ratio (95%CI)	8.6 (6.8-11.0)	
hs-cTnI > 26ng/L	200	97
hs-cTnI ≤26ng/L	67	1422
Specificity (95%CI)	93.6% (92.3-94.8)	
PPV (95%CI)	67.3% (62.7-71.7)	
Positive Likelihood Ratio (95%CI)	11.7 (9.6-14.4)	
hs-cTnT >14 ng/L	232	363
hs-cTnT ≤14 ng/L	35	1156
Specificity (95%CI)	76.1% (73.9-78.2)	
PPV (95%CI)	39.0% (36.6-41.4)	
Positive Likelihood Ratio (95%CI)	3.6 (3.3-4.0)	

Laboratory Test	30-day MI/Death	No outcome
Men		
CCS hs-cTnI		
>0	460	1794
0	0	205
Sensitivity (95%CI)	100% (99.2-100)	
NPV (95%CI)	100% (97.8-100)	
Negative Likelihood Ratio (95%CI)	0 (0-0.08)	
CCS hs-cTnT		
>0	459	1761
0	1	238
Sensitivity (95%CI)	99.8% (98.8-100)	
NPV (95%CI)	99.6% (97.1-99.9)	
Negative Likelihood Ratio (95%CI)	0.02 (0-0.10)	
hs-cTnI ≥5 ng/L	443	930
hs-cTnI < 5ng/L	17	1069
Sensitivity (95%CI)	96.3% (94.1-97.8)	
NPV (95%CI)	98.4% (97.5-99.0)	
Negative Likelihood Ratio (95%CI)	0.07 (0.04-0.11)	
hs-cTnT ≥6 ng/L	452	1390
hs-cTnT < 6ng/L	8	609
Sensitivity (95%CI)	98.3% (96.6-99.2)	
NPV (95%CI)	98.7% (97.4-99.3)	
Negative Likelihood Ratio (95%CI)	0.06 (0.03-0.11)	

CCS hs-cTnI		
5	224	64
<5	236	1935
Specificity (95%CI)	96.8% (95.9-97.5)	
PPV (95%CI)	77.8% (73.0-81.9)	
Positive Likelihood Ratio (95%CI)	15.2 (11.8-19.7)	
CCS hs-cTnT		
5	213	127
<5	247	1872
Specificity (95%CI)	93.6% (92.5-94.7)	
PPV (95%CI)	62.6% (58.0-67.1)	
Positive Likelihood Ratio (95%CI)	7.3 (6.0-8.9)	
hs-cTnI > 26ng/L	337	142
hs-cTnI ≤ 26ng/L	123	1857
Specificity (95%CI)	92.9% (91.7-94.0)	
PPV (95%CI)	70.4% (66.7-73.7)	
Positive Likelihood Ratio (95%CI)	10.3 (8.7-12.2)	
hs-cTnT >14 ng/L	408	559
hs-cTnT ≤14 ng/L	52	1440
Specificity (95%CI)	72.0% (70.0-74.0)	
PPV (95%CI)	42.1% (40.3-44.1)	
Positive Likelihood Ratio (95%CI)	3.2 (2.9-3.4)	

Note: CCS = clinical chemistry score, CI = confidence interval, hs-cTnI = high-sensitivity cardiac troponin I, hs-cTnT = high-sensitivity cardiac troponin T, MI = myocardial infarction, NPV = negative predictive value, PPV = positive predictive value.

Supplemental Table 3. Performance of the CCS for the diagnosis of MI and compared to hs-cTn alone in the combined population of 4245 patients.

Laboratory Test	Index MI	No outcome
CCS hs-cTnI		
>0	672	3195
0	0	378
Sensitivity (95%CI)	100% (99.5-100)	
NPV (95%CI)	100% (98.8-100)	
Negative Likelihood Ratio (95%CI)	0 (0-0.05)	
CCS hs-cTnT		
>0	671	3130
0	1	443
Sensitivity (95%CI)	99.9% (99.2-100)	
NPV (95%CI)	99.8% (98.4-100)	
Negative Likelihood Ratio (95%CI)	0.01 (0-0.07)	
hs-cTnI ≥5 ng/L	652	1593
hs-cTnI < 5ng/L	20	1980
Sensitivity (95%CI)	97.0% (95.4-98.2)	
NPV (95%CI)	99.0% (98.5-99.3)	
Negative Likelihood Ratio (95%CI)	0.05 (0.03-0.08)	
hs-cTnT ≥6 ng/L	660	2316
hs-cTnT < 6ng/L	12	1257
Sensitivity (95%CI)	98.2% (96.9-99.0)	
NPV (95%CI)	99.1% (98.4-99.5)	
Negative Likelihood Ratio (95%CI)	0.05 (0.03-0.09)	
CCS hs-cTnI		
5	340	137
<5	332	3436
Specificity (95%CI)	96.2% (95.5-96.8)	
PPV (95%CI)	71.3% (67.4-74.8)	
Positive Likelihood Ratio (95%CI)	13.2 (11.0-15.8)	
CCS hs-cTnT		
5	318	236
<5	354	3337

Specificity (95%CI)	93.4% (92.5-94.2)	
PPV (95%CI)	57.4% (53.8-60.9)	
Positive Likelihood Ratio (95%CI)	7.2 (6.2-8.3)	
hs-cTnI > 26ng/L	513	263
hs-cTnI ≤26ng/L	159	3310
Specificity (95%CI)	92.6% (91.7-93.5)	
PPV (95%CI)	66.1% (63.3-68.8)	
Positive Likelihood Ratio (95%CI)	10.4 (9.2-11.7)	
hs-cTnT >14 ng/L	596	966
hs-cTnT ≤14 ng/L	76	2607
Specificity (95%CI)	73.0% (71.5-74.4)	
PPV (95%CI)	38.2% (36.7-39.6)	
Positive Likelihood Ratio (95%CI)	3.3 (3.1-3.5)	

Note: CCS = clinical chemistry score, CI = confidence interval, hs-cTnI = high-sensitivity cardiac troponin I, hs-cTnT = high-sensitivity cardiac troponin T, MI = myocardial infarction, NPV = negative predictive value, PPV = positive predictive value.

Supplemental Table 4. Performance of the CCS for 30-day UA/MI/death and compared to hs-cTn alone in the Hamilton, Brisbane and Christchurch ED cohorts (n=2833).

Laboratory Test	30-day UA/MI/Death	No Outcome
CCS hs-cTnI		
>0	581	1982
0	4	266
Sensitivity (95%CI)	99.3% (98.3-99.8)	
NPV (95%CI)	98.5% (96.1-99.4)	
Negative Likelihood Ratio (95%CI)	0.06 (0.02-0.15)	
CCS hs-cTnT		
>0	578	1962
0	7	286
Sensitivity (95%CI)	98.8% (97.6-99.5)	
NPV (95%CI)	97.6% (95.1-98.9)	
Negative Likelihood Ratio (95%CI)	0.09 (0.05-0.19)	
hs-cTnI ≥5 ng/L	513	893
hs-cTnI < 5ng/L	72	1355
Sensitivity (95%CI)	87.7%(84.8-90.2)	
NPV (95%CI)	95.0%(93.8-95.9)	
Negative Likelihood Ratio (95%CI)	0.20 (0.16-0.25)	
hs-cTnT ≥6 ng/L	544	1411
hs-TnT < 6ng/L	41	837
Sensitivity (95%CI)	93.0% (90.6-94.9)	
NPV (95%CI)	95.3% (93.8-96.5)	
Negative Likelihood Ratio (95%CI)	0.19 (0.14-0.25)	
CCS hs-cTnI		
5	235	67
<5	350	2181
Specificity (95%CI)	97.0% (96.2-97.7)	
PPV (95%CI)	77.8% (73.1-81.9)	
Positive Likelihood Ratio (95%CI)	13.5 (10.4-17.4)	
CCS hs-cTnT		
5	227	137
<5	358	2111
Specificity (95%CI)	93.9% (92.8-94.9)	

PPV (95%CI)	62.4% (57.8-66.7)	
Positive Likelihood Ratio (95%CI)	6.4 (5.3-7.7)	
hs-cTnI > 26ng/L	363	132
hs-cTnI ≤ 26ng/L	222	2116
Specificity (95%CI)	94.1% (93.1-95.1)	
PPV (95%CI)	73.3% (69.7-76.7)	
Positive Likelihood Ratio (95%CI)	10.6 (8.9-12.6)	
hs-cTnT >14 ng/L	447	557
hs-TnT ≤14 ng/L	138	1691
Specificity (95%CI)	75.2% (73.4-77.0)	
PPV (95%CI)	44.5% (42.4-46.6)	
Positive Likelihood Ratio (95%CI)	3.1 (2.8-3.4)	

Note: CCS = clinical chemistry score, CI = confidence interval, hs-cTnI = high-sensitivity cardiac troponin I, hs-cTnT = high-sensitivity cardiac troponin T, MI = myocardial infarction, NPV = negative predictive value, PPV = positive predictive value, UA = unstable angina.