

## Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Reichlin T, Hochholzer W, Bassetti S, et al. Early diagnosis of myocardial infarction with sensitive cardiac troponin assays. *N Engl J Med* 2009;361:858-67.

<b>Table 3 A</b>		<b>Diagnostic Performance of Cardiac Troponin at Presentation in Patients within 3 hours from Symptom Onset (n=222)</b>			
		<b>Sensitivity (95% CI)</b>	<b>Specificity (95% CI)</b>	<b>Negative Predictive Value (95% CI)</b>	<b>Positive Predictive Value (95% CI)</b>
<b>Sensitive Troponin Assays</b>					
<b>Abbott Troponin I</b>					
Limit of Detection	(0.010 ug/l)	85 (66–96)	90 (85–94)	98 (94–99)	55 (39–70)
99th Percentile	(0.028 ug/l)	70 (50–86)	96 (92–98)	96 (92–98)	70 (50–86)
10% CV	(0.032 ug/l)	70 (50–86)	96 (93–99)	96 (92–98)	73 (52–88)
<b>Roche High-Sensitive Troponin T</b>					
Limit of Detection	(0.002 ug/l)	100 (87–100)	15 (11–21)	100 (88–100)	14 (10–20)
99th Percentile	(0.014 ug/l)*	85 (66–96)	84 (78–89)	98 (94–99)	42 (29–56)
<b>Roche Troponin I</b>					
Limit of Detection	(0.100 ug/l)	85 (66–96)	91 (86–95)	98 (95–99)	58 (41–73)
99th Percentile	(0.160 ug/l)	63 (42–81)	96 (93–99)	95 (91–98)	71 (49–87)
10% CV	(0.300 ug/l)	41 (22–61)	98 (95–99)	92 (88–96)	73 (45–92)
<b>Siemens Troponin I Ultra</b>					
Limit of Detection	(0.006 ug/l)	92 (75–99)	74 (67–80)	99 (95–100)	33 (22–45)
99th Percentile	(0.040 ug/l)*	77 (56–91)	95 (90–97)	97 (93–99)	67 (47–83)
<b>Standard Troponin Assay</b>					
<b>Roche Troponin T 4th Generation</b>					
99th Percentile	(unknown)				
Limit of Detection	(0.010 ug/l)	56 (35–75)	95 (91–98)	94 (90–97)	60 (39–79)
10% CV	(0.035 ug/l)	44 (26–65)	99 (96–100)	93 (88–96)	80 (52–95)

\* Criterion of 10% CV fulfilled at 99th percentile

<b>Table 3 B</b>		<b>Diagnostic Performance of Cardiac Troponin at Serial Sampling (Area under the Curve, 95% CI)</b>				
	<b>Presentation (n=718)</b>	<b>1 hour (n=519)</b>	<b>2 hours (n=440)</b>	<b>3 hours (n=413)</b>	<b>6 hours (n=299)</b>	
<b>Sensitive Troponin Assays</b>						
Abbott Troponin I	0.96 (0.94-0.98)	0.97 (0.96-0.99)	0.96 (0.93-0.99)	0.98 (0.97-0.99)	0.97 (0.95-0.99)	
Roche High-Sensitive Troponin T	0.96 (0.94-0.98)	0.98 (0.96-0.99)	0.96 (0.93-0.99)	0.98 (0.97-0.99)	0.98 (0.96-0.99)	
Roche Troponin I	0.95 (0.92-0.97)	0.96 (0.93-0.99)	0.96 (0.92-1.00)	0.98 (0.96-0.99)	0.96 (0.92-0.99)	
Siemens Troponin I Ultra	0.96 (0.94-0.98)	0.97 (0.96-0.99)	0.96 (0.93-1.00)	0.98 (0.97-1.00)	0.97 (0.94-0.99)	
<b>Standard Troponin Assay</b>						
Roche Troponin T	0.90 (0.86-0.94)	0.95 (0.91-0.98)	0.95 (0.91-0.99)	0.97 (0.94-1.00)	0.98 (0.96-0.99)	

<b>Table 3 C</b>		<b>Diagnostic Performance of Absolute Values of Early Changes (<math> \Delta 1h-0h </math> and <math> \Delta 2h-0h </math>) in Cardiac Troponin and the Combination of the Troponin Level at Presentation with Early Changes during Serial Sampling (Area under the Curve, 95% CI)</b>				
	<b>0h (n=718)</b>	<b><math> \Delta 1h-0h </math> (n=519)</b>	<b>0h plus <math> \Delta 1h-0h </math> (n=519)</b>	<b><math> \Delta 2h-0h </math> (n=440)</b>	<b>0h plus <math> \Delta 2h-0h </math> (n=440)</b>	
<b>Sensitive Troponin Assays</b>						
Abbott Troponin I	0.96 (0.94-0.98)	0.95 (0.92-0.98)	0.97 (0.96-0.99)	0.96 (0.93-0.99)	0.97 (0.95-0.99)	
Roche High-Sensitive Troponin T	0.96 (0.94-0.98)	0.93 (0.89-0.97)	0.98 (0.96-0.99)	0.95 (0.91-0.99)	0.97 (0.96-0.99)	
Roche Troponin I	0.95 (0.92-0.97)	0.88 (0.83-0.93)	0.95 (0.92-0.98)	0.91 (0.85-0.96)	0.96 (0.94-0.99)	
Siemens Troponin I Ultra	0.96 (0.94-0.98)	0.94 (0.90-0.97)	0.96 (0.94-0.99)	0.95 (0.91-0.99)	0.97 (0.94-0.99)	
<b>Standard Troponin Assay</b>						
Roche Troponin T	0.90 (0.86-0.94)	0.95 (0.91-0.98)	0.95 (0.91-0.99)	0.95 (0.91-0.99)	0.96 (0.93-0.99)	