

**Appendix 10 (as supplied by the authors): Comparison of C-indices (95% confidence intervals) from different model specifications for a Cox model for mortality**

	Development model <sup>1</sup>		Adjusted scores <sup>2</sup>				Unadjusted scores <sup>3</sup>			
	37 conditions	20 conditions	Extended outcome-specific scores	Primary outcome-specific scores	Charlson comorbidity index	Primary general-outcome score	Extended outcome-specific scores	Primary outcome-specific scores	Charlson comorbidity index	Primary general-outcome score
C-index										
Development dataset	0.921	0.919	0.912	0.911	0.906	0.914	0.866	0.867	0.802	0.881
2015, 1-year follow-up	0.920 (0.914-0.926)	0.918 (0.912-0.924)	0.912 (0.905-0.918)	0.910 (0.904-0.917)	0.907 (0.900-0.914)	0.913 (0.907-0.920)	0.868 (0.857-0.878)	0.868 (0.857-0.879)	0.804 (0.792-0.815)	0.880 (0.872-0.889)
2011, 1-year follow-up	0.910 (0.904-0.917)	0.908 (0.902-0.915)	0.901 (0.894-0.908)	0.900 (0.892-0.907)	0.899 (0.892-0.906)	0.902 (0.895-0.909)	0.843 (0.831-0.856)	0.841 (0.829-0.854)	0.781 (0.768-0.793)	0.857 (0.847-0.867)
2011, 5-year follow-up	0.897 (0.894-0.901)	0.895 (0.892-0.899)	0.890 (0.886-0.894)	0.889 (0.885-0.892)	0.887 (0.883-0.890)	0.891 (0.887-0.894)	0.793 (0.787-0.800)	0.795 (0.788-0.801)	0.742 (0.736-0.748)	0.824 (0.819-0.830)

1. Using predictions from the score development model with the conditions as binary indicators, adjusted by age and gender.
2. Using predictions from a model including each score (sum of weights) adjusted by age and gender.
3. Using the score directly, without the use of a model (unadjusted).

Extended scores include all 37 conditions. Primary scores include only the 20 most important conditions according to prevalence and impact. Confidence intervals are provided only for validation datasets.