

Supplementary Table S1: Sensitivity and specificity of each threshold of CURB, CRB, PMEWS and NEWS2 for predicting the primary and secondary outcomes

Threshold	Primary: Adverse outcome		Secondary: Death without support		Secondary: Any Support	
	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)
CURB-65						
>0	0.90 (0.89 to 0.91)	0.44 (0.43 to 0.45)	0.97 (0.96 to 0.98)	0.41 (0.40 to 0.42)	0.81 (0.79 to 0.82)	0.38 (0.38 to 0.39)
>1	0.71 (0.70 to 0.72)	0.69 (0.69 to 0.70)	0.86 (0.85 to 0.87)	0.67 (0.66 to 0.68)	0.52 (0.50 to 0.54)	0.62 (0.61 to 0.63)
>2	0.39 (0.38 to 0.41)	0.88 (0.88 to 0.89)	0.53 (0.51 to 0.55)	0.87 (0.87 to 0.88)	0.22 (0.20 to 0.24)	0.83 (0.82 to 0.83)
>3	0.14 (0.13 to 0.15)	0.98 (0.97 to 0.98)	0.21 (0.19 to 0.23)	0.97 (0.97 to 0.97)	0.06 (0.05 to 0.07)	0.95 (0.95 to 0.95)
>4	0.02 (0.02 to 0.03)	1.00 (1.00 to 1.00)	0.03 (0.03 to 0.04)	1.00 (1.00 to 1.00)	0.01 (0.00 to 0.01)	0.99 (0.99 to 0.99)
CRB-65						
>0	0.86 (0.85 to 0.87)	0.48 (0.47 to 0.48)	0.96 (0.95 to 0.97)	0.45 (0.44 to 0.46)	0.74 (0.72 to 0.76)	0.42 (0.41 to 0.42)
>1	0.49 (0.47 to 0.50)	0.82 (0.81 to 0.82)	0.63 (0.61 to 0.65)	0.80 (0.80 to 0.81)	0.30 (0.28 to 0.32)	0.76 (0.75 to 0.76)
>2	0.17 (0.16 to 0.18)	0.96 (0.96 to 0.97)	0.25 (0.23 to 0.27)	0.96 (0.96 to 0.96)	0.07 (0.06 to 0.08)	0.94 (0.93 to 0.94)
>3	0.03 (0.02 to 0.03)	1.00 (1.00 to 1.00)	0.04 (0.04 to 0.05)	1.00 (1.00 to 1.00)	0.01 (0.01 to 0.01)	0.99 (0.99 to 0.99)
PMEWS						
>0	1.00 (1.00 to 1.00)	0.05 (0.05 to 0.06)	1.00 (1.00 to 1.00)	0.05 (0.05 to 0.05)	1.00 (1.00 to 1.00)	0.05 (0.04 to 0.05)
>1	0.99 (0.99 to 0.99)	0.17 (0.16 to 0.17)	1.00 (0.99 to 1.00)	0.15 (0.14 to 0.15)	0.99 (0.98 to 0.99)	0.14 (0.14 to 0.15)
>2	0.97 (0.96 to 0.97)	0.30 (0.30 to 0.31)	0.99 (0.98 to 0.99)	0.28 (0.27 to 0.28)	0.94 (0.93 to 0.95)	0.27 (0.26 to 0.27)
>3	0.89 (0.88 to 0.90)	0.45 (0.45 to 0.46)	0.92 (0.91 to 0.93)	0.42 (0.41 to 0.43)	0.85 (0.84 to 0.87)	0.40 (0.40 to 0.41)
>4	0.78 (0.76 to 0.79)	0.60 (0.59 to 0.61)	0.83 (0.81 to 0.84)	0.57 (0.56 to 0.57)	0.72 (0.70 to 0.74)	0.54 (0.54 to 0.55)
>5	0.65 (0.64 to 0.67)	0.73 (0.72 to 0.74)	0.71 (0.69 to 0.73)	0.70 (0.69 to 0.70)	0.58 (0.56 to 0.60)	0.67 (0.66 to 0.68)
>6	0.51 (0.50 to 0.53)	0.83 (0.82 to 0.83)	0.57 (0.55 to 0.59)	0.80 (0.79 to 0.80)	0.44 (0.42 to 0.46)	0.77 (0.77 to 0.78)
>7	0.37 (0.36 to 0.39)	0.90 (0.89 to 0.90)	0.43 (0.41 to 0.45)	0.87 (0.87 to 0.88)	0.31 (0.29 to 0.33)	0.85 (0.85 to 0.86)
>8	0.26 (0.25 to 0.27)	0.94 (0.94 to 0.94)	0.31 (0.29 to 0.33)	0.92 (0.92 to 0.93)	0.20 (0.18 to 0.21)	0.91 (0.90 to 0.91)
>9	0.17 (0.16 to 0.18)	0.97 (0.97 to 0.97)	0.22 (0.21 to 0.24)	0.96 (0.96 to 0.96)	0.11 (0.10 to 0.13)	0.94 (0.94 to 0.95)
>10	0.11 (0.10 to 0.12)	0.98 (0.98 to 0.99)	0.14 (0.13 to 0.16)	0.98 (0.98 to 0.98)	0.07 (0.06 to 0.08)	0.97 (0.96 to 0.97)

>11	0.06 (0.06 to 0.07)	0.99 (0.99 to 0.99)	0.09 (0.08 to 0.10)	0.99 (0.99 to 0.99)	0.03 (0.03 to 0.04)	0.98 (0.98 to 0.98)
>12	0.03 (0.03 to 0.04)	1.00 (1.00 to 1.00)	0.05 (0.04 to 0.06)	1.00 (0.99 to 1.00)	0.01 (0.01 to 0.02)	0.99 (0.99 to 0.99)
>13	0.02 (0.01 to 0.02)	1.00 (1.00 to 1.00)	0.03 (0.02 to 0.03)	1.00 (1.00 to 1.00)	0.01 (0.00 to 0.01)	1.00 (0.99 to 1.00)
>14	0.01 (0.01 to 0.01)	1.00 (1.00 to 1.00)	0.01 (0.01 to 0.02)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.01)	1.00 (1.00 to 1.00)
>15	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.01)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)
>16	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)
>17	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)
NEWS2						
>0	0.98 (0.98 to 0.99)	0.14 (0.13 to 0.15)	0.98 (0.98 to 0.99)	0.13 (0.12 to 0.13)	0.98 (0.98 to 0.99)	0.12 (0.12 to 0.13)
>1	0.96 (0.95 to 0.96)	0.28 (0.28 to 0.29)	0.96 (0.95 to 0.96)	0.26 (0.25 to 0.26)	0.96 (0.95 to 0.96)	0.25 (0.24 to 0.26)
>2	0.92 (0.91 to 0.93)	0.40 (0.39 to 0.41)	0.92 (0.91 to 0.93)	0.37 (0.36 to 0.37)	0.92 (0.90 to 0.93)	0.36 (0.35 to 0.37)
>3	0.85 (0.84 to 0.86)	0.53 (0.52 to 0.54)	0.86 (0.84 to 0.87)	0.49 (0.48 to 0.50)	0.84 (0.82 to 0.86)	0.48 (0.47 to 0.48)
>4	0.77 (0.76 to 0.78)	0.64 (0.63 to 0.65)	0.78 (0.76 to 0.79)	0.60 (0.59 to 0.60)	0.76 (0.74 to 0.78)	0.58 (0.58 to 0.59)
>5	0.66 (0.65 to 0.68)	0.74 (0.73 to 0.75)	0.68 (0.66 to 0.69)	0.70 (0.69 to 0.70)	0.64 (0.62 to 0.67)	0.68 (0.68 to 0.69)
>6	0.54 (0.52 to 0.55)	0.82 (0.82 to 0.83)	0.56 (0.54 to 0.57)	0.78 (0.78 to 0.79)	0.51 (0.49 to 0.54)	0.77 (0.77 to 0.78)
>7	0.43 (0.42 to 0.45)	0.88 (0.88 to 0.89)	0.46 (0.44 to 0.48)	0.85 (0.85 to 0.86)	0.40 (0.38 to 0.42)	0.84 (0.83 to 0.84)
>8	0.32 (0.30 to 0.33)	0.93 (0.92 to 0.93)	0.35 (0.33 to 0.37)	0.91 (0.90 to 0.91)	0.27 (0.25 to 0.29)	0.89 (0.89 to 0.89)
>9	0.21 (0.20 to 0.23)	0.96 (0.95 to 0.96)	0.25 (0.23 to 0.26)	0.94 (0.94 to 0.95)	0.17 (0.16 to 0.19)	0.93 (0.93 to 0.93)
>10	0.14 (0.13 to 0.15)	0.98 (0.97 to 0.98)	0.17 (0.16 to 0.19)	0.97 (0.96 to 0.97)	0.10 (0.09 to 0.12)	0.96 (0.95 to 0.96)
>11	0.08 (0.08 to 0.09)	0.99 (0.98 to 0.99)	0.11 (0.10 to 0.12)	0.98 (0.98 to 0.98)	0.05 (0.05 to 0.07)	0.97 (0.97 to 0.98)
>12	0.05 (0.04 to 0.06)	0.99 (0.99 to 0.99)	0.07 (0.06 to 0.08)	0.99 (0.99 to 0.99)	0.03 (0.03 to 0.04)	0.99 (0.98 to 0.99)
>13	0.03 (0.03 to 0.04)	1.00 (1.00 to 1.00)	0.04 (0.03 to 0.05)	1.00 (0.99 to 1.00)	0.02 (0.01 to 0.03)	0.99 (0.99 to 0.99)
>14	0.01 (0.01 to 0.02)	1.00 (1.00 to 1.00)	0.02 (0.01 to 0.02)	1.00 (1.00 to 1.00)	0.01 (0.01 to 0.01)	1.00 (1.00 to 1.00)
>15	0.01 (0.00 to 0.01)	1.00 (1.00 to 1.00)	0.01 (0.01 to 0.01)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.01)	1.00 (1.00 to 1.00)
>16	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.01)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)
>17	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)
>18	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)	0.00 (0.00 to 0.00)	1.00 (1.00 to 1.00)