

Appendix – qSOFA, SIRS, and NEWS for predicting in-hospital mortality and ICU admission in emergency admissions treated as sepsis

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Supplementary tables

Prognostic accuracy of scoring system for composite outcome

Table e1. Prognostic accuracy of scoring systems (95% CI) for predicting composite of in-hospital death or ICU admission in patients with suspected sepsis.

| | qSOFA | SIRS | NEWS |
|------------------------------|------------------|------------------|------------------|
| Sensitivity, % | 37 (32-43) | 80 (75-84) | 74 (69-79) |
| Specificity, % | 80 (78-82) | 21 (19-23) | 44 (41-46) |
| Positive predictive value, % | 27 (22-31) | 17 (15-19) | 21 (18-23) |
| Negative predictive value, % | 87 (85-88) | 84 (80-88) | 90 (87-92) |
| Positive likelihood ratio | 1.83 (1.53-2.18) | 1.01 (0.95-1.08) | 1.32 (1.22-1.43) |
| Negative likelihood ratio | 0.79 (0.72-0.86) | 0.96 (0.75-1.22) | 0.59 (0.49-0.72) |
| AUROC | 0.62 (0.59-0.66) | 0.50 (0.46-0.53) | 0.65 (0.62-0.69) |

All analyses except AUROC used thresholds of qSOFA ≥ 2 , SIRS ≥ 2 , and NEWS ≥ 5 .

Prognostic accuracy of scoring systems across values

Table e2. Prognostic accuracy of qSOFA across all values.

| Score (n) | In-hospital death | | ICU admission | |
|-----------|-------------------|----------------|----------------|----------------|
| | Sensitivity, % | Specificity, % | Sensitivity, % | Specificity, % |
| ≥1 (1120) | 77 | 41 | 75 | 39 |
| ≥2 (421) | 37 | 79 | 36 | 77 |
| 3 (84) | 9 | 96 | 6 | 95 |

Table e3. Prognostic accuracy of SIRS across all values.

| Score (n) | In-hospital death | | ICU admission | |
|-----------|-------------------|----------------|----------------|----------------|
| | Sensitivity, % | Specificity, % | Sensitivity, % | Specificity, % |
| ≥1 (1550) | 86 | 15 | 94 | 15 |
| ≥2 (1436) | 80 | 21 | 85 | 21 |
| ≥3 (742) | 38 | 59 | 45 | 59 |
| 4 (214) | 7 | 93 | 6 | 93 |

Table e4. Prognostic accuracy of NEWS across all values.

| Score (n) | In-hospital death | | ICU admission | |
|-----------|-------------------|----------------|----------------|----------------|
| | Sensitivity, % | Specificity, % | Sensitivity, % | Specificity, % |
| ≥1 (1730) | 96 | 5 | 96 | 5 |
| ≥2 (1600) | 93 | 13 | 96 | 12 |
| ≥3 (1443) | 88 | 22 | 96 | 21 |
| ≥4 (1256) | 78 | 33 | 87 | 31 |
| ≥5 (1076) | 74 | 43 | 77 | 41 |
| ≥6 (879) | 66 | 55 | 68 | 52 |
| ≥7 (654) | 56 | 67 | 55 | 65 |
| ≥8 (464) | 44 | 78 | 43 | 75 |
| ≥9 (318) | 33 | 85 | 28 | 83 |
| ≥10 (194) | 26 | 92 | 19 | 90 |
| ≥11 (136) | 18 | 94 | 15 | 93 |
| ≥12 (85) | 14 | 97 | 13 | 96 |
| ≥13 (53) | 10 | 98 | 8 | 97 |
| ≥14 (34) | 7 | 99 | 4 | 98 |
| ≥15 (22) | 5 | 99 | 2 | 99 |
| ≥16 (9) | 2 | 100 | 0 | 99 |
| 17 (4) | 1 | 100 | 0 | 100 |