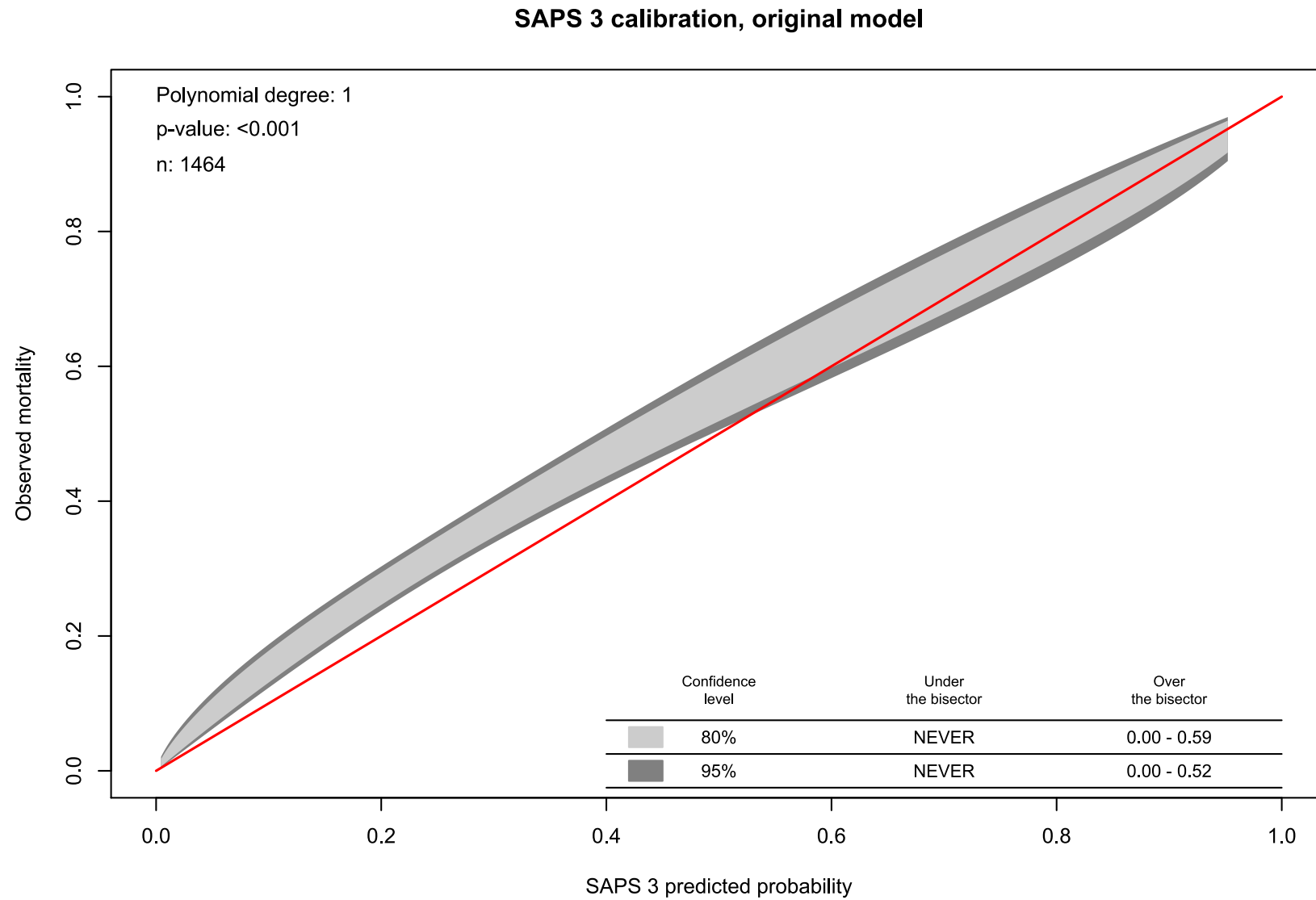


**Table 1** Baseline characteristics, treatments, and outcomes in patients with COVID-19 admitted to intensive care units. ICU = intensive care unit, IQR = inter-quartile range, n = number, NYHA = New York Heart Association, Q1 = quartile 1, Q3 = quartile 3, % = percent

|  | <b>n</b> | <b>%</b> | <b>Median</b> | <b>Q1</b> | <b>Q3</b> |
|--|----------|----------|---------------|-----------|-----------|
| n patients (n)                               | 1464     | 100.0%   |               |           |           |
| Age (median, IQR)                            |          |          | 67.00         | 57.00     | 76.00     |
| Sex (n, %)                                   |          |          |               |           |           |
| female                                       | 439      | 30.0%    |               |           |           |
| male   | 1025     | 70.0%    |               |           |           |
| ICU length of stay [days] (median, IQR)      |          |          | 8.00          | 3.00      | 15.00     |
| Hospital length of stay [days] (median, IQR) |          |          | 17.00         | 9.00      | 26.00     |
| SAPS 3 (median, IQR)                         |          |          | 54.00         | 46.00     | 62.00     |
| ICU mortality (n, %)                         | 393      | 26.9%    |               |           |           |
| Hospital mortality (n, %)                    | 501      | 34.2%    |               |           |           |
| Admission diagnosis (n, %)                   |          |          |               |           |           |
| Metabolic disease                            | 6        | 0.4%     |               |           |           |
| Respiratory disease                          | 1042     | 71.2%    |               |           |           |
| Cardiovascular disease                       | 40       | 2.7%     |               |           |           |
| Shock  | 6        | 0.4%     |               |           |           |
| Renal disease                                | 10       | 0.7%     |               |           |           |
| Neurologic disease                           | 30       | 2.0%     |               |           |           |
| Sepsis                                       | 3        | 0.2%     |               |           |           |
| Trauma (not operated)                        | 24       | 1.6%     |               |           |           |
| Gastrointestinal disease                     | 7        | 0.5%     |               |           |           |
| Cardiovascular surgery                       | 7        | 0.5%     |               |           |           |
| Neurosurgery                                 | 8        | 0.5%     |               |           |           |
| Trauma surgery                               | 14       | 1.0%     |               |           |           |
| Abdominal surgery                            | 25       | 1.7%     |               |           |           |
| Surgery, not otherwise specified             | 7        | 0.5%     |               |           |           |
| Other  | 212      | 14.5%    |               |           |           |
| Comorbidities (n, %)                         |          |          |               |           |           |
| COPD   | 190      | 13.0%    |               |           |           |
| Steroid treatment                            | 58       | 4.0%     |               |           |           |
| Radiotherapy                                 | 9        | 0.6%     |               |           |           |
| Chemotherapy                                 | 17       | 1.2%     |               |           |           |
| Chronic heart failure NYHA 2                 | 164      | 11.2%    |               |           |           |
| Chronic heart failure NYHA 3                 | 79       | 5.4%     |               |           |           |
| Chronic heart failure NYHA 4                 | 18       | 1.2%     |               |           |           |
| Arterial Hypertension                        | 849      | 58.0%    |               |           |           |
| Diabetes, no Insulin treatment               | 294      | 20.1%    |               |           |           |
| Diabetes, Insulin treatment                  | 116      | 7.9%     |               |           |           |
| Haematologic disease                         | 29       | 2.0%     |               |           |           |
| Solid Cancer, metastasising                  | 24       | 1.6%     |               |           |           |
| Solid Cancer, non-metastasising              | 62       | 4.2%     |               |           |           |
| Immunosuppression                            | 43       | 2.9%     |               |           |           |
| Chronic renal failure                        | 200      | 13.7%    |               |           |           |
| Chronic respiratory failure                  | 83       | 5.7%     |               |           |           |
| Liver cirrhosis                              | 21       | 1.4%     |               |           |           |
| Alcoholism                                   | 29       | 2.0%     |               |           |           |

| Treatment [received at least once] (n, %)   |      |       |  |  |  |
|---|------|-------|--|--|--|
| Mechanical ventilation. Any form of mechanical ventilation/assisted ventilation with or without positive end-expiratory pressure, with or without muscle relaxants; spontaneous breathing with positive end-expiratory pressure | 1206 | 82.4% |  |  |  |
| Supplementary ventilatory support. Breathing spontaneously through endotracheal tube without positive end-expiratory pressure, supplementary oxygen by any method, except if mechanical ventilation parameters apply            | 791  | 54.0% |  |  |  |
| Care of artificial airways. Endotracheal tube or tracheostoma.  | 736  | 50.3% |  |  |  |
| Treatments for improving lung function. Thorax physiotherapy, incentive spirometry, inhalation therapy, intratracheal suctioning.   | 1403 | 95.8% |  |  |  |
| Enteral nutrition. Through gastric tube or other gastrointestinal route (e.g., jejunostomy)   | 752  | 51.4% |  |  |  |
| Parenteral nutrition. Intravenous hyperalimentation.  | 790  | 54.0% |  |  |  |
| Kidney replacement therapy. Haemofiltration techniques, dialytic techniques.  | 150  | 10.2% |  |  |  |
| Treatment of complicated metabolic acidosis/alkalosis   | 201  | 13.7% |  |  |  |
| Active diuresis (e.g., furosemide >0.5mg/kg/day for overload)   | 682  | 46.6% |  |  |  |
| Intravenous replacement of large fluid losses. Fluid administration >3l/m <sup>2</sup> /day, disregarding type of fluid administered  | 213  | 14.5% |  |  |  |
| Single specific intervention in the ICU. Naso- or orotracheal intubation, introduction of pacemaker, cardioversion, endoscopies, emergency surgery in the past 24 hrs, gastric lavage.  | 629  | 43.0% |  |  |  |
| Multiple specific interventions in the ICU. More than one, as described above.  | 292  | 19.9% |  |  |  |
| Specific interventions outside the ICU. Surgery or diagnostic procedures.   | 291  | 19.9% |  |  |  |

**Figure 2** "Calibration belt" assessment of goodness of fit for the original SAPS 3 prediction formula.



**Figure 3** “Calibration belt” assessment of goodness of fit for the dedicated COVID-19 prediction formula.

