**Supplemental Table 1. Characteristics of patients classified by body mass index category and glucose levels on admission.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | All patients | BMI low (n = 223) |  | BMI normal (n = 622) |  | BMI high (n = 258) |  |
|  | (n = 1103) | Glucose<70 mg/dL | Glucose≥70 mg/dL | *p* value | Glucose<70 mg/dL | Glucose≥70 mg/dL | *p* value | Glucose<70 mg/dL | Glucose≥70 mg/dL | *p* value |
|  |  | (n = 13) | (n = 210) |  | (n = 38) | (n = 584) |  | (n = 14) | (n = 244) |  |
| Age (years), mean | 73 (64–81) | 71 (58.0–79.5) | 75 (67–83) | 0.224 | 74 (69.5–80) | 73 (64–82) | 0.297 | 68 (64–72.5) | 69 (61–80) | 0.581 |
| Sex, male | 664 (60.2) | 6 (46.2) | 114 (54.3) | 0.568 | 19 (50.0) | 368 (63.0) | 0.109 | 6 (42.8) | 151 (61.9) | 0.156 |
| BMI (kg/m2) | 21.7 (19.0–24.7) | 15.6 (14.9–17.4) | 16.8 (15.2–17.8) | 0.429 | 21.2 (19.7–23.2) | 21.5 (19.9–23.1) | 0.722 | 29.8 (26.4–31.8) | 27.0 (25.8–30.4) | 0.123 |
| Glucose (mg/dL) | 136 (104–188) | 40 (25.5–61) | 133.5 (105–179) | <.0001 | 51.5 (36–63) | 139 (110–192) | <.0001 | 59 (47–53) | 146.5 (116.5–199) | <0.0001 |
| SOFA score | 9 (6–11) | 10 (7–14) | 9 (6–11) | 0.177 | 11 (9–14.5) | 8 (6–11) | <.0001 | 12 (10–13) | 8 (5–12) | 0.00168 |
| APACHE II score | 22 (17–29) | 26 (20–31) | 22 (17–30) | 0.433 | 29 (21–38.5) | 22 (17–29) | 0.0003 | 29.5 (23–35.5) | 22 (16–30) | 0.087 |
| Pre-existing diabetes mellitus | 257 (23.3) | 2 (15.4) | 34 (15.7) | 0.975 | 7 (18.4) | 129 (22.1) | 0.596 | 4 (28.6) | 82 (33.6) | 0.698 |
| Coexisting conditions |  |  |  |  |  |  |  |  |  |  |
| 　Myocardial infarction | 55 (5.0) | 0 (0) | 6 (2.8) | 0.537 | 1 (2.6) | 28 (4.8) | 0.540 | 0 (0) | 20 (8.2) | 0.264 |
| 　Congestive heart failure | 119 (10.8) | 0 (0) | 20 (9.5) | 0.244 | 4 (10.5) | 71 (12.2) | 0.765 | 1 (7.1) | 23 (9.4) | 0.775 |
| 　Cerebrovascular disease | 129 (11.7) | 0 (0) | 31 (14.8) | 0.135 | 5 (13.2) | 71 (12.2) | 0.855 | 0 (0) | 22 (9.0) | 0.240 |
| 　COPD | 78 (7.1) | 1 (7.7) | 24 (11.4) | 0.679 | 2 (5.3) | 36 (61.6) | 0.822 | 1 (7.1) | 14 (5.7) | 0.827 |
| 　Connective tissue disease | 78 (7.1) | 2 (15.4) | 15 (7.1) | 0.277 | 3 (7.9) | 38 (6.5) | 0.778 | 1 (7.1) | 19 (7.8) | 0.930 |
| 　Diabetes mellitus without organ damage | 187 (17.0) | 1 (7.7) | 25 (11.9) | 0.646 | 3 (7.9) | 97 (16.6) | 0.156 | 2 (14.3) | 59 (24.2) | 0.397 |
| 　Diabetes mellitus with organ damage | 70 (6.3) | 1 (7.7) | 8 (3.8) | 0.490 | 4 (10.5) | 32 (5.5) | 0.197 | 2 (14.3) | 23 (9.4) | 0.550 |
| 　Chronic kidney disease | 75 (6.8) | 1 (7.7) | 13 (6.2) | 0.828 | 2 (5.3) | 44 (7.5) | 0.604 | 1 (7.1) | 14 (5.7) | 0.827 |
| 　Malignancy (solid) | 152 (13.8) | 2 (15.4) | 27 (12.8) | 0.793 | 3 (7.9) | 87 (14.9) | 0.234 | 2 (14.3) | 31 (12.7) | 0.863 |
| 　Moderate-to-severe liver disease | 23 (20.1) | 0 (0) | 2 (1.0) | 0.724 | 3 (7.9) | 9 (1.5) | 0.0058 | 4 (28.6) | 5 (2.0) | <.0001 |
| Charlson Comorbidity Index | 1 (0–2) | 1 (0–2) | 1 (0–2) | 0.710 | 1 (0–2) | 1 (0–2) | 0.629 | 1 (0–3.5) | 1 (0–2) | 0.947 |
| ADL: Inactive | 262 (23.8) | 3 (23.1) | 81 (38.6) | 0.263 | 6 (15.8) | 128 (21.9) | 0.0003 | 1 (7.1) | 43 (17.6) | 0.311 |
| Suspected site of infection |  |  | 0.982 |  |  | 0.452 |  |  | 0.891 |
| 　Lung | 345 (31.3) | 5 (38.5) | 80 (38.1) |  | 11 (28.9) | 179 (30.6) |  | 4 (28.6) | 66 (27.0) |  |
| 　Abdomen | 284 (25.7) | 4 (30.8) | 52 (24.8) |  | 10 (26.3) | 163 (27.9) |  | 2 (14.3) | 53 (21.7) |  |
| 　Urinary tract | 208 (18.8) | 3 (23.1) | 45 (21.4) |  | 9 (23.7) | 96 (16.4) |  | 2 (14.3) | 53 (21.7) |  |
| 　Soft tissue | 111 (10.1) | 0 (0) | 10 (4.8) |  | 1 (2.6) | 61 (10.4) |  | 4 (28.6) | 35 (14.3) |  |
| Positivity of blood culture | 645 (58.5) | 8 (61.5) | 130 (61.9) | 0.979 | 22 (57.9) | 334 (57.2) | 0.848 | 9 (64.3) | 1482 (58.2) | 0.653 |
| Septic shock | 684 (62.0) | 11 (84.6) | 137 (65.2) | 0.151 | 31 (81.6) | 359 (61.5) | 0.0130 | 12 (85.7) | 134 (54.9) | 0.0238 |
| Lactate level (mmol/L) | 3.0 (1.8–5.2) | 5.9 (3.1–10.7) | 3.2 (1.9–5.4) | 0.0098 | 5.25 (2.8–10.3) | 2.8 (1.7–5.0) | <.0001 | 4.35 (2.8–8.2) | 2.9 (1.6–4.9) | 0.0461 |

Number of patients with missing data: SOFA score, 158; APACHE II score, 112; Positivity of blood cultures, 3; Lactate level, 19

ADL, activities of daily living; APACHE, acute physiology and chronic health evaluation; BMI, body mass index; COPD, chronic obstructive pulmonary disease; SOFA, sequential organ failure assessment

**Supplemental Table 2.** **Clinical outcomes in patients with or without hypoglycaemia classified by body mass index.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | All patients | BMI low (n = 223) |  | BMI normal (n = 622) |  | BMI high (n = 258) |  |
|  | (n = 1103) | Glucose<70 mg/dL | Glucose≥70 mg/dL  | *p* value | Glucose<70 mg/dL  | Glucose≥70 mg/dL | *p* value | Glucose<70 mg/dL  | Glucose≥70 mg/dL  | *p* value |
|  |  | (n = 13) | (n = 210) |  | (n = 38) | (n = 584) |  | (n = 14) | (n = 244) |  |
| In-hospital mortality | 253/1103 (22.9) | 3/13 (23.1) | 53/210 (25.2) | 0.862 | 18/38 (47.4) | 119/584 (20.4) | 0.0001 | 3/14 (21.4) | 57/244 (23.4) | 0.868 |
| 28-day mortality | 200/1093 (18.3) | 3/13 (23.1) | 43/209 (20.6) | 0.829 | 16/38 (42.1) | 89/577 (15.4) | <.0001 | 3/14 (21.4) | 46/242 (19.0) | 0.823 |
| Survivor dispositions | (n = 850) | (n = 10) | (n = 157) |  | (n = 20) | (n = 465) |  | (n = 11) | (n = 187) |  |
| Home | 314 (36.9) | 3 (30.0) | 47 (29.9) | 0.997 | 4 (20.0) | 176 (37.8) | 0.106 | 1 (9.1) | 83 (44.4) | 0.021 |
| Transfer | 536 (63.1) | 7 (70,0) | 110 (70.1) |  | 16 (80.0) | 289 (62.2) |  | 10 (90.9) | 104 (55.6) |  |
| ICU-free days | 19 (11–24) | 16.5 (10–24) | 20 (13–25) | 0.355 | 17 (9.5–22) | 19 (10–24) | 0.437 | 13 (4–20) | 20 (11–24) | 0.097 |
| Ventilator-free days | 21 (0–28) | 22 (2–26.5) | 22 (0–28) | 0.815 | 10 (0–25) | 21 (0–28) | 0.0105 | 16.5 (0–28) | 20 (0–28) | 0.746 |
| Length of hospital stay | 24 (12–46) | 22 (5.5–40) | 24 (14–45) | 0.524 | 27 (4–44) | 25.5 (13–47) | 0.260 | 23.5 (19–52.5) | 21 (11–46) | 0.200 |

Number of patients with missing data: 28-day mortality, 10; ICU-free days, 210; ventilator-free days, 8

BMI, body mass index; ICU, intensive care unit