

**Supplementary Table S1.** Comparison of clinical characteristics and outcomes between the early and late tracheostomy groups according to other definitions

| Variable   | Category according to definitions of early and late tracheostomy (days after translaryngeal intubation) |                           |                                       |                           |
|--|---|---------------------------|---------------------------------------|---------------------------|
|  | Young et al.'s study <sup>9</sup>   |                           | Shaw and Santry's study <sup>14</sup> |                           |
|  | Early tracheostomy (n=46)   | Late tracheostomy (n=129) | Early tracheostomy (n=75)             | Late tracheostomy (n=115) |
| Age, yr  | 72 (18–89)  | 67 (18–91)                | 72 (18–89)*                           | 67 (18–91)                |
| Male sex   | 32 (69.6)   | 79 (61.2)                 | 56 (74.4)*                            | 67 (58.3)                 |
| BMI ≤18.5 kg/m <sup>2†</sup>                               | 11 (26.2)   | 18 (14.2)                 | 16 (21.3)                             | 16 (13.9)                 |
| APACHE II score <sup>‡</sup>                               | 21 (7–35)   | 20 (6–41)                 | 21 (7–39)                             | 20 (6–41)                 |
| SOFA score <sup>‡</sup>                                    | 7 (1–18)  | 7 (1–19)                  | 7 (1–18)                              | 7 (1–19)                  |
| Charlson's WIC   | 5 (0–14)*   | 3 (0–12)                  | 4 (0–14)*                             | 3 (0–12)                  |
| Hospital LOS, day  | 29 (7–309)  | 55 (10–432)*              | 34 (7–309)                            | 54 (10–432)*              |
| ICU LOS, day   | 18 (5–223)  | 34 (10–201)*              | 20 (5–223)                            | 34 (10–201)*              |
| Duration of MV, day  | 14 (4–193)  | 30 (4–198)*               | 17 (4–193)                            | 30 (4–198)*               |
| Transfer to other secondary care hospitals at discharge    | 34 (73.9)*  | 61 (47.3)                 | 51 (68.1)*                            | 50 (43.5)                 |
| Total medical costs during hospital stay, USD <sup>§</sup> | 21,382 (6,543–175,164)  | 37,186 (2,482–206,636)*   | 21,635 (6,543–175,164)                | 36,973 (12,721–206,636)*  |
| In hospital mortality                                      | 9 (19.6)  | 50 (38.8)*                | 19 (25.3)                             | 48 (41.7)*                |
| 90-Day mortality   | 16 (34.8)   | 57 (44.2)                 | 26 (34.7)                             | 55 (47.8)                 |

Values are presented as medians (range) and number (%).

In the Young et al.'s study<sup>9</sup> and Shaw and Santry's study<sup>14</sup>, early and late tracheostomy patients were grouped according to days after translaryngeal intubation as follows: in the Young et al.'s study<sup>9</sup>, early tracheostomy was performed within 4 days (≤4 days) of translaryngeal intubation and late tracheostomy was performed after 10 days (≥10); in the Shaw and Santry's study<sup>14</sup>, early tracheostomy was performed within 6 days (≤6 days) of translaryngeal intubation and late tracheostomy was performed after 11 days (≥11 days).

\*Values are significantly higher than the other values. †Data from 169 (early, n=42 vs. late, n=127), and 184 patients (70 vs. 114), respectively (from left to right). ‡Calculated from clinical data on day of ICU admission. §Data from 138 (early, n=43 vs. late, n=95), and 151 patients (69 vs. 82), respectively (from left to right).

BMI: body mass index; APACHE: Acute Physiology and Chronic Health Evaluation; SOFA: Sequential Organ Failure Assessment; LOS: length of stay; WIC: weighted index of comorbidities; ICU: intensive care unit; MV: mechanical ventilation.