**Supplemental Digital Content 5.**

**Supplemental Table 2. Exploratory subgroup analyses of rescue midazolam use during mechanical ventilation**

**Supplemental Table 2A. Rescue midazolam use by age, sex, baseline body weight, and surgery duration**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Midazolam use | Infants | Toddlers | Preschoolers | Schoolchildren | Total |
|  |  | (*n* = 13) | (*n* = 18) | (*n* = 18) | (*n* = 12) | (*n* = 61) |
| All, *n* (%) | Yes | 3 (23.1%) | 6 (33.3%) | 4 (22.2%) | 1 (8.3%) | 14 (23.0%) |
|  | No | 10 (76.9%) | 12 (66.7%) | 14 (77.8%) | 11 (91.7%) | 47 (77.0%) |
| Female, *n* (%) | Yes | 2 (28.6%) | 0 (0.0%) | 3 (42.9%) | 0 (0.0%) | 5 (19.2%) |
|  | No | 5 (71.4%) | 7 (100.0%) | 4 (57.1%) | 5 (100.0%) | 21 (80.8%) |
| Male, *n* (%) | Yes | 1 (16.7%) | 6 (54.5%) | 1 (9.1%) | 1 (14.3%) | 9 (25.7%) |
|  | No | 5 (83.3%) | 5 (45.5%) | 10 (90.9%) | 6 (85.7%) | 26 (74.3%) |
|  |  |  |  |  |  |  |
| Age (month),  Mean (SD)  Range | Yes | 5.3 (1.2)  4–6 | 16.8 (4.3)  12–23 | 54.8 (14.4)  35–69 | 73.0 (−)  73–73 | 29.2 (24.6)  4−73 |
| No | 6.8 (1.6)  4–9 | 17.0 (3.5)  12–22 | 43.9 (14.5)  24–67 | 115.6 (37.6)  75–175 | 45.9 (45.6)  4–175 |
| Baseline body weight (kg),  Mean (SD)  Range | Yes | 6.0 (1.3)  4.5–6.8 | 9.5 (1.1)  7.4–10.5 | 16.8 (3.8)  11.2–19.5 | 19.6 (−)  19.6–19.6 | 11.6 (5.2)  4.5–19.6 |
| No | 6.5 (1.1)  4.5–8.3 | 9.2 (1.9)  6.2–12.2 | 14.7 (2.7)  9.8–18.1 | 29.8 (14.6)  16.1–69.6 | 15.1 (11.2)  4.5–69.6 |
| Surgery duration (h),  Mean (SD)  Range | Yes | 2.9 (0.8)  2.2–3.7 | 3.8 (1.5)  2.0–5.9 | 3.9 (1.6)  2.1–5.4 | 2.4 (−)  2.4–2.4 | 3.6 (1.3)  2.0–5.9 |
| No | 4.0 (1.3)  2.1–5.8 | 4.0 (1.1)  2.4–5.6 | 3.6 (1.1)  1.9–5.5 | 4.2 (2.0)  2.0–7.8 | 3.9 (1.4)  1.9–7.8 |

SD = standard deviation.

**Supplemental Table 2B. Result of logistic regression analysis for the probability of rescue midazolam use**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | | Regression | SE | Wald χ2 | *P* value | OR | 95% CI of OR | |
| coefficient | Lower | Upper |
| Intercept |  | −0.3708 | 1.7195 | 0.0465 | 0.8293 | - | - | - |
| Age group | Infants | 0.1093 | 0.9651 | 0.0128 | 0.9098 | 2.631 | 0.031 | 225.754 |
|  | Toddlers | 0.6472 | 0.7053 | 0.8420 | 0.3588 | 4.505 | 0.089 | 227.650 |
|  | Preschoolers | 0.1014 | 0.5540 | 0.0335 | 0.8547 | 2.610 | 0.116 | 58.710 |
| Sex | Female | −0.1591 | 0.3315 | 0.2303 | 0.6313 | 0.727 | 0.198 | 2.668 |
| Baseline body weight |  | −0.0132 | 0.1011 | 0.0171 | 0.8960 | 0.987 | 0.809 | 1.203 |
| Surgery duration |  | −0.2307 | 0.2713 | 0.7231 | 0.3951 | 0.794 | 0.466 | 1.351 |

CI = confidence interval, OR= odds ratio, SE = standard error.

A logistic regression analysis was performed to estimate the probability that a patient would use a rescue midazolam given the values of risk factors of age group (infants/toddlers/preschoolers/schoolchildren), sex (female/male), baseline body weight, and surgery duration.

**Supplemental Table 2C. Rescue midazolam use by surgery type**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Midazolam use | ASDC | VSDC | VSDC + others | Others |
|  | (*n* = 13) | (*n* = 30) | (*n* = 7) | (*n* = 11) |
| Yes, *n* (%) | 2 (15.4%) | 7 (23.3%) | 4 (57.1%) | 1 (9.1%) |
| No, *n* (%) | 11 (84.6%) | 23 (76.7%) | 3 (42.9%) | 10 (90.9%) |

ASDC = atrial septal defect closure, VSDC = ventricular septal defect closure.