|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Volume Adjusted Analysis\*** | | **Multivariable Model** | |
| **Characteristic** | **OR (95% CI)** | **P-value** | **OR (95% CI)** | **P-value** |
| Intraoperative Transfusion Volume (mL)† | - | - | 1.0 (1.0, 1.1) | 0.372 |
| Non-sanguineous Fluid Volume (mL)† | - | - | 1.1 (1.0, 1.1) | <0.001 |
| Blood Product Type‡  FFP only  Plts only  Mixed | 5.7 (2.0, 16.3)  -  2.8 (1.6, 4.9) | <0.001 | 6.6 (1.8, 24.3)  -  1.5 (0.8, 2.9) | 0.025 |
| Estimated Blood Volume (mL)† | 1.0 (0.8, 1.4) | 0.876 | - | - |
| Estimated Blood Loss (mL)† | 1.0 (0.9, 1.0) | 0.816 | - | - |
| Preoperative Hemoglobin (g/dL)§ | 0.9 (0.8, 1.0) | 0.018 | 0.9 (0.8, 1.0) | 0.193 |
| Body Mass Index (kg/m2)ǁ | 1.0 (1.0, 1.1) | 0.089 | - | - |
| Emergency Surgery | 4.0 (2.4, 6.8) | <0.001 | 3.7 (2.0, 7.1) | <0.001 |
| Duration of Surgery¶ | 0.9 (0.8, 1.0) | 0.174 | - | - |
| Chronic Kidney Disease | 2.1 (1.3, 3.4) | 0.005 | 2.0 (1.2, 3.5) | 0.011 |
| Congestive Heart Failure | 1.6 (0.8, 3.0) | 0.181 | - | - |
| Echo evidence of LV dysfunction | 2.0(1.3, 3.2) | 0.004 | 1.7 (1.0, 3.0) | 0.043 |
| Preoperative Beta blocker | 2.3 (1.5, 3.5) | <0.001 | 2.0 (1.2, 3.3) | 0.011 |
| Preoperative Diuretic | 1.5 (1.0, 2.3) | 0.033 | 1.4 (0.9, 2.2) | 0.169 |
| Preoperative Aspirin | 1.0 (0.7, 1.5) | 0.998 | - | - |
| Coronary Artery Disease | 1.1 (0.7, 1.7) | 0.743 | - | - |
| Moderate to Severe Liver Dx | 1.5 (0.5, 4.3) | 0.484 | - | - |
| Alcohol Abuse | 0.7 (0.3, 1.7) | 0.460 | - | - |

**Supplemental Table 2:** Mutlivariable analyses evaluating risk factors for TACO (Excluding patients with evidence of both TACO and TRALI, and their matched controls)

TACO = Transfusion associated circulatory overload, TRALI = Transfusion related acute lung injury, OR = odds ratio, CI = confidence interval, FFP = fresh frozen plasma, Plts = platelets, LV = left ventricular, Dx = disease

\* Each of the characteristics were assessed separately using conditional logistic regression with intraoperative transfusion volume and non-sanguineous fluid volume included as covariates

† Odds ratios are presented for a 500 ml increase

‡ Compared to red blood cell transfusion only

§ per g/dL increase

ǁ per kg/m2 increase

¶ per 60 minute increase