**Table 2. Univariate and Multivariate analysis: Risk factors of Anemia at Discharge**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Univariate analysis** |  | **Multivariate analysis** |
| **Risk factors** |  |  |  |  |  |  |  |  |  |  |
|  | **n\*** | **OR** | **95% CI** | ***p*-value** |  | **OR** | **95% CI** | ***p*-value** |
| **Total blood volume sampled** **(Includes discarded) per PICU stay, *ml/kg***  |  |   |   |   |  |  |   |   |   |  |
|  > 5 ml/kg | 43 | 0.86 | 0.45 | 1.67 | 0.66  |  | 3.10 | 0.88 | 10.94 | 0.079  |
|  1-5ml/kg | 74 | 1.43 | 0.83 | 2.49 | 0.20  |  | 2.22 | 0.96 | 5.12 | 0.063  |
|  < 1ml/kg (ref) | 198 | 1.00 | . | . | . |  | 1.00 | . | . | .  |
| **Age (*mo)***  |  |  |  |  |  |  |  |  |  |  |
|  >120 mo | 71 | 7.88 | 3.35 | -8.54 | 0.001  |  | 6.53 | 2.02 | 21.04 | 0.002  |
|  >72 - 120 mo | 42 | 8.71 | 3.31 | -2.17 |  <.0001 |  | 4.58 | 1.31 | 16.00 | 0.017  |
|  > 1 mo - 72 mo | 158 | 3.61 | 1.70 | 1.24 |  <.0001 |  | 3.21 | 1.23 | 8.39 |  0.017 |
|  0-1 mo (ref) | 45 | 1.00 | . | . | .  |  | 1.00 | . | . | .  |
| **Sex** |  |   |   |   |  |  |   |   |   |  |
|  Male  | 169 | 1.19 | 0.76 | 1.86 | 0.42 |  | 1.11 | 0.62 | 1.98 | 0.72 |
|  Female (ref) | 147 | 1.00 | . | . | .  |  | 1.00 | . | . | .  |
| **PELOD Score** |  |   |   |   |  |  |   |   |   |  |
|  > 10 | 39 | 0.61 | 0.24 | 1.52 | 0.29  |  | 0.44 | 0.13 | 1.49 | 0.18  |
|  5-9 | 95 | 1.12 | 0.49 | 2.54 |  0.79 |  | 1.07 | 0.37 | 3.06 |  0.91 |
|  1 -4 | 145 | 1.26 | 0.57 | 2.75 |  0.57 |  | 1.06 | 0.38 | 2.94 |  0.91 |
|  0 (ref) | 37 | 1.00 | . | . | .  |  | 1.00 | . | . | .  |
| **Length of stay in PICU, *days* (log)** | 314 |  0.82 | 0.65 |  1.04 | 0.10 |  | 0.74 |  0.50 | 1.09 | 0.13 |
| **Main admission diagnosis**  |  |   |   |   |  |  |   |   |   |  |
|  Neurological disease | 28 | 1.88 | 0.82 | 4.32 | 0.14  |  | 1.03 | 0.35 | 3.01 | 0.96  |
|  Other | 36 | 2.82 | 1.29 | 6.17 | 0.01  |  | 1.46 | 0.54 | 3.97 | 0.46  |
|  Cardiac surgery | 48 | 2.15 | 1.08 | 4.26 | 0.029  |  | 1.00 | 0.34 | 2.89 | 0.99  |
|  Non-cardiac surgery | 55 | 4.44 | 2.15 | 9.15 | <.0001  |  | 1.61 | 0.64 | 4.04 | 0.31  |
|  Sepsis and shock | 30 | 2.11 | 0.93 | 4.78 | 0.073  |  | 1.26 | 0.44 | 3.61 | 0.66  |
|  Respiratory disease (ref) | 119 | 1.00 | . | . | .  |  | 1.00 | . | . | .  |
| **Anemia on admission** |  |   |   |   |  |  |   |   |   |  |
|  Yes  | 139 | 13.07 | 7.33 | 23.31 | <.0001 |  | 13.62 | 6.82 | 27.21 | <.0001 |
|  No (ref) | 176 | 1.00 | . | . | .  |  | 1.00 | . | . | .  |
| **Transfusion** |  |   |   |   |  |  |   |   |   |  |
|  Yes  | 40 | 1.34 | 0.68 | 2.65 | 0.40  |  | 0.45 | 0.15 | 1.37 | 0.16  |
|  No (ref) | 276 | 1.00 | . | . | .  |  | 1.00 | . | . | .  |

Abbreviations used: OR = Odds Ratio; aOR = adjusted Odds Ratio; mo = months; ref = reference; log = log

\*423 patients were included in the study; however, 109 patients were excluded for the risk factor analysis for anemia at PICU discharge, for the following reasons: 1- less than 2 blood samples performed during PICU stay OR 2- no Hemoglobin value on PICU admission / discharge OR 3- non-survivors. (see Figure 1).