**Table 4.** Binary regression model for risk factors influencing admission to the ICU after COVID-19 diagnosis in pediatric allogeneic HSCT recipients

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Event | Univariate | | Multivariate | |
| OR  (95% CI) | *p*  value | OR  (95% CI) | *p*  value |
| Age at COVID-19 diag. (yrs)  0.0-5.0  5.1-10.0  10.1-15.0  >15.0  Sex  Male  Female  Diagnosis  Malignant disorders  PIDa  Other nonmalignant disorders  Donor  Related  Unrelated  HLAb match  Well matched (10/10)  Partially matched (9/10)  Mismatched (≤8/10)  Conditioning  Myeloablative  Reduced  GVHDc prophylaxis  Calcineurin inhibitor based  PTCyd plus others  T-cell depletion  No  Yes  aGVHD at COVID-19 diagnosis  No  Yes  cGVHD at COVID-19 diagnosis  No  Yes  CSe at COVID-19 diagnosis  No  Yes  Comorbidity  No  Yes  Time after HSCT (days)  0-100  101-180  >180  LRTDf  No  Yes  ANCg (µL)  ≤0.5.103  0.501-0.999.103  ≥1.103  ALCh (µL)  ≤0.2.103  0.201-0.499.103  ≥0.5.103  Platelet (µL)  ≤75.103  76-149.103  ≥150.103 | 5/46  9/65  6/37  5/36  16/118  9/166  13/108  8/25  4/51  16/102  9/82  9/112  9/45  7/27  24/116  1/17  16/150  7/30  20/131  5/53  13/132  11/49  23/170  1/11  13/124  12/60  15/135  10/49  12/40  3/43  10/101  2/128  23/56  9/24  1/11  15/149  7/25  10/23  8/136  11/40  10/47  4/97 | 1.00  1.32 (0.41-4.22)  1.59 (0.44-5.68)  1.32 (0.35-4.97)  1.00  0.76 (0.36-1.63)  1.00  3.44 (1.24-9.54)  0.62 (0.19-2.01)  1.00  0.66 (0.28-1.59)  1.00  2.86 (1.05-7.77)  4.01 (1.34-12.01)  1.00  0.37 (0.06-2.92)  1.00  2.55 (0.94-6.87)  1.00  0.58 (0.20-1.63)  1.00  2.65 (1.20-6.40)  1.00  0.53 (0.06-4.26)  1.00  2.13 (0.91-5.02)  1.00  2.05 (0.85-4.93)  3.90 (1.52-9.98)  0.68 (0.18-2.61)  1.00  1.00  43.91 (9.85-195.78)  5.36 (2.00-14.33)  0.89 (0.11-7.47)  1.00  6.22 (2.01-19.22)  12.31 (4.13-36.64)  1.00  8.82 (2.61-29.81)  6.28 (1.85-21.29)  1.00 | 0.917  0.642  0.478  0.679  0.484  0.019  0.018  0.428  0.356  0.025  0.039  0.013  0.345  0.065  0.300  0.030  0.547  0.082  0.099  0.005  0.005  0.577  <0.001  0.003  0.001  0.917  <0.001  0.001  <0.001  0.002  <0.001  0.003 | -  -  1.00  3.39 (0.36-31.98)  1.42 (0.17-12.04)  -  1.00  3.37 (0.39-29.05)  8.98 (1.16-238.40)  -  1.00  3.33 (0.54-20.40)  -  1.00  0.20 (0.01-5.58)  -  1  22.10 (0.58-836.94)  1.00  1.84 (0.34-9.96)  8.42 (0.64-110.40)  3.55 (0.34-37.12)  1.00  1.00  61.55 (5.46-693.37)  11.64 (0.46-28.52)  0.54 (0.03-8.94)  1.00  0.55 (0.03-9.87)  5.21 (0.69-39.34)  1.00  5.30 (0.61-45.82)  1.16 (0.14-9.59)  1.00 | 0.563  0.287  0.749  0.117  0.268  0.039  0.193  0.346  0.095  0.481  0.253  0.105  0.290  0.001  0.231  0.094  0.671  0.116  0.682  0.110  0.267  0.130  0.893 |

a*PID*, primary immunodeficiency; b*HLA*, human leukocyte antigen; c*GVHD*, graft-versus-host disease; d*PTCy*, posttransplant cyclophosphamide; e*CS*, corticosteroid; f*LRTD*, lower respiratory tract disease; g*ANC*, absolute neutrophil count; h*ALS*, absolute lymphocyte count