**Supplemental Table**. **Multinomial logistic regression treating steroid sensitive aGVHD as the reference state**

| Factors | N | OR of Dependent aGVHD (95% CI) | P | OR of Resistant aGVHD (95% CI) | P | Overall P |
|---|---|---|---|---|---|---|
| **Gender** | | | | | | 0.86 |
| Male | 242 | 1.0 (reference) | | 1.0 ( reference) | | |
| Female | 143 | 0.9 (0.5-1.6) | | 1.0 (0.6-1.7) | | |
| **Age** | | | | | | **0.05** |
| <18 | 67 | 1.0 (reference) | | 1.0 (reference) | | |
| 18-60 | 228 | 3.9 (1.4-11.3) | **0.02** | 1.4 (0.6-3.2) | 0.57 | |
| 61+ | 48 | 1.4 (0.6-3.2) | 0.13 | 2.1 (0.7-6.0) | 0.32 | |
| **Donor Type** | | | | | | **0.05** |
| Matched Sibling | 112 | 1.0 (reference) | | 1.0 (reference) | | |
| Haploidentical | 10 | 1.8 (0.3-11.1) | 0.50 | 1.3 (0.2-7.2) | 0.74 | |
| URD | 60 | 1.1 (0.4-3.2) | 0.83 | 3.0 (1.2-7.4) | **0.02** | |
| s/dUCB | 203 | 0.8 (0.4-1.5) | 0.74 | 0.8 (0.5-1.5) | 0.55 | |
| **HCT-CI** | | | | | | 0.27 |
| Low Risk (0) | 192 | 1.0 (reference) | | 1.0 (reference) | | |
| Intermediate Risk (1-2) | 95 | 0.8 (0.4-1.5) | | 0.8 (0.4-1.5) | | |
| High Risk (3+) | 98 | 1.3 (0.6-2.7) | | 1.8 (0.9-3.4) | | |
| **Conditioning** | | | | | | 0.60 |
| MAC | 178 | 1.0 (reference) | | 1.0 (reference) | | |
| RIC | 207 | 0.8 (0.4-1.5) | | 0.7 (0.4-1.4) | | |
| **DRI (CIBMTR)** | | | | | | 0.58 |
| Low Risk | 47 | 1.0 (reference) | | 1.0 (reference) | | |
| Intermediate Risk | 244 | 1.2 (0.5-2.9) | | 1.4 (0.6-3.3) | | |
| High/Very Risk | 54 | 0.8 (0.2-2.4) | | 1.6 (0.6-4.4) | | |
| Non-Malignant | 40 | 1.3 (0.3-5.2) | | 0.9 (0.2-3.0) | | |
| **Transplant Year** | | | | | | 0.33 |
| 2008-2011 | 158 | 1.0 (reference) | | 1.0 (reference) | | |
| 2012-2016 | 227 | 0.6 (0.4-1.2) | | 0.8 (0.5-1.5) | | |
| **MiN aGVHD Risk** | | | | | | **<0.01** |
| Standard Risk | 301 | 1.0 (reference) | | 1.0 (reference) | | |
| High Risk | 84 | 1.5 (0.7-3.2) | 0.26 | 2.4 (1.3-4.6) | **<0.01** | |

**Abbreviations:** OR=odds ratio; aGVHD=acute graft-versus-host disease; URD=unrelated donor; s/dUCB= single/double umbilical cord blood; MAC=myeloablative, RIC=reduced intensity;DRI=disease risk index; MiN=Minnesota