



## The 65th ASH Annual Meeting Abstracts

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## 732.ALLOGENEIC TRANSPLANTATION: DISEASE RESPONSE AND COMPARATIVE TREATMENT STUDIES

**A Predictive Model Combining Clinical Characteristics and Nutritional Risk Factors for Overall Survival after Umbilical Cord Blood Transplantation**

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**Background:** Umbilical cord blood transplantation (UCBT) is a curable therapy for hematological disease; however, the impact of nutritional status on UCBT outcomes remains controversial. To evaluate the joint effect of clinical characteristics and nutritional status on the prognosis of patients who underwent UCBT, we screened various factors to establish a predictive model of overall survival (OS) after UCBT.

**Methods:** We performed an integrated clinical characteristic and nutritional risk factor analysis and established a predictive model that could be used to identify UCBT recipients with poor OS.

**Results :** Four factors, including disease status, conditioning regimen, calf skinfold thickness and albumin level, were identified and used to develop a risk score for OS, which showed a positive predictive value of 84.0%. A high-risk score ( $\geq 2.225$ ) was associated with inferior 3-year OS post-UCBT [67.5% (95% CI, 51.1%-79.4%),  $P=0.001$ ]. Then, we built a nomogram based on the four factors that showed good discrimination with a C-index of 0.833 (95% CI, 0.743-0.922). Internal validation was performed by using the bootstrap method (corrected C-index:0.804). Multivariate analysis suggested that a high calf skinfold thickness ( $\geq 20.5\text{mm}$ ) and a low albumin level ( $<33.6\text{g/L}$ ) conferred poor disease-free survival (DFS).

**Conclusion:** The predictive model combining clinical and nutritional factors could be used to predict OS in UCBT recipients, which may promote preemptive treatment.

**Disclosures** No relevant conflicts of interest to declare.

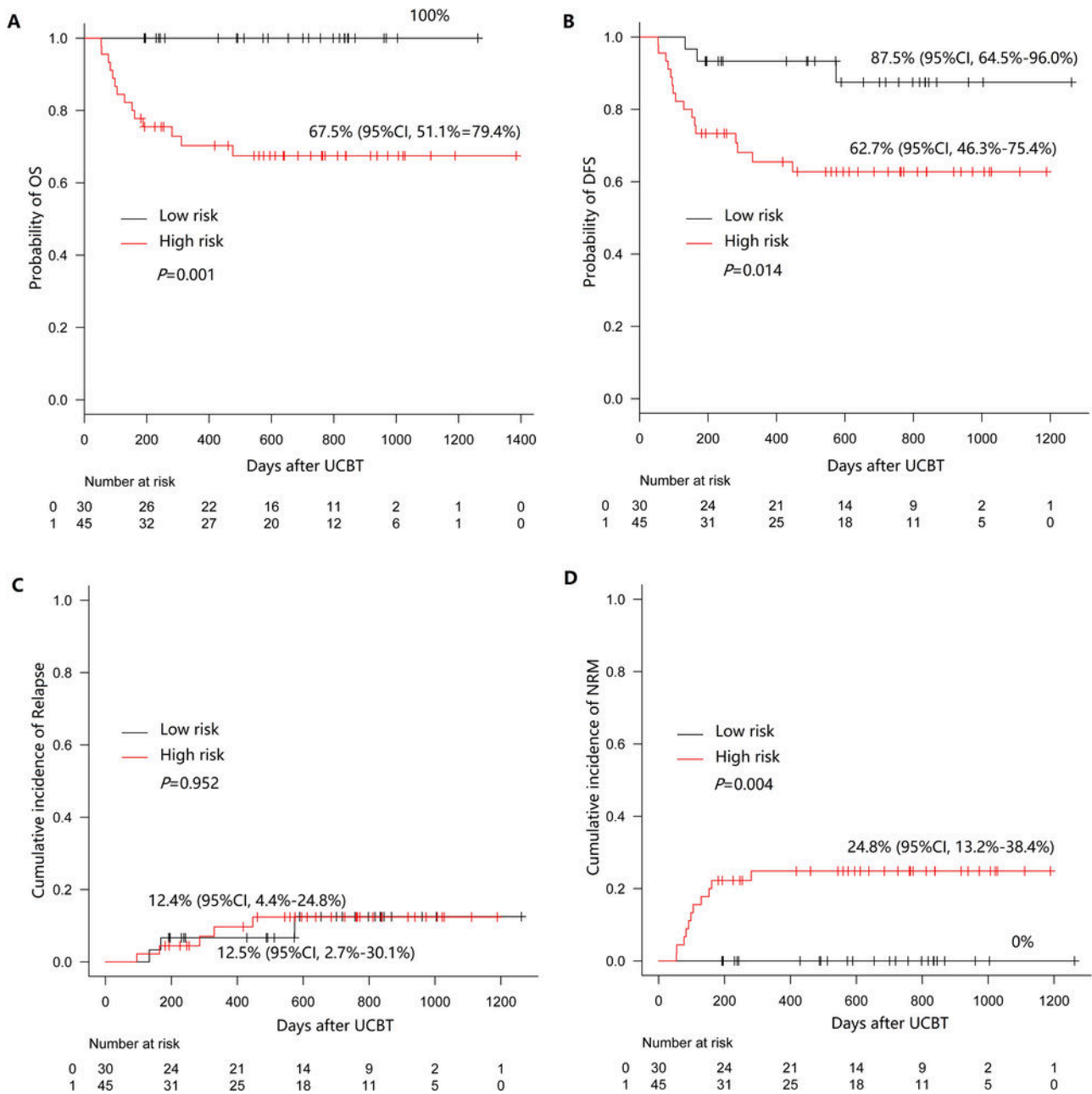


Figure 1

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