



6018-592.1. MELD SCORING AS A PREDICTOR OF OUTCOMES IN PATIENTS PRESENTING WITH ACUTE DECOMPENSATED HEART FAILURE

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Resumen

Background: The MELD scoring system, developed in patients with hepatic cirrhosis awaiting liver transplantation, may provide information in HF patients by assessing the degree of renal and hepatic dysfunction. The use of MELD scoring has recently been utilized in ambulatory heart failure patients but has not been put to use in the acute setting. In this study we chose to use the MELD-XI score to evaluate patients admitted with ADHF, because MELD-XI eliminates spuriously elevated INR secondary to anticoagulation agents.

Objective: The goal of this analysis was to assess the association between the Model of End-stage Liver Disease-eXcluding INR (MELD-XI) scoring system and clinical outcomes among patients admitted with acute decompensated heart failure (ADHF).

Methods: We conducted a post hoc analysis using data from the Evaluation Study of Congestive Heart Failure and Pulmonary Artery Catheterization Effectiveness (ESCAPE) trial, a large multicenter trial of patients with ADHF treated with therapy guided by pulmonary artery catheters or therapy guided by clinical assessment. Among 346 individuals, we analyzed the association between admission MELD-XI scores and a composite endpoint of death, re-hospitalization, or heart transplant (Htx). Baseline MELD-XI scores were categorized by tertile values (< 27.4 vs ? 27.4 to < 33.2 vs ? 33.2) and by dichotomization (< 39 vs ? 39) determined by a classification and regression tree (CART) analysis, a nonparametric data-mining tool that can segment data into meaningful subgroups.

Results: Patients in the highest tertile of MELD-XI scores exhibited a significant 32% increased risk (Hazard Ratio [HR] = 1.32; 95%CI 1.11-1.58) for re-hospitalization/death/Htx compared to the first two tertiles. Additionally, the highest tertile was associated with significantly lower 6-month event-free survival (31%) compared to patients in the first and second tertile (49% and 48%, respectively; $p = 0.002$) (fig. 1). When the MELD-XI data was dichotomized, patients with MELD-XI score ≥ 39 (observed in 15% of patients) were associated with a significantly increased risk of clinical events (HR = 1.86; 95%CI 1.31-2.64) and a lower 6-month event-free survival (23%) compared to the patients with a lower MELD score (46%; $p < 0.001$) (fig. 2).

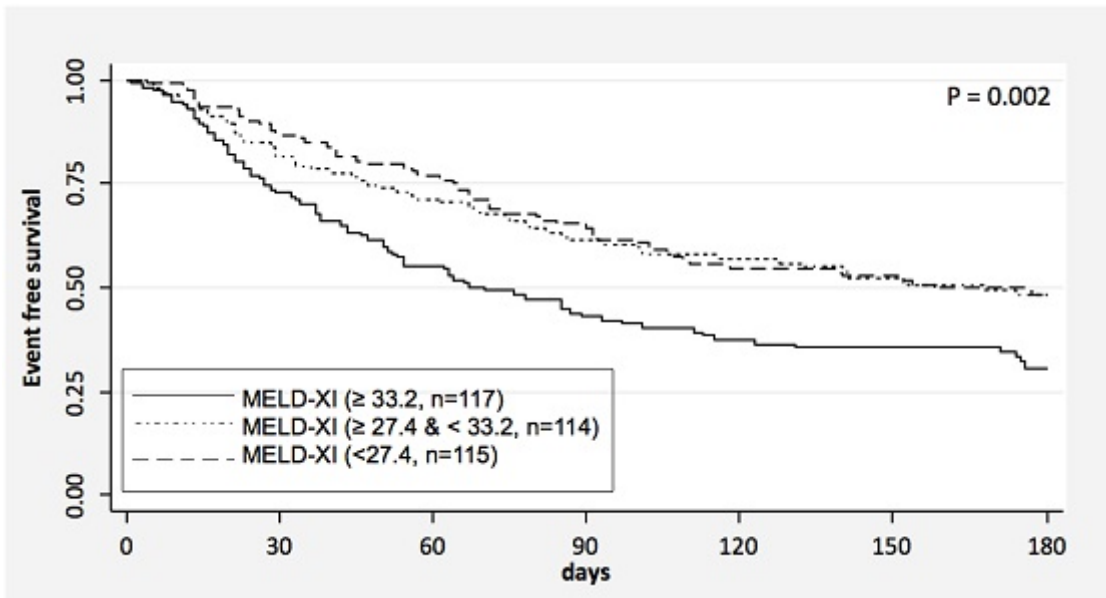


Figure 1. Kaplan-Meier survival curve for composite endpoint (death, cardiac re-hospitalization, and Htx) stratified by admission MELD-XI score tertiles.

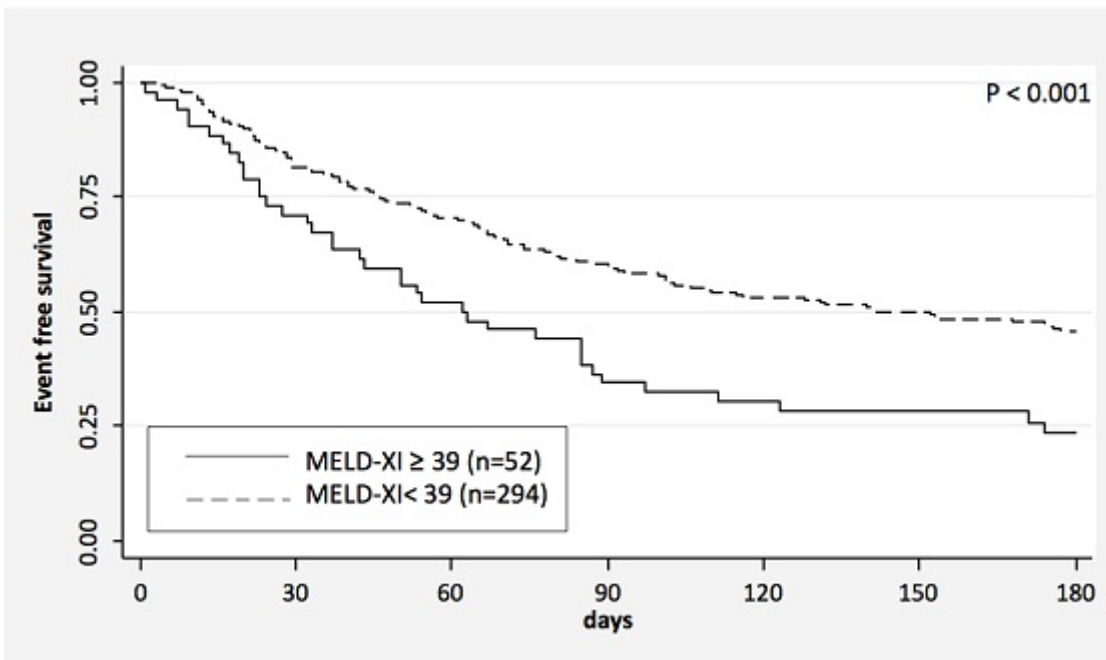


Figure 2. Kaplan-Meier survival curve for composite endpoint (death, cardiac re-hospitalization, and Htx) stratified by dichotomized admission MELD-XI scores.

Conclusions: Not only did we find a large percentage of patients had very elevated MELD-XI scores, but we also found these higher scores to be associated with poor survival and greater risk of clinical events. This study suggests that admission MELD-XI scoring could be utilized as a predictor of survival and risk of clinical events in patients undergoing treatment of acute decompensated heart failure.