5 POSTOPERATIVE RESOURCE UTILIZATION AND SURVIVAL AMONG LIVER TRANSPLANT RECIPIENTS WITH A MELD SCORE GREATER THAN OR EQUAL TO 40: A RETROSPECTIVE COHORT STUDY

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Introduction:
Cirrhotic patients with Model for End-stage Liver Disease (MELD) score ?40 have high risk of death without
liver transplant (LT). This study aimed to evaluate these patients' outcomes after transplant.
Methods:
The retrospective cohort included 519 adult cirrhotic patients who underwent LT at one Canadian center
between 2002 and 2012. Primary exposure was severity of end-stage liver disease measured by MELD score at
transplant (?40 vs. <40). Primary outcome was duration of first intensive care unit (ICU) stay after LT. Secondary
outcomes were duration of first hospital stay after LT, rate of ICU readmission, re-transplant rate, and survival
rates.
Results:
On the day of LT, 5% (28/519) of patients had a MELD score ?40. These patients had longer first ICU stay after
LT (14 vs. 2 days; p <0.001). MELD score ?40 at transplant was independently associated with first ICU stay
after transplant ?10 days (OR, 3.21). These patients had longer first hospital stay after LT (45 vs. 18 days; p
<0.001); however, there was no significant difference in the rate of ICU readmission (18% vs. 22%; p = 0.58) or re-
transplant rate (4% vs. 4%; p = 1.00). Cumulative survival at 1 month, 3 months, 1 year, 3 years, and 5 years was
98%, 96%, 90%, 79%, and 72%, respectively. There was no significant difference in cumulative survival stratified
by MELD score ?40 vs. <40 at transplant (p = 0.59).
Conclusions:
Cirrhotic patients with MELD score ?40 at transplant utilize greater postoperative health resources; however,
derive similar long-term survival benefit with LT.
References:
Shawcross DL, Austin MJ, Abeles RD et al. The impact of organ dysfunction in cirrhosis: survival at a cost? J
Hepatol 2012; 56(5):1054-62.
Alexopoulos S, Matsuoka L, Cho Y et al. Outcomes after liver transplantation in patients achieving a model for

end-stage liver disease score of 40 or higher. Transplantation 2013; 95(3):507-12.
Oberkofler CE, Dutkowski P, Stocker R et al. Model of end stage liver disease (MELD) score greater than 23
predicts length of stay in the ICU but not mortality in liver transplant recipients. Crit Care 2010; 14(3):R117.

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