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Reducing the Risk of Alcohol Relapse after Liver-Transplantation

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Abstract : Background: Liver transplantation (LT) is considered the only curative treatment for end-stage liver disease Background: Liver transplantation (LT) is considered the only curative treatment for end-stage liver disease (ESLD). The effects of alcoholism can cause irreversible liver damage, cirrhosis and subsequent liver failure. Alcohol relapse after transplant occurs in 20-50% of patients and increases the risk for recurrent cirrhosis, organ rejection, and graft failure. Alcohol relapse after transplant has been identified as a problem among liver transplant recipients at a large urban academic transplant center in the United States. Transplantation will reverse the complications of ESLD, but it does not treat underlying alcoholism or reduce the risk of relapse after transplant. The purpose of this quality improvement project is to implement and evaluate the effectiveness of a High-Risk Alcoholism Relapse (HRAR) Scale to screen and identify patients at high-risk for alcohol relapse after receiving an LT. Methods: The HRAR Scale is a predictive tool designed to determine the severity of alcoholism and risk of relapse after transplant. The scale consists of three variables identified as having the highest predictive power for early relapse including, daily number of drinks, history of previous inpatient treatment for alcoholism, and the number of years of heavy drinking. All adult liver transplant recipients at a large urban transplant center were screened with the HRAR Scale prior to hospital discharge. A zero to two ordinal score is ranked for each variable, and the total score ranges from zero to six. High-risk scores are between three to six. Results: Descriptive statistics revealed 25 patients were newly transplanted and discharged from the hospital during an 8-week period. 40% of patients (n=10) were identified as being high-risk for relapse and 60% low-risk (n=15). The daily number of drinks were determined by alcohol content (1 drink = 15g of ethanol) and number of drinks per day. 60% of patients reported drinking 9-17 drinks per day, and 40% reported ≤ 9 drinks. 50% of high-risk patients reported drinking ≥ 25 years, 40% for 11-25 years, and 10% ≤ 11 years. For number of inpatient treatments for alcoholism, 50% received inpatient treatment one time, 20% ≥ 1, and 30% reported never receiving inpatient treatment. Findings reveal the importance and value of a validated screening tool as a more efficient method than other screening methods alone. Integration of a structured clinical tool will help guide the drinking history portion of the psychosocial assessment. Targeted interventions can be implemented for all high-risk patients. Conclusions: Our findings validate the effectiveness of utilizing the HRAR scale to screen and identify patients who are a high-risk for alcohol relapse post-LT. Recommendations to help maintain post-transplant sobriety include starting a transplant support group within the organization for all high-risk patients. (ESLD). The effects of alcoholism can cause irreversible liver damage, cirrhosis and subsequent liver failure. Alcohol relapse after transplant occurs in 20-50% of patients, and increases the risk for recurrent cirrhosis, organ rejection, and graft failure. Alcohol relapse after transplant has been identified as a problem among liver transplant recipients at a large urban academic transplant center in the United States. Transplantation will reverse the complications of ESLD, but it does not treat underlying alcoholism or reduce the risk of relapse after transplant. 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Keywords : alcoholism, liver transplant, quality improvement, substance abuse
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