# Evaluating Drug Utilization Patterns and Disease Severity in Chronic Liver Disease Using the MELD Score

*Mahalakshmi S[1], Kalaivani S[2]\*, Reashma R[3], Nitheish C[4]*

[1]Assistant Professor, Department of pharmacy practice, Edayathangudi G.S Pillay college of pharmacy, Nagapattinam, Tamil Nadu, India.
[2,3,4]Pharm D Intern, Edayathangudi G.S Pillay college of pharmacy, Nagapattinam, Tamil Nadu, India.

**Corresponding author:** Kalaivani S, Edayathangudi G.S Pillay College of Pharmacy, Nagapattinam-611002, Tamil Nadu, India

**Email Id:** serviceheb@gmail.com

**ABSTRACT**

Chronic liver disease, characterized by persistent liver function decline, poses significant global health challenges, with cirrhosis being a major cause of death. The objective of this study is to identify common comorbidities in chronic liver disease patients, analyze the three-month mortality rate using the Model for End-Stage Liver Disease (MELD) score, evaluate the prescribing pattern of drugs, and assess drug utilization by analyzing pre- and post-treatment liver function test values. A prospective cross-sectional study was conducted on 97 patients, focusing on prescribing trends and the severity of disease using the MELD score. The study results shows that majority of patients (87.6%) were male, with the 50–59 age group being the most affected. Alcoholism was the leading cause of chronic liver disease, accounting for 69% of cases, and hypertension was the most common comorbidity. The MELD score showed that 49% of patients had a score between 10 and 19, indicating a 6% three-month mortality probability, suggesting a low likelihood for liver transplantation. A total of 1,098 drugs were analyzed, with gastrointestinal agents being the most prescribed. Significant improvements in SGOT, SGPT, and albumin levels (p<0.001) were observed, indicating effective drug utilization, although total bilirubin levels showed only moderate improvement (p<0.008). In conclusion, the study highlights the importance of understanding drug utilization in chronic liver disease management, with common prescriptions including pantoprazole, lactulose, furosemide, and vitamin K. Despite the limitations, such as reliance on LFTs alone, the findings underscore the need for optimized treatment strategies in chronic liver disease patients.

**Keywords:** Prescribing Pattern, Drug Utilization Evaluation, Chronic Liver Disease, Model for end stage liver disease (MELD)