

Impact of 12-week Liver at Home (L@H) program on liver frailty in a tertiary centre



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INTRODUCTION

- Frailty in cirrhotic patients is increasingly acknowledged as an important predictor of mortality. Validation studies have shown a frailty score of ≥ 4.5 is associated with significant increase in healthcare utilisation and mortality. Liver at Home (L@H) is a novel 12-week program implemented on discharge for patients admitted with cirrhosis. The program involves regular visits by advanced-practice hepatology nurses to patients' homes and via telehealth to bridge the transition from hospital. The aim of this observational study was to examine the impact of L@H on liver frailty.

METHODS

- Hospitalised adult cirrhotic patients with a liver-related event who were discharged to the L@H program between 1 Jan 2025 and 1 Feb 2026 had dominant handgrip strength, time for 5 chair stands and time holding three-position balance recorded at first and last home visit. Liver frailty index was calculated using the University of California-San Francisco frailty index.

RESULTS

- Of 64 patients enrolled into L@H, 30 had initial liver frailty data measured, and 10 patients had repeat liver frailty measured on the final L@H visit in week 12 of the program. The majority (70%) of patients with repeat frailty scores were men, with a median age of 58-years-old, median Child-Pugh score of 7 and a MELD-Na score of 16.5 on admission to the program. There was no significant difference in liver frailty on admission and discharge from the L@H program (4.14 vs 4.45, $p=0.70$) or in the sub-components of frailty (Table 1).

	Admission to L@H	Discharge from L@H	
Liver frailty score	4.14	4.45	$p=0.70$
Average grip strength	24.58	22.85	
Time for 5 sit-stands	15.54	16.5	
Time for 3 position balance	30	30	

Table 1. Comparison of frailty measures in patients (n=10) enrolled in L@H.

CONCLUSIONS

- In our small single-centre prospective cohort we demonstrated that a home-based liver-disease management intervention had no impact on the liver frailty scores after 12 weeks. Notably the patients in this cohort were frailer at baseline compared to those in other previously examined programs, and may require additional support to recompensate or are potentially too severe to improve.