Hospital at Home for acute care patients with decompensated cirrhosis provides comparable clinical outcomes to hospital-based care while improving patient-centeredness: A prospective study.

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Background

- Hospital at Home (HaH) is a patient-centered program that delivers hospital-level care at home using telemedicine. This model has been shown to reduce adverse events, readmissions, and costs while improving patient satisfaction.
- In liver disease, many hospital days after initial stabilization are spent on lower acuity needs like IV medications or lab monitoring, representing an opportunity for HaH to reduce hospital-related adverse events, healthcare utilization, while improving patient satisfaction.
- We aimed to prospectively explore the clinical and patient-reported outcomes of HaH services.

Methods

- Thirty-four hospitalized liver disease patients received HaH care from 6/2023-4/2025. 17 consented to participate in pre-post HaH qualitative interviews, and the Telemedicine Satisfaction Survey (TSQ) with their caregivers.
- Control participants were 1:3 propensity score matched using a greedy nearest-neighbor algorithm from a prospective inpatient cirrhosis cohort (7/2020–4/2025), based on demographics, alcohol usage, liver disease etiology, admission reason, Child-Pugh (CP) class, primary service team, ED visits in the past 30 days, and hospitalizations within 6 months.
- Clinical outcomes were compared between study participants to matched controls using regression models.

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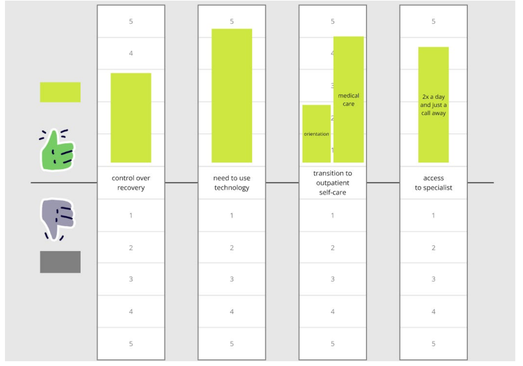
Results

Table 1: Patient Characteristics (N=68)

Variable (N, %)	HaH (N=17)	Matched Controls (N=51)	p-value
Age^	57 (45, 64)	58 (47, 65)	0.630
Female sex	10 (58.8%)	32 (62.7%)	0.773
Race			1.000
White	11 (91.7%)	42 (82.4%)	--
Black / Other†	1 (8.3%)	9 (18%)	--
Hispanic Ethnicity	1 (8.3%)	4 (7.8%)	1.000
Married or domestic partner	9 (52.9%)	31 (60.8%)	0.589
$50,000 or less total household income	6 (50.0%)	27 (56.3%)	0.697
Insurance			0.710
Medicare/Medicaid	8 (47%)	29 (56%)	--
Private/Self-pay/Other	9 (52.9%)	22 (43.1%)	--
Active Alcohol use	1 (5.9%)	2 (3.9%)	1.000
Charlson Comorbidity Index^	6(5,8)	6(4,8)	0.915
Etiology of Liver Disease			1.000
Alcohol	7 (41.2%)	21 (41.2%)	--
MASH	5 (29.4%)	14 (27.5%)	--
Viral	2 (11.8%)	5 (9.8%)	--
MELD 3.0*	21.9 ± 6.4	23.2 ± 7.3	0.601
Child B/C	16 (94.1%)	49 (96.1%)	1.000
Primary Admission Diagnosis			0.956
AKI	2 (11.8%)	8 (15.7%)	--
Ascites	8 (47.1%)	20 (39.2%)	--
HE	3 (17.6%)	9 (17.6%)	--
Others	4 (23.5%)	14 (27.5%)	--
Number of ED visits or urgent care in previous 30 days (without admission)*	0.1 ± 0.3	0.1 ± 0.3	1.000
Number of admits in previous 6 months^	1 (1,2)	1 (0,2)	0.835
Clinical Outcomes			
Index admission length of stay (days)*	6.9 ± 7.1	12.3 ± 10.9	0.071
30-day Readmission Rate	8 (47.3%)	18 (35.3%)	0.387
30-day Mortality Rate	2 (11.8%)	3 (5.9%)	0.421
Telemedicine Satisfaction Survey‡			
Similarity to Face-to-Face Encounter*	3.7 ± 1.1	--	--
Quality of Care Provided*	3.8 ± 0.7	--	--
Perception of the Interaction*	3.8 ± 1.2	--	--
Overall Score*	3.7 ± 0.8	--	--

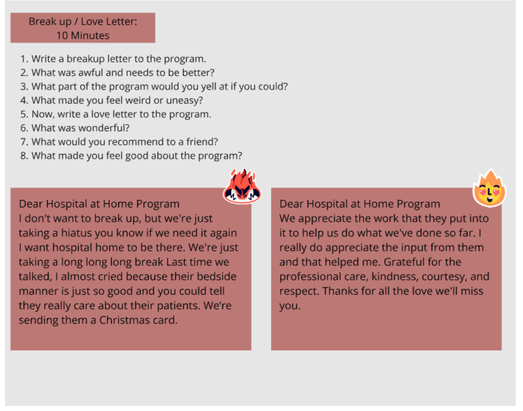
^ Median(IQR), * Mean +/- SD
† American Indian, Alaska Native, Asian, Native Hawaiian/Pacific Islander, or more than one race (Overall (n=7), HaH (n=1), Matched Controls, (n=6)
‡ Scored on a 5-point Likert scale with higher score indicating better rating

Figure 1 : Pre-Post Interview, Bar Graph



Before and after receiving HaH care, participants ranked how confident they were in their ability to 1) have control over their recovery 2) use technology 3) transition into a self-care regimen 4) have access to a specialist.

Figure 2 : Pre-Post Interviews, Letters

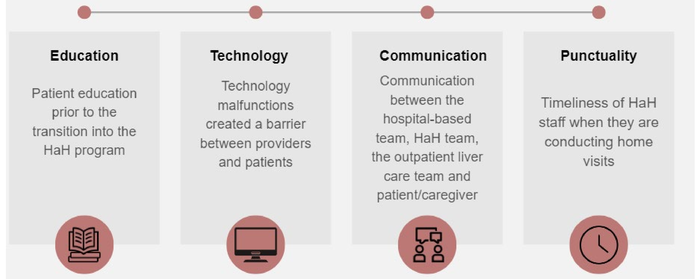


After receiving HaH care, participants wrote a breakup (left) and love (right) letters to the HaH program using the 8 questions to guide their responses.

Figure 3A: Positive Patient-Centered Care Themes



Figure 3B: Thematic Areas of Suggested Improvement



After analyzing the qualitative pre and post interviews, the following answers were commonly listed in participants positive experiences, and areas needed for improvement of the program.

Implications and Future Directions

HaH is an emerging model of acute care for patients with decompensated cirrhosis. Our findings suggest that HaH delivers similar clinical outcomes to traditional inpatient care, while offering better support for patient-focused care. Future studies are needed to analyze the impact of HaH-based cirrhosis care on inpatient complications, cost of care, and patient/caregiver reported outcomes.