Comparing Outcomes of Decompensated Cirrhosis Management on a Primary Hepatologist Service versus a Hospitalist Service at an Urban Hospital

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BACKGROUND

- Liver cirrhosis is a prevalent condition with significant morbidity and mortality
- While there are clear guidelines regarding the treatment of decompensated cirrhosis and its sequelae, data indicates that there are deficits in the care of these patients.
- There is limited data regarding how hospitalists treat these patients versus hepatologists.

AIMS

- To compare outcomes of quality-based practices of hepatologist-managed versus hospitalist-managed services for admissions for management of decompensated cirrhosis

METHODS

- Admissions of patients presenting to our institution with a diagnosis of decompensated cirrhosis were identified from 2016 to 2020.
- Patients were admitted for management of one of the following: hepatic encephalopathy (HE), ascites, bleeding esophageal varices (EV), hepatorenal syndrome (HRS), or spontaneous bacterial peritonitis (SBP)
- Patients were grouped based on service of at the time of discharge: hepatology service (HH), hospitalist service (GM), or hospitalist service with hepatology consult (MH)
- Quality indicators assessed included admission length of stay, intensive care unit admission, and death.
- Statistical analysis was performed using Stata.

RESULTS

2009 admissions reviewed → 547 admissions for decompensated cirrhosis identified → 168 admissions on GM, 178 admissions on MH, 201 admissions on HH

Table 1. Comparison of reason for admission between general medicine service without a hepatology consult (GM), general medicine service with a hepatology consult (MH), and a primary hepatology service (HH), p <0.05.

Reason for Admission	GM	MH	HH	p value
Bleeding esophageal varices (EV)	32.5%	29.8%	37.6%	0.054
Hepatic Encephalopathy (HE)	30.4%	36.2%	33.4%	0.054
Spontaneous Bacterial Peritonitis (SBP)	29.5%	33.7%	36.8%	0.058
Ascites	25.8%	35.0%	39.2%	0.036
Hepatorenal Syndrome (HRS)	28.8%	34.4%	36.7%	0.000

Table 2. Quality indicators assessed between general medicine service without a hepatology consult (GM), general medicine service with a hepatology consult (MH), and a primary hepatology service (HH), p <0.05.

	GM	MH	HH	p value
N	168	178	201	
Age (years)	56.1	59.2	59.1	0.02
MELD (average)	23.1	17.6	20.3	<0.001
Childs-Pugh (average)	10.3	8.9	9.6	<0.001
Hospital Stay Length (days)	9.1	5.3	6.2	<0.001
ICU transfers (%)	27.2	34.8	38.0	0.007
Death during admission (%)	14.9	8.4	1	<0.001

RESULTS

- Average MELD score at admission was higher on GM (23.1) compared to MH (17.6) and HH (20.3; p<0.001) services. This was similarly reflected in the Child-Pugh Score at admission [GM (10.3), MH (8.9), and HH (9.6; p<0.001)].
- GM admissions had a longer hospital stay (9.1 days) compared to MH (5.3 days) and HH (6.2 days, p<0.001) admissions, which remained significant when controlling for MELD score and age (p=0.001).
- GM admissions had a lower incidence of ICU transfers compared to MH and HH (27.2%, 34.8%, 38.0% respectively; p = 0.007).
- Patients on HH were less likely to expire prior to discharge compared to MH and HH (1% vs 8.4% and 14.9% respectively, p<0.001).

CONCLUSIONS

- There are differences in baseline characteristics and outcomes for decompensated patients admitted to GM, MH, and HH services for management of decompensations.
- There was an increase in length of stay for GM compared to MH and HH admissions, even when controlling for age and MELD score on admission. However, there was a decrease in ICU transfers on GM compared to MH and HH admissions.
- This study speaks to improved outcomes for patients presenting with decompensated cirrhosis on hepatologist led versus hospitalist led services without hepatology consults
- Further investigations would be needed to determine the rationale for differing patient outcomes.