

# Treatment of Hepatic Encephalopathy

## Level of Care

WH Grade	WH Grade I and WH Grade II	WH Grade III	WH Grade IV
Care Location	Telemetry capable unit on a medical/surgical floor	Telemetry capable unit, on a medical/surgical floor, step-down or intermediate care unit, or intensive care unit depending on risk factors	Intensive care unit

## Treat the Underlying Cause or Precipitating Factor

The primary tenet in the treatment of HE is to treat the underlying cause or precipitating factor. This can be done concurrently with pharmacologic management. Pharmacologic management alone will not be successful without concurrent treatment of coexisting, comorbid conditions or precipitating factors.

## Non-pharmacologic Management

Ensure adequate nutrition and prevent fasting. If mental status is poor enough to increase risk of aspiration, consider short-term alternative forms of nutrition.

Prevent concurrent hospital-acquired or ICU-acquired delirium by normalizing the sleep-wake cycle, providing frequent reorientation, ensuring access to hearing aids and glasses, and maximizing exposure to natural light.

## Pharmacologic Management

### Acute Management

Administer enteric lactulose, either orally or via a nasogastric or orogastric tube. Rectal lactulose can be administered if necessary.

The frequency of administration can be up to every two hours with the goal of titrating according to the number of bowel movements. A goal of at least 3-4 bowel movements per 24 hours can be the initial target, with therapy adjusted as mental status changes.

### Prevention of Recurrence

Patients with HE are at risk for further episodes of HE in the future. They should be advised to take lactulose and titrate the dose to achieve 2-4 bowel movements per day.

If HE recurs despite this regimen, then oral rifaximin should be added. Before initiating rifaximin, it is advised to assess patient's financial access to this medication and to engage support services for payment options if needed.

## Specialist Consultation

Consider gastroenterology or hepatology consultation if your patient is not improving as expected after the above measures. Evaluation at a transplant-capable center may be appropriate in refractory cases or in liver disease with multiple concurrent decompensations.