

Hepatic Encephalopathy

Diagnosis and management of covert/minimal HE, inpatient overt HE, recurrence prevention, sarcopenia/nutrition, TIPS-related HE, and transplant considerations.

STRENGTH

● Strong

● Conditional

1 Covert / Minimal HE (CHE/MHE)

STATEMENT	STRENGTH
R1 – Evaluating for MHE/CHE: single-test strategy preferred over a 2-test combination	Conditional Very low
R2 – Against using serum ammonia alone to diagnose MHE/CHE	Conditional Very low
R3 – Treat MHE/CHE with lactulose vs no treatment	Conditional Low
R4 – Insufficient evidence for/against routine MHE/CHE treatment to prevent OHE	— No rec.

2 Inpatient Management of Overt HE

STATEMENT	STRENGTH
R5 – Against routine serum ammonia testing to guide HE treatment decisions	Conditional Very low
R6 – Cirrhosis + confusion without new focal deficits: against routine brain imaging	Conditional Very low
R7 – OHE: lactulose to improve outcomes and prevent recurrence	Strong Moderate
R8 – OHE: high-volume (e.g., 4 L) PEG as alternative to lactulose	Conditional Low
R9 – Acute OHE: add rifaximin to lactulose vs lactulose alone	Conditional Low

3 Prevention of HE Recurrence

STATEMENT	STRENGTH
R10 – After initial OHE: lactulose titrated to 2–3 soft BM/day as outpatient first-line prevention	Strong High
R11 – Use Bristol Stool Scale + BM frequency for outpatient lactulose titration to reduce readmissions	Conditional Very low
R12 – Outpatient rifaximin to prevent HE recurrence	Conditional Low
R13 – Recurrent HE despite lactulose maintenance: add rifaximin	Strong High
R14 – Persistent symptoms despite lactulose + rifaximin: add zinc if serum zinc low	Conditional Very low
R15 – Health IT interventions (e.g., Patient Buddy App, e-reminders) to optimize HE management	Conditional Very low
R16 – Refractory HE on optimized medical therapy: shunt embolization if adequate hepatic function, no contraindications	Conditional Very low

4 Sarcopenia & Nutrition

STATEMENT	STRENGTH
R17 – Outpatients with HE: protein intake target 1.2–1.5 g/kg/d	Strong Moderate
R18 – BCAA supplementation if protein needs not met by food alone	Strong Moderate
R19 – Late-night snack to reduce frailty and HE	Conditional Very low
R20 – Against protein restriction – increases muscle breakdown, doesn't shorten HE duration	Conditional Very low
R21 – Exercise to reduce fall risk, lower portal pressure, increase ammonia-metabolizing muscle capacity	Conditional Low

5 HE in the Context of TIPS

STATEMENT	STRENGTH
R22 – Decompensated cirrhosis ± prior OHE: start rifaximin 14 d pre-elective TIPS, continue ≥6 mo to reduce recurrent/de novo OHE	Strong Moderate
R23 – Embolize extrahepatic collaterals at time of TIPS to reduce post-TIPS HE	Conditional Low

6 Liver Transplant & HE

STATEMENT	STRENGTH
R24 – Multiple HE episodes + MELD <15: evaluate candidacy for living donor liver transplantation	Conditional Low