



Alcohol-Associated Hepatitis

Score the severity · Steroids only if severe, and stop them if they fail

MADDREY ≥ 32

= severe

DIAGNOSE CLINICALLY *biopsy is rarely needed if the picture fits*

THE PHENOTYPE

Jaundice developing over less than 8 weeks in the setting of **heavy, sustained alcohol use** with recent consumption. Tender hepatomegaly, fever, and leukocytosis without infection are common.

THE LABS

AST > ALT, usually with a ratio above 1.5–2. **AST is typically under 400 U/L** — a much higher value points elsewhere. **Bilirubin > 3 mg/dL**, raised INR, and a raised neutrophil count.

EXCLUDE THE MIMICS

Viral hepatitis, drug-induced injury (including **acetaminophen**), autoimmune hepatitis, ischemic hepatitis, biliary obstruction, and Wilson disease. Get an ultrasound with Doppler and a full serological screen.

SCORE THE SEVERITY *this decides whether steroids are even on the table*

Score	Threshold	Meaning
Maddrey discriminant function 4.6 × (patient PT – control PT) + total bilirubin	≥ 32 = severe	Identifies those in need of treatment. A value above 32 predicts 28-day mortality of roughly 20–30% , and is the classical trigger for corticosteroids.
MELD	> 20	Also prompts consideration of steroid treatment, and is the better predictor of longer-term mortality.
Lille score calculated after 7 days of steroids	≥ 0.45 = non-responder	Used to reassess prognosis, identify non-responders, and decide whether to continue . Stop steroids in non-responders — continuing exposes them to infection with no survival gain.
Glasgow alcoholic hepatitis score	≥ 9	An alternative severity index used in some centers alongside the above.

TREAT *steroids are a small part of it — the supportive care is most of the benefit*

- Corticosteroids for severe disease. Prednisolone 40 mg daily orally for 28 days** improves 28-day mortality in patients with **Maddrey ≥ 32** and no contraindication. Use **methylprednisolone 32 mg IV daily** if oral is not possible. **Prednisolone, not prednisone** — conversion depends on hepatic function.
- Screen hard for contraindications first: active uncontrolled infection, active GI bleeding**, untreated hepatitis B, acute kidney injury or hepatorenal syndrome, acute pancreatitis, and uncontrolled diabetes. **Culture everything and treat infection before starting**.
- Calculate the Lille score at day 7**. If **≥ 0.45 , stop the steroid**. If responding, complete the 28 days and then stop without a prolonged taper.
- Aggressive nutrition — arguably the highest-yield intervention**. Target roughly **35–40 kcal/kg/day and 1.2–1.5 g/kg/day protein**, using enteral feeding if intake is inadequate. **Do not restrict protein** even with encephalopathy. Give **thiamine before any glucose**, plus folate and other B vitamins, and replace magnesium, phosphate, and potassium.
- Alcohol use disorder treatment is the only thing that changes long-term survival**. Manage withdrawal, and start relapse-prevention counseling and pharmacotherapy in hospital rather than deferring it to an outpatient clinic the patient may never reach.

WHAT NOT TO DO, AND WHERE THIS GOES *the traps and the endpoint*

AVOID

Pentoxifylline is not recommended — trials did not show benefit. **Do not start steroids in the presence of untreated infection**. Avoid NSAIDs and nephrotoxins. Do not use N-acetylcysteine as monotherapy. Do not withhold nutrition awaiting a procedure.

WATCH FOR & PLAN FOR

Infection is the leading cause of death — surveillance cultures and a low threshold to treat, especially while on steroids. Watch for **hepatorenal syndrome**, variceal bleeding, and encephalopathy. **Early liver transplant** is now offered in selected, carefully assessed non-responders at experienced centers, so **discuss referral rather than assuming ineligibility on abstinence duration alone**.

THE FIRST 24 HOURS *what to order before you think about steroids*

Task	Detail
Hunt for infection	Blood and urine cultures, chest imaging, and a diagnostic paracentesis if there is ascites . Infection is both a steroid contraindication and the leading cause of death, and is often occult.
Manage withdrawal	Symptom-triggered benzodiazepine using a validated scale. Prefer lorazepam where hepatic function is poor, since it avoids oxidative hepatic metabolism. Watch for withdrawal masquerading as encephalopathy, and vice versa.
Thiamine before glucose	Parenteral thiamine first , then dextrose — giving glucose to a thiamine-deplete patient can precipitate Wernicke encephalopathy. Add folate and other B vitamins.
Electrolytes & refeeding	Replace magnesium, phosphate, and potassium aggressively, and anticipate refeeding syndrome when nutrition starts in a malnourished patient. Recheck daily during escalation.

PROGNOSIS & TRAJECTORY *what to tell the patient and the family*

SHORT TERM

Severe disease carries **28-day mortality of roughly 20–30%**. **Steroid non-responders** by Lille score have a substantially worse outlook, and steroids should be stopped in that group. Infection, hepatorenal syndrome, and variceal bleeding are the usual terminal events.

LONGER TERM

Abstinence is the dominant determinant of survival beyond the acute episode, larger than any drug. Those who stop can recover substantial liver function over months; those who continue progress to cirrhosis.

PEARLS & PITFALLS

- AST above ~400 argues against this diagnosis** — look for acetaminophen, ischemia, or viral causes.
- Exclude and treat infection before steroids**. Starting them in occult sepsis is a common and lethal mistake.
- Stop steroids at day 7 if Lille ≥ 0.45** — continuing adds infection risk without benefit.
- Nutrition and thiamine outrank steroids** in overall impact. Give thiamine before glucose, every time.
- Never protein-restrict** these patients, even with encephalopathy.
- Address the alcohol use disorder during the admission** — the only intervention that changes survival beyond 90 days.

References: AASLD 2019 Guidance on Alcohol-Associated Liver Disease · STOPA trial (NEJM, 2015) · Louvet Lille model · AASLD Liver Fellow Network review of Maddrey and Lille scoring.

Educational aid; verify doses against local protocol, renal and hepatic function, and patient factors.

