Standard Operating Procedure

ALCOHOLIC HEPATITIS

Special Region (1)

Union of Myanmar

Version (1)

Effective 2nd February 2026

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Approved by: Internal Medicine

1.PURPOSE

To standardize the diagnosis, severity assessment, and management of alcohol-associated hepatitis, including supportive care, pharmacologic therapy, treatment of alcohol withdrawal syndrome, and prevention of Wernicke-Korsakoff syndrome.

2. SCOPE

Applicable to Emergency Department, Internal Medicine wards, ICU/HDU, and all SR-1 hospitals managing alcohol-related liver disease.

3. SPECTRUM OF ALCOHOL-RELATED LIVER DISEASE

Steatosis → Alcoholic hepatitis → Fibrosis → Cirrhosis → Acute-on-chronic liver failure.

Alcoholic hepatitis may occur at any stage of alcohol-related liver disease.

4. RISK FACTORS

- Heavy alcohol consumption (>60 g/day men, >40 g/day women)
- Female sex
- Obesity / metabolic syndrome
- Smoking
- Hepatitis C infection
- Genetic susceptibility (e.g., PNPLA3 polymorphism)

5. CLINICAL FEATURES

Symptoms: jaundice, fever, anorexia, fatigue, nausea, right upper quadrant pain.

Signs: tender hepatomegaly, ascites, peripheral edema, spider angiomas, hepatic encephalopathy in severe disease.

6. DIAGNOSTIC CRITERIA

Typical findings:

- Bilirubin >3 mg/dL
- AST 50–400 IU/L (moderately raised, usually <300)
- AST/ALT ratio >1.5
- Heavy alcohol intake within previous weeks
- Leukocytosis may be present

7. SEVERITY ASSESSMENT

Maddrey Discriminant Function (MDF) is used to determine the severity of alcoholic hepatitis.

$$MDF = (4.6 \times [PT_{patient} - PT_{control}]) + (bilirubin\ [\mu mol/L] / 17.1)$$

MDF ≥32 indicates severe alcoholic hepatitis.

MELD score may also be used to assess mortality risk.

8. NON-PHARMACOLOGICAL MANAGEMENT

- Complete alcohol abstinence (most important intervention)
- Nutritional therapy: 35–40 kcal/kg/day and 1.2–1.5 g/kg/day protein
  - One serving for Myanmar rice and curry = 500-700 kcal (3 serving per days = ~1800 kcal per day)
- Screen for infection before steroid therapy

9. PHARMACOLOGICAL MANAGEMENT

Severe alcoholic hepatitis (MDF ≥32): oral Prednisolone and IV N-acetyl cysteine.

Steroid Regimen

Prednisolone 40 mg daily for 28 days.

Evaluate response at Day 7 using Lille score.

Lille <0.45 → continue steroids

Lille ≥0.45 → stop steroids

In the absence of contraindications for steroids (Active infection, Gastrointestinal bleeding, acute pancreatitis, renal failure, uncontrolled diabetes, active Tuberculosis), start steroid.

Steroid regimen for severe alcoholic hepatitis	
Week 1 – prednisolone 40 mg per day Calculate Lille score	
Lille score <0.45	**Lille score ≥0.45**
Week 2 – prednisolone 40mg per day	**Stop steroid**
Week 3 – prednisolone 40mg per day	
Week 4 – prednisolone 40mg per day	
Week 5 – prednisolone 30mg per day	
Week 6 – prednisolone 20mg per day	
Week 7 – prednisolone 10mg per day	
Week 8 – stop prednisolone	

N-acetyl cysteine (NAC) Therapy

N-acetyl cysteine (NAC) therapy is add-on therapy to steroid for severe alcoholic hepatitis (MDF ≥32): to reduce 1 month mortality and reduce renal failure and infection. However, there is no benefit in long term mortality.

Phase	Dose
Loading	150 mg/kg IV over 1 hour
Infusion	12.5 mg/kg/hr for 4 hr
Maintenance	6.25 mg/kg/hr for remaining 67 hr
Total duration	5 days

Non-severe alcoholic hepatitis (MDF < 32)

- No role for steroids or pentoxifylline
- Main treatment: Alcohol abstinence + medical nutrition therapy + vitamins

10. MANAGEMENT OF ALCOHOL WITHDRAWAL

In patients with alcoholic hepatitis or advanced liver disease, benzodiazepines metabolized through glucuronidation (e.g., lorazepam or oxazepam) are preferred for management of alcohol withdrawal syndrome. Diazepam should be used cautiously because impaired hepatic oxidative metabolism may lead to drug accumulation and excessive sedation.

Preferred benzodiazepines in liver disease: Lorazepam 2–4 mg every 4–6 hours.

For severe alcohol withdrawal syndrome / delirium tremens: Lorazepam 2–4 mg IV every 15–20 minutes until agitation controlled.

Fixed dose regimen of lorazepam

Day	Lorazepam Dose
Day 1	**2 mg every 6 hours**
Day 2	**2 mg every 8 hours**
Day 3	**1 mg every 8 hours**
Day 4	**1 mg every 12 hours**

11. WERNICKE ENCEPHALOPATHY

Classic triad: confusion, ataxia, ophthalmoplegia.

Treatment:
Thiamine 200–500 mg IV three times daily for 3 days, followed by 100 mg orally daily.
Thiamine must be given before glucose administration.

12. MANAGEMENT OF COMPLICATIONS

- **Ascites –** sodium restriction and diuretics
- **Spontaneous bacterial peritonitis –** third-generation cephalosporins
- **Hepatic encephalopathy –** lactulose ± rifaximin
- **Variceal bleeding –** endoscopic therapy

13. PROGNOSIS

Approximate mortality:

- 30-day mortality ~15–20%
- Severe disease 3-month mortality up to 50%

Long-term survival depends strongly on alcohol abstinence.

14. REFERENCES

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