# Decompensated Cirrhosis Care Bundle - First 24 Hours (Print out for notes)

The NCEPOD report 2013 on alcohol related liver disease highlighted that the management of some patients admitted with decompensated cirrhosis in the UK was suboptimal.

Admission with decompensated cirrhosis is a common medical presentation and carries a high mortality (10-20% in hospital mortality). Early intervention with evidence-based treatments for patients with the complications of cirrhosis can save lives.

This checklist aims to provide a guide to help ensure that the necessary early investigations are completed in a timely manner and appropriate treatments are given at the earliest opportunity.

**Who does this apply to?**
Decompensated cirrhosis is defined as a patient with cirrhosis who presents with an acute deterioration in liver function that can manifest with the following symptoms:

- Jaundice
- Increasing ascites
- Hepatic encephalopathy
- Renal impairment
- GI bleeding
- Signs of sepsis/hypovolaemia

Frequently there is a precipitant that leads to the decompensation of cirrhosis.
Common causes are:

- GI bleeding (variceal and non-variceal)
- Infection/sepsis (spontaneous bacterial peritonitis, urine, chest, cholangitis etc)
- Alcoholic hepatitis
- Acute portal vein thrombosis
- Development of hepatocellular carcinoma
- Drugs (Alcohol, opiates, NSAIDs etc)
- Ischaemic liver injury (sepsis or hypotension)
- Dehydration
- Constipation

When assessing patients who present with decompensated cirrhosis please look for the precipitating causes and treat accordingly.

The checklist shown overleaf gives a guide on the necessary investigations and early management of these patients admitted with decompensated cirrhosis and should be completed on all patients who present with this condition.

Cirrhosis patients with a history of suspected variceal bleeding need early referral to GI (to decide if endoscopy recommended while we resuscitate).

Escalation of care to higher level should be considered in patients not responding to treatment when reviewed after 6 hours, particularly in those with first presentation and those with good underlying performance status prior to the recent illness.

See next page for checklist adapted from BSG checklist (found **HERE**.)

**Clinical:**

| | | |
|---|---|---|
| Record recent daily alcohol intake: | Units | See section 1 |
| Seek evidence of infection from any source. | | See section 2 |
| Hx OR signs of bleeding? Perform PR ? maleana. | | See section 4 |
| Is the patient encephalopathic? | | See section 5 |

**Early involvement of ED senior if any signs of shock – vital signs/raised lactate/acidosis.**

**Investigations in ED:**

- ☐ ECG
- ☐ Admission set, Coag, CRP, Glucose, Calcium, Phosphate, Mg, VBG.
- ☐ BTS tube (two historical sample required for FFP/RCC release unless it's an emergency)
- ☐ Blood cultures
- ☐ Perform ascitic tap in all patients with ascites using green needle irrespective of clotting parameters. **Consider US guidance/Senior help**.
  - X2 10mls in a universal container: Micro C&S fluids (ascitic fluid) & Biochem pro/alb.
- ☐ CXR
- ☐ Urine dip

**In Ward:**

- ☐ Request Liver US

| **1) Alcohol - if the patient has a history of current excess alcohol consumption** (>8 units/day Males or >6 units/day Females) | | N/A☐ |
|---|---|---|
| a) | Give IV Pabrinex (2 pairs of vials three times daily) | Y/N |
| b) | Consider stat dose diazepam 20mg if in acute withdrawal | Y/N |
| c) | Commence CIWA score if evidence of alcohol withdrawal **– In AMU** | Y/N |

| **2) Infections – if sepsis or infection is suspected** | | N/A☐ |
|---|---|---|
| a) | What is the suspected source? ..... | Y/N |
| b) | Treat with antibiotics as per microguide | Y/N |
| c) | If ascitic neutrophils >0.25x109/L (>250/mm3) (ie SBP) then start: | Y/N |
| i) | Antibiotics as per microguide | Y/N |
| ii) | IV albumin (20% HAS) 1.5g/Kg (20g of albumin in 100mls of 20% HAS)<br>In hours contact pharmacy on 22937. OOH can be found in emergency cupboard in AMU. | Y/N |

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| 3) AKI as defined by modified RIFLE criteria (see below) and/or Hyponatraemia (Na < 125mmol/L) | | N/A☐ |
|---|---|---|
| a) | Fluid resuscitate with 5% Human Albumin Solution or 0.9% Sodium Chloride (250ml boluses with regular reassessment: 1-2L will correct most losses) | Y/N |
| b) | Suspend all diuretics and nephrotoxic drugs – **IN AMU** | Y/N |
| c) | Aim for MAP>80mmHg to achieve UO>0.5ml/kg/hr based on dry weight - **IN AMU** | Y/N |
| d) | Initiate fluid balance chart/daily weights – **IN AMU** | Y/N |
| e) | At 6 hrs, if target not achieved or EWS worsening then consider escalation to higher level of care | Y/N |

Modified RIFLE Criteria
1: Increase in serum creatinine ≥ 26µmol/L within 48hrs ***Or***
2: ≥50% rise in serum creatinine over the last 7 days ***Or***
3: Urine output<0.5mls/Kg/hr for more than 6 hours based on dry weight ***Or***
4. Clinically dehydrated

| 4) GI bleeding – if the patient has evidence of GI bleeding and varices are suspected | | N/A☐ |
|---|---|---|
| a) | Fluid resuscitate according to BP, pulse and venous pressure (aim MAP >65 mmHg) | Y/N |
| b) | Prescribe **IV terlipressin** 2mg four times daily (caution if known ischaemic heart disease or peripheral vascular disease; perform ECG in >65yrs) | Y/N |
| c) | **Prescribe prophylactic antibiotics**: Tazocin 4.5g IV for 3 days | Y/N |
| d) | If PT> 20 seconds (or INR >2.0) give **IV vitamin K** 10mg stat | Y/N |
| e) | If PT> 20 seconds (or INR >2.0) – **give FFP** (2-4 units) –Rx on BTS chart<br>- **call BTS 27501 (two historical BTS sample required unless emergency)** | Y/N |
| f) | If platelets <50 – give 1-2 pools of platelets – **call BTS 27501.** Rx on BTS chart. 30mins each. | Y/N |
| g) | Transfuse blood if Hb <7.0 g/L or massive bleeding (aim for Hb > 8g/L) | Y/N |
| h) | Early endoscopy after resuscitation (ideally within 12 hours) – D/W ITU and GI to arrange. | Y/N |

| 5) Encephalopathy (see criteria below) | | N/A☐ |
|---|---|---|
| a) | Look for precipitant (GI bleed, constipation, dehydration, sepsis etc.) | Y/N |
| b) | If in clinical doubt in a confused patient request CT head to exclude subdural haematoma | Y/N |
| c) | Encephalopathy – lactulose 20-30ml QDS or phosphate enema – **IN AMU** | Y/N |

Hepatic encephalopathy can be graded using the Conn score (also called West Haven classification) in which higher scores indicate a higher severity, as follows:
Grade 0: No personality or behavioural abnormality detected.
Grade 1: lack of awareness, euphoria or anxiety, shortened attention span, impaired performance of addition.
Grade 2: lethargy or apathy, minimal disorientation for time or place, subtle personality change, inappropriate behaviour, impaired performance of subtraction.
Grade 3: somnolence to semi stupor but responsive to verbal stimuli, confusion, gross disorientation.
Grade 4: coma (unresponsive to verbal or noxious stimuli).

| 6) Other | | |
|---|---|---|
| a) | Contact GI – bleep 2117 or via switchboard. Time: ..... | Y/N |
| b) | Venous thromboembolism prophylaxis – prescribe prophylactic LMWH (patients with liver disease are at a high risk of thromboembolism even with a prolonged prothrombin time; withhold if patient is actively bleeding or platelets <50) – **IN AMU** | Y/N |

Name.....Grade.....Date.....Time.....