DECOMPENSATED CHRONIC LIVER DISEASE GUIDELINE

SUSPECT

SIGNS
JAUNDICE
INCREASING ASCITES
GI BLEEDING
RENAL IMPAIRMENT
SEPSIS / HYPOVOLAEMIA

CAUSES
GI BLEEDING
INFECTION / SEPSIS
ALCOHOLIC HEPATITIS
DRUGS (eg ETOH / OPIATES / NSAID's)
HEPATOCELLULAR CARCINOMA
ISCHAEMIC LIVER INJURY
ACUTE PORTAL VEIN THROMBOSIS
CONSTIPATION
DEHYDRATION

ACUTE KIDNEY INJURY
If recent baseline Creat known
- MODIFIED RIFLE CRITERIA
  1. Creat rise > 26µmol/L in 48hrs or >50% rise in 1/52
  2. Oliguria: UO < 0.5mls/kg/hr for > 6hrs
  3. Clinically dehydrated

If baseline renal function unknown
- Creat >90 or eGFR <60

ENCEPHALOPATHY SCALE
Grade 1: Mild behavioral disturbance
Grade 2: Confusion, asterixis
Grade 3: Stupor, nystagmus, clonus
Grade 4: Coma

INVESTIGATE

ALL PATIENTS
FBC, UE, LFT, Clotting profile

CONSIDER
CRP
VBG,
Ca^{++}, Mg^{++}, PO_4^{-}
Blood cultures / septic screen

ED Abdominal USS (in hours)
Consider if
- Alternative diagnosis suspected
- Suspicion portal vein thrombosis
- Ascitic fluid tap
- Determine filling status
- Renal tract (differentiate renal / post-renal AKI)

Ascitic tap
- For ALL admitted patients with ascites
- Can be done by ED / Hepatology Reg
- Use USS if available or clinical doubt regarding optimal site
- Don't let ascitic tap delay antibiotic administration if SBP suspected
- Check clotting
  - INR <2.5 ED or Hepatology
  - INR >2.5 Hepatology only
- Send fluid for
  - Cell count (purple EDTA)
  - Fluid MC&S (blood culture bottles)
  - Fluid albumin (specimen container)
- SBP if cell count > 250cell/mm^3

TREAT

COAGULOPATHY & THROMBOCYTOPENIA

NO BLEEDING	INVASIVE PROCEDURE	GI BLEEDING
Correction of coagulopathy not required	INR: 1.1-2.5 Give 10mg Vit K (often ineffective) >2.5 d/w Haematology Platelets <50: give 1 pool IV platelets (should increase platelets by 20-40x10^9/L	See Upper GI Bleeding Protocol SCGH ED & Massive Transfusion Protocol SCGHED.com

ASCITES / HYPONATRAEMIA / AKI

SHOCKED / UNSTABLE	HYPOVOLAEMIA	EUVOLAEMIC	HYPERVOLAEMIC
0.9% N/S (250-500mL boluses) 20% IV Albumin 100mL ± Vasopressors	20% IV Albumin 100mL	Avoid 0.9% N/S Consider Fluid restriction Diuresis (d/w Hepatology)	
ACUTE KIDNEY INJURY? (see inset) Likely pre-renal Suspend all nephrotoxics / diuretics Monitor urine output ± IDC		**ACUTE KIDNEY INJURY?** (see inset) Likely renal / post-renal Monitor urine output ± IDC Urinalysis (blood / protein) Exclude obstruction (consider USS renal tract)	

ENCEPHALOPATHY (see inset)
Identify potential precipitants and their correction
- Trauma (CT head), GI bleed, constipation, dehydration, sepsis, toxins / drugs

Empirical treatment
- Lactulose 30mL PO / NG (oesoph varices are NOT a contraindication to NG insertion) or Fleet enema PR
- Correct hypokalaemia
- Avoid sedatives

Consider airway protection / ICU / HDU or review boundaries of care
Ammonia levels are NOT useful for diagnosis or management

SEPSIS / INFECTION
Spontaneous bacterial peritonitis: Tazocin 4.5g IV (Ciprofloxacin 400mg IV if Pen allergy)
20% Albumin IV 100mL

ALCOHOL
Document daily intake
Give Thiamine 100 OD-TDS PO or B-dose 2mL IV if malnourished
Avoid AWC (Alcohol Withdrawl Charts)- use minimal sedative BDZ and frequent medical review

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