July/ 2020

Department of Health Research
Ministry of Health and Family Welfare, Government of India

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Standard Treatment Workflow (STW)

ACUTE GASTROINTESTINAL BLEED IN ADULTS - PART A

ICD-10-K92.2

Diagnose Acute GI Bleed if there is history of

- Vomiting of blood (Hematemesis)
- Bleeding per rectum (Hematochezia) — RED STOOLS
- Black tarry stools (Melena) — BLACK STOOLS
- Blood in nasogastric tube (NG) (Active GI bleed)

ASSESS FOR HIGH RISK
(Classify as high risk if any of these are present)

- Pulse rate >100/min
- Systolic BP <90 mmHg
- H/O Syncope
- Oxygen saturation <90%
- Altered sensorium
- Age >60 years and/ or significant co-morbid conditions

RESUSCITATE

- Place atleast one IV cannula (minimum 18 G) and start crystalloids (Ringer's lactate or normal saline)
- Place a NG tube and perform lavage
- Start supplemental oxygen at 2 L/min in high risk cases and those in shock
- Stop antiplatelets and anticoagulants. If H/o recent myocardial infarction or stent placed, consult a cardiologist
- Refer all high risk cases after initial resuscitation

TARGETS

- Pulse rate <100/ min
- Systolic BP >90 mmHg
- Oxygen saturation >90%
- Hemoglobin >7 g/dL (in case of heart disease >9g/dL)

CLINICAL EVALUATION

Assess for	History and examination	Points towards
Site of bleed	Hematemesis/ blood in NG tube/ melena	Upper GI bleed
	Fresh blood per rectum/ maroon stools	Lower/Upper GI bleed
Etiology	H/o - alcohol intake/ jaundice/ blood transfusion O/E - jaundice/ ascites/ splenomegaly	Variceal bleed
	H/o epigastric pain/ NSAID intake/ antiplatelets	Ulcer bleed
	If lower GI Bleed: H/o fever/ diarrhea	Infective causes (eg: Typhoid)
	H/o bleeding per rectum with concomitant yellow stools	Hemorrhoids/ rectal lesion
Rate of blood loss	Large volume hematemesis/ fresh blood/ frequent melena/ postural giddiness/ breathlessness/ hypotension	Rapid blood loss
Precipitants	Aspirin/ NSAIDs/ antiplatelets/ anticoagulants	Stop all precipitants
Co-morbid conditions	Cardiovascular disease/ renal disease/ malignancy	Assess functional status

INVESTIGATIONS

Hemoglobin, platelets, TLC, PTL, INR

Blood grouping and cross matching to arrange blood

Desirable Tests:
Prothrombin time/ INR, liver function tests, blood urea and creatinine, HBsAg, Anti HCV ultrasound abdomen

MANAGEMENT

Continue resuscitation
(As detailed above)

Blood transfusion
Give packed RBC/ whole blood if Hb <7 g/dL (or Hb <9 g/dL in case pre-existing heart disease)

Patient may need ICU care depending on the overall general condition. If patient is in altered sensorium and bleeding actively secure airway

PHARMACOTHERAPY

Diagnosis	Class of drugs	Administration regimen
All patients	PPIs	Inj. Pantoprazole or Esomeprazole 80 mg I.V. stat, followed by 40 mg 12 hourly; if I.V. not available, give oral Pantoprazole/ Esomeprazole. Stop if variceal bleed is documented
Suspected variceal bleed	Vasoconstrictors	Inj Terlipressin* 2 mg I.V. stat, followed by Terlipressin 1 mg 6 hourly X 3-5 days OR Inj. Somatostatin 250 µg I.V. stat, followed by 250 µg/ hr infusion X 3-5 days OR Inj. Octreotide 50 µg stat I.V. followed by 50 µg/ hr infusion X 3-5 days
		* Avoid Terlipressin in patients with suspected heart disease or peripheral vascular disease. if patient is on Terlipressin examine for signs of peripheral/ cardiac ischemia regularly
	Antibiotics	Inj Ceftriaxone I.V. 1 g 12 hourly x 3-5 days OR Inj Cefotaxime I.V. 1 g 8 hourly X 3-5 days
Lower GI bleed with fever	Antibiotics	Inj Ceftriaxone 2g I.V. 12 hourly AND Inj Metronidazole 500 mg I.V. 8 hourly — X 5 days

**All cases of acute GI Bleed must undergo endoscopy within 24 hours of initial stabilisation.
Patients with active ongoing bleed may require an earlier endoscopy.
Appropriate informed consent to be taken prior to endoscopy.**

REFER TO PART B OF TREATMENT WORKFLOW FOR ENDOSCOPIC THERAPY AND/ OR SURGERY

ABBREVIATIONS

HCV: Hepatitis C virus
INR: International normalized ratio
NG: Nasogastric
NSAID: Nonsteroidal anti-inflammatory drugs
PPIs: Proton pump inhibitors
PTL: Platelet count
RBC: Red blood cell
TLC: Total leukocyte count