STANDARD TREATMENT WORKFLOW (STW)
Jaundice

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**Standard Treatment Workflow (STW)**

**JAUNDICE**

ICD-10-R17

**SIGNS & SYMPTOMS**

- Viral prodrome
- Loss of appetite/nausea/vomiting
- High colourd urine
- Pain abdomen
- Fever
- Itching, clay coloured stools

**ESSENTIAL TESTS**

- **Serum Bilirubin > 1.5 mg/DL**
- Anorexia/nausea/vomiting
- Viral Prodrome
- LFT/SGOT/SCPT ≥ SAP ≥
- USG: No Biliary Dilatation
- Parenchymal Liver Disease (Hepatitis)
- Pain Pruritus
- Clay coloured stool
- USG: Biliary Dilatation
- Biliary Obstruction
Dutta U, et al.: Jaundice

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JAUNDICE

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SIGNS & SYMPTOMS
- Viral prodrome
- Loss of appetite, nausea, vomiting
- High coloured urine
- Pain abdomen
- Fever
- Itching, clay coloured stools

ESSENTIAL TESTS
- Serum Bilirubin: > 1.5 mg/dl
- Anorexia, nausea, vomiting
- Viral Prodrome
- Liver function tests
- SGOT, SGPT, AP, ALP
- Ultrasound/CT scan

DIFFERENTIAL DIAGNOSIS: COMMON CAUSES

JAUNDICE (ISOLATED RAISED BILIRUBIN)
- Hemolytic disease
  - Congenital hyperbilirubinemia

OBSTRUCTIVE JAUNDICE
- Benign: Common bile duct stone
  - Gallstone disease
- Malignant: Carcinoma gall bladder
  - Carcinoma pancreas
  - Pan-creatic carcinoma
  - Cholangiocarcinoma

PARENCHYMAL LIVER DISEASE
- Viral hepatitis
  - Alcoholic hepatitis
  - Drug induced hepatitis
  - Autoimmune hepatitis
  - Chronic viral hepatitis

SYSTEMIC INFECTIONS (USUALLY WITH FEVER)
- Complicated malaria
  - Enteric fever
  - Dengue fever
  - Scarlet fever
  - Scrub typhus
  - Leptospirosis

DAMPED LIVER DISEASE (HEPATITIS)

SUPPORTIVE LAB EVIDENCE
- Isolated rise in bilirubin (indirect bilirubin > direct bilirubin)
  - Normal values of SGOT, SGPT, AP, ALP
  - Normal ultrasonography of liver & biliary system

- Significantly elevated AP, LDH, bilirubin
  - Normal or mildly elevated SGOT, SGPT
  - Imaging show biliary obstruction

- Elevated SGOT & SGPT
  - Usually < 5 x Upper limit of normal
  - < 500 in alcoholic hepatitis
  - Viral markers
  - History of alcohol
  - Hepatitis A, B, C
  - Hepatitis B

MANAGEMENT
- Hemolytic disease:
  - Start Biliart Foliot and 5 mg once a day
  - Refer to a hematologist

- Congenital hyperbilirubinemia:
  - Measurement & refer to pediatrician for confirmation
  - Normal diet

- OBSTRUCTIVE JAUNDICE
  - Start IV antibiotics if patient has fever and infected TUC
  - Start IV fluids if patient dehydrated
  - Refer to higher center with facility for CT scan/ERC
  - Repeat ERC/PTBD/Surgery

- PARENCHYMAL LIVER DISEASE
  - Maintain hydration
  - Symptomatic Rx: eg. antihistamines
  - Normal diet
  - Treat specific infectious illness
  - Phenobarbital for alcoholic hepatitis
  - ANXIDANT ALCOHOL AND ALL NON-PRESCRIPTION DRUGS

- SYSTEMIC INFECTIONS
  - Peripheremic smear for malarial parasite or blood culture or widal test/ appropriate serology

- In appropriate clinical setting:
  - Treat specific systemic infection
  - Normal diet

REFERRAL TRIGGERS

- INR > 1.5 or rising INR - may be an early indicator of liver failure
- Altered sensorium
- Bleeding
- Recurrent vomiting with dehydration
- Hypotension systolic BP < 90 mmHg

ABBREVIATIONS
- ATT: Anti tubercular drugs
- Bilirubin: Direct & indirect
- ERC: Endoscopic retrograde cholangiopancreatography
- LFT: Liver function test
- SGOT: Serum Glutamic Oxaloacetic Transaminase
- SGPT: Serum Glutamic Pyruvic Transaminas
- PTBD: Percutaneous transhepatic biliary drainage
- APC: Alkaline Phosphatase
- AP: Alkaline Phosphotase
- AP: Alkaline Phosphotase
- GGT: Gamma glutamyl transferase
- MCV: Mean corpuscular volume
- MCHC: Mean corpuscular hemoglobin concentration
- Hb: Hemoglobin
- WBC: White blood cells

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