

# Viral Hepatitis

## Viral Hepatitis

leading  
cause of  
liver  
transplantation



MASH \*\*

metabolic  
dysfunction

associated steatohepatitis



\* alcoholic  
cirrhosis  
\* Hepatitis  
C

### Nursing Priority Actions & Management

Leading cause of acute viral hepatitis : → Hepatitis E

Leading cause of chronic viral hepatitis → Hep B  
virus: more chances of ch. hepatitis : Hep C

Leading cause of transfusion associated hepatitis → Hepatitis B

Leading cause of **fulminant** hepatitis → hepatitis B + hepatitis D

Leading viral cause of hepatocellular carcinoma → hepatitis B

Fulminant hepatic failure: definition : Coagulopathy: INR > 1.5  
and/or  
encephalopathy | < 8 weeks of  
prior insult

fulm hepatic failure: **in pregnancy**  
↳ HEV

# Routes of transmission

Hepatitis A	FECO-ORAL
Hepatitis B	SEXUAL CONTACT > B.T, I.V.DU
Hepatitis C	PARENTERAL
Hepatitis D	PARENTERA
Hepatitis E	FECO-ORAL

# Common presentation of acute viral hepatitis

FEVERISH, Pcm off & on

1. Nausea, vomiting

2. Aversion to smoking

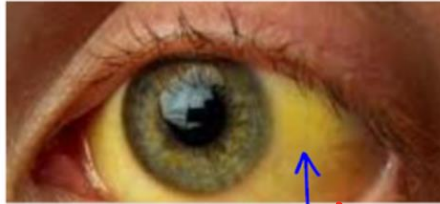
3. Jaundice / Icterus: S. Bil

4. Tender RUQ

5. Hepatomegaly

> 2-3 mg/dL or higher

(n) liver span  $\Rightarrow$  12-15cm



SCLERA has ELASTIN which has affinity for bilirubin

→ Viral hepatitis

Acute cholecystitis: Cholelithiasis

→ Amoebic LIVER abscess: Entamoeba histolytica (anchovy pus)

# Phases of jaundice

Pre-ICTERIC phase	Icteric phase	Post icteric phase
Nausea Aversion to smoking Flu like symptoms Muscle pain Vomiting <p style="color: blue; font-size: 1.2em;">FEVER L<sub>u</sub></p>	Yellowness noticed in <ol style="list-style-type: none"> <li>1. <span style="color: magenta; font-size: 1.2em;">SCLERA</span></li> <li>2. <span style="color: magenta; font-size: 1.2em;">FRENULUM</span></li> </ol>	Appetitive <span style="color: blue; font-size: 1.2em;">RETURN</span> Jaundice <span style="color: blue; font-size: 1.2em;">reduced</span> SGPT and SGOT. <span style="color: blue; font-size: 1.2em;">normalize</span>
Labs	Icterus occurs when serum bilirubin is > <span style="color: magenta; font-size: 1.2em;">2mg</span>  SGPT <span style="color: magenta; font-size: 1.2em;">↑</span> [cytoplasm] SGOT <span style="color: magenta; font-size: 1.2em;">↑</span> [mitochondria]	[ Mustard yellow urine ⇒ <span style="color: blue; font-size: 1.2em;">Obstructive Jaundice</span> Clay color stool Why?: <span style="color: blue; font-size: 1.2em;">choledocholithiasis</span> <span style="color: blue; font-size: 1.2em;">[store in CBD]</span>

**Serum Glutamic Oxaloacetic  
Transaminase**

# Viral markers

Hepatitis B surface antigen : HbsAg⊕

→ DANE particle  
Australia antigen

- ✓ Acute viral hepatitis B = HbsAg⊕ + IgM anti Hbc
- ✓ Chronic viral hepatitis B = HbsAg⊕ + IgG anti Hbc
- ✓ PCR HBV DNA : (viral load) :  $> 2 \times 10^4$  IU DNA/mL + SGPT x 2
- \* ELISA Anti HCV  
PCR HCV RNA

Virus	Drug of choice
Hepatitis A	CONSERVATIVE
Hepatitis B ↓ Ss/ds DNA virus	TENEFIVIR / ENTECAVIR
Hepatitis C	SOFOBUVIR + VELPATASVIR <span style="background-color: #ADD8E6; border-radius: 10px; padding: 2px;">ss/ds</span>
Hepatitis D + Hep B	α-INTERFERON
Hepatitis E	CONSERVATIVE

# Home care instruction for clients with hepatitis

1. Frequent Handwashing by patient and all family members
2. Don't share razor, toothbrush and left over food of patient
3. No cooking for others
4. Avoid alcohol, PCM, COX1-, sedatives for at least 2-3 months
5. High carbohydrate diet with low fat → 😊
6. Do not donate blood
7. Inform HCW in case of HBsAg positive status

HAV, HEV

gingiva + : bleeding

- Dental procedure ✓
- Invasive procedure ✓

8. Patient to small carbohydrate rich meals and plenty of fluids

accidental needle stick injury  
↓  
Hep B

Chances = 30%

PCM  
Toxicity

N-acetyl-  
Cysteine  
< 8 HR of  
exposure

## Extra mile

Most hepatotoxic anti tubercular drug is:

Pyrazinamide

HBV vaccine : 0, 1, 6 mth im. Asm

early detection  
of infection in

# Accidental needle stick injury



How after needle stick injury

	Hepatitis B	HIV/AIDS
Chances of transmission	30%	0.3%
Intervention	HCW <span style="border: 1px solid blue; border-radius: 50%; padding: 2px;">not</span> vaccinated HB Ig : < 6 HR of exposure	→ PCR HBV DNA → PCR HIV RNA
Primary prevention	✓ Never recap the needle ✓ Use needle guard ✓ Use double gloves	HCW <span style="background-color: blue; color: white;">vaccinated</span> : Anti HBs : > 10 IU/mL : NO Rx Anti HBs : < 10 IU/mL : Repeat 1 dose of vaccine

Post exposure Prophylaxis ⇒  
 \* not effective > 72 HOURS  
 \* duration : 28 days

Tenofovir  
 Lamivudine  
 Dolutegravir