

## PROJECT PRAKASH

### KEY LEARNING POINTS

**Training:** Hepatitis Induction Program

**Topic:** Viral Hepatitis in Children

**Faculty:** Dr. Vikrant Sood, Associate Professor, Pediatric Hepatology, ILBS  
Dr. Mini George, Principal, College of Nursing, ILBS

**Period:** 2021 -2022

**Attendees:** In-Service Nurses

**Hepatitis A virus is the most important single etiological agent for pediatric liver diseases.**

#### ✚ Acute Viral Hepatitis

- Always exclude HAV, HEV, HBV in all AVH cases
- Also, do Anti HCV - Silent/Chronic cases
- Complete evaluation in all cases to rule out co-infection
- Test for other non-hepatotropic viruses (Serology/PCR) if:
  - If acute liver injury + Negative classical serology
  - Choose as per clinical picture

#### ✚ Warning Signs in AVH

- Deepening Jaundice
- Excessive sleepiness, Abnormal behaviour
- Loss of appetite, Persistent vomiting
- Coagulopathy, Bleeding from any site
- Fever
- Seizures
- Cola coloured urine
- Abdominal distension

#### ✚ When to suspect underlying CLD

- Positive family or past history of liver disease
- Decompensation (Ascites, Encephalopathy)
- Firm Organomegaly
- USG:
  - Coarse Echotexture, Nodularity
  - Collaterals, Splenomegaly

### Diagnostic Work up

Standard Work up	Etiological Work up
<ul style="list-style-type: none"> <li>• LFT</li> <li>• PT-INR</li> <li>• USG Abdomen</li> </ul>	<ul style="list-style-type: none"> <li>• All patients:               <ul style="list-style-type: none"> <li>○ IgM HAV</li> <li>○ IgM HEV</li> <li>○ HbsAg, IgM Anti Hbc</li> <li>○ Anti HCV</li> </ul> </li> <li>• Selected patients/if above negative:               <ul style="list-style-type: none"> <li>○ IgM CMV/EBV/VZV/HSV/Dengue/Parvo/Adeno virus</li> </ul> </li> </ul>

### General Treatment Guidelines

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| <ul style="list-style-type: none"> <li>• Parental &amp; Doctor's Reassurance</li> <li>• Normal Diet, Plenty of Fluids</li> <li>• No medications needed (in majority)</li> </ul> <p><b>Specific Treatment (only for minority):</b></p> <ul style="list-style-type: none"> <li>• Antivirals for Hepatitis B (Needed in &lt; 5 % only)</li> <li>• Others: HSV, Varicella, CMV etc</li> </ul> | <ul style="list-style-type: none"> <li>• No restriction on Diet</li> <li>• No Bed Rest needed</li> <li>• No restriction on Salt, Fat, Spices, Turmeric</li> <li>• Do not encourage herbal medicine intake</li> <li>• No need to increase intake of glucose water, sugarcane juice.</li> </ul> |
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### Chronic Viral Hepatitis

HBV	HCV
<ul style="list-style-type: none"> <li>• HBV in children mostly occurs through perinatal transmission.</li> <li>• Risk of chronicity is high among infants.               <ul style="list-style-type: none"> <li>○ Almost 90% infants develop chronic HBV infection.</li> </ul> </li> <li>• Antiviral therapy required only a minority of in children with chronic HBV.               <ul style="list-style-type: none"> <li>○ Referral to a Paediatric gastroenterologist/Hepatologist is necessary.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Vertical Transmission.</li> <li>• 20% clear infection without any treatment (first 2-4 years of life).</li> <li>• Remaining 80% develops chronic infection.</li> <li>• Treatment should be immediately started after consultation with a Pediatric gastroenterologist/Hepatologist.               <ul style="list-style-type: none"> <li>○ Pan genotype treatment available for chronic HCV children.</li> </ul> </li> </ul>

### Family Screening & Vaccination – Hepatitis B

	HBsAg	Total Anti-HBc	Anti-HBs	Status	Remarks
1.	-	+	<10 mIU/mL	Exposed	Offer vaccination
2.	-	-	<10 mIU/mL	Unexposed Unimmunized	Offer vaccination
3.	-	-	>10 mIU/mL	Unexposed Immunized	No vaccination
4.	+	+	<10 mIU/mL	Infected	Further testing HBeAg, Anti-HBe, DNA

✚ Pick up HBV/HCV early- Screen family/high risk groups.

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