

VIRAL HEPATITIS IN PREGNANCY

Unravelling the mystery

SATURDAY, 27TH JULY 2019

(on the occasion of World Hepatitis Day 2019)

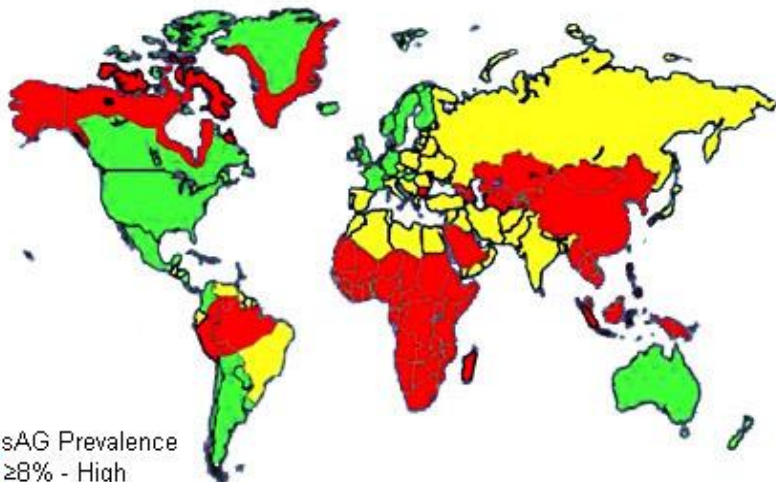
**‘National seminar for physicians
in diagnosis and management of viral hepatitis in pregnancy’**

**TOPIC: Management of HBsAg positive pregnant
woman- An Obstetrician’s view point**

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Obs & Gynae (LHMC)**

Introduction

Global Burden of Chronic HBV infection



HBsAg Prevalence
 ■ $\geq 8\%$ - High
 ■ 2% to 7% - Intermediate
 ■ $< 2\%$ - Low

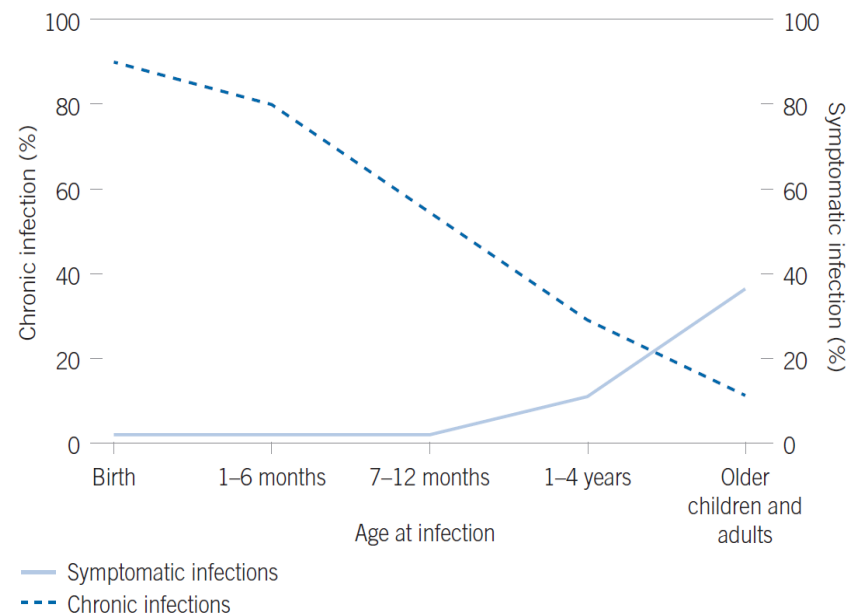
- Globally 257 million people including 65 million women of child bearing age suffer from CHB
- World wide 6,50,000 people die of complications of CHB infection
- HBV accounts for 45% of all cases of HCC and 30% of all cases of Cirrhosis
- Incidence of complications is higher in LMIC's

Outcome of Hepatitis B infection by age at infection

- The risk of developing chronic HBV infection is inversely proportional to the age at time of exposure.
- **50% of all chronic infections are due to vertical transmission**

GUIDELINES FOR THE PREVENTION, CARE AND TREATMENT OF PERSONS WITH CHRONIC HEPATITIS B INFECTION

MARCH 2015



Hepatitis B virus (HBV) infection during pregnancy presents with unique management issues for both the mother and the fetus.

- Effects of HBV on maternal and fetal health
- Effects of pregnancy on the course of HBV infection
- Treatment of HBV during pregnancy
- **Prevention of mother-to-child transmission**

Universal Screening

- HBV screening has very high accuracy
- >98% sensitivity and specificity
- Important to ensure preventive interventions other than initiation of routine vaccination of all newborns after birth with in 24 hrs

Effect of pregnancy on course of disease

Pregnancy is generally well tolerated in women with CHB without advanced disease

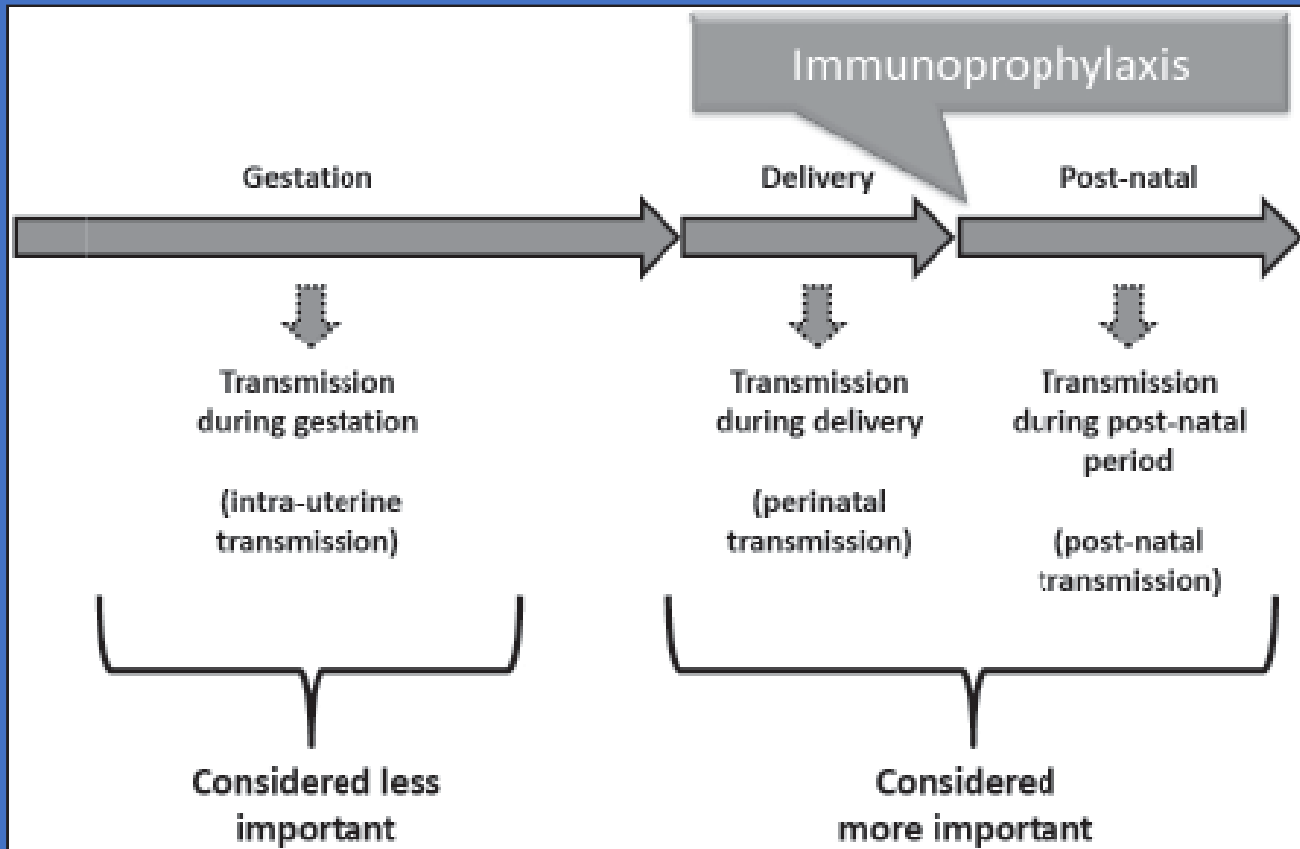
Increased risk of ...

- Risk of hepatic flares
- Progression of liver disease
- Increase in viremia

Liver and normal Pregnancy

- Spider angiomas and palmer erythema associated with chronic liver disease may be there in normal pregnancy.
- LFT: Albumin and total proteins are decreased 1st trimester
ALT and AST unchanged
Serum bilirubin slightly decreased 1st trimester
Alkaline phosphatase increased in 2nd /3rd trimester

Timing of Mother to Child Transmission



HBsAg Positive Antenatal Mother:

Recommendations for preventing MTCT

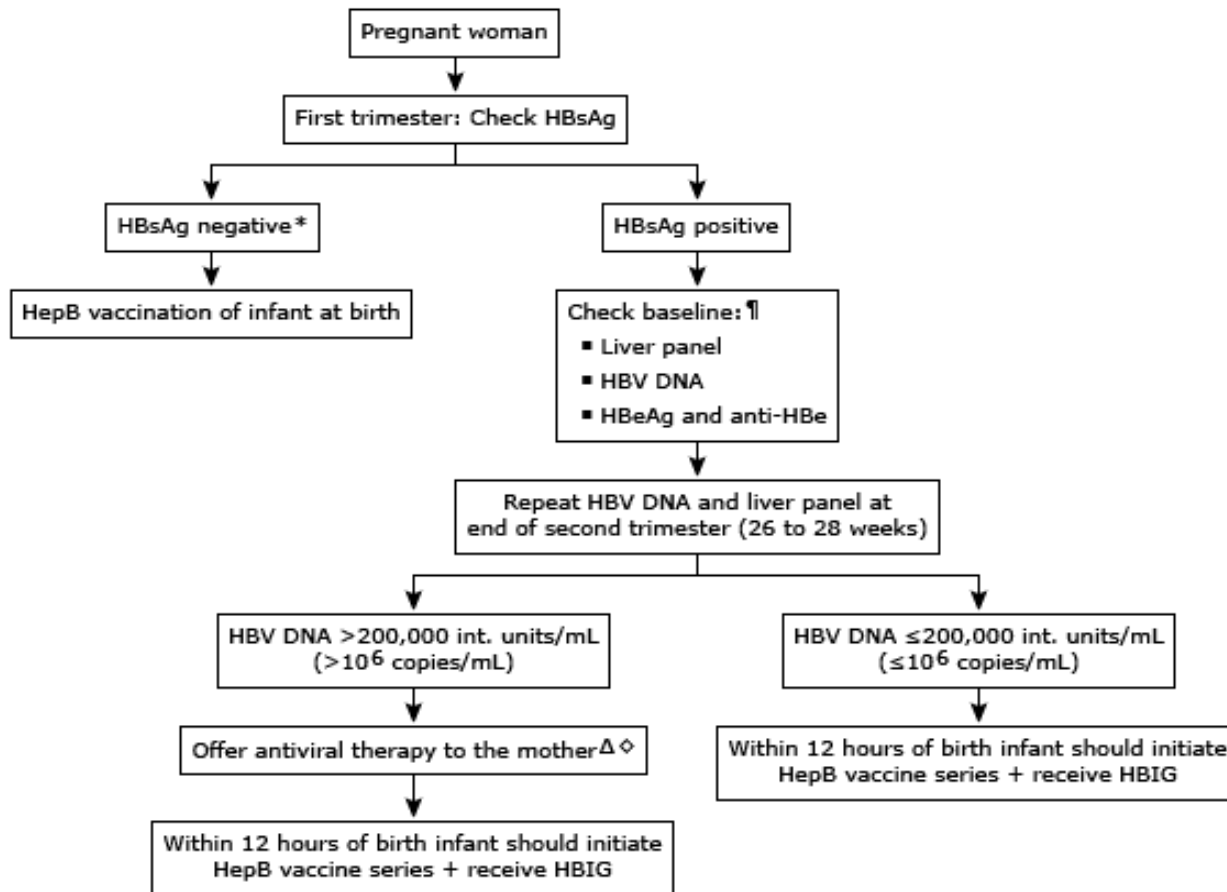
- Antenatal interventions in the pregnant HBsAg + ve woman
- Mode of delivery
- Breast feeding

HBs Positive Antenatal Mother:

Initial evaluation:

- History, Physical examination, Investigations to look for viral activity
- Assess for need for Antiviral treatment
- Multidisciplinary approach

Algorithm for hepatitis B virus during pregnancy



Update on prevention, diagnosis, and treatment of chronic hepatitis B: AASLD 2018

Monitoring of HBsAg +ve pregnant woman

Women not on Antiviral therapy

- LFT every 3 months during pregnancy and up to 6 mths postpartum.
- Thereafter
 - every 6 mths if HBeAg +ve or
 - 6-12 mths if HBeAg -ve
- HBV DNA if ALT is raised

Obstetrical Procedures and MTCT

Amniocentesis

Low risk especially with low viral load

Should not be withheld

Done with 22 G needle under US guidance

Chorionic Villus Sampling

Risk not known

Cordocentesis

Risk not known

López M, Coll O Chronic viral infections and invasive procedures: risk of vertical transmission and current recommendations *Fetal Diagn Ther.* 2010;28(1):1.

Mode of Delivery

- Systematic review and meta analysis 1988-2013
 - Aim To assess whether Caesarean section, compared with vaginal delivery, prevents HBV transmission
 - 430 studies identified 10 included
 - Significant heterogeneity was observed among studies No definite benefit of CS over vaginal delivery for prevention of MTCT could be established due to lack of robust evidence
- Caesarean delivery may protect against HBV transmission
 - But not routinely indicated for carrier mother for reducing perinatal transmission

Chang MS et al Caesarean section to prevent transmission of hepatitis B: a meta-analysis, Can J Gastroenterol Hepatol. 2014 Sep;28(8):439-44.

27.07.2019

Immunisation of Health care Personnel

- Vaccination
- Check for titres
- Universal precautions

Breast feeding

- Yes
- For infants who have received HBIG and 1st dose of vaccine within 12 hrs of birth and mother not on antivirals
- Important to complete all 3 doses
- Mothers should prevent feeding from cracked nipples
- In women on antivirals safety data inadequate
Tenofovir secreted in very low levels. Decision left with patient.

Postnatal Counselling

- Regular follow up with physician
- Contraceptive advice
- Emphasise the of potential spread to an uninfected partner
- Not to donate blood

SUMMARY TABLE

	COC//P/CVR		CIC		POP	DMPA/NET-EN	LNG/ETG/ IMPLANTS	CU-IUD	LNG-IUD
	I	C	I	C					
VIRAL HEPATITIS									
a) Acute or flare	3/4 ^a	2	3	2	1	1	1	1	1
b) Carrier	1	1	1	1	1	1	1	1	1
c) Chronic	1	1	1	1	1	1	1	1	1
CIRRHOSIS									
a) Mild (compensated)	1		1		1	1	1	1	1
b) Severe (decompensated)	4		3		3	3	3	1	3
LIVER TUMOURS									
a) Benign									
i) focal nodular hyperplasia	2		2		2	2	2	1	2
ii) hepatocellular adenoma	4		3		3	3	3	1	3
b) Malignant (hepatoma)	4		3/4		3	3	3	1	3

WHO Medical Eligibility Criteria

Extended Screening and Advice

- Husband or partner screening
- Screening of other children

To conclude

- Prevention of MTCT is important to reduce global burden of chronic HBV
- MTCT occurs mainly around delivery and in postnatal period but can be intrauterine
- Universal maternal screening and universal immunization of all babies are accepted interventions for prevention of MTCT
- All infants born to HBsAg+ ve mothers should receive HBIG + Hep B vaccine series within 12 hrs of birth and can be breast fed
- Antivirals TDF should be given when indicated specially in last trimester to prevent MTCT
- CS should be done for only obstetrical indications
- PROM should be managed as per normal protocol

Thank you!