

# Viral hepatitis B and C infection Awareness

- Wacyigalin kusaabsan Cagaarshaw B iyo C



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# Outline

- Introduction
- Epidemiology
- Presentation
- Transmission
- Diagnosis
- Treatment
- Prevention

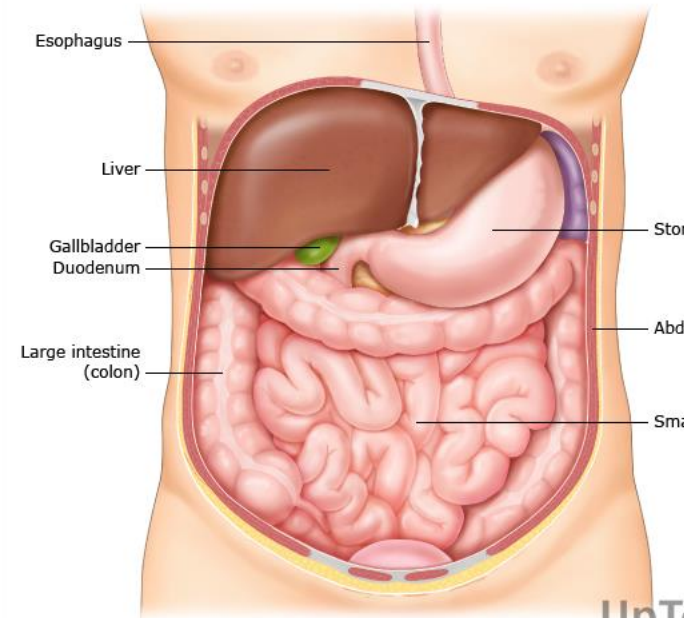
# OBJECTIVES

- Educate the public about viral hepatitis B and C
- About the importance of hepatitis B vaccination
- The importance of testing and treatment for hepatitis B and hepatitis C.

# Understanding Your Liver

- Filter: cleanses toxins
- Processor of nutrients
- bile (aids in fat digestion)
- body proteins(albumin, clotting factors)
- Regulates the balance of hormones, cholesterol, sugar and vitamins .

Organs inside the abdomen (belly)



# Introduction

- What is hepatitis?
- Hepatitis is an inflammation of the liver.
- Self-limiting or can progress to fibrosis (scarring), cirrhosis or liver cancer.
- Hepatitis viruses are the most common cause

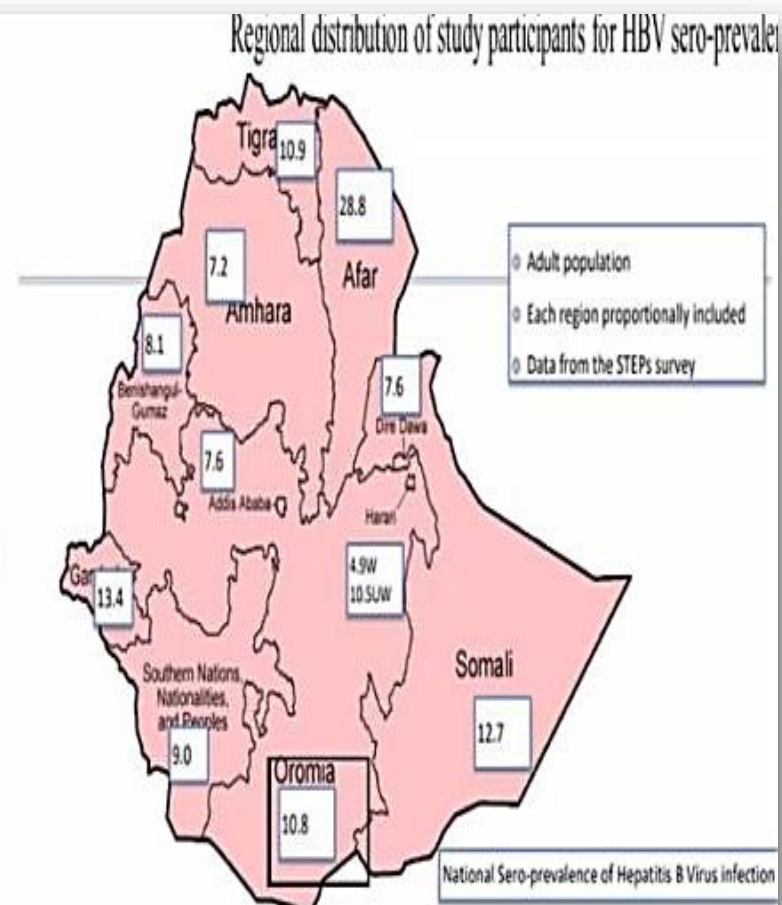
- but other infections, toxic substances (e.g., alcohol, certain drugs), and autoimmune diseases can also cause hepatitis.
- 5 main hepatitis viruses, referred to as **types A, B, C, D and E.**
- HBV and HCV infection are major causes of acute and chronic liver disease globally

# Epidemiology

- **305 million people with hepatitis B and C in 2022**
- **A major health concern for Africa? African Region**
- **Hepatitis B** : 65 million people chronically infected, 63% of new infections.
- **hepatitis C**: 8 million people in the African Region.

# The Ethiopian Perspective

- Total participants:<sup>1</sup> 7789 and 59.5 % were female
- National HBV sero prevalence = 9.4% (among High burden)
- Anti-HBS Ab Prevalence: Male vs female; 10.3% vs 8.4%
- Infections most common among age 30-44 year olds (10.6%)
- No association with marital status, income, level of education and setting.
- Afar and Somali regions: Over all weighted Prev was 28.8 % & 12.7% respectively



Atsbeha Gebreegziabxier Weldemariam; Nationwide Seroprevalence of Hepatitis B Virus Infection in Ethiopia: A Population- Based cross-sectional Study : Infectious Diseases 2020



## Seroprevalence of transfusion transmitted infection among blood donors at Jijiga blood bank, Eastern Ethiopia: retrospective 4 years study ,feb17, 2016

- The overall prevalence of transfusion-transmitted infection was 487/4224 (**11.5 %**).
- The prevalence for **HBsAg**, HCV, HIV, & Syphilis antibodies was **460 (10.9 %)**, 17 (0.4 %), 6 (0.1 %) and 4 (0.1 %) respectively. Majority 460/487 (94.5 %) of infection was HBsAg

# Why?

- High endemic region
- Low vaccination
- Unsafe sex
- Traditional procedures
- Iv drug use

# Hepatitis B

- A liver disease caused by the hepatitis B virus  
90% of adults clear the virus
- 90% of infants become chronically infected.
- Vaccines are available to prevent hepatitis B.
- 50 to 100 times more infectious than HIV, 5 to 10 times more infectious than HCV
- 2/3<sup>rd</sup> do not know about their status

# Hepatitis C

- A liver disease caused by the hepatitis C virus.
- 25% clear the virus; in 75% it becomes chronic.
- Chronic hepatitis can lead to cirrhosis (scarring) of liver and/or liver cancer.
- Virus spread through blood-to-blood contact with an infected person.
- Diagnosis by a blood test.
- Can be treated and cured.
- Currently no vaccine, but preventable

# Presentation

- acute (short and severe) or chronic (long term;>6 months)
- A person can have hepatitis with no symptoms at all.
- fever, feeling very tired, sore joints, not wanting to eat, feeling sick or vomiting, Epigastric pain, jaundice (yellow skin and eyes) dark urine (pee)
- Abdominal swelling, change in mentation, bloody vomit, liver cancer

# HBV: Routes of transmission

- **Perinatal: mother-to-child(most common in our setting)**
- **Horizontal: Infants/young children, household contacts**
- **Health-care-associated**
  - Unsafe blood and blood products
  - Unsafe injections, Other procedures, e.g. dental treatment, unsterile circumcision
  - Needle-stick injuries
  - Sexual (unprotected sexual intercourse)
- **Sharing of syringes/needles among people who inject drugs**

# Transmission routes: HCV

- **Health-care-associated**
  - **Blood** and blood products, **Unsafe injections**
  - Other health-care procedures, Needle-stick injuries
- **Sharing of syringes/needles** among people who inject drugs
- Tattoos, body piercing, etc. using contaminated equipment
- Unprotected sex (risk low, except among HIV-infected or MSM)
- Mother-to-child (only ~4–8% of babies, unless mother HIV+)

# Diagnosis

Tests may include:

- HBsAg, HbeAg, HBV DNA viral load ,
- HCVab, HCV RNA.
- Liver function tests: AST,ALT
- ultrasound and/or Fibroscan may also be used to help determine the health of the liver.



## Why is it important for people to know if they are infected with a form of viral hepatitis?

- **Early diagnosis:** best opportunity for effective medical support.
- steps to prevent transmission of the disease to others, for example by adopting safe sex practices.
- It allows lifestyle precautions to be undertaken to protect the liver from additional harm, specifically, by certain drugs which are toxic to the liver

# Prevention of HBV infection

- **Vaccination\***

- Childhood vaccination , Primary 3-dose vaccination, Timely birth dose

- High-risk groups

- **Other measures**

- Screening of blood and blood products

- Injection safety

- Occupational safety

# Prevention of HCV transmission

- Prevention of parenteral transmission
  - Screening of blood and blood products
  - Injection safety, Harm reduction interventions
  - Occupational safety(syringes, needles)

•**No vaccine is yet available**

•**“Treatment as Prevention”:**

testing and treatment (cure) of HCV-infected persons will reduce the numbers of infected individuals in the overall population

# How is viral hepatitis treated?

- Acute **hepatitis B** :supportive care
- Chronic **hepatitis B** can be treated with medicines.
- Treatment can delay or limit liver damage by suppressing the virus.
- Like treatment for HIV, hepatitis B treatment may need to be taken for the rest of your life

# Cont...

- **Hepatitis C:** antiviral medications, including sofosbuvir and daclatasvir, are used for treatment.
- treatment is always needed for chronic **hepatitis C.**
- **Treatment can cure the disease in almost all cases(95%)**

## **How can I avoid giving the disease to other people?**

- Make sure your family and close friends get tested and get the vaccine for hepatitis B
- Don't share razors, toothbrushes, or anything that might have blood on it
- Don't share needles or syringes

- Use bandages to cover cuts and open sores
- Clean drops of your blood off of things with a mixture of bleach and water. For the mixture, use 9 times more water than bleach.

# Myths and misconceptions

1. "If I don't have symptoms, I'm not infected"
2. "If I don't have symptoms, I can't spread the virus to others"
3. "If I've been infected with HBV in the past, I can get it again."
4. "Hepatitis B can spread through saliva."



# Most common questions

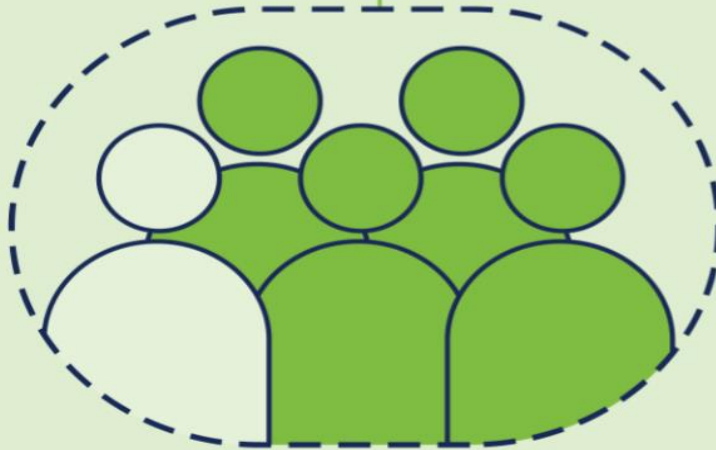
- Does everyone with chronic hepatitis B /C need to take medicine?
- Will herbals, natural “remedies”, Traditional Medicine, supplements, or vitamins and minerals control hepatitis B/C?
- Is there any special diet for people living with chronic hepatitis B or C infection?
- **I am currently pregnant, and I have chronic hepatitis B. What should I do to protect my baby?**

- Should I get the hepatitis B vaccine if I have a chronic HBV infection or have recovered from a past infection?
- Is the hepatitis B vaccine safe?
- I'm living with hepatitis B, what should I do to reduce my risk of developing liver cancer?
- If hepatitis B is sexually transmitted, how come my partner isn't infected?

You cannot get, or give, Hepatitis B /C by:

- Kissing, Hugging, Holding hands
- Casual contact, Sneezing
- Coughing, Sharing eating utensils
- Sharing food or drink, eating food made by someone with hepatitis B
- Breastfeeding (unless nipples are cracked and bleeding)

**Most people**  
**with chronic viral hepatitis**  
**don't realize they have it.**



**Testing** is the  
first step towards  
timely treatment.

# Living with hepatitis

- Take care of your liver
- Healthy foods, exercise, lose weight if overweight
- Stop hepatotoxic drugs ,herbal drugs, quit chewing chat
- Regular follow up with a doctor

# Summary

- Hepatitis B and C are parenterally transmitted
- Hepatitis B infection in infancy/early childhood is particularly risky, because of a higher risk of chronic infection
- Vaccination is an effective preventive measure for hepatitis B, particularly for preventing infection in early childhood
- Get tested for Hepatitis B
- Get tested for Hepatitis C
- Get vaccinated for Hepatitis B

# References

- [Global hepatitis report 2024: Action for access in low- and middle-income countries.](#) Geneva: World Health Organization; 2024.
- Hepatitis B FOUNDATION
- National foundation for infectious diseases
- Uptodate 24