Hepatitis B: The Overlooked Problem

By Leyla B. Warsame MD and Douglas J. Pryce MD
Hennepin County Medical Center
Hepatitis B

- Communicable, hepatic(liver) viral infectious disease
  - transmitted via contact with bodily fluids

- Viral liver infection → Inflammation → Tissue injury → Cell Death → Scar formation (cirrhosis +/- hepatocellular carcinoma)

- Acute Hepatitis B symptomatic < 6 months, then usually immune

- Chronic Hepatitis B transmitted perinatal 90% of time, silent, until adulthood
Chronic Hepatitis B

- 360 million worldwide, especially in developing countries, are afflicted by Chronic Hepatitis B infection
- 15-25% eventually lead to premature death from end stage liver disease or liver cancer
- HBV is the #1 worldwide cause of chronic hepatitis, cirrhosis and hepatocellular cancer
- Refugees arrive from high prevalence areas >2%
  (Eritrea 15.5%, Liberia 12.2%, Myanmar 12.4%, Ethiopia 9.1%, Somalia 8.3%, Malaysia 8.8%)
Chronic Hepatitis B

- In USA 2.2 million individuals have Chronic Hepatitis B
  (73% or 1.6 million are foreign born)

- IOM 2010 reports in the USA:
  60 to 70% of all persons with chronic Hepatitis B are undiagnosed and about half of those diagnosed receive appropriate care

- MDH reports 22,967 with Chronic Hepatitis B living in MN
  84% in the twin cities metro (2014)
Prevalence of Hepatitis B

MAP 3-1. PREVALENCE OF CHRONIC HEPATITIS B VIRUS INFECTION AMONG ADULTS

Refugee Screening and Vaccination

- CDC guidelines:
  - All persons born in geographic region with an HBV prevalence >2%
  - All US born persons who were unvaccinated as infants and with parents from high HBV endemic regions (>8%)

- Screening tests:
  - HBsAg surface antigen = infected
  - anti-HBs Antibody to surface antigen = immune
  - Total anti-HB (ever exposed to Hepatitis B virus)

- Vaccinate: all susceptible (those with negative screening tests)
Chronic Management

- Chronic phase management is to prevent cirrhosis, liver failure and cancer by reducing HBV viral load and the loss of HBe Ag while improving liver enzyme levels
  - Counsel on importance of avoiding alcohol, getting family members screened for HBV and preventing the spread of HBV
  - Refer patients with Chronic Hepatitis B or patients with abnormal liver tests to gastroenterologist/hepatologist
  - Hepatitis B antiviral therapy in patients with severe liver decompensation reduced the number listed for liver transplantation by 30%
Practical Difficulties in the HBV affected population

• At community/patient level:
  • Stigma and fear attached to HBV infection
  • Lack of awareness of HBV infection and complications

• At provider level:
  • Lack of awareness of screening guidelines in high risk population
  • Different providers (NP, PA, MD) with different knowledge base

• At system level:
  • Disjointed points of healthcare access for patients
  • Inconsistent public health surveillance systems among jurisdictions
Solutions

- **Patient** education on HBV (screening, complications, prevention)

- **Provider** education on HBV screening in high risk populations (Asian and African) and importance of follow up/surveillance/counseling

- **System** support to identify at risk foreign born form endemic areas (Health Partners/Patricia Walker MD - Global Wizard).

- **Intersystem** exchange of Hep B status of patients via EMR
  - Reduce repeat testing, provide accurate tallies of chronic vs acute infections and enable surveillance between jurisdictions

- **Surveillance system** linking HBV patients to comprehensive viral-hepatitis programs (case management)
References


Questions??

Grazie