HEPATITIS B

RC GP LEARNING

BASICS

Epidemiology and complications

- ~0.6% of the population of England have hepatitis B (1.5% in London) → 270,000 people.
- <50% of these are aware of their diagnosis; work is needed to meet WHO target of 90% aware of their diagnosis and 80% being treated.
- Complications:
  - Chronic infection develops in 90% of those infected vertically, up to 50% of those infected before the age of five and about 5% of previously healthy adults (more if immunocompromised).
  - Up to 20% with chronic hep B will develop cirrhosis in five years.
  - Those with cirrhosis who are untreated have an up to 5% risk of hepatocellular carcinoma.
  - Chronic hep B also a risk factor for other malignancies e.g. cervical, gastric and lymphoma.

Transmission

- Infected blood (sharing needles, contaminated medical/dental equipment, tattoos, piercings, acupuncture, blood transfusions if blood not screened).
- Vertical transmission (reducing over time due to vaccination of mothers).
- Unprotected sex (vaginal, anal, oral).
- Household contacts of an infected person.
- Needlestick injuries.
- In the UK, most transmission is sexual or by sharing injecting drug use equipment; in countries where hep B is endemic, most transmission is vertical, or by close contact as a child.

DIAGNOSIS

Symptoms

- Acute symptoms:
  - Most children/up to 50% of adults asymptomatic and will clear infection spontaneously.
  - Prodrome (fever, arthralgia, rash, malaise).
  - RUQ pain and jaundice ~ 2/52 after prodrome.
  - <1% fulminant hepatitis, rapid progression to life-threatening liver failure.
  - Transaminases may be in hundreds/thousands, prolonged clotting time.
- Chronic infection:
  - Often asymptomatic for years.
  - Signs of chronic liver failure (spider naevi, clubbing, jaundice, palmar erythema, hepatosplenomegaly, easy bruising, ascites).
  - Transaminases may be normal or mildly raised.

Who to test

- Current/past injectable drug use.
- Born/brought up in ↑ prevalence country, and those who adopt/foster children from these countries.
- Multiple sexual partners, sex workers, anyone who has been sexually assaulted.
- Household contacts of those with hep B.
- Patient with chronic liver disease or on dialysis.
- Those in supported living or residential care for learning disabilities.
- Those who have had a needlestick injury or bite.
- All those with hepatitis C, HIV or ↑ transaminases.

- See green book for information on who to vaccinate.

MANAGEMENT

Investigations

Test	Interpretation if positive
Surface antigen (HBsAg)	Acute infection. HBV DNA used to quantify viral load.
e antigen (HBeAg)	High levels of viral replication/infectivity.
e antibody (anti-HBe)	e antigen has cleared; viral replication controlled.
Core antibody (anti-HBc)	Current/past infection – antibody persists for life; doesn't indicate immunity. IgM = infection in the last 6/12.
Surface antibody (anti-HBs)	Immunity due to past infection or vaccination.

Management

- Primary care:
  - Refer to hepatology and request FBC, U&E, clotting, LFTs, GGT, hep C/HIV, serum alpha-fetoprotein and liver USS at time of referral.
  - Advise on ↓ progression (e.g. ↓ alcohol) and preventing transmission - test household/sexual contacts. Consider STI screen.
  - Signpost to support e.g. Hepatitis B trust or British Liver Trust.
  - Notify public health if diagnosed in acute phase.
  - Vaccinate against hep A if ongoing risk.
- Secondary care:
  - Antivirals will be offered, with ongoing monitoring for progression from acute to chronic infection and screening for complications.