**Hepatitis,**

Hepatitis

Key Feature Skill Phase

1 In a patient presenting with hepatitis symptoms and/or abnormal liver function tests, take a focused history to assist in establishing the etiology (e.g., new drugs, alcohol, blood or body fluid exposure, viral hepatitis).

Hx: Medications (OTC, Rx, herbal), EtOH, IVDU, sexual partners/practices, tattoos, needle stick injuries, transfusions, recent travel

Additional symptoms: jaundice, arthralgias, myalgias, rash, anorexia, weight loss, abdominal pain, fever, pruritus, and changes in the urine and stool

2 In a patient with abnormal liver enzyme tests interpret the results to distinguish between obstructive and hepatocellular causes for hepatitis as the subsequent investigation differs.

Clinical Reasoning Diagnosis

Obstructive picture: GGT and ALP elevated

Hepatocellular cause: AST and ALT increased

(EtOH = ratio of AST to ALT ratio of >=2:1 +/- 2-fold elevation in GGT)

3 In a patient where an obstructive pattern has been identified,

1. Promptly arrange for imaging,

Ultrasound, then CT if indicated

1. Refer for more definitive management in a timely manner.

Referral to surgery is cholecystitis (elevated WBC, RUQ pain, febrile)

Referral to oncology if cholangiocarcinoma (dx by CT)

4 In patients positive for Hepatitis B and/or C,

1. Assess their infectiousness,

If a person is Hep B antigen positive (particularly HBeAg) then they are infectious. HBsAg can indicate an acute or chronic infection. The presence of HBeAg is associated with high levels of HBV DNA and higher rates of transmission of HBV infection, which is why we predominantly look at HBeAg to determine infectiousness.



from [www.uptodate.com](http://www.uptodate.com)

Hep C infectiousness depends on whether the patient has cleared the virus – so if there is persistent HCV-RNA, then they are still infectious.

b) Determine human immunodeficiency virus status.

5 In patients who are Hepatitis C antibody positive determine those patients who are chronically infected with Hepatitis C, because they are at greater risk for cirrhosis and hepatocellular cancer.

80% people infected with Hep C won’t clear it.

Test for Anti-HCV Ab as initial screening test.

NB: Immunocompromised individuals, including those with HIV infection, patients on dialysis, and transplant recipients, anti-HCV may not be detectable despite the presence of HCV infection.

Then test for HCV-RNA – if positive they have a chronic Hep C infection

If Anti-HCV Ab positive but HCV-RNA is negative, retest HCV-RNA in 6 months (there are a high number of false negatives).

6 In patients who are chronically infected with Hepatitis C, refer for further assessment and possible treatment.

Further treatment includes referral to specialist, liver biopsy – to determine genotype [genotype 1 is worst, then -4-3-2] and potential antiviral treatment.

No hepatotoxic meds

HIV and Hep B testing

7 In patients who are at risk for Hepatitis B and/or Hepatitis C exposure,

a) Counsel about harm reduction strategies, risk of other blood borne diseases,

Patient Centered, Communication, Treatment

b) Vaccinate accordingly. Clinical Reasoning Treatment

Prevent Transmission = disclosure of carrier status and barrier protection for sex, not sharing needles for IVDU or other drug paraphernalia, safe tattooing, no blood donation, don’t breastfeed if cracked nipples, no shared razors, etc.

Health promotion = lose weight (especially if abdominal obesity), decrease EtOH intake (<2 drinks/week), stop smoking

Vaccination = Hepatitis A & B, annual influenza vaccine

8 Offer post-exposure prophylaxis to patients who are exposed or possibly exposed to Hepatitis A or B. Clinical Reasoning Treatment , Hypothesis generation

In exposure with insufficient or unknown immunization history, give Hepatitis B Immunoglobulin (HBIG) in less than 12 hours from exposure and start the regular vaccine (i.e. 0, 1, 6 months) schedule at the same time. HBIG must be given at a different site from the vaccine so as not to diminish its effect. The same is true of neonates, and this is important, as 95% of vertical transmission occurs in the perinatal period. There is also Hep A Ig, which is given once only.

9 Periodically look for complications (e.g., cirrhosis, hepatocellular cancer) in patients with chronic viral hepatitis, especially hepatitis C infection.

Clinical Reasoning Hypothesis generation

Follow-up

In cirrhosis, do an abdominal ultrasound for hepatocellular carcinoma every six months.

Monitor bloodwork – first sign can often be a decrease in platelets. Look at liver function INR, albumin, as well as liver enzymes