Initial Evaluation of Persons With Chronic HCV

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Outline

- Key aspects of history and physical examination
- Recommended laboratory studies after initial diagnosis
- Immunizations for persons with chronic hepatitis C virus (HCV)
- Screening for other causes and contributors of liver disease
Key Aspects of History and Physical Examination
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- Key elements of the patient’s history
  - When and how diagnosed
  - Risk factors
    - Injection drug use: when, how long, rehab
    - Nasal cocaine
    - Blood transfusion
    - Tattoos and body piercing
    - Sexual exposures
    - Family exposures
  - Work-up to date
  - Prior treatment status
  - Comorbidities
    - Other known liver diseases, hepatotoxic drugs and alcohol
    - Cardiac, pulmonary, rheumatologic, neurologic
    - Psychiatric
  - Family history of liver disease
  - Current medications
Key Aspects of History and Physical Examination (Continued)

- Physical exam
  - Eyes
    - Scleral icterus
    - Retinopathy on fundoscopic exam
  - Thyroid
    - Enlarged or nodular
  - Skin
    - Jaundiced
    - Palmar erythema
    - Spider angiomata
  - Lungs
    - Right hydrothorax
  - Cardiovascular
    - Rate and rhythm
  - Abdomen
    - Liver size and texture
    - Spleen size
    - Other masses
    - Caput
    - Ascites
  - Neurologic
    - Tremor
    - Asterixis
  - Psychiatric
    - Mood and affect
Recommended Laboratory Studies After Initial Diagnosis
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- **General**
  - Hepatic profile
  - Renal profile
  - Complete blood cell count with differential
  - Thyroid-stimulating hormone

- **Disease-related**
  - HCV RNA quantitative
  - HCV genotype
  - IL28B genotype
  - Hepatitis B surface antibody (HBsAb)
  - Anti–hepatitis A virus antibody immunoglobulin G (IgG)
  - Alpha fetoprotein or baseline ultrasound
Recommended Laboratory Studies After Initial Diagnosis (Continued)

- Determining whether advanced fibrosis or cirrhosis is present
  - Liver biopsy
  - Noninvasive markers
    - Proprietary indices (e.g., FibroSure)
    - Nonproprietary indices (e.g., AST-to-platelet ratio index, FIB-4 index)
  - Elastography
    - Acoustic
    - Magnetic resonance imaging
Recommended Laboratory Studies After Initial Diagnosis (Continued)

- When advanced fibrosis or cirrhosis is present or suspected
  - Esophagogastroduodenoscopy (varices)
  - Ultrasound (hepatocellular carcinoma [HCC])
  - Model for End-Stage Liver Disease (MELD) evaluation

- Refer to transplant center
  - MELD > 10
  - Any history of bleeding varices
  - Ascites
  - Hepatic encephalopathy
Immunizations for Persons With Chronic HCV
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- **Hepatitis A virus**
  - Test for hepatitis A antibody IgG
  - Vaccinate twice, 6 months apart, or use combination vaccine

- **Hepatitis B virus**
  - Test for HBsAb
  - Vaccinate 3 times (0, 1, and 6 months) or use combination vaccine
  - For immunosuppressed patients consider double-dose vaccine series
Screening for Other Causes and Contributors of Liver Disease
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- Evaluation of other diseases optional but recommended if advanced fibrosis or cirrhosis is present
  - Alpha-1 antitrypsin deficiency
    - Alpha-1 antitrypsin level
    - Alpha-1 antitrypsin phenotype
  - Wilson disease
    - Ceruloplasmin
    - Urinary copper
Screening for Other Causes and Contributors of Liver Disease

- Autoimmune liver disease
  - Antinuclear antibody
  - Antismooth muscle antibody
  - Antimichondrial antibody
  - Liver-kidney microsomal antibody type 1
- Genetic hemochromatosis
  - Ferritin
  - Iron saturation
- Nonalcoholic fatty liver and nonalcoholic steatohepatitis
  - Homeostasis model assessment (fasting insulin and glucose)
Summary

- Key elements for evaluation of a patient with HCV:
  - Detailed liver-focused history
  - Liver-directed physical examination
  - Evaluation of laboratory tests that help stage liver disease and determine if comorbidities are present
- Prevention of other liver diseases is important
  - Vaccinate for hepatitis A and B if necessary
- Determine if advanced fibrosis or cirrhosis is present
  - Refer to a hepatologist at a transplant center
  - Surveillance for varices and HCC is critical