

more commonly have nonspecific symptoms of malaise, fatigue, lethargy, weight loss, or vague abdominal pain. Hepatomegaly may be present, and the transaminases are often very high, with mild to severe hyperbilirubinemia.

Fulminant hepatitis is due primarily to HBV or HCV. Many children with fulminant hepatitis develop characteristic clinical symptoms and rapidly develop manifestations of liver failure, including encephalopathy, coagulation defects, ascites, deepening jaundice, and an increasing WBC count. Changes in mental status or personality indicate impending liver failure. Although children with acute hepatitis may have hepatomegaly, a rapid decrease in the size of the liver (indicating loss of tissue due to necrosis) is a serious sign of fulminant hepatitis. Complications of fulminant hepatitis include GI bleeding, sepsis, renal failure, and disseminated coagulopathy.

## **Diagnostic Evaluation**

Diagnosis is based on the history; physical examination; and serologic markers for hepatitis A, B, and C. No LFT is specific for hepatitis, but serum aspartate aminotransferase (AST) and serum alanine aminotransferase (ALT) levels are markedly elevated. Serum bilirubin levels peak 5 to 10 days after clinical jaundice appears. Histologic evidence from liver biopsy may be required to establish the diagnosis and to assess the severity of the liver disease. Serologic markers indicate the antibodies or antigens formed in response to the specific virus and confirm the diagnosis. Serum immunologic tests are not available to detect HAV antigen, but there are two HAV antibody tests: anti-HAV immunoglobulin G (IgG) and immunoglobulin M (IgM). Anti-HAV antibodies are present at the onset of the disease and persist for life. A positive anti-HAV antibody test can indicate acute infection, immunity from past infection, passive antibody acquisition (e.g., from transfusion, serum immunoglobulin infusion), or immunization. To diagnose an acute or recent HAV infection, a positive anti-HAV IgM test result that is present with the onset of the disease and that persists for only 2 or 3 days is required.

Diagnosis of hepatitis B is confirmed by the detection of various hepatitis virus antigens and the antibodies that are produced in response to the infection. These antibodies and antigens and their