negative results by TST or IGRA but are at ongoing risk for exposure [7, 101]. Routine cutaneous anergy testing is not recommended because of lack of standardization of reagents and poor predictive value and because prophylaxis provided to anergic persons has been shown to prevent few cases of tuberculosis [102]. The QuantiFERON-TB Gold in-tube test (Cellestis Limited) and the T-SPOT TB test (Oxford Immunotech) are approved by the US Food and Drug Administration (FDA) as aids for detecting latent *M. tuberculosis* infection.

A large meta-analysis suggests that IGRAs perform similarly to TSTs when identifying persons with HIV with latent tuberculosis infection [103]. However, prior vaccination with Bacillus Calmette-Guérin (BCG) vaccine may result in a positive TST result, whereas there is less cross-reactivity with the IGRA. IGRAs that are reported as indeterminant should be repeated, as follow-up testing may be negative. The CDC states that use of an IGRA is preferred over the TST in patients with a history of BCG vaccination and in patients with a low likelihood of returning to have their skin test read. Advanced immunosuppression may be associated with false-negative results in all types of immunologically based tests used for detection of *M. tuberculosis* infection. The routine use of the IGRA in children, especially those aged <5 years, is currently not recommended due to limited data and some evidence of lower sensitivity.

Screening for and prevention of HAV, HBV, and HCV are critical in the management of people with HIV. Those who have HBV and/or HCV coinfection should be managed according to the most current published guidelines [98, 104–106]. Hepatitis A vaccination is especially important for persons with unstable housing, for persons who inject drugs (PWID), and for those with chronic liver disease due to recent outbreaks in certain communities [107]. Prevaccination screening for HAV infection is cost-effective when there is a seroprevalence of >30% in the patient population [108]. Because of worse outcomes for persons with HIV and HBV coinfection, persons with HIV who also have HBV should be adequately treated for HBV [7]. Because many persons with HIV may be treated with tenofovir-based ART that also suppresses HBV, stopping tenofovir-based ART may result in a flare of HBV, especially when changing ART to a 2-drug regimen that does not contain tenofovir. Persons with HBV are at higher risk for hepatocellular carcinoma (HCC) even in the absence of cirrhosis. Screening for HCC in persons with HBV should be conducted according to the American Association for the Study of Liver Diseases guidelines [104]. Persons not immune to HAV and HBV should be immunized according to applicable guidelines (see Section 4).

Persons with HIV should be screened for HCV antibody upon initiation of care. If positive, HCV RNA should be ordered to assess for active HCV infection. HCV RNA should be used in persons with a negative HCV antibody if infection within the last 6 months is expected and in persons with a history of prior HCV infection that has cleared due to spontaneous resolution or curative treatment. HCV RNA should be considered in persons with advanced immunosuppression (CD4 count <200 cells/μL), especially in persons who are HCV-seronegative with a history of injection drug use or with unexplained increased serum transaminases because approximately 2%–4% of persons with HIV–HCV coinfection have false-negative HCV antibody results; this occurs primarily among those with advanced immunosuppression [98]. According to multiple studies, the rate of mother-to-infant HCV transmission is up to 3-fold higher among women with HIV, and pregnant people with HIV should be tested for HCV with each pregnancy [106, 109]. Infants can be tested for HCV RNA after age 2 months or for HCV antibody after age 18 months [110]. All persons diagnosed with chronic HCV should be offered curative treatment. Eradication of HCV reduces, but does not eliminate, the risk of HCC in persons with cirrhosis; therefore, ongoing HCC screening in this group is warranted. Screening for HCC is recommended in all patients with cirrhosis due to hepatitis B or C or other nonviral etiologies (including alcohol use and fatty liver disease) [111].

Acceptable evidence of immunity against measles includes at least 1 of the following: written documentation of adequate vaccination, laboratory evidence of immunity, laboratory confirmation of measles, or birth in the United States before 1957 [112, 113]. It is advisable to determine anti-varicella IgG levels for patients who are unable to verify a history of chickenpox or shingles [114, 115]. STI screening should be obtained as part of the initial assessment. See Section 6.

In spite of a high prevalence of toxoplasma IgG in the population, toxoplasma encephalitis occurs among those with advanced immune deficiency. Screening for toxoplasma IgG, therefore, is indicated for asymptomatic persons with CD4 count <200 cells/μL and for those with a clinical presentation suggestive of toxoplasmosis. Testing for serum cryptococcal antigen is indicated in persons with CD4 count <200 cells/μL or in symptomatic individuals [98].

Tests That May Be Performed Under Certain Circumstances

Recommendations

- A baseline chest radiograph should be obtained in all persons with HIV who have a positive tuberculosis screening test result in order to rule out active tuberculosis. It may also be useful in other patients who are likely to have pre-existing lung abnormalities, including those who smoke or have a history of injecting drugs.
- Before starting therapy with oxidant drugs such as dapsone and primaquine, screening for glucose-6-phosphate dehydrogenase (G6PD) deficiency is recommended, particularly