Dear Health Care Provider:

Today, the Centers for Disease Control and Prevention (CDC) issued updated recommendations for laboratory testing for HIV infection in the United States. The recommendations feature a new HIV testing algorithm that enables the early detection of acute HIV infection. The complete recommendations titled *Laboratory Testing for the Diagnosis of HIV Infection: Updated Recommendations* as well as a quick guide to using the algorithm can be downloaded from the Division of HIV/AIDS Prevention’s website.

Diagnosing acute HIV infection is crucial. As many as half of all new HIV infections are transmitted by people in the acute or early stage of infection. People with acute infection are more likely to transmit the virus due to very high viral loads. In addition, they may believe they are negative based on antibody test results because antibodies have not yet developed in the acute phase. CDC’s new testing algorithm allows diagnosis of HIV as much as 3-4 weeks earlier than the previously recommended sequence of tests using the Western blot. As a result, the HIV-1 Western blot is no longer part of the recommended algorithm. The new algorithm should be used for follow-up testing.

The new algorithm begins with the latest (4th) generation of HIV tests that offer greater sensitivity during early infection than previous tests by detecting the HIV-1 p24 antigen, which appears before antibodies develop, as well as antibodies to both HIV-1 and HIV-2. Specimens with reactive 4th generation test results are tested for HIV-1 and HIV-2 antibodies. Specimens that are negative for antibodies are then tested for HIV-1 RNA. This makes it possible to identify HIV infection as early as possible so that individuals can receive maximum treatment benefits; live longer, healthier lives; and protect their partners. Recent studies show that HIV treatment can reduce the likelihood of transmission from an HIV-positive person to their partner by 96%.

The new algorithm uses tests that detect HIV infection earlier than any of the rapid tests currently available in the United States, eliminates indeterminate test results, and also reduces turnaround time for test results, which can expedite appropriate treatment. However, the algorithm can only be used with serum or plasma specimens. Rapid tests and oral fluid tests still have value in the field, where drawing blood is not feasible, or when people otherwise might not
receive their test results. After preliminary positive rapid test results, the new algorithm should be used for follow-up testing.

To ensure patients are tested with the new algorithm, providers should look up the specific test ordering code for the HIV antigen/antibody test (with reflex to supplemental testing) from their laboratory’s list of tests, and request that all HIV testing be routed through the updated sequence of tests recommended in the new algorithm.

Expanding and improving HIV testing is a critical component of CDC’s prevention efforts and the best way to identify the 1 in 6 Americans living with HIV who do not know they are infected. The new algorithm exemplifies CDC’s commitment to expanding the impact of HIV testing, improving early diagnosis, and ensuring that those who are infected with HIV receive care and treatment. CDC will support implementation of the new algorithm nationwide by providing information to laboratories and health care providers, monitoring the ongoing introduction and U.S. Food and Drug Administration approval of diagnostic assays for HIV infection, and updating these recommendations as needed.

Thank you for your commitment to HIV prevention.

Sincerely,

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