Medical News

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CDC Recommends Rapid HIV Testing

Approximately 25 million persons in the United States are tested each year for antibody to HIV. Publicly funded counseling and testing (CT) programs conduct approximately 2.5 million of these tests each year. CT can have important prevention benefits; however, in 1995, 25% of persons testing HIV-positive and 33% of persons testing HIV-negative at publicly funded clinics did not return for their test results. Rapid tests to detect HIV antibody can be performed in an average of 10 minutes, compared to results from enzyme immunoassays (EIAs), which take approximately 1 to 2 weeks.

The CDC recently quantified the potential advantages and disadvantages of using rapid tests for CT, using the commercially available rapid test (Single Use Diagnostic System HIV-1 Test, Murex Corp, Norcross, GA) and estimated the potential impact on the number of persons who would learn their HIV-test results.

The study found that, using the rapid test, during 1995, a total of 697,495 more persons would have learned their HIV status, an increase of 29% for HIV-positive persons and of 50% for HIV-negative persons over the current CT procedure. Approximately 2 million persons whose rapid-test results were negative would have learned their HIV status without a second clinic visit. An additional 8,170 persons (22% of all positive tests performed in 1995) would have received confirmed positive results. An additional 1,115 HIV-infected persons who did not return for confirmed results would have been given a reactive rapid-test result and received counseling about the likelihood of being infected and the need for behavioral changes. The benefits of using the rapid test were greatest at sites such as sexually transmitted disease clinics, where the lowest percentage of persons return for results.

The findings of this study indicate that use of a rapid test with same-day results for HIV screening in clinical-care settings can improve the delivery of CT services substantially. The sensitivity and specificity of rapid assays are comparable to those of EIAs. Because HIV prevalence is low in most US testing settings, the negative predictive value of a single rapid test is high. A negative rapid test does not require further testing, and negative results with result-specific counseling can be provided to most persons at the initial visit. However, because the predictive value varies with the prevalence of HIV infection in the population tested, the positive predictive value of a test will be low in populations with low prevalence. Therefore, a reactive rapid test must be confirmed by a supplemental test. In studies conducted outside the United States, specific combinations of two or more different rapid HIV assays have provided results as reliable as those from the EIA/Western blot combination that is in widespread use. However, only one rapid test approved by the FDA is commercially available in the United States. Therefore, persons whose rapid-test result is reactive can be counseled about their likelihood of being infected with HIV, but they must return for definitive results.

The CDC and the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD) conducted a workshop in Atlanta on October 24, 1997, to discuss rapid HIV testing, the potential health benefits and risks of reporting provisional rapid-test results, and the feasibility of changing the recommendations of the Public Health Service (PHS) and ASTPHLD for reporting HIV-test results. Workshop participants agreed that it is optimal to follow the 1989 PHS algorithm for HIV testing, which recommends confirmatory testing before reporting reactive HIV-test results to minimize the risk for reporting false-positive results. However, they agreed that exceptions are warranted when the health benefit of reporting HIV rapid-test results offsets the potential risk for reporting false-positive rapid-test results (eg, patients who fail to learn their HIV status because they do not return to receive their test results). Rapid HIV tests also can assist healthcare providers who must make immediate decisions about initiating HIV prophylaxis (eg, caring for healthcare workers after occupational exposures and for pregnant women in labor who have not been tested or whose results are not available).

On the basis of the findings in this report and from the workshop, the PHS recommends an alternative approach to HIV testing: healthcare providers should provide preliminary positive test results before confirmatory results are available in situations where tested persons benefit. This recommendation is based on research demonstrating that persons who receive preliminary results understand the meaning of the result and prefer rapid testing. When additional rapid tests become available for use in the United States, the PHS will reevaluate algorithms using specific combinations of two or more rapid tests for screening and confirming HIV infection.

FROM: Centers for Disease Control and Prevention. Update: HIV counseling and testing using rapid tests—United States, 1995. *MMWR* 1998;47(11):211-214.

Multidose Vials a Source of Contamination

Povidone iodine (PI) solution is used commonly for skin disinfection before epidural and spinal anesthesia. Although there have been reports indicating the presence of microbial contaminants in PI solution, none have evaluated the prevalence of PI contamination. Investigators at St Luke's-Roosevelt Hospital Center, New York City, recently conducted a study to assess the frequency of bacterial contamination of previously opened bottles of PI solution and to compare the effectiveness of new and previously opened bottles of PI solution for skin disinfection.

Twenty previously opened and 10 previously unopened multiple-use bottles of PI solution were evaluated for microbial contamination. In addition, final swabs and PI solution used for skin disinfection in 80 patients undergoing elective epidural analgesia were evaluated.

The inside of the bottle cap or the PI solution from 40% of the multiple-use PI bottles in use were contaminated. There was no growth from any previously unused PI bottles. PI from newly opened bottles provided more effective skin decontamination than did solution from previously opened bottles. Based on these findings, the authors recommend the use of single-use containers if PI solution for skin antisepsis before initiation of epidural and spinal anesthesia.

FROM: Birnbach DJ, Stein DJ, Murray O, Thys DM, Sordillo EM. Povidone iodine and skin disinfection before initiation of epidural anesthesia. *Anesthesiology* 1998;88:668-672.

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