Hot News

Mandatory HIV Screening of Persons Aged 15-65 Follows HCV Testing of Baby Boomers

On April 30th, 2013, a report from the U.S. Preventive Services Task Force (USPSTF) was first released online in the Annals of Internal Medicine, recommending that all persons aged 15 through 65 years should receive routine HIV screening. Younger adolescents and older adults who are at increased risk should also be screened.

Experts found that of the estimated 1.2 million people living with HIV in the U.S. approximately 20-25% are unaware of their positive status.Given that there is robust evidence demonstrating that identification and treatment of HIV infection is associated with a marked reduced risk of progression to AIDS, non-AIDS-related events, and death, provision of effective antiretroviral therapy should result in substantial benefit for infected persons. Furthermore, antiretroviral therapy has been shown to effectively reduce sexual and vertical transmission of HIV.

The prior 2005 recommendation advised HIV testing only for people considered to be at risk for HIV infection. This was associated with significant stigmatization and testing rejection. The new recommendation acknowledges that people may not know their sexual partners' level of risk. Thus, one-time HIV screening of adolescents and adults will identify persons who are already positive. HIV screening should be repeated periodically in people actively engaged in risky behaviors and those who receive medical care in a high-prevalence setting (community with a HIV seroprevalence of 1% or above). In this way, nearly 250,000 Americans unaware of their HIV infection could be identified and get the opportunity to access care and treatment.

The debate over HIV screening has extended over 25 years, driven initially by concerns about discrimination and the appropriate rigor of consent procedures. As mentioned above, the controversy was centered more recently on the scope of screening efforts – whether they should be targeted at the groups at highest risk or should be a routine element of clinical practice. With the new USPSTF recommendations, the curtain will at last come down on that debate (Bayer, et al. N Engl J Med. 2013;368:881-4). However, two questions remain to be answered. The first is to see if routine HIV screening provided at no cost to anyone will substantially alter the persistent inability to identify 20-25% of Americans with HIV infection. The second aspect to be followed is the extent at which newly diagnosed persons enter care and initiate antiretroviral therapy, as recommended by the most recent HIV/AIDS treatment guidelines. Commitment of payers is crucial in this regard.

It is somewhat unusual that HIV follows HCV this time. In August 2012, the CDC recommended HCV testing of all persons born between 1945 and 1965 (baby boomers), based on the relatively high prevalence in this age group, the high proportion (> 50%) unaware of it, and the appreciation of the availability of effective therapies for curing chronic hepatitis C (Smith, et al. MMWR Recomm Rep. 2012;61:1-32). In many other aspects, including viral discovery, diagnostic tests, and treatment, HIV has always been ahead. It has not been the case on this occasion, which is surprising since antiretroviral therapy provides a unique benefit beyond the infected person in terms of halting HIV transmission. Sexual contagion is less a problem in hepatitis C.

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Any Risk for HIV Patients Posed by the Novel Influenza A (H7N9)?

A new influenza A (H7N9) strain has emerged and has been causing severe and fatal disease in eastern China since February 2013. The illness is characterized by rapidly progressive pneumonia leading to respiratory distress syndrome. The main epidemiologic characteristics of H7N9 cases in China have recently been reported (Li, et al. N Engl J Med. 2013. E-pub ahead of print). A total of 82 persons with confirmed H7N9 virus were examined. Their median age was 63 years (range, 2-89), 73% were male, and 84% were urban residents. No animal outbreaks were identified in the surrounding areas, but human infections with H7N9 are often associated with exposure to poultry, mainly chickens, generally as a result of visits to live animal markets.

The H7N9 strains isolated from humans to date are naturally resistant to adamantine antiviral agents but susceptible to neuraminidase inhibitors. Hence, the early administration of oseltamivir, a neuraminidase inhibitor, may help to reduce disease severity. Despite this, the mortality rate is high (21%) and this figure might increase shortly since many patients with confirmed H7N9 virus infection remain critically ill. At the same time, the true rates of severity and fatality caused by the new influenza strain are unknown since mild and asymptomatic H7N9 infections are missed.

Genetic analysis suggest that H7N9 viruses should result in a low-pathogenic avian influenza A strain, leading to asymptomatic or mild avian disease, therefore causing a "silent" widespread epizootic in China and neighboring countries. Moreover, gene sequences also suggest that these viruses may be better adapted to infect mammals than other avian influenza viruses (Gao, et al. N Engl J Med. 2013. E-pub ahead of print).

Human-to-human H7N9 transmission from one confirmed case to others has not been conclusively established to date. However, in two family clusters the possibility of human-to-human transmission after close, prolonged, and unprotected contact with a sick patient with suspected H7N9 virus infection was likely. Indeed, some human-to-human transmissions causing mild or asymptomatic infections cannot be ruled out, as it happened in the Netherlands in 2003 with the H7N7 outbreak (Du Ry van Beest Holle, et al. Euro Surveill. 2005;10:264-8). Serological surveys are currently being conducted to reveal if such transmissions of the H7N9 strain occur.

Since H7N9 virus infections have not occurred in humans before, it is expected that persons of all ages might be susceptible worldwide. Most individuals critically ill with confirmed H7N9 infection in China had underlying medical conditions (i.e. heart disease, chronic bronchitis, hepatitis, hypertension, chronic nephropathy, or rheumatic arthritis). The HIV population might represent a target as well for this new influenza A strain, although the potential risk of H7N9 infection in this setting is currently unknown. Enhanced surveillance is needed to determine the clinical spectrum of H7N9 infection and the true rates of both infection and severity. Major attention must be focused on populations presumably more susceptible to develop severe complications with H7N9 infection, such as HIV-positive individuals.

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