Control Infectious Diseases At Source, Not at Border

BY JONATHAN GARDNER
London Bureau

Countries should implement international health regulations that seek to control infectious diseases at their source rather than at national borders, and expand their cooperation on surveillance, knowledge, system building, and training, the World Health Organization said.

In its 2007 World Health Report, titled "A Safer Future: Global Public Health Security in the 21st Century," WHO said international travel and communications mean that countries cannot suppress information about infectious disease or prevent its spread beyond their borders. This fact makes it imperative that countries embrace the revision to international health regulations published in 2005.

Since 1967, at least 39 new infectious diseases have emerged, including HIV and severe acute respiratory syndrome, while older pathogens such as influenza and tuberculosis have reemerged as threats because of health system complacency or misuse of antimicrobials. With easier international travel and communications, the threat of pathogens to international security is as great as ever, the report says.

"Given today's universal vulnerability to these threats, better security calls for global solidarity," Dr. Margaret Chan, WHO's director-general, said in a written statement. "International public health security is both a collective aspiration and a mutual responsibility. The new watchwords are diplomacy, cooperation, transparency, and preparedness."

The 2005 international health regulations enable public health officials to seek to control infectious disease outbreaks at their source, rather than focusing on border control at airports and seaports to avert importation of disease, and allows them to rely on information other than government sources to identify and monitor such disease outbreaks.

By seeking transparency from member governments, the goal is to reduce the toll both in human sickness and death, as well as the economic impact that rumors can have on a country believed to have a disease outbreak.

"Instant electronic communication means that disease outbreaks can no longer be kept secret, as was often the case during the implementation of the previous international health regulations. Governments were unwilling to report outbreaks because of the potential damage to their economies through disruptions in trade, travel, and tourism," the report says.

Gaps occur in international public health security because of inadequate investment in public health defenses; unexpected policy changes; conflicts that force people to flee to overcrowded, unhygienic, and impoverished conditions; microbial evolution; and agricultural practices, the report states.

The report also focuses on the public health effects of environmental events, foodborne diseases, and accidental or deliberate chemical, radioactive, or biologic accidents, many of which now fall under the definition of events requiring an international public health response. ■

Non-AIDS Cancers More Common Than AIDS Cancers in HIV Patients

LOS ANGELES — HIV-infected persons are now almost as likely to die of lung cancer as they are of non-Hodgkin's lymphoma, and they are more likely to die of lung cancer than of Kaposi's sarcoma, according to a large cohort of patients in developed countries.

Data from a cohort of 23,437 HIV-infected individuals followed since 1999 show that HIV-infected individuals in developed countries are now more likely to die of a cancer not traditionally associated with AIDS as they are to die of an AIDS-defining cancer, said Dr. Antonella D'Arminio Monforte of the University of Milan.

In the cohort, 193 individuals died from a non–AIDS-defining malignancy while 112 died from an AIDS-defining malignancy. The most common fatal non-AIDS cancer in the cohort was lung cancer (62 deaths), she said at the 14th Conference on Retroviruses and Opportunistic Infections.

The cohort, known as the DAD (Data Collection on Adverse Events of Anti-HIV Drugs) study group, had 82 deaths from non-Hodgkin's lymphoma and 28 deaths from Kaposi's sarcoma. There also were two deaths from cervical cancer, the last of the three AIDS-defining cancers considered in Dr. D'Arminio Monforte's study.

Of the 193 non–AIDS-defining cancer deaths, there were, in addition to the 62 lung cancer deaths (32%), 25 gastrointestinal (13%), 16 liver (8%), 20 hematologic system (10%), and 20 anal cancer deaths (10%). The cancers seen less frequently included 18 urogenital cancers (9%), 9 cancers of the upper airways (5%), and 21 other cancers (11%).

Analysis of the data revealed that heterosexual persons and intravenous drug users had a lower risk of AIDS-defining fatal malignancy than did homosexual males, and both types of cancer were related to the patient's latest CD4 T-cell count.

The association between the CD4 count and fatal malignancy was such that there was a 37% reduction in fatal, AIDS-defining malignancy for every doubling of the CD4 count and a 39% reduction in fatal, non–AIDS-defining malignancy for every doubling of the CD4 count.

The DAD study cohort pools patients from 11 cohorts in Europe, the United States, and Australia.

—Timothy F. Kirn

Metabolic Syndrome More Likely In Patients Treated With ART

BY HANNAH BROWN
Contributing Writer

BARCELONA — Patients with HIV who receive antiretroviral therapy are more likely to have metabolic syndrome than are their untreated counterparts, Dr. Julian Falutz said at an international congress on prediabetes and the metabolic syndrome.

Dr. Falutz and colleague Dr. Leonard Rosenthall compared several metabolic, HIV-related, and body-composition variables in two groups of HIV-positive men, one treated (172 patients) and one untreated (32 patients). Specific measurements included body mass index, waist circumference, blood pressure, trunk fat mass, fasting lipids, and glucose homeostasis markers. Metabolic syndrome among the men in both groups was assessed according to the five most commonly used sets of diagnostic criteria: NCEP (National Cholesterol Education Program), WHO (World Health Organization), IDF (International Diabetes Federation), EGIR (European Group for the Study of Insulin Resistance), and ACE (American College of Endocrinology).

Overall, 20% of untreated individuals had at least one classification of metabolic syndrome, compared with almost 40% of treated men.

The researchers found a statistically significant difference in the rate of metabolic syndrome as assessed by at least one of the classification schemes between the two groups. Overall, 20% of untreated individuals had at least one classification of metabolic syndrome, compared with almost 40% of treated men. However, there were substantial discrepancies between the rates of diagnosis of metabolic syndrome of the five classification schemes among the treated group, said Dr. Falutz, director of the HIV Metabolic Clinic at McGill University, Montreal.

With the NCEP criteria, metabolic syndrome prevalence in the treated group was 24%; under the WHO classification, it was 15%. The IDF criteria pegged the prevalence at 18%, under the EGIR criteria it was 24%, and ACE identified only 4% of the men as having metabolic syndrome.

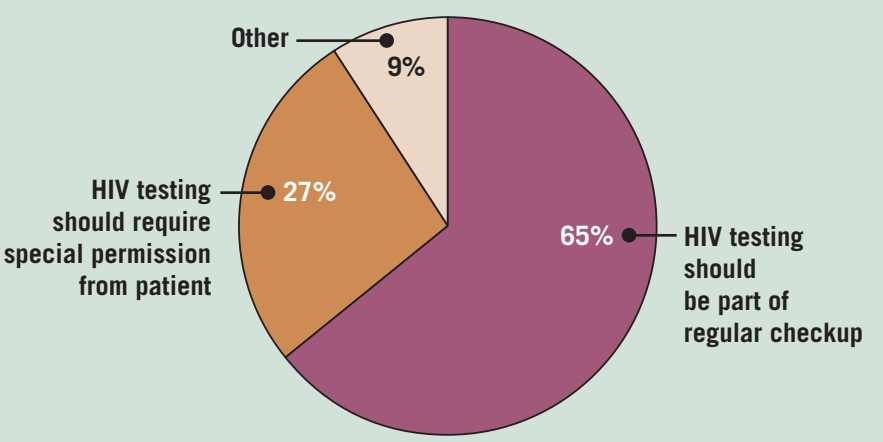
These rates are similar to those in the general population, showing that "basically our patients are at similar risk for developing metabolic syndrome," said Dr. Falutz. However, he added, "because the different published classification schemes do not identify the same people, there is a lack of consensus on how to diagnose metabolic syndrome."

Dr. Falutz said he believes that more work needs to be done to sort out which classification scheme is best for predicting risk of cardiovascular events by linking diagnoses of metabolic syndrome to outcomes. "You need a very large group to be able to find out if the risk of myocardial infarction is increased, compared with other classifications," he said. "We are going to see if we can use a combination of two classification schemes to see if people actually develop a myocardial infarction."

Although Dr. Falutz's work is focused on patients with HIV, he said the problems he had encountered with narrowing down a definition of metabolic syndrome are applicable to other patient groups, too. "We looked at metabolic syndrome in our population because it is becoming an increasing problem," he explained. "There are some people at higher risk, but you have to be careful when identifying them because no one classification scheme is the best, and we have to be aware of the controversy in the HIV-negative world. We may miss some people by using one [particular] scheme," he warned. ■

DATA WATCH

Most Americans Believe HIV Testing Should Be Routine



Note: Based on a random 2006 sample of 2,517 people over 18 years of age.
Source: Kaiser Family Foundation