Risk Behaviors Key to HIV Epidemic in U.S. Youth

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BOSTON — The adolescent HIV-1 epidemic as reflected in a multisite cohort of U.S. youth is changing from one of vertically transmitted infection to one of infection acquired via risk behaviors, posing new challenges for providers and the health care system, Dr. Allison L. Agwu reported in a poster session at the 15th Conference on Retroviruses and Opportunistic Infections.

The HIV Research Network, a consortium of 21 clinical sites that provide primary HIV care, includes 684 patients aged 12-24 years. Vertical transmission was the source of infection in 227 patients, while risk behaviors account for 457 cases, according to Dr. Agwu of Johns Hopkins University, Baltimore.

Analysis of data from this cohort showed that patients infected through risk behaviors are older, with a median age of 22 years, compared with a median age of 15 years among vertical-transmission patients. They also are more likely to be male. A total of 292 (46%) of the risk-behavior patients are male, as are 108 (48%) of the vertical-transmission patients. Risk behaviors comprised men having sex with men (51%), unprotected heterosexual activity (45%), and intravenous drug use (4%). The median CD4 count in the risk-behavior group was 492 cells/mm³, while that in the vertical-transmission group was 660 cells/mm³. The median HIV RNA level in the risk-behavior group was 6,700 copies/mL, compared with 400 copies/mL in the vertical-transmission group.

Despite this worse immune suppression and higher levels of viremia among the risk-behavior patients, they were less likely to be on highly active antiretroviral therapy (HAART) (43% versus 88%), Dr. Agwu found. Those infected through risk behaviors also had significantly fewer outpatient visits, averaging five visits per year, while vertical-transmission patients averaged seven visits.

Rates of hospitalization did not differ, at 19/100 patient-years in the risk-behavior group and 17/100 patient-years in the vertical-transmission group, Dr. Agwu reported at the meeting, which was sponsored by the Foundation for Retrovirology and Human Health and the Centers for Disease Control and Prevention. Other aspects of treatment also did not differ significantly between the two groups. For example, 89% of patients meeting the criteria for prophylaxis against Pneumocystis carinii pneumonia in the risk-behavior group received prophylaxis, as did 80% of vertical-transmission patients. Prophylaxis against Mycobacterium avium complex recommendations were followed by 83% and 75% of those in the risk-behavior and vertical-transmission groups, respectively.

“We suspect that there may be differences in psychosocial risk factors between the two groups that may account for the varying rates of HAART utilization,” Dr. Agwu said in an interview. “Our future questions will focus on deciphering both patient and provider barriers to HAART initiation in the risk behavior group in order to institute appropriate interventions,” she said.

She added that this group of patients in need of treatment is likely to grow in number as the CDC’s recommendation of universal opt-out testing is implemented.

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Note: Based on a study of 684 patients aged 12-24 years.
Source: Dr. Agwu