



RISK FACTORS FOR HIV-1 INFECTION AMONG YOUNG THAI MEN IN 2008 TO 2009

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Abstract

Background: The recent risk factors for HIV-1 infection in Thailand should be examined. Hepatitis C virus (HCV) antibody is believed to be a good surrogate marker for intravenous drug use (IDU). Male conscripts aged 21 years are recruited using a random lottery sampling system and are inducted into military service biannually. The newly inducted conscripts have been screened confidentially for HIV-1 antibodies.

Methods: We conducted a case-cohort study among military conscripts inducted during 3 consecutive rounds of induction during 2008 - 2009. Cases (N=225) were defined as the conscripts who were HIV-1 antibody positive. Cohort samples (N=2,922) were selected from the whole conscripts using 1:30 systematic random sampling technique. Stored serum samples from the HIV-1 sero-surveillance were tested for HCV antibody (Abbot HCV EIA 3.0). Self-administered standardized questionnaires were used to obtain the risk behaviors.

Results: A total of 94,346 men were screened for HIV-1 infection during the 3 rounds of induction. The prevalence of HIV-1 infection in each round was stable at 0.5%. A total of 3,147 men participated in the study of which 225 men were HIV-1 positive and 2,922 were HIV negative. HCV prevalence was 9.1%, and 0.6% in HIV-1+ and sampled men, respectively. The independent risk factors for HIV-1 infection were age (Yrs.), HCV infection, sex between men, and female sex worker contact; adjusted OR 1.19 (95%CI, 1.07 - 1.32), 19.54 (8.42 - 45.37), 5.30 (3.25 - 8.65) and 1.77 (1.07 - 1.32), respectively.

Conclusions: Heterosexual transmission of HIV from female sex workers is still a significant risk factor for HIV-1 infection in Thailand. Additionally, sex between men and HCV infection were independently associated with HIV-1 infection among young Thai men. Since, HCV antibody was believed to be a good surrogate marker for IDU, interventions for HIV prevention should focus more on men who have sex with men and IDU in Thailand.

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