20.013
Modeling and the Forecast of HIV Epidemics in the Target Groups in Irkutsk, Russia
E.D. Savilov 1 , S.N. Zhdanova 1 , B.V. Zvetkov 2 , E.A. Zarudnev 1, I.V. Malov 1, A.A. Kosov 2
1 Scientific Center For Medical Ecology East-Siberian Scientific Center Siberian Branch Russia Academy Of Medical Sciences, Irkutsk, Russia
2 Irkutsk AIDS Center, Irkutsk, Russia

Background: Irkutsk region has experienced one of the fastest growing HIV infections in the Russia, about 90% of the HIV cases registered after 2000. The HIV epidemic in Irkutsk has been fuelled largely by a dramatic rise in injection drug uses (IDUs) over the last 10 years. In 2007, the official number of registered HIV cases exceeded 11 000. Modelling and the forecast of distribution of a HIV-infection in target groups in Irkutsk was the purpose.

Methods: We developed a dynamic model and forecast of HIV transmission and progression in four target groups (IDUs; non-IDUs; female sex workers; babies born from HIV-infected mothers).

Results: The general number of a HIV-infected people can reach 26440 in Irkutsk in 2018 without wide application of preventive and treatment programs. On the average 1040 persons annually will be revealed. The cumulative number of HIV-infected IDUs in 2018 will be made 23,6 thousand person, and 17 thousand from them can already die. Since 2008 year it can be registered up to 190 new cases of the infection among female sex workers. We will reveal up to 880 HIV-infected persons among non-IDUs in 2018, and this group will become prevailing. Modelling of epidemic HIV among babies with vertical and perinatal contact allows to assume that 10–12 persons with HIV annually will come to light if the risk of infection transmission will decrease up to 1%. It is caused by significant increase of number of the HIV-infected women of reproductive age in Irkutsk.

Conclusion: We had been received model which most close reflecting official statistics of HIV-infected persons and existent HIV transmission and progression. It has provided an opportunity to carry out scripts of the forecast according to operating system of registration and to assay the real scales of epidemic.

doi:10.1016/j.ijid.2008.05.397

20.014
Are Boatmen in Teknaf, A Bordering Area of Bangladesh Vulnerable to HIV Infection?
D.R. Gazi
ICDDR,B, Dhaka, Bangladesh

Background: Although Bangladesh is a low prevalent country for HIV, Myanmar, which lies to the South East of Bangladesh, is experiencing a generalized HIV epidemic.

Objectives: The study has been designed to assess the risk behaviour and vulnerability to HIV infection of migrant boatmen in Teknaf and to provide information on whether boatmen in Teknaf are part of a risk behaviour network that may fuel the HIV epidemic in Bangladesh.

Methods: The study had four components; initial rapport building, mapping, in-depth interview with key informants and members from other local vulnerable groups and finally a cross-section survey among 433 boatmen. Bivariate and multivariate analysis was done to estimate associated risk factors for HIV infection.

Results: About 42% of the boatmen ever visited to Myanmar. Significant correlation found between the duration of stay and sex with sex workers while in Myanmar. Many had multiple sexual partners both in local area and abroad and had experienced male-to-male sex and group sex. Having sex with non-marital sex partners was associated with younger age and activities they are involved. Reported penile discharge were associated with higher income group, self perceived HIV risk and experience of having sex with sex workers. HIV related knowledge and awareness was poor. Condom use was rare in all groups of boatmen. Regression analysis showed that condom usage was associated with higher educational levels, sex with non-marital female sexual partners, and boatmen who were deep-sea fishing group. Only few were covered by intervention.

Conclusions: Boatmen in Teknaf are an integral part of a high-risk sexual behaviour network between Myanmar and Bangladesh. There is an urgent need for designing interventions targeting boatmen in Teknaf to combat an impending epidemic of HIV among this group. Boatmen of Teknaf could be included in the serological surveillance as a vulnerable group.

doi:10.1016/j.ijid.2008.05.398

20.015
Maternity Nurses’ Knowledge and Attitudes about HIV Transmission and Care: Impact of a Structured Training Program in South India
J. Lionel
Christian Medical College, Vellore, India

Background: Mother to child transmission of HIV is by far the largest source of HIV infection in children below the age of 15 years. Despite the widespread dissemination and significant funding of Prevention of Mother to Child Transmission (PMCT) programs, over 700,000 children were newly infected with HIV in 2005. Nurses, especially maternity nurses, play an important role in spreading awareness of mother to child transmission and the ways that it can be prevented; however, not all maternity nurses have an adequate awareness of PMCT.

Methods: Attitudes and knowledge about HIV among nursing staff working in the maternity wards of one of the busiest delivery centers in South India were studied using an anonymous questionnaire. The same questionnaire was re-administered three months later to assess the impact of a brief training program. 98 nurses who completed the questionnaire took part in the training program. 79 nurses completed the follow-up questionnaire three months after the training.

Results: Pre training surveys revealed that 80% of the respondents had adequate knowledge about most meth-
Seroserversion Time of Uninfected HIV-exposed Infants in Penang, Malaysia

K.C. Chan*, R. Nallusamy, V. Kasinathan

Hospital Pulau Pinang, Penang, Malaysia

Background: The aim of the study is to investigate the seroserversion time of uninfected HIV-exposed Malaysian infants.

Methods: This is a retrospective descriptive study of perinatal HIV-exposed infants in Penang state, Malaysia. Medical records of all infants born to HIV-infected mothers followed up in the Department of Paediatrics from 1999 to June 2006 were reviewed. Serial serology test available for each infant and basic demographic data were collected. The proportion of infants who seroreverted at 9, 12, and 15 months were calculated. The mean age of seroreversion was calculated by obtaining the mean between a seropositive and seronegative age of individual infant.

Results: From 1999 to June 2006, there were a total of 36 infants born to HIV-infected mother who were referred to Penang Hospital. 26 of them who had seroreverted were eligible for analysis, 10 infants had been lost to follow up. The mean age for seroreversion for these 26 infants was 12.9 months (ranged 9 to 17 months). Overall, the seroreversion rates were 15%, 50% and 86.7% at 9, 12 and 15 months of age. A comparison was made between the infants born in the first half of the study period and those in the second half. Infants from the first group (1999–2002) appeared to serorevert earlier than the second group (2003–June 2006). At 9 months of age, 28.6% infants in the first group and only 7.7% in the second group had seroreverted. At 12 months of age, the seroreversion rates were 60% and 44.4% respectively in the first and second groups.

Conclusion: The time for seroreversion for HIV-exposed Malaysian infants in this study was longer than the usual time cited by most guidelines. These findings could have implications on the timing of serologic testing to diagnose HIV infection in young children in Malaysia and warrant larger prospective studies.

doi:10.1016/j.ijid.2008.05.399

20.017

Classification Criteria for AIDS and Its Differential Effects on Patient Profile in Epidemiology Study

K.W. To¹, S.S. Lee²*, S. Chu¹, C.T. Tse³, M.P. Lee², K.H. Wong¹, P.C.K. Li², J.J.Y. Sung¹

¹ Department of Medicine & Therapeutics, Chinese University of Hong Kong, Hong Kong, China
² Department of Microbiology, Chinese University of Hong Kong, Hong Kong, China
³ Centre for Health Protection, Hong Kong, China
⁴ Department of Medicine, Queen Elizabeth Hospital, Hong Kong, China

Background: AIDS can be classified by clinical presentations and/or by a low CD4 count. Discrepancy may arise when different classification schema is applied.

Method: A registry of HIV positive patients was established from data contributed by two major HIV clinics in Hong Kong. Male patients registered between 1984 to 2005 were categorised into 3 groups according to their status on presentation: [group 1] clinical AIDS (modified CDC 1993 criteria adopted in Hong Kong, inclusive of pulmonary TB for CD4 < 200/µL); [group 2] CD4 < 200/µL without clinical AIDS; and [group 3] CD4 ≥ 200/µL without clinical AIDS.

Results: Of the 1560 HIV positive men in the registry, 524 (33.6%) presented with clinical AIDS. A majority of these patients had sexually acquired infection - 124 (23.7%) men having sex with men (MSM) and 345 (65.8%) heterosexual men. Injection drug users (IDU) accounted for only a minority of (n = 15, 2.9%). A total of 168 patients were in group 2. There were proportionately less heterosexual and more MSM than expected (χ² = 71, p < 0.01) in group 3. The proportion of group 2 patients increased from 2.9% in early 90’s to 14.5% in the early 2000’s.

Conclusion: The number and profile of AIDS patients vary with surveillance classification criteria. In Hong Kong, over 10% more AIDS would be reported if CD4 < 200/µL alone is added as a criterion. This proportion has increased steadily over the years. While MSM tended to present earlier, their proportion compared to heterosexual men was similar in those with low CD4 but without clinical AIDS.

doi:10.1016/j.ijid.2008.05.401

20.018

Factors Associated with HIV Infection in TB Patients: Voluntary Counseling and Testing Approach

S. Klinchan*, C. Sonup, T. Manoonpanich, O. Tienprateep

Bureau of Tuberculosis, Bangkok, Thailand

Background: Voluntary counseling and testing (VCT) is an excellent tool of HIV testing. Process of VCT can have a preventative or reduce personal risk of transmission, and the infected person can provide a bridge to health-care or other services. This operational study aims to demonstrate a proportion of TB patients who accepted HIV testing after passed VCT; prevalence of HIV infection, and to identify factors associated with HIV infection.

Methods: The counseling records of all TB patients who attended TB clinic during September 2006 to October 2007 were reviewed. Serial serology test available for each infant and basic demographic data were collected. The proportion of infants who seroreverted at 9, 12, and 15 months were calculated. The mean age of seroreversion was calculated by obtaining the mean between a seropositive and seronegative age of individual infant.

Results: From 1999 to June 2006, there were a total of 36 infants born to HIV-infected mother who were referred to Penang Hospital. 26 of them who had seroreverted were eligible for analysis, 10 infants had been lost to follow up. The mean age for seroreversion for these 26 infants was 12.9 months (ranged 9 to 17 months). Overall, the seroreversion rates were 15%, 50% and 86.7% at 9, 12 and 15 months of age. A comparison was made between the infants born in the first half of the study period and those in the second half. Infants from the first group (1999–2002) appeared to serorevert earlier than the second group (2003–June 2006). At 9 months of age, 28.6% infants in the first group and only 7.7% in the second group had seroreverted. At 12 months of age, the seroreversion rates were 60% and 44.4% respectively in the first and second groups.

Conclusion: The time for seroreversion for HIV-exposed Malaysian infants in this study was longer than the usual time cited by most guidelines. These findings could have implications on the timing of serologic testing to diagnose HIV infection in young children in Malaysia and warrant larger prospective studies.

doi:10.1016/j.ijid.2008.05.400