HIV and Injection Drugs Use in Indonesia

Tuti Parwati Merati

Department of Internal Medicine, Faculty of Medicine, Udayana University - Sanglah Hospital.
Jl. PB Sudirman, Denpasar, Bali, Indonesia.

Correspondence mail to: *tutiparwati@yahoo.com*

Injection drugs Users (IDU) defined as group with high risk to HIV infection, as they use narcotics, psychotropic drugs and other addictive substances, especially with the use of shared needles and syringes which put them at higher risks to HIV infection compare to other route of transmission. Up to March 2009 The Ministry of Health of the Republic of Indonesia reported almost 24 thousand people living with HIV and AIDS in Indonesia cumulatively since 1987. This is about 10% of the estimated number which indicate the so called tip of the iceberg. The number consists of 6668 HIV positive and 16.964 AIDS cases which about 7118 cases (41,96%) were reported IDU as a route of HIV transmission. If we look at the serials cumulative number each year, IDUs contribute more and more cases, in 2004 the proportion of HIV-positive drug users was 25% compared to 41,96% in 2009.

IDUs become a major problem in some provinces in Indonesia including Jakarta, West Java, Banten, North Sumatera West Sumatera, Lampung and Bengkulu; while on other provinces such as Papua, Riau, Central Java, Jogyakarta, East Java, West Kalimantan and Bali the reported main route of HIV transmission was heterosexual contact including sexual with multiple partner.

Research on IDUs in several cities and areas in Indonesia until 2007 found that 96% of IDUs is male, mostly aged 25 years or less, and with HIV positive prevalence between 43 – 57%. The length of being an IDU give higher risk to become infected by HIV. Almost 30% IDUs were married, 50% had multiple sex partners, some of them also ever had sex with commercial sex workers (CSWs) though only a small proportion was selling sex. There was a gap between knowledge and behavior among IDUs; though more than 90% IDUs knew that condom can protect someone from HIV infection, but sex without a condom was very common behavior reported (more than 90%). Sexual transmitted infections (STIs) been reported lower than prevalence among men with high risk behavior, though still found 5-6% prevalence of Chlamydia which cause non Gonorrheal Urethritis (NGU). The number of counseling and testing among IDUs was reported low, and that there were no difference of positive behaviors among those already tested and not tested, which indicate that coverage of VCT among IDUs were still low both in quality and quantity. We could conclude that IDUs is a bridging population which can transmit HIV from high risk behavior groups to low risk behavior groups or general population, such as house wife, infant and children.

WHAT SHOULD WE DO?

A comprehensive management program among IDUs should be done, where program consists of prevention program and HIV treatment among IDUs. Prevention program reduced the risk of IDUs from HIV infection and other blood borne viruses, such as Hepatitis B and C, while ARV treatment can decreased morbidity and mortality.[4] Harm reduction such as needle exchange program, Methadone substitution program, Voluntary Counseling and Testing (VCT), Supportive counseling, behavior changes program including safe sex, condom use and healthy life style should be provided as early as possible with coverage as wide as possible. This is because evidence base from cohort studies, observational data and epidemiological surveillance from many countries support the evidence that HIV epidemic among IDUs can be successfully contained and reversed. An impressive amount of research and observational data has shown this to be the case even among the most socially marginalized of IDUs, provided that a comprehensive package of interventions is offered.[5]

HOW SHOULD WE DO?

Innovative Public Health Approach and Strong Government Commitment are Needed

In 2005 United Nation (UN) agencies have issued guidance and technical papers advocating for the urgent implementation of effective policies to prevent HIV infection among IDUs which then followed by the global commitment with considerable funding and technical support for programs targeting IDUs has became available in recent years through the Global Fund against AIDS, TB and Malaria. Many governments including Indonesian government at the beginning remain reluctant to implement harm reduction interventions for IDUs because of prejudices against drug users, a lack of resources or political commitment, and difficulties in changing repressive drug policy towards an innovative public health approach. But with the large outbreak of injecting drug use which led to rapid spread of HIV in Indonesia, now Indonesian government changes policy to implement public health approach happens after acute public controversy and strong advocacy. We have to wait and see the results of this relatively new implemented approach. A sign of stable prevalence have seen in the provinces where pilot study are implemented and hope further data will show decreased proportion of IDUs among newly diagnosed HIV infections. Evidence base indicate, as a result of harm reduction and HIV prevention strategies, the proportion of IDUs among newly diagnosed HIV infections has decreased dramatically in a number of regions.

Disease Progression and Mortality Among HIV-Positive Drug Users

Prior to HAART, mortality among HIV-positive drug users was known to be higher than in other groups of HIV-infected patients, mainly due to mortality from overdose, suicide and non-HIV related septicemia. Opiate users remain at high risk of death compared with the age and gender-matched general population, including in countries adopting harm reduction policies. Half of the deaths were related to AIDS.

The changing pattern of mortality associated with the introduction of HAART has been widely documented. The impact of HAART studied in a cohort study, compared with the general population, the standard mortality ratio (SMR) decreased from 79.3 (95%CI 77,2–81,5) prior to HAART to 15.3 (95%CI 14,2–16,4) after the introduction of HAART. Such a decrease was observed both in IDUs (from 98.2; 95%CI, 94,9–103.5 to 40.9; 95% CI 37,0–44,8) and non-IDU HIV-infected patients (69,2; 95%CI 66.9–71.6 to 9.4 95%CI 8.5–10.4). SMR were lower in patients who initiated HAART during the study period. However, since the advent of HAART, the gap in mortality between IDUs and non-IDUs had increased. The causes of death were not considered in that study.

In 2003 the CASCADE collaborative study who studied seroconvertors from 22 cohorts originating from Europe, Australia and Canada with 31% of the subject had been infected through injecting drug use found that the adjusted hazard ratio of progression to AIDS did not differ between exposure categories in the pre- and early-HAART periods, while when HAART was widely used, IDUs were at higher risk of AIDS than individuals infected through sexual activity, both homosexual and heterosexual. This results show a lower benefit from HAART among IDUs.

In another cohort study – Eurosida cohort, which followed ARV-naïve individuals until 2003 to assess factors associated with progression to AIDS and with HIV-related and non HIV-related death, IDUs accounted for 21,2% of the study population and most predominant transmission group was homosexual men. Outcome were the first event of AIDS defining illnesses or death, either HIV or not HIV –related. Two-third of the almost 500 recorded event were not related to HIV. An increased risk of non HIV-related death was observed among IDUs, including the proportion of deaths related to liver disease was also higher among IDUs as compared to other transmission groups. The excess in non-HIV-related death rate among IDUs was seen after a long follow-up period and was not observed in the early period of HAART. The authors concluded that the higher death rate among IDUs in this study was not attributable to a poorer response to HAART.

Impact of HCV co-infection on mortality are inconsistent across longitudinal studies and vary according to whether mortality is considered as a whole or by cause. An association of co-infection and mortality/progression to AIDS is found in studies with longer follow-up periods, while in studies with shorter follow-up, HCV co-infection does not have an impact upon the response to HAART or HIV progression. Hepatitis-related death has become almost as frequent as HIV-related death among patients co-infected with HIV and HCV. The proportion of liver disease-related deaths is even higher among patients co-infected with both HCV and HBV. However, in this study, up to 50% of hepatitis-related deaths among co-infected patients had more than 200CD4/mm3 at death, which indicate that it can assume as not HIV-related.

Many study found that there was a delay in the initiation of HAART among IDUs. Factors related to delay in initiating treatment other than difficulties access

to medical care is social factors such as poverty, discrimination, social exclusion, risky behavior and also might be discriminatory attitudes from the physician.

Another recent cohort study involving 222 HIV-positive drug users in the US reported in 2008 that Crack cocaine users had a multi factorial mode of action in which both direct effects of disease progression (decline of CD4 cell count) and poor adherence to ARV treatment seem to be compounded to accelerate disease progression. In MANIF 2000 cohort study of HIV-positive drug users found poor adherence to ARV treatment was positively associated with younger age, alcohol use, negative life style and current active drug use. More recent analysis assessed the impact of active drug use on the course of HIV disease. The study subjects of 1851 HIV-positive drug users defined as persistent heroin/or cocaine user, intermittent user and non user. On the follow-up to 36 month they found that the risk of opportunistic infection was observed lower in non-user than intermittent user, and lower in intermittent user than in persistent users. The risk of OIs was found higher during active substance use periods as compared to 6 months abstinence periods where they found similar.

Cohort studies have shown that HAART was clearly beneficial in HIV-positive patients infected through drug use, resulting in a decreased HIV-related mortality. However, other causes of death and co-morbidity have not been strongly affected by the availability of HAART. Though from the evidence indicates that IDUs benefit significantly from ARV treatment, but mortality remains higher in HIV-positive ART-treated IDUs as compared with non-drug user ART –treated patients.

Many factors should be considered influence the overall lower impact of HAART on mortality and disease progression, such as delayed initiation of HAART, poor adherence to treatment regimen, interruption in medical care and continuing drug use and other co morbidity, such as liver disease, hepatitis B and hepatitis C virus infection. Substitution treatment can facilitate social stabilization and patients' demand for ART and for support for adherence to ARV treatment.

This special issue journal brings together a series of papers talking on HIV and AIDS related issue, based on literature review, research study and experience of the authors gathered from day to-day activity in a teaching hospital in Bandung, West Java focusing on HIV screening and laboratory diagnosis of HIV-infection, improving diagnosis of pulmonary tuberculosis among HIV/AIDS patients, factors associated with HIV-status and CD4 cell-count among HIV patients and skin disorders in HIV-infected patients from West Java.