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Evidence for action on HIV/AIDS and injecting drug use

POLICY BRIEF: ANTIRETROVIRAL THERAPY AND INJECTING DRUG USERS

This policy brief reviews the evidence to date on providing antiretroviral (ARV) therapy to HIV-positive injecting drug users. A number of related medical, psychological and social issues are also addressed including the need to manage drug interactions and the benefit of harm reduction interventions in supporting optimum care for HIV-positive injecting drug users. General issues related to HIV care are examined in WHO (2003) *Scaling up Antiretroviral Therapy in Resource Limited Settings*[1]; while other *Evidence for Action* Policy Briefs[2] provide more detailed information on harm reduction. The WHO/UNODC/UNAIDS position paper on substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention[3] provides a concise summary of the UN position regarding opioid substitution therapy.

BACKGROUND

Estimates suggest that there are over 13 million injecting drug users worldwide (Aceijas et.al. 2004) and that globally, 5-10% of all new HIV infections can be attributed to injecting drug use (UNAIDS 2004). Relatively recent HIV epidemics in many eastern European and central Asian countries are largely driven by injecting drug use (IDU). HIV prevalence related to IDU has also risen dramatically in China, Indonesia, Iran; Myanmar, north Africa, the southern cone of Latin America and Viet Nam (Aceijas et.al. 2004; Rhodes T et al. 1999; Lai S et al. 2001; Hien et al. 2001; Panda et al. 2000). Older IDU epidemics continue to contribute to high HIV prevalence rates in Italy, Portugal, Spain, Switzerland, the Netherlands and some other western European countries (Hamers and Downs, 2004 and EMCDDA, 2004). Explosive growth is one characteristic of IDU-based HIV epidemics. In several documented instances, HIV prevalence among injecting drug users has risen from 12% to 60-70% in a few years (Grassly et al. 2003; De la Fuente et al. 2003). IDU-driven HIV epidemics typically start with injecting drug users who are young, male and sexually active, and extend through sexual transmission to male and female partners as well as to children through mother-to-child transmission (MTCT). Commercial sex involving the exchange of sex for drugs or to support drug use, can create a transmission bridge between drug-using and non-using populations.

Injecting drug use can also result in infection with hepatitis B (HBV), C (HCV) and D, and result in other health problems, including overdose, venous thrombosis and severe bacterial infections. Furthermore, some injecting drug users have a long history of mental illness without proper diagnosis or treatment. Many injecting drug users face social problems including stigma and discrimination associated with drug use and HIV and/or hepatitis status. The economic pressure of supporting drug dependency and resulting crime, as well as laws criminalizing drug possession for personal use, mean that in most countries, a large proportion of drug users are periodically incarcerated, which results in additional negative social and health consequences.

ACCESS TO ANTIRETROVIRAL TREATMENT

Antiretroviral (ARV) therapy offers an opportunity to improve the prognosis and quality of life of people living with HIV/AIDS. For HIV-positive injecting drug users, ARV therapy may be an incentive to make contact

[1] http://www.who.int/hiv/pub/prev_care/en/ScalingUp_E.pdf

[2] http://www.who.int/hiv/pub/advocacy/idupolicybriefs/en/

[3] World Health Organization, United Nations Office on Drugs and Crime and Joint United Nations Programme on HIV/AIDS (2004) Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention: position paper Geneva: World Health Organization

with health care services, facilitating prevention, HIV testing and counselling as well as AIDS care, support and treatment. It is also an entry point for the treatment of drug use and other co-morbidities such as tuberculosis (TB), HBV and HCV. However, while the availability of ARV therapy is increasing, injecting drug users frequently remain excluded.

Despite these potential benefits, there is a widely held view that injecting drug users are poor candidates for ARV therapy because drug dependence undermines drug adherence, or because medical complications and co-morbidities such as hepatitis C make co-infected injecting drug users more difficult to treat and less responsive to ARV therapy. Although these limitations are indeed problems for many HIV-positive injecting drug users, extensive experience and numerous studies have documented that tailored HIV care for injecting drug users, as for other people living with HIV, is often highly successful.

EVIDENCE

The management of HIV-positive injecting drug users is not significantly different from that of other people living with HIV/AIDS, and includes clinical and immunological (CD4) staging of immune deficiency, prophylaxis for and treatment of opportunistic infections and ARV therapy. The clinical and immunological criteria for initiating ARV therapy in HIV-positive injecting drug users does not differ from general recommendations (WHO 2003) and should be commenced by those with clinically advanced HIV infection, reflected by:

- WHO Stage IV HIV disease, irrespective of the CD4 cell count; or
- WHO Stage III disease (with consideration of using CD4 cell counts <350/mm^3 to assist decision-making); or
- WHO Stage I or II HIV disease with CD4 cell counts <200/mm^3.

All of the current ARV drugs have significant side-effects and toxicities, some of which can lead to substantial morbidity and mortality. The more common, milder side-effects can have detrimental effects on adherence and can contribute to limited treatment effect and an increased risk of drug resistance (Dobkin 2005).

Good adherence to ARV therapy by injecting drug users has been demonstrated (Open Society Institute 2004). Nevertheless, a growing number of studies document the difficulties injecting drug users often have in accessing, remaining in and deriving the full benefit of HIV care as well as the potential for overcoming these obstacles through substance use treatment, outreach programs, supervised dispensing of medications and directly observed therapy (DOT) (Bouhnik et al 2002; Carrieri et al. 1999; Palepu et al. 2003; Clarke et al. 2003; Palepu et al. 2001; Pach et al. 2003; Chen et al. 2003; Wood et al.2003; Mockroft et al. 1999; McCance-Katz et al. 2002; Moatti et al. 2000; Carrieri et al. 2003; Lucas et al. 2004; Conway et al. 2004; McCance-Katz et al. 2002; Malta et al. 2003).

The scientific evidence illustrates that programmes which provide opioid substitution maintenance therapy, increase access to sterile needles and provide other prevention services reduce new HIV infections among injecting drug users. (Wodak et al. 2005; Des Jarlais et al. 2005; Farrell et al. 2005). Utilization of outreach workers and peer educators, whose own background includes substance use and HIV infection, have been remarkably effective at successfully integrating injecting drug users into HIV care programmes, including treatment adherence promotion, around the world (Coyle et al. 1998; Needle et al. 2005).

Drug substitution maintenance therapy with methadone or buprenorphine enables opioid dependent drug users to stabilize their lives, avoid or manage many of the complications of IDU and is an essential component in strategies for retaining active injecting drug users in treatment (Mattick et al. 2002). It also provides additional entry points for scaling up ARV therapy, improves drug adherence and increases access to care (Clarke et al. 2002; Moscatello et al. 2003; Lucas 2004, WHO et al. 2004; Open Society Institute 2004; Farrell et al. 2005).

It is important to anticipate interactions between methadone or buprenorphine and the ARV drugs and to adjust doses accordingly (Antoniou et al. 2002; Dobkin 2005). Interactions that precipitate opioid withdrawal may trigger relapse into heroin use, foment distrust of medical providers and result in an unwillingness to take ARV therapy (Dobkin 2005).

Additional analgesics may be needed to treat acute or chronic pain in HIV-positive injecting drug users as adequate pain relief may not be provided by the usual daily dose (Dobkin 2005). It is also important to anticipate the potential interactions between analgesics and several ARV drugs (*See* www.hiv-druginteractions.org and Dobkin 2005).

Some injecting drug users will be encountered in hospitals, prisons or other institutional settings and may be at risk of withdrawal symptoms as their pattern of opioid use may be interrupted. A detoxification regimen with buprenorphine, methadone or clonidine can

stabilize them to facilitate medical evaluation and treatment (Umbricht et al. 2003).

Co-infections with HBV and/or HCV and alcohol-related liver disease are common in HIV-positive injecting drug users. These conditions may increase the risk of liver toxicity and impair the metabolism of some ARV drugs. Despite the common association between hepatotoxicity and ARV drugs, about 90% of people living with HIV/AIDS, regardless of hepatitis co-infection, will tolerate ARV therapy without severe liver toxicity (Sulkowski et al. 2000), though it is important to be aware of potential drug interactions, particularly when treating HCV.

Management of TB is generally similar in people living with HIV/AIDS as in HIV-negative people and extensive management guidelines are available (*See*, for example, American Thoracic Society 2003). Important considerations include interactions between some TB and ARV drugs, between some TB drugs and methadone and possibly buprenorphine; and the timing of initiating ARV therapy in people with active TB (Dobkin 2005).

POLICY AND PROGRAMMING IMPLICATIONS

HIV-positive injecting drug users should have equitable and universal access to ARV therapy on both public health and human rights grounds. Policy-makers play an important role in ensuring this by promoting the treatment of HIV-positive IDUs in their country. A comprehensive response to HIV among injecting drug users combines prevention, treatment and other support services to ensure maximum uptake of services as early as possible. In addition to HIV, injecting drug users have an increased incidence of drug dependence, several other blood-borne infections and injecting-related health issues. The prevention of, and treatment for, these conditions limits morbidity and mortality and facilitates the enrolment of injecting drug users in comprehensive HIV care.

The key to effective ARV therapy and treatment of any co-morbidities is careful assessment and education of the person leading to the development of an individualized treatment plan to maximize adherence. Social services, education, adherence support, drug substitution and other substance use treatment are vital elements of an effective HIV care programme. If injecting drug users are able to keep medical appointments and adhere to a drug schedule, they are likely to have as successful a response to ARV therapy as other people living with HIV. In a non-judgmental care environment, any relapse or ongoing substance use can be addressed as a problem requiring additional attention, and can be managed as other co-morbidities.

Principles for successful programmes for IDUs

A major challenge in delivering care to HIV-positive injecting drug users is their need for multiple services concurrently. Successful medical care programmes for active injecting drug users have identified certain important principles:

- Medical care should be accessible to the client and situated in facilities that are part of the general health care infrastructure, free-of-charge and user-friendly with non-judgmental and unbiased staff.
- Medical care should be comprehensive with the maximum possible number of the most needed services available at the one location.
- Medical care should be offered to injecting drug users at the level of intensity the person can accept so as not to drive the person away from care.
- Outreach strategies are a vital component of HIV care with the most effective programmes forming strong links with community-based organizations representing affected groups, and utilizing peer educators and counsellors drawn from these groups.
- Continuity of care is an important consideration when developing medical services and for retaining people in care.

Enabling HIV-positive injecting drug users to successfully utilize ARV therapy requires attention to their special needs; particularly concerning drug adherence. Close attention must also be paid to the diagnosis and management of co-morbidities such as TB, HBV and HCV, drug interactions particularly with multiple treatments and drug substitution maintenance therapy.

Timing of the initiation of ARV therapy is a critical matter for injecting drug users. Making sure that they are well informed and motivated to begin, and have had potential barriers to adherence assessed and addressed is crucial. It is far better to briefly delay the initiation of treatment in all but the most critically ill, in order to carry out these steps, than to risk treatment failure and drug resistance.

Many countries follow WHO's public health approach to ARV therapy, which includes standard first-line and second-line regimens. If toxicity develops to a first-line agent, this can be substituted with an ARV drug of the same class. Individuals switch to second-line therapy if failure (clinical and immunological) occurs. Simplified regimens particularly if dispensed in fix-dose

combinations, offer significant advantages through low pill counts. However, with co-morbidities, substitution maintenance therapy and treatment for opportunistic infection, ARV therapy may not be straightforward and modifications may be necessary (Dobkin 2005).

In order to support drug adherence, ongoing supervision of therapy is an excellent way to detect adherence problems. If possible, therapy should be dispensed at the site of overall patient care, allowing care providers maximum information about adherence and clinical response. As a rule, when a patient commences treatment, small amounts of medicine should be dispensed at frequent intervals. When the situation is stabilized, dispensing intervals can be lengthened. Conversely, stable injecting drug users, whose behaviour becomes erratic, can be returned to a more frequent pick-up schedule so that closer supervision and support can be provided.

Linkage between harm reduction and treatment programmes

Close linkage between harm reduction and HIV treatment programmes enables the rapid referral of those injecting drug users testing HIV positive for care, contributes to better monitoring and resolution of drug interactions, and reinforces HIV-prevention messages – while reinforcing prevention among clients testing HIV negative. Harm reduction programmes, which have established credibility and trust, have experience reaching and communicating with injecting drug users and can limit the medical and psychosocial complications of drug use and facilitate HIV care. These programmes should be involved in planning HIV treatment for injecting drug users, in conducting outreach to drug users for HIV testing, counselling and treatment, and in maintaining follow-up with drug users who drop out of care.

Peer-based outreach interventions have proven successful in educating and motivating current users to take steps to access effective care. Support groups or educational programmes should be established or incorporated into the overall HIV treatment programme for injecting drug users, particularly to prepare HIV-positive drug users for the possible side-effects associated with ARV therapy and to support adherence.

Drug interactions with drug substitution maintenance therapy and ARV drugs

Due to the potential drug interactions with drug substitution treatment and ARV drugs, frequent, open communication between the HIV care provider, the HIV-positive injecting drug user and drug substitution maintenance therapy staff is prudent when initiating ARV therapy. In general, people on drug substitution therapy should be closely monitored when any changes are made in their other medications, and for interactions with street drugs. There are several models for effectively combining HIV care with substance use treatment, including:

- providing medical care by referring people to a nearby HIV clinic;
- establishing a substance use treatment component at a primary care HIV medical clinic; or
- providing on-site primary medical care for HIV-positive injecting drug users in a substance dependence treatment facility.

Special consideration for women and sex workers

A significant number of HIV-positive injecting drug users are women of reproductive age; access to family planning and Mother-To-Child-Transmission (MTCT) prevention services – including, where indicated, care and treatment for the woman herself – should be an integral part of the continuum of care. Many HIV-positive pregnant women do not obtain antenatal care and only present in labour. In order to prevent MTCT, staff of maternity clinics should have access to quality rapid-test kits and an emergency nevirapine-based drug regimen[4]. The routine offer of HIV testing in these settings in the context of available treatments is now recommended[5].

Both male and female injecting drug users who sell or trade sex for drugs require additional medical and social services to reduce sexual transmission and support care and treatment. Peer-based outreach and treatment support should also be adapted to reach those with overlapping risks due to drug injecting and sex work.

Prisons

Closed settings should be seen as opportunities for HIV prevention and care. A continuity of services should be provided both to and from the community, as people move between the community and detention. Detoxification in closed settings should be individualized and provide supervised withdrawal from the drug(s) of dependence so that the severity of withdrawal symptoms and serious medical complications are minimized. Methods and models should be developed to facilitate the cooperation of health care providers and corrections or public security staff.

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[4] *See*, generally, WHO documentation on MTCT at http://www.who.int/hiv/pub/mtct/en/

[5] see, WHO/UNAIDS routine offer guidelines at http://www.unaids.org/Unaids/EN/In+focus/Topic+areas/HIV+diagnostic+tests.asp

CONCLUSION

Policy-makers should consider the high social and public health costs associated with injecting drug use as well as the likely increases in hepatitis B and C, HIV infection and mortality rates if ARV therapy and harm reduction interventions remain inaccessible to injecting drug users. Significant challenges remain in addressing HIV infection among injecting drug users. Social, economic and legal barriers, as well as physical and psychological issues must all be addressed to effectively control this epidemic and ensure care for those already affected.

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