ISSN 1472-4863

ARV4IDUs

ANTIRETROVIRAL TREATMENT FOR INJECTING DRUG USERS: A QUARTERLY BULLETIN

Volume 1 Number 2: English edition

October 2007

CONTENTS

Published by HIV i-Base

ARV4IDUs

Antiretroviral Tretment for Injecting Drug Users: A quarterly bulletin

ARV4IDUs is a quarterly bulletin published in electronic format by HIV i-Base. As with all i-Base publications, subscriptions are free and can be ordered by fax or post using the form on the back page or directly from the i-Base website:

http://www.i-Base.info

by sending an email to: subscriptions@i-Base.org.uk

Editor: Simon Collins
Commissioning Editor: Polly Clayden
Editor, Russian edition: Svilen Konov

ARVs4IDUs is a not-for-profit community publication that aims to provide a review of the most important medical advances related to clinical management of HIV and its related conditions for injecting drug users, as well as access to treatments. Comments to articles are compiled from consultant, author and editorial responses.

Some articles are reproduced from other respected sources and copyright for these articles remains with the original authors and sources, as indicated at the end of each article.

We thank those organisations for recognising the importance of providing widely distributed free access to information both to people living with HIV and to the healthcare professionals involved in their care.

HIV i-Base receives unconditional educational grants from Charitable Trusts, individual donors and pharmaceutical companies.All editorial policies are independent of funding sources.

HIV i-Base
Third Floor East, Thrale House
44-46 Southwark Street, London SE1 1UN
T: +44 (0) 20 7407 8488 F: +44 (0) 20 7407 8489

http://www.i-Base.info

HIV i-Base is a registered charity no 1081905 and company reg no 3962064.

EDITORIAL

Welcome to the second issue of ARV4IDUs.

We had a great response to Issue one, saying that it it was important and timely that at last a publication was focussed on the issues of antiretroviral treatment for injecting drug users.

For the second issue, along with coverage form the IAS meeting in Sydney, we're fortunate to include three orginal articles.

Kora de Beck and Thomas Kerr look at the ARV treatment implication for IDUs in prison from a Canadian perspective.

Doug Bruce pulls together an important overview of the interactions between opiate withdrawal medication (methadone and buprenorphine) and ARVs.

Kon Lezhentsev and Larysa Badrieva write about the difficulties of HIV treatment in the Russian Federation, where there is no access to substitution treatment, and highlight an important project that is having success in this area.

We'd also like to encourage new writers who would like to contribute to future issues. This can include research reports and overview articles. If you would like to contribute to future issues or have news to include, please email:

ARV4IDUs@i-Base.org.uk

ARV4IDUs is produced in English and Russian and is distributed by email and published on the i-Base website.

To subscribe to ARV4IDUs, please register online at:

http://www.i-base.info/forms/esub.php

ARV4IDUs is produced as a supplement to the i-Base HIV Treatment Bulletin (HTB) and has been supported by a grant from the International Harm Reduction Development Program of the Open Society Institute (http://www.soros.org).

CONFERENCE REPORTS

4th International AIDS Society

22-25 July 2007, Sydney

Over 5,000 delegates from 133 countries registered for the meeting this year. For attendees from Europe, Africa and the US, the distance and cost probably limited attendance to the meeting. For those lucky enough to be able to attend, the meeting included a wealth of new data in many aspects of HIV research, with 978 abstracts were accepted for oral or poster presentation. For our coverage of new drugs, treatment strategies, paediatric care, mother to child transmission and prevention studies, please see coverage in HIV Treatment Bulletin.

It is also important and encouraging to see that the IAS has invested sufficient resources to ensure high quality internet access to the most important aspects of the meeting. Web casts are available for many plenary and oral presentations, including the late breaker sessions and including the questions and panel discussions afterwards. Most of these studies have links to the powerpoint slides and an email link to the main author. Additionally, MP3 audio recordings and transcriptions for many of the sessions are also online.

Reports particularly addressing ARV4IDUs included in this issue of ARV4IDUs are:

- Trends and predictors of HIV-associated risk behaviors among injecting drug users participating in an HIV prevention trial, Bangkok
- Harm reduction in Iran: a tale of two viruses
- HBV or HCV coinfection produced higher risk from treatment interruptions: drug holidays and hepatitis don't mix

As with all reports and summaries, readers are encouraged to go directly to the source material for more detail.

http://www.ias2007.org

Other online sessions of interest for ARV4IDU include:
Global responses to HIV prevention among injection drug users
http://www.ias2007.org/pag/PSession.aspx?s=53
The intersection of biomedical and social aspects of prevention
http://www.ias2007.org/pag/PSession.aspx?s=8
Unless stated otherwise, references are to the Abstracts and Programme from the 4th International AIDS Society Conference on HIV Treatment and Pathogenesis (4th IAS), Sydney, 2007, and these are already posted to the conference website.

Trends and predictors of HIV-associated risk behaviors among injecting drug users participating in an HIV prevention trial, Bangkok

Tracy Swan, TAG

The Bangkok Tenofovir Study, an HIV prevention trial conducted at 17 drug treatment clinics in Thailand, is investigating safety and efficacy of tenofovir to prevent HIV in injection drug users (IDUs). The tenofovir study group is comprised of Thailand's Ministry of Public Health, Bangkok's Metropolitan Administration, The U.S. Department of Health and Human Services, and Centers for Disease Control. At this year's IAS meeting in Sydney, Vanichseni and colleagues presented data on predictors of risk-taking, and actual risk behavior among 1,455 study participants.

Study participants are given a prevention package, which includes counseling on risk reduction, access to HIV counseling and testing, treatment for sexually transmitted infections (STIs), condoms, bleach and methadone. However, syringes were not provided through the study. When asked, Dr. Vanichseni said that it was illegal to do so in Bangkok. Thai advocates say that this would not be illegal (see comment).

Data on risk-taking were collected at enrollment, and then at 3, 6, 9 and 12 months (see Table 1. Baseline characteristics and risk behavior in the Bangkok tenofovir study). Participants were asked if they had injected drugs in the last three months, and if they had injected with used needles or syringes, via audio computer-assisted self-interview. Investigators looked at predictors of injecting drugs and needle sharing. Injection drug use was associated with being male, over 26 years of age, and an educational level above primary school, but there were no statistically significant predictors of sharing injection equipment.

Syringe sharing decreased significantly among study participants, from 17% to a remarkably consistent rate of 3%, where it remained at month 18. However, there was no information provided on where study participants obtained their own syringes. Injection drug use decreased significantly during the first three months of the study, from 62% to 17%, but then, it almost doubled by month 18 (to 32%). Oddly, the presentation did not include seroconversion data.

Table 1. Baseline Characteristics and Risk Behavior In The Bangkok Tenofovir Study

	Month 0	Month 3	Month 18
Age (median) at enrollment 31			
Male 1289 (78%) Female 352 (22%)			
Educational level Primary or less 784 (48%) Secondary 710 (43%) Post-secondary 147 (9%)			
Injected drugs in past 3 months • Methamphetamine 513 (32%) • Heroin 387 (24%) • Midazolam 378 (23%)	1012/1623 (62%)	272/1623 (17%)	141/444 (32%)
Shared needles and/or syringes in past 3 months	272/1623 (17%)	13/444 (3%)	13/444 (3%)
In methadone program 399 (25%)			

Hopefully, in the future, if tenofovir turns out to be an effective intervention, it will be a part of more comprehensive HIV prevention and treatment initiatives for Thai drug users. These should include education, easy access to clean syringes, condoms, and opiate substitution therapy with methadone or buprenorphine, in the context of comprehensive health care.

C O M M E N T

Activists were bitterly disappointed that their comprehensive care package for study volunteers—which included syringe distribution, working with the police on HIV and harm reduction, and educating drug users, health care providers and members of the community about why it is important to hand out needles—was rejected by the people running the trial.

"Since the beginning of the study, activists from Thailand's National Network of People Living with HIV (TNP+), the Thai Drug Users Network (TDN), and representatives from other community-based AIDS and human rights organizations tried to be involved in the design and implementation of this study, but we were excluded from a working partnership with the people running the trial," says Karyn Kaplan, Director of Policy and Development at Thai Treatment Action Group (TTAG).

The study's principal investigator, and other US and Thai researchers "patently refused to provide syringes," according to Kaplan. "The Americans said that it was illegal to use government funds for syringe distribution and the Thai investigators expressed concern that giving out syringes is illegal in Thailand—but this is untrue; providing medical devices for health promotion is *not* illegal in Thailand. We offered to set up on-site provision of needles by a third party—(Medecins Sans Frontieres, MSF), but they still refused."

Community representation was provided by "a hand-picked advisory board, comprised of one drug user from each methadone center where the study was being conducted. These are people who do not know about research and were thus unable to contribute; they wound up being tokenised, while activists who wanted to create a long-term system to support drug user health in the context of the trial were excluded. This is outrageous, given that there is nothing in place for Thailand's drug users, among whom HIV prevalence has remained stable at 50%. Harm reduction is virtually non-existent in Thailand. Nothing has been done to date to reduce the burden of HIV in IDUs—except letting people die untreated."

Unaddressed ethical violations have led Kaplan and her colleagues, AIDS advocates from the Center for AIDS Rights, Thai Drug Users' Network, and others, to take their case to the National Human Rights Commission. "Coercion is a major issue, due to inappropriate use of clinic staff as trial staff. We know that many people in the trial feel uncomfortable talking to the trial staff, since they are the very same people who provide them with their methadone. It is easy to tell people what you think they want to hear. Former clinic clients have reported getting phone calls from clinic nurses, begging them to come back, and join the trial even though they were no longer on methadone or injecting drugs. Therefore, we question the validity of the data."

Ref: Vanichseni S, Martin M, Suntharasamai P, et al. Trends and predictors of HIV-associated risk behaviors among injecting drug users participating in an HIV prevention trial, Bangkok. 4th International AIDS Society Conference. 22-25 July, 2007. Sydney, Australia. Abstract MOAC201.

Harm reduction in Iran: a tale of two viruses

Tracy Swan, TAG

At the 4th International AIDS Society conference, Dr. Seyed Abbas Motevalian and colleagues reported on HIV prevalence and risk behavior among injection drug users (IDUs) imprisoned in Iran, measures instituted to decrease HIV transmission among incarcerated IDUs, and recommendations for preventing new HIV infections. [1]

The Islamic Republic of Iran has a population of 7.5 million. Approximately 70,000 are HIV-positive. An estimated two million Iranians use drugs; 200,000 of them by injection. In fact, injection drug use with shared equipment is a predominant mode of HIV transmission, accounting for 67% of notified cases, as of June 2007. Hepatitis C virus is also prevalent among Tehran's injection drug users (IDUs), according to research from Zamani and colleagues. They assessed HIV and HCV prevalence among more than 200 IDUs, recruited from a drop in-center, adjoining streets and local parks in Shoosh, a poor area heavily populated by drug users. Overall, 23.2% were HIV-positive, and 52% were anti-HCV positive; 9.4% were HIV/HCV coinfected. [2, 3]

Each year, more than 500,000 people are imprisoned in Iran; almost half of them are serving time for drug-related crimes. High prevalence of HIV and hepatitis C among inmates, lack of access to condoms, tattooing with shared, unsterilised equipment the availability of drugs—albeit at high cost—and scarcity of injection devices make prisons a hotbed for new HIV and HCV infections. There is ample opportunity for preventing new HIV and HCV infections among prisoners. In fact, in their community-based sampling, Zamani and colleagues reported that HIV prevalence was significantly higher among IDUs who shared injection equipment while imprisoned (36%, versus 20% for IDUs who did not share), and that duration, and number of incarcerations are associated with both HIV and HCV. [2, 3]

In 2003, Motevalian and colleagues took a close look at risks for, and prevalence of HIV among 700 male IDUs in Tehran's Quezel Hesar prison, grouping them by duration of incarceration (just entered vs. imprisoned for more than one week). After giving consent, prisoners were tested for HIV, and asked about injection drug use, both in and out of prison, and sexual behavior with female partners (see Table 1. HIV status, injection drug use history, and sexual behavior of IDUs imprisoned in Iran).

Table 1. HIV status, injection drug use history, and sexual behavior of IDUs imprisoned in Iran

	New inmate (N=369)	Imprisoned for >1 week (N=371)
Baseline characteristics		
HIV-positive	22%	24%
Age	31	36
Previously imprisoned	81%	N/A
Injection drug use: history and current behavior		
Age at initiation of IDU	25	28
Duration of IDU	24 months	31 months
Injected in last 30 days	72%	29%
Started IDU in prison	6%	21%
Injected in prison	28%	54%
Used hand-made injection equipment	23%	45%
Shared injection equipment		
At last injection	20%	43%
Always/Often	10%	22%
Sometimes	25%	27%
Never	65%	51%
Rate of injection		
More than once per day	64%	33%
Once per day	20%	18%
Less than once per day	16%	49%
Sexual behavior		
Marital status		
Never married	48%	52%
Married	32%	33%
Separated/divorced	20%	15%
Sexual activity within last 12 months		
Sex with wife	33%	27%
Never used condoms with wife	60%	64%
Sex with sex worker	16%	9%
Never used condoms with sex worker	71%	76%

HIV prevalence was lowest among new entrants with no prior incarceration (6%, vs. >20% among long-term inmates). During incarceration, 6% of new prisoners, and 21% of longer-term prisoners started injecting drugs, many with hand-made equipment.

Among both new and long-term IDU prisoners, HIV infection was associated with:

- Lower level of education;
- Longer imprisonment;
- Younger age at initiation of IDU;
- Injection drug use in prison;
- Frequency and duration of injection drug use;
- Sharing injection equipment;
- Use of hand-made injection equipment;
- Having a tattoo.

Unfortunately, prisons provide condoms "on demand" only. There are no condom distribution programs for the 45,000 annual "carnal visits" between inmates and their wives. Prisoners were not asked about same-sex partners, either prior to, or during incarceration. However, Zamani and colleagues reported that eight percent (16/207) of male IDUs had same-sex partners, and recommended that Iran's health authorities "…address same-gender sexual practices of IDUs, and. start identifying appropriate sexual risk reduction strategies, while avoiding further stigmatisation due to their same-gender sexual activity."

Clearly, there are ample opportunities for HIV prevention in correctional facilities. Fortunately, results from this—and other similar studies—have been used as a "strong advocacy tool…translated to some strong actions in the country," according to Dr. Motevalian. By 2005, HIV education was provided to an estimated 300,000 prisoners. During the same year, 4,500 inmates received methadone. By 2006, methadone was available to 10,000 prisoners (approximately 20% of incarcerated IDUs). Guidelines for syringe distribution in prisons have been approved by the Iranian judicial system; implementation is expected soon.

Dr. Motevalian closed by stating that more action is necessary to prevent HIV transmission among IDUs, their partners and children drug use, specifically: decriminalising drug use, distributing condoms for carnal visits, and creating programs for sex workers and partners of IDUs.

References

1. Motevalian SA, Farhoodi B, Motamedi M, et al. Prevalence of HIV and risky behaviors among injecting drug users of a prison in Tehran. 4th International AIDS Society Conference. 22-25 July, 2007. Sydney, Australia. Abstract MOAC203.
2. Zamani S, Kihara M, Gouya MM et al. High prevalence of HIV infection associated with incarceration among community-based injecting drug users in Tehran, Iran. J Acquir Immune Defic Syndr. 2006 Jul;42(3):342-6. PMID: 16639351.
http://www.jaids.com (free full text available online)
3. Zamani S, Ichikawa S, Nassirimanesh B et al. Prevalence and correlates of hepatitis C virus infection among injecting drug users in Tehran. Int J Drug Policy. 2007 Oct;18(5):359-63. PMID: 17854723.
http://www.ijdp.org/article/PIIS0955395907000424/fulltext

HBV or HCV coinfection produced higher risk from treatment interruptions: drug holidays and hepatitis don't mix

Mark Mascolini for NATAP.org

SMART, the trial comparing continuous antiretroviral therapy with CD4-count-guided drug breaks, started with the hypothesis that drug holidays would lower the risk of antiretroviral side effects without threatening progression of HIV infection. [1] But it ended with a trove of data showing that treatment lulls pose a substantial risk of HIV progression while making a host of non-AIDS complications more likely.

At the February 2007 Conference on Retroviruses and Opportunistic Infections, SMART statistician Andrew Phillips reported that CD4-guided treatment breaks heightened chances of heart disease, possibly because steady antiretroviral therapy exerts an overall positive effects on risk factors. [2]

At the 4th IAS Conference on HIV Pathogenesis, Treatment, and Prevention, SMART investigators served up results of fresh analyses showing that:

- Interrupting antiretrovirals proved "particularly unsafe" for people with hepatitis B or C virus (HBV or HCV) infection. [3]
- SMART enrollees coinfected with HBV had to restart antiretrovirals more often than those without HBV. [4]

SMART signed up 5472 mostly treatment-experienced people and assigned 2752 to keep taking antiretrovirals regardless of CD4 count and 2720 to defer treatment until their CD4s tumbled below 250, then to resume or start therapy, only to stop again when CD4s climbed back above 350. [1]

The trial came to an abrupt end in January 2006, after an average 16 months of follow-up, when investigators found a 2.6 times higher risk of opportunistic disease or death as well as higher risks of heart, liver, and kidney disease in the drug-holiday group.

Two SMART substudies showed that CD4-guided treatment breaks may be a particularly bad idea for people coinfected with HBV

or HCV [3,4]. Analysis of 922 SMART participants coinfected with HBV and/or HCV found that they accounted for about half of all non-AIDS deaths during the study, even though coinfected people made up only 17% of the whole cohort. [3]

Defining chronic HBV as a positive test for hepatitis B surface antigen for more than 6 months and chronic HCV as positive for HCV antibody, the SMART team counted 922 coinfected people in the whole cohort (16.8%) and analyzed 467 in the drug-break group and 446 in the steady-therapy group. Equivalent proportions in both study arms had HBV only (n = 110), HCV only (n = 798), or both HBV and HCV (n = 14). In the coinfected subgroups, nadir (lowest-ever) CD4 count and CD4s at study entry were also equivalent in the two groups (median nadir 257 in the treatment-interruption group and 250 in the steady-therapy group; median entry CD4s 598 in the interruption group and 567 in the steady group). About two thirds of coinfected SMART enrollees had a viral load under 400 copies and about one quarter had AIDS.

When SMART ended, risk of opportunistic disease or death proved nearly identical in treatment interrupters with and without HBV or HCV coinfection. Coinfected people who took drug holidays had a 2.58 times higher risk of opportunistic disease or death than people who stayed on therapy. Among SMART enrollees without HBV or HCV, that risk was 2.57 times higher in the drug-holiday group.

Risk of death from a nonopportunistic disease proved 3.9 times higher in coinfected break takers than in the HIV-only drug-break group, and 3.5 times higher in the coinfected steady-therapy group than in the HIV-only steady-treatment group. SMART statisticians figured that this higher risk of non-AIDS deaths in coinfected people entirely accounted for the overall 2-fold higher risk of opportunistic disease or death in coinfected versus noncoinfected enrollees. The overall risk of a non-AIDS death was more than 3.5 times higher in coinfected people than in people without hepatitis virus coinfection (Table 1).

Table 1. AIDS and non-AIDS death rates with and without hepatitis coinfection

	Total AIDS deaths	Rate per 100PY (95%CI)	Total non-AIDS deaths	Rate per 100PY (95%CI)
HBV and/or HCV coinfected	2	0.14 (0 to 0.33)	37	2.52 (1.71 to 3.33)
HBV and/or HCV uninfected	5	0.08 (0.01 to 0.15)	41	0.69 (0.48 to 0.90)

But hepatitis itself did not explain the higher non-AIDS death risk in HBV/HCV-coinfected people. In the coinfected group death rates per 100 person-years measured about 0.2 for liver disease, 0.3 for kidney disease, and 0.5 for non-AIDS cancers and substance abuse.

SMART investigators concluded that because the risk of non-AIDS deaths runs so much higher in HBV/HCV-coinfected people, “the strategy of antiretroviral therapy interruption is particularly unsafe in these patients.”

Using the same definitions of chronic HBV and HCV infection, another SMART team discovered that HBV coinfection by itself made restarting antiretrovirals more likely in treatment interrupters [4]. This analysis focused on 2669 study participants, all of them randomised to take CD4-guided drug breaks. Median baseline CD4 count measured 560 in 65 people coinfected with HBV, 608 in 402 people with HCV, and 595 in 2202 infected only with HIV. Respective nadir CD4 counts stood at 207, 265, and 250. Similar proportions in all three groups were taking tenofovir, emtricitabine (FTC), and/or 3TC.

In the average 16 months of follow-up, 63.1% of study participants in the HBV group had to resume therapy, compared with 45.5% in the HCV group and 39.2% in the group without HBV or HCV. Median CD4 counts when treatment resumed were similar in the three groups--233 with HBV, 240 with HCV, and 232 with neither hepatitis virus. A multifactor analysis pinpointed seven factors that independently made treatment resumption more or less likely, including HBV coinfection, which raised the risk by two thirds (Table 2). HCV coinfection had no impact on the need to restart therapy.

SMART statisticians reckoned that HBV-coinfected people had to resume treatment more because their CD4 counts plunged faster than those of other people when they took drug breaks. While 24.4% in the HBV group who resumed treatment did so because of a speedy CD4 drop, 21.6% without hepatitis and 16.4% with HCV restarted therapy for that reason.

Table 2. Independent predictors of need to restart therapy in SMART

	Hazard ratio	95% confidence interval	p
Raised the risk			
HBV coinfection	1.67	1.22 to 2.29	0.0014
Prior AIDS diagnosis	1.42	1.23 to 1.61	<0.0001
Baseline viral load <400 copies/mL	1.19	1.04 to 1.37	0.023
Highest viral load	1.19	1.11 to 1.28	<0.0001
Age (per 10 yrs older)	1.14	1.07 to 1.21	0.0001
Lowered the risk			
Nadir CD4 count (per 100 cells higher)	0.67	0.63 to 0.90	<0.0001
Baseline CD4 count (per 100 cells higher)	0.87	0.85 to 0.90	<0.0001

This article is part of a longer report on the SMART trial that can be accessed in full at:
http://www.natap.org

See also:
HCV/HBV Coinfected at Greater Risk in SMART
http://www.natap.org/2007/IAS/IAS_58.htm
Higher rate of HAART reinitiation among HIV-HBV coinfected patients in the episodic arm of the SMART study
http://www.natap.org/2007/IAS/IAS_57.htm

References

1. The Strategies for Management of Antiretroviral Therapy (SMART) Study Group. CD4+ count-guided interruption of antiretroviral treatment. N Engl J Med. 2006;355:2283-2296.
2. Phillips A, Carr A, Neuhaus J, et al. Interruption of ART and risk of cardiovascular disease: findings from SMART. 14th Conference on Retroviruses and Opportunistic Infections. February 25-28, 2007. Los Angeles. Abstract 41.
3. Tedaldi E, Puoti M, Neuhaus J, et al. Opportunistic disease and mortality in patients co-infected with hepatitis C virus (HCV) and/or hepatitis B virus (HBV) in the SMART (Strategic Management of Antiretroviral Therapy) study. 4th IAS Conference on HIV Pathogenesis, Treatment, and Prevention. July 22-25, 2007. Sydney. Abstract TUAB203.
http://www.ias2007.org/pag/Abstracts.aspx?SID=68&AID=3450
4. Dore G, Soriano V, Neuhaus J, et al. Higher rate of antiretroviral therapy reinitiation among HIV-HBV coinfected patients in the episodic therapy arm of the SMART study. 4th IAS Conference on HIV Pathogenesis, Treatment, and Prevention. July 22-25, 2007. Sydney. Abstract TUAB204.
http://www.ias2007.org/pag/Abstracts.aspx?SID=68&AID=4389

ORIGINAL ARTICLES

Incarceration and implications for HIV treatment among injection drug users

Kora DeBeck [a] and Thomas Kerr [a, b]

a. British Columbia Centre for Excellence in HIV/AIDS; b. Department of Medicine, University of British Columbia

Almost a decade ago, over 150 United Nations members (including Great Britain, the United States and Canada) joined together and signed a declaration committing them to achieving a 'drug free world' by 2008. After investing billions of dollars toward this goal, prohibition (a.k.a. 'the war on drugs') has failed to meet its objective of eliminating or even significantly reducing the availability of illegal drugs. Despite this, enforcement and incarceration remain the dominant approaches to drug policy throughout the world, including in those regions hardest hit by injection drug use-driven HIV epidemics, such as the former Soviet Union and Southeast Asia. [1]

The reliance on enforcement has consistently been shown to increase rather than decrease the harms associated with injection drug use, including risks for HIV infection. For example, commonly applied law enforcement strategies such as police crackdowns in drug markets have been found to increase the stigmatisation of people who use drugs and also undermine public health efforts by pushing drug users away from health and social services, including syringe exchanges. Further, a large number of studies have demonstrated that injection drug users (IDU) are often reluctant to access syringe exchanges or carry syringes on their person out of fear of arrest, and that sterile syringes are often confiscated by police. Such effects, not surprisingly, have been associated with increased rates of syringe sharing. Lastly, when police presence increases in drug markets, IDU are known to rush during the injection process to avoid confrontation with police, and in doing so often skip important steps in the injection process. For example, IDU may be less likely to clean injection sites prior to injection or dress wounds afterward, and risk of vascular damage increases as syringes are inserted in a hurried manner. These practices substantially increase risks for abscesses and bacterial infections, a problem that has been previously found to account for a majority of hospitalizations among IDU. [1]

While previous research examining the harms associated with drug enforcement has focused primarily on policing, a growing body of research is now pointing to the harms associated with incarceration. [2]

Some of the earliest work in this area focused on high risk injecting occurring in prisons, and eventually research from a handful of settings found incarceration to be strongly associated with HIV infection among IDU. This led to the establishment of prison-based needle exchanges in many settings, which have since been found to be effective in reducing syringe sharing. [3]

More recently, a growing number of researchers have been turning their attention to the impact of incarceration on HIV treatment among IDU.

It has been well-established that HIV positive IDU populations have low levels of HIV treatment up-take as well as high rates of treatment discontinuation relative to other HIV-positive populations. In Canada, we found that 50% of HIV-positive IDU participating in the Vancouver Injection Drug Users Study (VIDUS) prematurely discontinued HIV treatment. [4]

Although there are a range of potential explanations for poor adherence to HIV treatment among IDU, recent investigations indicate that interactions with the criminal justice system (primarily incarceration) are a contributing factor. In a study of 160 HIV-positive IDU in Vancouver, IDU who reported having been recently incarcerated were almost 5 times more likely to prematurely discontinue HIV treatment than those who had not experienced recent incarceration. [4]

Among all study participants who prematurely discontinued treatment, the most commonly cited reason for discontinuation was being in jail, with 44% of participants citing this reason. The second most commonly cited reason was problems with side-effects (41%). Reasons for discontinuing treatment that were cited by a smaller number of participants included being fed up with HAART (7%) and interactions with methadone (3%).

The evidence regarding incarceration and HIV treatment is not, however, entirely consistent. For example, in contrast to research undertaken in Vancouver, studies conducted in the United States, specifically Rhode Island, found that HIV-positive individuals incarcerated for 6 months or longer and receiving HIV therapy throughout this time experienced a reduction in their viral load and an increase in their CD4 lymphocyte counts – both strong indicators of successful treatment and adherence to HIV therapy. [5]

While this finding may appear to contradict other research, a recent study conducted in Vancouver by Palepu and colleagues has shown that individuals with extended prison sentences were more likely than those with shorter sentences to achieve virological suppression. [6]

More specifically, these authors found that IDU with a history of incarceration within 12 months of initiating HAART had a reduced likelihood of achieving HIV-1 RNA suppression. This is concerning as the majority of incarceration events experienced by IDU in many setting are relatively brief. In Canada, statistics indicate that the incarceration period for 70% of drug possession cases is 30 days or less and the incarceration period for 64% of drug trafficking cases is 6 months or less. [7. 8]

Given the research of Palepu and colleagues, the short duration of the majority of drug-related sentences are likely to interfere with the delivery of HIV treatment. In addition, research suggests that post-incarceration transitions back to community pose further risks to HIV therapy success among IDU. [5]

Clearly, these finding suggest that interactions with the criminal justice system are negatively affecting adherence and subsequently hindering treatment success among IDU populations. Potential explanations for low adherence in prison settings, while not fully evaluated, include: HIV-related discrimination and fear of disclosure, routines in prison that are not conducive to adherence, and poor delivery of HIV treatment within prisons. It has been argued that the structural characteristics of prisons and the associated routines make maintaining a treatment regimen in prison challenging. The dispensing intervals and dietary requirements associated with some regimens may not be easily accommodated within prisons, and prisoners may also be likely to miss medications if they go to court, are transferred, or released. It has also been suggested that prisoners may avoid taking treatment in prison in an effort to conceal their HIV status. [4]

It is well known that disclosure of HIV positive status in prison settings can result in significant negative consequences (e.g., intimidation, violence) for prisoners, and HIV-positive prisoners have been known to voluntarily enter protective custody to ensure their safety. [9]

Lastly, disclosure of HIV status may limit an active IDU's access to shared drugs and syringes within prisons. [2]

In light of these issues, it is clear that efforts should be made to ensure that HIV-positive prisoners are given additional support designed to prevent premature discontinuation of treatment. In particular, efforts should be made to ensure that HIV-positive prisoners receive medications in a manner that preserves privacy, accommodates dietary requirements, and responds to changes in prison routines. As well, in order to reduce concerns regarding the impact of HIV disclosure on access to syringes, prison-based needle exchanges should be implemented more widely.

The impact of incarceration, sentence length and prison-release on HIV treatment adherence and outcomes warrants further investigation. However, it is already clear that much more must be done to ensure that prisoners receive and benefit from HIV treatment during all interactions with the criminal justice system and upon release prison.

References

1. Kerr T, Small W, Wood E. The public health and social impacts of drug market enforcement: A review of the evidence. International J Drug Policy. 2005;16:210-220.
2. Small W, Wood E, Jurgens R, Kerr T. Injection drug use, HIV/AIDS and incarceration: evidence from the Vancouver Injection Drug Users Study. HIV AIDS Policy Law Rev. Dec 2005;10(3):1, 5-10.
3. Kerr T, Wood E, Betteridge G, Lines R, Jurgens R. Harm reduction in prisons: a 'rights-based analysis'. Critical Public Health. 2004;14(4):345-360.
4. Kerr T, Marshall A, Walsh J, Palepu A, Tyndall M, Montaner J, Hogg R, Wood E. Determinants of HAART discontinuation among injection drug users. AIDS Care. Jul 2005;17(5):539-549.
5. Springer SA, Pesanti E, Hodges J, Macura T, Doros G, Altice FL. Effectiveness of antiretroviral therapy among HIV-infected prisoners: reincarceration and the lack of sustained benefit after release to the community. Clin Infect Dis. Jun 15 2004;38(12):1754-1760.
6. Palepu A, Tyndall MW, Chan K, Wood E, Montaner JS, Hogg RS. Initiating highly active antiretroviral therapy and continuity of HIV care: the impact of incarceration and prison release on adherence and HIV treatment outcomes. Antivir Ther. Oct 2004;9(5):713-719.
7. La Prairie C, Gliksman L, Erickson PG, Wall R, Newton-Taylor B. Drug treatment courts-a viable option for Canada? Sentencing issues and preliminary findings from the Toronto court. Substance Use and Misuse. 2002(37):1529-1566.
8. Canada S. Adult criminal court data tables 1998/99. Ottawa: Canadian Centre for Justice Statistics; 2000.
9. Jürgens R. HIV/AIDS in Prisons: Final Report. Montreal: Canadian HIV/AIDS Legal Network; 1996.

Key interactions between methadone, buprenorphine and HIV medications

R. Douglas Bruce, M.D., M.A., Yale University AIDS Program

Introduction

HIV/AIDS and opioid dependence adversely impact millions of people throughout the world. Explosions in both epidemics are described worldwide and there is no evidence of slowing. As a result, HIV-infected opioid dependent prescribed either methadone or buprenorphine for the treatment of their opioid dependence, may find themselves prescribed antiretrovirals (ARVs) that may result in an adverse interaction. Awareness that pharmacokinetic interactions exist may deter some patients and physicians from initiating potentially life-saving therapy, or lead to adverse consequences among patients already receiving treatment. The reader is pointed to recent reviews that provided greater details regarding interactions between ARVs, treatments for opioid dependence, and drugs of abuse/dependence. [1, 2]

Following is a summary of the key interactions and their management.

Methadone

Methadone, a full opioid agonist, is used for the treatment of pain and opioid dependence. Multiple cytochrome P450 isoenzymes are involved in the metabolism of methadone. [3-6]

The currently approved nucleoside reverse transcriptase inhibitors (NRTIs) do not affect methadone levels in a clinically significant manner and do not precipitate opioid withdrawal and do not result in opioid excess. However, methadone affects the pharmacokinetics of several of the NRTIs. Specifically, several studies have demonstrated that methadone increases zidovudine (ZDV) by approximately 40%. [7-10]

This increase may result in side effects, such as headache, abdominal pain, myalgias, and fatigue, which can all mimic opioid withdrawal. In addition, laboratory abnormalities, such as anemia and hepatitis, may occur due to increased ZDV levels. Results from studies with stavudine (d4T) and didanosine (ddI) have been performed in a between-subject crossover design. [11]

While neither ddI nor d4T affected methadone levels, methadone appeared to alter the disposition of both NRTIs. Although methadone's decrease in drug levels for d4T was statistically significant, these values are unlikely to be clinically significant. However, methadone's 66% decrease in the maximum concentration of buffered ddI tablets is clinically significant; the enteric-coated (EC) formulation has corrected this problem and is the preferred formulation when methadone and ddI are co-administered. [12]

In addition to NRTIs, the non-nucleoside reverse transcriptase inhibitors (NNRTIs) nevirapine [13-16] and efavirenz [17-19] are well described in the literature as resulting in the induction of methadone metabolism with resultant opioid withdrawal, often requiring elevations in methadone dosages. Patients taking methaodone who are started on nevirapine or efavirenz should be monitored for signs of opioid withdrawal.

With the exception of tipranavir, the currently available protease inhibitors (PIs) appear to lack significant interactions with methadone. Tipranavir's package insert states that co-administration of tipranavir boosted with ritonavir and methadone could result in a 50% decrease in the methadone concentration which may require increases in methadone in some patients. [20]

However, the applicability of this study for patients on chronic methadone maintenance is unclear as this study was conducted in opioid-naïve healthy volunteers after a single dose of methadone. [2]

Studies examining other FDA approved classes, namely CCR5 antagonist, maraviroc and integrase inhibitor, raltegravir have not been performed to date.

Buprenorphine

Buprenorphine (BUP) is a partial opioid agonist used for the treatment of opioid dependence. BUP undergoes N-dealkylation to norbuprenorphine by cytochrome P450 isoenzyme 3A4 and these metabolites are glucuronidated by UGT1A1. [21. 22. 23]

Two recent reviews have delineated all the ARVs studied to-date with buprenorphine. [1, 2]

In summary, compounds that lower buprenorphine levels appear not to affect the pharmacodynamic properties of buprenorphine. This was demonstrated in efavirenz's ability to lower buprenorphine concentrations without precipitating withdrawal. [24]

In addition, compounds that elevate buprenorphine levels, such as ritonavir and delavirdine, appear not to alter buprenorphine's pharmacodynamic profile as they did not produce opioid excess. [25]

The one exception to this seeming lack of pharmacodynamic interactions with ARVs may be in the case of atazanavir, which shares the UGT 1A1 pathway with BUP. [26. 27]

Although surveillance for opioid excess is encouraged in the co-administration of atazanavir and buprenorphine, the two can be safely administered with appropriate observation.

Studies examining other FDA approved classes, namely CCR5 antagonist, maraviroc, and integrase inhibitor, raltegravir have not been performed to date.

Management of interaction-induced opiod withdrawal or excess

The time course of symptom development due to medication interactions is highly variable. Typically, inhibition of cytochrome P450 enzymes can occur as soon as an inhibiting medication is started, with associated symptoms (typically of opioid excess) appearing shortly thereafter. Induction of P450 isoenzymes occurs more slowly, however, typically taking 10 to 21 days; however, these are general timeframes. When alternative explanations for apparent symptoms of opioid withdrawal or excess have been considered but discounted (e.g., thyroid dysfunction, new onset of cocaine use, etc.), an empiric change in methadone dose may be indicated with careful follow-up.

Clinicians should not be reluctant to suggest opioid pharmacotherapy dose changes in the absence of definitive data regarding a specific interaction since substantial between subject variation exists. In addition, not all interactions between opioid agonist treatments and single antiretrovirals, let alone typical multi-medication regimens, have been studied. In everyday practice, with patients taking multiple medications for multiple comorbidities, the risk for interactions is significantly greater.

In the United States, patients receiving methadone treatment for opioid dependence are enrolled in licensed methadone maintenance treatment programs (MMTPs). The physician at the MMTP is responsible for prescribing the patient's methadone. Co-ordination of care between MMTP and HIV care settings is critical.

A common scenario consists of an HIV specialist prescribing antiretroviral therapy to a patient receiving methadone in an MMTP. A phone conversation between the HIV physician and the MMTP physician can be enormously helpful to the patient's care when a medication interaction is anticipated or suspected. Therefore, when a new antiretroviral known to significantly interact with methadone is started (e.g., efavirenz or nevirapine) in methadone maintained patients, the HIV clinician should contact the prescribing physician at the MMTP immediately to coordinate care. This pre-emptive intervention will allow the MMTP to be alert to the need for a methadone dose increases if withdrawal symptoms are precipitated.

Although exact schedule of increase has not been comprehensively studied, the following guidelines are in agreement with expert opinion. Importantly, dosing may vary from patient-to-patient, as not all patients will develop opiate withdrawal. A reasonable plan is to routinely screen all patients for opiate withdrawal beginning on the fourth day of starting the new antiretroviral medication. Additionally, patients should be alerted to the possibility of precipitated withdrawal so they can notify staff should symptoms develop. If symptoms develop, the methadone dose should be immediately increased by 10 mg every 2-3 days until symptoms abate. Coordinating care between HIV treatment clinician and the MMTP physician can thus minimise the potential negative impact of opiate withdrawal symptoms as a stimulus for non-adherence to antiretroviral therapy or relapse to illicit opioid use. If the inciting antiretroviral is discontinued, the methadone dose should be gradually reduced to pre-treatment levels over the course of one to two weeks.

If available, a serum methadone trough level can inform situations where an interaction may be suspected. If low, this information may assist in reassuring the patient, or the program, that a methadone dose increase is indeed indicated.

However, if a patient is taking zidovudine (ZDV) and methadone and complains of opioid withdrawal, reduction in ZDV dose should be considered first. If drowsiness or other symptoms of methadone excess are reported, a reduction in methadone dose should be considered. A high serum methadone trough level would further support the clinical findings.

In the US, buprenorphine can be prescribed by any physician who has received a waiver from the DEA. The evaluation and treatment of BUP and ARV interactions, therefore, will be managed primarily by HIV practitioners. Due to the long half-life and high binding affinity of BUP, and the initial data presented above, it is anticipated that buprenorphine may have fewer medication interactions with antiretroviral medications than methadone.

Risk reduction

Opioid dependence is a relapsing medical disorder and HIV clinicians should understand that patients on methadone or buprenorphine may relapse into illicit use of substances. The relapsing nature of opioid dependence and the wide array of serious infectious and other medical consequences due to relapse, requires the development of preventive risk reduction strategies. Risk reduction is based on the underlying principle that opioid dependence is a chronic and relapsing disease which may not be cured in the individual or eliminated from society but can be conducted in a way that minimises harm to the user and others.

While complete cessation of drug use remains a laudable goal, reduction in drug use frequency and safer injection practices is more realistic for many drug users until abstinence can be achieved. Risk reduction strategies have been effectively incorporated into some drug treatment programs, syringe exchange programs and safe injection rooms. [28, 29]

There are several practical components inherent to risk reduction strategies. Education about and provision of drug use paraphernalia (e.g., needles and syringes) for more hygienic injection practices for the prevention of infectious complications of injection are essential. In addition to the distribution or exchange of injection equipment, these programs typically include HIVAIDS education, condom distribution, and referral or enrollment in a variety of drug treatment, medical, and social services. [30]

The ultimate goal of risk-reduction strategies should be the reduction or prevention of illicit drug use itself, the development of strategies that will minimise the serious medical consequences of drug misuse, and the development of strategies that will eliminate drug misuse and its root causes. Until we are successful in this arena, we stand little chance of limiting the spread and consequences of HIV disease in this and related populations.

References

1. Bruce RD, McCance-Katz, E, Karasch E.D., Moody, D.E., Morse G.D. Pharmacokinetic Interactions Between Buprenorphine and Antiretroviral Medications. Clinical Infectious Diseases 2006,43:S216-223.
2. Bruce RD, Altice FL, Gourevitch MN, Friedland GH. Pharmacokinetic drug interactions between opioid agonist therapy and antiretroviral medications: implications and management for clinical practice. Journal of Acquired Immune Deficiency Syndromes: JAIDS 2006,41:563-572.
3. Wang JS, DeVane CL. Involvement of CYP3A4, CYP2C8, and CYP2D6 in the metabolism of (R)- and (S)-methadone in vitro. Drug Metabolism & Disposition 2003,31:742-747.
4. Begre S, von Bardeleben U, Ladewig D, Jaquet-Rochat S, Cosendai-Savary L, Golay KP, et al. Paroxetine increases steady-state concentrations of (R)-methadone in CYP2D6 extensive but not poor metabolizers. Journal of Clinical Psychopharmacology 2002,22:211-215.
5. Iribarne C, Berthou F, Baird S, Dreano Y, Picart D, Bail JP, et al. Involvement of cytochrome P450 3A4 enzyme in the N-demethylation of methadone in human liver microsomes. Chemical Research in Toxicology 1996,9:365-373.
6. Wu D, Otton SV, Sproule BA, Busto U, Inaba T, Kalow W, Sellers EM. Inhibition of human cytochrome P450 2D6 (CYP2D6) by methadone. British Journal of Clinical Pharmacology 1993,35:30-34.
7. McCance-Katz EF, Rainey PM, Friedland G, Kosten TR, Jatlow P. Effect of opioid dependence pharmacotherapies on zidovudine disposition. American Journal on Addictions 2001,10:296-307.
8. McCance-Katz EF, Rainey PM, Jatlow P, Friedland G. Methadone effects on zidovudine disposition (AIDS Clinical Trials Group 262). Journal of Acquired Immune Deficiency Syndromes & Human Retrovirology 1998,18:435-443.
9. Rainey PM, Friedland GH, Snidow JW, McCance-Katz EF, Mitchell SM, Andrews L, et al. The pharmacokinetics of methadone following co-administration with a lamivudine/zidovudine combination tablet in opiate-dependent subjects. American Journal on Addictions 2002,11:66-74.
10. Schwartz EL, Brechbuhl AB, Kahl P, Miller MA, Selwyn PA, Friedland GH. Pharmacokinetic interactions of zidovudine and methadone in intravenous drug-using patients with HIV infection. Journal of Acquired Immune Deficiency Syndromes 1992,5:619-626.
11. Rainey PM, Friedland G, McCance-Katz EF, Andrews L, Mitchell SM, Charles C, Jatlow P. Interaction of methadone with didanosine and stavudine. Journal of Acquired Immune Deficiency Syndromes: JAIDS 2000,24:241-248.
12. Friedland G, Rainey P, Jatlow P, Andrews L, Damle B, McCance-Katz EF. Pharmacokinetics (PK) of didanosine (ddI) from encapsulated enteric coated bead formulation (EC) vs chewable tablet formulation in patients (pts) on chronic methadone therapy. In: 14th International AIDS Conference. Barcelona, Spain: International AIDS Society; 2002.
13. Altice FL, Friedland GH, Cooney EL. Nevirapine induced opiate withdrawal among injection drug users with HIV infection receiving methadone. AIDS 1999,13:957-962.
14. Clarke SM, Mulcahy FM, Tjia J, Reynolds HE, Gibbons SE, Barry MG, Back DJ. Pharmacokinetic interactions of nevirapine and methadone and guidelines for use of nevirapine to treat injection drug users. Clinical Infectious Diseases 2001,33:1595-1597.
15. Heelon MW, Meade LB. Methadone withdrawal when starting an antiretroviral regimen including nevirapine. Pharmacotherapy 1999,19:471-472.
16. Stocker H, Kruse G, Kreckel P, Herzmann C, Arasteh K, Claus J, et al. Nevirapine significantly reduces the levels of racemic methadone and (R)-methadone in human immunodeficiency virus-infected patients. Antimicrob Agents Chemother 2004,48:4148-4153.
17. Marzolini C, Troillet N, Telenti A, Baumann P, Decosterd LA, Eap CB. Efavirenz decreases methadone blood concentrations. AIDS 2000,14:1291-1292.
18. Clarke SM, Mulcahy FM, Tjia J, Reynolds HE, Gibbons SE, Barry MG, Back DJ. The pharmacokinetics of methadone in HIV-positive patients receiving the non-nucleoside reverse transcriptase inhibitor efavirenz. British Journal of Clinical Pharmacology 2001,51:213-217.
19. Pinzani V, Faucherre V, Peyriere H, Blayac JP. Methadone withdrawal symptoms with nevirapine and efavirenz.[see comment]. Annals of Pharmacotherapy 2000,34:405-407.
20. Product Information: Aptivus (r), tipranavir. Ridgefield, CT: Boehringer Ingelheim Pharmaceuticals, Inc.; 2005.
21. Cone EJ, Gorodetzky CW, Yousefnejad D, Buchwald WF, Johnson RE. The metabolism and excretion of buprenorphine in humans. Drug Metabolism & Disposition 1984,12:577-581.
22. Picard N, Cresteil T, Djebli N, Marquet P. In vitro metabolism study of buprenorphine: evidence for new metabolic pathways. Drug Metab Dispos 2005,33:689-695.
23. King CD, Green MD, Rios GR, Coffman BL, Owens IS, Bishop WP, Tephly TR. The glucuronidation of exogenous and endogenous compounds by stably expressed rat and human UDP-glucuronosyltransferase 1.1. Arch Biochem Biophys 1996,332:92-100.
24. Mcance-Katz E, Moody, DE, Morse, GD, Pade, P, Baker, J, Alvanzo, A, Smith, P, Ogundele, A, Jatlow, P, Rainey, PM. Interactions between Buprenorphine and Antiretrovirals. I. The Nonnucleoside Reverse-Transcriptase Inhibitors Efavirenz and Delavirdine. Clinical Infectious Diseases 2006,43:S224-S234.
25. McCance-Katz EF, Moody DE, Smith PF, Morse GD, Friedland G, Pade P, et al. Interactions between buprenorphine and antiretrovirals. II. The protease inhibitors nelfinavir, lopinavir/ritonavir, and ritonavir. Clin Infect Dis 2006,43 Suppl 4:S235-246.
26. Bruce RD, Altice FL. Three case reports of a clinical pharmacokinetic interaction with buprenorphine and atazanavir plus ritonavir. AIDS 2006,20:783-784.
27. MCCance-Katz E, Pade, P, Morse, GD, Moody, DE, Rainey, PM. . Interaction between buprenorphine and atazanavir. In: College on Problems of Drug Dependence. Scottsdale, AZ; 2006.
28. Broadhead R, Altice, FL. Safer injection facilities in North America: Their place in public policy and health initiatives. J Drug Issues 2002,32:329-356.
29. Broadhead R, Borch, C, van Hulst, Y, Ferrell, J, Villemez, W, Altice, FL. Safer Injection Sites in New York Ciety: A Utilization Survey of Injection Drug Users. J Drug Issues 2003,33:533-538.
30. Compendium of HIV prevention interventions with evidence of effectiveness.: Centers for Disease Control ^& Prevention. National Center for HIV, STD and TB Prevention; 2001.

IDU ISSUES IN EASTERN EUROPE

Organising access to HIV treatment for active IDUs and supporting adherence in a country with no substitution treatment: Kazan model, Russian Federation

Konstantin Lezhentsev and Larysa Badrieva, OHI

The Russian Federation is facing one of the most rapidly developing HIV epidemics in the world, and accounts for approximately two-thirds of the cases in Eastern Europe and Central Asia region. As of October 2006, some 350.000 cases of HIV infection had been officially registered - although UNAIDS estimates that the true number is as high as 1.6 million. [1]

As in many countries of Eastern Europe and Central Asia, the HIV epidemic disproportionably affects one of the most marginalised and discriminated communities – injecting drug-users (IDUs) - who represent 87% of total registered cases in Russia. HIV-positive IDUs have the highest mortality rate, mostly due to HIV/TB co-infection, limited access to programmes aimed at scaling up ARV treatment in the country, and a complete lack of effective adherence support services. [2]

Although a full range of services proved to be effective in supporting treatment adherence in injecting drug users are needed, one of the most problematic issues is the complete absence of substitution treatment programs. These are considered illegal across the Russian Federation. The lack of support for Harm Reduction programmes, means that they are still largely unavailable, or are limited to small scale pilot projects.

In October 2003, the board of the Global Fund to Fight AIDS, Tuberculosis and Malaria approved an application for a project to fight HIV/AIDS in Russia, from a consortium of five Russian and international NGOs, with many years of experience in the field.

In June 2004, the Global Fund and Open Health Institute, which is the main recipient of the Global Fund grant, signed an agreement to commence the implementation of the first phase of the project. The project has been given the name GLOBUS - an abbreviation of the Russian for 'Global Efforts Against HIV/ AIDS in Russia' and was initially launched in 10 sites: St. Petersburg, Tver, Krasnoyarsk, Nizhniy Novgorod, Kazan (Republic of Tatarstan), Ulan-Ude (Buryatia).

The main mission of GLOBUS is to support and develop effective prevention and to provide treatment, care and support to PLWHA. In particular, GLOBUS sets up ARV treatment projects in selected sites with the main focus on delivering treatment and care to marginalised groups of patients. To this end, Open Health Institute, even on the stage of writing the proposal, was considering intensive technical assistance in presenting best international model of organising comprehensive care for IDUs and adjusting it to the specifics of the Russian Federation. One of the key barriers was illegal status of Substitution Treatment in Russia and little hopes of any access to it in the nearest future.

GLOBUS has developed an overall strategy for launching treatment pilot projects based on the following directions:

- Involvement of leading international and regional experts in HAART programs for IDUs;
- Building strong national team of experts in HAART and adherence support for IDUs;
- Establishing working multidisciplinary teams in each treatment site;
- Integration of Harm Reduction projects into care and treatment delivery.

The International Harm Reduction Development Program (IHRD) of the Open Society Institute (OSI), based on the long-term partnership with Open Health Institute, became one of the main technical assistance implementers in the area of antiretroviral drugs for injecting drug users.

With IHRD support the national technical assistance team has passed the training in the model project 'Jumpstart' in New-York. This unique project was implemented by a team from the Columbia Presbyterian Medical Center's Infectious Diseases Clinic (which serves predominantly poor, Hispanic and Afro-American populations). The team of 'Jumpstart' developed an effective and innovative model of adherence support in patients suffering from co-morbidities (including TB, viral hepatitis, psychiatric disorders), drug (mainly crack and cocaine) and alcohol addiction, and social problems (including homelessness and poverty). [3]

Most of the patients also had a history of failed ARV regimens in the past. Jumpstart built their strategy on three main interventions:

- Education of patients about HIV, ARV medicines and goal of HAART;
- Intensive course of adherence provided by trained "peer counsellors", detailed assessment of potential risks for adherence by the team of social workers and peer counsellors and control over pill dispensing (modified DOTS);
- A multi-disciplinary approach to managing patients, regular counselling and adherence support by the team of medical doctors, nurse, social worker and peer counsellors.

Under the guidance of the leader of 'Jumpstart' programme, Dr Jay Dobkin (who is also IHRD consultant on care and treatment with experience of working in Eastern Europe and Central Asia) the group of technical assistants was formed. The critical factor of technical assistance was IHRD support for the position of regional "peer advisor", an HIV-positive person from the region trained

and educated in both organisation of peer support and adherence work as well as in mentoring and educating.

Alecandra Volgina, leader of St.-Petersburg PLWHA community organisation 'Svecha' was nominated and selected for this position. This team also included Dr. Vladimir Musatov, medical professional experienced in providing ARV, who also worked in one of the first Harm Reduction projects in Russian Federation.

This team worked out together first model training "Introduction into ARV for multi-disciplinary teams" focusing primary on effective teambuilding, highlighting value of peer counsellors, and ARV delivery to active IDUs.

However, this training is just a first step in the multi-component cycle of technical assistance. IHRD also ensured sustainable on-site technical assistance to the projects through regular Adherence trainings for the new multi-disciplinary teams and regular site visits to the projects. Each visit to the sites takes at least two days and includes two main areas of technical expertise: clinical case discussions and overall problems with organising ARV management (with special focus on adherence work, patient enrolment and peer counsellors performance and equal involvement into care work).

Based on each visit, international and peer advisors developed recommendations for the improvement of adherence work and for overcoming barriers for equal access of active IDUs.

The key barrier remains universal for all people within the Russian Federation: no access to substitution treatment and very limited access to quality rehabilitation support. This barrier does not permit organisations to implement a full range of comprehensive services to the most marginalised and affected group of patients. At the same time, implementation of very simple but crucial services, and effective integration of Harm Reduction projects and their experiences, could play important role in saving life of IDU clients.

One of the sites where such activities have been implemented, as a result of effective collaboration between a technical assistance group, a local Harm Reduction project and AIDS-centre, as well as additional funding attracted to broaden the spectrum of services, is the ARV program in the city of Kazan, Republic of Tatarstan.

The Republic of Tatarstan is located on the eastern frontier of Europe at the confluence of the Volga and the Kama rivers, 800km from Moscow. Tatarstan is one of the most economically developed republics of the Russian Federation and due to historical, geographical, and natural conditions and other important factors, the Republic of Tatarstan has developed as a major scientific, educational, and industrial centre recognised in Russia and worldwide. The city of Kazan, the capital of Tatarstan Republic, was selected as one of the first sites for developing effective ARV treatment projects within the GLOBUS project, and was initially evaluated as one of the potential model sites. First of all, Kazan is characterised with one of the oldest, most effective and powerful Harm Reduction projects and a highly evaluated group of trained peer educators from IDU community. However, the scope of barriers and problems that both the project and technical assistants witnessed when HAART was first launched was typical for the situation in other sites.

In the Republic of Tatarstan, 264 patients had been enrolled in ARV treatment projects by 2005, but only eight of them were active IDUs including five referred from HR programs. Despite the fact that over 70% of all patients registered in AIDS-centre are IDUs, the local AIDS centre had limited access to this group. In addition, drug users had limited information about ARV treatment and were afraid to contact the AIDS centre for fear of being hospitalised or even referred to the police.

The majority of drug users had little knowledge about ARV treatment. They had probably heard horror stories about the side effects and toxicity associated with HAART that are popular within the IDU community. They were also, understandably, afraid of being in treatment clinics and medical institutions that they did not trust. This was often because of past experience of police harassment, which is common in the central districts where AIDS clinics are located.

"Our project was very motivated to work on access to HAART for our clients and we prepared good team of peer counsellors and case managers to focus on adherence support and to maximise treatment outcomes and retention in active drug users … " said Larysa Badrieva, leader of the Harm Reduction NGO 'Obnovlenie' ('Renewal'), " … however, we were faced with the fact that most of our clients were reluctant to even come to the AIDS-centre for CD4 monitoring".

Therefore, the main challenge was to establish maximum proximity of counselling and treatment information by outreach teams, ensure safe and trusted environment for clients and move treatment-related activities (counselling, adherence sessions, blood sampling and medicine pickup) as close as possible to their environment. It is obvious that involvement of the HR project is critical for developing active patient outreach, establishing decentralised and proximal services based on community-centres, drop-in zones and needle-exchange points.

In order to meet this challenge, an IHRD expert team identified an HR community centre, located in the epicentre of drug scene of Kazan, to serve as a proximal service centre on antiretroviral treatment for IDUs. It is important to note that one of the specific barriers for IDUs in Kazan, was the need to get to the AIDS centre, which involved crossing the central bridge usually patrolled by road police. Being caught by the road police as someone registered at the narcology (drug treatment) clinic, automatically means arrest of the vehicle and an administrative fine. As most users use driving as a main source of income for their families, most of them try not to leave the area.

The location of the centre provided a unique opportunity for the clients to get counselling and blood sampling in a safe environment without leaving this district. As a first step, a separate peer-training, based on the STEP model, was provided for the Community Centre team to prepare outreach workers and case managers able to deliver treatment counselling and adherence support.

IHRD provided additional financial support to 'Renewal' for follow up technical assistance in terms of treatment education,

reconstruction of the community centre building, to buy furniture and to cover salaries for four treatment outreach workers and three case managers. Such focused additional funding for treatment outreach, mobile communication and transportation later became known as an 'expanded HR integration kit' and was used by IHRD to support HR projects working on antiretroviral treatment for IDUs in other GLOBUS sites (7 sites) and in Ukraine (5 integration sites for HR/ST/ARV).

The Community centre started active treatment work in September 2006. During the first month they scaled up treatment education sessions and patient outreach and introduced on-site blood sampling for CD4-cell count. However, they first created a safe and friendly environment for the clients. This is the most important factor in motivation of IDUs to look for, and to stay on treatment. After the first 2 months, the number of visitors increased from 70 to 425 and the number of regular clients reached 300.

This community centre became a crucial link in the continuum of care for IDUs and is a clear example of how prevention projects could be effectively integrated into HAART management for marginalised patients. It serves as an entry point to medical care and performs comprehensive services to ensure adherence and effective use of ARVs. The vanguard outreach team provided more than 390 consultations on treatment issues as part of their regular work in outreach, on NEP and in the community centre. The team of case managers provided 30 successful cycles of case management, supporting their clients through a full course of entering into care, clinical and laboratory evaluations, social and drug treatment support, and starting HAART with adherence monitoring. [4]

It is important that, thanks to the effective work of case managers, all clients had regular access to a rehabilitation centre (including free detox service), a PLWHA support group, and social services that played critical role in their motivation for, and adherence to, HAART.

All cases were well documented and serve as a good example on how well-established, peer-based comprehensive approach played vital role in saving clients lives. [5]

Igor, 35 year old active opiate user, who became a client of the community centre commented:

"I would never even think of getting my CD4 cells tested in time and was not able to get to the AIDS centre due to a number of factors. The community centre gave me the chance to get my CD4 tests here. I can pick up my medicines here and the case manager regularly supported me when I was sick, when I was doing cold turkey, and when I could not leave my apartment".

Igor now has an undetectable viral load and his CD4 cell count has increased to over 500 cells/mm3.

References:

1. UNAIDS: AIDS Epidemic Update: Special report on HIV/AIDS. December 2006.
2. Harm Reduction Developments 2005: Countries with injection-driven epidemics. International Harm Reduction Development Program (IHRD) of the Open Society Institute. New York, 2006.
3. Murphy R, Ferris D, Wnnyiwang MS et al. Intensive intervention and ongoing adherence support yields high success rate in salvage ART. Programme and Abstracts, Infectious Disease Society of America, Annual Meeting, Boston, 2004. Abstract 893, p 199.
4. Expanding harm reduction services in Kazan: Using community centres to improve injecting drug users' (IDUs) access to HIV care and treatment. Conference abstract: AIDS Impact, Marseille, 2007.
5. Interviews with NGO "Renewal", January, 2007.

OTHER NEWS

Survival of HIV-positive IDUs in the era of HAART

Polly Clayden, HIV i-Base

Mortality rates among injection drug users (IDUs) have been historically high and are still significantly higher than the rates for the general population. HIV-positive IDUs have an additional increase in mortality risk.

A paper authored by Roberto Muga and coworkers from the Department of Internal Medicine, Hospital Universitari Germans Trias i Pujol, Badalona, and Department of Statistics and Operations Research, Universitat Polite`cnica de Catalunya, Barcelona, Spain, published in the 1 August 2007 edition of Clinical Infectious Diseases, looked at survival of HIV-positive IDU in the era of HAART.

In this study they evaluated the mortality rates for a cohort of HIV-positive and negative IDUs who were admitted to a substance abuse treatment programme in a tertiary hospital between January 1987 and December 2004. The investigators divided the follow up period into: 1987-1991 (the antiretroviral monotherapy era), 1992-1996 (the dual-combination treatment era and the introduction of methadone maintenance), and 1997-2004 (the era of HAART and established methadone programmes).

The investigators noted that during follow-up, several IDUs who were HIV-negative at admission became HIV-positive. They defined the time of infection by the midpoint of the interval from the last negative test result to the first positive test result. People that seroconverted contributed survival times to both groups of HIV infection: as seronegative subjects, the (right-censored) survival time lasted from admission until HIV infection; as seropositive subjects, the survival time lasted from the duration after admission to HIV infection, until either death or the end of follow-up.

During the study period,1209 IDUs were admitted for the first time to a substance use treatment programme. Twenty-eight (2.3%) of the total study group were excluded from the study cohort because their HIV status was unknown. The calendar periods of admission, for the remaining 1181 IDU included were as follows: 490 (41.5%) for 1987-1991, 393 (33.3%) for 1992-1996 and 298 (25.2%) for 1997-2004.

The majority (81.3%) of patients were men. The mean age was 27.8 (+/- 5.6) years, and the mean duration of injection drug use was 7.6 (+/-5.0) years. The prevalence of HIV infection and hepatitis C virus infections was 59.0% and 92.3%, respectively, and the total duration of follow-up was 10,116 person-years.

The investigators reported that although survival duration for HIV-negative IDUs in 1997–2004 was similar to the duration in earlier periods, the duration for HIV-infected IDUs improved significantly since 1997 (p=0.01). Additionally, among patients admitted in the last period, there was no significant difference between the survival durations for HIV-uninfected and HIV-infected IDUs (HR 0.89; 95%; CI 0.44–1.81).

They found that survival for HIV-positive IDUs improved substantially since 1997, reaching similar rates to those for HIV-negative IDUs who accessed the health care system in the era of HAART and methadone.

They noted that because only one-third of the HIV-positive IDUs in this study received HAART, other factors are likely to have contributed to their improved survival including: access to substitution therapy with methadone, prophylaxis for opportunistic infections, harm reduction interventions, and regular clinical care.

They wrote: “HAART has been proven to be an extremely effective therapy for HIV-infected individuals. We have shown that HIV-infected IDUs who received health care during the period 3 exhibited mortality rates comparable to those for IDUs who were not infected with HIV.”

Ref: Muga R, Langohr K, Tor J et al. Survival of HIV-Infected Injection Drug Users (IDUs) in the Highly Active Antiretroviral Therapy Era, Relative to Sex- and Age-Specific Survival of HIV-Uninfected IDUs. Clinical Infectious Diseases 2007:45, 1 August 2007.

Current or former injecting drug use is not related to earlier switch or discontinuation of HAART compared to non-IDU patients since 1999

Simon Collins, HIV i-Base

A combined analysis from three prospective US cohorts, published in 6 June issue of AIDS Research Therapy reported that injecting drug use was not related to earlier changing, reducing or switching treatment – discussed as a marker for poorer long-term treatment success – after adjusting for other factors.

The three cohorts – AIDS Link to IntraVenous Exposure (ALIVE), Women’s Interagency HIV Study (WIHS) and Multicentre AIDS Cohort Study (MACS) – were used to select approximately 1400 patients with no history of injecting drug use and compare treatment outcome to just under 850 former or current IDUs. These 1588 patients contributed 2,358 patient-years with 713 events.

The IDU group had a lower nadir CD4 count and higher proportion of patients who were unemployed, on low income, had lower educational level and a higher proportion of Black, non Hispanic patients. Use of treatment and choice of drugs was similar between the two groups.

All three cohorts collect similar follow-up data, and reported similar trends in ARV prescribing (generally with a similar shift from PI- to NNRTI-based therapy over the time of the study (April 1996 – April 2004).

The median time to a first report of discontinuation was 1.1 years vs 2.5 years for people without vs with a history of IDU, and overall the relative hazard (RH) of HAART discontinuation was higher for any IDU use when looking at the whole time period (pre- and post-1999) ([HR1.24 (1.03-148)], However, when looking at the pos-1999 period alone (852 people contributing 382 events over 1,396 person years) this association disappeared in the multivariate analysis [HR = 1.05 (0.81-1.36), after adjusting for previous health, race, income and employment. For patients switching treatment, HR was 0.96 (0.82-1.14) and 1.09 (0.89 – 1.34) in the pre- and post 1999 periods respectively.

Over time, the proportion of patients using the same HAART regimen increased in both group: form 55% in 1997 to 70% by 2004 (in the non-IDU group) vs increasing from 35% to 65% at the same time points in the IDU group.

Similar results were seen when looking at current vs former IDU: in the post-1999 analysis: HR = 1.32 (0.90 – 1.94) vs RH = 1.00 (0.77 – 1.31).

C O M M E N T

These results are particularly useful to challenge the common assumption that drug users are not able to be adherent.

Ref: Morris JD, Golub ET, Shruti H et al. Injection drug use and patterns of highly active antiretroviral therapy use: an analysis of ALIVE, WIHS, and MACS cohorts. AIDS Research and Therapy 2007, 4:12 doi:10.1186/1742-6405-4-12.

Risk of antibody negative HCV infection in four US HIV cohorts: risk linked to IDU, elevated ALT and low CD4 count

Simon Collins, HIV i-Base

Although HCV antibody screening is recommended in HIV management guidelines, false negative results can occur in both acute and chronic HCV infection. This has led to recommending wider use of HCV RNA screening in patients with HIV coinfection who have a negative antibody result.

Gabriel Chamie from University of California and colleagues reported an analysis in the February 2007 edition of Clinical Infectious Diseases, on the prevalence of HIV-positive patients who were HCV antibody-negative/PCR-positive, in four US cohorts.

The four cohorts (FRAM, Los Angeles, Iowa and REACH) included around 1800 patients, 37 of whom were Hcv antibody-negative/PCR-positive, and reported a pooled seronegative prevalence of 3.2% (95%CI 2.2-4.3%] Prevalence in individual cohorts ranged from 1.3% (FRAM) to 4.6% (IOWA).

Standard variables in the multivariate analysis included age, ethnicity, sex, alcohol use, history of IDU, ALT, CD4 and viral load. In the combined data, three independently predictive factors of chronic seronegative HCV infection: history of IDU [OR 5.8 (2.7-12.8), p <0.0001], CD4 count <200 cells/mm3 [OR 2.3 (1.1 - 4.8), p= 0.025) and ALT [OR 2.0 per doubling (1.3-3.2, p=0.002], see Table 1. A similar pattern of OR were reported in each of the cohorts, looked at individually. For HCV antibody-negative patients, with a history of IDU and either raised AT or CD4 <200 cells/mm3 a pooled prevalence of 24% was reported for testing HCV RNA-positive.

Table 1: Factors associated with higher rate of antibody-negative HCV infection

Factor	OR	95%CI	p-value
History of IDU	5.8	2.7-12.8	<0.0001
CD4 count <200 cells/mm3	2.3	1.1 - 4.8	0.025
ALT level	2.0 (per doubling)	1.3-3.2	0.002

This is the largest study so far to look at prevalence of HCV antibody-negative/PCR-positive results in HIV-coinfection. Among US blood donors, the prevalence by comparison is estimated to be as low as 1 in 250,000, largely explained by acute HCV infection.

The researchers concluded that HCV PCR testing should be recommended in anitbody-negative, HIV-positive patients, especially those with a history of IDU and either a low CD4 count or a raised ALT.

C O M M E N T

This is an important study in that it highlights the issue of antibody negative chronic HCV infection in the context of HIV-co-infection.

The important message here is that in patients with 'risk factors' and persistent unexplained hepatic transaminase elevation an HCV-RNA by RT-PCR is mandatory in order to rule out chronic HCV infection.

The BHIVA guidelines on HIV/HCV co-infection (2004) suggest that consideration should be given to HCV RNA testing in patients with a negative HCV-antibody test and unexplained raised hepatic transaminases.

Ref: Chamie G, Bonacini M, Bangsberg DR, et al. Factors associated with seronegative chronic hepatitis C virus infection in HIV infection. Clin Infect Dis. 2007;44:577-583.

ON THE WEB

The following organisations all include web resources about ARV4IDUs:

http://www.emcdda.org
http://www.drugusers.org
http://www.drugtext.org/library/legal/eu/default.htm
http://www.harmreduction.org
http://www.drugalliance.org
http://www.erowid.org
http://www.union.ic.ac.uk/advice/health/drugs/
http://www.dancesafe.org{A147}
http://www.union.ic.ac.uk/advice/health/drugs/
http://unaids.org
http://who.org
http://unodc.org
http://forward-thinking-on-drugs.org/review2.html

http://www.sorosny.org/harm-reduction
http://www.ceehrn.org
http://www.ihra.org
http://www.hit.org.uk

http://www.opiateaddictionrx.info

FUTURE MEETINGS

Conference listing

The following meetings are taking place in 2007 and 2008.

Registration details, including for community and community press are included on the relevant website.

11-12 October - BHIVA Autumn Conference, London

http://www.bhiva.org

20-24 October - AATOD National Conference, San Diego California

American Association for the Treatment of Opiod Dependence

http://www.aatod.org/aatodnational.html

24-27 October - 11th European AIDS Conference (EACS)

http://www.eacs-conference2007.com/

31 October - 1 November - 2nd Intl Workshop on Hepatitis C, Resistance and New Compounds, Boston

http://www.virology-education.com

2-3 November - 3rd Intl Workshop on Clinical Pharmacology of Hepatitis Therapy, Boston

http://www.virology-education.com

7 - 8 December 2007 - 3rd International Workshop on Targeting HIV Entry. Washington DC
http://www.virology-education.com

11 – 15 May 2008 - 19th International IHRA Conference
Harm Reduction 2008: “Towards a Global Approach” , Barcelona, Spain
http://www.ihraconferences.net

A detailed listing of international meetings compiled by the European Opiate Addiction Treatment Association in available on their website:

http://www.europad.org/events.asp

PUBLICATIONS & SERVICES FROM i-BASE

i-Base website

The website has been redesigned to be faster, easier to use, and simpler to navigate.

http://www.i-Base.info

A new section has been added about adapting and translating i-Base materials in other countries:

http://www.i-base.info/education/adapting.html

The site also includes a web-based Q&A section for people to ask questions about their own treatment:

http://www.i-base.info/questions/index.html

A section on Education, Advocacy and Training includes our training manual for advocates with eight 2-hour modules that include questions and evaluation. Training modules start with basics, including CD4, viral load and other monitoring tests, combination therapy and side effects, and include overviews of the main opportunistic infections. There is a module on pregnancy and another module on IV drug users and treatment.

All i-Base publications are available online, including editions of the treatment guides. The site gives details about i-Base, the UK Community Advisory Board (UK-CAB), our phone service and meetings, as well as access to our archives and an extensive range of links. It can be used to order publications and regular subscriptions to be delivered by post or email (as PDF files).

An average of 6000 pages are served from the site each day.

New i-Base Book: "Why we must provide HIV treatment information"

Photography by Wolfgang Tillmans

i-Base has worked as a treatment literacy project for over six years. Over this time we have always produced copyright-free material and encouraged other organisations to use, translate and adapt our material. Through this work, we have been very lucky to develop links to many other advocacy projects outside the UK.

A recent meeting, held in Cape Town earlier this year, focused on how to raise the profile of treatment literacy. One result from the meeting is a publication "Why we must provide HIV treatment information".

With text provided by activists from 25 countries and 50 full colour photographs by Wolfgang Tillmans, this limited edition 100-page publication is being sold by i-Base to raise funds to help support our international treatment literacy projects.

We are asking for minimum donation price of £10.00 plus £2.50 p&p. Please contact the i-Base office for more details: T: 020 7407 8488 or email: bookoffer@i-Base.org.uk or post the donation form on the inside back page of this issue of HTB, using either 'standing order' or 'one-off donation' as appropriate. Thank you for your support.

Treatment training for advocates

i-Base have produced a training manual for advocates that is available online as a PDF document. It provides a basic entry-level curriculum relating to HIV and treatment. Each module includes non-technical review material, test questions, an evaluation and a glossary.

The manual is available in English, Russian, Portuguese, Hindi and Nepalese.

http://www.i-base.info/education/index.html

http://www.nkplus.org

UK CAB: reports and presentations

The UK Community Advisory Board (UK CAB) is a network for community treatment workers across the UK that has been meeting for three years. Each meeting includes two training lectures and a meeting with a pharmaceutical company or specialist researcher.

The CAB has a separate website, where reading material, reports and presentations from these meetings are posted. The 22nd meeting was on Friday 13 July and focused on diagnostics: CD4, viral load and tropism.

http://www.ukcab.net

http://www.ukcab.net/jul07

World CAB - reports on international drug pricing

Two reports from meetings between community advocates and pharmaceutical companies, that focused on pricing issues and global access to treatment, and that are now available online. Both are available to download as a PDF file from the i-Base website.

http://www.i-base.info/wcab/index.html

Guide to hepatitis C for people living with HIV: testing, coinfection, treatment and support

May 2007 edition

This is a new i-Base guide. It is a non-technical patient guide to Hepatitis C and coinfection with HIV.

This booklet mainly covers treatment related aspects of coinfection including transmission, natural history, tests and monitoring, HCV treatment and side effects, research into new drugs and living with coinfection. It also includes contributions from a wide range of people with direct experience of coinfection. The online version of this guide includes additional text.

This guide is also available in Russian.

Guide to changing treatment: what to do when your treatment fails

April 2007 edition

This is a non-technical patient guide to changing treatment, drug resistance and what to do if treatment fails. It is updated to include recent advances in new treatments and strategies, especially in relation to use of new and expanded access treatments.

This booklet helps patients in discussions with doctors, and covers what can be done if viral load starts to rise, and the importance of considering or finding out why the current combination failed, treatment strategies and new pipeline treatments.

Introduction to combination therapy

June 2006 edition

This non-technical patient guide to treatment is available in 12 languages. It explains what combination therapy is, how well it works, who can benefit from it, when to start taking it, some differences between treating men and women, side effects, the best combinations, changing treatment, taking part in drug trials, your relationship with your doctor, the importance of adherence, and how to avoid drug resistance.

Printed and/or PDF versions of earlier versions of this booklet are available in other languagues.

Guide to HIV, pregnancy & women's health

July 2007 edition

Updated and revised in April 2005, this patient guide helps women get the most out of HIV treatment and care before, during and after pregnancy. It should help whether on therapy or not and includes information for the mothers health and for the health of the baby. The guide gives information on medication, Caesarean section and breastfeeding, as well as details of other sources of help. It is aimed at people in a wide range of circumstances including positive women thinking about having children and pregnant women who have recently been diagnosed HIV-positive.

Guide to avoiding & managing side effects

February 2005 edition

This is a comprehensive 44-page guide that is aimed at helping anyone using HIV drugs to get the most out of their treatment, the most out of their relationships with their doctor and other health professionals, to get better medical care to improve their health and, most importantly, to enjoy a better quality of life.

New sections are included on heart disease, lipodystrophy, and information relating to newer drugs including T-20, atazanavir, tenofovir, FTC and fosamprenavir.

Translations of i-Base guides

Original material published by i-Base can be translated and reprinted, and has so far been produced in over 30 languages.

More information about this process is available on the i-Base website.

In addition, pdf files of some of the translated publications are available on the i-Base site. Please be aware that some of these translations are form earlier editions of the treatment guides, and check the publication date before relying on all information.

http://www.i-base.info/about/downloads.html

Bosnia Herzogovena

Introduction to combination therapy May 07 PDF File [452 Kb]

Bulgarian

HIV, pregnancy & women's health - Mar 06

Introduction to combination therapy - May 06

Chinese

Avoiding & managing side effects - Aug 02

Changing treatment: second line & salvage therapy - Aug 02

Introduction to combination therapy - Aug 02

Croatian

Introduction to combination therapy May 07

French

HIV, pregnancy & women's health - April 06

Avoiding & managing side effects - Jun 06
Introduction to combination therapy - Jun 01

Greek
Changing treatment: second line & salvage therapy - Mar 03
Introduction to combination therapy - Nov 01

Hindi
Treatment training for advocates: a manual - 2006
Introduction to combination therapy - 2006
Guide to Changing treatment - 2006
Avoiding & managing side effects - 2006
HIV, pregnancy & women's health - 2006

Indonesian
HIV, pregnancy, & women's health - 2006

Italian
Introduction to combination therapy - Jun 06
Avoiding & managing side effects - Oct 03
Changing treatment - Oct 03
HIV, pregnancy and women's health – Jun 04

Macedonian
Introduction to combination therapy - May 07

Nepali
Treatment training for advocates: a manual - 2006
Guide to Starting Treatment - 2006
Guide to Changing treatment - 2006
Side Effects Guide - 2006
HIV, pregnancy & women's health - 2006

Portuguese
Introduction to combination therapy - Sep 05
HIV, pregnancy & women's health - 2007
Treatment training for advocates: a manual - 2007

Russian
Introduction to combination therapy - May 2006
HIV, pregnancy and women's health - April 05
Treatment training manual – 2005
Guide to HIV and hepatitis C coinfection - 2007

Serbian
Introduction to combination therapy - 2007

Spanish
HIV, pregnancy and women's health - May 06
Avoiding & managing side effects - Nov 02
Introduction to combination therapy - Nov 00

Treatment 'Passports'

These popular booklets are for HIV-positive people - whether newly diagnosed or positive for a long time - to keep a record of health and treatment history. Like all i-Base publications, they are available free as single copies, or in bulk.

HIV Treatment Bulletin (HTB)

A review of the latest research and other news. HTB is published 10 times a year in a printed version, in a PDF file that we can email to you, and on our website.

The printed version is available at most HIV clinics in the UK and is available free by post.

Treatment information request service - 0808 800 6013

i-Base offers specialised treatment information for individuals, based on the latest research.

We can provide information and advice over the phone, and we can mail or email copies of the latest research studies relevant to the caller. For further details, call the i-Base treatment information free phone line on 0808 800 6013. The line is usually staffed by positive people and is open Mondays, Tuesdays and Wednesdays from 12 noon to 4pm. All calls are in confidence and are free within the UK.

New online Q&A service

A new 'question and answer' service has been added to the i-Base website. Questions can either be answered privately, or if you give permission, we will post the answers online (omitting any personally identifying information).

http://www.i-base.info/questions/index.html

Recent questions include:

- My clinic want to change viral load and CD4 monitoring - aren't both tests needed?
- Will I get resistance or live to 50?
- Can I test and use drugs immediately after exposure?
- What is combination therapy?
- Is massage safe if you are HIV-positive?
- Question about Imuno CIII
- Pain and drug switching
- Oral sex with another man who is HIV-positive?
- Can I continue to get treatment in the UK if I leave the UK?
- HIV, poppers and ecstasy…
- My 30 year old nephew is newly diagnosed and likes to party
- Can I take antibiotics if I am HIV-positive?
- What drugs can I use in my next treatment and what drugs are coming next?
- Should someone have to say that s/he is HIV+ when only engaging in oral sex?
- Does washing after sex reduce the risk of HIV?
- Is there a risk of transmitting HIV, chlamydia or herpes by casual contact?

HIV i-Base

Third Floor East, Thrale House, 44-46 Southwark Street, London SE1 1UN
T: +44 (0) 20 7407 8488 F: +44 (0) 20 7407 8489

Subscription Fax-Back Form

Please use this form to amend subscription details for HIV Treatment Bulletin and to order single or bulk copies of other publications. All publications are available free, but if you would like to make a donation please use the form on the inside back page.

Name: _____ Position: _____

Organisation: _____

Address: _____

_____

Tel: _____ Fax _____

E-mail: _____

☐ **I would like to make a donation to i-Base -** *Please see inside back page*

Office use:

ARVs4IDUs (PDF by email) ☐ in English ☐ In Russian _____ _____

HIV Treatment Bulletin (HTB) monthly ☐ by Email (PDF format) ☐ by Post _____ _____

HIV Treatment 'Passports' - Booklets for patients to record their own medical history

1 ☐ **5** ☐ **10** ☐ **25** ☐ **50** ☐ **Other** _____ _____ _____

Guide To HIV, Pregnancy and Women's Health *(July 2007)*

1 ☐ **5** ☐ **10** ☐ **25** ☐ **50** ☐ **Other** _____ _____ _____

Introduction to Combination Therapy *(June 2006)*

1 ☐ **5** ☐ **10** ☐ **25** ☐ **50** ☐ **Other** _____ _____ _____

Changing Treatment - Guide to Second-line and Salvage Therapy *(April 2007)*

1 ☐ **5** ☐ **10** ☐ **25** ☐ **50** ☐ **Other** _____ _____ _____

Guide To Avoiding and Managing Side Effects *(February 2005)*

1 ☐ **5** ☐ **10** ☐ **25** ☐ **50** ☐ **Other** _____ _____ _____

Guide to HIV and Hepatitis C coinfection *(May 2007)*

1 ☐ **5** ☐ **10** ☐ **25** ☐ **50** ☐ **Other** _____ _____ _____

Earlier versions of many treatment guides are available in other languages as PDF files on the website

Adherence planners and side effect diary sheets - In pads of 50 sheets for adherence support

1 Sheet ☐ **1 pad** ☐ **5 pads** ☐ **10 pads** ☐ **Other** ☐ _____ _____

Please fax this form back, post to the above address, or email a request to HIV i-Base:

020 7407 8489 (fax) subscriptions@i-Base.org.uk