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ARV4IDUs

ANTIRETROVIRAL TREATMENT FOR INJECTING DRUG USERS: A QUARTERLY BULLETIN

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CONTENTS

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ARV4IDUs

Antiretroviral Tretment for Injecting Drug Users: A quarterly bulletin

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ARV4IDUs 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.

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EDITORIAL

Welcome to the July 2010 issue of the HIV i-Base bulletin "ARV4IDUs".

As usual, we take a look at the main areas of latest scientific research and thinking that are of particular relevance to HIV and IDUs. This has been done by reviewing five conferences held since the last issue of this bulletin. Some of the articles here look at specific effect of HIV treatment on injecting drug use. Others, though not specific to IDU have a particular relevance to IDU and HIV treatment (e.g liver disease including hepatitis coinfection).

We always like to encourage new writers and reviewers 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:

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CONFERENCE REPORTS

11th International Workshop on Clinical Pharmacology of HIV Therapy

7-9 April 2010, Sorrento, Italy

Methadone levels reduced moderately by rilpivirine (TMC278)

www.hiv-druginteractions.org

The effect of TMC278 (25 mg once daily) on the pharmacokinetics and pharmacodynamics of methadone was studied in 13 HIV negative volunteers stable on methadone maintenance therapy (60-150 mg/day). TMC278 decreased the AUC, Cmax and Cmin of active R-methadone by 16%, 14% and 22%, respectively. Decreases were also seen in the AUC (16%), Cmax (13%) and Cmin (21%) of inactive S-methadone. Exposure of TMC278 in the presence of methadone was within the expected range. No signs of opiate withdrawal were observed.

C O M M E N T

Although no a-priori dose adjustment of methadone is required, clinical monitoring for withdrawal symptoms is recommended as some patients may require dose adjustment.

Ref: Crauwels HM et al. Pharmacokinetic interaction study between TMC278, a next-generation NNRTI and methadone. 11th PK Workshop, 7–9 April 2010, Sorrento, Italy. Abstract 33.

Raltegravir and darunavir pharmacokinetics in liver disease

www.hiv-druginteractions.org

The pharmacokinetic profiles of darunavir and raltegravir were analysed in five HIV/HCV coinfected patients with moderate to severe liver disease. Based on the ultrasonographic and histological evaluation, two patients had HCV-related chronic active hepatitis, and three patients had a diagnosis of cirrhosis (Child Pugh stage B). Trough concentrations were determined 14 and 30 days after starting a raltegravir/darunavir containing regimen.

Mean raltegravir and darunavir trough concentrations in the hepatic impairment group was 637 (mean Ctrough in control group: 221±217 ng/ml) and 8519 ng/mL (mean Ctrough in control group: 3236±2183 ng/ml), respectively. In a sub-group analysis, patients with cirrhosis had higher mean raltegravir Ctrough than patients with active non cirrhotic hepatitis (665 vs 581 ng/mL). The mean darunavir Ctrough was consistently higher in cirrhotic than non cirrhotic patients (9820 vs 2016 ng/mL).

C O M M E N T

The data suggest special caution in the use of raltegravir, and especially of darunavir, in patients with moderate to severe liver impairment because of the risk of additionally increased toxicity.

Ref: Tommasi C et al. Raltegravir and darunavir plasma pharmacokinetic in HIV-1 infected patients with advanced liver disease.11th PK Workshop, 7–9 April, 2010, Sorrento, Italy. Abstract 10.

CONFERENCE REPORTS

17th Conference on Retrovirus and Opportunistic Infections (CROI)

16-19 February 2010, San Francisco, USA

Introduction

The 17th Conference on Retroviruses and Opportunistic Infections (CROI), one of the most important annual HIV meetings, was held this year from 16-19 February. As with previous meetings, much of the conference is published online including all abstracts and webcasts of oral presentations including selected poster discussions.

Making this scientific content available without login or subscription is itself a significant achievement. It is a model for broadening access to medical research to a degree that is currently unmatched by any other meeting.

The webcasts this year include oral presentations, poster discussions, the opening lectures and the pre-meeting set of training workshops for young investigators.

The conference website also includes a searchable abstract database.

We encourage readers to view these lectures directly.

http://www.retroconference.org/2010/Abstracts/38289.htm

http://www.retroconference.org/2010/data/files/webcast_2010.htm

Lectures are also available as audio downloads and podcasts, which include slides as audiobooks.

The following reports from the conference are included in this issue of ARVs4IDUs:

- Hepatitis studies: IL28B genetics, HCV survival, FibroScan in acute HCV, MSM reinfection and responses to transplantation
- A significant transmission bottleneck among newly and recently HIV-1-infected IDU in St Petersburg, Russia
- Similar immunologic responses to modern HAART among IDU and non-IDU in a population setting
- The intersection between sex and drugs: HIV prevalence among sexual partners of IDU in Chennai, India
- Highly Active Antiretroviral Therapy eliminates HIV epidemics in a network model of an injecting drug user community

Hepatitis studies: IL28B genetics, HCV survival, FibroScan in acute HCV, MSM reinfection and responses to transplantation

Simon Collins, HIV i-Base

The following studies focused on aspects of hepatitis coinfection.

IL28 predict treatment response to IL28

Some of the most exciting coinfection studies included those elaborating on the recent association between genetic variations in the IL28B gene and both HCV pathogenesis and response rates to PEG-IFN and ribavirin treatment.

Andri Rauch from University Hospital Bern, introduced the HCV coinfection scientific session with an overview lecture of this research, most of which has become clearer within the last six months. [1]

Rauch detailed how several groups have independently screened the human genome for genetic variations associated with HCV immune response linked to spontaneous clearance or to explain the wide range of responses to HCV treatment: important as roughly 50% patients globally are unable to clear the virus. These studies consistently identified genetic variations in interleukin 28B (IL28B) as the strongest predictor of spontaneous clearance and treatment-related clearance, in both monoinfection and HIV/HCV coinfected individuals.

Rauch explained how IL28B on chromosome 19 encodes interferon-lambda, a type III interferon with antiviral activity mediated through the JAK-STAT pathway by inducing interferon-stimulated genes. Several single nucleotide polymorphisms (SNPs) might modulate function or expression of IL28B.

The correlation between allele frequency in different American ethnicities and treatment outcome was also detailed. The rs12979860 SNP is found in approximately 40%, 70% and 95% of those with African, European and Asian decent, which correlates with SVR rates of 25%, 55% ad 75%, respectively.

IFN-lambda is induced by IFN-alpha and encoded by IL28B, and is not known to play an important role though mechanism in yet to be determined. Phase 1b trials show a potential treatment, synergistic to IFN-alpha, but associated with fewer side effects including reduced fever, flu-like symptoms, neutropenia, bone marrow toxicity.

Together, these findings may enable greater understanding of individual response rates to current treatment, potentially developing management strategies based on genetic differences, and also, potential lead to new antiviral HCV treatments.

Julia di Iulio from University Hospital Lausanne and colleagues presented an analysis of the rs8099917 allele, linked to the Type II haplotype family, in a genome-wide association study involving 347 people with spontaneous HCV clearance and 1015 people with chronic HCV. This in turn lead to identification 21 SNPs, and then four potential causal SNPs closer to IL28B, that are associated with chronic HCV and that may be more likely to influence IL28B function or expression. [2]

Norma Rallon and colleagues from Madrid reported on the role of rs12979860 on treatment responses of 198 HIV/HCV coinfected patients (106 with SVR and 92 non-responders). Due to sampling issues, 164 patients were included in final analysis.

The SVR rate was significantly higher in patients with the CC alleles than in those with CT/TT alleles across all HCV genotypes (75% vs 38%, p<0.0001) and by genotype (G1: 65% vs 30%, p=0.001; G-3/4 83% vs 57%, p=0.02). In the multivariate analysis, the rs12979860 CC genotype was a strong predictor of SVR (OR 3.4; 95%CI 1.4–7.9; p=0.006), independent of other well-known predictors such as HCV genotype 3, baseline serum HCV-RNA <600,000 IU/mL and fibrosis <F3-F4.

Jacob Nattermann from the University of Bonn, and colleagues, reported slightly different results to other coinfection cohorts when they looked at whether IL28B SNP rs12979860 affected treatment outcome in 192 co-infected patients (74 acute and 118 chronic). Rates of sustained virological responses (SVR) were compared in patients carrying different genotypes. As comparison, 136 uninfected and 156 HCV mono-infected patients were included as control groups. [4]

IL28B genotype distribution did not differ significantly between the HIV (acute and chronic) and uninfected groups but monoinfected patients had a low rate of the protective C/C genotype (30% vs 41-47%).

While coinfected patients with the C/C genotype had significantly higher SVR rates than patients with C/T and T/T (58.1% vs 40.6%; p=0.041). This effect reached statistical significance only in HIV-positive patients with chronic (50% vs 29%; p=0.04) but not in those with acute (73.3% vs 60%; p=NS) HCV.

C O M M E N T

In addition to the data in co-infected patients reviewed by Rauch, his group has also shown that, as in mono-infected patients, polymorphisms also determine spontaneous clearance rates. The potential for a genetic mechanism to explain differences in spontaneous clearance and HCV treatment response rates by ethnicity is clearly important given the social aspects of HCV care globally. This suggests perhaps a more accurate marker with, or instead of, early treatment response rates, in order to identify people who risk only toxicity without any likely clinical benefit if they use treatment with pegylated interferon and ribavirin.

Clearly, before these tests are utilised in clinical pathways, we need further studies. Positive- and negative-predictive values for genotype results need to be highly predictive to ensure this is not used as a way to exclude some patients from treatment. IL28 analyses are likely to be included in future treatment studies. Furthermore, there may be implications for the clinical utility of these tests to identify patients with a low likelihood of response to standard therapy who may be candidates for early treatment with specifically-targeted anti-HCV drugs.

Duration of infectious HCV survival in syringes

Elijah Paintsil and colleagues from Yale School of Medicine presented results of the impact that different gauge syringes and different temperatures has on the duration of HCV infectivity and therefore risk from residual blood. [5]

Syringes with low (2 uL) and high (32 uL) quantities of residual HCV-containing blood after full plunger depression, with 1-cc insulin syringe (permanently attached needle) and 1-cc tuberculin syringe (detachable needle), respectively. Syringes were either immediately tested for viable virus or stored at 4ºC, room temperature and 37ºC, for up to 56 days. Virus was recovered from stored syringes and tested for infectivity in cell culture using relative luciferase activity.

HCV infectivity was not detected in the small syringes beyond day one except for those stored at 4º where HCV remained viable in 5% of syringes up to day 7.

After 7 days of storage, 96% ± 7.5, 71%± 23.1, and 52% ± 20 of 32 uL syringes were HCV-positive at 4º, room temperature, and 37º, respectively. Viable virus was recovered from the 32 uL syringes up to day 56. In general, the infectivity of the recovered virus was inversely related to duration and temperature of storage.

Caution when interpreting FibroScan results from acute HCV infection

A study from the European NEAT coinfection group reported that liver stiffness was elevated during acute HCV infection, probably due to high levels of inflammation and short observation periods, and that early FibroScan results should therefore be interpreted with caution, rather than assume that greater stiffness are a marker of rapid progression. [6]

Fibrosis progression rate (FPR) was calculated dividing the difference in fibrosis units by the time of follow-up. The analysis included 28 HIV-positive men with acute HCV that become chronic (91% MSM sexual exposure risk), or if FibroScan prior to anti-HCV therapy was available. Plotting FPR over follow-up time revealed short observation times being strongly correlated with high fibrosis progression rates. No interaction of risk factors for cirrhosis or HAART exposure with follow-up time was observed.

The authors concluded: Calculated high fibrosis progression rates after acute HCV infection in HIV-positive individuals are probably influenced by short observation periods. Higher liver stiffness in the acute phase of HCV infection may be at least partially explained by higher inflammatory activity that has been shown to increase stiffness leading to overestimation of fibrosis. A linear model for fibrosis progression, as is currently applied in the setting of chronic HCV infection, should be used with caution in the setting of acute HCV infection.

HCV reinfection after spontaneous HCV clearance

A poster on acute HCV infection in HIV-positive MSM in Germany was interesting for two reasons. Firstly, 22% patients spontaneously cleared HCV, and secondly, a high rate of reinfection that was reported (5 patients: 17% of those with a spontaneous or treatment related SVR). [7]

Hans-Jürgen Stellbrink and colleagues reported on 46 cases of acute HCV in MSM since 2001, from an HIV cohort of >4,400 predominantly MSM. Incidence rates per 1000 PYFU increased steadily from 0.15 in 2001/02 to 2.48 in 2007/08. HCV was genotype 1, 2, 3 or 4 in 20 (43%), 1 (2%), 9 (20%) and 16 (35%) cases, respectively.

Of the 34 patients treated with peg-IFN/RBV, SVR was achieved in 20 (65% of the 31 subjects with follow-up after treatment), relapse occurred in 3 (10%), and primary non-response was observed in 8 (26%). Ten patients (22%/46) cleared HCV spontaneously, and 2 (4%) remain untreated with persistent infection.

Re-infection occurred in five individuals (17%) of those who cleared acute hepatitis C infection (three with different genotypes, 1 with the same, 1 with pending genotype). After primary infection with G3, one patient developed severe hepatitis upon second re-infection with G1; this patient cleared HCV all 3 times without therapy.

Of note, a 24% rate of spontaneous clearance was reported by Bradley Hare and colleagues in a group of 54 HIV-positive MSM in San Francisco and New York. This study also reported 100% response rates in patients who, having achieved undetectable HCV RNA at week 8 or 12, continued treatment with PEG-IFN only (dropping RBV) for the subsequent 12 weeks. [8]

People with haemophilia with HIV/HCV coinfection need earlier referral for liver transplant

Margaret Ragni and colleagues presented results of canditates for liver transplant from the US multicentre study in people coinfected with HIV/HCV, comparing outcomes in men with and without haemophilia. [9]

Of 100 HIV/HCV enrolled candidates, 33 (33%) underwent orthotopic liver transplantation (OLTX), including 8/16 (50.0%) with haemophilia and 25/84 (29.8%) without.

Men with haemophilia were less likely to still be alive, and more likely to have died before transplant (mainly related to sepsis or multi organ failure). Men with haemophilia reached transplant (OLTX) and MELD of 25 marginally faster than non-hemophilic subjects (p=0.09 and 0.06 respectively). Although younger (42 vs 48 years, p=0.004), there were no differences in BMI, CD4, detectable HIV RNA or detectable HCV VL, time to post-OLTX death, graft loss, and treated rejection or 3-year survival. See Table 1.

The authors concluded that in HIV-positive men with hemophilia, “despite early acquisition of HCV, transplant outcomes appear to be similar to those in co-infected individuals without hemophilia. However, pre-transplant mortality appears higher among co-infected hemophilic men. Whether earlier intervention could reverse this finding is not known”.

C O M M E N T

Although this was one of the few studies at CROI to mention management issues for people with haemophilia, these results should be interpreted cautiously. With only 16 haemophilia patients in the study who are, by definition, a highly selected group of long-term survivors, the researchers are unlikely to have been able to adjust for the likely differences between the two groups.

Table 1: Outcomes from liver transplant in men with and without haemophilia

	Haemophilia	Non-haemophilia	p
Candidates	16	84	
Transplant received	8 (50%)	25 (30%)	
Survival	3 (18.8%)	46 (54.8%)	
Died pre-OLTX	5 (31.3%)	13 (15.5%)	0.03
Rejection rates (95%CI)			
1 year	7% (7 to 72)	40% (23 to 64)	
3 year	51% (18 to 92)	48% (28 to 72)	
Post-OLTX survival (95%CI			
1 year	75% (31 to	62% (39 to 78)	
3 year	56% (15 to 84)	56% (33 to 74)	

References

All references are to the 17th Conference on Retroviruses and Opportunistic Infections, 16-19 February 2010, San Francisco. Oral presentations are included in the webcast: Oral Abstracts and Scientific Overview: Hepatitis C: Transmission, Outcomes, and Treatment. 17th CROI, 2010. Friday 09.30am.

1. Rauch A. The interleukin 28B gene and HCV recovery. 17th CROI, 2010. Oral abstract 162.
   http://www.retroconference.org/2010/Abstracts/39872.htm
2. di Iulio J et al. Association of IL28B haplotypes with chronic HCV infection in HIV/HCV co-infected individuals. 17th CROI, 2010. Oral abstract 163.
   http://www.retroconference.org/2010/Abstracts/37377.htm
3. Rallon N et al. Strong association of a single nucleotide polymorphism located near the interleukin-28b gene with response to hepatitis C therapy in HIV/HCV co-infected patients. 17th CROI, 2010. Oral abstract 165LB.
   http://www.retroconference.org/2010/Abstracts/39833.htm
4. Nattermann J et al. Genetic variation in IL28B and treatment-induced clearance of HCV in HCV/HIV co-infected patients. 17th CROI, 2010. Oral abstract 164.
   http://www.retroconference.org/2010/Abstracts/39494.htm
5. Paintsil E et al. Survival of HCV in syringes: implication for HCV transmission among injection drug users. 17th CROI, 2010. Oral abstract 168.
   http://www.retroconference.org/2010/Abstracts/38965.htm
6. Vogel M et al. Liver Fibrosis Progression after Acute HCV Infection in HIV+ Individuals. 17th CROI, 2010. Poster abstract 642.
   http://www.retroconference.org/2010/Abstracts/38914.htm
7. Stellbrink H-J et al. Incidence, Genotype Distribution, and Prognosis of Sexually Transmitted Acute Hepatitis C in a Cohort of HIV-infected Patients. 17th CROI, 2010. Poster abstract 645.
   http://www.retroconference.org/2010/Abstracts/38606.htm
8. Hare B et al. Kinetically Guided PEG Alfa-2a and RBV Therapy for HIV-+ Adults with Acute HCV Infection. 17th CROI, 2010. Poster abstract 639.
   http://www.retroconference.org/2010/Abstracts/38114.htm
9. Ragni M et al. Outcomes in HIV/HCV Hemophilic vs Non-hemophilic Transplant Candidates. 17th CROI, 2010. Poster abstract 688.
   http://www.retroconference.org/2010/Abstracts/39692.htm

A significant transmission bottleneck among newly and recently HIV-positive IDU in St Petersburg, Russia

Svilen Konov, HIV i-Base

Studies have shown that about 80% of the sexual transmission of HIV-1 subtype B and C is characterised by a genetic bottleneck, that is currently explained by low efficiency of virus penetration through mucosal layers and potential selective pressure at the sites of transmission in either the donor or the recipient.

Dukhovlinova and colleagues took a step further and looked whether and to what extent this phenomenon is present with the intravenous HIV-1 transmission. The researchers performed a single genome amplification (SGA) to analyse HIV-1 quasispecies in intravenous drug users (IDU) from St Petersburg, Russia and quantified the multiplicity of infection. The results of 17 IDUs from different cohorts in the city were analysed. Those were samples from people with acute, early and chronic infections. SGA followed by direct sequencing was used to determine the complexity of full-length *env* gene. A minimum of 20 single *env* amplicons for each patient was used to identify and to characterise the transmitted virus.

The recently infected IDU (n=13) had multiple viral variants in only 31% (4 of 13) of the subjects. Four chronically infected subjects had complex viral populations. All but one analysed HIV-1 strains belonged to the Eastern Europe lineage of subtype A. The viral strains in one sample represented the mixture of HIV-1 CRF06_cpx strains with its subsequent recombinant CRF-06_cpx/subtype A. No evidence of superinfection was discovered. All but 1 of the transmitted viruses was estimated to be CCR5-tropic based on the sequence of the V3 loop.

The researchers concluded that the 'results suggest that infection in this cohort is most often initiated with the minimum infectious dose, i.e. a single virion, even in those subjects where parenteral transmission was the predominant risk'.

Ref: Dukhovlinova E et al. A significant transmission bottleneck among newly and recently HIV-1-infected IDU in St Petersburg, Russia. Poster abstract 477.
http://www.retroconference.org/2010/Abstracts/38528.htm

Similar immunologic responses to modern HAART among IDU and non-IDU in a population setting

Svilen Konov, HIV i-Base

In this study the researchers examined the impact of IDU status and a series of clinical indicators on immunologic response. The treatment outcomes of treatment naïve adults (≥18 years old) initiating HAART after the year 2000 were assessed.

The clinical indicators used were:

1) Having <3 versus ≥3 CD4 count measurements in the first year of follow-up;

2) Having <3 versus ≥3 viral load measurements in the first year of follow-up;

3) Having a genotypic resistance testing done at baseline requested by the enrolling doctor in samples with viral load ≥250 copies/mL;

4) Having started therapy with <200 cells/mm3 CD4 cell count;

5) Having started on non-recommended HAART;

6) Having achieved viral suppression at 6 months since therapy initiation.

The model was adjusted for sex, age, CD4 cell count, viral load at baseline, and adherence to therapy during the first 6 months. Immunologic response was defined as the percent change in the 12-month CD4 cell count from the CD4 at baseline. Because the response was categorised as percent change ≥100%, percent change >0% and <100% and percent change ≤0%, a partial proportional odds model was used.

402 out of1633 (25%) of the people participating in the study reported IDU status. IDU were more likely to be female, younger, have adherence <95% during the first 6 months, <3 CD4 cell count and <3 viral load measurements during the first year on HAART, having started HAART with a CD4 cell count of 160 cells/mm3, and against all odds, being able to achieve suppression at 6 months since the initiation of HAART (P <0.01). The multivariate model (Table 2) estimated that IDU versus non-IDU immunologic responses did not differ significantly when stratified by the clinical indicators. Of note, as seen in the table, IDU and non-IDU had similar overall responses to HAART when stratified by adherence rates. This clearly indicates that a change in the general discourse on the benefits of HAART in the IDU population is necessary.

Table 2: Comparison of immunological and virological responses to ART between IDUs and non-IDUs based on level of adherence

Adherence at 6 months	Achieved suppression at 6 months	History of IDU	The most likely % change in the 12-month CD4 cell count from baseline	Median probability of obtaining the % change in the 12-month CD4 cell count from baseline (interquartile range)
≥95%	Yes	No	≥100%	0.64 (0.31 - 0.89)
		Yes		0.55 (0.22 - 0.84)
≥95%	No	No	>0% and <100%	0.45 (0.30 - 0.50)
		Yes		0.46 (0.28 - 0.47)
<95%	Yes	No	>0% and <100%	0.47 (0.29 - 0.58)
		Yes		0.45 (0.26 - 0.47)
<95%	No	No	≤0%	0.54 (0.39 - 0.68)
		Yes		0.64 (0.50 - 0.81)

Ref: Lima V et al. Similar Immunologic Responses to Modern HAART among IDU and Non-IDU in a Populational Setting. Poster abstract 516.

http://www.retroconference.org/2010/Abstracts/38235.htm

Highly active antiretroviral therapy eliminates HIV epidemics in a network model of an Injecting Drug User community

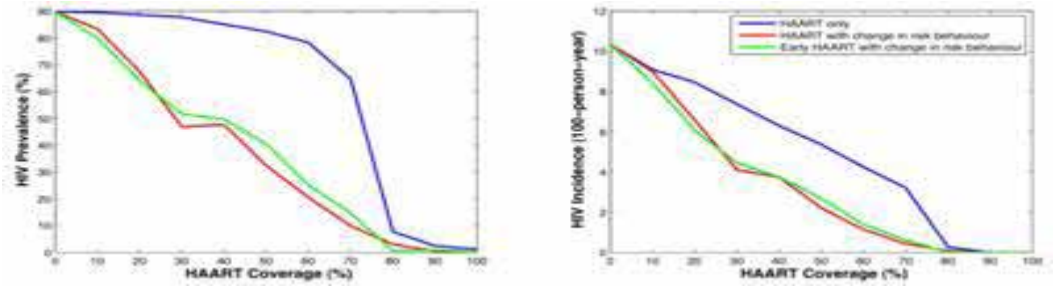
Svilen Konov, HIV i-Base

This model evaluates Highly Active Antiretroviral Therapy (HAART) as an intervention to reduce HIV incidence and prevalence in IDU communities. The model used is a network model based on a Mover-Stayer framework and on a previous cellular automaton model to evaluate HAART as prevention.

In the model, IDU are distinguished based on syringe-sharing behavior and HIV status, and exert social influence on peers, encouraging, or discouraging syringe sharing. HAART is applied at coverage levels of 0% to 100%, assuming complete adherence and no drug resistance, tracked HIV incidence, and prevalence to equilibrium. Community composition, needle sharing frequency (60/month), and initial HIV prevalence (31%) were derived from data on IDU enrolled in the Vancouver Injection Drug User Study (VIDUS). Published transmission rates for HIV disease stages were used. HAART, initiated after 5 years (Scenario 1), was combined with reduced risk behavior (Scenario 2), the latter repeated with HAART initiated after 1 year (Scenario 3).

Without intervention (Table 3), HIV spreads rapidly and reaches very high prevalence (90%) in the model. With increasing HAART coverage, HIV incidence and prevalence decrease for all scenarios, eventually reaching 0%. Without change in risk behavior (Scenario 1), HIV prevalence decreased gradually to 60% HAART coverage, dropping rapidly thereafter. Behavioral interventions (Scenarios 2 & 3) amplified HAART effects. At 40% to 50% HAART, both incidence and prevalence were reduced by about half. Above 80% coverage, the epidemic was effectively eliminated. Early HAART initiation showed little impact.

Table 3: Effect of HAART coverage on HIV incidence and prevalence in a network model of injecting drug users



Ref: Bastani P et al. Highly active antiretroviral therapy eliminates HIV epidemics in a network model of an Injecting Drug User community. Poster abstract 997.

http://www.retroconference.org/2010/Abstracts/38240.htm

CONFERENCE REPORTS

12th European AIDS Conference (EACS)

11-14 November 2009, Cologne, Germany

Efficacy of highly active antiretroviral treatment in HIV-positive injecting drug users - results from the Danish HIV cohort study

Svilen Konov, HIV i-Base

This study looked into the effect of HAART in a group of HIV infected patients infected through injecting drug use (IDUs) compared to patients infected via other routes. In the Danish HIV cohort study, patients who initiated HAART from 1 January 1997 to 31 December 2007 were identified. CD4+ cell counts and viral load were followed. For CD4+ cell counts, medians for the two groups were compared and for viral load the percentage of full viral suppression defined as <500 copies/mL.

The study included 3615 patients, representing 22,804 person years of observation. A total of 346 people (9.6%) were categorised as IDUs.

IDUs were diagnosed with a higher median CD4 cell count (IQR) [300 (170-480) vs 248 (109-418), p< 0.0001] but initiated HAART on average 125 (19-560) days after they were first eligible to treatment according to national guidelines, compared to non-IDUs who started after a median of 31 (5-158) days.

IDUs were more likely to receive a first regiment based on PIs compared to NNRTI based regiments for non-IDUs, and IDUs received more Trizivir. Importantly, more than half of IDUs had fully suppressed viraemia within the first 3 months of HAART.

Ref: Larsen M V et al. Efficacy of highly active antiretroviral treatment in HIV-1 positive injecting drug users - results from the Danish HIV cohort study. PE20.3/1

Increasing uptake of HAART in HIV-positive ongoing drug users

Svilen Konov, HIV i-Base

This study analysed the trends of antiretroviral therapy (ART) uptake among HIV-positive current drug users seeking substance abuse treatment in the HAART era at three hospitals in Barcelona, Spain, between 1997 and 2007. The results were divided into 3 periods (p) p1: 1997-1999; p2: 2000-2003; p3: 2004-2007), reflecting the evolution of HAART regimens over time.

In this analysis, 705 HIV-positive people were eligible (74.6% men); 299 were admitted in p1, 249 in p2 and 157 in p3. Mean age was 34 years, 94.7% had previous injection drug use (IDU) and 67.7% were current IDUs at admission. CD4 cell count was 399 cells/mm3 [IQR 203-632]. Lifetime prevalence of ART use was 59.4% (416/705), increasing from 48.1% in p1, to 64.6% in p2 and 72.6% in p3 (p< 0.05). The prevalence of ART uptake at admission was 40.7%, increasing from 31.4% (p1) to 41.0% (p2) and 58.0% (p3) (p< 0.05).

In multivariate logistic regression analysis, age, calendar period, and non-IDU were predictors of being in ART at admission. Among those taking ART, 21.6% were on suboptimal combinations, mostly during the first period. Overall, 44.6% of patients were on PI + NRTI-based regimens, 21.9% on NRTI + NNRTI-based regimens and 9.4% on triple NRTI-based regimens.

The researchers concluded that HAART uptake is steadily increasing in ongoing HIV-positive drug users. The continued “However, a remarkable percentage still remains ART-naïve despite immunosuppression. Interventions focused on the integration of both substance abuse and HIV/Aids treatment are necessary to increase survival in this population’.

Ref: Vallecillo G. et al. Increasing uptake of HAART in HIV + ongoing drug abusers. PE20.3/2

CONFERENCE REPORTS

Eastern Europe and Central Asia AIDS Conference (EECAAC)

28-30 October 2009, Moscow, Russian Federation

General overview of the abstracts and presentations on HIV in IDUs

Svilen Konov, HIV i-Base

It is commendable that this conference is already organised as a regular event and focuses on a region that was not so high on the list of other major international HIV/AIDS events. It is also good that local researchers can show their concepts of science development and scientific agenda. Unfortunately, the quality of the majority of abstracts was not high and hardly any research breakthroughs were presented. The section on HIV treatment in IDUs illustrates this, though the same can be said for many mainstream HIV medical meetings.

While recognising that IDU is heavily political, especially in the Russian Federation, not allocating enough of time and attention to this topic is a particularly near-sighted, given that the main characteristic of the HIV population in the region is still IDU.

The following article is a general overview of three abstracts that I found of the more interest. Nevertheless, the community should insist on more research and better in terms of methodology research among the IDUs in the region.

Dolzhanskaya and colleagues analysed medical notes to study the attitude of doctors to providing narcological help and HAART

to people with HIV-infection and drug dependency. The study was conducted in Tver and Kaliningrad and was a mutual project of the WHO and the Open Society Institute. Researchers collected and analysed more than 1300 patient forms from AIDS Centres and Narcological Units. They also interviewed psychiatrists and/or narcologists. [1]

They found that many medical forms were not filled as required and that there was considerable amounts of missing data, especially on patients' social background and their risk behavior. This may be due to either doctors not valuing this information to patients withholding information through concerns related to disclosure.

People who were registered with AIDS Centres and who are IDUs were hardly ever referred to, or visited, the Narcological Units. The lack of medical documentation for visits to TB Units or STI clinics also indicates that there is no clear idea about these patient needs, as well as perhaps little or no cooperation among the different institutions that are involved in provision of treatment, care and support for PLWHA.

A group of researchers from Armenia looked into the use of HAART and survival of HIV-positive IDUs in Armenia. [2]

Even though this topic has been researched on many occasions and in quite diverse settings and the results have been consistently good, it is commendable that now we have findings from the Caucasus too.

The study included 71 HIV-positive men using injecting drugs who were on first- or second-line ARV therapy (according to the National Guidelines of Armenia) and who were followed from February 2005 till May 2009. CD4 count, viral load and hepatitis B and C markers were recorded. Adherence was evaluated through a special computer programme that was created by the National AIDS Centre of Armenia.

During the study period, all people started therapy but 18 (25.3%) interrupted the treatment either because of complications (including side effects) or as a personal decision and 10 people consequently died. In this group, 62 (87%) of the participants had AIDS, 45 (63%) had hepatitis C and two (3%) had hepatitis B. One person had both hepatitis B and C. TB was registered in 46.5% patients.

All 10 people who died were staged as AIDS. Their average CD4 count was 93 cells/mm3. Nine had chronic hepatitis C and six had TB coinfection. It was postulated that two deaths were a result of drug overdose. Four people stopped ARVs as a result of complications (hepatotoxicity and anaemia), one gave up treatment as a personal decision, two died as a result of TB complications and one as a result of complictions from hepatitis C.

From the 33 (62%) people continuing therapy, 8 had adherence <95% and 25 >95%. Three people on therapy failed to reduce their viral load to undetectable, probably due to low adherence. In people continuing therapy, the average CD4 count increased to 245 cells/mm3.

Shonning and colleagues presented an abstract on the results of a study conducted by the Eurasion Harm Reduction Network in 2008. Shockingly, in 2006 from 3 555 568 registered IDUs, 9354 died of overdose. The researchers assessed the situation with providing help with overdose in different countries from the region. It is well documented that educational programmes have small to insignificant effect in avoiding overdose, while naloxone, a medicinal product that helps people in overdose to recover from it, has the potential to have a major impact.

The pilot programmes for distributing naloxone in Tajikistan and Russia showed that this is a viable option. The researchers suggest that if the existing harm reduction programmes are allowed to enhance access and start delivering naloxone to IDUs, their partners, relatives, etc, many unnecessary deaths from overdose will be avoided. Easy access to naloxone will also help with avoiding the psychological barriers to search help-fear of contacting the medical establishment and/or police or in cases logistics problems like late arrival of the ambulance.

References

Unless otherwise indicated, all references are to the book of abstracts of the conference.

1. Должанская Н и др. Анализ медицинской документации и изучение отношения врачей к оказанию наркологической помощи пациентам с ВИЧ-инфекцией и готовности к проведению совр. методов лечения (ВААРТ). Стр. 81
2. Мкртчян А и др. ВААРТ и выживаемость ВИЧ-инфицированных потребителей инъекционных наркотиков в Армении. Стр. 83
3. Шоннинг Ш. и др. Передозировка: основная причина предотвратимой смертности среди ЛЖВ.

CONFERENCE REPORTS

49th Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)

12-15 September 2009, San Francisco, USA

Efavirenz and substance use

www.hiv-druginteractions.org

The efavirenz trough concentrations in 17 HIV+ subjects with substance related disorders (SRDs) and 20 HIV-positive subjects without SRDs were evaluated. The median efavirenz trough concentrations in the SRD groups were lower with tobacco (1.76 vs 2.295 ug/ml), alcohol (1.41 vs 2.25 ug/ml), marijuana (1.73 vs 2.24 ug/ml) and cocaine (1.92 vs 2.05μg/ml), but higher with opioids (2.41 vs 1.85 μg/ml). Only the differences with tobacco and alcohol were statistically significant. There was no significant relationship between SRD and antiviral response.

Ref: Meeting Report - 49th ICAAC, San Francisco, September 2009. 49th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, September 2009.
http://www.hiv-druginteractions.org/data/NewsItem/79_ICAAC49.pdf

Atazanavir and tobacco or marijuana

www.hiv-druginteractions.org

Atazanavir trough concentrations were evaluated in 32 HIV-positive subjects with substance-related disorders (SRDs) and 35 HIV-positive subjects without SRDs.

The median atazanavir concentrations in the SRD groups were lower with tobacco (0.314 vs 0.712 ug/ml), marijuana (0.238 vs 0.593 ug/ml), alcohol (0.534 vs 0.558 ug/ml), and opioids (0.325 vs 0.712 ug/ml), but higher with cocaine (0.768 vs 0.544 ug/ml).

Trough concentrations in the SRD group were below the therapeutic range in 36% of tobacco users and 50% of marijuana users. Only the differences with tobacco and marijuana were statistically significant. There was no significant direct effect of SRD on viral load or CD4 count.

Ref: Meeting Report - 49th ICAAC, San Francisco, September 2009. 49th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, September 2009.

http://www.hiv-druginteractions.org/data/NewsItem/79_ICAAC49.pdf

Darunavir/r and buprenorphine/naloxone

www.hiv-druginteractions.org

The effect of darunavir/r (600/100mg twice daily for seven days) on the pharnacokinetics of buprenorphine was assessed in 17 HIV-negative subjects stable on buprenorphine/naloxone maintenance therapy (daily doses up to 24/6mg). There was no effect on buprenorphine AUC, Cmax or trough concentrations; however, norbuprenorphine Cmax increased by 36% and AUC increased by 46%.

No subject required dose adjustment of buprenorphine/naloxone.

Given the increase in norbuprenorphine concentrations, close clinical monitoring of patients is recommended.

Ref: Meeting Report - 49th ICAAC, San Francisco, September 2009. 49th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, September 2009.

http://www.hiv-druginteractions.org/data/NewsItem/79_ICAAC49.pdf

Raltegravir and methadone

www.hiv-druginteractions.org

The effect of raltegravir (400mg twice daily) on the pharnacokinetics of methadone were investigated in 12 HIV-negative subjects stable on methadone.

There was no change in either methadone AUC or Cmax in the presence of raltegravir and no dose adjustment is required.

Ref: Meeting Report - 49th ICAAC, San Francisco, September 2009. 49th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, September 2009.
http://www.hiv-druginteractions.org/data/NewsItem/79_ICAAC49.pdf

NRTIs and buprenorphine

www.hiv-druginteractions.org

The interaction between buprenorphine and didanosine, lamivudine and tenofovir was investigated in 27 HIV-negative buprenorphine/naloxone maintained subjects.

Data for didanosine and tenofovir were compared to values obtained from 20 control subjects not receiving buprenorphine; lamivudine was compared to control data.

No significant changes in buprenorphine pharmacokinetics were observed when coadministered with didanosine, lamivudine and tenofovir. When compared to controls, buprenorphine had no statistically significant effect on NRTI concentrations.

Ref: Meeting Report - 49th ICAAC, San Francisco, September 2009. 49th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, September 2009.
http://www.hiv-druginteractions.org/data/NewsItem/79_ICAAC49.pdf

OTHER NEWS

Changes in the marketing authorisation for PegIntron, ViraferonPeg and Rebetol

On 24 September 2009 the Committee for Medicinal Products for Human Use (CHMP) adopted a positive opinion to recommend the variation to the terms of the marketing authorisation for the medicinal products PegIntron, ViraferonPeg and Rebetol

PegIntron and ViraferonPeg (peginterferon alfa-2b), from Schering-Plough Europe, to extend the therapeutic indication of combination therapy with ribavirin to include treatment of the paediatric population and to include the treatment of adult patients with compensated cirrhosis. PegIntron and ViraferonPeg were previously indicated for the treatment of adult patients with chronic hepatitis C who have elevated transaminases without liver decompensation and who are positive for serum HCV-RNA or anti-HCV, including naïve patients with clinically stable HIV co- infection. They are also indicated for the treatment of hepatitis C in adult patients who have failed previous treatment with interferon alpha (pegylated or non-pegylated) in combination therapy with ribavirin.

The same extension of indication applies to Rebetol (ribavirin) used in combination with peginterferon alfa-2b from Schering-Plough Europe.

For further information:
http://www.emea.europa.eu/pdfs/human/opinion/PegIntron_60936809en.pdf
and
http://www.emea.europa.eu/pdfs/human/opinion/Rebetol_60935609en.pdf

EHRN highlights the opportunity to address overdose in GFATM round 10 proposals

The European Harm Reduction Network (EHRN) has published a flyer designed to draw attention of CCMs, proposal writers, PRs to the links between HIV and overdose and to the opportunity to address overdose in round 10 proposals to the Global Fund to Fight AIDS, TB and Malaria (GFATM).

The flyer covers the following eight main points:

1. Overdose prevention services connect people who use drugs to HIV prevention, drug treatment, primary healthcare and other basic services.

2. Overdose may exacerbate HIV-related disease.

3. HIV treatment programs should make efforts to prevent overdose related to interactions between illegal drugs and antiretrovirals and other prescribed medication.
4. Overdose disproportionately affects HIV-positive injection drug users.
5. Overdose is a significant cause of mortality among people living with HIV.
6. Overdose prevention empowers people who use drugs and who have or are at risk of acquiring HIV.
7. Many of the same policies that increase risk of HIV infection among IDUs also increase the risk of overdose.
8. Overdose is a serious concern among people living with HIV who use drugs.

Download PDF file of this flyer:
http://www.harm-reduction.org/images/stories/library/why_overdose_prevention_matters_for_hiv.pdf

Lancet publishes systematic review of IDU care services

The 20 March 2010 issue of The Lancet included a systematic review of global, regional, and national coverage of HIV prevention, treatment, and care services for people who inject drugs. [1]

The writers conducted a 'systematic search of peer-reviewed (Medline, BioMed Central), internet, and grey-literature databases for data published in 2004 or later. A multistage process of data requests and verification was undertaken, involving UN agencies and national experts. National data were obtained for the extent of provision of the following core interventions for IDUs: needle and syringe programmes (NSPs), opioid substitution therapy (OST) and other drug treatment, HIV testing and counselling, antiretroviral therapy (ART), and condom programmes. They calculated national, regional, and global coverage of NSPs, OST, and ART on the basis of available estimates of IDU population sizes'.

They reported 'By 2009, NSPs had been implemented in 82 countries and OST in 70 countries; both interventions were available in 66 countries. Regional and national coverage varied substantially. Australasia (202 needle–syringes per IDU per year) had by far the greatest rate of needle–syringe distribution; Latin America and the Caribbean (0.3 needle–syringes per IDU per year), Middle East and north Africa (0.5 needle–syringes per IDU per year), and sub-Saharan Africa (0.1 needle–syringes per IDU per year) had the lowest rates.

OST coverage varied from less than or equal to one recipient per 100 IDUs in central Asia, Latin America, and sub-Saharan Africa, to very high levels in western Europe (61 recipients per 100 IDUs). The number of IDUs receiving ART varied from less than one per 100 HIV-positive IDUs (Chile, Kenya, Pakistan, Russia, and Uzbekistan) to more than 100 per 100 HIV-positive IDUs in six European countries. Worldwide, an estimated two needle–syringes (range 1–4) were distributed per IDU per month, there were eight recipients (6–12) of OST per 100 IDUs, and four IDUs (range 2–18) received ART per 100 HIV-positive IDUs'.

Their interpretation of the findings was 'worldwide coverage of HIV prevention, treatment, and care services in IDU populations is very low. There is an urgent need to improve coverage of these services in this at-risk population'.

Reference

1. Mathers BM et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet, Volume 375, Issue 9719, Pages 1014 - 1028, 20 March 2010. DOI:10.1016/S0140-6736(10)60232-2
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60232-2/abstract

Response to the UN's International Narcotics Control Board annual report

The last INCB annual report is critical of Argentina, Brazil and Mexico for moves to decriminalize the possession of drugs for personal consumption. The report expresses INCB concern that such moves may "send the wrong message", and concern over "the growing movement to decriminalize the possession of controlled drugs". It calls for this movement to be "resolutely countered" by the governments of Argentina, Brazil, Mexico and the United States. We support the Transnational Institute (TNI) and the Washington Office on Latin America (WOLA) assertion that "the INCB lacks the mandate to raise such issues" or the expertise to challenge such decisions made by sovereign states.

The INCB is overstepping its mandate by condemning the intelligent and informed approach taken by Argentina, Brazil and Mexico, to the demand and use of narcotics and their placing of public health imperatives ahead of dogma driven ideology.

Such statements by INCB contradict UNSG Ban-Ki Moon appeal to "guard against legislation that blocks universal access by criminalizing the lifestyles of vulnerable groups.." (March 28, 2008,) the multiple calls to stop criminalization of drug users by UNAIDS Executive Director Michel Sidibe and by Global Fund Executive Director Michel Kazatchkine, and the fact that countries such as Portugal, the first European country to have abolished all criminal penalties for personal possession of all drugs, has the lowest rate of lifetime marijuana use in people over 15 in the E.U. and a documented decline of lifetime use of any illegal drug among seventh through ninth graders since drug use and personal possession was decriminalised.

The evidence that law enforcement has failed to prevent the availability of illegal drugs, in communities where there is demand, is now unambiguous. Furthermore, there is no evidence that increasing the ferocity of law enforcement meaningfully reduces the prevalence of drug use. In fact it is important to acknowledge the harmful consequences of punitive drug laws:

- HIV epidemics fuelled by the criminalization of people who use illicit drugs and by prohibitions on the provision of sterile injecting equipment and opioid substitution treatment.
- HIV and Tuberculosis outbreaks among incarcerated and institutionalized drug users as a result of punitive laws and policies.
- The undermining of public health systems when law enforcement drives drug users away from prevention and care services and into environments where the risk of infectious disease transmission and other harms is increased.
- A crisis in criminal justice systems as a result of record incarceration rates in a number of nations, negatively affecting the social functioning of entire communities. While racial disparities in incarceration rates for drug offences are evident in countries all over the world.
- Stigma towards people who use illicit drugs, which reinforces the political popularity of criminalizing drug users and undermines HIV prevention and other health promotion efforts.
- Severe human rights violations, including torture, forced labour, inhuman and degrading treatment, and execution of drug offenders in a number of countries.
- A massive illicit market worth an estimated annual value of US$ 320 billion, the profits of which are entirely outside of government control, fuelling crime, violence and corruption.
- Billions of tax dollars wasted on a “War on Drugs” that does not achieve its stated objectives but instead directly or indirectly contributes to the above harms.

We applaud Argentina, Brazil and Mexico for having the courage to take rational steps to reduce risks, improve health outcomes and mitigate the impact of drug related crime on communities.

See also TNI/WOLA press release at:
http://www.tni.org/pressrelease/un’s-international-narcotics-control-board’s-annual-report-oversteps-mandate-and-interf

Mick Matthews Senior Civil Society Officer the Global Fund

Mauro Guarinieri Civil Society Officer The Global Fund
Vitaly Zhumagaliev Civil Society Officer The Global Fund

This response does not reflect the opinion of the Global Fund to Fight AIDS, TB and Malaria.

ON THE WEB

Web resources

The following organisations all include web resources about ARV4IDUs:

http://www.drugtext.org/library/legal/eu/default.htm

http://www.harmreduction.org

http://www.erowid.org

http://www.union.ic.ac.uk (see health and well-being section)

http://www.dancesafe.org

http://unaids.org

http://who.org

http://unodc.org

http://www.soros.org/initiatives/issues/health

http://www.ihra.org

http://www.hit.org.uk

http://www.opiateaddictionrx.info

FUTURE MEETINGS

Conference listing

The following meetings are taking place soon:

5th International workshop on HIV transmission-principles of intervention

Vienna, Austria

Dates: 07/15/2010 - 07/16/2010 Event type: Workshop

Subject: Drug resistance; Epidemiology; High risk behaviors; HIV transmission; HIV/AIDS prevention;

www.virology-education.com

XVIII International AIDS Conference

Vienna, Austria

Dates: 07/18/2010 - 07/23/2010 Event type: Conference

Subject: AIDS; Behavioral Research; Epidemiology; HIV/AIDS Prevention; Human Rights; Legal Issues/Laws;

Policy Development

www.aids2010.org/

Hepatitis C Training Workshop

Billings, United States

Dates: 07/27/2010 - 07/27/2010 Event type: Workshop

Subject: Diagnostic Tests; Hepatitis C; Hepatitis Prevention; Hepatitis Transmission; Medical Treatments and Therapies; Symptoms

www.hcvadvocate.org/community/community_pdf/MT%20_TOT_10.pdf

17th International Meeting on Hepatitis C Virus and Related Viruses

Yokohama, Japan

Dates: 09/10/2010 - 09/14/2010 Event type: Meeting

Subject: Hepatitis C; Hepatitis Prevention; International Health; Research

www.hcv2010.jp/index.html

8th National Harm Reduction Conference: Harm Reduction Beyond Borders

Austin, United States

Dates: 11/18/2010 - 11/21/2010 Event Type: Conference

Subject: Advocacy; Drug Abuse; Harm Reduction; Hepatitis C; HIV/AIDS Prevention; Legal Issues; Needle Exchange or Needle Distribution; Public Policies; Stigma

http://www.8thnationalharmreductionconference.com/.

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

i-BASE PUBLICATIONS & SERVICES

HIV i-Base is an HIV-positive led treatment information service. We produce information both for clinicians and other health workers and for people with HIV.
Our publications are used and have been adapted in many countries and settings.
Our fully searchable website is designed to be fast to access, easy to use, and simple to navigate.
All i-Base publications are available online.

http://www.i-base.info
i-Base produce five non-technical treatment guides, which are available online as web pages and PDF files.
http://www.i-base.info/guides

- Introduction to combination therapy
- A guide to changing treatment
- Avoiding & managing side effects
- HIV, pregnancy & women's health
- Hepatitis C for People living with HIV

The site also includes a web-based Q&A section for people to ask questions about treatment:
http://www.i-base.info/questions

Recent questions include:

- Is it okay to take probiotic cultures with HIV meds?
- Is d4T+3TC+EFV good enough?
- How long will it take for my CD4 count to go back up?
- Is it possible for CD4 cells to decrease so quickly?
- What is the difference between the ELISA and ELFA test?
- Are there travel restrictions in France and Spain?
- I have been treated for hep B and hep C, now which HIV treatments should I take?
- What is the window period for antigen-antibody tests?
- Will my CD4 count increase after I give birth?
- How do I treat or prevent skin problems?
- If I have unprotected sex with other HIV positive people will I get resistance?
- What are the best vitamins to take if I am HIV positive?
- I am a male that is HIV positive and my partner is HIV negative, is there a way we can still have children?
- I am HIV positive, can I get a mortgage or life insurance?
- Are swollen lymph nodes early symptoms of HIV?
- How bad is to sniff the poppers for a people with HIV?
- What does 'an empty stomach' mean when taking Atripla?
- What resources are available for someone affected by HIV or Hepatitis B/C?
- Can I take these supplements with my HIV treatment?

We have also posted online a set of generic clinic forms, developed with the Royal Free Centre for HIV Medicine, which may be a useful resource for other hospitals.
http://www.i-base.info/clinicforms

HIV i-Base

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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 *(January 2009)*

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

Introduction to Combination Therapy *(June 2009)*

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

Changing Treatment - Guide to Second-line and Salvage Therapy *(September 2008)*

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

Guide To Avoiding and Managing Side Effects *(May 2008)*

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

Guide to HIV and Hepatitis C coinfection *(March 2009)*

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