

>EuroCoord supports World AIDS Day



>EuroCoord-EATG Community Outreach Workshop

> Summaries of recent publications:

**HIV testing in Ukraine**

**Pregnancy outcomes in Ukraine**

**Liver-related deaths in HIV/HCV co-infected people**

**Mortality in migrants living with HIV in Western Europe**

**Organisation and delivery of health care services for HIV/TB co-infected people**

**Effect of abacavir on HCV treatment response in HIV/HCV co-infected people**

## Inside this issue

**Welcome to another edition of the EuroCoord Digest!**



In this edition we would like to take the opportunity to contribute to the 27<sup>th</sup> annual **World AIDS Day** taking place this Tuesday 1 December 2015. World AIDS Day aims to increase HIV awareness and fight prejudice by improving education. EuroCoord is as engaged as ever in the fight against HIV and AIDS and seeks to answer important questions relating to HIV prevention, treatment and management in the context of a changing HIV population in Europe.

For this issue we have selected summaries of some of our most recent studies looking at **HIV testing** and **pregnancy outcomes** in Ukraine, **liver-related deaths** and the effect of **abacavir on HCV treatment response** in HIV/HCV co-infected people, **mortality in migrants** living with HIV in Western Europe, and finally how **health care services** are organised and delivered in Europe for HIV/TB co-infected people.

We also bring you news of the joint EuroCoord-EATG **Community Outreach Workshop** which took place the 8-9<sup>th</sup> November in Brussels and was attended by the European Community Advisory Board.

EuroCoord is a Network of Excellence founded by several of the largest HIV cohorts and collaborations within Europe - CASCADE, COHERE, EuroSIDA and PENTA. EuroCoord has formed a common database that currently has access to data from over 300,000 HIV positive people from many different settings in Europe and beyond.

To learn more about EuroCoord and to see a complete list of our presentations and publications, please visit our **website**.



Alain Volny Anne,  
EATG member of the EuroCoord Council of Partners  
EuroCoord Training and Outreach leader

## World AIDS Day

**Tuesday 1<sup>st</sup> December 2015 marks the 27<sup>th</sup> annual World AIDS Day which is an opportunity to show support for people living with HIV/AIDS, to remember those who have died, and to unite in the fight against HIV.**



More than 2.2 million people are currently living with HIV in the European region, and an estimated 36.9 million people worldwide (including 2.6 million children). Over 39 million people have died from the virus since the first cases were reported in 1980, making it one of the most destructive pandemics in history. World AIDS Day is an important reminder to the public, governments and international institutions that, although important improvements have been made, several challenges in HIV prevention, management and treatment remain in today's altered economic and political climate.

### **EuroCoord helping the fight against HIV/AIDS**

EuroCoord brings together the biggest European HIV cohorts and research collaborations to establish one of the largest dataset of HIV-positive adults and children in the world. Our researchers use this rich source of information to definitively answer questions of relevance that could not be addressed through single studies alone.

Since EuroCoord was established in 2011, over 112 research papers addressing key questions in clinical research have been published by members of the network. In this issue of the EuroCoord Digest, we highlight just a few of these from the past 12 months.

### **Beyond World AIDS Day**

Although World AIDS Day is a good opportunity to raise awareness of the issues surrounding HIV/AIDS, the work of EuroCoord ensures that it remains at the forefront of the European research agenda all year round.

[\[back to top\]](#)

## **EuroCoord-EATG Community Outreach Workshop**

**A Community Outreach Workshop, sponsored jointly by EuroCoord and EATG, was held the 8-9<sup>th</sup> November 2015 in Brussels.**

The aim of the event was to improve the wider HIV community's understanding of observational epidemiology in HIV and its impact on care and clinical practice. The event was attended by representatives from the European Community Advisory Board (ECAB). ECAB is a high-level scientific platform that brings together delegates from European and international institutions to address key science and policy issues related to HIV and HIV co-infections. To read more about their goals click

[here.](#)

Over two days, talks were given showcasing EuroCoord's accomplishments over the past five years, covering topics such as co-infections (TB and Hepatitis C), late presentation, ageing with HIV, and an entire session devoted to presenting initial results from the **aMASE** study, including a wider discussion on how to effectively conduct community-based surveys. In the spirit of discussion and exchange of ideas, time was devoted to three talks from ECAB members. The speakers each presented on a topic they felt deserves more attention and focus in future research: emerging technologies, women living with HIV, and the cascade of care in Eastern Europe. Additional presentations included an instructional overview of how cohort studies are organised and conducted, and a talk on the role of the European Commission in funding and supporting health-driven research.

There was lively discussion and exchange of ideas throughout the workshop. EuroCoord was given the opportunity to receive feedback on their work and given some new insight on how to better serve the community of persons living with HIV in future studies. ECAB members were given insight into EuroCoord's research and the opportunity to voice their questions and comments. The feedback received over the two days will provide a valuable perspective as EuroCoord moves forward.

[\[back to top\]](#)

## **HIV testing in Kiev, Ukraine**

Ukraine has one of the highest HIV diagnosis rates in Europe at 37.1 per 100,000 population. The majority of diagnoses were made from 1995 onwards and the epidemic has been increasing over the years with the number diagnosed in 2009 being more than double that of 2001. This study sought to collect more information on the characteristics of those becoming newly-diagnosed.

The data for this study were collected as part of a larger study to estimate HIV incidence in Kiev City which introduced a new data collection method using handheld tablets. In this study, all adults ( $\geq 16$  years) presenting or referred for an HIV test at one of Kiev City AIDS Centres between April 2013 and March 2014 were asked to complete a short anonymous questionnaire on a handheld tablet assessing information on risk factors for acquiring HIV, reason for test and testing history.

During the 12-month study period, 6370 people tested for HIV, of which 467 (7.8%) were HIV positive. Men who have sex with men (24.1%) and people who inject drugs (PWID, 17.9%) had the greatest proportion of HIV diagnoses. A higher proportion of heterosexual women reported contact with PWID compared to men (16% vs. 4.7%) suggesting an exposure risk between persons who inject drugs and their sexual partners. Repeat testing was more likely among people engaging in higher risk behaviours such as injecting drugs, contact with a known HIV-positive person and sex with multiple partners (OR = 1.55; 95% CI:1.37–1.76) compared to those who were tested because they were presenting symptoms.

These findings provide important information on people testing and those newly-diagnosed with HIV in Kiev City and highlight the need for targeted HIV prevention and intervention strategies, in particular for MSM. Importantly, this study also showed that using an anonymous questionnaire, collecting information on HIV risk factors in Kiev is feasible.

*Simmons R, Malyuta R, Chentsova N, Medoeva A, Kruglov Y, Yurchenko A, Copas A, Porter K, for the CASCADE Collaboration in EuroCoord. HIV Testing and Diagnosis Rates in Kiev, Ukraine: April 2013 -*

March 2014. *PLoS One*. 2015;10:e0137062. [[Article](#)]

[\[back to top\]](#)

## Study shows that 18% of infants born to HIV-positive women in Ukraine are preterm or small for gestational age

There are no previous studies of adverse birth outcomes among HIV-positive pregnant women in Ukraine, where more than 3500 deliver each year. Concerns about preterm delivery among HIV-positive women were first raised more than 20 years ago and focused initially on the effects of HIV and immunosuppression in addition to traditional risk factors but more recently, the role of combination ART (cART) in preterm delivery risk has been a key area of investigation. The aim of this study was to assess pregnancy outcomes among HIV-positive women in Ukraine.

Data from on live births to nearly 9000 HIV-positive women in Ukraine from 2000 to 2012 were analysed to determine factors associated with preterm delivery and small weight for gestational age (SGA).

Nine percent of deliveries were preterm, and the combined prevalence of preterm delivery and SGA babies was 18%. Factors associated with an increased risk of these adverse pregnancy outcomes included those directly related to maternal HIV infection, such as having advanced clinical disease, and others that are shared with the general antenatal population, such as history of injecting drug use, social deprivation and heavy smoking. Mothers who received no ART in pregnancy had an increased risk of preterm delivery compared with those receiving zidovudine monotherapy (the standard of care for much of the study period in Ukraine), as did mothers who received cART when compared with the same group. Women delivering in later calendar years had an increased risk of having a preterm delivery independently of cART use, but the risk of having a SGA baby did not significantly change over time. The neonatal mortality rate was 4.62 per 1000, comparable to national figures; half of the neonatal deaths were in preterm infants.

These findings indicate the importance of ensuring that continuing efforts to improve perinatal outcomes in Ukraine in general are extended to HIV-positive women. As most HIV infected pregnant women in Ukraine now receive antenatal cART to prevent mother-to-child transmission, it will be important to continue to monitor pregnancy outcomes. Further research to explore the association between cART and preterm delivery in this population is needed.

*Bagkeris E, Malyuta R, Volokha A, Cortina-Borja M, Bailey H, Townsend C, Thorne C for the Ukraine European Collaborative Study in EuroCoord. Pregnancy outcomes in an observational cohort study of HIV-positive women in Ukraine, 2000-2012. Lancet HIV, 2015 Sep;2(9):e385-92. [[Article](#)]*



[\[back to top\]](#)

## **Liver-related death among HIV/hepatitis C virus co-infected people**

Promising results from clinical trials suggest that recently released new treatments for hepatitis C (HCV) will greatly improve cure rates, including among people co-infected with HIV and HCV. However, the high costs of these new treatments mean that it will be necessary to prioritise treatment for people with HIV and HCV who are at greatest risk of liver-related death (LRD). This study aimed to identify clinical characteristics associated with LRD to provide guidance on who should be prioritised for new HCV treatments.

The data included in this study came from 3,941 HIV and HCV co-infected people recruited across Europe between 2000 and 2013. Deaths that occurred over the study period were classified as either liver-related or non-liver-related. The researchers then assessed whether clinical characteristics such as age, CD4 cell count and liver fibrosis (a measure of liver damage) were associated with LRD.

There was a total of 670 deaths in the study and 145 (21.6%) of them were liver-related, making LRD one of the most common causes of death after AIDS. LRD was most common among people between 35-45 years old and those with lower CD4 cell count (>300 cells/ul). People who died of LRD almost all had significant liver fibrosis when they were included in the study. Liver fibrosis was one of the most important risk factor for LRD (Hazard Ratio 6.3 vs no liver fibrosis). Over a five year period, people with little or no liver fibrosis at the time of study inclusion had 2.2% probability of LRD while people with a medium and severe degree of liver fibrosis had a 10.3% and 14% probability of LRD respectively.

These findings support the prioritisation of new treatments for HCV among people infected with HIV and HCV with high levels of liver damage, as they are at the greatest risk of LRD.

*Grint D, Peters L, Rockstroh JK, Rakmanova A, Trofimova T, Lacombe K, Karpov I, Galli M, Domkingo P, Kirk O, Lundgren JD, Mocroft A, for EuroSIDA in EuroCoord. Liver-related death among HIV/HCV coinfecting individuals, implications for the era of directly anitvirals. AIDS 2015;29:1205-1215. [\[Article\]](#)*

[\[back to top\]](#)

## **Mortality in migrants living with HIV in Western Europe**

Migrants account for a large proportion of people living with HIV in Western Europe (WE). Disease progression and mortality in migrants compared to native populations have been shown to be slower, probably because those who migrate are healthy enough to undergo the migration and adaptation process. However, poor living conditions, language, cultural and legal barriers to accessing health services can impair timely HIV diagnosis and optimal uptake and response to life-saving treatments. In this study, the researchers analysed overall mortality in migrants from seven geographical origins compared to natives in WE.

EuroCoord data from HIV infected, ART-naïve people accessing care in 11 WE countries between 1997 to

2013 were included in this study. Migrants were grouped in seven regions of the globe and mortality for each of these geographical groups was compared to the native population stratifying by sex and transmission route.

A total of 123,344 men and 45,877 women were included of which 21% and 51% were migrants, respectively. Globally, migrants had a mortality rate 27% lower than native populations in crude analyses and 17% lower when accounted for factors such as age, history of hepatitis B and C, CD4 cell count, viral load, AIDS stage and period of recruitment. Some differences were observed depending on geographical origin, sex and transmission route. While most migrant groups had similar mortality when compared to natives, some experienced lower mortality such as heterosexual men from Asia (47%) and North Africa and the Middle East (NAME, 29%), male injecting drug users (IDUs) from NAME (27%) and female IDUs from NAME (83%), sub-Saharan Africa (55%) and Asia (89%). Notably, mortality was higher for migrant heterosexual men from Latin America (46% higher) and heterosexual women from the Caribbean (48%).

These findings highlight that mortality rates are heterogeneous between migrant groups from different geographical origin, gender and risk groups. Classifying all migrants in a single group can hide risks affecting specific groups. Further studies are needed to characterise migrant populations and understand how inequalities are generated and maintained for groups with higher mortality identified in this study.

*The Migrants Working Group on behalf of COHERE in EuroCoord. Monge S, Jarrín I, Mocroft A, Sabin CA, Touloumi G, van Sighem A, Abgrall S, Dray-Spira R, Spire B, Castagna A, Mussini C, Zangerle R, Hessamfar M, Anderson J, Hamouda O, Ehren K, Obel N, Kirk O, de Monteynard LA, Antinori A, Girardi E, Saracino A, Calmy A, De Wit S, Wittkop L, Bucher HC, Montoliu A, Raben D, Prins M, Meyer L, Chene G, Burns F, Del Amo J. Lancet HIV. In press.*

[\[back to top\]](#)

## **Fragmented health care system set up for HIV/TB co-infected people in Eastern Europe**

Today, HIV and tuberculosis (TB) co-infection poses one of the most challenging and fatal public health problems in Eastern Europe (EE). A previous study has shown higher mortality rates in HIV/TB coinfecting people in EE compared to Western Europe (WE) but little is known about how care is organised and delivered in these regions. The aim of this study was to compare how HIV/TB health care services are organised and delivered in major treatment centres in EE and WE.

In this study, 38 major HIV and tuberculosis treatment centers, of which 17 are based in EE and 21 in WE, participating in the TB:HIV Study in EuroCoord completed an online survey on health care management for co-infected patients. The survey results were also compared with data from patients records at the same centers collected through the study to assess whether there were differences between reported and actual clinical practices.

Survey results showed that treatment of HIV and TB in EE are less often located at the same clinical premise (47% in EE versus 100% in WE) and are less often provided by the same doctor compared to WE (41% in EE versus 90% in WE). Yet, regular screening of HIV positive people for TB was more common in EE than in WE (80% versus 40% respectively), as was the use of tuberculosis treatment strategy as observed directly by a health practitioner (88% versus 20%). Results also showed lower availability of more advanced tuberculosis drugs as well as a lower availability of opioid substitution

therapy for opioid drug users in EE compared to WE (53% versus 100%).

These findings suggest that for HIV/TB coinfecting patients in EE, the organisation of health services is more fragmented than in WE, which may have negative implications for enrolment and retention in care. Furthermore, the availability of more advanced TB drugs and substance abuse treatment is limited in EE, where the need for them is highest. Linking regional differences described in this study to treatment outcomes is crucial for future care and calls for further analyses.

*Mansfeld M, Skrahina A, Shepherd L, Schultze A, Panteleev AM, Miller RF, Miro JM, Zeltina I, Tetrarov S, Furrer H, Kirk O, Grzeszczuk A, Bolokadze N, Matteelli A, Post FA, Lundgren JD, Mocroft A, Efsen A, Podlekareva DN for the TB:HIV study group in EuroCoord. Major differences in organization and availability of health care and medicines for HIV/TB coinfecting patients across Europe. HIV Med. 2015 Oct;16(9):544-52. [Article]*

[\[back to top\]](#)

## **Effect of abacavir on sustained virologic response to HCV treatment in HIV/HCV co-infected people**

HIV and hepatitis C (HCV) co-infected people often receive HCV treatment concomitantly with HIV treatment. Previous studies have reported contradicting results on the effect of HIV treatment regimens containing abacavir on HCV treatment response. Typically, treatment for HCV consisted of combination of pegylated interferon and ribavirin. The aim of this study was to evaluate the effect of abacavir-based HIV treatment on the response to HCV treatment in HIV/HCV co-infected patients.

Data from HIV/HCV co-infected people receiving HCV treatment with pegylated interferon and ribavirin, between 1998 and 2011 were included in the study. The impact of abacavir-based HIV treatment on sustained virologic response to HCV treatment (defined as the absence of HCV RNA in the blood) was evaluated.

A total of 1309 HIV/HCV co-infected people receiving HCV treatment with pegylated interferon and ribavirin took part in this study. Amongst them, 490 (37%) achieved a sustained virologic response indicating that they were successfully treated for HCV. No difference in the response to HCV treatment was observed in people who used an abacavir-based HIV treatment regimen compared to patients who used an emtricitabine and tenofovir based HIV treatment combination, which was the most frequently used HIV treatment regimen in this population.

This study confirmed the results of a previous study reporting no effect of abacavir-based cART regimen on HCV treatment response. Even though a large number of new agents active against HCV are now becoming available for treatment use, it is likely that some treatment combinations will continue to include ribavirin. This study found no evidence of a harmful effect of abacavir in future HCV and ribavirin treatment combinations.

*Hepatitis C-working group for Cohere in EuroCoord: Smit C, Arends J, Peters L, Montforte Ad, Dabis F, Zangerle R, Daikos G, Mussini C, Mallolas J, de Wit S, Zinkernagel A, Cosin J, Chene G, Raben D, Rockstroh J. Effect of abacavir on sustained virologic response to HCV treatment in HIV/HCV co-infected patients, Cohere in EuroCoord. BMC Infectious Diseases (2015) 15:498 [Article]*

[\[back to top\]](#)



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