An ageing population

The proportion of HIV positive patients aged 50 and over has greatly increased particularly since 1996, when effective treatment became available. Although life expectancy has increased overall for the HIV positive population, the rate of progression of untreated HIV disease, response to treatment and complicating effects of comorbidities differ between older and younger patients.

An ageing HIV positive population requires optimal management of cancers, cardiovascular disease and neurocognitive disorders, and a greater understanding of the interaction between HIV and chronic lifestyle-related diseases, particularly as multiple comorbidities are more prevalent in those with HIV.

Effective treatment is also enabling large numbers of perinatally-infected children to survive into adulthood. The physical and emotional changes experienced as this group ages present a unique challenge to their healthcare providers as they move from paediatric to adult care.

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EuroCoord: Bringing European HIV research under one banner

With access to data from individuals with well-estimated dates of infection, EuroCoord researchers have shown that life expectancy for HIV positive people is now closer to that of the general HIV negative population. However, the same study showed excess mortality in HIV positive people aged 45 and older. This highlights the need to particularly address the course of HIV infection in this group who are more likely to present with multiple co-morbidities.

Our dataset also contains information from HIV positive children in long-term follow up in Europe. With effective treatment, these children are now more likely to survive into adulthood and, as such, move from paediatric to adult care.

EuroCoord is best-placed to track the progress of this group to address the specific physical and social issues they experience and the effect on their clinical management.

Funded as a Network of Excellence, EuroCoord has brought together the biggest European HIV cohorts and collaborations from over 100 research institutions, contributing significantly to the knowledge base. Collectively under the EuroCoord banner, we have established a common virtual database of over 270,000 HIV positive people. The biggest of its kind globally, this dataset contains information from people from many different settings across the region and beyond. Our researchers use this rich and expanding database to definitively answer questions that could not be addressed through single studies alone.

EuroCoord offers a unique environment for the cross-pollination of ideas through interaction between clinicians, basic and translational scientists, epidemiologists, sociologists, economists and patients. Such an extensive network not only allows us to strengthen existing infrastructure, but also to identify new challenges such as addressing inequalities in access to care and the need for cost-effective interventions in healthcare systems.

EuroCoord’s unique approach has changed the paradigm of HIV collaboration and will continue to ensure that Europe remains at the vanguard of HIV research.

For more information about EuroCoord, visit www.EuroCoord.net or contact info@EuroCoord.net

HIV Research in Europe: Success through a collaborative approach

Since AIDS was first recognised in the early 1980s, significant advances have been made in HIV management and treatment leading to considerable reductions in morbidity and mortality. European scientists have been key players, directly contributing to this success and continuing to advance knowledge and monitor the epidemic.

Despite great strides in treatment, it is currently estimated that 2.3 million people are living with HIV in the WHO European region with prevalence exceeding 1% in some countries and rising incidence among Men who have Sex with Men (MSM) in many areas. There were 170,000 new infections and 99,000 deaths in 2011 alone. HIV is currently the 6th leading cause of death globally and halting the spread of HIV/AIDS remains one of the 8 UN Millennium Development Goals.

Several challenges in HIV prevention and management remain, which are now compounded by an altered economic climate. Persistent epidemic areas particularly in Eastern Europe, co-infections, inequalities in access to healthcare and an ageing population highlight the need for a continued collaborative approach.

Eastern Europe: A persistent epidemic

The estimated number of people living with HIV has risen by more than 50% between 2001 and 2011. In contrast to global trends, rates of HIV infections and AIDS-related deaths have increased significantly in the WHO European region driven by the epidemic in the East.

Despite improvements in access to treatment, coverage has fallen as low as 25% in some countries in this region, compared with 44% in sub-Saharan Africa. A concerted effort is essential to address the difference in outcome for HIV positive people in Eastern Europe which is far worse than their Western European counterparts.

The epidemic in this area continues to be fuelled by injecting drug use, highlighting the need for evidence-based and country-specific combination prevention programmes targeting at-risk, often marginalised, groups. Critically, these need to be implemented at a scale sufficient to have a meaningful impact.

Eastern European countries offer a varied and contrasting epidemiological landscape for HIV, reflecting divergent economic development and the subsequent effect on health systems. HIV infection rates, risk groups and access to prevention programmes, as well as treatment and care, vary greatly across Eastern Europe.

Using EuroCoord data, differences in mortality for those co-infected with TB in this region have been compared with Western Europe. Research on prognosis and temporal trends are on-going in a large cohort of adults and children across the region. Pregnancy and paediatric cohorts in the Ukraine and Russia are also being established to better characterise the epidemic in order to inform public health interventions.

With our long-standing links in the region, EuroCoord is well-placed to address the specific demands of the evolving epidemic in Eastern Europe.
HIV in Europe: The current crisis

2.3 million people currently living with HIV

170,000 new infections and 99,000 deaths in 2011

Treatment coverage is as low as 25% in some countries

HIV testing rates <50% among MSM in every European country

Impact of co-infections

Since effective therapy became available, HIV positive people are living much longer so are increasingly more likely to die from non-HIV causes including the sequelae of co-infections such as tuberculosis (TB) and hepatitis C virus (HCV).

TB is the most common opportunistic infection in people living with HIV, and the leading cause of death in HIV positive people in developing countries. The prevalence of multidrug-resistant TB (MDR-TB) is increasing, particularly in certain countries within Eastern Europe where it makes up 20% of all new TB cases. With greater movement of people across Europe, TB is also becoming an issue of public health importance in Western Europe.

Liver disease caused by chronic HCV or hepatitis B virus (HBV) infection has become an increasingly important cause of illness and death in HIV positive people, particularly in men who have sex with men (MSM) and people who inject drugs, despite it being largely preventable and treatable. Addressing health inequalities and behaviour in relation to co-infections presents a unique challenge.

EuroCoord and co-infections

Although often associated with low-income countries, TB is no longer confined to these settings. EuroCoord researchers recently called for more stringent diagnosis and treatment of latent TB early in HIV infection in high-income countries, following a study showing that TB risk increases soon after HIV infection.

Using EuroCoord data, differences in HCV incidence and uptake of therapy by region and risk group have been characterised and our researchers continue to monitor the epidemiology of HCV across Europe.

With the therapy landscape changing rapidly, EuroCoord’s rich and expanding database can be used to assess the effects of various co-infections on morbidity and mortality across Europe.

Addressing inequalities

Disparities in healthcare exist across the region, evidenced by life expectancy falling to below 70 years in 14 Eastern European countries, lower than in the Indian sub-continent and a number of African countries. Socioeconomic, ethnic and gender inequalities are significant barriers to accessing effective HIV treatment and prevention.

Marginalised groups, particularly migrants, are more likely to be diagnosed late in the course of their infection, and in the European region over half of the HIV cases with information on CD4 cell counts are classified as late presenters or with advanced disease. This is indicative of a lack of access to, and uptake of, HIV testing and counselling in many European countries. Delayed treatment initiation is associated with poor clinical prognosis and increases the risk of onward transmission. The development and effective implementation of evidence-based strategies to reduce barriers to testing is essential.

Wider disparities in health are expected with European governments adopting strict fiscal austerity measures in light of the economic crisis. HIV infection in people who inject drugs has already increased in Greece as preventive services have been cut. A conceptual framework to understand the varied and interconnected effects of inequalities on access to HIV care would be a model for general disparities in health.

EuroCoord and inequalities

A number of socioeconomic factors are likely to play an important role in determining the outcome of HIV positive people besides host genetics and viral traits. Migrant populations represent a large and growing proportion of the HIV positive population living in Europe; a number of key questions to be addressed in EuroCoord could be confounded by migration and or economic status.

Using EuroCoord data, gender differences in HIV progression as well as differences in treatment uptake according to geographical origin have been described.

EuroCoord researchers are also working on setting standards for assessing the effect of three key socio-economic variables available to cohorts: geographical origin, ethnicity and maximum educational level obtained.