Infosheet #22 *from the series* ***"For a Better QL of PLWHA!"***

WHAT WILL SWINE FLU DO TO US, DO TO US, DO TO US?!

(a song's paraphrase from "Three piggies")

(the **XVII CROI:**
Conference on **Retroviruses** and **Opportunistic Infections**,
San Francisco, II. 2010)

(translated from Latvian)

As previously mentioned, CROI is the highest annual AIDS medical gathering worldwide. Though the conference did not seem to present any breakthrough, scientists can't be awaited to provide them regularly. As usual, HIV treatment is an ever evolving and therefore interesting field, in which older standpoints may be wiped away, but then – revisited again.

Thus, the pre- previous slogan "**Hit early, hit hard**!" is coming back.
As we know, one of the main targets of ART is immune restoration. 200<CD4<250 prevents from many life threatening OIs. Besides, high CD4 count protects from several HIV- associated and non- associated illnesses. Patients initiating ART with very low CD4 counts struggle to achieve sufficient immune restoration within 2-3 years though responses continue to improve over time. Patients with CD4<125 after 1 year on ART are likely to never reach CD4>250 on first- line ART. Median time to CD4=250 in DART Ugandan trial on first line was 1,8 years. These data highlight the importance of expanded earlier diagnosis and treatment initiation (oral #110).
According to S. African scientists, the risk of death is increased among those failing to achieve a CD4 count response early in the course of treatment despite good viral suppression. Baseline CD4 count can also be combined with initial CD4 response to predict patients with poorer prognosis. Patients failing to demonstrate an initial CD4 count response should be identified early and be screened more frequently for OIs (poster #520).
Yet, early use of ARV could be cost- effective in high income setting but have significant budgetary impacts. However, the effect of likely uptake of early ARV by PWH is still uncertain, as concluded by Australian scientists (p.962). These considerations on an earlier start are not topical in Latvia at the given moment.

Speaking on **HIV prevention**, an American scientist said that there is a great interest in the potential for increased treatment and counselling of HIV+ persons to prevent HIV transmission (o.5).
Providing treatment to every HIV+ person in S. Africa with a CD4<200, could stop new transmissions within 5-10 years (o.13).
But no- one is claiming that ART in itself will stop HIV – however convincing the modelling!
An African study showed that ART use is associated with 92% lower risk for HIV transmission among heterosexual, HIV sero- discordant couples (condoms are lowering the risk for 85%). A single transmission occurred within 18 days after ART initiation. HIV patients not on ART will more likely infect their partners, if their CD4 is low (o.136).

Expanded routine HIV testing in Washington was associated with increased identification of HIV/AIDS cases, more rapid entry into care, earlier diagnosis and the decreasing proportion of late testers among AIDS cases. Continued surveillance will help determine whether these findings will translate into improved clinical outcome and reduced HIV transmission (o.34).
While Kevin de Cock supports routine testing, WHO & UNAIDS guidelines called for routine opt- out testing (2007).
Vaginal gel PRO2000 did not protect against HIV infection (o.87LB).

As shown at the IX. Glasgow congress, 2008 (info- sheet #20), **vitamin D** is important in HIV infection. VitD insufficiency may cause heart, bone or psychic disorders. It is common in nearly ¾ of HIV+ patients (much more frequent than in general population). Therefore their systematic screening (with consideration of seasonality) is warranted (p.752).
The associations of vitD deficiency with renal insufficiency and with RTV and EFV exposures are both HIV- related and therapy- mediated. Calcium and vitD supplementation might be warranted for persons using EFV (p.750).

It is recommended that all HIV+ persons receive **flu** vaccine (p.810). This should be considered by those HIV patients in Latvia who are still ignoring it. HIV infection did not make swine flu more severe, and swine flu did not have a major effect on HIV- positives (p.802LB). It was infrequent in HIV patients during its epidemic. A favourable outcome was observed in the majority of subjects. The only subject that required hospitalization had advanced HIV disease and other co- morbidities (p.801). Though, the evolution period of swine flu in HIV+ subjects was extended compared with HIV- negative subjects. OIs mask swine flu symptoms, resulting in delayed treatment. The presence of OIs is associated with a longer delay in seeking hospital attention, more complicated course of the disease, longer hospital stays and death (timely antiviral treatment decreases its probability). HAART has a protective effect on the severity of the disease (p.803LB). The existing flu vaccine should become more elaborate for HIV patients (p.806LB).
By the way, it is free of charge in Sweden, even to tourists.

An American scientist on her slides clearly showed that HIV damages almost all the organs of human body (o.7).
On top of that, and despite the increased risk of cardiovascular disease (CVD), stroke and lung cancer, **smoking** in HIV patients is still very popular. The risk of CVD events decreased with increased time since smoking stoppage. Though, even after the cessation, the mortality risks are increased. Smoking suspension efforts should be a priority for HIV+ individuals (o.124). Studies strengthen the case for funding cessation programmes.

As stated at the XVI. CROI (info- sheet #21), **Acyclovir** inhibits HIV replication in presence of herpes infection (o.91). But “Acyclovir ProTides” alone is strongly suppressing HIV- 1. Since it presents anti- herpetic activity, it might represent a new class of antiviral agents that dual targets HIV and HSV-2 (p.490).

The latest recommendations on first line choices include a single nucleoside combination. Very long- term toxicity of our initial regimens is poorly understood and we need alternative initial therapies. Evidence- based data on the optimal second line treatment are also lacking. Virologic control without limited immune reconstitution remains a vexing problem for a small but real patient population. Strategies to enhance immune reconstitution have been uniformly unsuccessful. Innovative therapies for difficult to treat populations are needed. Unfortunately, there are a **limited number of new drugs** in development (o.183). As usual, drug companies are struggling for their HIV meds being enlisted as first line.

During the treatment activist's M. Delaney Memorial lecture, the speaker reminded us of all the accomplishments of **community treatment activism** since 1985 (mentioning also drug smuggling – e.g., DNCB, cucumber extract, compound Q etc.). She highlighted the community's extraordinary impact on HIV research over the past 25 years. She concluded that regarding their infection, all PLWHAs are innocent (o.8).

Some interesting glimpses from the CROI:

- Unneeded conference bags could be donated to the **homeless programme**.
- "Recycled AIDS medicine programme" spread its flyers "Donate your **unused HIV meds** – save lives!" (www.rampusa.org)
- Sitting pain is a common problem in patients with lipoatrophy. SitReliefShorts – **padded undergarments** – are now available for people who lost the cushion in their bottoms (www.lipowear.com).

To conclude on an optimistic note, here is the data from p.526: The **life expectancy** of asymptomatic HIV+ patients who are still treatment- naïve, approaches that of uninfected individuals. According to the model, the median number of years lived from diagnosis at age 25 was 52 (77 is close to median life- expectancy of general Dutch population). However, follow- up time was short.
Non- IDU HIV+ men who were successfully treated (CD4>500) reached similar mortality rates to those in the general European male population (p.527).

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