Infosheet #33 *from the series* ***„For a Better QL of PLWH"***

A SUPERINFECTION!

(The **XVI European AIDS** Conference**,**
X, 2017, Milan)
(translated from Latvian)

This conference is being organized by EACS *(European AIDS Clinical Society)*. Consequently, not a lot of AIDS policy stuff in it.
Still, UNAIDS **90%:90%:90%** target was mentioned:
A Swedish study assessed its implementation in 55 European & C Asian countries:
1) The high proportion of PLWH who do not know their status suggests insufficient scale of HIV testing;
2) The high proportion of diagnosed, but not on ART reflects challenges in PLWH linkage to care *(oral PS11/1)*.

The main trait of this conference is the **new EACS Guidelines** *(this time: Version 9.0/ X, 2017)*. The Guidelines are revised every 2 years, like the conference itself happens bi-annually. They aim to cover wide ranges of recommendations as opposed to the often more uniform national ones. Compared to *Version 6.0/ X, 2011*, this new one has doubled in its size. It can be downloaded from the EACS website. Among entirely new sections introduced are:

- "Solid Organ Transplantation": PLWH should be considered for organ transplantation according to the same criteria as everyone else.
- "Chronic Lung Disease": Regular wheezing, cough or shortness of breath on exertion should prompt further investigation. Screening for chronic lung disease should become standard practice in smokers and elders (≥40). Influenza and pneumococcal vaccinations are reducing the incidence of lower respiratory tract infections. But smoking cessation is a lifesaving intervention.
- "Prescribing in Elderly".

It should be remembered that EACS are scientific guidelines, while WHO are public health guidelines.

PREVENTION

Use of ***Truvada* as PreP** is a highly effective HIV prevention strategy for MSM. The high cost is a primary barrier to its use. Cost-effectiveness plays a key role in deciding whether PreP should be reimbursed. PreP given daily or intermittently, reduces the risk of HIV infection by 85%. On- demand PreP will reduce costs of HIV care over 40 years by 0,7 billion euros. PreP is cost-saving when used on-demand, German scientists concluded *(oral PS11/5).*
In San Francisco HIV diagnoses are declining!
This has started mostly due to PreP usage. The same for London: HIV diagnoses have fallen by 65% from their peak in 2014. The causes are also:

- Lower threshold of access to HIV testing *(with results available within an hour)* and the use of self-sampling and self-testing
- A 50% increase in STI clinic attendance in gay men since 2011
- Putting 50% of those diagnosed on ART within <1 year *(Mini Lect. ML3).*

PreP in CEE: Obstacles towards implementing PreP in this region are mostly related to lack of governmental strategy. Only 34% respondents of *"Euroguidelines in CEE Network Group"* survey in 23 countries reported PreP being registered by drug registration authority in their country, and 40% had it recommended in the guidelines. Most respondents reported PreP being informally used in their countries by persons at risk without any medical supervision *(poster PE26/12).*

A "surprise" from the PARTNER study! *(As it is well known, it proved zero linked HIV transmissions from undetectable partner in sero- different couples that had unprotected sex)*. Actually, there were HIV infections in PARTNER – eleven of them by 2016! Just, phylogenetic testing showed that the virus came from someone other than the primary partner...So, despite high awareness, only 14% of men having condomless anal sex with other men outside their main relationship used either PreP or PEP *(oral PS11/4)*. By the way, PARTNER is arguably one of the most significant HIV prevention studies ever. It has provided the evidence base for the success of **U=U** *(Undetectable = Untransmittable)* **campaign**.

An interesting Polish-German study investigated the extent of **international transmissions** between these two neighbouring countries. Its results reflect the existence and size of international networks, especially among MSM with a bidirectional flow of transmissions. Further analysis may pave the way towards more effective international prevention policies *(oral PS11/6).*

Several conference abstracts were selected for the *"Best Poster Presentation"*. During one of them *(BPD2/7)* scientists from Valencia University by their study showed that clinical concentrations of ***Abacavir*** exert significant pro- thrombotic effects in vivo.

TREATMENT SIMPLIFICATION

As mono- and dual therapies *(MT, DT)* are becoming a common practice in real life, scientists from Pitié-Salpétrière *(C. Katlama et al)* enrolled patients in an observational single centre study. It showed that mono- and dual therapies accounted for 24% of ART strategies in 2015 and they significantly increased in 2016 *(poster PE9/39)*.

While some cohorts and studies **favour triple therapies**

		COMPARISON BETWEEN MT, DT and TT
Frankfurt HIV Cohort	Poster PE9/71	DT is not recommended for the Ist line therapy. Discontinuation of DT *(~1/3 of pts)* within 1 year
French study	Oral PS1/4	Less resistance after VF in TT *(2NRTI+PIr or INI)* compared to DT [*NRTI+NNRTI or INI (DTG and RAL) based]*

Spanish VACH Cohort	Poster PE9/33	Persistency *(long-term effectiveness)* significantly higher with TT *(INI- based)* compared to DT *(INI or PI based)*. DT containing *DTG* associated with a 40% increased risk of discontinuation compared to analogous TT

, others are **favouring dual therapies** in virologically suppressed pts:

GESIDA Study 9717	Oral PS1/1	DT *(PIr + 3TC)* is not inferior to TT *(2 nucleos(t)ides + PI)*
SWORD-1, SWORD-2 studies	Best poster presentat. BPD2/10; BPD1/2	DT *(DTG + RPV)* has a favourable effect on renal function and improvement in markers of bone health. *(Patient treatment satisfaction and health status: slightly improved)*
ASPIRE study, U.S.A.	Poster PE8/5	DT *(DTG + 3TC)* maintains viral suppression, is well tolerated
LAMIDOL trial, France	Poster PE9/11	DT *(DTG + 3TC)* is an efficient maintenance therapy in selected pts
Cohort Study, Italy	Poster PE9/49	DT *(DTG + 3TC)* – a feasible & durable alternative
Multi-centre study, Spain	Poster PE9/68	DT *(DTG + 3TC)* has a possibly better toxicity profile than TT
DOLAM trial, Spain	Oral PS1/3	MT *(DTG)* in contrast to DT *(DTG + 3TC)* leads to risk of VL with development of resistance mutations
DOMONO study, NL	Poster PE6/16	MT *(DTG)* – not justifiable: the genetic barrier to resistance of *DTG* is too low
Spanish Cohort study	Poster PE9/41	MT *(PI)*/ DT – an effective strategy for carefully selected pre- treated pts.

According to EACS Guidelines, *DTG* monotherapy should not be used.

TAF over *TDF*

Symtuza – a single- pill combination *(DRVc/FTC/TAF)* is just as effective as a multi-pill combination *(DRVc + FTC + TDF)* in previously untreated patients. *Symtuza* has better bone and renal safety parameters *(oral PS8/2)*.
For the first time in my experience, evidence on **splitting tablets** was presented. The study has concluded that there was no impact on the *Symtuza* bioavailability when administered as a split tablet compared with administration of a whole tablet. Instead, its **crushing** should be considered only for specific and well-controlled situations *(oral PS8/3)*.

COGNITIVE FUNCTIONING

While Polish/American study on its poster *(PE11/52)* showed a lower cognitive performance in HIV+ MSM *(with nadir CD4, "zenith" VL and infection's duration as important its risk factors)* compared to HIV- controls *(see also infosh.#26)*, another multi-national research during its *Best Poster Presentation (BPD2/3)*

showed a brighter picture. Despite poorer cognitive performance in PLWH at baseline, researchers found **no longitudional differences(!)** in changes compared to those of appropriately-chosen controls *(see also infosh.#28)*.

OUR LUNGS

Palma de Mallorca Cohort has shown that ENT *(ear – nose – throat)* – Lung cancer and periferic vascular disease is significantly associated with being smoker. Actually, smoking is associated with the fact of developing any non-AIDS event *(in this cohort: anal cancer, Hodgkin lymphoma, hepatocellular carcinoma, angina, acute myocardial infarction) (poster PE11/81).*
Patients with obstruction in a German research were significantly more often smokers and complained more often about cough, dyspnea, sputum production and wheezing. Researchers concluded that the high prevalence of ventilatory disorders *(esp., in pts >50)* is alarming. All smokers in the ageing HIV community should be regularly screened for ventilatory disorders to reiterate the need for smoking cessation, even before clinically relevant symptoms develop. *(poster PE11/33).*

Georgian MSM Cohort study recruited 493 MSM from Tbilisi, Batumi and Kutaisi. Baseline prevalence were as follows: 7,5% HIV+, 6,1% anti-HCV+, 4,9% HBsAg+ and 12,3% syphilis IgM+. Of remaining 456 HIV- MSM, 297 returned for follow-up visit, and showed further incidence of these infections. Higher prevalence and incidence of HIV in the capital suggests that Tbilisi is the site of an evolving HIV epidemic *(oral PS4/1)*.

An HIV-2 **Superinfection** challenging case was presented by dr Silva-Pinto from Porto: A patient with HIV-1 infection under ART with immune recovery and virologic suppression for 12 years was investigated due to a severe decrease in CD4 count. In I, 2014 he remained undetectable, but the CD4 count slowly decreased over a 9 months period from ~900 to 162. Late in 2014, he was diagnosed with an ishemic heart disease with renal function impairment. The therapy was changed, but the CD4 count continued to decrease and in 2016 it was 89. VL remained undetectable. After many tests, the HIV- 2 VL was found to be positive. The patient admitted sexual risk in late 2012. The ART was changed, so that HIV-2 VL became undetectable and CD4 count raised to 329. This case shows that even in a patient under efficacious ART there is a potential to HIV-2 infection! *(oral CC1/3).*

For the finale, here comes *Pareto's Principle*:

In the eighties of last century
many people died because of AIDS in their twenties.
In the twenties of this century
people will live with HIV into their eighties.

Unrevertably yours -
A.Kalnins,
AGIHAS,
Latvia