COULD WE KINDLY TRY TO EQUAL RWANDA'S ACHIEVEMENTS?

The XIII IAS (International AIDS Society) conference on HIV science VII 2025, Kigali

Rwanda has already reached and exceeded the **95:95:95** (95% of all PWH know their status, 95% are sustained on ART, and 95% are virally suppressed) **UNAIDS target** (along with Botswana, Eswatini, Tanzania, Zambia, Lesotho, Namibia, and Burundi in Africa) (in Europe – Sweden and Iceland). This is one of the reasons why the XIII IAS is being held in Kigali. Rwanda is ahead of the rest of the world in many aspects.

As I am not supposed to mention here the fact that while Europe is just thinking of starting to prepare for the introduction of plastic bag limitations, Rwanda is the only country in the world with a plastic bag ban (since 2009), I shall not touch on it. Likewise, I shall not mention the electric intercity bus route or many other things.

This year, the conference was attended by ~4000 participants (scientists, doctors, medical students, and community educators from all continents). Technically, the IAS2025 was quite updated, with <u>translations</u> (oral and textual) from the main sessions in almost all the languages.

HIV PREVENTION

is the dominating theme at the conference.

Rwanda, of course, has a free <u>HIV pre-exposure prophylaxis</u>, <u>PrEP</u> (as of 2019).

In Europe, PrEP is covered in around 14 countries, including some ex-Soviet countries (*Ukraine, Moldova, Russia*). In Central Asia, the most permissive PrEP guidelines are in Tajikistan (*Electronic Poster 0875*).

At the conference, a **twice-yearly injectable PrEP** option, **Lenacapavir** *(LEN)*, dominated conversations. It has shown 100% efficiency *(PURPOSE 1 & 2 studies)*. "Gilead" and GF will supply it at no profit for ~2 million people.

A promising HIV prevention strategy is **Cabotegravir long-acting** *(CAB-LA) (Oral Abstract C0203).*

TREATMENT

The same long-acting Cabotegravir, with Rilpivirine (CAB + RPV LA), taken bi-monthly, has demonstrated high efficiency and favourable tolerability even in viremic PWH (TUesday Poster Exhibition 3035; OAB0104; EP 0170). "ViiV Healthcare" and Medicines Patent Pool signed a licensing deal: now Cipla (and other companies) will be allowed to manufacture generic versions of CAB LA for use in combination with LA Rilpivirine for HIV-1 infection treatment.

bNAbs (broadly neutralising antibodies)

"ART can keep HIV suppressed indefinitely, but the virus inserts its genetic blueprints into CD4 T-cells and establishes a long-lasting latent viral reservoir that is almost impossible to eradicate... A small proportion of individuals naturally make bNAbs that target conserved parts of the virus. Manufactured versions of these specialised antibodies are being explored in HIV prevention, treatment, and functional cure research" (Liz Highleymann, aidsmap).

In a clinical study (*U.S.A.*), 15 of 25 chronically-treated PWH receiving a combination of a single **infusion of two bNAbs and** 8 injections of the immune modulator interleukin-15 super-agonist N-803 **controlled viremia even for 6 months** (*OAA0202*).

INTERACTIONS

Although modern ARVs have a reduced liability to drug interactions, there still needs to be an awareness of them. Medication reconciliation, including over-the-counter drugs, herbals, and recreational drugs, is critical to prevent unwanted drug interactions.

Catia Marzolini (Switzerland) has also gathered a table showing how different ARVs interact (or do not interact) with herbals like St John's wort, grapefruit juice, garlic, Gingko biloba, Quercetin, ginger, echinacea, menthol, liquorice, turmeric, green tea extract, hops, Seville orange juice (sour), and Cat's claw.

WHO RECOMMENDATIONS

A full satellite meeting was devoted to the new WHO Recommendations, covering a whole spectrum of HIV care.

For example, recommendations for the <u>management of advanced HIV</u> <u>disease (AHD)</u> stress that the preferred way to identify and manage AHD **should be CD4 testing!**

Among others, Recommendations **support breastfeeding** options for mothers on effective ART!

TRANSPLANTS

According to a retrospective study in Modena (*Italy, 2003-2024*), solid organ (*Iiver and kidney*) transplantation from HIV-positive donors (*D+/R+*) is a viable option for PWH.

Of 118 transplants, 8 belonged to the D+/R+ group, and 110 to the D-/R+ group. Recipients' survival was 75% vs 67% in D+/R+ versus D-/R+ groups (WEPEB029).

Among PWH, the most common is <u>heart transplantation</u>: sometimes even receiving dual *(and even more!)* transplants *(e.g., heart + lung, etc)*, <u>usually from HIV negative donors.</u>

AGEING

It has appeared that the claims of life expectancy "near normal" for PWH are overly optimistic. U.S. sample of 6,5 mln people without HIV (PWoH) and 0,03 mln PWH shows that PWH have substantially higher mortality than

PWoH. The optimistic claims fail to consider HIV-associated risk for physiologic injury and comorbid disease (*TUPEC046*).

PWH at older age (and not only), along with all the possible comorbidities, may have their scenarios (especially, in comatose, demented, or intubated individuals). A review (U.S.A., 2010-2023) devoted to **PWH who cannot swallow** says that many ARV tablets were crushed, emulsified, dissolved, or sprinkled over food (EP0198).

ARTIFICIAL INTELLIGENCE (AI)

got vastly presented at the conference. Since it may also reduce pressure on doctors, experts were enthusiastic but wary (examples of Canadian chatbot MARVIN providing HIV self-management and other information; S.African chatbot Aimee for girls and women aged 16-24 and others).

CLIMATE AND HIV

R. Mukandwa and M. Buczkowska presented their studies on the impact of weather and climate change on HIV outcomes. Heavy rain and extreme heat are associated with food insecurity, water shortages that lead to migration and reduced healthcare access, further exacerbating HIV risks. (OAD0404; OAD0405)

INSURANCE

In 2019, <u>a free Health Insurance scheme for PWH</u> and their families was introduced <u>in Nepal.</u> To overcome stigma associated with HIV status disclosure during registration at local ward offices, the integration of health insurance registration within ART centres has proven to be an effective strategy for increasing enrolment among PWH (*THPEE138*).

POST-EXPOSURE STI PROPHYLAXIS (PEP)

A novel approach to preventing sexually transmitted infections (STIs) is doxycycline PEP (doxyPEP).

A multicentre retrospective study (*Taiwan*) showed that while <u>syphilis and chlamydia</u> infections decreased, gonorrhoea infections increased over time, showing the limited effectiveness of doxyPEP against gonorrhoea (*EP0386*; *THPEB025*).

One patient has said to her doctor: "I do not want to change my HIV therapy, I just want to hear that scientists are working on new HIV drugs!"

And, indeed, they are! (see the IAS 2025 abstracts for more)

Unrestrictedly yours, A. Kalnins