

IAS 2023

Feedback for UK-CAB

4 August 2023



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Highlights

- Conference format: access and info.
- WHO and U=U.
- Cure-related studies.
- ART: weight, hypertension, pipeline.
- REPRIEVE and statins.
- Prevention: injectable PrEP, DOXY and pipeline



Format and access.1

<https://www.iasociety.org/conferences/ias2023>



- Hybrid meeting: costs, distance, visas
- Info filter: ~3800 submitted studies
- ~1600 accepted inc. 92 oral & 97 late breakers
- Plus 50+ plenary and symposia speakers
- Media rush vs embargos vs data
- IAS releases **8 studies 3 days early**

Format and access.2

Track A – basic science

Track B – clinical science

Track C – prevention

Track D – Social science

Track E - Implementation science



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WHO and U=U



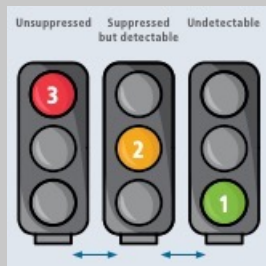
*U=U uses VL <200 but WHO guidelines use >1000 to manage HIV care. Only for **sexual** transmission.*

- WHO endorses U=U when undetectable.
- Includes PCR and dried blot spot viral load tests.
- Defines 3 categories of viral load on ART.
- Negligible risk when 200-1000 *but needs more frequent VL monitoring.*
- Based on Lancet review.

i-base.info/htb/45887

WHO policy brief on viral load

July 2023



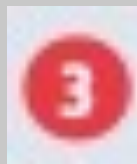
Undetectable (not detected*):

No measurable virus. Zero risk of sexual transmission. minimal risk of mother to child transmission.



Suppressed (detected but less than 1000 c/mL):

Low level virus (LLV): usually due to recently started ART or adherence or drug resistance. Risk of sexual transmission still close to zero. Suppressed is a temporary state and **needs more frequent viral load monitoring**.



Unsuppressed (higher than 1000 c/mL):

significant virus replicating and present: could be due to missing doses, recent treatment initiation or drug resistance. Increased risk of falling ill and/ or passing virus on to sexual partner(s) or children.

** Using routine viral load monitoring tests - ie cut-off <50 for PCR and 300-400 for dried blood spot samples.*

<https://www.who.int/publications/i/item/9789240055179>

www.i-Base.info

Principals of ‘suppression’

Principles in 2023 are the same as 1998.

Suppression is a temporary state:

*“Ongoing viral replication in the presence
of drugs leads to drug resistance.”*

VL will either become undetectable or it will rebound
– just a matter of time. Therefore need to monitor.

Dinesha TR et al. Poster EPB0115. McKenzie KP et al. Poster EPB0117. Mwamba D et al. Poster EPB0120.

i-base.info/htb/45852



Higher VL = higher risk of rebound

Risk of viral rebound >1000 c/mL by viral load and treatment line

LLV category (copies/mL)	n	Risk of rebound >1000 copies/mL	
		First-line ART HR (95%CI)	Second-line ART HR (95%CI)
LLV-I: 40 to 199	225	12.9 (7.9 to 21.1)	4.1 (2.8 to 6.1)
LLV-II: 200 to 399	130	13.3 (8.3 to 21.4)	6.2 (4.0 to 9.6)
LLV-III: 400 to 999	178	22.8 (15.2 to 34.3)	8.1 (5.5 to 12.0)

Dinesha TR et al. Poster EPB0115.

i-base.info/htb/45852



Cure-related studies

- Possible new cure case: Geneva patient
White man 50+, donor CCR5 d32 wild-type.
- 5 infant boys with periods of undetectable VL off-ART. Gender differences linked to IFN-1.
- Approaches to stimulate HIV reservoir.



<https://i-base.info/htb/45967>

ART: weight, hypertension, pipeline

- Weight gain: 2 small switching studies showed no early weight loss. Discussion on GLP-1 receptor agonists – ie semalutide.
- ADVANCE and NAMSAL reported that hypertention can be treated.
- REPRIEVE showed a statin reduces CVD risk.
- Long-acting formulations.



REPRIEVE study (IAS SY06)

- Large international RCT using a statin vs placebo to prevent heart disease.
- People at low CVD risk ~4%,
- Median CD4 nadir ~200 cells/mm³
- <50 in 20% and 50-200 in 30%
- Reduced risk by 35%

<https://i-base.info/htb/45808>



Botswana (n=281)
Brazil (n=1099)
Canada (n=131)
Haiti (n=140)
India (n=504)
Peru (n=148)
South Africa (n=570)
Spain (n=213)
Thailand (n=590)
Uganda (n=181)
US (n=3787)

REPRIEVE study

HR: 0.65, 0.48, 0.90
HR: 0.64 vs. 0.66 for W/M



(a) First Primary MACE



- LDL change predicted 17% not 35%
- Consistent in subgroups.
- NNT approx. 106.
- Higher rates of diabetes.
- Regional differences.
- Other statins similar – just watch for interactions. Cheap, off patent.

Long-acting pipeline

- CAB-LA/RPV-LA
- Using in people who don't have undetectable viral load.
- US study showed high efficacy >95%
- Pilot study to use CAB-LA + LEN
- Lenacapavir oral weekly formulation.



IAS 2023 press conference

- 7 studies 3 days early
1. Cure case: Geneva pt – CCR5 d-32 wild-type
 2. Five South African infants off-ART
 3. Medical male circumcision in day men in China
 4. Viral reservoir in mice
 5. Choice of injectable PrEP
 - 6 & 7. WHO reviews of mpox and COVID



i-base.info/htb/45791

3 pre-IAS workshops

<https://www.iasociety.org/conferences/ias2023/programme/pre-meetings>

- **HIV Cure & Immunotherapy Forum.**
- **Global HIV migration, mobility and health equity.**
- **HPV-related cancers.**

