LOW LEVEL VIREMIA

TERESA BINI

LLV and virological failure

- Several studies support the supposition that virologic failure is more likely to occur in patients with VL ≥200 copies/ mL than in those with low-level viremia between 50 and 199 copies/mL. Others have suggested that detectable viremia at this low level or even lower < 50 copies/mL can be predictive of virological failure and can be associated with the evolution of drug resistant

Two main pathophysiological hypotheses have been proposed to explain low-level viremia:

ongoing viral replication in sanctuary sites (reservoirs) with suboptimal drug penetration, viral production by the activation of HIV-infected cells, or both. The debate is whether low-level viremia on ART results from ongoing, complete cycles of viral replication, or is from clonally expanded infected T cells that produce virions but that do not infect new cells because they are protected by antiretrovirals

Identified risk factors of LLV

Low CD4+ T cell nadir counts at baseline, higher baseline viral load measurements, medication non-adherence, viral blips

How to manage low-level viremia in people living with HIV

The interpretation of both historical RNA genotype resistance testing and current proviral DNA genotype resistance testing in patients with LLV could be appropriate?

Do the modify or intensify of ART regimens result in decreased incidence of virological failure ?