Factors associated with virologic failure in HIV infected individuals in Mansa District, Zambia

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With UNAIDS 90-90-90, Viral Load (VL) should be scaled up to all patients on ART.

Viral load monitoring key to early detection of ART treatment failure

Zambia has rolled out viral load in 9 of the 10 provincial hospitals

**Study Aim:**

To assess factors associated with virologic failure in HIV infected patients on ART at 3 urban health facilities
Methods

- Study design: cross-sectional study
- Inclusion criteria: on ART for at least 6 months with at least one viral load result
- Multivariable logistic regression analysis to determine factors associated with virologic failure
- Virologic failure defined as >1000 copies/ml
Results

- Sample was 224 PLHIV; 70% female; median age 38.0 years (IQR: 6-62)
- 209 (93.7%) on tenofovir + lamivudine or emtricitabine + efavirenz
- 131 (61.5%) had been on ART for at least 2 years
- 202 (90.2%) had viral load less than 1000 copies/ml, with 174 with undetectable viral load (<50 copies/ml)
- 22 (9.8%) patients had virologic failure
Results

- Children <15 yrs were more likely (aOR=0.2; 95% CI [0.06, 0.69], p=0.011) to have virologic failure compared to patients aged 30-44 yrs.

- Patients on ART for over 2 years were more likely to have virologic failure compared to those on ART for 2 years or less (OR=8.8; 95% CI [1.03, 74.65], p=0.047).

- All the 6 children that had virologic failure were taking NNRTI-based ART regimens - possibly due to prior NVP-exposure in PMTCT programs.
Recommendations

- Virologic failure is not uncommon in ART patients and VL test should be scaled up to all patients on ART

- Inclusion of boosted-lopinavir as part of first line regimen in combination with 2 NRTIs is justified for NVP-exposed children