The WHO 2013 guidelines recommend that all HIV-infected pregnant and breastfeeding women take ART to prevent mother-to-child transmission (PMTCT). A high viral load (VL) (>1000 copies/ml) during pregnancy or breast-feeding is associated with higher rates of MTCT. In Zimbabwe, routine VL testing was introduced in MSF-supported HIV programmes in 2012, with patients tested at three and twelve months after starting ART, and then annually. This analysis aimed to determine the proportion of PMTCT women with a VL >1000 copies /ml, associated risk factors, and to compare the findings to women outside the PMTCT programme.

Methods

- Information was extracted from the laboratory records of women aged 15 to 45 years having routine VL testing
- The analysis was stratified according to whether the women were pregnant (n=454), breastfeeding (n=1083), or neither pregnant nor breastfeeding (n=7688), at the time of testing
- Binary logistic regression was used to determine factors associated with a VL >1000 copies/ml.

Results

- Women in the PMTCT programme had a median age of 31 years (interquartile range [IQR]: 26 – 35) compared to 36 years (IQR: 30 – 40) among non PMTCT women and had been on ART for a median of 12 months (IQR: 3 – 35) compared to 27 months (IQR: 12 – 42) among non PMTCT women.
- Of those who had a viral load measured 3 months after starting ART, viral suppression to <1,000 copies/ml was 85.7% overall: 88.1% among pregnant women, 87.7% among breastfeeding women, and 84.6% among women not in the PMTCT programme.
- In the multivariate analysis, the chance of suppression was similar for women in the PMTCT programme and for women not in the programme: pregnant (RR; 1.03; 95% CI: 0.99 – 1.08; p = 0.118), breastfeeding (RR: 1.02; 95% CI: 0.99 – 1.05; p = 0.280).
- However the chance of suppression was related to age. Compared to those aged 35 – 45 years, suppression was less likely among those aged 15 – 25 years (RR 0.90; 95% CI: 0.86 – 0.94; p <0.001).

Discussion

- A significant number of pregnant and breastfeeding women failed to suppress their VL within 3 months of starting ART, putting their infants at ongoing risk of HIV infection.
- Increased support is needed for counselling at ART initiation and during the first months on ART, particularly among younger women.
- In addition, guidance is urgently needed on the optimal timing of VL testing among women in PMTCT programmes.