

ACCELERATING THE UPTAKE OF INNOVATIVE APPROACHES FOR THE DETECTION AND MONITORING OF HIV IN PAPUA NEW GUINEA (ACTUP-PNG) – THE CASE HIV EXPOSED INFANTS AND CHILDREN LIVING WITH HIV

Authors:

Gare J¹, Silim S¹, Keno H¹, Pekon S.¹, Gene S¹, Willie B^{1,2}, Schulz M², Boas P³, Ripa P⁴, Kombati Z⁴, Vali G⁵, Pomat W¹, Porau W⁶, Cunningham P^{2,7}, Kelleher A^{2,7}, Badman SG², Kelly-Hanku A^{1,2} on behalf of the ACTUP-PNG team

¹ Papua New Guinea Institute of Medical Research, ² The Kirby Institute for Infection and Immunity in Society, UNSW Sydney, ³ Papua New Guinea National Department of Health, ⁴ Western Highlands Provincial Health Authority, ⁵ Port Moresby General Hospital, ⁶ Central Public Health Laboratory, ⁷ St Vincent's Centre for Applied Medical Research, NSW State Reference Laboratory for HIV, St Vincent's Hospital, Sydney.

Background:

Papua New Guinea (PNG) has the highest HIV prevalence in the Pacific (>2% in ANC) and is even higher among female sex workers (11- 20%). Due to significant loss to follow up, estimating vertical transmission of HIV is difficult. The national HIV testing shows approximately 25% of HIV-exposed infants tested are infected. There is limited data available to assess HIV viral load (HIVVL) among children in PNG.

ACTUP-PNG is the first initiative in PNG to provide molecular point-of-care (POC) for Early Infant Diagnosis (EID) for HIV-exposed infants (6 weeks and 18 months) and HIVVL testing for children (<15yrs).

Methods:

ACTUP-PNG has established two clinic-based laboratories sites (Mount Hagen and Port Moresby) and provided molecular POC testing using the GeneXpert™ HIV-1 Viral Load and HIV-1 Qual platform for HIVVL testing for children and EID for HIV-exposed infants.

Results:

Three hundred and seventy (370) HIV-exposed infants were tested for HIV across the two sites with 48 (n=13%) infants testing HIV positive (HIV detected). Proportionally slightly more infants were diagnosed with HIV in Port Moresby (14.6%) compared with Mount Hagen (11.9%). Of the 81 HIV positive children on ART provided with HIVVL testing, 67.9% were virally suppressed (<1,000 copies/ml). Proportionally, slightly more children in Mount Hagen (72.4%) were virally suppressed than in Port Moresby (65.4%).

Conclusion:

Molecular POC testing is possible in PNG and can offer improved access to timely HIV testing and monitoring. To meet the third UNAIDS target of 95% virally suppressed and working towards ending AIDS, addressing vertical transmission of HIV, and HIVVL suppression among children, must be made urgent health priorities in PNG.

Disclosure of Interest Statement:

ACTUP-PNG is funded by the Centre for Health Security, Australian Department of Foreign Affairs and Trade. No pharmaceutical or industry grants were received in the development of this study.