



RAPID-FIRE ORAL PRESENTATION AT THE
16TH AUSTRALASIAN VIRAL HEPATITIS CONFERENCE 2026

High viraemia among a sample of HBsAg-positive pregnant women in Vanuatu

Authorship and affiliations

- Coauthors:

Leiwia Dick (Vanuatu National Hospital), Navin Karan (Victorian Infectious Diseases Reference Laboratory), Leila Bell (Burnet Institute), Kathy Jackson (Victorian Infectious Diseases Reference Laboratory), Aleesha Kalulu (Burnet Institute), Kali Ameara (Burnet Institute), Annie Taissets (Vanuatu Ministry of Health), Lina Lauro (Vanuatu Family Health Association), Theola Theodoro (Vanuatu Family Health Association), Sereana Natuman (Vanuatu Ministry of Health), Margaret Hellard (Burnet Institute), Jessica Howell (Burnet Institute), Caroline Homer (Burnet Institute), Zeshi Fisher (Burnet Institute), Nicole Allard (Victorian Infectious Diseases Reference Laboratory), Emily Deed (Independent Advisor), Caroline van Gemert (Burnet Institute)

- Funding statement:

This study is funded by the Thrasher Research Fund

- Disclosure of interest statement

Margaret Hellard and Jessica Howell have received funding from Gilead Sciences for investigator-initiated research. All other authors declare no conflicts of interest.

Background

- High HBV viraemia is a key driver of mother-to-child transmission (MTCT).
- WHO recommends peripartum antiviral prophylaxis (PAP) for pregnant women with HBV DNA $\geq 200,000$ IU/mL, or universal PAP where viral load testing is unavailable.
- 21% of Hepatitis B surface antigen (HBsAg) positive pregnant women globally have high viraemia; the Western Pacific Region has the highest prevalence (32%).
- In Vanuatu, chronic HBV affects ~9% of the population, but the prevalence of high-viraemia pregnancy is unknown due to limited access to viral load testing.

Objectives

- To determine the proportion of HBsAg-positive pregnant women with high hepatitis B viral load in Vanuatu
- Generate evidence to inform prevention of mother-to-child transmission (PMTCT) policies and interventions

Methods

- HBsAg-positive pregnant women (≥ 18 years) enrolled before 28 weeks' gestation through the Protektem Pikinini Blong Yu trial
- Blood samples collected from participants at enrolment and tested for HBV DNA at Victorian Infectious Diseases Reference Laboratory (VIDRL) in Melbourne
- High viraemia defined as HBV DNA $\geq 200,000$ IU/mL

Results

- Samples from 59 participants available
 - 48 intervention arm
 - 11 control arm
- Hepatitis B viral load detected in 48 samples
- Viral load not detected in 11 samples:
 - HBsAg detected=5
 - HBsAg not detected=4
 - Insufficient sample=2

Classification	N (%)	Median viral load (IU/mL)	Range (IU/mL)
Low (<200,000 IU/mL)	24 (45%)	23.5	10 – 119,000
High (≥200,000 IU/mL)	24 (45%)	273,500,000	42,300,000 – 1,000,000,000
Not detected, HBsAg reactive	5 (9%)		

Lessons learnt

- The proportion of high HBV viral load in this study was higher than reported globally (21%) and in the Western Pacific Region (32%).
- Findings support universal peripartum antiviral prophylaxis (PAP) in Vanuatu, where access to HBV DNA testing is limited.
- Universal PAP could help prevent mother-to-child transmission without requiring viral load testing to identify women with high viraemia.
- Although limited by a small sample size, the study suggests a substantial burden of high viraemia among HBsAg-positive pregnant women in Vanuatu.
- Similar challenges and disease patterns may exist in other Pacific Island countries with a high prevalence of hepatitis B.

Thank you!



- Contact details:
 - Presenting Author:
Ms Leiwia Dick, Vanuatu National Hospital
dleiwia@vanuatu.gov.vu
 - Primary Investigator:
Dr Caroline van Gemert, Burnet Institute
Caroline.vangemert@burnet.edu.au