

# THE IMPACT OF DELIVERY MODE ON MTCT OF HEPATITIS B VIRUS AFTER TENOFOVIR DISOPROXIL FUMARATE IMPLEMENTATION IN THAILAND

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## ABSTRACT

The Hepatitis B virus remains a major public health problem around the world, especially in developing countries. In Asia, the prevalence of the hepatitis B virus is more than 8%. In Thailand, thousands of children under the age of 5 years have HBV infection from mother-to-child transmission. Infants infected with HBV from their mothers are at risk of developing hepatocellular carcinoma and hepatic cancer at 90%. Since 2017, Thai national guidelines have recommended that mothers with high viral loads or hepatitis B e antigen (HBeAg) positivity use tenofovir disoproxil fumarate (TDF) prevent HBV transmission to their babies. However, there are few studies in Thailand on the effect of mode of delivery on mother-to-child transmission in pregnant women receiving TDF. The cross-sectional study in Thai hospitals investigated TDF's effect on mother-to-child Hepatitis B transmission and mode of delivery. This study also collected interview data from hospitals when hepatitis B infants were diagnosed. 342 pregnant women with HBsAg positive were included in this study. There were 342 mothers and infants in the study, and 212 of the infants (61.99%) were born through normal labor, 117 or 34.21 % were delivered via caesarean section, and 13 (3.8%) were delivered with the usage of forceps and a vacuum. However, C/S infants had a mother-to-child transmission rate of 2.56 percent (3/177). Two of their infected infants were delivered to mothers who received TDF for 9 weeks, while the other two were born to mothers whose mothers did not receive TDF. Furthermore, one infant born to a mother who did not receive TDF had a viral load of 17,000,000 IU/ml. All infants were vaccinated with HBV, whereas none of the three infected infants received HBIG. Conversely, we discovered that none of the infants receiving HBIG were infected through mother-to-child transmission.

**Keywords:** HBV, Mother-to-Child Transmission, Tenofovir Disoproxil Fumarate, Mode of Delivery

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