

Mother to child transmission rate of hepatitis B after tenofovir disoproxil fumarate implementation in Thailand

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The Hepatitis B virus remains a major public health problem worldwide, especially in developing Asian countries. Thousands of Thai children under 5 have HBV from mother-to-child transmission. 90% of HBV-infected infants develop hepatic cancer. Since 2017, Thai national guidelines recommend mothers with high viral load or HBeAg positivity use TDF to prevent HBV transmission to their children. However, many Thai mothers do not receive treatment to prevent mother-to-child transmission. This study evaluated Mother-to-Child Transmission rate and factors (MTCT). The retrospective cohort study evaluated 342 women with hepatitis B were studied. From 2018 to 2020, the mothers must be HBsAg-positive. TDF is used for MTCT.

Collected information such as underlying disease, ANC visit, HBeAg status, viral load level and mode of delivery, infant's body weight, active-passive immunoglobulin and breast milk status. Multivariable binary regression was used to evaluate MTCT and risk factors. There were 42.40% (145) infants born from mothers who received TDF and 57.60% (197) infants born to non-TDF-used mothers. 52.92 percent were uninformed that they had hepatitis B and more than half (52.34 percent) were diagnosed as hepatitis B positive during their pregnancies. All 342 infants received hepatitis B vaccine at birth, 323 infants received Hepatitis B Immune Globulin (HBIG) and hepatitis B vaccine and 5.56% (19) did not receive Hepatitis B Immune Globulin (HBIG). The overall MTCT incidence rate is 0.88 percent, the MTCT rate among TDF mothers is 0.69 percent and the MTCT rate among non-TDF mothers is 1.02 percent. However no association between risk factor and MTCT among mothers HBsAg positive. In HBsAg-positive mothers, TDF reduced mother-to-child transmission (0.69 vs. 1.02). In uninfected infants, TDF efficacy is 32% and relative risk is 0.679%. No mother-to-child transmission of hepatitis B occurred because all infants received HBIG. TDF was not associated with mother-to-child hepatitis B transmission.