Mother to child transmission of hepatitis b in far north Queensland 2013-2023.

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Background:
Mother-to-child transmission is responsible for almost all cases of chronic hepatitis B (CHB). Appropriate prescription of antiviral therapy and optimal infant vaccination reduce the risk of mother-to-child transmission significantly. However, it is logistically challenging to provide optimal antenatal and perinatal care and vaccination to remote Australian communities. This study examined if the management of pregnant women with CHB and their children in Far North Queensland (FNQ) was concordant with national guidelines for hepatitis B (HBV) care. It was hoped that this would identify the successes and limitations of the current programme.

Methods:
We used the Queensland notifiable diseases register to identify every female of childbearing age (13-45 years) between 01/01/2013 and 31/12/2023 living in FNQ with CHB. We identified the children born to these women during the study period and assessed whether their care was concordant with current Australian HBV guidelines.

Results:
We identified 189 women of childbearing age who had 137 live births during the study period. 120/189 (63%) identified as a First Nations Australian, 90/189 (48%) lived in a remote location. Maternal viral load testing and prescription of antiviral therapy increased during the study (r_s=0.20, p=0.02 and r_s=0.36, p=0.04, respectively). After establishment of the FNQ HBV programme in June 2017, 69/75 (92%) pregnancies had optimal antenatal HBV care, 69/75 (92%) had optimal perinatal HBV care and 70/75 (93%) infants had complete HBV vaccination. There was only a single child, born in 2014, who is confirmed to be hepatitis B surface antigen (HbsAg) positive. However, only 36/137 (26%) children have had HbsAg testing.

Conclusions:
Antenatal and perinatal care in the FNQ region is concordant with national HBV consensus guidelines in >90% of pregnancies. There has been no confirmed mother-to-child transmission in the region for 10 years, although improved child testing is necessary to substantiate this finding.

Disclosure of Interest Statement:
All authors have no conflict of interest to declare.