AGE OF HEPATITIS B E ANTIGEN LOSS IN ABORIGNINAL, TORRES STRAIT ISLANDER AND NON-INDIGENIOUS RESIDENTS OF TROPICAL AUSTRALIA; IMPLICATIONS FOR CLINICAL CARE

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Background:
Earlier clearance of Hepatitis B e antigen (HBeAg) in people living with chronic hepatitis B (CHB) is associated with a lower risk of cirrhosis and hepatocellular carcinoma (HCC). This study determined the HBeAg status of people living with CHB in Far North Queensland (FNQ), tropical Australia and their age of HBeAg seroconversion. It was hoped that this would provide data to explain the stark difference in HCC incidence between Aboriginal and Torres Strait Islander individuals living with CHB in FNQ, which has been hypothesised to relate to differences in hepatitis B virus genotype.

Methods:
The Queensland notifiable diseases register was interrogated to identify every FNQ resident with CHB. We determined their country of birth, their HBeAg status, their age of HBeAg seroconversion and whether they identified as Aboriginal, Torres Strait Islander or as non-Indigenous. We then ascertained whether these demographic and virological variables were correlated.

Results:
Of 1474 individuals living with CHB in FNQ, 278 (19%) were Aboriginals, 507 (34%) were Torres Strait Islanders and 689 (47%) were non-Indigenous. There were 543 individuals born overseas, most commonly in Asia (237, 44%) or Papua New Guinea (193, 36%). Aboriginals were less likely to be HBeAg positive (26/278, 9%) than Torres Strait Islander (91/507, 18%) and non-Indigenous (126/689, 18%) individuals, $p<0.0001$. Aboriginals had HBeAg seroconversion at an earlier age (median (interquartile range): 30 years (23-39)) than Torres Strait Islander (38 years (29-49)) and non-Indigenous (36 years (29-47)) individuals, $p<0.0001$.

Conclusions:
Aboriginals with CHB in FNQ are more likely to be HBeAg negative than Torres Strait Islander and non-Indigenous individuals and seroconvert at a younger age. This provides a biological basis for local clinicians' observation that Aboriginals with CHB in FNQ are at a lower risk of cirrhosis and HCC and data to support the principle of genotype-based care in the region.

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