Hepatitis B & Vaccination Serostatus and Associated Factors among People Who Inject Drugs and People Experiencing Liver Disease in Yangon, Myanmar

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Background: Hepatitis B (HBV) is endemic in Myanmar, with general population estimated prevalence of 6.5%. Large-scale roll-out of HBV birth-dose vaccination commenced in 2016 along with catch-up programs prioritised from 2019 for key populations. We conducted secondary analysis of a subset of participants from the CT2 study to describe HBV status and vaccination serostatus among clients at two clinics in Yangon, Burnet (clinic for people who inject drugs), and Myanmar Liver Foundation (MLF) (for general population with liver-related concerns).

Methods: Three serological markers were analysed to define vaccination status, HBsAg, HBsAb, and HBcAb. Participants who were Hepatitis C RNA positive and who had tested for HBsAg were screened for inclusion (N=533). 10/533 (1.9%) participants returned positive HBsAg results indicating chronic infection. Analysis was undertaken on participants who were HBsAg negative (N=523) (Burnet:196, MLF:327). Participants with incomplete serology were included in analysis.

Results: Of the 523 participants, 90 had incomplete HBV serology (Burnet: 84). All those with incomplete serology lacked HBsAb results; 13 also lacked HBcAb results. 57/523 (11%) were susceptible to HBV (sAb-ve, cAb-ve). 59/523 participants (11%) returned results indicating previous vaccination (cAb-ve, sAb+ve), all from MLF. Previous, cleared infection (cAb+ve, sAb-ve, sAg-ve) was observed in 318/523 (61%) participants; Burnet:111/196 (57%) and MLF:207/327 (63%). Similarly, data from our current service at Burnet clinic (servicing people who inject drugs and family members) shows 179/332 (53.92%) with previous infection and 40/332 (12.05%) susceptible to HBV; however, a higher proportion 91/332 (27.41%) are vaccinated.

Conclusions: The rates of previously cleared HBV infection across both clinics are unexpectedly high and warrant further investigation. Given these previously infected participants were no longer susceptible to HBV infection, this potentially influences the low rates of vaccination among participants. Further work to understand the prevalence of cleared previous HBV infection and the ongoing protocol for vaccination catch-up programs is required.

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