

PREVALENCE OF HEPATITIS C AMONG ABORIGINAL AND TORRES STRAIT ISLANDER AUSTRALIANS: A META-ANALYSIS

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Background: Higher notifications rates of hepatitis C antibodies (anti-HCV) are reported among Aboriginal and Torres Strait Islander (Aboriginal) than non-Aboriginal Australians. However, only four of the eight jurisdictions of Australia are included in anti-HCV reporting. We conducted a systematic review and meta-analysis to estimate the pooled prevalence of anti-HCV among Aboriginal people in Australia.

Methods: We searched the databases: Pubmed, Web of Science and Informit, the New South Wales and Northern Territory Public Health Bulletins, the Aboriginal and Islander Health Journal and the 2010, 2012 and 2014 Australasian Viral Hepatitis Conference handbooks. A study was included if it reported the number of Aboriginal people tested and the number who tested positive for anti-HCV. The meta-analysis included the variables: population-group (Aboriginal adults, Aboriginal people in prison) and risk behaviour (Aboriginal people who inject drugs, people who do not).

Results: Overall, 15 studies were included. The overall pooled prevalence of anti-HCV was 24.0% (95%CI: 15.1%-32.9%) in Aboriginal Australians; however this was significantly biased towards studies that included high risk individuals, such as those who inject drugs (11 of 15 studies). The pooled prevalence of anti-HCV was 18.1% (95%CI: 6.6%-29.7%) among Aboriginal people in prison, 58.7% (95%CI: 53.9%-63.5%) among Aboriginal people who inject drugs and 2.9% (95%CI: 0.3%-6.1%) in Aboriginal people who did not inject drugs. There was significant heterogeneity in estimating the prevalence of anti-HCV by the above factors ($I^2 > 90.0\%$, $p < 0.01$). A high degree of selection bias existed within the studies leading to an over-estimation of the anti-HCV prevalence in Aboriginal people overall.

Conclusions: The highest anti-HCV prevalence was among Aboriginal people who inject drugs followed by Aboriginal people in prison. There was significant selection bias towards Aboriginal people who inject drugs; as a result our analysis provides estimates among sub-groups at high risk of anti-HCV infection and not Aboriginal people overall.

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