

Adherence and virological outcomes of hepatitis B antiviral therapy amongst Indigenous & non-Indigenous patients in the remote Top End, Northern Territory

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Introduction

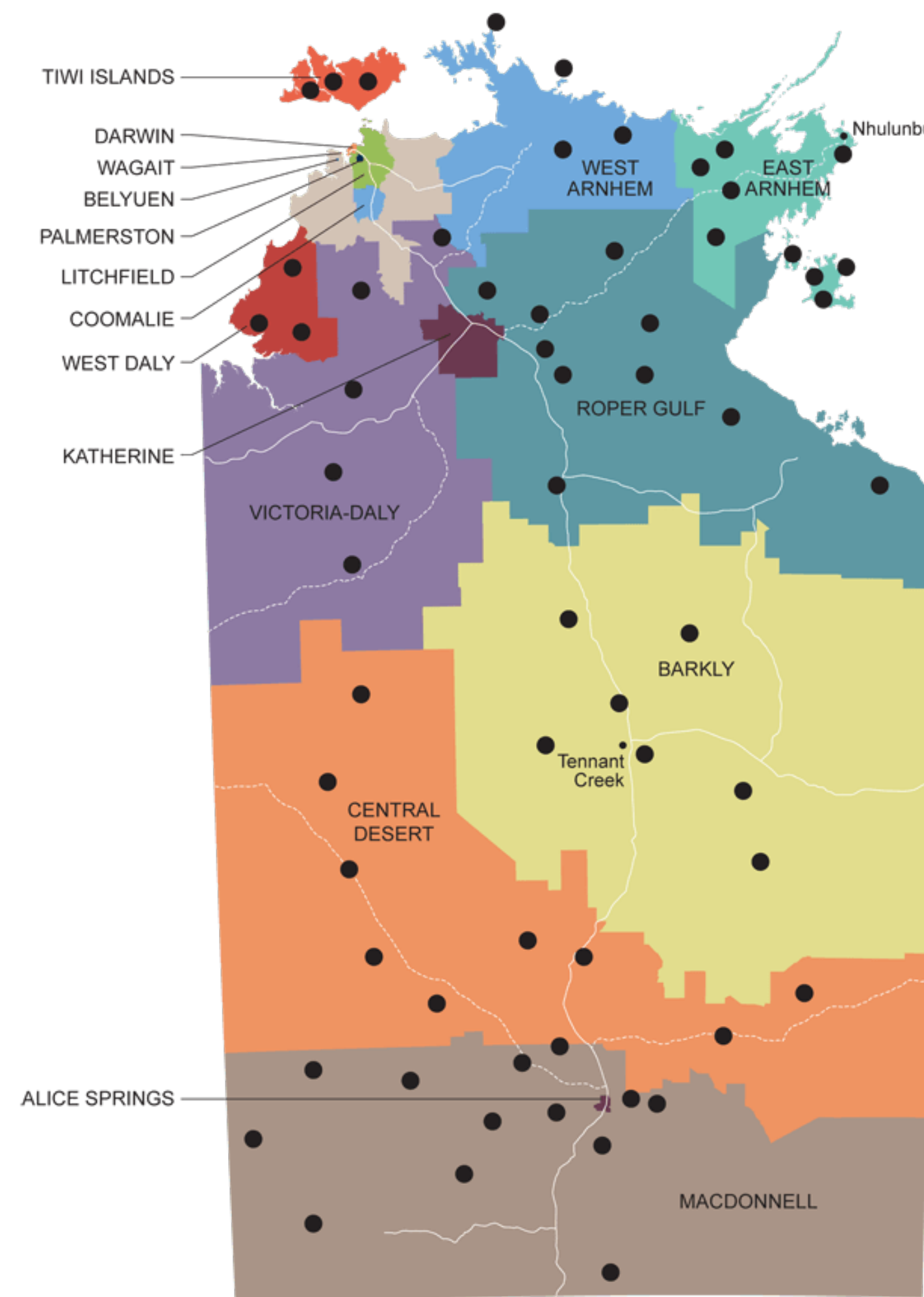
- Rates of chronic hepatitis B (CHB) are four times higher, and rates of hepatocellular carcinoma (HCC) two to eight times higher amongst Indigenous than non-Indigenous Australians
- However, significant gaps in treatment and care for CHB exist for Indigenous Australians, especially in regional and remote communities
- Medication adherence is crucial for CHB patients on antiviral therapy to achieve viral suppression and prevent resistance and viral breakthrough
- Some health professionals believe Indigenous Australians are “poor compliers” to medication however a recent systematic review found a lack of objective evidence
- Recent studies describe 20-24% patients receiving HBV antiviral therapy had poor adherence
- To date, few Indigenous Australians have been included in studies describing clinical outcomes for HBV antiviral therapies and none have included Indigenous Australians in remote communities
- We aim to describe the virological outcomes and adherence for all Indigenous and non-Indigenous patients in the Top End, NT receiving oral antiviral therapy for CHB

Methods

- Retrospective analysis of all patients prescribed oral HBV antiviral therapy agents in the Top End, NT, from July 2012 to October 2015
- **Sources:** pharmacy dispensing data (Royal Darwin Hospital Pharmacy), NT Health hospital & primary care clinical databases (demographic & clinical records)
- **Primary outcomes:** virological response (HBV DNA)
- **Ethics:** Human Research Ethics Committee of the Northern Territory Department of Health and Menzies School of Health Research (HREC 2015-2397)

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Virological Response:
Complete response: undetectable viral load
Partial response: 20-2000 IU/mL
Failure: >2000 IU/mL

Key Findings

- There were 219 patients prescribed oral HBV antiviral therapy from 2012-2015, including 86 Indigenous (36%) and 127 non-Indigenous (58%)
- The majority (76%) of remote dwelling Indigenous patients receiving antiviral therapy for CHB for at least 12 months achieved complete or partial virological response, and more than half (56%) achieved complete virological response
- This is likely to correlate with clinical benefit in terms of reduction in progression to liver cirrhosis and HCC
- Non-Indigenous patients had a higher rate of complete virological response than Indigenous patients in both remote (88%, n=5) and urban settings (91%, n=50).
- Only 1 Indigenous patient failed to response to therapy

Virological outcomes for Indigenous & non-Indigenous patients prescribed CHB antiviral therapy for at least 12 months in urban (Darwin) and remote Top End Northern Territory, 2012-2015

Virological response	Remote (n=31)		Darwin (n=64)	
	Indigenous ^b N (%)	Non-Indigenous N (%)	Indigenous N (%)	Non-Indigenous N (%)
Total	25 (100)	6 (100)	9 (100)	55 (100)
Complete response	14 (56)	5 (88)	4 (44)	50 (91)
Partial response	5 (20)	1 (17)	2 (22)	4 (7)
Failure	5 (20)	0 (0)	3 (33)	1 (2)

Conclusion

- It is feasible to deliver HBV antiviral therapy to Indigenous people with CHB living in remote areas & achieve good virological response
- There is further need to address factors that affect access to treatment and incorporate culturally appropriate care

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