

# Blood borne diseases among addiction patients seeking outpatient treatment in a tertiary addictions management service in Singapore

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## BACKGROUND

Drug and alcohol misuse can increase an individual's susceptibility in contracting blood-borne virus (BBV) illnesses. Diseases such as HIV/AIDS, Hepatitis B and C can be difficult to manage and contain. Preventing the spread of BBV's is a key public health issue (1). Therefore it is important that clinicians and service providers understand the association between substance use and the prevalence of BBV's to plan and allocate healthcare resources accordingly. Singapore subscribes to zero tolerance policy towards drugs use and does not promote harm reduction. The global prevalence of HBV, HCV and HIV among injecting drug users is 22.0%, 50.3% and 17.9% respectively (2). We aim to do a cross sectional survey at our specialist outpatient population to understand the prevalence of the above three major blood born virus illness among our drug using outpatient population.

## METHODS

Participants ( $M_{age} = 44$  years) comprised of 1145 (955 males, 107 females) treatment-seeking outpatients who fulfilled the DSM-IV criteria for substance abuse and dependence at the National Addictions Management Service (Singapore) between Jan 2014 to May 2016. Substances included the two most commonly used illicit drugs among the patient population (heroin and amphetamine) and alcohol. Variables collected included demographic and clinical information.

## RESULTS

8.8% of participants have been diagnosed with at least one blood-borne disease prior to seeking treatment. Among the blood-borne diseases explored, hepatitis C was the most common (6.5%), followed by hepatitis B (1.8%) and HIV/AIDS (0.5%). Hepatitis C was most prevalent among patients seeking treatment for heroin dependence/abuse (11.8%) and so was hepatitis B (2.3%). HIV/AIDS was most prevalent among patients with amphetamine dependence/abuse (2.1%).

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Table 1. Demographics of participants

|                     | Alcohol Use Disorder | Heroin abuse/dependence | Amphetamine abuse/dependence |
|---------------------|----------------------|-------------------------|------------------------------|
| <b>Gender</b>       |                      |                         |                              |
| Male                | 89.30%               | 92.7%                   | 88.7%                        |
| Female              | 10.70%               | 7.3%                    | 11.3%                        |
| <b>Education</b>    |                      |                         |                              |
| No formal Education | 1.2%                 | 1.2%                    | 0.7%                         |
| Primary             | 21.7%                | 42.5%                   | 15.0%                        |
| Secondary           | 42.4%                | 48.6%                   | 51.4%                        |
| Tertiary            | 34.6%                | 7.7%                    | 32.9%                        |
| <b>Race</b>         |                      |                         |                              |
| Chinese             | 46.8%                | 39.0%                   | 43.0%                        |
| Malay               | 8.5%                 | 42.2%                   | 43.0%                        |
| Indian              | 38.5%                | 15.8%                   | 9.9%                         |
| Others              | 6.3%                 | 3.0%                    | 4.2%                         |
| Mean Age            | 43.5                 | 47.8                    | 34.4                         |

diagnosis

| Diagnosis                              | Hep C  | Hep B | HIV   |
|--|--------|-------|-------|
| Alcohol use disorder (N = 565)         | 3.20%  | 1.80% | 0.20% |
| Heroin abuse/dependence (N = 438)      | 11.80% | 2.30% | 0.50% |
| Amphetamine abuse/dependence (N = 142) | 2.80%  | 0.70% | 2.10% |

## CONCLUSION

Our data also shows that higher prevalence for HCV among the blood born viral illnesses. Previous studies conducted in Singapore were mainly in inpatient setting and the results also showed high prevalence of Hepatitis C. The above data obtained from outpatient setting can be used for disease prevention and health planning. The result highlights the importance of targeted prevention methods to address BBV illness.

## CONFLICT OF INTEREST

The authors declare that there are no conflict of interests

## REFERENCE

1. World Health Organization. Hepatitis C Fact sheet N°164 [online].
2. United Nations Office on Drugs and Crime. World Drug Report 2011. Available at: [http://www.unodc.org/documents/data-and-analysis/WDR2011/World\\_Drug\\_Report\\_2011\\_ebook.pdf](http://www.unodc.org/documents/data-and-analysis/WDR2011/World_Drug_Report_2011_ebook.pdf). Accessed December 13, 2012.