

Poster presentation

## HIV-HCV Co-infection Among Blood Donors

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### Background

The World Health Organisation (WHO) estimate that 170 million individuals worldwide are infected with hepatitis C virus (HCV). However the prevalence of HCV infection varies throughout the world. HCV is transmitted primarily through blood or blood products or contact with infected tissue (blood transfusion intravenous immunoglobulins, intravenous drug abuse and tissue transplant). Since hepatitis C is a preventable disease, accurate description of the prevalence and risk factors for the disease is a pre-requisite for prevention. This study is of public health importance as the National Transfusion Service has no policy to screen donated units of blood for hepatitis C. This is so due to the non availability of supporting epidemiological data and prohibitive costs of the HCV testing kits.

### Materials and methods

This was a cross-sectional study of 1600 regular health blood donors. These donors underwent a routine blood donor selection process. Blood sample of 5–8 mls was collected into a labelled vacutainer. Blood was allowed to clot, after centrifuging 2 mls of serum was stored at -20 degrees celcius for further analysis for confirmation of antibodies to HCV. Serum samples were also analysed for hepatitis B (HBV), Syphilis and HIV 1/2. All antibodies to HCV were determined using ELISA Abbott murex (version 4.0) which has 99% sensitivity and 99.9% specificity. Statistical analysis was performed using EPI Info version 6. Prevalence of HIV-HCV at 95% confidence interval (CI) were calculated. Chi-squared analysis was done to test for 5% level of significance. A p-value of less than 0.05 was considered significant. Fisher's test-2 tail probability was used to determine for the association between factors when the expected frequency was less than 5. Seropositive

samples were not confirmed using molecular methods due to limited resources

### Results

The median age (Q1, Q3) of the blood donors was 31 (22,46) and 56% of them were male. ELISA assay was positive for 28 samples in the studied population yielding an overall prevalence of 1% (95% CI 0.7–1.5%). There was no dual infection for HBV and HCV. 1.2 % Anti-HCV individuals were also positive for HIV1/2. 1.7 % individuals tested positive for syphilis as well as positive to anti-HCV. No association was detected between age and seropositive status ( $p = 1.000$ ). There was 18% risk of acquiring infection from blood transfusion ( $RR = 1.18, 0.78 < RR < 1.79$ ).

### Conclusion

Considering the nature of the population studied the prevalence of HIV-HCV co-infection of 1.2% is high. Screening all donated blood for HCV must be mandatory. There is also need to carry out a study of HCV co-infection in patients living with HIV/AIDS since anaemia of chronic illness is a common trigger for blood transfusion in this group.