

## POSTER 31

### Large-Scale Screening for Infectious Agents: Finding HCV and Looking for XMRV

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**Background & Objective:** Since 2002, North Carolina has employed a screening program for acute HIV that relies on HIV RNA testing of pools of HIV-antibody negative samples. We obtained a sample of HIV-negative serum pools to screen for hepatocellular carcinoma causative agent hepatitis C virus (HCV), GBV-C, and putative prostate cancer agent xenotropic murine leukemia virus-like retrovirus (XMRV).

**Methods:** HIV-negative serum pools of 80 samples (N=224) were obtained from the NC State Laboratory of Public Health and tested for HCV, GBV-C, and XMRV RNA in parallel using real-time PCR. Because a fraction of each pool was tested, the detection limit was expected to range from 15,000-150,000 copies/ml serum.

**Results:** Of 224 pools, 141 (63%) were HCV positive, 176 (79%) were GBV-C positive, and 0 were XMRV positive. Viremia was estimated to be 6.4 (IQR: 5.9-7.0) and 6.4 (IQR: 5.7-6.9)  $\log_{10}$  copies/ml sera for HCV and GBV-C, respectively. Assuming the Poisson distribution for the proportion of negative pools, the estimated prevalence was 1.2% for HCV and 1.9% for GBV-C in this population. Sequence analysis of HCV and GBV-C is ongoing.

**Conclusions:** XMRV was not detected in this HIV at-risk population representing nearly 18,000 testing adults, lending further support to growing evidence that XMRV is not circulating among humans. However, HCV and GBV-C were common in this population, with Poisson-based estimates in agreement with national prevalence estimates (HCV=1.3% and GBV-C=1.7%). These results argue for the use of the HIV testing program to screen for other viruses of known (HCV) and unknown (GBV-C) pathogenesis.