

## Abstracts for Poster and Oral Presentation

### Risks for Human Immunodeficiency Virus (HIV)/Hepatitis C Virus (HCV) Coinfection in a Setting With Low Injection Drug Use (IDU)

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**Background:** The most common risk factor for human immunodeficiency virus (HIV)/hepatitis C virus (HCV) coinfection in the United States is injection drug use (IDU). In Mississippi, only one third of coinfecting persons and <10% of AIDS cases report a history of IDU. We prospectively studied the epidemiology of HIV/HCV infection in a setting with lower rates of IDU.

**Methods:** Patients were enrolled from the HIV primary care clinics of 2 academic medical centers in Jackson, Mississippi, which together serve approximately 1800 HIV patients. Patients completed a computer-based survey of HCV risk factors using MediaLab Software (v.2004.3.24 Empirisoft). The results from this questionnaire were analyzed using SAS v 9.1.3. Categorical variables were compared using odds ratio with 95% confidence intervals.

**Results:** 32 HIV/HCV patients and 94 HIV monoinfected patients participated. Significant risk factors for HCV/HIV infection were age >40 years ( $P = 0.01$ ), history of injecting cocaine ( $P < 0.001$ ) or heroin ( $P = 0.02$ ), history of incarceration ( $P = 0.001$ ) and blood transfusion prior 1992 ( $P = 0.01$ ). No patients with hemophilia participated. History of sexually transmitted infection approached significance ( $P = 0.05$ ). Of the 9 HIV/HCV patients  $\leq 40$  years, only 2 had parenteral risk factors (IDU).

	HIV+/HCV+	HIV+	OR*	P-value
Age >40 years	23/32 (71.9%)	36/79 (45.6%)	3.05 (1.26, 7.42)	0.01
History of IV cocaine use	7/32 (21.9%)	1/79 (1.3%)	21.84 (2.56, 186.22)	<0.001
Transfusion prior to 1992	10/32 (31.3%)	8/79 (10.1%)	4.03 (1.42, 11.48)	0.01
History of incarceration	19/32 (59.4%)	25/75 (33.3%)	2.92 (1.25, 6.86)	0.01
History of heroin use	4/28 (12.5%)	1/78 (1.3%)	11.14 (1.19, 103.98)	0.02
Male-male sexual contact	9/32 (28.1%)	32/65 (49.2%)	0.46 (0.17, 1.25)	0.13
History of STI <sup>†</sup>	24/30 (80.0%)	43/72 (59.7%)	2.70 (0.98, 7.41)	0.05

>5 lifetime male sex partners	11/13 (84.6%)	36/45 (80.0%)	1.38 (0.26, 7.34)	1.00
>5 lifetime female sex partners	9/16 (56.3%)	23/31 (74.2%)	0.45 (0.13, 1.60)	0.22

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\*OR – odds ratio, listed with 95% confidence intervals; †STI - sexually transmitted infection.

**Conclusions:** This prospective study confirms a relationship between HCV infection and blood transfusion prior to 1992 in this HIV cohort without hemophilia. In addition, the HIV/HCV participants reported a higher rate of STI. The paucity of parenteral risk factors in the younger coinfecting group suggests individuals  $\leq 40$  years may have alternative risks for HIV/HCV infection.

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