High rate of Hepatitis C incidence in Vietnamese MSM living with HIV

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BACKGROUND

- Men who have sex with men (MSM) living with HIV have higher rates of hepatitis C virus (HCV) infection than MSM without HIV infection in North America and Europe.
- Studies have shown similarly high rates of HCV incidence among MSM living with HIV in large Asian cities, including Bangkok, Taipei, Hong Kong, and Tokyo.
- There are limited data on HCV incidence among MSM in Vietnam.

METHODS

- MSM and transgender women (TGW) were recruited at two antiretroviral therapy clinics for people living with HIV in Ho Chi Minh City and Can Tho, Vietnam.
- Participants provided informed consent at the first visit and had a second visit after 12 months.
- At each visit, participants competed a questionnaire on risk behaviors (sexual behavior and substance use) and had blood drawn for HCV antibody testing.
- The study was approved by supervising IRB in Vietnam.

Table1: baseline demographics and risk factors (n=532)

Characteristic		n	%
Age, years (mean =/- SD)		27.5 +/- 5.5	
Education	Below high school	18	3.4%
	High school	91	17.1%
	University/Tech.	286	53.8%
	Graduate school	22	4.1%
Monthly income, VND (mean +/- SD)		8 +/- 3 million	
STI screening last 12 months	No	53	10.0%
	Yes	470	88.3%
STI diagnosis last 12 months	Yes	51	9.6%
	No/unsure	481	91.5%
Sexual partners last 12 months	Men only	486	91.4%
	Women only	2	0.4%
	Both men & women	27	5.1%
Condom use last sex	No	117	22.0%
	Yes	390	73.3%

HCV incidence among MSM living with HIV in southern Vietnam was 15 per 1000 person years.

HCV infection was associated with having an STI in the previous 12 months, history of blood transfusion, and engaging in group sex.

Screening and prevention counseling for HCV infection should be incorporated into routine clinical care of HIV for MSM in Vietnam.

RESULTS

Enrolment included 532 participants; 523 (98%) completed two study visits. 521 (98) had HCV serology completed at 2 visits and were included in the incidence analysis. The study population included 76% MSM and 24% TGW with a median age 27 (IQR 24-30). Three-quarters (75%) had high school education or above, with over half (58%) reporting at least some college education. Reported risk behaviors during the follow-up period included condomless anal/vaginal sex (47%), group sex (34%), and methamphetamine use (21%). Injection of methamphetamine appears to be a newly emerging risk in Vietnam; 3 individuals (0.6%) reported this risk at follow-up while none reported it at baseline. HCV prevalence at baseline was 3/523 (0.6%), all of whom were MSM. At 12 months, 7 new HCV infections were detected, for an incidence of 12.0 per 1,000 person years. All incident cases were among MSM participants. Restricting incidence analyses to only MSM (n=399), the incidence rate was 15.2 per 1,000 person years.

Table 2: Multivariable logostic model of associations with HCV infection, MSM group and HCV prevalence. Model is adjusted by variables: age, education level, ethnicity, occupation, average income (n=399)

Characteristics	No HCV (n=389)	HCV (n=10)	Univariate model p-value[1]	Multivariate model p-value[2]	Multivariate model OR (95%)
Blood transfusion			0.001	0.005	8.38 (1.88-37.34)
No	315 (99%)	4 (1%)			
yes	74 (93%)	6 (8%)			
Group sex			0.027	0.001	5.63 (1.98-16.01)
No	280 (99%)	4 (1%)			
Yes	109 (95%)	6 (5%)			
STI last 12 months			<0.001	0.001	23.29 (3.76 – 144.13)
No	386 (98%)	8 (2%)			
Yes	3 (60%)	2 (40%)			

1 Chi-square; 2 logistic regression

CONCLUSIONS

- HCV incidence is significant among MSM living with HIV in southern Vietnam.
- HCV infection appears to be related to sexual activity, particularly group sex, which is also often associated with use of recreational drugs such as methamphetamine.
- Use of methamphetamine, including injection use, appears to be increasing among MSM in Vietnam
- Clinics that provide HIV care to MSM clients should provide prevention counseling to at-risk MSM and regular HCV screening for those with high-risk behaviors.

ADDITIONAL INFORMATION

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Table3: substance use at baseline and 12 months (n=523)

	Baseline n (%)	Follow-up n (%)
Ever smoke methamphetamine		
No	518 (99)	415 (79)
Yes	5 (1)	108 (21)
Ever inject methamphetamine		
No	523 (100)	520 (99)
Yes	0 (0)	3 (1)
Ever use alcohol/drugs with sex		
No	389 (74)	280 (54)
Yes	93 (18)	179 (34)
Ever have group sex		
No	484(93)	360 (69)
Yes	8 (2)	156 (30)

CARMAH

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