Integrating Hepatitis C and HIV Data Improved the Evaluation of Persons with HIV and Hepatitis C Co-infection in New York City

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Background

- Persons co-infected with HIV and hepatitis C (HCV) are at increased risk of rapid progression to liver cirrhosis and failure
- Current HCV treatments are highly effective in persons living with HIV (PLWH)
- Diagnosis and treatment of HCV in PWLH is critical

Methods

- In 2008, NYCDOHMH began outreach to patients on the basis of CD4 or HIV viral load (VL) results reported to HIV surveillance registry as proxy measures of engagement in care
- This information was used to identify PWLH presumed out of care (OOC) (no labs ≥ 9 months)
- Once identified, OOC clients were assigned to public health workers for return-to-care (RTC) for HIV and for HCV evaluation and care if indicated
- In 2013, NYCDOHMH began matching names of OOC-PLWH with the HCV surveillance registry to prioritize HCV co-infected OOC-PLWH for RTC
- Confirmed HCV was defined by HCV RNA positive results
- HCV RNA positive results from the HCV surveillance registry were used after RTC to assess receipt of HCV evaluation and follow-up care

Results: Before Return to Care

Table I: Characteristics of Out of Care PLWH by Hepatitis C Status Before Return to HIV Care, January 2013-December 2015 (N=863)

Characteristics	HCV Antibody + /RNA + N (%)	HCV Status Unknown N (%)
Total	**142 (16)**	**721 (84)**
Gender (missing=1)		
Male	97 (68)	444 (62)
Female	44 (31)	272 (38)
Transgender	0	5 (1)
Age group		
13-29	2 (1)	108 (15)
30-49	41 (29)	348 (48)
50+	99 (70)	265 (37)
Race-Ethnicity		
Non-Hispanic White	29 (20)	59(8)
Non-Hispanic Black	55 (39)	414 (57)
Hispanic	63 (44)	233 (32)
Asian/Pacific Islander	0	5 (1)
American Indian/Native Alaskan	0	1 (<1)
Other/Unknown	4 (3)	9 (1)
HIV risk at diagnosis		
Heterosexual	19 (13)	192 (27)
MSM	15 (11)	220 (31)
IDU	78 (55)	111 (15)
MSM/IDU	12 (8)	21 (3)
Perinatal	0	22 (3)
Other	18 (13)	155(22)
History of Homelessness (missing=12)		
Yes	37 (26)	151 (21)
No	103 (73)	558 (79)

Figure 1: Out of Care HIV-Positive Cases' Hepatitis C Status Before Return to Care, Jan 2013-Dec 2015 (N=863)

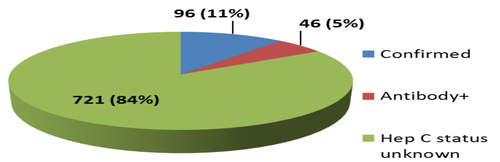
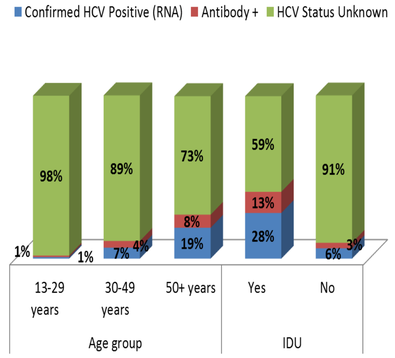


Figure 2: Differences in Hepatitis C Status by Age Group and Injection Drug Use of PLWH Before Return to HIV Care (N=863)



- From Jan 2013 to Dec 2015 a total of 863 OOC-PLWH were returned to care
- The majority of those OOC-PWLH were Black, followed by Hispanics [Table I]
- Before RTC, 142 (16%) PLWH had a positive HCV RNA or antibody test and 721 (84%) had an unknown HCV status [Figure 1]
- PLWH aged 50+ and IDU were more likely to have a positive antibody or HCV RNA result (p-values <0.001) [Figure 2]

Results: Post Return to Care

Figure 3: Time from Return to Care to First HCV Test by HCV Status Before Return to HIV Care, among those Tested/Retested (N=352)

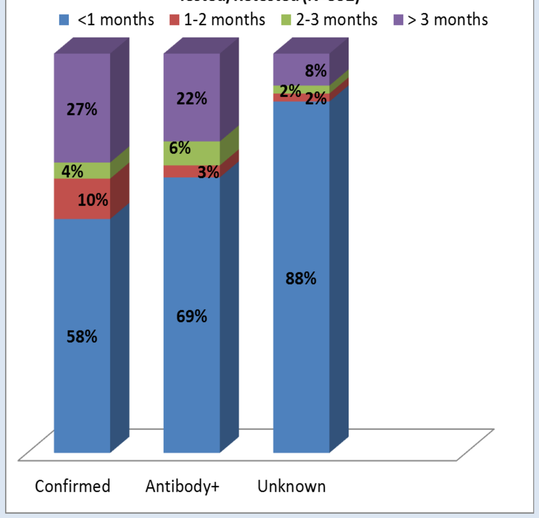


Figure 4: Post-RTC HCV Testing/Re-testing Results by HCV Status Before RTC , Jan 2013-Dec 2015 (N=863)

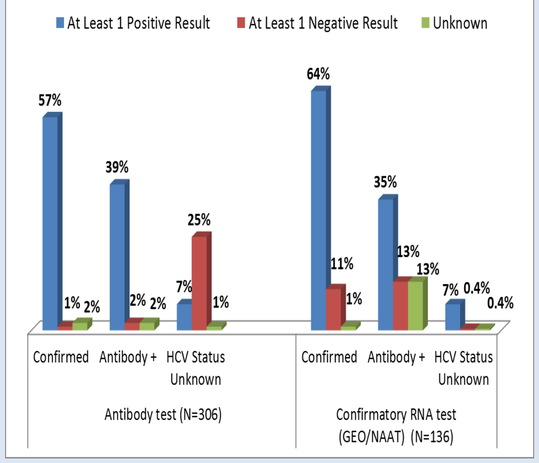
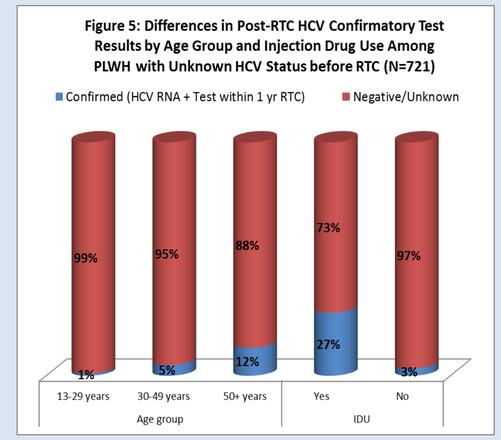


Figure 5: Differences in Post-RTC HCV Confirmatory Test Results by Age Group and Injection Drug Use Among PLWH with Unknown HCV Status before RTC (N=721)



- Post-RTC HCV testing/re-testing was done for 352 PLWH or 41% of all OOC-PLWH
- Overall, 83% of these 352 received their first HCV test/retest within 1 month of RTC [Figure 3]
- Of 77 PLWH tested/retested post-RTC, with confirmed HCV status before RTC, 57% had a subsequent HCV RNA + and 64% HCV antibody + result [Figure 4]
- Of 32 PLWH tested/retested post-RTC, with HCV antibody + before RTC, 39% had a subsequent HCV antibody + and 35% HCV RNA + result [Figure 4]
- Of 721 PLWH with unknown HCV status before RTC, 243 were tested post-RTC and 49 (7%) were confirmed HCV + [Figure 4]
- Among PLWH with unknown status before RTC, those ≥ 50 years and IDU were more likely to be confirmed HCV + post-RTC (p-values <0.001) [Figure 5]
- The majority of the 49 confirmed HCV + were male, ≥ 50 years and had IDU as their HIV risk [Figures 6 and 7]

Figure 6: Sociodemographic characteristics of new HCV RNA-positive PWLHs with HCV Status Unknown before Return to Care (N=49)

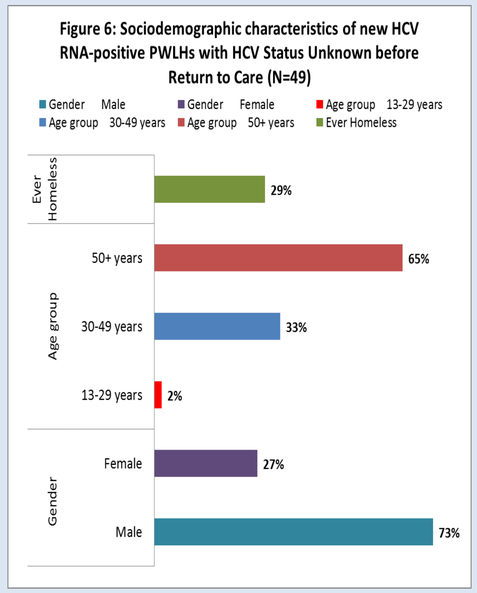
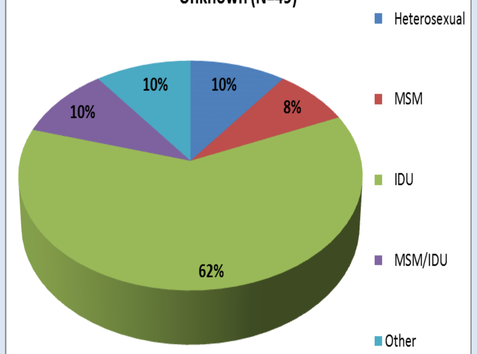


Figure 7: HIV Risk of New HCV RNA-Positive PWLHs whose HCV Status before Return to Care was Unknown (N=49)



Limitations

- HCV antibody negative results are not reported to the health department making it difficult to quantify the extent of HCV screening
- HIV-HCV co-infection status not assessed for PLWH not returned to HIV care

Conclusions

- Integrating HCV surveillance data in the selection of OOC-PLWH for RTC facilitated re-evaluation or new HCV diagnoses among persons at high risk for liver failure
- IDU can be prioritized for RTC by HIV programs conducting follow-up of HIV-HCV co-infected

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