Assessment of Adherence to Guidelines for Hepatocellular Carcinoma Screening in HIV/HCV coinfected patients

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DISCLOSURES

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BACKGROUND

- Up to 40% of patients with HIV infection in US are coinfected with Hepatitis C (HCV).[1-3]
- Compared to HCV monoinfected patients, coinfected patients have:
  - Faster progression to cirrhosis[1,2]
  - Increased incidence of hepatocellular carcinoma (HCC)[4]
- Published AASLD guidelines recommend every 6 month ultrasound (US) as the preferred HCC screening strategy for patients with cirrhosis.[5]
- The majority of gastroenterologists are aware of the AASLD guidelines and apply them to clinical practice.[6]
- Real world surveillance practices among primary providers have not been assessed for coinfected patients in the United States.

OBJECTIVE

- Presuming that a large proportion of care of HIV/HCV coinfected patients is rendered by their primary providers, we aimed to determine their self-reported HCC surveillance adherence practices.

METHODS

- 25-question survey sent via US Mail.
- Study Cohort included all Primary Care and Infectious Diseases physicians in the US-census defined Philadelphia-Camden-Wilmington Metropolitan Statistical Area whose mailing addresses were publicly available (n=3,160).
  - 1608 Family Medicine (FM), 1384 General Internal Med (IM), 168 Infectious Diseases (ID)
  - 53 hospitals in 11 counties in four states (PA, NJ, DE, MD) had websites with a physician locator search function and were included in the study cohort.
- The survey measured provider demographics and likelihood of ordering liver imaging in coinfected patients, with and without known cirrhosis.
- Adherence was defined as reporting any imaging test (US, CT, or MRI) ordered at 6 month intervals.

RESULTS

- The overall response rate = 12.3% (n=387).
- The responding cohort included:
  - 208 FM, 142 IM, 34 ID, 3 Med-Peds
- 34 (8.7%) self-identified as HIV specialists (28 ID, 6 IM).
- Respondent demographics are outlined in Table 1.

Table 1: Respondent Demographics

Median Age (range)	51.5 ± 11.6 (30-89)
Median Years in Practice	20 ± 12.2 (1- 61)
University/Academic	17.4%
Private Practice	59.9%
Median Total Patients/Month	320 ± 273.8
Median HIV/HCV Patients/Month	1 ± 7.24

PATIENTS WITH KNOWN CIRRHOSIS

- 81.5% of respondents (n=345) reported being somewhat or very likely to order any liver imaging tests (US, CT, or MRI).
- Only 42.3% were adherent to HCC screening guidelines using any imaging modality (every 6 months).
- No difference in adherence was observed between HIV specialists and non-HIV specialists (41.2% vs. 42.4%, p=1.00), or with a more liberal yearly screening strategy (79.4% vs. 65.0%, p=0.12).
- No difference in adherence was observed between University and non-University physicians (39.1% vs. 43.1%, p=0.58).
- Figure 1 delineates the percentage of respondents who reported being somewhat or very likely to order imaging by any modality, categorized by all respondents, HIV-specialists, and non-HIV specialists. No significant difference was observed between any of the groups.

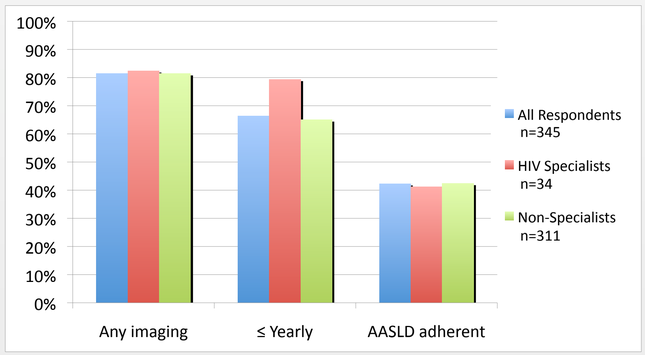

Figure 1: Self-reported frequency of ordering imaging on coinfected cirrhotics

PATIENTS WITHOUT KNOWN CIRRHOSIS

- 70.4% of respondents were somewhat or very likely to order imaging
  - 49.2% would likely order at least yearly imaging
- University providers were more likely to order imaging (Figure 2, OR 2.03, 95% CI 1.03 – 3.98, p=0.049), but not significantly more likely to order yearly imaging (p=0.07).
- HIV specialists were similarly likely to non-HIV specialists to order any imaging (76.5% vs. 68.5%, p=0.55) or yearly imaging (64.7% vs. 47.4%, p=0.07).

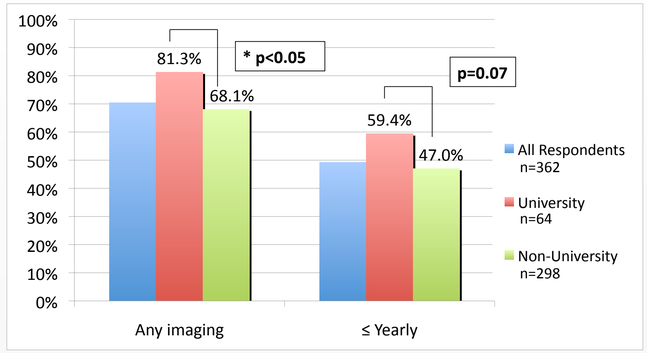

Figure 2: Self-reported frequency of ordering imaging on coinfected patients without known cirrhosis

CONCLUSIONS

- Self-reported adherence with published guidelines for HCC screening is poor among primary providers for HIV/HCV coinfected patients, including HIV specialists and University-based providers.
- Unnecessary imaging is also frequently ordered on non-cirrhotics, particularly by University-based providers.
- Improved adherence to guidelines is needed among primary providers as over 50% of HCC's may be missed, and many patients may not be referred for subspecialty GI or Liver care, where screening practices may differ.

REFERENCES

1. Thomas DL. The challenge of hepatitis C in the HIV-infected person. Annu Rev Med 2008; 59:473-85.
2. Rockstroh JK. Should HIV/HCV coinfected patients with severe hepatitis be treated for hepatitis C. Presse Med 2005; 34(20 Pt 2):1585-8.
3. Backus LI, Phillips BR, Boothroyd DB, et al. Effects of hepatitis C virus coinfection on survival in veterans with HIV treated with highly active antiretroviral therapy. J Acquir Immune Defic Syndr 2005; 39(5):613-9.
4. Salmon-Ceron D, Rosenthal E, Lewden C, et al. Emerging role of hepatocellular carcinoma among liver-related causes of deaths in HIV-infected patients: The French national Mortalité 2005 study. J Hepatol 2009; 50(4):736-45.
5. Bruix J and Sherman M. AASLD Practice Guideline: Management of hepatocellular carcinoma: an update. Published online July 2010, accessed April 17, 2011 at http://aasld.org/practiceguidelines/Documents/Bookmarked%20Practice%20Guidelines/HCCUpdate2010.pdf
6. Sharma P, Saini SD, Kuhn LB, et al. Knowledge of hepatocellular carcinoma screening guidelines and clinical practices among gastroenterologists. Dig Dis Sci 2011; 56(2):569-77.