

Hepatitis A virus protection status in cis males and transgender females who live with HIV and have sex with men: a retrospective observational study

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Introduction/Summary

- Hepatitis A is an important sexually transmitted infection (predominantly via oral-anal contact), and an effective vaccination is available.
- This study aims to characterize HAV protection status and associated demographic and clinical factors in a cohort of PWH with male sex assigned at birth and having sex with men as the mode of HIV-acquisition.

Methods

- We conducted a **single center retrospective observational study** on a cohort of PWH (cis males and transgender females who have sex with men), who attended the outpatient HIV clinic of the Infectious Disease III Division, Luigi Sacco Hospital, Milan, Italy, during 2023.

Results

- The study included **766 PWH**: 676 (88.2%) cis males and 90 (11.8%) transgender females, with a median age of 50 years (IQR 40-59).
- The majority were of Caucasian ethnicity (583, 76.1%).
- Their median CD4+ count was 714 cells/mcl (IQR 551-905), and almost all (94%) had undetectable HIV-RNA (<50 copies/mL) (Table 1).

Results of 2

HAV PROTECTION

A total of 588 people (**76.7%**) were **protected** against HAV having a positive serology (468, 61.1%) and/or having received HAV vaccination (one dose 5.5%, at least two doses 28.2%), while 178 (23.5%) were found to be unprotected due to a negative or unassessed HAV IgG serology (Figures 1 and 2)

There were no significant differences in demographic and clinical characteristic between protected and unprotected groups.

Results of 3

NON-CAUCASIANS AND CAUCASIAN

Non-Caucasian individuals (183/766, 23.9%) were less frequently vaccinated against HAV compared to Caucasian individuals (12.6% vs 40.3%) but were more frequently positive for HAV IgG (80% vs 57.3%), likely due to a higher frequency of natural infection (Table 2).

Conclusion

- In our cohort of people at high risk for HAV, we found a **high level of protection** against the infection. However, the not insignificant proportion of unprotected individuals, emphasize the need to test all at risk individuals for HAV and **offer vaccination** to those who are found to be unprotected.

Characteristics of population	Overall n = 766	HAV protected n = 588	HAV unprotected n = 82	HAV IgG not assessed and not vaccinated n = 96
Biological sex male, n (%)	766 (100)	588 (100)	82 (100)	96 (100)
Gender, n (%)				
Cis male	676 (88.2)	515 (87.6)	77 (93.9)	84 (87.5)
Transgender female	90 (11.8)	73 (12.4)	5 (6.1)	12 (12.5)
Age, median years (IQR)	50 (40-59)	50 (40-58)	51 (38-59)	55 (42-63)
Ethnicity, n (%)				
Caucasian	583 (76.1)	441 (75)	72 (87.8)	70 (72.9)
African	69 (9)	53 (9)	6 (7.3)	14 (14.6)
Hispanic	107 (14)	89 (15)	3 (3.7)	15 (15.6)
Asian	7 (0.9)	5 (1)	1 (1.2)	1 (1)
CD4, cells/μL, median (IQR)	714 (551-905)	712 (551-895)	718 (568-892)	720 (519-938)
HIV-RNA < 50 copies/mL, n (%)	720 (94)	551 (94.9)	75 (91.5)	87 (90.6)
HAV vaccination, n (%)				
1 dose	42 (5.5)	42 (7.1)	0 (0)	0 (0)
≥ 2 doses	216 (28.2)	216 (36.7)	0 (0)	0 (0)
HAV serology, n				
IgG positive	468 (61.1)	468 (79.6)	0 (0)	0 (0)
IgG negative	178 (23.2)	96 (16.3)	82 (100)	0 (0)
IgG not assessed	120 (15.7)	24 (4.1)	0 (0)	96 (100)

Table 1. Characteristics of the study population.

List of abbreviations: n, number; IQR, inter quartile range.

Characteristics of population	Overall n = 766	Caucasian n = 583	Non-Caucasian n = 183
Biological sex male, n (%)	766 (100)	583 (100)	183 (100)
Gender, n (%)			
Cis male	676 (88.2)	580 (99.5)	96 (52.5)
Transgender female	90 (11.8)	3 (0.5)	87 (47.5)
Age, median years (IQR)	50 (40-59)	52 (44-61)	44 (35-53)
CD4, cells/μL, median (IQR)	714 (551-905)	732 (584-912)	644 (473-872)
HIV-RNA < 50 copies/mL, n (%)	720 (94)	557 (94.5)	163 (89)
HAV vaccination, n (%)			
1 dose	42 (5.5)	38 (6.5)	4 (2.2)
≥ 2 doses	216 (28.2)	197 (33.8)	19 (10.4)
HAV serology, n			
IgG positive	468 (61.1)	334 (57.3)	147 (80.3)
IgG negative	178 (23.2)	157 (26.9)	10 (5.5)
IgG not assessed	120 (15.7)	92 (15.8)	26 (14.2)

Table 2. Non-Caucasian and Caucasian individuals.

List of abbreviations: n, number; IQR, inter quartile range.

Image 1. HAV protection in the overall population, Caucasians and Non-Caucasians.

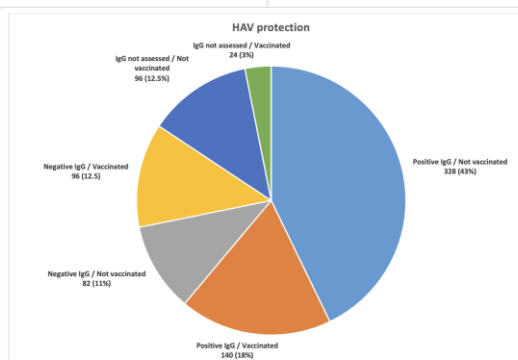
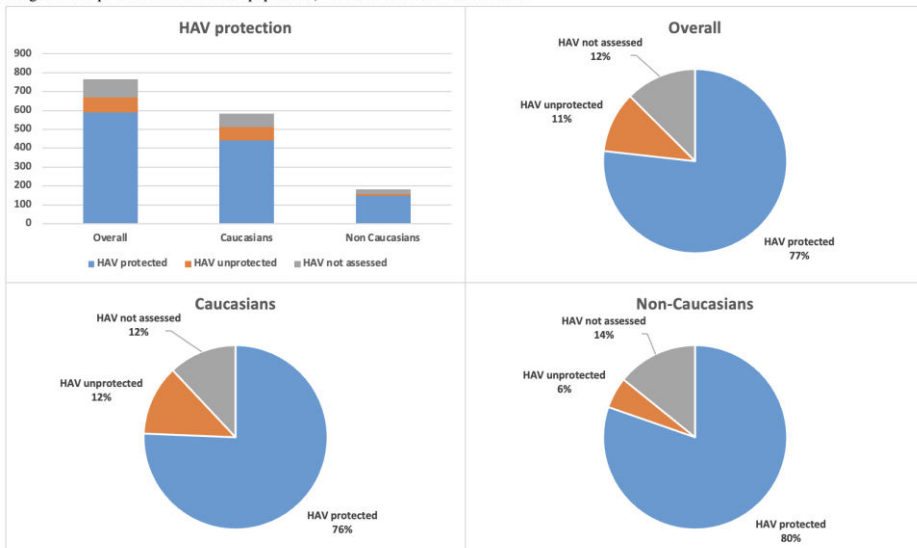


Image 2. HAV protection.