

HIGH INCIDENCE OF HCV REINFECTION IN MSM IN THE DAA ERA

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Background

Reinfection with the hepatitis C virus has been described in patients with ongoing risk behaviour for HCV acquisition after spontaneous clearance or successful treatment. The highest incidences have been observed in active intravenous drug users (IDUs) and in HIV-positive men who have sex with men (MSM). Among the latter, users of intravenous and non-intravenous drugs (mainly methamphetamine) for sexual enhancement („Chemsex“) have been identified as a main risk group for HCV acquisition. The incidence of HCV reinfection after treatment with direct-acting antivirals (DAA) is not known. Here, we analysed the reinfection rate in the GECCO cohort.

Methods

The German hepatitis C cohort (GECCO) is a real-world cohort on treatment with all directly acting antiviral agents from nine care centers from Germany since February 2014. Clinical and demographic data is collected from HCV mono- and HIV-HCV coinfecting patients. Patients without virological response or that were lost to follow-up were excluded from this analysis. Reinfection was defined as a detectable HCV RNA in a patient that had an undetectable HCV RNA at least 12 weeks after the end of treatment (SVR12), or with an HCV genotype switch before that timepoint.

	GECCO population n = 2,074
Median Age [years (SD)]	51 (+/-11.3)
Male [n (%)]	1346 (65)
Mode of HCV transmission	
- IVDU [n (%)]	764 (37)
- MSM [n (%)]	256 (12)
- Other [n (%)]	1054 (61)
HIV coinfection [n (%)]	482 (23)
HCV genotype	
- GT 1 [n (%)]	1,3664 (66)
- GT 2 [n (%)]	83 (4)
- GT 3 [n (%)]	491 (24)
- GT 4 [n (%)]	129 (6)

Table 1: Baseline characteristics

Results

Patient demographics of GECCO patients that reached at least the timepoint SVR4 and did not relapse (or were lost) are listed in **Table 1**. Out of 2,074 patients, 41 (1.97%) were identified with an HCV reinfection. Reinfection occurred within a median of 63 weeks (range 16-180) after end-of-treatment response. The characteristics of the patients with an HCV reinfection are shown in table 2. The reinfection prevalence was highest in MSM (figure 1), 2 reinfections occurred in HIV negative MSM.

	Reinfection, n=41
Median Age [years (SD)]	47 (+/-8.5)
Male [n (%)]	41 (100)
Mode of HCV transmission	
- IVDU [n (%)]	5 (12)
- MSM [n (%)]	26 (63)
- MSM + IVDU [n (%)]	10 (24)
HIV coinfection [n (%)]	34 (83)
Median time to reinfection [weeks (IQR)]	63 (16-180)

Table 2: Characteristics at reinfection

The overall follow-up time was 2239 person-years. The median follow-up time in IDUs was 28 weeks with 704 person-years and 73 weeks in MSM with 384 person-years. The HCV reinfection incidence rates are shown in figure 2.

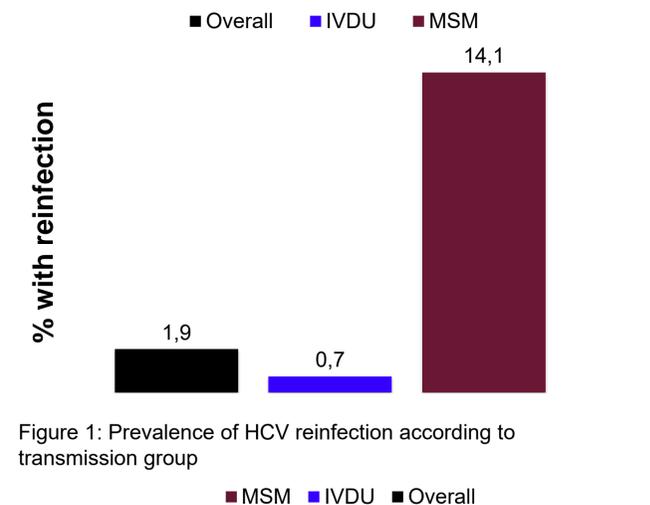


Figure 1: Prevalence of HCV reinfection according to transmission group

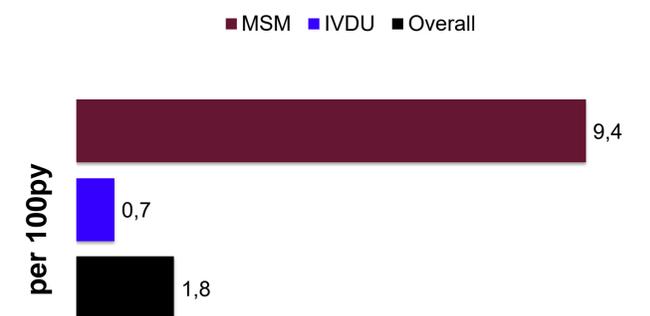


Figure 2: Incidence rate of HCV reinfection according to transmission group

Conclusions

Within the multicentric GECCO cohort, reinfection remains a rare event. However, in subgroups with ongoing risk behaviour the HCV reinfection rate remains high, with MSM being more affected than IDUs. In HIV-infected MSM, similar reinfection rates as in the pre-DAA era are observed, again highlighting this subgroup as a target population for close monitoring and specific behavioural interventions.