

# THE IMPACT OF COVID-19 ON HCV MICRO-ELIMINATION IN MSM IN GERMANY

Patrick Ingiliz<sup>1,2</sup>, Thomas Lutz<sup>3</sup>, Knud Schewe<sup>4</sup>, Stefan Mauss<sup>5</sup>, Stefan Christensen<sup>6,7</sup>, Natasha Martin<sup>8</sup>, Sonia Jain<sup>8</sup>, Feng He<sup>8</sup>, Michael Sabranski<sup>4</sup>, Jukka Hartikainen<sup>1</sup>, Markus Bickel<sup>3</sup>, Jürgen K. Rockstroh<sup>9</sup>, Christoph Boesecke<sup>9</sup>

<sup>1</sup>ZIBP, Berlin, Germany, <sup>2</sup>Henri-Mondor University Hospital, Hepatology Department, Créteil, France, <sup>3</sup>Infektiologikum, Frankfurt, Germany, <sup>4</sup>ICH Study Center, Hamburg, <sup>5</sup>Center for HIV and Hepatogastroenterology, Duesseldorf, <sup>6</sup>CIM Muester, <sup>7</sup>Muenster University Hospital Department of Gastroenterology and Hepatology, Muenster, Germany, <sup>8</sup>University of California San Diego, CA, USA, University of Bonn, <sup>9</sup>Medical Department I, Bonn, Germany

## BACKGROUND

Men who have sex with men (MSM) have been identified as one subgroup with continuous hepatitis C virus (HCV) transmission due to sexual risk behavior and recreational drug use, but has also been declared as a target population for HCV micro-elimination efforts. Within the NoCo cohort, we assess newly acquired HCV among MSM in Germany since the introduction of directly-acting antiviral agents (DAAs), and have previously demonstrated ongoing transmission rates up to 2020. The COVID-19 pandemic and its containment measures might have an explicit impact due to reduced service availability and/or behavior change.

## METHODS

The German NoCo cohort consists of patients from six German HIV and hepatitis treatment sites providing care for more than 8000 HIV-positive MSM, and serving as primary care providers and HIV pre-exposure prophylaxis (PrEP) sites. Patients who were diagnosed with recently acquired HCV infection since 2014 were enrolled and are followed-up. Virologic data, HIV and HCV treatment data, risk factors and behavior as well as liver disease assessment is acquired regularly.

Table 1: Baseline characteristics of 237 MSM with recently acquired HCV infection

Age, mean years (SD)	45.3 (9.6)
Caucasian origin, n (%)	225 (95)
HIV negative, n (%)	21 (8.9)
* on PrEP, n (%)	15 (71.4)
Reason for HCV testing,	
- ALT elevation, n(%)	78 (33.1)
- routine testing, n(%)	133 (56.4)
- symptomatic, n(%)	4 (1.7)
- Partner HCV, n(%)	13 (5.5)
Transmission risk HCV	
- MSM, n(%)	219 (92.4)
- IVDU, n (%)	7 (3)
- other, n(%)	1 (0.4)
- unknown, n(%)	17 (7.2)
HCV viral load, IU/mL (IQR)	475,000 (66,955-3,005,882)
HCV genotype, n(%)	
- 1a	139 (58.7)
- 3a	14 (5.9)
- 4d	39 (16.5)
ALT, median U/L (IQR)	224 (86-521)
STD 12 months prior HCV	
- Syphilis, n(%)	53 (23.9)
- N. gonorrhoea, n(%)	20 (9)
- C. trachomatis, n(%)	20 (9)



**NoCo-Germany: In 2021, HCV elimination was achieved among HIV-positive MSM. Rates of follow-up and testing remained stable despite the pandemic. Behavioral changes due to pandemic restrictions may have driven our results.**

## RESULTS

Between January 2014, and October 2021, 237 MSM with recently acquired HCV infection were included. A majority were Caucasian (95%), and mean age was 45.3 years (standard deviation, SD, 9.57). At HCV diagnosis, median ALT level was 224 U/L (interquartile range, IQR, 86 – 521), and median HCV viral load was 475,000 IU/mL (IQR 66,955 – 3,005,882). The most prevalent HCV genotypes were 1a (58.7%), and 4d (16.5%), see table 1.

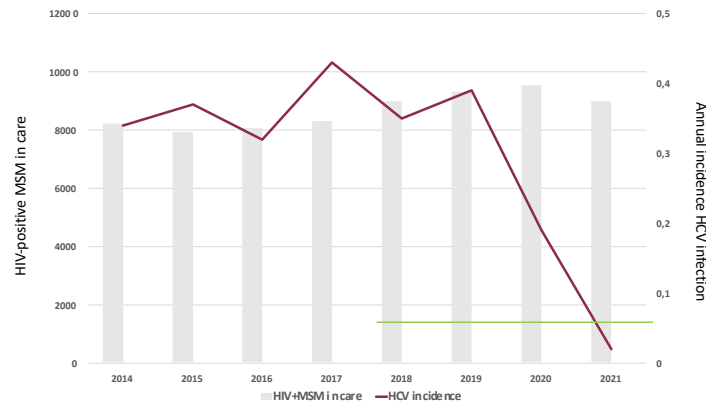


Figure 1: Incidence of HCV infection in PLWHI in the six NoCo Centers. The green bar represents HCV elimination (80% incidence reduction from 2015 baseline)

## RESULTS cont.

A subgroup of 21 (8.9%) MSM were not co-infected with HIV, of whom 15 (71.4%) were using PrEP. Anti-HCV treatment with DAAs was documented in 165 patients (71.7%), 18 (7.8%) had a spontaneous clearance, and in 47 patients (20.4%) treatment was not started. DAAs were initiated a median 6.6 months (IQR 4 to 9.3) after diagnosis; all treated patients achieved a sustained virologic response (SVR), or treatment was still ongoing (16%).

Between 2014-2019 27-36 patients were diagnosed with recently acquired HCV annually. In relation to all HIV-positive MSM under care, the incidence was 0.33 – 0.39% per year with no significant change over time. In 2020, a decline in HCV incidence to 0.28% was observed. In 2021 HCV incidence dropped to 0.02%. In the same period, the number of patients seen in the centers remained stable, and routine HCV testing returned to pre-pandemic levels by the end of 2020. The overall number of HCV RNA test in NoCo participants was: 332 in 2019, 585 in 2020, 325 in 2021.

## CONCLUSIONS

The German NoCo cohort demonstrated stable HCV incidence rates despite a broad use of DAAs up to 2019. In 2021, however, micro-elimination goals were met due to a drop in incidence, possibly due to behavior changes related to the SARS-CoV-2 pandemic and associated containment measures.

## Additional Information

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