



Enfermedades Infecciosas y Microbiología Clínica

www.elsevier.es/eimc



Editorial

Acute and recent hepatitis C virus (HCV) infections in men having sex with men (MSM): Is the test&treat strategy fundamental to reduce the incidence in this population?



Hepatitis aguda y de reciente adquisición por VHC en hombres que tienen sexo con hombres: es la estrategia de test&treat fundamental para reducir la incidencia en esta población?

Is elimination of HCV attainable by 2030?

Objectives of World Health Organization (WHO) are ambitious: 90% of cases diagnosed, 80% treated and a 90% reduction of new cases (to 5 per 100,000 a year).¹ With the efficacy and tolerability of direct-acting antivirals (DAA) these goals should be possible, at least in certain scenarios where access to diagnosis and treatment is assured, as would be the case of persons living with HIV (PLHIV) and people in Pre-Exposure Prophylaxis (PrEP). In Spain, epidemiological trends of HCV infections have dramatically decreased with generalization of DAA in PLHIV.² Nevertheless, data from incidental cases reported in the hepatitis C surveillance system are quite imprecise due to the lack of declaration of cases from many Autonomous Communities.³ A study from southern Spain, described incidence rates of recently acquired hepatitis C (RAHC) from 3.77 per 100 persons-year in 2016, 1.85 in 2017, 1.49 in 2018 and 1.98 in 2019 in PLHIV.⁴

Does anyone have doubts that HCV infection is another sexually transmitted infection (STI) in MSM?

Most likely transmission risk factors are traumatic sex practices with increased risk for blood–blood contacts, concomitant other STIs and use of *chemsex*.⁵ Moreover, rectal shedding of HCV in HIV-coinfected MSM and transmission of HCV from dendritic cells have been discussed as contributors to the spread of acute HCV.⁶

Who is at risk of acquiring HCV currently?

Since 2002, increases in sexually transmitted acute hepatitis C (AHC) have been observed among MSM living with HIV all around the world.⁷ New cases of HCV infections and re-infections nowadays worldwide, are mainly occurring in MSM (PLHIV or not)

with high-risk behaviours.^{4,7–10} In the present number of “*Enfermedades Infecciosas y Microbiología Clínica*”, Martín-Carbonero et al.¹¹ present a cohort of RAHC infections in PLHIV. Characteristics of this population are “high-risk behaviors for STIs”: condomless anal sex, multiple sexual partners, fisting, *chemsex* or *slamming*, and are similar to those with RAHC in persons not living with HIV.^{8–10} People in PrEP programs (mainly MSM or transgender women) with high-risk behaviors for STI including HVC, are located and closely monitored, which facilitates early diagnosis and early treatment.^{12,13}

How can we do the screening?

In population at risk, periodic screening is recommended with ALT levels, serology (anti-HCV antibodies) or viremia (RNA-HCV) in cases with previous infections.¹⁴ We must take on account that >70% are asymptomatic.¹⁵

Can we do something else apart from behavioral interventions?

As in other studies, results from this study show high rates of having had another STI previously (more than 90% had at least 1 STI ever and 52% in the year before HCV diagnosis) and even previous HCV (33.6%).^{9,13,15} This shows that behavioral changes regarding risk practices are difficult to carry out.

Recent guidelines recommend early treatment of RAHC especially in high-risk population in a “test&treat” strategy with pangenotypic DAA.^{16,17} In the absence of a vaccine, we must act on the target population that keeps the epidemic active and generates new cases, in addition to reach hidden undiagnosed HCV infected population acting as reservoir. In this sense, “test&treat” strategies and DAA access generalization is a priority to reduce the incidence.

DOI of original article: <https://doi.org/10.1016/j.eimc.2023.06.011>

<https://doi.org/10.1016/j.eimc.2024.08.003>

0213-005X/© 2024 Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica. Published by Elsevier España, S.L.U. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

Are the “test&treat” strategy and DAA generalization efficient?

In this scenario, viral response is very high. In the study of Martin-Carbonero,¹¹ 94% presented sustained viral response (SVR) and only 11% (10 participants) had spontaneous clearance (SC). This data are consistent with what is reported in the literature, less than 15% of SC and SVR percentages above 90%.¹⁸ There is no doubt that to continue insisting on early treatment with “test&treat strategies” is a main point to achieve a reduction in AHC infections as shown in the Dutch cohort.¹⁹ Both national and international guidelines recommend initiating HCV treatment with pangenotypic DAA as soon as possible, without waiting for spontaneous resolution.^{16,17,20}

What can we do with re-infections?

HCV reinfection is also well known specially in MSM PLHIV with ongoing risk-behaviors,⁹ hence the need to continue doing periodic screening with HCV-RNA determinations. Anyway, among people with virological failure following treatment of AHC or RAHC, various retreatment regimens have been successfully prescribed.¹⁸ There have been no documented cases of virological failure among people retreated with either a standard or salvage regimen after DAA treatment failure for AHC and RAHC infection, and the emergence of clinically significant resistance-associated substitution is uncommon.^{9,18,19}

In the race toward hepatitis C elimination, despite major advances in therapeutics, prevention remains suboptimal. Furthermore, we do have a task ahead of us to implement and generalized educational interventions on sexual health from childhood, as well as harm reduction in *chemsex* users. Our efforts must be focused on promoting test&treat strategies. We know perfectly well the population at risk, have accurate screening and diagnostic tests and highly effective antiviral drugs, which means we have all the tools that would undoubtedly contribute to a progressive decrease in the incidence of this infection in this population.

In conclusion, a scenario in which new HCV infections occur is in MSM at risk of STIs, use of *chemsex* and slamming. The behavior is like another STI and the strategy should be similar to other STIs: advice on healthy habits and risk reduction, routine screening leading to early diagnosis, sexual partners tracing and use of pangenotypic DAAs as soon as possible in a treatment-as-prevention effect. Objective: to reduce community viremia.

References

1. Global Health sector strategies on, respectively, HIV, viral hepatitis, sexually transmitted infections for the period 2022–2030, World Health Organization, Geneva, 2022.
2. Fanciulli C, Berenguer J, Busca C, Vivancos MJ, Téllez MJ, Domínguez L, et al. Epidemiological trends of HIV/HCV coinfection in Spain, 2015–2019. *HIV Med.* 2022;23:705–16.
3. Centro Nacional de Epidemiología, Instituto de Salud Carlos III. Vigilancia epidemiológica de la hepatitis C en España, 2020. Madrid; 2022.

4. Gonzalez-Serna A, Macías J, Palacios R, Gómez-Ayerbe C, Tellez F, Rivero-Juárez A, et al. Incidence of recently acquired hepatitis C virus infection among HIV-infected patients in southern Spain. *HIV Med.* 2021;22:379–86.
5. Ramière C, Charre C, Mialhes P, Bailly F, Radenne S, Uhres AC, et al. Patterns of HCV transmission in HIV-infected and HIV-negative men having sex with men. *Clin Infect Dis.* 2019;69:2127–35.
6. Nijmeijer BM, Koopsen J, Schinkel J, Prins M, Geijtenbeek TB. Sexually transmitted hepatitis C virus infections: current trends, and recent advances in understanding the spread in men who have sex with men. *J Intern AIDS Soc.* 2019;22 (Suppl. 6):57–66.
7. Browne R, Asboe D, Gillette Y, Atkins M, Mandalia S, Gazzard B, et al. Increased numbers of acute hepatitis C infections in HIV positive homosexual men: is sexual transmission feeding the increase? *Sex Transm Infect.* 2004;80:326–7.
8. Gras J, Mahjoub N, Charreau I, Cotte L, Tremblay C, Chas J, et al. Early diagnosis and risk factors of acute-hepatitis C in high-risk MSM on preexposure prophylaxis. *AIDS.* 2020;34:47–55.
9. Ingiliz P, Wehmeyer MH, Boesecke C, Schulze Zur Wiesch J, Schewe K, Lutz T, et al. Reinfection with the Hepatitis C virus in men who have sex with men after successful treatment with direct-acting antivirals in Germany: current incidence rates compared with rates during the interferon era. *Clin Infect Dis.* 2019;71:1248–54.
10. McFaul K, Maghlaoui A, Nzuruba M, Farnworth S, Foxton M, Anderson M, et al. Acute hepatitis C infection in HIV-negative men who have sex with men. *J Viral Hepat.* 2015;22:535–8.
11. Martín-Carbonero L, Gutierrez Á, Bisbal O, Vergas J, González-Baeza A, Rodríguez Martín C, et al. Recently acquired hepatitis C: epidemiological characteristics and treatment response in a large cohort of MSM living with HIV in Madrid. *Enferm Infecc Microbiol Clin (Engl Ed).* 2024;42:414–9.
12. Hoornenborg E, Coyer L, Boyd A, Achterbergh RCA, Schim van der Loeff MF, Bruisten S, et al. Amsterdam PrEP Project team in the HIV Transmission Elimination Amsterdam (H-TEAM) initiative. High incidence of HCV in HIV-negative men who have sex with men using pre-exposure prophylaxis. *J Hepatol.* 2020;72:855–64.
13. Ugarte A, de la Mora L, García D, Martínez-Rebollar M, de Lazzari E, Torres B, et al. Evolution of risk behaviors, sexually transmitted infections and PrEP care continuum in a hospital-based prep program in Barcelona, Spain: a descriptive study of the first 2 years' experience. *Infect Dis Ther.* 2023;12:425–42.
14. Guía de cribado de la infección por el VHC. Ministerio de Sanidad; 2020. Available from: <https://www.sanidad.gob.es/ciudadanos/enfInfecciones/enfTransmisibles/sida/docs/GUIA.DE.CRIBADO.DE.LA.INFECCION.POR.EL.VHC.2020.pdf>
15. Gómez-Ayerbe C, Palacios R, Ríos MJ, Téllez F, Sayago C, Martín-Aspas A, et al. Acute hepatitis C virus infection and direct-acting antiviral drugs: perfect combination to eliminate the epidemic? *Int J STD AIDS.* 2021;32:1257–60.
16. Bhattacharya D, Aronsohn A, Price J, Lo Re V. AASLD-IDS A HCV Guidance Panel. Hepatitis C guidance 2023 update: AASLD-IDS recommendations for testing managing, and treating hepatitis C virus infection. *Clin Infect Dis.* 2023, ciad319.
17. European Association for the Study of the Liver. EASL recommendations on treatment of hepatitis C: final update of the series. *J Hepatol.* 2020;73:1170–218.
18. Martinello M, Naggie S, Rockstroh J, Matthews GV. Direct-acting antiviral therapy for treatment of acute and recent hepatitis C virus infection: a narrative review. *Clin Infect Dis.* 2023;77 Suppl. 3:S238–44.
19. Boerekamps A, van den Berk GE, Lauw FN, Leyten EM, van Kasteren ME, van Eeden A, et al. Declining hepatitis C virus (HCV) incidence in Dutch human immunodeficiency virus-positive men who have sex with men after unrestricted access to HCV therapy. *Clin Infect Dis.* 2018;66:1360–5.
20. Documento de posicionamiento sobre la demora terapéutica de la infección aguda por hepatitis C. In: Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica (SEIMC); 2023.

Cristina Gómez Ayerbe
Unidad de Enfermedades Infecciosas, Hospital Universitario Virgen
de la Victoria, IBIMA – Plataforma BIONAND, Málaga, Spain
E-mail address: cgayerbe@gmail.com