CSIRO PUBLISHING

LETTER TO THE EDITOR
https://doi.org/10.1071/SH22061

SEXUAL HEALTH

Hepatitis A testing and susceptibility in men who have sex with men: an unintended benefit of PrEP

Mahmoud Gouda[A], Colin Fitzpatrick[A], Deborah Williams[A] and Daniel Richardson[A,B,*]

For full list of author affiliations and declarations see end of paper

***Correspondence to:**
Prof Daniel Richardson
University Hospitals Sussex NHS Foundation Trust, Royal Sussex County Hospital, Brighton BN2 5BE, UK
Email: docdanielr@hotmail.com

Handling Editor:
Eric Chow

Received: 4 April 2022
Accepted: 17 May 2022
Published: 16 June 2022

Cite this:
Gouda M *et al.* (2022)
Sexual Health, **19**(3), 228–229.
doi:10.1071/SH22061

ABSTRACT

Hepatitis A is a sexually transmitted enteric infection in men who have sex with men (MSM). HIV pre-exposure prophylaxis (PrEP) has increased opportunities for sexual health interventions in MSM. 588 (372 in 2019, 216 in 2021) MSM attended for the first time in the study periods. MSM were significantly more likely to be screened for Hepatitis A susceptibility in 2021 than 2019 (93% vs 56%, $P = 0.0001$). Susceptibility (Hepatitis A IgG negative) to Hepatitis A did not change between in 2021 and 2019 (48% vs 47%, $P = 0.921$). De-medicalising PrEP is important as it will increase overall uptake. However, coupling PrEP with other sexual health interventions must not be lost.

Keywords: de-medicalising, hepatitis A, HIV pre-exposure prophylaxis, immune, men who have sex with men, prevention, screening, sexually transmitted infections, vaccination.

Hepatitis A is a sexually transmitted enteric infection in men who have sex with men (MSM) and other connected sexual networks.[1,2] Vaccination provides an effective strategy for Hepatitis A prevention and control. Modelling has suggested that 70% of MSM require effective immunisation to provide adequate immunity.[3] Susceptibility to Hepatitis A can be measured using antibody testing that identifies at-risk individuals and those requiring vaccination.[3] In the UK, people travelling or going to reside overseas, patients with chronic liver disease, patients with haemophilia, people who inject drugs, people at occupational risk (including some laboratory workers, sewage workers, staff in some residential institutions, people who work with primates), and MSM are recommended to be offered Hepatitis A vaccination. Following a significant global outbreak of Hepatitis A in 2015–2017 among MSM, vaccination has been recommended by the British Association for Sexual Health and HIV for all MSM attending sexual health clinics in the UK.[1] This outbreak was largely linked by gay pride events in Europe; with anonymous sex, multiple partners, sex-on premises venues and social media dating apps described as associated factors.[4] Previous studies have shown that only 55% of MSM attending for sexual health for the first time are immune to Hepatitis A.[1,2] Access to HIV pre-exposure prophylaxis (PrEP) has increased opportunities for sexual health interventions for MSM and other individuals who remain at high risk of STIs including Hepatitis A. HIV PrEP became readily available from publicly funded sexual health clinics in the UK in 2020. Before this, there was limited availability from demonstration projects and clinical trials. All new HIV negative MSM attending our service are offered screening for Hepatitis A susceptibility, with subsequent vaccination offered for Hepatitis A if susceptible. We aimed to determine if Hepatitis A testing and susceptibility has changed following access to HIV PrEP by comparing Hepatitis A testing and susceptibility of MSM attending for the first time to our sexual health service in May–October 2019 (pre-PrEP era) with MSM attending for the first time during May–October 2021 (PrEP era) from our clinic database. We used Fisher's exact test and Kruskal–Wallis tests were used to determine differences in testing rates, susceptibility and age.

There were 588 MSM who attended for the first time in the study period (372 in 2019; 216 in 2021). The median age was 31 years (IQR = 25–42). MSM were significantly more likely to be tested for Hepatitis A in 2021 than 2019 (93% vs 56%, $P = 0.0001$). Susceptibility (HAV IgG negative) to Hepatitis A among MSM did not change in

Table 1. Hepatitis A testing and susceptibility in MSM pre-PrEP and PrEP era.

N	May–October 2019 (pre-PrEP era) 372	May–October 2021 (PrEP era) 216	*P*-value
Hepatitis A IgG tested	208 (56%)	201 (93%)	0.0001
Hepatitis IgG negative (susceptible)	98 (47%)	96 (48%)	0.921

P-values calculated using Fisher's exact test.

2021 compared with 2019 (48% vs 47%, $P = 0.921$) (Table 1). MSM who were susceptible were significantly younger (median age = 27 years; IQR = 23–36) than those where were immune (median age 33 years; IQR = 27–45, $P < 0.05$). In 2021, 91/96 (95%) MSM were invited to return for vaccination and in 64/96 (67%) vaccination was initiated.

We observed a significant increase in Hepatitis A testing in newly attending HIV negative MSM since the introduction of HIV PrEP. We also observed similar susceptibility rates in MSM as seen in other studies that are lower than is needed to provide adequate herd immunity particularly in younger MSM.[1,2] Further outbreaks of sexually transmitted Hepatitis A continue to be a concern given the relatively low levels of immunity in sexually active populations of MSM, particularly younger MSM. Despite our high levels of Hepatitis A testing, more work is needed to encourage MSM to come forward for vaccination ideally before they become sexually active and present to sexual health services.[5] Furthermore, once MSM have been screened and are susceptible, more robust processes are needed to encourage MSM to access vaccination. PrEP offers opportunities to implement sexual health interventions in MSM and increase vaccination for hepatitis and HPV. Providing PrEP in non-traditional settings and de-medicalising PrEP is important as will increase overall uptake of PrEP. However, coupling PrEP with other sexual health interventions must not be lost.

References

1 Fitzpatrick C, Finnerty F, Williams D, Richardson D. Hepatitis A susceptibility in newly attending men who have sex with men to an urban sexual health centre. *Int J STD AIDS* 2021; 32(3): 276–9. doi:10.1177/0956462420961960

2 Vodstrcil LA, Fairley CK, Williamson DA, Bradshaw CS, Chen MY, Chow EPF. Immunity to hepatitis A among men who have sex with men attending a large sexual health clinic in Melbourne, Australia, 2012–2018. *Sex Transm Infect* 2020; 96(4): 265–70. doi:10.1136/sextrans-2019-054327

3 Regan DG, Wood JG, Benevent C, Ali H, Smith LW, Robertson PW, *et al.* Estimating the critical immunity threshold for preventing hepatitis A outbreaks in men who have sex with men. *Epidemiol Infect* 2016; 144(7): 1528–37. doi:10.1017/S0950268815002605

4 Freidl GS, Sonder GJ, Bovée LP, Friesema IH, van Rijckevorsel GG, Ruijs WL, *et al.* Hepatitis A outbreak among men who have sex with men (MSM) predominantly linked with the EuroPride, the Netherlands, July 2016 to February 2017. *Euro Surveill* 2017; 22(8): 30468. doi:10.2807/1560-7917.ES.2017.22.8.30468

5 Owen S, Kurka T, Richardson D. Disclosure of sexual orientation by gay, bisexual and other men who have sex with men to healthcare. *Int J STD AIDS* 2018; 29(3): 309–10. doi:10.1177/0956462417753009

Data availability. All of the data in this research is available in the manuscript.

Conflicts of interest. None of the authors have any conflicts of interest to declare for this work.

Declaration of funding. There was no specific funding associated with this work. Mahmoud Gouda is a research fellow funded from University Hospitals Sussex NHS Foundation Trust for his research time.

Author contributions. DR designed this project, MG and CF collected the data, MG, CF and DR analysed the data, MG, CF, DW, DR all contributed to the final manuscript.

Author affiliations

[A]Department of Sexual Health & HIV Medicine, University Hospitals Sussex NHS Foundation Trust, University Hospitals Sussex, Brighton BN2 5BE, UK.

[B]Brighton & Sussex Medical School, Brighton, UK.