

# Assessing the extent of hepatitis C (HCV) infection among men who inject anabolic androgenic steroids in the UK: an urgent need to address uncertainty in key parameters to better understand the impact on HCV elimination.

**Vivian Hope**

Public Health Institute, Liverpool John Moores University, Liverpool, UK

**Sara Croxford & Monica Desai**

Blood Safety, Hepatitis, STI & HIV Division, UK Health Security Agency, London, UK

**Jim McVeigh**

Department of Sociology, Manchester Metropolitan University, Manchester, UK



**Estimates of the number of men recently using AAS vary hugely, and are limited by methodological issues.**

From  
**32,000**

To  
**447,000**



Data indicate between 75% and 85% of men using AAS inject, assuming 80% inject gives an estimated **26,000** to **358,000** men (**mean 230,000**) injecting AAS.



HCV prevalence among men injecting AAS came from the Unlinked Anonymous Monitoring Survey, which may have oversampled higher risk sub-groups.

HCV prevalence varied across survey waves from **3.6% to 5.4%**. Excluding those with history of injecting psychoactive drugs or reporting sex with other men reduced prevalence.



**Estimates of number of men who have recently injected AAS living with HCV antibodies.**

Assuming HCV antibody prevalence of **1%**, indicates between:

**260**

Mean,  
**2,300**

**3,600**

Assuming HCV antibody prevalence of **5%**, indicates between:

**1,300**

Mean, **11,500**

**17,900**



Assuming 25% spontaneously clear their infection, would indicate that between **200** and **13,400** men who have recently injecting AAS could be living with chronic HCV infection.

## Background

- Harms associated with anabolic androgenic steroid (AAS) use are well-established. Robust estimates of the numbers using AAS and of the prevalence of harms are needed to estimate numbers requiring health interventions.
- Data on these are limited, there is currently no sampling frame and sections of the AAS using communities are reluctant to acknowledge risk.
- Available UK data are used to explore the possible number of men injecting AAS with HCV.

## Method

- Estimates of the size of the AAS using population, proportion of men using AAS who inject, and HCV antibody prevalence among men injecting AAS in the UK were identified through literature searches.
- Information on AAS use was taken from the ASSESS study.[1]
- HCV prevalence came from the Unlinked Anonymous Monitoring Survey of people who inject drugs.[2]
- Simple estimates of the number of men injecting AAS with HCV antibodies were generated from the available data.

## Conclusions

- Current data prohibit robust estimation of the number of men injecting AAS who are chronically infected with HCV and require care.
- More robust data are needed on the size of AAS using population (current and past use) and the chronic HCV prevalence.
- Available UK data suggest that the number of people injecting AAS living with HCV, though smaller than among those who injecting psychoactive drugs, could be sufficient to impact on HCV elimination.

1. Vivian D. Hope, Vincent Walker Bond, Ian Boardley, Josie Smith, John Campbell, Geoff Bates, Rob Ralphs, Marie-Claire Van Hout & Jim McVeigh. Anabolic androgenic steroid use population size estimation: a first stage study utilising a Delphi exercise. *Drugs: Education, Prevention and Policy*, 2022, Early online. <https://www.tandfonline.com/doi/full/10.1080/09687637.2022.2070058>

2. People who inject drugs: HIV and viral hepatitis monitoring. Data tables and commentary for the unlinked anonymous monitoring surveys of infections and risk among people who inject drugs. UKHSA <https://www.gov.uk/government/publications/people-who-inject-drugs-hiv-and-viral-hepatitis-monitoring> <https://webarchive.nationalarchives.gov.uk/ukgwa/20220729181848/https://www.gov.uk/government/publications/people-who-inject-drugs-hiv-and-viral-hepatitis-monitoring>

