EDITORIAL

Should men who have sex with men be screened for hepatitis C?

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HEPATITIS C (HCV) IS A BLOOD-BORNE VIRUS AND IS USUALLY TRANSMITTED PARENTERALLY. HCV has been found in the semen of HCV-viraemic men, suggesting that sexual transmission is possible. Treatment during the six-month period immediately following HCV infection is more successful than when initiated in the chronic phase. However, acute HCV infection can be asymptomatic and with the absence of screening programmes, it can be difficult to diagnose.

Reports of acute HCV infection in HIV-positive men who have sex with men (MSM) have emerged where sexual exposure was the only risk factor. Co-infection with HIV leads to increased rates of chronicity, accelerated progression to end stage liver disease and poor response to treatment. HCV persists in 55-85% of HCV mono-infected individuals, compared with 84-87% of those co-infected with HIV. Reports of HCV incidence among HIV-negative MSM have also triggered calls for earlier diagnosis in this group with some calling for routine screening and targeted prevention.

'The data suggest it would be reasonable to consider routine screening for HCV in HIV-positive men who have sex with men'

A systematic review was carried out to assess the incidence of acute HCV in both HIV-positive and HIV-negative MSM, and the need, if any, for routine HCV screening in these men.[1]

Electronic databases (EMBASE, BIOSYS and MEDLINE) and abstracts from six conferences related to hepatitis were searched from 1 January 2000 to 2 May 2012. A total of 25 studies including data on HCV acute infection in MSM with sexual exposure as a risk factor were included in the review. All studies were in English and from high-income countries. Twenty two were cohort studies and three were cross-sectional studies; nine articles studied HIV-negative populations, 12 looked at HIV-positive populations, and the remainder had a mix of both.

All studies were deemed to be of high quality using the STROBE checklist (www.strobe-statement.org). Incidence density was defined as the number of seroconversions divided by 1,000 person-years of follow-up; this measure and incidence rates were compared across studies.

The HIV-negative MSM had incidence densities of HCV seroconversions that ranged from 0 to 8.1/1,000 person-years; pooled incidence density was 1.48/1,000 person-years in this subgroup (95% CI:0.75-2.21). Incidence densities of HIV-positive MSM ranged from 0 to 41.7/1,000 person-years with pooled incidence density of 6.08/1,000 person-years (95% CI:5.18-6.99). Hence the HIV-positive subgroup had a 4.1 times higher risk of acquiring HCV.

Four studies compared HCV incidence rates in HIV-negative and HIV-positive MSM sub-groups; they ranged from 0 vs 1.8, 1.7 vs 11.8 and 1.1 vs 0 per 1,000 person-years respectively, whereas one reported zero seroconversions in both groups. The pooled risk difference was estimated at 3.45/1,000 person-years (95% CI:1.64-5.27).

It appears HIV-positive MSM had approximately four times the risk of acquiring acute HCV infection compared with HIV-negative MSM. The data suggest it would be reasonable to consider routine screening for HCV in HIV-positive MSM. Interestingly, the reported incidence of HCV among HIV-positive MSM is similar to rates of other STIs; so screening for STIs should also include testing for HCV.

It is not clear, however, why MSM seem to be at increased risk of acquiring HCV, especially as it is frequently associated with parenteral exposure. The four studies that compared HCV incidence in HIV-negative and HIV-positive MSM sub-groups postulated: unreported injecting drug use, serosorting (unprotected anal sex occurs only with same sero status), sexual practices that involve blood contact, concomitant STI (such as genital ulcer disease) that might facilitate transmission and high HCV viral loads when co-infected with HIV. There may also be artefacts in reporting HCV as HIV-positive MSM are more likely to be under routine testing as part of regular HIV care.

In general practice, it may be usual practice to offer intravenous drug users testing to check for blood-borne viruses; it appears there is a good case to extend this offer to any MSM who have HIV too. The argument for offering MSM testing for HCV regardless of HIV status is not yet established.

REFERENCE
1 Yaphe S, Bozinoff N, Kyle R et al. Incidence of acute hepatitis C virus infection among men who have sex with men with and without HIV infection: a systematic review. *Sex Transm Infect* 2012;88:558-564