

Review Article

Interventions to increase screening for sexually transmitted infections among men who have sex with men attending clinical services: experiences from Victoria, Australia

增加男同性戀臨床服務使用者進行性傳播感染普查的各種介入方法：澳洲維多利亞省的經驗分享

M Chen 陳有偉, H Zou 鄒華春, M Bissessor

In Australia, men who have sex with men (MSM) constitute the major risk group for HIV and have prevalence rates for other sexually transmitted infections (STIs) that are generally much higher than among heterosexuals. In Victoria there has been a re-emergence of infectious syphilis and new HIV infections among MSM. STI screening remains a cornerstone in the control of these infections. Frequent screening of MSM for STIs should help to control infection within this population and should utilise innovative responses targeting MSM attending clinical services. Evaluation of these interventions shows success in increasing STI screening rates among MSM together with increased detection of asymptomatic infections. Wider application of similar and novel measures could see improved control of STIs and HIV among MSM.

在澳洲，男同性戀者是愛滋病的主要風險群組，他們的其他性傳播感染盛行率，亦普遍地大幅拋離異性戀者群組。近來維多利亞省的男同性戀群組中，重新發現具傳播性的梅毒及愛滋病毒感染新例，故性傳播感染普查實為控制這些感染的重要基石。頻繁的性傳播感染普查對男同性戀群組的感染控制有很大裨益，並可輔以針對就診男同性戀者的創新對策。通過對這些創新介入對策的

Melbourne School of Population Health, University of Melbourne, Australia

M Chen, MRCP, FACHSHM, PhD
H Zou, MD, MS

Melbourne Sexual Health Centre, The Alfred Hospital, Australia

M Chen, MRCP, FACHSHM, PhD
M Bissessor, FRACGP

Correspondence to: Associate Prof. M Chen

Melbourne Sexual Health Centre, 580 Swanston Street,
Carlton Victoria 3053, Australia

考核，顯示出男同性戀者間的性傳播感染普查率及無症狀帶菌者的發現均有增加，故更廣泛地應用這些新措施，可預見男同性戀者間的性感染傳播及愛滋病控制將得以進一步改善。

Keywords: Men who have sex with men, screening, sexually transmitted infections

關鍵詞：男同性戀者，普查，性傳播感染

Introduction

In Australia, as in a number of other countries, men who have sex with men (MSM) constitute a major risk group for HIV infection. The prevalence of bacterial sexually transmitted infections (STIs) such as gonorrhoea and syphilis is also relatively high among MSM compared with heterosexuals living in Australian cities. This article discusses STIs among MSM in Australia with particular reference to MSM in Victoria and presents data to support the frequent screening of MSM for STIs as a key strategy in the detection and control of these largely asymptomatic infections.

The control of bacterial STIs among MSM is important not only because of the stigma and morbidity that arises from these infections but also because they enhance the transmission of HIV. Rectal gonorrhoea and chlamydia for example have been shown to increase the risk of HIV transmission.¹

STIs rates among Australian MSM

In Victoria, since 2000, there has been an exponential increase in notifications for infectious syphilis from 125 cases in 2005 to 391 cases in 2009. Most of these infections have occurred among MSM, with over-representation among HIV positive MSM.² Over the same period, notifications for HIV among MSM also increased: from 230 in 2005 to 262 in 2009, while notifications among heterosexuals remained relatively stable.³

Recent studies point to the disparity in prevalence rates for selected STIs among Victorian MSM

compared with prevalence rates among heterosexuals. In a study of MSM attending the Melbourne Sexual Health Centre (MSHC), the prevalence of pharyngeal and rectal gonorrhoea by nucleic acid amplification testing was: 3.9% and 4.6% respectively.⁴ The prevalence of infectious syphilis among HIV negative and HIV positive MSM attending the same centre was 3.6% and 8.1% respectively.^{5,6} In a study of MSM in Victoria, the estimated prevalence of HIV among MSM was 10%.⁷

Possible factors behind these high rates of STIs among MSM include high numbers of sexual partners, increased unprotected anal sex, sex with casual partners and so called "serosorting".⁸ Australian data indicate that HIV positive MSM are more likely to have unprotected sex with other HIV positive men⁹ and this may be driving the over-representation of certain infections such as syphilis among HIV positive MSM.

Further to this, data indicate that HIV negative men are more likely to engage in unprotected sex with men they believe to be HIV negative.⁹ However, this will lead to HIV transmission if men are HIV infected but are unaware of their status because they have not been tested. It has been estimated that about 20% of HIV infected MSM in Australia are unaware of their HIV status.⁷ Mathematical modeling suggests that serosorting in the context of insufficient HIV testing and a high level of unknown HIV infection can be expected to lead to increased HIV transmission.⁸ Concern has also arisen that HIV transmission is occurring because of poor communication between HIV positive men and HIV negative men with regards to condom use.¹⁰

STI screening of MSM

In Australia, the STIGMA guidelines¹¹ recommend that all MSM be screened at least once a year for pharyngeal and rectal gonorrhoea, urethral (by first void urine) and rectal chlamydia, syphilis and HIV, with more frequent screening (3-6 monthly) for higher risk men. These recommendations are similar to those of the US CDC.¹² There has, however, been relatively low adherence to these guidelines in Australia.¹³ Low testing rates for STIs in MSM have also been reported in the US.¹⁴

An audit of MSM attending MSHC with primary or secondary syphilis suggested that syphilis was often misdiagnosed by referring general practitioners, resulting in delays in treatment.¹⁵ This is understandable given the relative rarity of syphilis in primary care but is concerning given the potential for ongoing transmission, and points to the need for regular syphilis screening of MSM. Mathematical models suggest that more frequent syphilis screening, particularly when focused at the most sexually active MSM would reduce syphilis prevalence among MSM in Australia.¹⁶ This has been adopted as the core principle underlying the Australian National Gay Men's Syphilis Strategy.¹⁶

Mathematical models also suggest that more frequent HIV testing of Australian MSM would reduce HIV prevalence in this population given individuals made aware of their infection would be expected to reduce the risk of ongoing transmission.¹⁷ In addition to the potential population benefit, more frequent HIV testing would result in earlier HIV diagnosis and the improved long term prognosis this would confer.¹⁸ In Victoria, while the average CD4 at diagnosis has been 423, which is high by international standards, 23% of HIV diagnoses are still late, that is, where the CD4 count is less than 200 or where the individual presents with AIDS. A study of HIV testing of MSM by clinicians at MSHC showed substantial differences in HIV testing rates when individual clinicians were compared, with lower testing rates among doctors (73%) than

nurses (89%) indicating that optimal HIV testing requires clinician awareness of the need for testing of high risk individuals.¹⁹ Opt-in HIV testing as opposed to opt-out testing has been suggested as a means of increasing HIV testing rates in selected populations.²⁰

Interventions to increase STI screening of MSM

The Second Australian National STI Strategy identifies gay men and other MSM as a priority population for STI screening. A number of Australian services have reported specific strategies aimed at improving STI screening rates among MSM.

In Australia, as elsewhere, guidelines recommend that chlamydia tests are repeated after treatment for chlamydia because of the high rate of chlamydia re-infection after treatment.^{11,12} In a study of chlamydia retesting following chlamydia treatment conducted through a network of sexual health services across Australia, retesting rates among MSM within 3 months of treatment for chlamydia was low (7%) while the rate of infection among those retested was high (44%). This compared to retesting and rates of repeat infection of 16% and 18% among young women respectively.²¹

Reminders using newer technologies for communication could be a simple and acceptable means of improving retesting rates. In a study of MSM attending a sexual health service in Sydney, MSM were more likely to be retested for HIV and other STIs when sent an SMS reminder for repeat testing.²²

At MSHC, a computer alert that reminded clinicians to screen higher risk MSM for syphilis more frequently each time MSM reported more than 10 male partners in the prior year resulted in a significant increase in the proportion of such men tested for syphilis: from 77% to 88%. The

introduction of this alert was also associated in an increase in detection of asymptomatic, early syphilis among MSM reporting more than 10 partners in the prior year: from 16% (5/31) before the alert to 53% (31/58).⁵

Strategies aimed at increasing rates of STI screening of HIV positive MSM in Melbourne appear to have been effective. At MSHC, the routine inclusion of syphilis serology every time blood tests were taken as part of monitoring for HIV resulted in an increase in the proportion of early syphilis cases that were asymptomatic among HIV positive MSM: from 21% before the intervention to 85% after. The intervention was also associated with a significant reduction in the estimated duration of infection – from 107 to 45 days – and therefore a likely reduction in the duration of infectiousness.⁶ The Australian National Gay Men's Syphilis Action Plan recommends the inclusion of syphilis serology every time MSM are tested for HIV and to include syphilis screening in the routine bloods that are done as part of HIV monitoring.¹¹ At MSHC, a proforma that acted as an alert and which provided a dedicated section where standardized notes regarding STI screening were kept was inserted into the medical records of all newly diagnosed HIV positive patients and at each consultation where STI screening was due. Use of this proforma was associated with 41% of HIV positive MSM being screened for STIs during the audit period.²³

The use of nurse led STI screening could be effective in enhancing STI screening rates within clinics that see MSM. The introduction of a sexual health nurse into a Melbourne general practice with a high number of MSM and HIV positive clients was followed by an increase in STI screening of MSM. The proportion of HIV negative men who were tested for chlamydia, gonorrhoea, syphilis and HIV increased from 41% to 52% while the proportion of HIV positive men tested for chlamydia, gonorrhoea and syphilis increased from 32% to 56%.²⁴

Given the growing number of MSM who seek sexual partners over the internet,²⁵ interventions aimed at improving STI testing of MSM utilizing the internet appear to be warranted. The Check Your Risk service²⁶ is an online risk assessment tool that was established to provide recommendations on STI screening to internet users tailored to the sexual history they provide online. An evaluation of this service showed that 18% of users were MSM, with the median number of male partners reported in the prior 12 months being 6, a number similar to that reported by MSM attending MSHC.²⁷ This suggested that users of Check Your Risk were on the whole similar in their risk profile to MSM attending a sexual health service.

Recent data suggests that partner notification following the diagnosis of an STI in Australia is incomplete and that more support and resources could help to increase the number of sexual partners notified.²⁸ In a survey of Australians recently diagnosed with chlamydia, MSM had on average only contacted 15% of the male partners they had had sex with in the preceding 6 months, which was lower than for heterosexual men and women. Let Them Know²⁹ is a website designed to support individuals diagnosed with an STI and allows users to send either named or anonymous text and email messages to partners, informing them of the need to seek STI testing and treatment. Evaluation of the website showed frequent and increasing use of the website to send SMS messages in particular with uptake across several Australia jurisdictions.³⁰ A website offering similar messaging that specifically targets Australian MSM has also been available.³¹

Conclusions

More frequent screening of Australian MSM for STIs would help to limit these infections within this high risk population. In this article we have reviewed some of the interventions aimed at increasing STI screening rates among MSM

attending clinical services, with some initiatives associated with increases in STI screening rates and in some cases increased detection of asymptomatic infections. Wider use of similar interventions could see improved STI screening of MSM across Australia. Such interventions require innovation and evaluation together with adequate funding and support.

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