

The Melbourne Sexual Health Centre (MSHC) is a specialised unit for the diagnosis and treatment of sexually transmissible infections (STIs) and is a principal centre for training health professionals in Victoria. The centre conducts epidemiological, public health and clinical research primarily aimed at improving the services offered at MSHC.

Chlamydia trachomatis

Untreated chlamydial infection among pregnant women has been associated with adverse outcomes for both mother and infant. Like most women, pregnant women infected with chlamydia do not report genital symptoms, and are therefore unlikely to be aware of their infection. A cross-sectional study of 100 pregnant women aged 16-25 years attending antenatal services across Melbourne were invited to participate in a face-to-face, semi-structured interview on the acceptability of screening for chlamydia during pregnancy. It was found that 31 of these women were infected with chlamydia. Women had low levels of awareness of chlamydia before the test, retained relatively little knowledge after the test and commonly had misconceptions around chlamydia transmission, testing and sequelae. Chlamydia screening as part of routine antenatal care was considered highly acceptable among young pregnant women who recognised the benefits of screening, and strongly supported its implementation as part of routine antenatal care. The acceptability of screening is important to the uptake of chlamydia screening in future antenatal screening strategies (JE Bilardi, MJ Temple-Smith, SM Garland, CK Fairley, JS Hocking, MY Chen).

HIV Research

Mathematical modelling suggests that increased frequency of HIV testing among men who have sex with men (MSM) will lead to a reduction in HIV incidence. We are therefore in the early stages of a randomised trial examining the HIV testing frequency in MSM offered rapid tests compared to MSM offered normal lab-based tests (SMARTest study). Follow-up is at 18 months. This particular rapid test requires a finger prick blood sample and provides a result in 20 minutes (T Read, MY Chen, A Morrow, CK Fairley).

MSHC has patients in ongoing multicentre HIV studies including SPARTAC (a study of early versus deferred antiretroviral treatment of seroconverters), ALTAIR (a randomised comparison of three initial treatment combinations) and CORAL (a comparison of bovine colostrum, raltegravir or both, to boost CD4 counts in patients with poor immune recovery despite good suppression of viral replication).

Bacterial Vaginosis (BV)

BVAPS (bacterial vaginosis antibiotic and probiotic study) is an NHMRC-funded blinded placebo-controlled randomised controlled trial evaluating combination therapy with oral metronidazole/vaginal clindamycin against oral metronidazole/vaginal placebo and oral metronidazole/vaginal probiotic for the treatment of BV (C Bradshaw, M Pirota, C Fairley, S Garland).

A meta-analysis of the behavioural risk factors associated with BV was published in *Clinical Infectious Diseases*. It showed that BV was

associated with new and multiple sexual partners, lack of condom use and findings that illustrate that BV has the epidemiology of an STI (K Fethers, C Bradshaw, C Fairley).

The Female University Student Study (FUSS) examined the association between sexual practices and BV. It provided support for the hypothesis that BV is an STI by showing that BV is absent in women without a history of sexual activity and is strongly associated with increased numbers of sexual partners. We are conducting a two-year study to determine the behavioural and microbial risk factors associated with incident BV in women with female partners (K Fethers, C Bradshaw, C Fairley).



Human papilloma virus research project



Rapid HIV test use in MSM



Women on women's health

Current research projects at Melbourne Sexual Health Centre.

Human Papilloma Virus (HPV)

The focus of the Hyper Study is the prevalence, incidence and natural history of oral and anogenital HPV among young MSM, which should shed new light on this area and help to inform policy on HPV vaccination of MSM. A study of HPV oral infection in MSM found a prevalence of approximately 15% of all types of HPV. A cohort of 100 HIV-infected MSM having regular screening for anal cancer is being monitored (T Read, H Zou, M Chen, C Fairley).

Use of CASI in Low-risk Populations

The proportion of clinically important diagnoses in a low-risk, asymptomatic population who use a computer-assisted self interview (CASI) to assess risk was examined to determine optimal health service delivery. Medical records were retrospectively analysed for risk characteristics and diagnoses in 1,060 new asymptomatic heterosexual patients who completed CASI. From this low-risk group, 26 diagnoses were made on the day of presentation, including 22 cases of genital warts, three of herpes and one of unintended pregnancy. Additionally, there were 54 cases of chlamydia detected. As chlamydia is effectively diagnosed and managed from self-collected samples, patient review is not always required. This study provides evidence for an express testing service for chlamydia to streamline the screening of low-risk, asymptomatic patients as identified by CASI without the need for a traditional face-to-face consultation (A Yeung, M Bush, R Cummings, C Bradshaw, M Chen, H Williams, I Denham, CK Fairley).

Postgraduate Students

8 PhD Student
8 Masters Student

Publications

33 Journal Articles