Sexually transmissible infections: what's new?

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In their introduction to a new series of articles on sexual health, Series Editor Professor Donovan and Professor Bowden look at what's happening in the field of sexually transmissible infections and discuss what we can do to help the situation.

As the saying goes, the only certainty is change, and in the field of sexual health, sexually transmissible infections (STIs) continue to surprise and challenge us. Old STIs are re-emerging while others are in epidemic phases such that the curable bacterial STIs increasingly dominate the infectious disease statistics.[1] Importantly, the bulk of STI diagnoses in Australia are made by GPs,[2] making this group of health professionals pivotal to any national response.

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Viral STIs

Genital human papillomaviruses (HPVs) and herpes simplex virus types 1 and 2 (HSV-1 and -2) are easily the most common STIs globally. Infections with these viruses are not notifiable in Australia, and we have no reliable trend data. Nevertheless, millions of Australians are infected with one or more of these viruses, although most will remain undiagnosed and will come to no harm from their conditions.

HSV-1 is carried by up to three-quarters of all Australian adults, usually at a site above the neck, and infection with this virus manifests in a minority as oro-labial cold sores. Doctors need to be aware that HSV-1 has become an increasingly common cause of genital herpes. Because this trend has important implications for individual patients, the clinical and counselling implications of genital HSV-1 infection are the subject of a separate article in this Sexual health series.[3]

A small number of women infected with oncogenic subtypes of HPV will develop pre-neoplastic cervical changes or cancer of the cervix, and men who have sex with men (MSM) have a significant risk of anal cancer as a result of oncogenic HPV infection. Phase three trials of HPV vaccines have demonstrated remarkable efficacy, and these vaccines are likely to be marketed in the next few years. This represents an exciting opportunity to reduce the incidence of anogenital cancers.

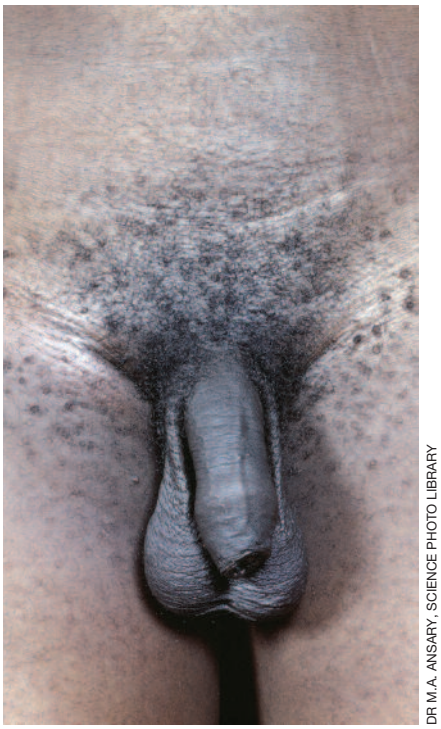

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Figure. Lymphogranuloma venereum causing inguinal lymphadenopathy, with the characteristic groove sign. Receptive anal intercourse is more likely to result in this condition presenting as proctitis or proctocolitis.

Hepatitis A and B are common infections in MSM. A recent study revealed poor vaccination rates against these viruses in younger men,[4] leading to calls for more active promotion of vaccination by doctors to this group.[5]

Chlamydia

With more than 36,000 notifications in 2004, chlamydia has become the most commonly reported infection in Australia. The real incidence may be several times higher than the data suggest.[6] This is a generalised epidemic demanding a co-ordinated, national response, an issue discussed by Chen, Hocking and Fairley later in this series.[7]

Table. STIs: what's new and what should be done

Trend	Clinical implications
Chlamydia epidemic (generalised)	More testing needed, particularly of sexually active women under 30 years of age and men who report a recent change of sexual partner
Chlamydia, gonorrhoea and syphilis epidemics among men who have sex with men (MSM)	More testing needed (see guidelines in forthcoming article[5])
Increasing quinolone resistance among gonococci	Routinely use ceftriaxone for gonorrhoea[8]
Lymphogranuloma venereum (LGV) re-emerging among MSM	Suspect LGV in MSM with proctitis or colitis; anal swab for chlamydia
Increasing genital HSV-1 infection	Swab to determine HSV type and adjust patient advice and management accordingly[3]
Low rates of vaccination for hepatitis A and hepatitis B in young MSM	Screen and vaccinate this group[5]
Donovanosis almost eliminated[10]	Maintain clinical suspicion

Bacterial STIs among men who have sex with men

Throughout the western world, epidemics of gonorrhoea, syphilis and chlamydia have been reported among MSM. In Australia, these epidemics are largely confined to MSM living in cities, and MSM who are infected with HIV are over-represented in the notifications. Concomitant STIs can increase the risk of transmission of HIV. Both MSM and their doctors need to be aware that gonorrhoea and syphilis are readily transmitted by oral sex. Because of high rates of quinolone resistance (e.g. to ciprofloxacin), there is now no reliable oral agent available in Australia for the empiric treatment of gonorrhoea. Patients suspected of, or proved to have, gonorrhoea should receive parenteral ceftriaxone (Ceftriaxone Sandoz, Ceftriaxone Sodium for Injection, Rocephin),[8] unless the isolate is shown to be sensitive to ciprofloxacin.

Screening guidelines for MSM have been developed and are outlined by Bourne in a forthcoming article in this series.[5]

Recently, outbreaks of lymphogranuloma venereum (LGV), caused by an invasive subtype of *Chlamydia trachomatis*, have occurred among MSM in European and North American cities. A case has been reported in Melbourne[9] and several cases have been suspected in Sydney. Traditionally associated with transient genital ulceration and inguinal buboes (Figure), MSM with LGV often present with proctocolitis that is clinically and histologically indistinguishable from ulcerative colitis. The diagnosis and treatment of LGV is described in the next article in this series.[8]

Donovanosis

Present throughout northern Australia for over 100 years, this uncommon but occasionally life-threatening cause of genital ulcers now approaches elimination from this country. This achievement can be attributed to improved case finding and more efficient treatment with azithromycin (Zithromax).[10] Nevertheless, doctors working with Indigenous communities in northern Australia should remain alert to the possibility of this infection.

Sexual behaviour

The Australian Study of Health and Relationships was this country's first national representative sexual behaviour survey, involving almost 20,000 adults aged 16 to 59 years during 2001 to 2002 and using computer-assisted telephone interviews. The survey showed that about 70% of young people used condoms when they first had sex and that 40% used condoms for their last casual sexual encounter: 15% of men and 8% of women reported having more than one sexual partner in the last year.[11] These patterns were comparable to those found in other developed nations.

The risk of acquiring an STI hinges on sexual behaviour (the number of sexual partners and the nature of the sexual encounters), the efficiency of transmission of the organism, and the average duration of infectiousness of people with the condition. As health professionals, we can reduce our patients' risk by:

- providing guidance on moderating sexual partner numbers
- promoting condom use
- advising about less risky sexual practices
- providing vaccination when appropriate.

Through the recognition of early symptoms, selective screening and contact tracing, we may also have an impact on the duration of infectiousness of people with curable STIs, thus reducing the likelihood that other people will be exposed.

At last, a national STI strategy

In June 2005, the Federal Minister for Health and Ageing released Australia's first National STI Strategy. The document outlines the important STIs in the Australian context and identifies the following three priority areas for immediate action:

- STIs in the Indigenous population
- STIs in MSM
- chlamydia in the general population.

The government has committed $12.4 million over four years for programs directed at chlamydia, and these will be focused on primary care. It is to be hoped that this will pave the way for a national co-ordinated response to STIs. MT

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DECLARATION OF INTEREST: Professor Donovan: None. Professor Bowden is Chair of the HIV/STI subcommittee of the Australian Government's Minesterial Advisory Committee on AIDS, Sexual Health and Hepatitis.