Men who have sex with men (MSM) in Australia are disproportionately and increasingly affected by sexually transmissible infections (STIs) including HIV. This has been attributed, in part, to changes in sexual behaviour such as reduction in condom use for anal intercourse in recent years. Many STIs do not lead to symptomatic presentations, therefore regular STI testing will identify a large number of infections which would otherwise remain undiagnosed and untreated. The term “men who have sex with men” is simply a behavioural descriptor and is not considered a sexual identity, although most MSM in Australia identify as gay.

These guidelines have been developed to encourage regular STI screening of MSM, including those with HIV, who do not have symptoms of STIs. The recommendations include STI testing at anatomical sites other than the location of any symptoms which may have prompted a clinical consultation.

After behavioural risk assessment and appropriate pre test discussion, all of the STI tests listed should be offered to:

- All men who have had any type of sex with another man in the previous year: **At least once a year**
- All MSM who fall into one or more categories listed below: **Up to 4 times a year**
  - any unprotected anal sex
  - more than 10 sexual partners in six months
  - participate in group sex
  - use recreational drugs during sex
  - are HIV-positive:
    - syphilis serology: at each occasion of CD4/VL monitoring;
    - chlamydia/gonorrhoea testing: consider at each occasion of CD4/VL monitoring

### Site Specimen

<table>
<thead>
<tr>
<th>Site Specimen</th>
<th>STI</th>
<th>Technology</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharyngeal swab</td>
<td>Chlamydia &amp; gonorrhoea</td>
<td>NAAT&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Self-collected or clinician-collected</td>
</tr>
<tr>
<td>Anorectal swab</td>
<td>Chlamydia &amp; gonorrhoea</td>
<td>NAAT&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Self-collected or clinician-collected</td>
</tr>
<tr>
<td>First void urine&lt;sup&gt;d&lt;/sup&gt;</td>
<td>Chlamydia</td>
<td>NAAT&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Alternative: self-collected or clinician-collected penile meatal swab</td>
</tr>
<tr>
<td>Serology</td>
<td>Syphilis</td>
<td>EIA&lt;sup&gt;e&lt;/sup&gt;</td>
<td>If HIV negative</td>
</tr>
<tr>
<td></td>
<td>HIV</td>
<td>EIA&lt;sup&gt;e&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hepatitis A</td>
<td>HAV IgG EIA&lt;sup&gt;e&lt;/sup&gt;</td>
<td>Test if not vaccinated. Vaccinate if antibody negative</td>
</tr>
<tr>
<td></td>
<td>Hepatitis B</td>
<td>HBV core antibody, surface Antigen EIA&lt;sup&gt;e&lt;/sup&gt;</td>
<td>Test if not vaccinated. Vaccinate if no history or documentation of full vaccination course</td>
</tr>
<tr>
<td></td>
<td>Hepatitis C</td>
<td>HCV IgG EIA&lt;sup&gt;e&lt;/sup&gt;</td>
<td>Only in HIV-positive or if history of injecting drug use</td>
</tr>
</tbody>
</table>

- VL = HIV viral load
- Except viral hepatitis tests
- NAAT: nucleic acid amplification test eg Transcription-Mediated Amplification (TMA), Strand Displacement Amplification (SDA), Polymerase Chain Reaction (PCR)
- First void urine = initial part of the urine stream. Not first urine of the day and not mid-stream urine.
- Collect specimen at least 20 minutes after last passing urine.
- EIA = Enzymeimmunoassay
Use of *Neisseria gonorrhoeae* (NG) and *Chlamydia trachomatis* (CT) NAATs. NAATs are now widely used in Australia when testing urine, urethral, anorectal and pharyngeal samples for NG and CT. Where possible, collect NG culture swab before treatment of NAAT-confirmed NG to assess antibiotic sensitivity of the NG isolate.

**Anal NG and CT infections.** All MSM should be offered anorectal swabs even if they do not report receptive anal sex. Receptive anal sexual practises such as receptive fingering, toy insertion or oral-anal sex are risk factors for anal NG and CT, even in men who use condoms for receptive anal intercourse. Anal STIs are also independent risk factors for HIV in HIV-negative MSM, so identification and treatment of anal STIs by regular testing is likely to reduce the risk of HIV acquisition.

**Pharyngeal NG and CT infections** mostly occur without concurrent anogenital infection, are asymptomatic, and can be the source of anogenital infections among MSM. Compared with pharyngeal NG, pharyngeal CT is relatively rare among Australian MSM. However, recent studies overseas have identified a higher prevalence of pharyngeal CT among MSM than previously reported and pharyngeal CT is likely to be long-lasting in the absence of treatment. Testing MSM for both pharyngeal infections is therefore recommended.

**Self-collected samples** (urine, urethral meatal, pharyngeal and anorectal swabs) are acceptable and effective at detecting NG and CT using NAATs.

**Repeat testing.** Repeat testing at 3 months after NG and CT infections is recommended to detect reinfection.

**Testing in HIV positive MSM.** MSM with HIV account for up to 50% of infectious syphilis notifications and mathematical modelling indicates 3-monthly syphilis testing of these MSM could significantly impact on syphilis control efforts within Australia. HIV-positive MSM are also at particularly high risk of anal NG & CT, thus more frequent STI testing should be encouraged in this group. Due to evidence of Hepatitis C (HCV) sexual transmission among HIV positive MSM, all asymptomatic HIV positive MSM should have annual HCV testing.

**Testing reminders.** SMS and email reminders have been shown to increase detection of STIs as well is increasing retesting rates among MSM, both, after an STI diagnosis, and as reminders for regular testing. Therefore STI/HIV testing reminders are recommended for MSM.

**Urethral NG** is extremely rare among Australian MSM tested in the absence of urethral symptoms. Although most commercially available NAAT for Chlamydia are dual assays which also test for NG, current evidence does not support a recommendation to test asymptomatic Australian MSM for urethral NG.

**Lymphogranuloma venereum (LGV).** In Australia and the majority of overseas settings, a substantial reservoir of asymptomatic LGV has not been identified. Therefore routine LGV typing of asymptomatic chlamydia infections among MSM is not currently justified.

**Hepatitis C virus in HIV negative MSM who have never injected drugs** is rare, therefore routine testing is not recommended for this group.

**Herpes simplex virus (HSV) type-specific serology.** Anogenital HSV-1 and -2 infections are highly prevalent in MSM, and HSV-2 increases the risk of acquiring and transmitting HIV. However, serological HSV diagnosis has not been shown to result in behaviour change or reduce onward HSV transmission, and HSV-2 therapy has not been shown to reduce the risk of HIV acquisition. Therefore testing asymptomatic MSM is not recommended.

**Human papillomavirus (HPV).** Most MSM, especially those with HIV, are infected with one or more types of HPV. The utility of anogenital sampling for HPV DNA or serological testing among MSM has not been established. Prospective Australian studies which include assessing the utility of anal HPV testing to predict risk of anal pre-cancerous lesions are ongoing and are expected to guide future recommendations. Testing asymptomatic MSM is not currently recommended.

Anogenital *Mycoplasma genitalium* is uncommon in asymptomatic Australian MSM. Evidence for a role of *M. genitalium* in ascending male genital infections is lacking and there is no evidence that *M. genitalium* colonizes or infects the pharynx of MSM. Further studies are required to understand the contribution of *M. genitalium* to anogenital clinical syndromes and its impact on HIV acquisition among MSM, before consideration is given to routine testing in MSM.

**Trichomonas vaginalis** rarely colonizes the pharynx or anogenital mucosa of MSM, even in settings where the heterosexual community prevalence of *T. vaginalis* is substantial. Testing for *T. vaginalis* among asymptomatic Australian MSM is therefore not recommended.