

Testing MSM for STIs

Hennie Williams
Sexual Health Physician
Senior Lecturer in Sexual Health
Melbourne Sexual Health Centre
School of Population Health
University of Melbourne



Testing asymptomatic MSM for STIs

- Are they truly asymptomatic?
- Dysuria?
- Urethral discharge?
- Rectal/Perianal symptoms
- Lumps/bumps/rashes
- Sore throat

SEXUALLY TRANSMITTED INFECTION TESTING GUIDELINES FOR MEN WHO HAVE SEX WITH MEN

Like other cities with large populations of men who have sex with men (MSM)^{1,2,3}, rates of new cases of gonorrhoea, infectious syphilis⁴ and chlamydia⁵ remain high in some Sydney MSM. These sexually transmitted infections (STI) have been diagnosed in MSM with and without HIV infection in the context of changing patterns of unprotected anal sex.⁴ Bacterial and viral STIs can fuel HIV transmission.

Along with other planned strategies, these guidelines have been developed to assist health care workers who care for MSM, including doctors providing HIV/AIDS care.

The following recommendations have been developed using evidence from clinic and outreach settings, population cohort and case control studies, expert opinion and guidelines from other countries (Level 3-4 NHMRC evidence⁶). Until there is higher-level evidence from studies including general practice settings in Australia, these recommendations provide guidance for STI testing of MSM.

MSM who do not have symptoms of STIs are the focus of these guidelines but they also apply to testing at anatomical sites other than the location of any current symptoms. Gonorrhoea, syphilis and chlamydia frequently do not produce symptoms regardless of the anatomical site of infection. Therefore, after behavioural risk assessment and appropriate counselling, it is important to offer comprehensive testing to all MSM.^{8,9}

RECOMMENDATIONS:

1. **At least once a year:** all men who have had any type of sex with another man in the previous year should be offered all of the following STI tests in the following ways:

- | | |
|---------------------|-----------------------------------------------------------|
| ● Pharyngeal swab | Gonorrhoea culture ¹⁰ |
| ● Anal swab | Gonorrhoea culture/NAAT* and chlamydia NAAT |
| ● First catch urine | Chlamydia NAAT ¹¹ |
| ● Serology | HIV |
| | Syphilis |
| | Hepatitis A, if negative Immunise |
| | Hepatitis B, if negative Immunise |
| | Hepatitis C (if HIV+ or injecting drug use) ¹² |

2. **More frequent testing:** 3-6 monthly testing is recommended for men who

- have episodes of unprotected anal sex³
- have more than 10 partners in the past six months³
- attend sex-on-premises venues (SOPVs)
- use recreational drugs³ or
- seek partners via the internet¹³

3. **Repeat testing:** People diagnosed with chlamydia or gonorrhoea should be retested in 3 months.

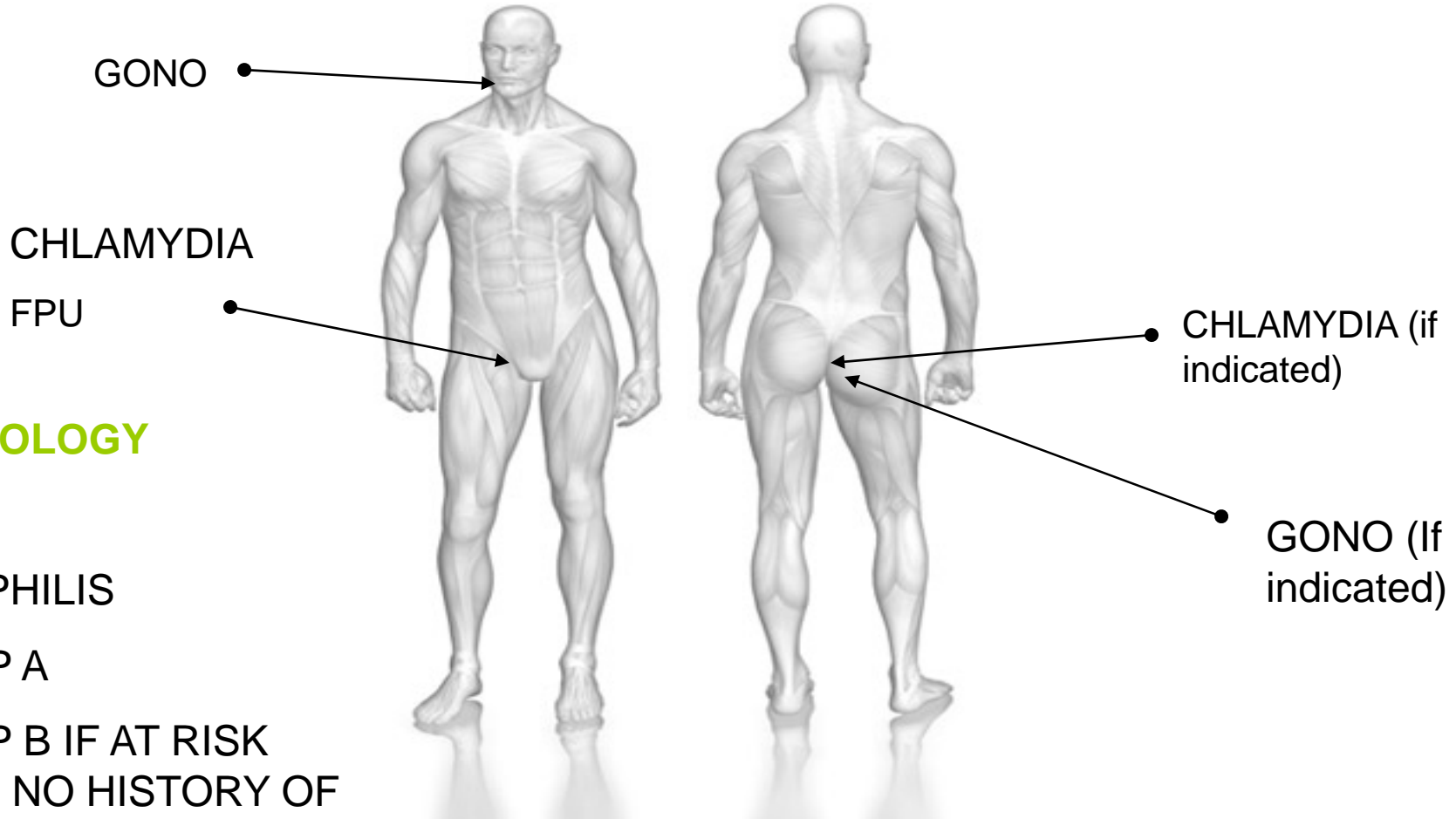
4. **Consider Herpes simplex virus (HSV) type-specific serology.⁹**

* NAAT = Nucleic acid amplification test eg. PCR, LCR, SDA, TMA



Remember currently there is an epidemic of syphilis and a great deal of gonorrhoea in MSM community in Victoria

ASYMTOMATIC: MSM



SEROLOGY

- HIV
- SYPHILIS
- HEP A
- HEP B IF AT RISK AND NO HISTORY OF VACCINATION
- HEP C if indicated

ANATOMICAL SITES OF STI IN MEN

Gonorrhoea

- Bacterium *Neisseria gonorrhoeae*
- Mucous membranes of the urethra, cervix, anus throat and eyes
- Readily transmitted by anal, vaginal and oral sex

Gonorrhoea – symptoms in males

- Gonococcal urethritis tends to be more acute than other forms of urethritis and nearly always symptomatic
- Usually more severe symptoms of dysuria, profuse purulent discharge than eg Chlamydia
- Has a short incubation period of 2-7 days

Pharyngeal Gonorrhoea

- Gonococcal infection transmitted to the pharynx more readily by fellatio than cunnilingus
- Generally asymptomatic, sometimes tonsillitis or pharyngitis

Gonorrhoea – symptoms in females

- Cervical STIs are most often asymptomatic
- Unusual vaginal discharge
- dysuria
- deep dyspareunia,
- intermenstrual or post coital bleeding
- lower abdominal pain
- cervix may appear inflamed with a mucopurulent discharge and contact bleeding. (MPC mucopurulent cervicitis)

Gonorrhoea - Diagnosis

- Isolation of *N. gonorrhoeae* by culture is the diagnostic standard
- DNA based tests
- Advantages
 - Rapid results
 - Good for remote areas – transport
 - Urine or tampon
 - Sensitivity equal or better than culture

Gonorrhoea

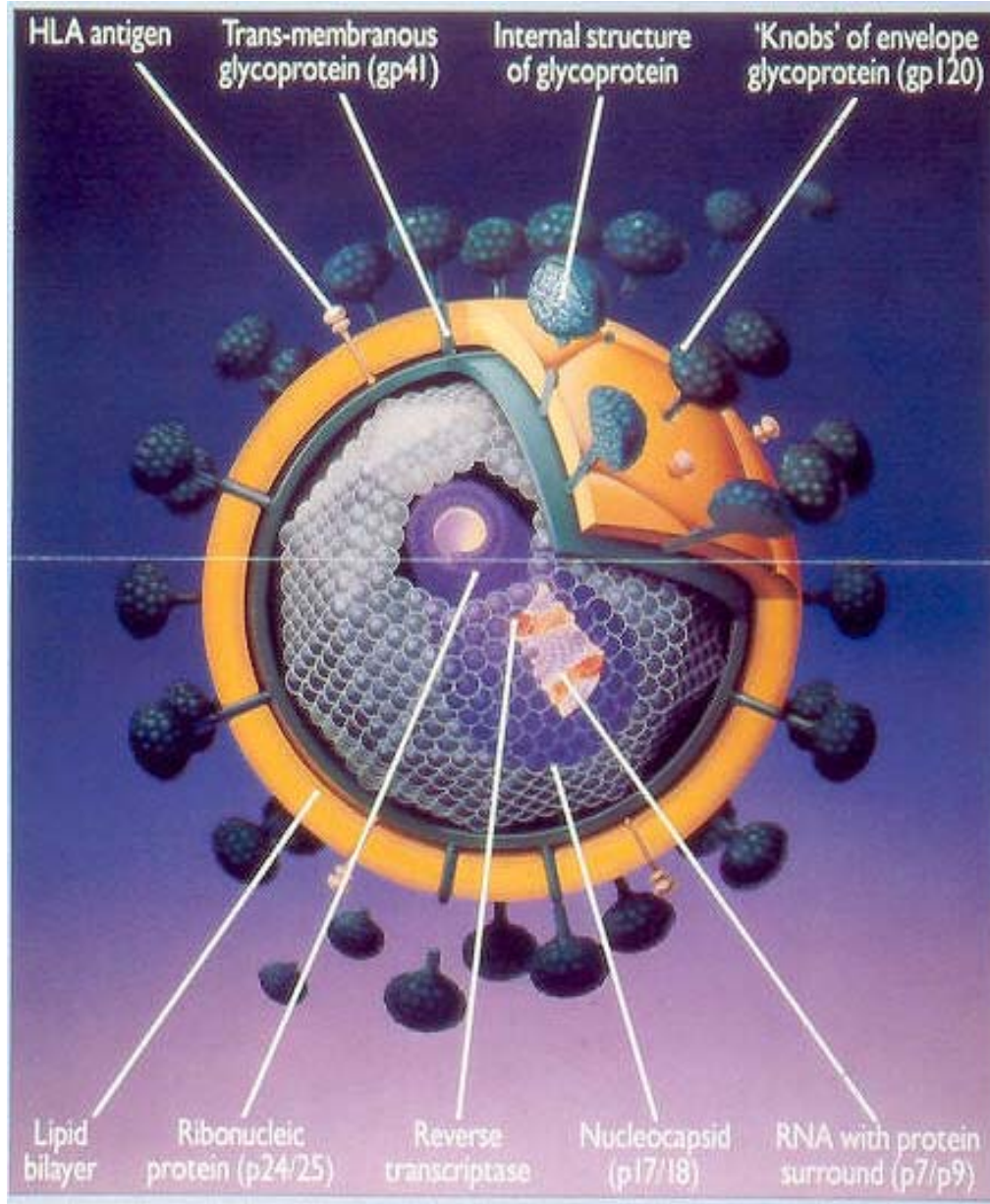
- Ceftriaxone 500mg via IMI recommended treatment in Australia
- Please refer to Sexual Health Society of Victoria, *National Management Guidelines for STIs, 2008* or MSHC website: www.mshc.org.au

Take Home Messages Gonorrhoea

- Very infectious
- Often asymptomatic in throat, rectum and cervix
- Easily prevented by condoms
- Rare amongst heterosexual women in Victoria, common amongst MSM
- Partners must be seen, tested and treated (epidemiological treatment)
- Notifiable infection



Human Immunodeficiency Virus



Tests for HIV Infection

- Detection of Specific Antibody
 - Detection of HIV Antibody:
 - ELISA Western Blot
- Detection of Viral Components
 - Detection of HIV antigen:
 - P24 Antigen assay
 - Viral Nucleic Acid assay (PCR)
- Isolation of Virus
 - Culture of lymphocytes for HIV

HIV Antibody Tests

- HIV antibodies (ELISA)
 - This is the usual screening test for HIV
- HIV antibodies (Western blot)
 - Western blot is the usual confirmatory and has high sensitivity and specificity
- 6 week window period (some use 3 months still)

Post-exposure Prophylaxis

- There is some evidence that antiretroviral therapy, given within 72 hours of exposure, may reduce the risk of infection
- Treatment is given for four weeks
- A risk-assessment must be performed, and weighed against the side-effects and possible development of drug resistance
- May need to give if sex with partner of unknown serostatus see

High and low risk transmission

	UP receptive Anal sex	UP receptive vaginal sex	UP insertive anal/vaginal	Oral sex
HIV positive	1/100 3 drugs	1/1000 2 or 3 drugs	<1/1000 2 or 3 drugs	<1/10,000
MSM 10% prevalence in Melbourne	1/1000 2 drugs	1/10,000 2 drugs	1/10,000	<1/100,000
Heterosexual in Melbourne	<1/100,000	<1/1,000,000	<1/1,000,000	<1/1,000,000

Syphilis

- A complex systemic illness with multiple clinical manifestations
- Caused by the spirochaete *Treponema Pallidum*
- Infectious syphilis rates are increasing rapidly in Victoria,
 - more than one person diagnosed each day.
 - double the rate in 2006
 - > thirty times the rate in 2000.

Syphilis

- Syphilis can be acquired:
 - Through sexual contact
 - By passage through the placenta
 - By kissing or other close contact with an infected lesion
 - By transfusion of fresh human blood
 - By accidental direct inoculation

Syphilitic infection may be divided into congenital and acquired infection

Early infection of less than 2 years duration, which includes primary, secondary and early latent disease.

Late syphilis, of more than 2 years duration, includes late latent and late clinical disease.

Syphilis

The classic primary chancre begins at the site of inoculation. Usually a single, painless papule
9-90 days after initial exposure

An example of the classic hallmarks of 2° syphilis is a rash
6 weeks to 6 months after exposure

Latent Syphilis – after about 2 years of infectious syphilis no symptoms for many years

Syphilis - primary





Multiple
chancres

[c] www.acshp.org.au

Chancre of lip



Chancre at angle of mouth



Rash of secondary syphilis



Serologic Tests

Nonspecific non-treponemal tests

The *RPR*

Cheap, rapid

Convenient for screening large numbers of sera

Indicates disease activity

Specific antibody tests

TPHA, FTA-Abs

Establish the high likelihood of infection

Generally remain reactive over time, even after treatment

Now EIA IgG and IgM

Syphilis treatment

Early Syphilis:

Benzathine penicillin 1.8 gm IM single dose
or Doxycycline 100mg twice daily for 14 days if
allergic to penicillin

Late latent syphilis:

Benzathine penicillin 1.8 gm IM weekly for three
weeks

Treatment for all STIs :www.mshc.org.au



A B C M S M

- **A-** alcohol and other drugs
- **B-** beats, SOPV's, internet
- **C-** condom use
- **M-** mental health
- **S-** serostatus awareness
- **M-** multiple partners