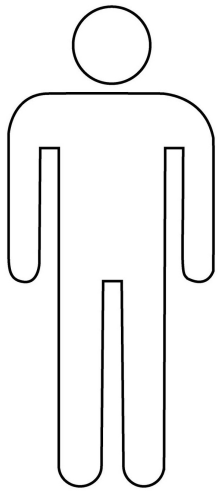
STI Tool

v 2.2 @ 03/08/2021

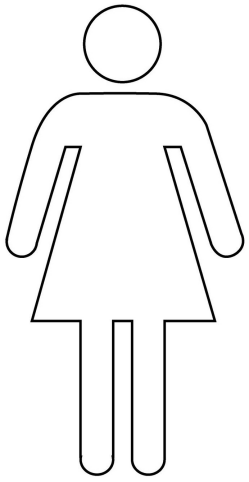
What's the problem? - click where appropriate.

Male problems:



- screening
- urethral symptoms
- proctitis in gay men
- lumps or swellings
- ulcers or sores
- skin rash and/or itch

Female problems:



- screening
- vaginal discharge, no vulvar symptoms
- pelvic pain
- vulvar symptoms, +/- discharge
- lumps or swellings
- ulcers or sores
- skin rash and/or itch

See also:

- Which swab to use?
- *Ureaplasma urealyticum*
- Ordering Hepatitis B serology
- Positive syphilis serology
- HIV prophylaxis (PEP and PrEP)

Screening men

Take a history:

- gender of sexual partners
- injecting drug use

He is a:

- Heterosexual man
- Heterosexual man who injects drugs
- Man who has sex with men
- Man who has sex with other men and also injects drugs

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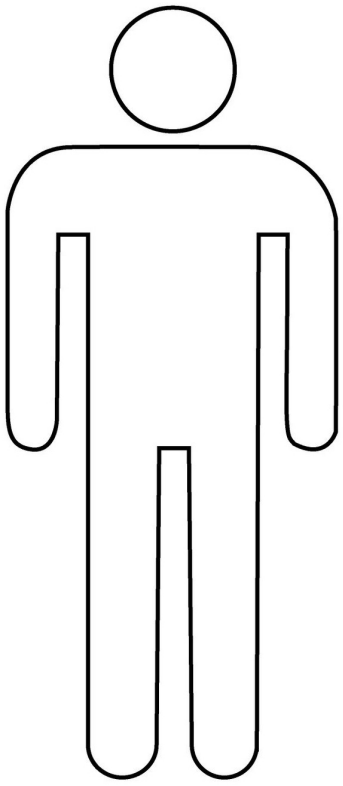
Heterosexual men



- First-void urine - 15-20 ml only - for chlamydial and gonococcal NAAT testing.

Does NOT have to be early morning specimen, and time since previous urination is irrelevant.

- Syphilis serology
- HIV serology if patient requests
- Hepatitis B serology if unvaccinated or known to be not immune

Click here for MSHC screening guidelines
For clinical advice call 1800 009 903

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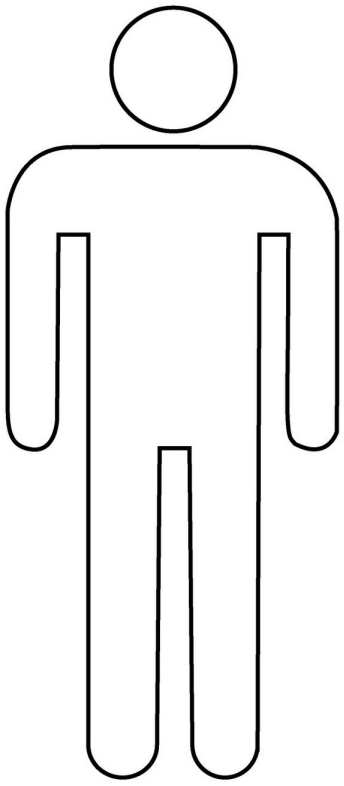
Heterosexual men with injecting drug use



- First-void urine - 15-20 ml only - for chlamydia and gonococcal NAAT testing

Does NOT have to be early morning specimen, and time since previous urination is irrelevant.

- HIV serology
- Syphilis serology
- Hepatitis B serology if unvaccinated or known to be not immune
- Hepatitis C serology

Click here for MSHC screening guidelines
For clinical advice call 1800 009 903

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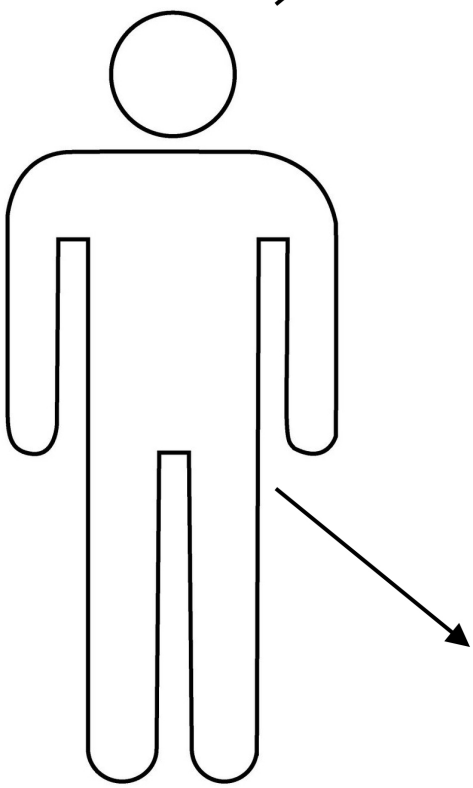
Men who have sex with other men



- Pharyngeal swab for chlamydia and gonococcal NAAT testing

- First-void urine - 15-20 ml only - for chlamydia and gonococcal NAAT testing?

Does NOT have to be early morning specimen, and time since previous urination is irrelevant.

- Anorectal swab for chlamydia and gonococcal NAAT testing

- HIV serology
- Syphilis serology
- Hepatitis B serology if unvaccinated or known to be not immune
- Hepatitis A serology if unvaccinated or known to be not immune.

Click here for MSHC screening guidelines
For clinical advice, GPs call 1800 009 903

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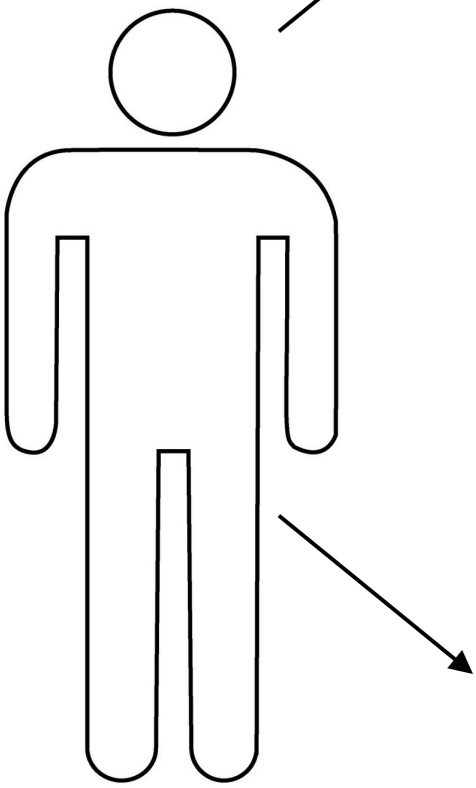
Men who have sex with other men and also inject drugs



- Pharyngeal swab for chlamydia and gonococcal NAAT testing

- First-void urine - 15-20 ml only - for chlamydia and gonococcal NAAT testing?

Does NOT have to be early morning specimen, and time since previous urination is irrelevant.

- Anorectal swab for chlamydia and gonococcal NAAT testing

- HIV serology
- Syphilis serology
- Hepatitis B serology if unvaccinated or known to be not immune
- Hepatitis A serology if unvaccinated or known to be not immune.
- Hepatitis C serology

Click here for MSHC screening guidelines

For clinical advice, GPs call 1800 009 903

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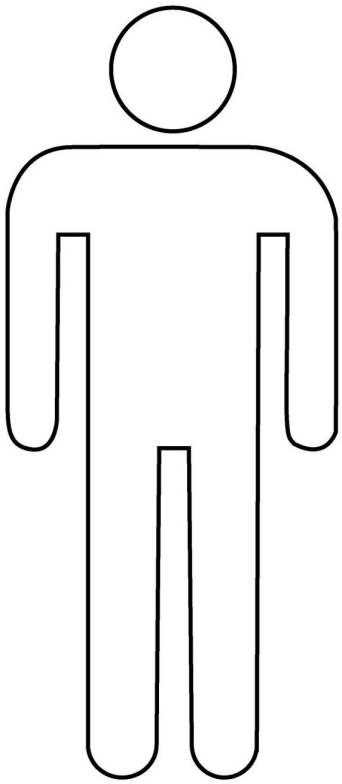
Men with urethral irritation,dysuria and/or discharge



- First-void urine - 15-20 ml only - for chlamydia, gonococcal and **Mycoplasma genitalium** NAAT testing.

Does NOT have to be early morning specimen, and time since previous urination is irrelevant.

- Swab of discharge (if present) for bacterial (gonococcal) culture

Swab of discharge is sufficient; doesn't have to be a urethral swab.

- Other screening tests according to risk; go to screening

- Start treatment before results come back!
- First line is doxycycline 100 mg bd for 7 days
- An alternative is azithromycin 1 g stat
- If gonorrhoea is suspected (purulent discharge, MSM, overseas sex), give azithromycin 1 g stat together with ceftriaxone 500 mg IM.
- **Call or refer** if severe pain, urethral bleeding or treatment failure.

Click here for MSHC urethritis guidelines
For clinical advice, GPs call 1800 009 903

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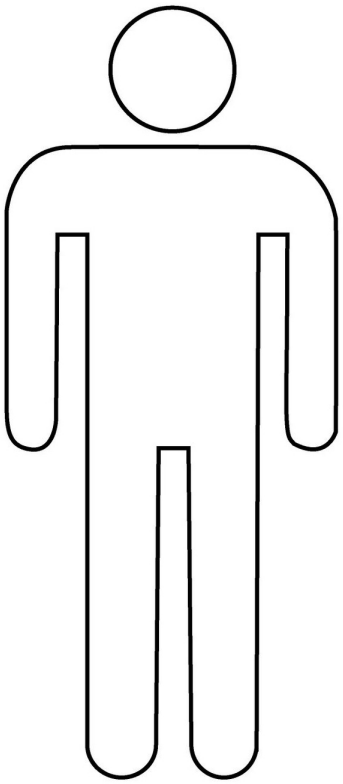
Proctitis in men who have sex with other men



Inspect the perianal area and **palpate** the anal canal for ulcers and fissures.

Anorectal swab for NAAT testing:

- chlamydia
- gonococci
- HSV
- syphilis
- Mycoplasma genitalium

- Other screening tests according to risk; go to screening

- Start treatment before results come back!
- First line is doxycycline 100 mg bd for 7 days plus valaciclovir 500 mg bd for 10 days. If practical, give ceftriaxone 500 mg IM before starting other treatment.

- **Call or refer** if severe pain or treatment failure.

Click here for MSHC proctitis guidelines
For clinical advice, GPs call 1800 009 903

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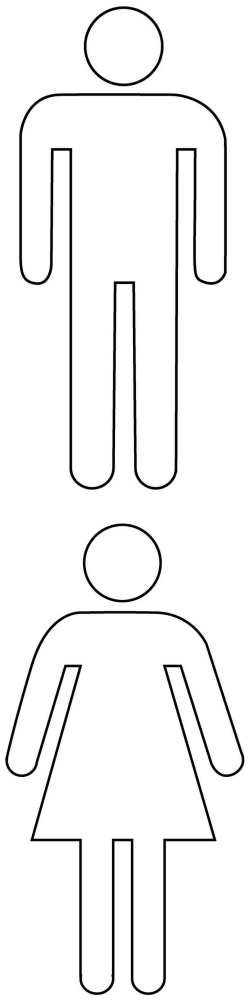
Anogenital lumps, bumps and swellings - men and women



These are most commonly:

- Normal anatomical variants such as papillae and sebaceous glands. Go to stiatlas.org and search for anatomical variants (in Syndromes) for examples.
- Warts. For examples, go to stiatlas.org and search for warts (in STIs).
- Molluscum contagiosum. For examples, go to stiatlas.org and search for molluscum contagiosum (in STIs).

Also **screen** for other STIs; go to screening

Click here for MSHC wart and HPV guidelines

Click here for video on Wart Treatments

Click here for video on Cryocautery.

Refer or call if:

- atypical lesions or diagnosis is unclear.
- warts persist after treatment with imiquimod and cryocautery.

For clinical advice, GPs call 1800 009 903

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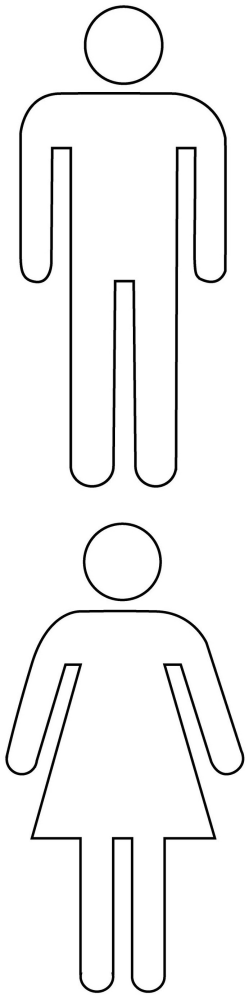
Anogenital ulceration - male and female



- **Syphilis** and **herpes** should be excluded in all cases of genital ulceration.
- A swab should be taken from the ulcer base - vesicles need to be deroofed. Firm rubbing of the swab on ulcerated areas causes discomfort to the patient, but greatly increases the sensitivity of the test.
- Send the swab for Herpes simplex and syphilis PCR and also order syphilis serology. Herpes simplex serology is not helpful.
- It is prudent to commence antiviral treatment early - valaciclovir 500 mg bd - before results are available.
- Chancroid and LGV are very rarely seen. Much more common are traumatic lesions, pyogenic bacterial infections and dermatoses. For examples of these, go to stiatlas.org and search for genital ulceration (in Syndromes).

Also **screen** for other STIs; go to male or female screening

Click here for MSHC herpes guidelines

Click here for MSHC syphilis guidelines

Click here for video on Genital herpes

Refer or call if:
- atypical lesions or diagnosis is unclear.

For clinical advice, GPs call 1800 009 903

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A frequently asked question: What swab do I use?

Only 2 types of swab are needed in STI diagnostics:

Example of a NAAT test swab

- NAAT testing swabs. These vary between laboratories, depending on which test platform they use, and are used for PCR and other nucleic acid amplification assays for detection of viral and bacterial nucleic acids, eg tests for:
  - gonococci
  - chlamydia
  - trichomonads
  - herpes
  - syphilis

2 examples of bacteriological swabs

- Bacterial swabs for microscopy and for culture of gonococci and yeasts. These are supplied with transport tube containing a gel - clear or sometimes black - into which the swab is placed after the sample has been taken.

- **Pharyngeal** swabs should sample both tonsils and the oropharynx.
- **Anorectal** swabs should sample the anorectal junction. Insert the swab 2-3 cm, rotate and withdraw. The swab can be moistened with saline to facilitate insertion.

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Screening women

Take a history:

- sex worker
- injecting drug use

She is a:

- Low-risk woman (neither of the risks below)
- Sex worker
- Woman who injects drugs

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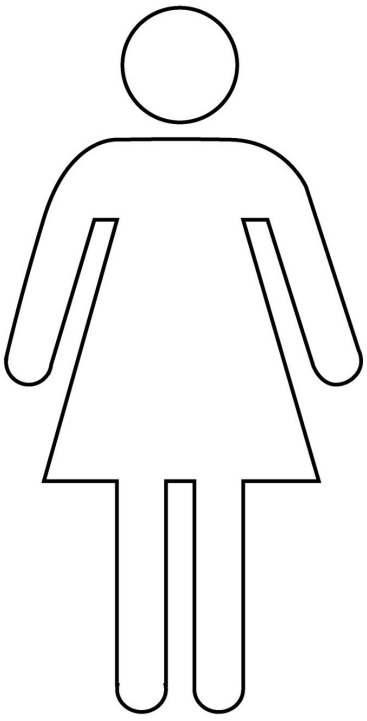
Low risk women



- First-void urine - 15-20 ml only - for chlamydial and gonococcal NAAT testing.

Does NOT have to be early morning specimen, and time since previous urination is irrelevant.

or

- High vaginal swab for chlamydial and gonococcal NAAT testing.

Can be self-collected.

- Genital examination is optional if asymptomatic

- Syphilis serology
- HIV serology if patient requests
- Hepatitis B serology if unvaccinated or known to be not immune

Click here for MSHC screening guidelines
For clinical advice, GPs call 1800 009 903

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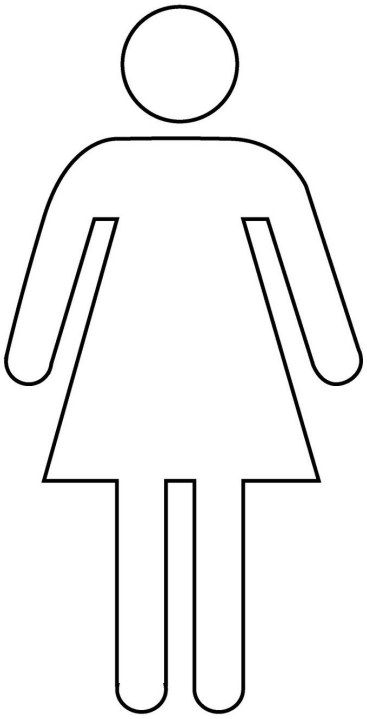
Female sex workers



- Pharyngeal swab for gonococcal NAAT testing

- High vaginal swab for chlamydia and gonococcal NAAT testing

- Genital examination is **mandatory**
- HIV serology
- Syphilis serology
- Hepatitis B serology if unvaccinated or known to be not immune

- Sex workers in Victoria need to be examined and screened **every 3 months**.
- Warts, herpes, chlamydia, gonorrhoea, HIV, syphilis, LGV and Donovanosis are the STIs which, under the Act, make sex work illegal.
- At each screening visit, if there is no clinical evidence of herpes or warts, a certificate should be provided to the patient even before laboratory test results are available.
- This certificate needs only to state that *"(patient) attended on (date), and had STI tests including blood tests."*

For clinical advice, GPs call 1800 009 903

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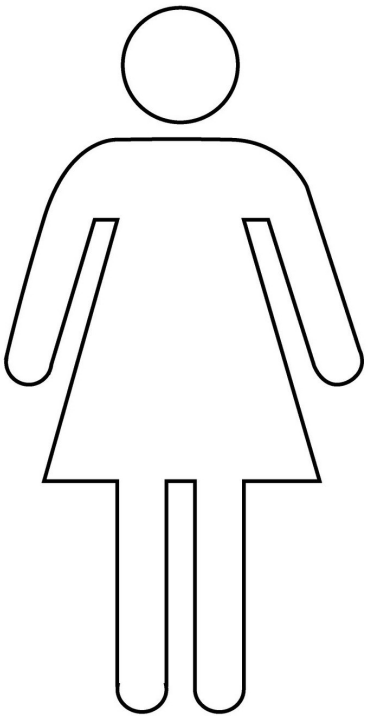
Women injecting drugs



- High vaginal swab for chlamydia, gonococcal and trichomonas NAAT testing

Can be self-collected.

- Genital examination is optional

- HIV serology
- Syphilis serology
- Hepatitis B serology if unvaccinated or known to be not immune
- Hepatitis C serology if not known to be seronegative

Click here for MSHC screening guidelines
For clinical advice, GPs call 1800 009 903

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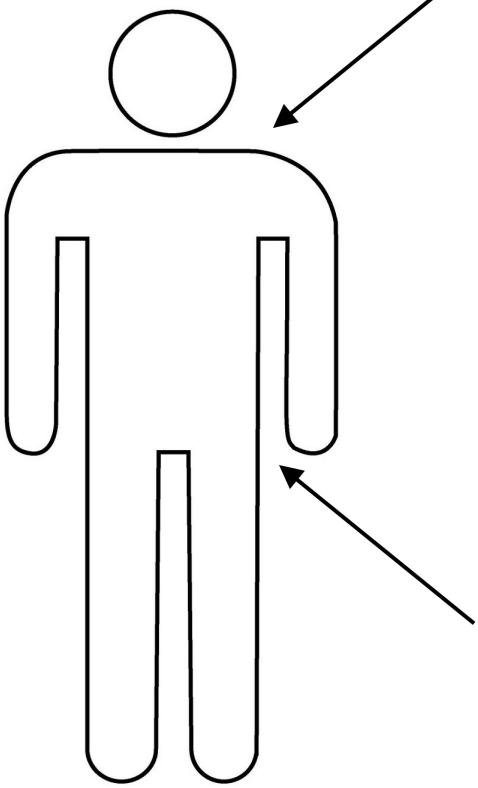
Rashes and itches in men



Generalized body rashes in sexually active men should always raise suspicion of:

- Syphilis. For examples, go to stiatlas.org and search for male and secondary syphilis (in STIs). Syphilis can be neither confirmed nor excluded on the basis of rash morphology; always do serology if suspicious.
- Acute HIV infection, particularly if accompanied by fever and sore throat, and especially in men who have sex with other men.

Anogenital itching and rashes should always raise suspicion of:

- Genital herpes, especially if there is a history of recurrent symptoms. Atypical lesions are common. Go to stiatlas.org and see male and genital herpes in STIs.
- Syphilis. See above. For examples, go to stiatlas.org and search for syphilis (in STIs) and penis and anus.

! Always do HIV and syphilis serology when patients present with glandular fever-like symptoms !

Also **screen** for other STIs; go to screening

Refer or call if:
- atypical rashes or diagnosis is unclear.

For clinical advice GPs call 1800 009 903

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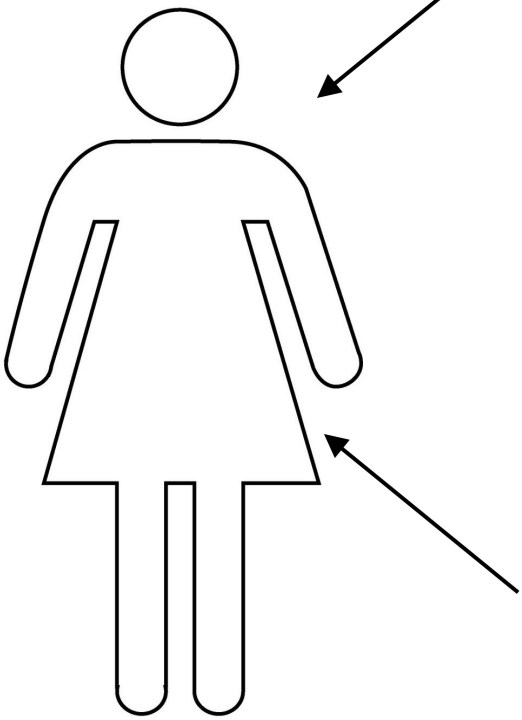
Rashes and itches in women



Generalized body rashes in sexually active women should always raise suspicion of:

- Syphilis. For examples, go to stiatlas.org and search for female and secondary syphilis (in STIs). Syphilis can be neither confirmed nor excluded on the basis of rash morphology; always do serology if suspicious.
- Acute HIV infection, particularly if accompanied by fever and sore throat.

Anogenital itching and rashes should always raise suspicion of:

- Genital herpes, especially if there is a history of recurrent symptoms. Atypical lesions are common. Go to stiatlas.org and see female and genital herpes in STIs.
- Syphilis. See above. For examples, go to stiatlas.org and search for syphilis (in STIs) and vulva and anus.

! Always do HIV and syphilis serology when patients present with glandular fever-like symptoms !

Also **screen** for other STIs; go to screening

Refer or call if:
- atypical rashes or diagnosis is unclear.

For clinical advice, GPs call 1800 009 903

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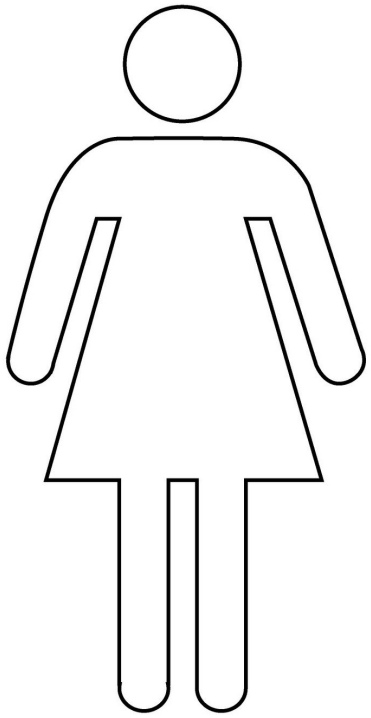
Vaginal discharge without vulvar symptoms



- High vaginal swab for chlamydia, gonococcal and trichomonas NAAT testing
- Add Mycoplasma genitalium test if cervicitis or PID
- High vaginal bacterial swab for microscopy and culture

- Speculum examination should be done
- Exclude pregnancy and foreign bodies
- Always consider Pelvic Inflammatory Disease

Empirical treatment may be given before results are back, depending on clinical suspicion.

See MSHC guidelines on vaginal discharge for more detailed information.

Also **screen** for other STIs; go to screening

Refer or call if: • atypical presentations or unclear diagnosis

For clinical advice, GPs call 1800 009 903

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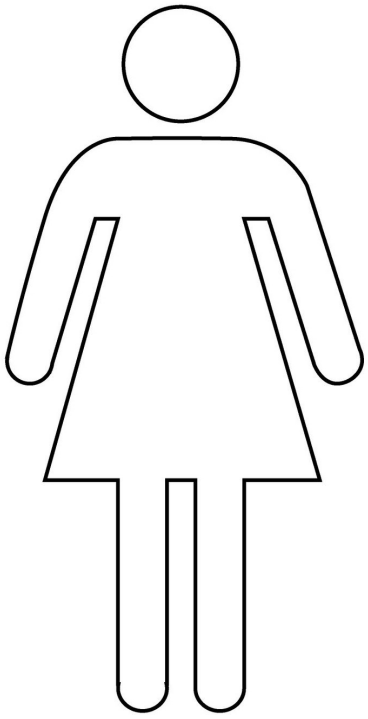
Pelvic pain



- Cervical swab for chlamydia, gonococcal, trichomonas and Mycoplasma genitalium NAAT testing

- Cervical bacterial swab for microscopy and culture

- speculum and bimanual examination should be done
- exclude pregnancy in all cases
- consider enteric and gynaecological causes
- always treat if PID is suspected

Empirical treatment should be given before results are back.

See MSHC guidelines on Pelvic Inflammatory Disease for more detailed information.

Also **screen** for other STIs; go to screening

Refer or call if: • atypical presentations or unclear diagnosis

For clinical advice, GPs call 1800 009 903

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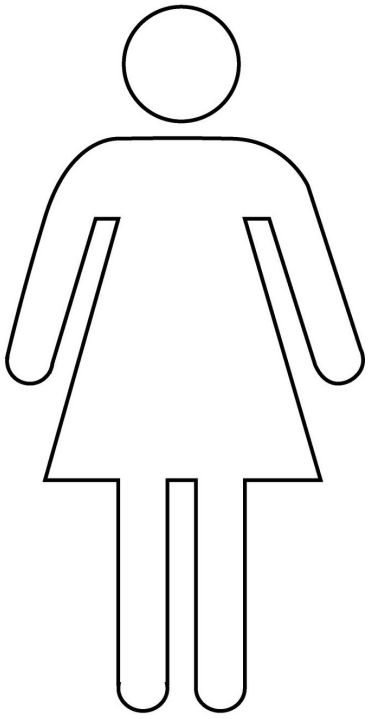
Vulvar symptoms with or without vaginal discharge



- Swab of vulvar ulcers, if present, for HSV and syphilis NAAT testing

- High vaginal bacterial swab for microscopy and culture

Speculum examination is unnecessary if vulvar lesions are present, or if there is clear clinical evidence of candidal vulvitis.

Empirical treatment may be given before results are back, depending on clinical suspicion.

See MSHC guidelines on vaginal discharge for more detailed information.

Also **screen** for other STIs; go to screening

Refer or call if: • atypical presentations or unclear diagnosis

For clinical advice, GPs call 1800 009 903

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Ureaplasma urealyticum and Mycoplasma hominis

At MSHC, we often get phone calls regarding isolates of Ureaplasma urealyticum (UU) and, less commonly, Mycoplasma hominis. Such isolates are usually accompanied by a comment from the Pathology Laboratory that the organism has been associated with genital infections.

We do not screen for these organisms, nor do we test for them in cases of urethritis, cervicitis or PID.

Our reasons are that, *in men and in non-pregnant women:*

- Genital mycoplasmas are common commensals in sexually active men and women. The presence of UU in asymptomatic individual does not indicate disease.

- Despite historical reports of an association between UU and urethritis, a recent intensive study at MSHC of the aetiological organisms in urethritis showed no such correlation.[1]

- While studies have shown that the common Ureaplasma parvum biovar is non-pathogenic there is conflicting evidence around the role of some serovars of Ureaplasma urealyticum in syndromes such as urethritis. Current published evidence does not support treating Ureaplasma urealyticum when detected.

- Clinical urethritis, cervicitis and PID are treated syndromically, with antibiotics designed to target the range of common likely pathogens. Tests are done for pathogenic organisms of public health significance (Chlamydia trachomatis, Neisseria gonorrhoea, Mycoplasma genitalium) which require partner notification and follow-up. Tests for co-infectingcommensals are never indicated and always unhelpful.

In summary:

- Do not screen for genital mycoplasmas in asymptomatic people.

- Do not test for genital mycoplasmas when your patients have genital infections.

- Ignore laboratory reports of isolation of genital mycoplasmas, despite the accompanying laboratory comments.

1. Bradshaw CS, Tabrizi SN, Read TR, et al. Etiologies of nongonococcal urethritis: bacteria, viruses, and the association with orogenital exposure. The Journal of infectious diseases 2006; 193(3): 336-45

Note: these comments do not apply to Mycoplasma *genitalium*

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Notes on Hepatitis B serology

At MSHC, we often find that referred patients have been screened for Hepatitis B by a single test - for Hepatitis B surface antigen (HBsAg).

While a negative HBsAg result excludes almost all cases of chronic Hepatitis B infection, it gives no information on susceptibility, or of immunity through vaccination or past infection.

Please order "Hepatitis B serology, exclude chronic hepatitis."

The laboratory will then report the full panel of serological markers:

HBsAg
Anti-HBc
Anti-HBs

This is fully rebatable by Medicare.

A simple guide to interpretation of results can be found at the Hep B Help website.

Persons found to be immune to Hepatitis B do not need to have their serology repeated at subsequent visits.

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A Frequently Asked Question: "I've done an asymptomatic STI screen on my patient and the syphilis tests have come back as positive."

First step: Ask whether the patient has ever been treated for syphilis.

> If there is a history of treated syphilis, and the RPR titre is low (nonreactive, 1 or 2), this is consistent with previously treated syphilis. Specific syphilis markers such as EIA, TPPA and FTA remain reactive even after treatment, and usually for life, whereas the RPR titre falls, usually to zero but sometimes at a low level.

Second step, if previously treated syphilis has been excluded: Ask when the patient last had a previous negative test for syphilis.

> If there has been no testing within the previous 2 years then the patient should be treated as having late latent syphilis: Benzathine penicillin 1.8 g IM, 3 doses at weekly intervals.
> If there was a previous test within 2 years and the patient has seroconverted, or the RPR titre has rised 4-fold (eg from 4 to 16), then he/she shoud be treated as having early latent infection: Benzathine penicillin G 1.8 g IM as a single dose.

Note: Benzathine penicillin,not benzylpenicillin

Benzathine penicillin is more likely to be obtained from a hospital rather than community pharmacy

Click here for MSHC syphilis guidelines

For clinical enquiries, GPs can call 1800 009 903

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SORRY, THIS SECTION IS STILL UNDER CONSTRUCTION

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