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The who, what and from where of STIs: selective testing in asymptomatic patients

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As most sexually transmissible infections (STIs) are asymptomatic, it is important to offer opportunistic testing to people identified as being at risk. Appropriate testing, treatment and contact tracing in the primary care setting will help reduce the burden of STIs in our community.

Key points

- **Most sexually transmissible infections (STIs) are asymptomatic.**
- **It is important to offer appropriate opportunistic testing to people at risk of STIs.**
- **A full sexual history and examination is not necessary in most asymptomatic patients and may present an unnecessary barrier to testing.**
- **Testing and treatment of chlamydia and gonorrhoea is usually straightforward.**
- **First-void urine samples are appropriate for chlamydia or gonorrhoea testing in asymptomatic women and men.**
- **Retesting for chlamydia three months after treatment is important to diagnose reinfection.**
- **Contact tracing is important to reduce the spread of asymptomatic infection in the community.**

The term sexually transmissible infection (STI) describes an infection that is most commonly spread through sexual contact. In the general practice setting, STIs are diagnosed because the patient:

- presents with a symptom suggestive of an STI
- presents as a contact of someone diagnosed with an STI
- presents for an 'STI check'
- is offered opportunistic testing.

This article presents a guide to testing in asymptomatic patients as well as an overview of STIs, specifically chlamydia, gonorrhoea, syphilis and HIV infection, which may be detected via asymptomatic testing (as shown in the two case study examples in the boxes on page 14). Although this process is usually described as 'STI screening', it is in reality 'selective testing' in which specific risk factors are identified and appropriate pathology tests ordered.

Priority groups identified as 'high risk' for STIs are selected on the basis of epidemiological evidence and represent the population groups in which high rates of certain STIs are found. If someone belongs to a priority population group it does not of course mean that

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the individual engages in high-risk behaviours. Nor does it mean that people who do not belong in priority population groups do not engage in high-risk activities.

In general, asymptomatic testing can be performed with minimal but targeted history taking. Examination is not necessary in most asymptomatic patients and may present an unnecessary barrier to testing.[1,2] The patient must of course consent to the testing and understand which tests are being carried out and there needs to be a clear mechanism in place for giving results and treatment if needed. By contrast, if a patient presents with symptoms of a possible STI, a detailed history and physical examination is necessary.

Contact tracing of people diagnosed with STIs is important to reduce the spread of asymptomatic infection in the community. This article also provides an overview of this process.

TAKING A BRIEF SEXUAL HISTORY

Taking a sexual history can be challenging in the general practice setting. Permission from the patient needs to be granted to discuss intimate subjects and it is important for the healthcare practitioner to feel comfortable using straight forward unambiguous language and to present a nonjudgemental attitude.

Simple ways of raising the topic of STI testing and a simple guide to taking a sexual history is provided in the box on page 16. It should be remembered that taking a full sexual history is not always necessary in an opportunistic screening situation but may be important if a patient presents requesting an STI check up or with symptoms. The approach used and the questions selected will depend on the patient context.

ASYMPTOMATIC STI TESTING

Patients frequently present requesting to be 'tested for everything' and it is important to explain that certain common STIs, in particular genital warts and genital herpes, are not tested for in asymptomatic people. Genital warts are a clinical diagnosis and genital herpes are best diagnosed on a swab from a specific lesion. Herpes simplex virus (HSV) serology has no role in STI screening and even type-specific serology can be unreliable. Chlamydia serology also has no role in STI screening because it does not reliably detect current genital chlamydia infection.

There are various guidelines for asymptomatic testing in the community available in Australia, including the NSW STI Programs Unit STI testing tool[3] (see Figure 1) and the RACGP Redbook, Guidelines for preventive activities in general practice (see the box on web resources on page 19).[4] These guidelines reflect the need to address risk factors when assessing an asymptomatic patient and to use this risk assessment to guide practice. Groups at risk as identified by epidemiological data include those under 25 years of age, men having sex with men, Aboriginal people (specifically in under 35 year olds), sex workers and injecting drug users. Medicare funding for pathology services has specific and limited

CASE STUDY 1. A 19-YEAR-OLD STUDENT REQUESTING A CHECK UP FOR CHLAMYDIA

Alice, a 19-year-old university student, presents requesting a 'check up' after hearing about chlamydia at the university open day. You find out that she has no symptoms of an STI and that she has had three sexual partners, all male and all living in Australia. She is in a monogamous relationship with her current partner of eight months and she uses the combined pill for contraception. She was vaccinated against hepatitis B and human papillomavirus at school. Alice had her first Pap test six months ago, which was normal but a chlamydia test was not offered.

You offer Alice a chlamydia test on this visit because she falls into a priority population group based on her age. There is no need for any other STI testing at this time. As she is not having a Pap test at this time she can provide a first-void urine sample (the first part of the urine stream at any time of day, ideally more than one hour after last voiding) or a self-collected vaginal swab.

Alice's chlamydia test comes back as positive. On review she does not have any symptoms or signs of pelvic inflammatory disease and is treated with a single 1 g dose of azithromycin. You discuss the need for Alice to inform all sexual partners within the past six months and although she feels a bit anxious she says she will let her boyfriend know about the diagnosis straight away. You generate a letter for Alice to give to him using the 'let them know' website (see the box on page 00 on web resources for further details), which he can take to his doctor to facilitate testing and treatment regardless of his test result. You also advise Alice not to have sex with her boyfriend until one week after both have been treated, and to have a repeat chlamydia test in three months time to ensure that she has not become infected again.

CASE STUDY 2. A 35-YEAR-OLD MAN REQUESTING AN HIV TEST

Tim is a 35-year-old man who has sex with other men. He presents requesting an HIV test. He had unprotected receptive anal sex and insertive and receptive oral sex with a casual partner three weeks ago. Tim is aware he is in a higher-risk group for STIs and HIV. He consents to a full screen. You remind him that he will need to repeat the HIV test after the 12-week window period.

The following samples are taken for testing:

- first-void urine sample (i.e. – not mid stream and approximately 20 mL passed at least one hour after last urination at any time of day) for chlamydia nucleic acid amplification tests (NAAT) using polymerase chain reaction testing
- self-collected anal swab for both chlamydia and gonorrhoea NAAT
- pharyngeal swab for gonorrhoea NAAT
- blood sample to test for HIV infection, syphilis, and hepatitis A and hepatitis B core antibodies (because he is unsure if he is vaccinated against hepatitis A and B).

Tim tests positive for gonorrhoea from the pharyngeal swab. You treat Tim with a 500 mg intramuscular dose of ceftriaxone in 1 to 2 mLs of 1% lignocaine and in the post-test discussion advise him of the need to repeat the HIV test after the window period. Tim uses the 'drama down under' website (see the box on page 19 for details) to contact his casual partner about the gonorrhoea diagnosis.

applications for screening tests relating to STIs. In a clinical context, if an individual is deemed to be at risk, testing for STIs is justified.[4]

Asymptomatic testing employs either nucleic acid amplification tests (NAATs), such as polymerase chain reaction testing, culture or serology depending on the STI to be tested for and the site from which the sample is taken.

Despite RACGP guidelines recommending that any sexually active person under 25 years of age should be offered an annual chlamydia screening test,[4] it appears that opportunities may be being missed. An Australian study concluded that although 86% of females and 64% of males aged 16 to 29 years visited a GP in a 12-month period, only 8.9% of those were tested for chlamydia.[5] There are a variety of potential reasons why young people may not be tested for chlamydia and strategies such as reminder systems may prove to be useful in the future.

Given the robustness of NAATs, opportunities for STI testing outside a conventional medical setting will undoubtedly become increasingly common. GPs may, in the future, be asked to provide results and appropriate management for tests carried out in settings such as pharmacies[6] or even schools. Self-collecting vaginal swab kits are now available online. This involves a woman collecting a sample, sending it via post for polymerase chain reaction testing and obtaining the results from her designated doctor. This may well be a way to increase chlamydia testing in susceptible women but the effect of self-testing kits on testing rates is unproven in Australia and caution is required in relation to possible false-positive gonorrhoea results in low-risk populations.[7]

Addressing risk behaviours at the time of asymptomatic screening can be important. This can also be an opportunity to address issues such as contraception and cervical screening if relevant.

SIMPLE WAYS OF RAISING THE TOPIC OF STI TESTING

- Before we do a Pap test/prescribe your pill, would you also like a chlamydia test?
- It is recommended that anyone under 25 years of age who is sexually active should have a chlamydia test. Would you like a test today?
- I would like to ask you some questions about your sexual activity so we can decide what tests to do, is that OK?

A SIMPLE GUIDE TO TAKING A SEXUAL HISTORY

- Are you currently in a relationship?
- How many sexual partners have you had in the past three months/ 12 months?
- Were these casual or regular partners?
- Were your sexual partners male, female or both?
- When was the last time you had vaginal sex/oral sex/anal sex without a condom?

Chlamydia

Testing

Chlamydia is by far the most common bacterial STI in Australia, with over 74,000 diagnoses in 2010. Positivity is highest in populations such as in young people, Aboriginal and Torres Strait Islander people, and in men who have sex with men.[8]

Chlamydia can cause pathology throughout the genital tract (e.g. urethritis, cervicitis, pelvic inflammatory disease, epididymo-orchitis). Most infected women and men will be asymptomatic. Symptoms may include urethral or vaginal discharge, dysuria, intermenstrual and postcoital bleeding, and pelvic or testicular pain. The incubation period for symptomatic chlamydia infection is usually between five and 10 days. The optimum time for testing after potential exposure in patients with asymptomatic infection is usually quoted as two weeks;[9] earlier testing may result in a false-negative result.

NAATs are now 'gold standard' for chlamydia and can be carried out on a variety of samples depending on the context of the test. Endocervical swabs can be opportunistically taken at the time of a Pap test and should be taken in symptomatic women at the time of the physical examination. A first-void urine sample (i.e. – not mid stream and approximately 20 mL passed at least one hour after last urination at any time of day) is appropriate in asymptomatic women and men. Alternatively, a self-collected vaginal sample is also appropriate for asymptomatic women.

Men who have sex with men should be routinely offered self-collected anal swabs for chlamydia and gonorrhoea because asymptomatic rectal chlamydia infection is one of the most common STIs in this population. Chlamydia testing is not currently routinely recommended on throat swabs because the significance of detecting chlamydia at this site for STI control is not known. Many patients are coinfected at genital sites and will be diagnosed and treated anyway.[10] However, in patients in whom oral sex is the only risk factor and, particularly if they are a contact of a person with chlamydia, a pharyngeal NAAT for chlamydia may be justified.[11]

Treatment and follow up

The treatment regimen for chlamydia infection in women is determined by the absence or presence of upper genital tract symptoms and signs suggestive of pelvic inflammatory disease. In uncomplicated chlamydia, in which there is no suggestion of upper genital tract infection, the standard treatment is 1g azithromycin orally as a single dose. Abstinence from sexual intercourse should also be advised until seven days after both partners have completed their treatment, even if taken at the same time. Contact tracing for partners within the previous six months is also advised.

A chlamydia 'test of cure' is not routinely recommended. However, a test of reinfection should be offered three months following treatment. This is because up to 20% of people diagnosed with chlamydia infection are reinfected at three to six months post treatment,[12] and repeat infections are associated with an increased risk of long-term complications, including tubal damage and infertility.[13]

If pelvic inflammatory disease is suspected there are various regimens recommended. For example, the National Management Guidelines for Sexually Transmissible Infections recommend the following regimen: azithromycin 1 g as a single dose plus doxycycline 100 mg twice daily for two weeks plus metronidazole 400 mg twice daily for two weeks.[14] If there is a history of recent sexual intercourse with a partner from overseas or any other reason to suspect gonorrhoea, ceftriaxone 500 mg intramuscular injection in 1 to 2 mL of 1% lignocaine should be added to the regimen.

Some authorities advise the inclusion of intramuscular ceftriaxone for all women suspected of pelvic inflammatory disease, but this is controversial in some areas. In Australia, ceftriaxone is often included only if risk factors for gonorrhoea are present (such as a partner from a high prevalence country).

Patients with pelvic inflammatory disease should be reassessed at 72 hours after presentation and followed up at completion of treatment. Referral to the specialist setting is essential for patients with severe symptoms and those who fail to respond to treatment in the primary care setting. Sexual contacts should be tested and treated and abstinence maintained until one week after completion of treatment.

STI Testing Tool

Who? is the patient?	Why? would you do an STI test?	Which? STI	How? WHAT specimen do you need?	How? WHAT test do you order?
A sexually active young person under 25 years	This population is at higher risk for Chlamydia	Chlamydia	First pass urine **OR** Self-collected vaginal swab **OR** Endocervical swab	NAAT
		HBV	**Consider vaccination for HBV & HPV**	
A sexually active Aboriginal young person under 25 years	This population is at higher risk for Chlamydia * Can also be conducted as part of the Aboriginal health check - Medicare item 715	Chlamydia Gonorrhoea	First pass urine **OR** Self-collected vaginal swab **OR** Endocervical swab	NAAT
		HBV	Blood **Consider vaccination for HBV & HPV**	HBcAb
An (asymptomatic) person of any age requesting "a STI checkup"	The patient has requested it, so may be at risk. Ideally, take a sexual history to ascertain: a) if they fall into one of the groups below b) help you decide on sites for specimen collection	Chlamydia	First pass urine **OR** Self-collected vaginal swab **OR** Endocervical swab	NAAT
		HIV Syphilis HBV	Blood **Consider vaccination for HBV**	HIV Ab Syphilis EIA HBcAb
A man who has sex with men (MSM)	This population group is at higher risk for Chlamydia, Gonorrhoea, Syphilis, HIV, HAV, HBV	Chlamydia	First pass urine & anal swab	NAAT
		Gonorrhoea	Throat swab Anal swab	Gonorrhoea culture NAAT
		HIV Syphilis HAV HBV	Blood **Vaccinate for HAV & HBV**	HIV Ab Syphilis EIA HAV Ab (total) HBcAb
A sex worker	This population group is at higher risk for Chlamydia, Gonorrhoea, Syphilis, HIV, HBV See above for MSM sex workers	Chlamydia Gonorrhoea	First pass urine **OR** Self-collected vaginal swab **OR** Endocervical swab	NAAT
		HIV Syphilis HBV	Blood **Vaccinate for HBV**	HIV Ab Syphilis EIA HBcAb
A person who injects drugs	This population group is at higher risk for Chlamydia, Gonorrhoea, Syphilis, HIV, HBV and HCV* * HCV is not an STI but is included due to risks associated with injecting drugs	Chlamydia Gonorrhoea	First pass urine **OR** Self-collected vaginal swab **OR** Endocervical swab	NAAT
		HIV Syphilis HBV HCV	Blood **Vaccinate for HBV**	HIV Ab Syphilis EIA HBcAb HCVAb

HAV = Hepatitis A
HBV = Hepatitis B
HCV = Hepatitis C
HPV = Human Papilloma Virus
NAAT= Nucleic Acid Amplification Test (eg: PCR)

Information on vaccination www.immunise.health.gov.au
Information on HIV Pre & post-test discussion www.ashm.org.au/uploads/HIV_viral_hep_Chapter_9.pdf

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Figure 1. Asymptomatic testing for STIs.[3] Developed by NSW STI Programs Unit and reproduced with permission, 2011 (see www.stipu.nsw.gov.au for the full version).

WHEN TO OFFER AN HIV TEST[21]

- Clinical suspicion of an HIV infection
- Patient initiated request
- Diagnosis of a condition with a shared transmission route (another STI, hepatitis B or C)
- Reported high-risk behaviour
- Reported reuse of equipment for skin penetration
- In the context of contact tracing
- In the context of post-exposure prophylaxis
- In the context of early identification and/or prevention:
  - men who have sex with men
  - people who inject drugs
  - people with multiple sexual partners/recent partner change
  - people having travelled to countries of high prevalence and engaged in risk behaviour
  - people from high prevalence countries
  - partners of the above
  - partners of people living with HIV infection
  - pregnant women
  - people who have received a blood transfusion or blood products prior to 1985 in Australia, or from overseas

Gonorrhoea

Testing

Gonorrhoea is not a common STI in Australia; however, it is more prevalent in some groups, including Aboriginal and Torres Strait Islander people and men who have sex with men.[8] In men, urethral gonorrhoea is usually symptomatic, causing urethral discharge and dysuria and can be associated with epididymo-orchitis. In women, up to 50% of cervical infections will be asymptomatic but symptoms can include mucopurulent cervical discharge, dysuria, pelvic pain and intermenstrual or postcoital bleeding.[15]

Anorectal and throat infections are commonly asymptomatic. Culture remains a recommended test for gonorrhoea because this allows antibiotic resistance to be determined, although NAATs are increasingly being used for diagnosis.[16] If a NAAT is used to test a woman for gonorrhoea, an endocervical or a self-collected vaginal sample or a first-void urine sample can be used. First-void urine is the correct NAAT sample for men. Most NAATs have not been validated for use on anal or pharyngeal specimens but are widely accepted as being an effective screening tool in a high prevalence population.[15,17,18]

Treatment and follow up

Treatment of gonorrhoea is the same regardless of the site of infection whether the patient is symptomatic or asymptomatic. Ceftriaxone 500 mg intramuscular injection in 1 to 2 mLs of 1% lignocaine is the recommended treatment in most states and territories. Emergence of resistance to ceftriaxone is of concern. Sexual health clinics should hold ceftriaxone in stock.

Abstinence from sexual intercourse should be advised until seven days after both partners have completed their treatments, even if taken at the same time. Contact tracing for partners within the previous two months is advised.[19] A 'test of cure' is not routinely recommended.

HIV

Testing

Transmission of HIV in Australia has been and continues to be mainly through sex between men (86% of diagnoses of newly acquired HIV infection). The annual number of diagnoses of newly-acquired HIV infection remained relatively stable from 2006 to 2010 at approximately 1000 cases per year. In 2010, the national prevalence was estimated to be 96 per 100,000.[8] The risk for heterosexual men and women is low but it is important to recognise the potential for heterosexual transmission, especially in people from, or travelling to, high prevalence countries such as Sub-Saharan Africa.

A healthcare provider's duty of care includes knowing when to offer an HIV test (see the box on this page), ensuring a pretest discussion occurs (including information on how the results will be given), providing a post-test discussion and ensuring follow up of positive cases.[20]

The purpose of the pretest discussion is to ensure that the patient is giving informed consent to the HIV test. The extent of the discussion will vary according to the circumstances of the presentation.[20] Points to cover in a pretest discussion include the following:

- confidentiality
- transmission routes of HIV
- the window period
- preparing the patient for the possibility of a positive result
- natural history of HIV
- treatment options available.

It is important to check that you have accurate contact details for the patient and have given clear instructions about how the test result will be provided. Any person considered at significant risk of a positive diagnosis should be given his or her results in person. A positive test result should not be given by telephone. Ideally, all low-risk results should be given in person but it is also acceptable to give a negative result by telephone (making sure that you have correctly identified the recipient of the result).[21]

Follow up

Irrespective of how the HIV test results are given, a post-test discussion needs to occur. With a negative result, the discussion should be about minimising ongoing risk and promoting safer sex messages. In people at ongoing risk of HIV infection, this discussion should also cover the availability of post-exposure prophylaxis. If there is exposure to a known or potential HIV-infected source, then antiretroviral

medication can be taken within 72 hours of exposure to reduce the chance of infection. Post-exposure prophylaxis is available in sexual health clinics and hospital emergency departments.

With a positive result, the patient will need arrangements for further assessment and care. Also, past contacts and current partners who may be at risk need to be identified. (For further information, refer to the Australasian Society for HIV Medicine [ASHM] – see the box on web resources on this page.) Sexual Health clinics will provide appropriate support for GPs who diagnose people with HIV infection in their practice.

Syphilis testing and follow up

STI screening in men who have sex with men should always include syphilis serology because syphilis is easily transmitted via oral sex. By contrast, oral sex is considered a low risk 'safer sex' activity for HIV transmission. Syphilis is relatively rare in most developed countries; however, syphilis serology is a routine test in a number of settings (e.g. antenatal screening, dementia screening, STI screening in some groups) and unexpected positive results can occur and need expert follow up. Positive serology should be discussed by the GP with a sexual health physician for management advice.

CONTACT TRACING

Contact tracing (sometimes known as partner notification) involves alerting all sexual partners (contacts) of an individual diagnosed with an STI to the fact they may have been exposed to that STI and encouraging the partner to seek medical advice. This has the primary objective of breaking the chain of transmission of an STI, preventing re-infection of the person testing positive and treating the contact.

Contact tracing is the responsibility of the infected individual but the diagnosing healthcare provider also has a responsibility to initiate the process of

USEFUL WEB RESOURCES ON STIs

RACGP Redbook, Guidelines for Preventive Activities in General Practice (7th ed)
- www.racgp.org.au/guidelines/redbook

Sexual Health Society of Victoria. National Management Guidelines for STIs (7th ed)
- http://mshc.org.au/Portals/6/NMGFSTI.pdf

NSW STI programs unit
Provides excellent resources and information for healthcare practitioners
- www.stipu.nsw.gov.au
- Patient resources on self-collection of urine samples and vaginal and anal swabs are available online at: www.stipu.nsw.gov.au/pdf/SELF_TESTING_CARD.pdf

Web-based partner notification sites
- www.letthemknow.org.au
- www.thedramadownunder.info (aimed at men who have sex with men)

Help with contact tracing
- www.mshc.org.au/gpassist
- www.gpnsw.com.au/programs/sexually-transmitted-infections-sti/contact-tracing
- http://ctm.ashm.org.au/

Australasian Society for HIV Medicine (ASHM)
ASHM produces a number of useful resources, including a guide to management of STIs, HIV infection and viral hepatitis in primary care
- www.ashm.org.au; contact number (02) 8204 0700
- ASHM HIV models of care, including HIV testing, pretest discussion and giving a positive test result is available at: www.ashm.org.au/default2.asp?active_page_id=182
- ASHM publication on General Practitioners and HIV is available at: www.ashm.org.au/images/PDFs/publications/1976963325_GPsHIV_V1.2_FINAL_Aug2011_WEB.pdf
- New national guidelines on HIV testing is available at: http://testingportal.ashm.org.au/hiv

Guide to Australian HIV Laws and Policies for Healthcare Professionals
- www.ashm.org.au/HIVLegal/

STI Testing Guidelines for Men who have Sex with Men
- http://www.stigma.net.au/resources/STIGMA_MSM_Testing_Guidelines_2010.pdf

Australasian Chapter of Sexual Health Medicine
- www.racp.edu.au/page/australasian-chapter-of-sexual-health-medicine/
- A register of sexual health clinics in Australia is available at: www.racp.edu.au/page/sexual-health-publications

Australian Indigenous Health Infonet information on sexual health
- www.healthinfonet.ecu.edu.au

STI Health
- www.STI.health.gov.au

STI Contact Tracing Tool for General Practice

Need More Help

- Call the **NSW Sexual Health Infoline on 1800 451 624** for information and support with contact tracing. **www.stipu.nsw.gov.au/shil**
- Support is available for complicated contact tracing from your **local sexual health clinic**. **www.health.nsw.gov.au/PublicHealth/sexualHealth/sexual_phus.asp**

How Far Back in Time to Trace*

Use these as a general guide only; discussion about which partners to notify should take into account the sexual or relevant risk history, clinical presentation and patient circumstances.
Contact tracing is **not recommended** in warts and herpes as there is little proven benefit

Infection	How far back to trace
Chlamydia	6 months
Gonorrhoea	2 months
Syphilis	Primary syphilis – 3 months plus duration of symptoms Secondary syphilis – 6 months plus duration of symptoms Early latent syphilis – 12 months
HIV	Start with recent sexual or needle-sharing partners; outer limit is onset of risk behaviour or last known negative result
Hepatitis B	6 months prior to onset of acute symptoms For newly acquired cases contact your local public health unit (PHU) &/or specialist physician
Hepatitis C	6 months prior to onset of acute symptom; if asymptomatic, according to risk history For newly acquired cases contact your local PHU &/or specialist physician Note - rarely sexually transmitted, usually only in HIV co-infection
Trichomoniasis	Unknown; important to treat current partner
Mycoplasma genitalium	Unknown; important to treat current partner
Lymphogranuloma Venereum (LGV)	1 month

*Information adapted from 2010 Australasian Contact Tracing Manual.

Produced by NSW STIPU – March 2011. For additional copies go to **www.stipu.nsw.gov.au**

Online Contact Tracing Resources

Patient

- **www.letthemknow.org.au**
  Information on STIs & practical tips for patients. Offers the option of notifying contacts via email, SMS or letter.
- **www.thedramadownunder.info**
  For MSM' with information about STIs. Offers the option of notifying contacts via email or SMS.

Provider

- GP NSW - Contact Tracing
  www.gpnsw.com.au/programs/sexually-transmitted-infections-sti/contact-tracing
- Australasian Contact Tracing Manual
  http://etm.ashm.org.au
- NSW Contact Tracing Guidelines
  www.health.nsw.gov.au/policies/PD/2005/pdf/PD2005_184.pdf
- NSW Health STI Factsheets
  www.health.nsw.gov.au/publichealth/sexualhealth/sex_factsheets.asp
- NSW Health Infectious Diseases A-Z Index
  www.health.nsw.gov.au/publichealth/Infectious/a-z.asp
- Contact Tracing Interview Video
  mshc.org.au/healthpro/OnlineEducation/Videos/PartnerNotification/tabid/514/Default.aspx

* Men who have sex with men

Management of Contacts

- Ensure access to **prompt testing and treatment.** This can be at your practice or through a referral to the local sexual health clinic. For treatment information see the **National Management Guidelines For STIs.***
- If contact tests positive, determine if any **additional partner(s)** need to be notified.
- **Post exposure prophylaxis** is available for contacts exposed to HIV or hepatitis B, through sexual health clinics, S100 Prescribers and emergency departments. **www.acon.org.au/hiv/pep**
- Offer **vaccination** for hepatitis B.
- Waiting for results can be a period of anxiety; **information and supportive counselling** is helpful.
- Discuss ways to **reduce risk behaviours** such as condom use and regular testing for STIs.

* Sexual Health Society of Victoria. National Management Guidelines for Sexually Transmissible Infections. 7th edn. Melbourne: Sexual Health Society of Victoria; 2008

Figure 2. STI contact tracing tool for general practice.[22] Developed by NSW STI Programs Unit and reproduced with permission, 2011 (see www.stipu.nsw.gov.au for the full version).

contact tracing. The person infected with an STI should be advised to inform partners that, firstly, they may have been exposed to an infection and, secondly, they should seek testing and treatment. Contacting partners can be carried out by the patient themselves or by the healthcare provider with the consent of the patient.

The guidelines for contact tracing, including how far back to trace for various STIs, can be found in the Australasian Contact Tracing Manual.[19] This also contains patient information leaflets, sample letters and resources to support contact tracing (see the box on page 19 on web resources and Figure 2 illustrating a useful STI contact tracing tool for GPs).

In the case of a positive chlamydia test, contacts should be traced for the previous six months. In most cases, this would be initiated by the patient infected, with support from the healthcare provider. For STIs with more serious sequelae and implications, such as syphilis or HIV infection, provider-initiated referral may be more appropriate. It is also appropriate in these situations to seek support from your nearest sexual health clinic. A full list of sexual health clinics in Australia, updated in June 2011, is available through the Australasian Chapter of Sexual Health Medicine (see the box on page 19).

Web-based partner notification sites have been an important development in facilitating anonymous notification of contacts. These sites can generate anonymous or identifiable emails, letters and SMS text messages and these can be sent by the patient during or after the consultation (see the box on page 19 for web-based partner notification websites).

It should be remembered that 'contact tracing' is different to 'notification'. Notification of an infection refers to the national surveillance of communicable diseases that are of public health importance and is co-ordinated through the National Notifiable Disease Surveillance System under the auspices of the Communicable Diseases Network Australia. Notifiable diseases include certain STIs (gonorrhoea, syphilis, genital chlamydial infection, donovanosis, hepatitis B, HIV infection and AIDS). The purpose of this de-identified data collection is to inform the public health policy. This is largely the responsibility of the diagnosing laboratory but depends on local legislation and varies between states and territories (in South Australia, Western Australia and Victoria the treating clinician is also responsible for the notification in a dual notification process). Healthcare providers may also be asked to provide additional epidemiological nonidentifiable information for cases, for example cases of HIV infection, in what is termed 'enhanced surveillance'.

PATIENT DELIVERED PARTNER THERAPY

The provision of additional medication for the infected patient's partner or partners without a consultation is controversial and is currently not supported by legislation in Australia.[19] Patient delivered partner therapy is supported in several other countries[23] and an Australian study published in 2008 demonstrated that it could be worthwhile, particularly in heterosexual male partners of women diagnosed with chlamydia.[24] There are concerns, however, that this approach potentially misses the opportunity of diagnosing complicated infection, testing for other STIs, providing risk-reduction counselling and further contact tracing.[23]

CONCLUSION

In Australia, most STIs are diagnosed in the primary care setting rather than in specialised sexual health services.[25] As most STIs are asymptomatic, it is important to offer testing opportunistically to people from populations identified as being at higher risk. Patients can find it difficult to raise the topic of sexual risk taking themselves, so it is important for the healthcare provider to opportunistically but sensitively offer testing. Only appropriate testing, treatment and contact tracing in the primary care setting will help reduce the burden of STIs in our community. MT

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The who, what and from where of STIs:
selective testing in asymptomatic patients

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