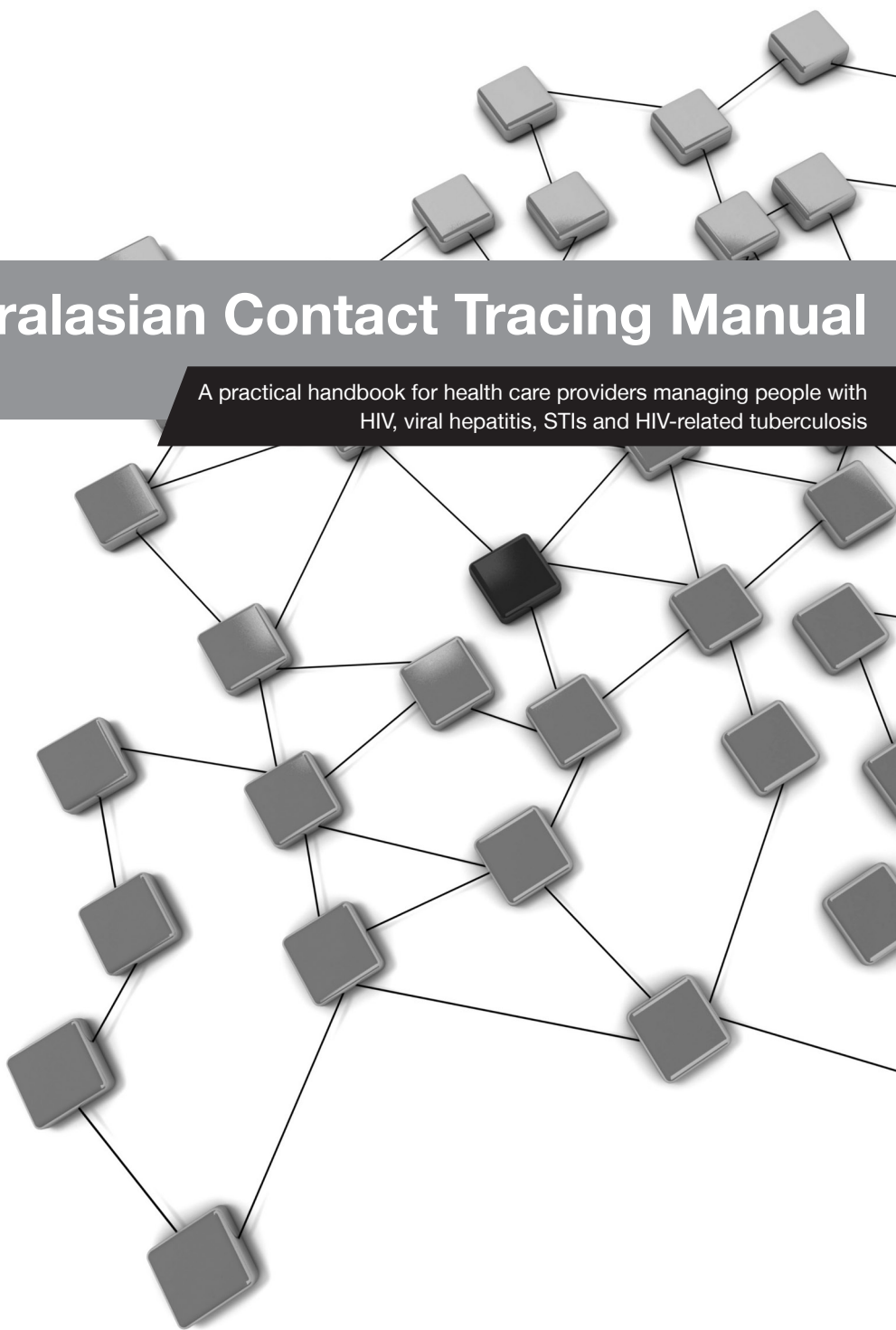


A network diagram composed of numerous blue, 3D-style square nodes connected by thin black lines. The nodes are arranged in a complex, interconnected web. One node, located in the upper-middle section of the diagram, is highlighted in a bright red color, standing out from the rest of the blue nodes.

Australasian Contact Tracing Manual

A practical handbook for health care providers managing people with
HIV, viral hepatitis, STIs and HIV-related tuberculosis

4th Edition 2010



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Australasian Contact Tracing Manual

A practical handbook for health care providers managing people with HIV, viral hepatitis, other sexually transmissible infections (STIs) and HIV-related tuberculosis

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Dedication

This manual is dedicated to the memory of Dr Robert Ariss who, as Convener of People Living with HIV/AIDS (NSW) Inc. and member of the Australian National Council on AIDS, officially opened the Contact Tracing Seminar held at the Quarantine Station, North Head, Sydney on 20 November 1991.

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Foreword

For many years, contact tracing - or partner notification - has been a cornerstone in the management of patients diagnosed with sexually transmitted infections (STIs) and tuberculosis and is considered an essential component in the control of these infections.

Recent Australian research suggests that both health care providers and patients diagnosed with STIs would like more guidance and resources to assist them with partner notification. This latest edition of the *Australasian Contact Tracing Manual* aims to provide this practical support and guidance and to enhance the effectiveness of partner notification.

To improve useability, the 4th edition has been designed in searchable web-based format in addition to the well-received hard copy handbook. This new edition has been substantially revised and updated and reflects the newer methods of communication utilised in contacting partners such as email, text messaging and the internet.

Whilst the publication is targeted at health care providers involved in the testing and management of people with STIs, viral hepatitis and HIV-related tuberculosis, it includes a range of patient handouts and resources to support the notification of partners.

Many organisations and individuals have contributed to the production of this new edition as well as previous revisions. We would like to extend our gratitude to the numerous writers, reviewers and members of the expert reference group who contributed generously to the production of this resource despite busy work loads.

Funding for this project was provided by the Commonwealth Department of Health and Ageing.

Marcus Chen 2010

1. Contact tracing in context

1.1. Definition

Contact tracing is the process of identifying the relevant contacts of a person with an infectious disease (index patient) and ensuring that they are aware of their exposure. For sexually transmissible infections (STIs), relevant contacts include those with whom the index patient has had sex during the infectious period as well as babies of infected mothers. For blood-borne infections such as HIV, hepatitis B and C, needle-sharing contacts and transfusion recipients, as well as those who may have been accidentally exposed to blood by other means, also need to be traced. For pulmonary tuberculosis, contact tracing will involve domestic or other close social contacts. The term 'partner notification' is often used interchangeably with contact tracing but by definition excludes needle-sharing contacts, transfusion recipients and children born to infected women. Some understand contact tracing as being synonymous with provider referral (where a health professional carries out tracing of contacts), while equating patient referral (where the patient does the notifying themselves) with partner notification. In this manual, the term 'contact tracing' is used in its broadest sense, encompassing both patient and provider referral.

1.2. Aims

The general aims of contact tracing are:

1. to interrupt the ongoing transmission of infection
2. to identify people with an infection who may benefit from treatment in order to minimise the likelihood of complications of infection
3. to prevent re-infection from an untreated partner to help limit the prevalence of infection in the population

The aims are achieved by:

- ♦ a high level of professionalism and assessing each case individually
- ♦ determining the medical and social implications of each infection
- ♦ considering the ethical and legal aspects of each case

The priorities and strategies involved in contact tracing, as well as the special considerations relating to particular populations, are outlined in later chapters.

1.3. Underlying principles

Contact tracing should be seen within the context of comprehensive STI control programs that include strategies such as health promotion, screening and testing. Contact tracing aims to complement, not replace, these strategies. Contact tracing is a priority for some STIs such as HIV, syphilis, chlamydia and gonorrhoea but not for others such as herpes and genital warts.

Contact tracing should be undertaken with appropriate understanding and sensitivity and be a voluntary process without coercion. Individuals diagnosed with STIs and their contacts should have equal access to services regardless of their willingness to co-operate with contact tracing. The process should be confidential and include procedures to ensure the appropriate protection of health records. Specific permission must be given to release any information to contacts.

2. A guide to contact tracing

2.1. Introduction

- ♦ Contact tracing is an important part of the clinical management of patients diagnosed with STIs. For most STIs and blood-borne infections, primary care providers such as general practitioners are best placed to assist patients in undertaking contact tracing.
- ♦ Contact tracing has not only public health benefits but also health benefits for the individual with the infection and their partners. For example, re-infection is common with chlamydia, particularly from untreated partners.
- ♦ In most cases, contact tracing can be undertaken by the index patient (patient referral), with health care provider assistance as an alternative option (provider referral). This needn't be a complex or time-consuming exercise – generally it simply involves a discussion between health care provider and the patient.
- ♦ In certain circumstances where infection is not immediately attributable to sexual or injecting drug use (IDU) transmission, consultation with specialist services for advice or assistance with detailed risk assessment and contact tracing is strongly recommended (for example HIV). In cases where health care providers do not feel adequately equipped to assist index patients or trace contacts, referral to or consultation with a specialist centre should also be considered. See Appendix B for a list of specialist services.

2.2. General principles

Contact tracing relies on the cooperation of the patient, therefore it is important that health care providers offer supportive, non-judgmental advice and assistance to patients and their contacts. Most individuals feel notifying partners is the 'right thing to do'; however, they also want advice and support for this from their health care provider. The role of the health care provider is also educational: to inform the index patient and contacts about the implications of infection, modes of transmission, prevention and treatment options.

When should contact tracing be discussed?

- 1. Pre-test discussion.** Contact tracing may sometimes be discussed prior to STI testing, particularly if a patient raises concerns, or the likelihood of an STI is high.
- 2. Post-test discussion.** Contact tracing is more commonly discussed after a confirmed diagnosis, when the index patient's sexual, injecting or other risk history should be reassessed.

Often the sexual contacts of an index patient will already have been discussed at the initial consultation. Once the diagnosis is received, further clarification, including questioning about other partners who may not have been mentioned at the initial consultation, is advisable. When taking a sexual history for the purposes of optimising contact tracing, a good starting place is the chronology of sex. For example, ask 'When did you last have sex?' and 'When did you have it with a different person?' Then ask what happened with each partner for example; 'Did you use condoms with this person?' or 'Did you share needles with this person?' Once one has a sense of the number of recent partners, further enquiry can be made about the nature of those partners – whether they were regular, casual, or whether this occurred overseas, etc. During discussion of partners, the health care provider and the patient can discuss whether contacts are likely to be contactable and how the patient feels about contacting them.

It pays to use direct, open-ended questions such as:

‘How do you think you got the infection?’

‘How did you meet the people you had sex with?’

‘Are you able to contact the people you have had sex with recently?’

‘Do you need any help with contacting them?’

When taking the history:

- ◆ It may not be necessary to exhaustively enquire about every detail for every partner; however, in the case of more serious infections, for example HIV, a more detailed partner history is warranted.
- ◆ index patient may have had casual or anonymous partners and not know their identities or contact details.
- ◆ More detailed enquiry might include explicit information about the relationship with contacts, specific sexual practices, condom use and physical location, for example, brothel, gay sauna, overseas. In the case of blood-borne infections, ask about blood donation, receipt of blood products, and sharps exposure.

Important information for patients

Patients should be informed about:

- 1. Asymptomatic infection** Sexual contacts that are infected are usually asymptomatic and unaware of their infection.
- 2. Possible serious complications** for partners if partners are not tested and treated.
- 3. Need for a sexual history** Infection often precedes the most recent risk encounter even though the most recent encounter may have precipitated the patient’s request for testing. It is important therefore to accurately determine a patient’s risk history over an adequate period.
- 4. Confidentiality** Patients should be informed that their sexual history is confidential and that they can remain anonymous through the use of partner notification websites (see below) or provider referral.

Tips for success

DO

- ◆ Have contact tracing permanently on your checklist for managing STIs.
- ◆ Gain the goodwill and cooperation of the patient. Well-informed patients are more likely to contact partners.
- ◆ Work sensitively with the patient and show empathy.
- ◆ Educate the patient about the STI. Inform them about asymptomatic infections, potential complications of untreated infection and the possibility of re-infection if a partner is not treated.
- ◆ Form a clear picture of the patient’s sexual and drug-taking risks over the relevant period.
- ◆ Understand the patient’s particular situation and identify individual barriers to notifying contacts.
- ◆ Identify the most appropriate method for notifying contacts and provide the patient with support.

DON'T

- ◆ Just concentrate on the patient’s most recent risky exposure.
- ◆ Appeal to the ‘wider public good’ when discussing why it is necessary to notify contacts – try to personalise the discussion.
- ◆ Assume the gender of contacts.
- ◆ Ask questions that imply a judgement.

2.3. Timing the discussion

The most appropriate time to discuss contact tracing with the patient will depend on the situation. Factors to consider include:

1. **The patient's physical and emotional state.** If the patient is physically unwell or emotionally distressed, it may be better to defer the discussion to a subsequent consultation.
2. **The patient's own priority.** For many patients the issue of notifying contacts is high on their agenda and it may suit them to deal with the issue immediately.
3. **The nature of the condition.** For easily curable conditions, which are also infectious (for example, chlamydia, gonorrhoea and syphilis), contact tracing is usually dealt with during the same visit in which the index patient is given the diagnosis and treatment. This is important in limiting further transmission or re-infection of the index patient.
4. **Public health factors.** If it is considered that a contact is placing others at immediate risk of infection, particularly where the infection is serious (for example HIV) contact tracing should ideally proceed immediately. The public health considerations for individual conditions are described in Chapter 5.

2.4. Patient versus provider referral

Broadly, there are two different methods used to advise contacts: patient referral and provider referral.

Patient referral

- ♦ The index patient personally notifies his or her contact.
- ♦ The health care provider provides the information to be imparted by the index patient to the partner.

Advantages

- ♦ Individuals usually prefer to notify contacts personally
- ♦ Quicker and easier

Disadvantages

- ♦ Less confidentiality
- ♦ Patients may not actually contact partners

Provider referral

- ♦ The health care provider directly advises the contact or uses another agency (for example, sexual health service, public health unit or health department contact tracer) to ensure that contacts are notified.
- ♦ The health care provider must have the explicit approval of the index patient.

Advantages

- ♦ Higher level of confidentiality for the index patient
- ♦ Method of choice when an individual fears a violent reaction, and for certain situations and conditions (for example, pulmonary TB, transfusion-related infections, when contact will involve sex workers or person with intellectual disability)
- ♦ May be appropriate for serious infections such as HIV where rigorous case finding is warranted

Disadvantages

- ♦ More time- and resource-intensive

A patient conversation with their partner is illustrated in Figure 1.

Figure 1: Contact tracing scenario: discussion between partners

Let Them Know

CURRENT PARTNER - SCENARIO 1
WWW.LETTHEMKNOW.ORG.AU



Let Them Know

CURRENT PARTNER - SCENARIO 1
WWW.LETTHEMKNOW.ORG.AU



BUT I HAVEN'T GOT ANY SYMPTOMS



THIS BROCHURE SAYS MOST PEOPLE WITH CHLAMYDIA DON'T GET SYMPTOMS. I DIDN'T HAVE ANY.



I GUESS I BETTER GET CHECKED OUT THEN



WE SHOULD TELL OUR PREVIOUS PARTNERS TO GET CHECKED TOO

2.5. Ways of notifying contacts

There are different methods by which contacts can be informed:

- ♦ In person
- ♦ Mobile or home telephone
- ♦ SMS
- ♦ Email
- ♦ Letter
- ♦ Referral to a specialist agency

Studies have shown that, given the nature of information they are relaying, most index patients like to tell their partners in person or over the telephone. In some circumstances, such as when a contact was a casual partner or if there is concern over how the partner may react, the use of email, SMS or a health care provider/service may be preferred.

2.6. How far back to trace

How far back in time patients should be advised to contact partners depends on the nature of the infection, its clinical presentation and the sexual history. Partner notification should aim to identify the person who was the source of the infection as well as partners who may have subsequently been infected by the index patient. Ideally, the relevant period should cover the time from the earliest date a patient may have been infected.

Table 1 summarises how far back in time patients should be advised to contact partners. These are also shown for each individual STI in Chapter 4.

NOTE: These 'trace back' periods are intended as a guide only because there is limited evidence to support the recommendations. The periods are largely based on expert opinion and guidelines from other countries which vary considerably. The recommended period reflects the diminishing likely yield of infection in partners contacted from more distant times. This is not the case for HIV which is potentially transmissible over many years. For most STIs, there are few data on the likelihood of transmission of infection over time or on the yield from case findings in the Australasian context. It is therefore difficult to recommend definitive 'trace back' periods. The suggested periods should be considered the minimum and the possibility of partners outside of these periods being infected should be considered within the context of the sexual history, individual circumstances and the clinical presentation. Advice from specialist services may be warranted; for example, for less common and/or more serious infections.

Sexual health specialists differ in their recommended approach to the management of partners of patients diagnosed with pelvic inflammatory disease (PID) and epididymitis as the results of STI testing are generally not available at the initial visit and a sexually transmitted pathogen is often not found. These conditions are discussed in more detail in Chapter 4.

Table 1: Guidelines on how far back in time to trace contacts¹

Infection	How far back to trace
Chancroid	2 weeks before ulcer appeared or since arrival in endemic area
Chlamydia	6 months
Donovanosis	Weeks to months, according to sexual history
Gonorrhoea	2 months
Hepatitis A	50 days from onset of symptoms
Hepatitis B	6 months prior to onset of acute symptoms
Hepatitis C	6 months prior to onset of acute symptoms; if asymptomatic according to risk history
HIV	Start with recent sexual or needle-sharing partners; outer limit is onset of risk behaviour or last known negative HIV test result if known
Lymphogranuloma venereum	1 month or since arrival in endemic area
Mycoplasma genitalium	Unknown*
Syphilis	Primary syphilis – 3 months plus duration of symptoms Secondary syphilis – 6 months plus duration of symptoms Early latent syphilis – 12 months
Trichomoniasis	Unknown*
TB	3 months prior to diagnosis, unless there is evidence of protracted symptomatic illness prior to this date

¹These periods should be used 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.

*There is currently insufficient data to provide a definitive period for some infections, though partner notification is likely to be beneficial and is recommended in these cases and should be guided by the sexual history.

2.7. Resources to support patients and health professionals

Resources that are available to support both patients and health care providers to undertake partner notification are listed in Table 2. Research suggests that the availability of such resources is likely to result in a greater number of partners being informed.

Table 2: Resources to enhance partner notification

Method	Resources	Supports provided	Available at:
Patient referral	<i>For patients</i>		
	Information on STIs	Websites with information about STIs which are useful for index patients, including patient handouts	www.sesiahs.health.nsw.gov.au/sydhosp/Services/sshc.asp www.mshc.org.au www.stdservices.on.net
	SMS or email notification services	Offer individuals the option of notifying contacts via email or SMS either personally or anonymously	www.letthemknow.org.au www.thedramadownder.info (targets MSM)*
	Tips for patients on how to contact and have a conversation with partners	Include advice on possible wording to use with example scenarios	www.letthemknow.org.au
Provider referral	<i>For professionals</i>		
	STI management guidelines and contact tracing letters	<ul style="list-style-type: none"> ◆ Treatment guidelines on STIs ◆ Letters that can be given to patients to give to their partners 	www.sesiahs.health.nsw.gov.au/sydhosp/Services/sshc.asp www.mshc.org.au www.stdservices.on.net
	Specialist agencies	<ul style="list-style-type: none"> ◆ Access to greater expertise and possible assistance with notifying partners 	See 2.8 and Appendix B

*MSM = men who have sex with men

2.8. Supporting patients concerned about notifying contacts

Studies suggest that for many individuals who discuss their STI diagnosis with a partner, the experience is better than they had anticipated.

However, a patient may sometimes be reluctant to notify a contact due to concerns including a fear of loss of confidentiality or possible negative repercussions. While Australian research suggests that few index patients report physical or verbal abuse as a result of notifying contacts, where these are possible, alternative strategies to consider include provider referral, health department or specialist contact tracing services. Anonymous notification services are also available via web-based services (see 2.7.).

- ◆ Take the time to get a sense of any real or perceived concerns the index patient may have in notifying contacts.
- ◆ Discuss a variety of notification methods with the index patient and let them decide.
- ◆ Be aware that people may differ in their ability to successfully notify partners or in their preferences for raising the issue with partners.

2.9. Specific populations

All contact tracing should be undertaken whilst respecting the individual patient's sensitivities and needs, and should not result in harm. The approach to contact tracing may vary depending on the population involved. Some of these are discussed below.

People with HIV

People with HIV are usually very concerned about the confidentiality of their condition. Where HIV infection may have resulted from illegal or stigmatised activities, fear of disclosure or prosecution may also be of concern. People with HIV face significant discrimination, including at times from members of the health care sector. There are also implications for employment, insurance and immigration.

Men who have sex with men

Some men who have sex with men have had a high number of recent anonymous partners where contact details are not always known and therefore contact is not possible. However, others may have met anonymous partners online where profiles, email addresses and mobile telephone numbers are available and contact is possible. Some may find the email or SMS notification services that are available online helpful (see 2.7.).

Injecting drug users

Injecting drug users are often socially isolated and economically disadvantaged. Contact tracing may be hampered by difficulty accessing health services, changing social networks and by a lack of contact details for contacts. Provider referral may thus be the preferred option for contact tracing.

People from culturally and linguistically diverse backgrounds

Cultural taboos, shame, guilt, gender inequality, language barriers and limited knowledge about STIs can compound the difficulties of gaining trust and cooperation. Furthermore, individuals may feel their confidentiality is threatened by use of an interpreter from the patient's own ethnic group. Confidentiality can be a particular concern for small communities. Interpreters who are experienced in sexual health can be helpful.

Aboriginal and Torres Strait Islander people

In Aboriginal and Torres Strait Islander communities, effective health care service delivery of any kind requires practitioners to be aware both of the uniqueness of each client, Indigenous cultural context generally and also the cultural diversity that exists within the Aboriginal and Torres Strait Islander communities. This is especially the case with issues of sexual health and contact tracing. For this reason, generalisations about how to work within these distinctive cultural frameworks are difficult to make.

Rather than seeking to provide guidance to workers on issues of contact tracing by providing 'national' guidelines, a flexible approach that respects the rights and dignity of clients through cultural sensitivity is recommended. Workers in the field should endeavour to establish local partnerships and relationships that can provide effective feedback and guidance on how to proceed. These partnerships are based on trust and respect within the local community and need to be built up over time. Key to establishing such relationships are the roles played by Aboriginal primary health services in general and Aboriginal health workers in particular. These workers and organisations have established expertise in the delivery of Indigenous health care. They can provide local-level advice on particularly difficult and sensitive issues such as contact tracing. It is recommended that contact tracing be conducted in partnership with a local Indigenous health care worker and that contact tracing is part of an overall prevention and care package. Of particular importance will be the question of who does the actual contact tracing. As well as the issue of gender concordance, there are other issues such as kinship relationships, use of multiple identifiers (nicknames), multiple itinerant addresses and the consequences of diagnosis to the client that need to be taken into account. Care should be taken in all circumstances to establish and maintain a rigorous approach to confidentiality.

Blood product and tissue recipients

Specialist contact tracing is required because of the legal context and special features of the blood and organ donation system. Contact the central blood bank in the relevant jurisdiction (Australian state or territory, New Zealand).

Sex workers and their clients

Sex workers with STIs may be reluctant to disclose the identity of clients. It should be borne in mind that protected sex is practised almost universally within the sex industry. Provider referral may be the preferred contact tracing strategy.

Prisoners

Contact tracing within prisons may be a sensitive issue, and which approaches are taken will vary according to how health care is provided within these settings. Referral to contact tracers or discussion with health providers within prisons is advisable.

People with no apparent risk factors

Clusters of transmission of HIV or hepatitis C through artificial insemination, the blood supply and through minor surgical procedures have occasionally been identified through contact tracing in Australia.

The management of these cases requires:

- ♦ Exclusion of sexual partners as sources of infection for the index patient
- ♦ Expert reassessment of the risk history of individuals
- ♦ Pooling of data on cases
- ♦ Systematic review of the investigation
- ♦ Specialised techniques of characterising viral isolates

Given the organisational, medico-legal and social complexity of these investigations, such patients should be referred to specialist services for contact tracing.

Children

Any STI in a child raises the possibility of sexual assault. Specialist (paediatric or sexual health) services should be involved because of the need for rigorous clinical and laboratory assessment and possible medicolegal implications.

2.10. Deciding on which STIs to prioritise for contact tracing

Chapter 4 provides medical information that is necessary to assess the relevance of contact tracing for individual STIs, blood-borne infections and tuberculosis. When deciding on which STIs should be the focus of contact tracing, a number of factors should be considered:

- ♦ *Potential seriousness of the condition* - Higher priority and greater resources should be given to conditions that are life-threatening or commonly have other major sequelae; for example, HIV, syphilis, TB, and STIs in pregnancy.
- ♦ *Commonness of the condition* - The relative importance of contact tracing may be greater when a condition is rare in a particular population; for example, HIV infection among heterosexuals or chancroid in a low prevalence area.
- ♦ *Direct benefit to contacts* - Higher priority should be given to infections that are curable and where the consequences of lack of treatment are often serious. Examples include the detection of chlamydia and gonorrhoea to prevent pelvic inflammatory disease and infertility in women. Detection and treatment of syphilis can prevent the development of secondary and tertiary disease. Timely identification of HIV infection is important given the benefit of antiretroviral therapy.
- ♦ *Likelihood of further transmission* - Contact tracing becomes more urgent if there is imminent risk of a contact transmitting an infection to others. For example, where the contact is having unprotected sex with other partners, continues to reuse injecting equipment, or where the contact is a pregnant woman.

- ♦ *Ethical and legal context* - The health care provider has ethical and legal responsibilities for the health and well-being of the contacts and/or potential contacts of the index patient. These obligations may be even greater when a medical procedure such as blood transfusion or artificial insemination is involved. These responsibilities may be transferred through the involvement of another agency, for example, blood bank, public health unit or sexual health service (see Chapter 5 Privacy, Confidentiality and Public Health Law). The health care provider should directly contact the agency concerned and establish and document the fact that the agency is assuming responsibility for the contacts.

2.11. Patient delivered partner therapy (PDPT)

Patient delivered partner therapy is the practice of providing a prescription or medication to a patient diagnosed with an STI to give to their partners without that partner being assessed by the health care provider. There is evidence that this may help to reduce re-infection of the index patient in the case of bacterial STIs such as chlamydia and gonorrhoea. Studies indicate that PDPT for chlamydia appears to be common among Australian general practitioners; however, there is no specific legislation that supports the use of PDPT in Australia. While it may have its benefits for some contacts and index patients, PDPT should not replace the need to discuss and undertake contact tracing nor should it dilute the importance of partners being tested for STIs, particularly where STIs other than the STI diagnosed in the index patient may also be present. This may apply particularly to MSM where other important STIs, including HIV, may be present.

3. Case studies

While it is not possible to provide case studies that cover every contact tracing situation, the following case studies illustrate some of the issues that may arise in the course of partner notification. A general approach to contact tracing is shown in Figure 2.

Case study one: HIV infection

Case History

- ♦ A man presents to his local sexual health clinic for routine STI screening.
- ♦ He has a regular male partner of six years and reports that he has not had sexual contact with any other men.
- ♦ He did not use condoms with his regular partner for anal sex and believes they were monogamous. Both tested negative for HIV and STIs two years ago.
- ♦ He has serology for HIV and syphilis, and testing for *N. gonorrhoeae* and *C. trachomatis*. Subsequently, his HIV and syphilis results are positive.

Contact Tracing

- ♦ This man is shocked by the HIV and syphilis diagnoses.
- ♦ He informs his partner of his diagnoses and accompanies him to the same sexual health clinic a few days later.
- ♦ The regular partner is interviewed alone and informs the clinician that he has had sex with anonymous men he has met on the internet and at beats.
- ♦ The partner reports never using condoms with the index patient and using condoms only sometimes with casual partners.
- ♦ The partner has serology for HIV and syphilis and also tests positive to both.
- ♦ At a follow-up consultation with the partner, contact tracing of men he has met through the internet and at beats is discussed.
- ♦ The partner is able to contact some of his sexual partners that he met via the internet but is unwilling to disclose his HIV positive status. He wants to contact trace them anonymously.
- ♦ The partner is provided with information by the clinician and subsequently informs three internet sexual partners of their risk of HIV and syphilis infection by SMS using the 'Drama Down Under' website (<http://www.thedramadownunder.info/>).
- ♦ After further discussion, the partner realises that he could trace two of the anonymous beat partners. Although these partners are anonymous and he states that he doesn't have any information about who they are or how to contact them, he can recognise them.
- ♦ Three months later, at a follow-up appointment, the partner informs the clinician that he was able to contact one of the men by meeting him at the beat. He encouraged the man to have a test for HIV and other STIs.

Comment

This case demonstrates that a variety of contact tracing strategies can be used in a single case and the method of choice will vary by patient preference and the contact details available. It also illustrates that some partners will not be contactable, and anonymous partners can sometimes be contactable. Contact tracing does not always happen immediately after diagnosis (although it often does) and support from the clinician is important in ensuring that the patient remains motivated over time. Serious infections such as HIV warrant greater efforts to ensure effective partner notification such as referral to contact tracing services. The relevant period will depend on when infection was thought to have occurred. In contrast to most other STIs, for HIV this could be years.

Case study two: chlamydia

Case History

- ♦ A 17-year-old woman presents for emergency contraception after having unprotected sex with a new male partner the previous night.
- ♦ The GP prescribes emergency contraception and orders a chlamydia test which is positive.

Contact Tracing

- ♦ Although she is embarrassed about it, the young woman telephones the partner from the previous night. They have an awkward conversation; however, he is grateful she is up-front with him.
- ♦ She is reluctant to notify her previous partner (with whom she had had a relationship). She reports that she didn't always use a condom with this partner and that the relationship break-up had been difficult.
- ♦ She agrees to provide enough information for him to be contacted using provider referral.
- ♦ The GP telephones the contact tracing service who notifies her partner without disclosing her identity. He does not have any symptoms but also tests positive for chlamydia. He contacts all three partners of the previous nine months via phone or in one case email as she is overseas. In the latter case he also feels it is easier to put in writing rather than discussing it by phone. He is not sure whether all three ex-partners were tested or treated in the end but thinks at least two were.

CHLAMYDIA

Comment

Most patients with chlamydia and other STIs feel contacting their partners is the right thing to do even if many understandably find it difficult. Most prefer to do this face to face or by phone but SMS and email have their place. Clinicians can assist by discussing different options for partner notification and referring patients to relevant contact tracing websites or services (see 2.7).

Case study three: gonorrhoea

Case History

- ♦ A man attends the local community health service with urethral discharge after a trip to South East Asia where one night he got drunk and had sex with a woman he met at a bar.
- ♦ He is married and lives in a small rural community. He has had unprotected sex with his wife since his return from overseas.
- ♦ He has a urethral swab taken by his general practitioner which is positive for gonorrhoea. Tests for chlamydia, syphilis, hepatitis B and HIV are negative.

Contact Tracing

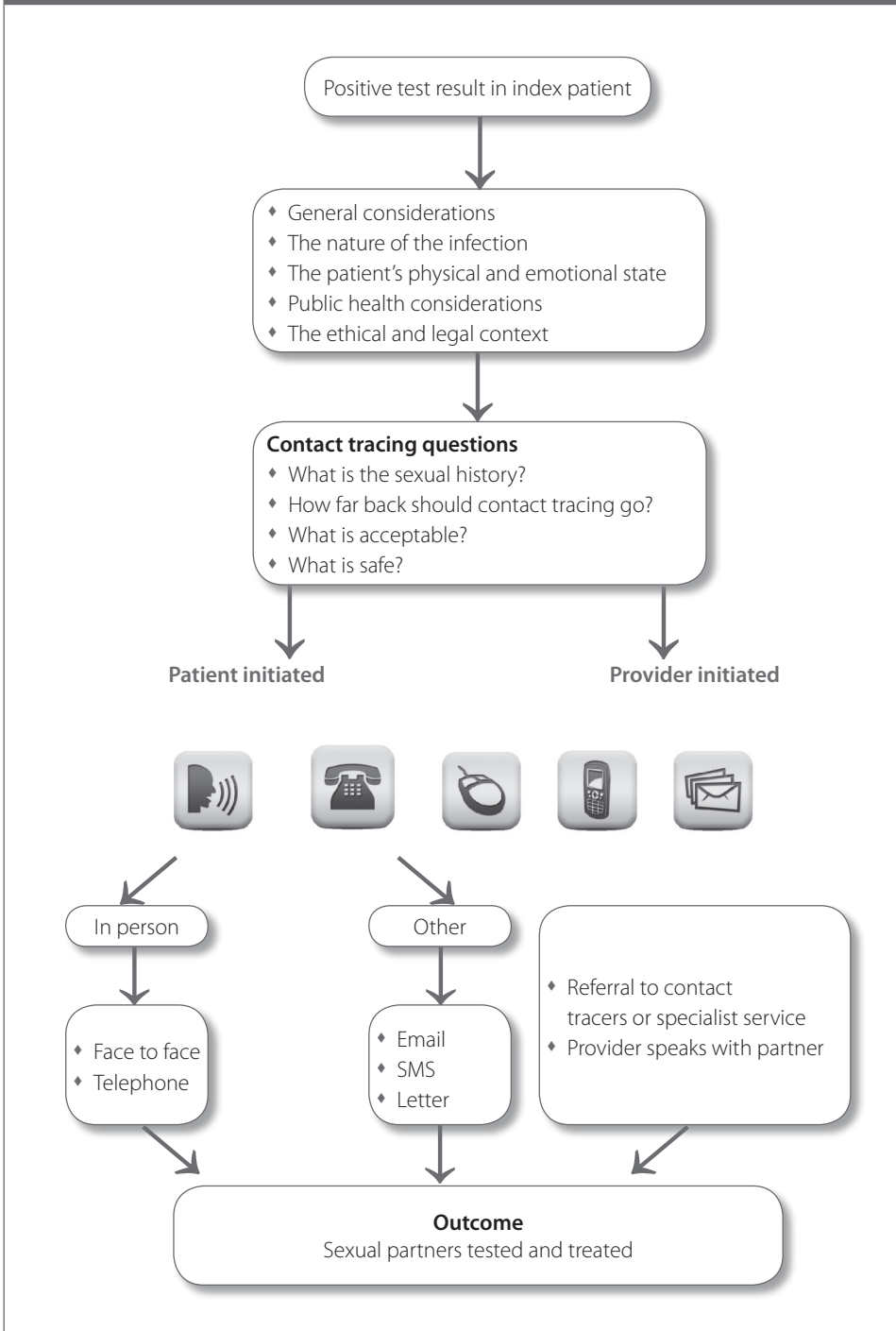
- ♦ He informs the doctor that he does not want to tell his wife and does not want anybody else to inform her as he is sure his wife will realise why she has been approached. He is adamant she will leave him and that his reputation in the community will be damaged.
- ♦ The doctor feels she is in a difficult position. While she feels she has a duty of care to the man's wife, who is also one of her regular patients, she also feels that to go against his express wish and to possibly break his confidentiality would be unethical. The man is treated and asked to attend the clinic the following week.
- ♦ During the follow-up consultation the man is anxious and reports that he is feeling extremely guilty. He also reports that his wife is aware something is upsetting him but does not know what it is. They have not had sex since his last visit.
- ♦ The man is again encouraged to inform his wife of her risk of infection. The possible consequences for his wife of untreated gonorrhoea are explained to him, including possible pelvic inflammatory disease and its sequelae. Also, his risk of re-infection is highlighted. The practitioner downloads a patient fact sheet on gonorrhoea and gives this to him.
- ♦ The man re-presents to the doctor two weeks later but has still not told his wife. The doctor offers to inform the man's wife of her risk and after some discussion they agree that he will bring his wife into the clinic the following day.
- ♦ The man and his wife present to the clinic together and she is treated for gonorrhoea. Her test comes back negative. The wife is distressed by events but is willing to seek couples counselling.

Comment

Not all patients willingly contact their partners. In some instances an index patient's refusal to inform a partner potentially affects the health of the partner and places the health care provider in a difficult situation. Identifying the most appropriate method of contact tracing is key. Provider referral may not always protect the identity of the index patient, especially if the partner has only one sexual partner, and patient referral may be too overwhelming. A combination of the two, such as in this case, where the patient informs the partner but with the support and in the presence of the health care provider may be appropriate. This case highlights the importance of assessing each case on its individual merits.

GONORRHOEA

Figure 2: General algorithm for contact tracing



4. Conditions

In this chapter a summary is provided for each infection, including information to assist those undertaking contact tracing. These have been organised into three groups:

- (4.1.) Specific infections where contact tracing is generally recommended (see p25)
- (4.2.) Conditions where contact tracing should be considered (see p39)
- (4.3.) Infections where contact tracing is not recommended (see p41)

4.1. Specific infections where contact tracing is generally recommended

4.1.1 HIV/AIDS

Causative organism	Human immunodeficiency virus (HIV)	
Incubation period	1–6 weeks for primary HIV (many are asymptomatic); median of 10–11 years to AIDS without treatment	
How far to trace back	Start with recent sexual or needle-sharing partners; outer limit is onset of risk behaviour or last known negative HIV test result if known	
Usual testing method	Serology for HIV Repeat test if recent infection possible after window period for test	
Common symptoms	Usually asymptomatic unless immune-suppressed or AIDS	
Likelihood of transmission per unprotected exposure	Receptive anal sex:	0.8–3.2%
	Receptive vaginal sex:	0.05–0.15%
	Insertive vaginal or anal sex:	0.03–0.09%
	Reused injecting equipment:	0.8%
	Needle-stick injury (freshly contaminated):	0.23%
	Contaminated blood transfusion:	92.5%
	Higher with elevated HIV viral load, for example, during primary infection and late infection, or if other STIs present or a man is uncircumcised. Reduced by antiretroviral therapy	
Likelihood of long-term sexual partner being infected	Increases with duration of relationship	
Protective effect of condoms	High	
Transmission by oral sex	Rare	
Duration of potential infectivity	Lifelong	
Important sequelae	AIDS Death Mother-to-child transmission	
Direct benefit of detection and treatment of contacts	Detection of HIV in contacts, potentially reducing further transmission	
Usual management of contacts	HIV-antibody testing and counselling. For exposures to HIV within the last 72 hours, contacts may benefit from post-exposure prophylaxis. Referral to support agencies	
Contact tracing priority	Very high given seriousness of infection Note: If the index patient has donated or received blood products, contact the relevant blood bank as well	
Notification	AIDS is notifiable by all doctors in all Australian states and territories and in New Zealand. HIV notification is made by laboratories or doctors in most states and territories of Australia. Public health legislation in some jurisdictions requires that people with HIV advise future sexual partners of their condition	

4.1.2 Chancroid

Causative organism	<i>Haemophilus ducreyi</i>
Incubation period	6 days to 2 weeks
How far to trace back	2 weeks before ulcer appeared or since arrival in endemic area
Usual testing method	Nucleic acid amplification testing or culture
Common symptoms	Painful anogenital ulcers; enlarged tender inguinal nodes (buboes) which may break down and discharge
Likelihood of transmission per act of unprotected intercourse	High
Likelihood of long-term sexual partner being infected	High; asymptomatic infection is thought to occur sometimes in women
Protective effect of condoms	Probably high
Transmission by oral sex	Rare
Duration of potential infectivity	Weeks
Important sequelae	Local tissue destruction, inguinal abscesses and draining sinuses
Direct benefit of detection and treatment of contacts	Cure
Usual management of contacts	Counselling, clinical examination and testing of lesions for chancroid Presumptively treat partners with azithromycin 1g as a single dose or ceftriaxone 500mg as a single dose by intramuscular injection
Contact tracing priority	High as not endemic in Australia or New Zealand. Specialist support for contact tracing should be sought if local acquisition or transmission is possible (see Appendix B)
Notification	Notifiable by all doctors in all Australian states and territories, and in New Zealand, and by laboratory on positive isolation in Australian states and territories

4.1.3 Chlamydia

Causative organism	<i>Chlamydia trachomatis</i> , serovars D-K
Incubation period	> 2–60 days for male urethral infection, though up to 90% are asymptomatic. Most cervical infections in women and anal infections in men and women are also asymptomatic
How far to trace back	6 months
Usual testing method	Nucleic acid amplification testing, for example of vaginal, cervical or anal swab, or first void urine
Common symptoms	Usually asymptomatic in both men and women Urethral discharge and/or dysuria in men with urethral infection Vaginal discharge with cervical infection Pelvic pain, abnormal bleeding and dyspareunia, fever and malaise if PID present (see 4.2.2) Scrotal pain, swelling, erythema if epididymitis present (see 4.2.1)
Likelihood of transmission per act of unprotected intercourse	30–50%
Likelihood of long-term sexual partner being infected	About two-thirds of male partners of infected women and female partners of infected men will be infected
Protective effect of condoms	High
Transmission by oral sex	Unknown
Duration of potential infectivity	Women can be infected for years. Men can be infected for months. Limited data on duration of infectiousness over time
Important sequelae	PID Epididymo-orchitis Infertility Ectopic pregnancy Neonatal pneumonitis and conjunctivitis Preterm labour and low birth weight Enhanced HIV transmission
Direct benefit of detection and treatment of contacts	Cure
Usual management of contacts	Counselling, clinical examination and testing for chlamydia Presumptively treat partners with azithromycin 1g orally as a single dose (including pregnancy) If partners have epididymo-orchitis or PID (see sections 4.2.1 and 4.2.2)
Contact tracing priority	High
Notification	Genital <i>C. trachomatis</i> infection is notifiable in all Australian states and territories by doctors or laboratories. Genital <i>C. trachomatis</i> infection is not notifiable in New Zealand currently, but voluntary laboratory notification occurs from most regions The Public Health Bill, which is not enacted at time of writing, includes provision for anonymous notification of specified STIs, including <i>C. trachomatis</i> .

4.1.4 Donovanosis

Causative organism	<i>Klebsiella granulomatis</i>
Incubation period	Weeks to months
How far to trace back	Weeks to months, according to sexual history
Usual testing method	Diagnosis is often made clinically after excluding syphilis; definitive diagnosis requires histology of punch biopsy specimen showing characteristic Donovan bodies or positive nucleic acid amplification testing. Nucleic acid amplification testing may be performed on surface swab specimens and obviates need for biopsy.
Common symptoms	Relatively painless granulomatous ano-genital lesions Perineum commonly involved with associated 'pseudo-buboes' in inguinal region Lesions may ulcerate and bleed Secondary infection produces offensive odour May be mistaken for cancer of vulva or penis
Likelihood of transmission per act of unprotected intercourse	Low
Likelihood of long-term sexual partner being infected	Low-moderate
Protective effect of condoms	Probably low
Transmission by oral sex	Unknown
Duration of potential infectivity	Months to years if active lesions present
Important sequelae	Local tissue destruction, scarring and secondary oedema Lesions may spread locally, intra-pelvic and to distant anatomic sites Enhanced HIV transmission
Direct benefit of detection and treatment of contacts	Cure
Usual management of contacts	Counselling, clinical examination and appropriate investigation Presumptively treat partners with: azithromycin 1g orally weekly for 4 weeks OR azithromycin 500mg orally daily for 7 days OR doxycycline 100mg orally twice a day for 4 weeks or until lesions have healed
Contact tracing priority	High for regular partners. Moderate for casual partners
Notification	Notifiable by doctors in all Australian states and territories, and in New Zealand. Donovanosis is now rare in previously endemic areas in Central and Northern Australia, following intensive case finding and treatment programs

4.1.5 Gonorrhoea

Causative organism	<i>Neisseria gonorrhoeae</i>
Incubation period	2–10 days for male urethral infection; occasionally weeks to months. Most cervical, anal and throat infections are asymptomatic
How far back to trace	2 months
Usual testing method	Culture or nucleic acid amplification testing
Common symptoms	Urethral discharge and dysuria with urethritis in men Purulent vaginal discharge with cervical infection Pelvic symptoms if PID (see 4.2.2) Scrotal symptoms if epididymo-orchitis (see 4.2.1)
Likelihood of transmission per act of unprotected intercourse	20% for insertive partner; 50% for receptive partner
Likelihood of long-term sexual partner being infected	> 50 %
Protective effect of condoms	High
Transmission by oral sex	Significant
Duration of potential infectivity	Up to 12 months
Important sequelae	PID Epididymo-orchitis Disseminated gonococcal infection Neonatal ophthalmia Enhanced HIV transmission
Direct benefit of detection and treatment of contacts	Cure
Usual management of contacts	Counselling, clinical examination and testing of appropriate sites (urethra, cervix, pharynx, anus) Presumptively treat partners with ceftriaxone 500mg as a single dose by intramuscular injection, dissolved in 1% lignocaine. There is potential high resistance to other antibiotics, so alternatives are not recommended. In areas where gonorrhoea is penicillin-sensitive, presumptive treatment of partners is amoxicillin 3g as a single dose with probenecid1g.

4.1.6 Hepatitis A

Causative organism	Hepatitis A virus Note: hepatitis A is transmitted by the faecal-oral route. This may be food- or water-borne or via sexual contact, particularly between men
Incubation period	15–50 days (mean 28 days)
How far back to trace	50 days from onset of symptoms
Usual testing method	Serology for hepatitis A (Hepatitis A IgM positive)
Common symptoms	Acute hepatitis with jaundice, malaise, abdominal pain, dark urine
Likelihood of transmission per act of unprotected intercourse	Probably high if any faecal contamination of mouth
Likelihood of long-term sexual partner being infected	High, if susceptible
Protective effect of condoms	Nil (transmission is faecal-oral)
Transmission by oral sex	Possible if faecal contamination is present
Duration of potential infectivity	Two weeks before the onset of jaundice to one week after
Important sequelae	Rarely, severe hepatitis and acute liver failure
Direct benefit of detection and treatment of contacts	Passive and active immunisation against hepatitis A
Usual management of contacts	Passive immunisation with human immunoglobulin 2ml by intramuscular injection within 2 weeks of exposure Start active vaccination course immediately
Contact tracing priority	High including sexual contacts, domestic contacts, close social contacts, and food handlers
Notification	Acute viral hepatitis A is notifiable by all doctors and laboratories in all Australian states and territories, and New Zealand If locally acquired, telephone a public health unit within 24 hours

4.1.7 Hepatitis B

Causative organism	Hepatitis B virus
Incubation period	45–180 days (mean 60 days)
How far back to trace	6 months prior to onset of acute symptoms
Usual testing method	Serology for hepatitis B (hepatitis B surface antigen positive)
Common symptoms	Jaundice, malaise, abdominal pain, dark urine
Likelihood of transmission per act of unprotected intercourse	Unknown
Likelihood of long-term sexual partner being infected	>20%
Protective effect of condoms	High
Transmission by oral sex	Low
Duration of potential infectivity	Two weeks before onset of symptoms and until the patient becomes surface antigen negative; lifelong if chronic infection
Important sequelae	Severe, acute hepatitis Chronic liver disease Cirrhosis and liver cancer
Direct benefit of detection and treatment of contacts	Vaccination against hepatitis B or detection and management of hepatitis B infection
Usual management of contacts	Counselling and testing (up to 12 weeks after exposure) Active vaccination against hepatitis B (3 injections over 6 months), or accelerated regime at 0,1 and 3 months If high risk of transmission (index patient e-antigen positive, unprotected sex or needle-stick exposure) consider hepatitis B hyperimmune globulin (HBIG) 400 IU as a single dose by intramuscular injection as soon as possible, followed by active vaccination beginning at the same time; optimally administer within 24 hours, less optimally up to 7 days For sexual contact HBIG can be given up to 14 days
Contact tracing priority	High for sexual contacts, needle-sharing contacts, a newborn child of an infected mother, and household and close contacts if any risk exposures
Notification	Acute viral hepatitis B is notifiable by doctors in all Australian states and territories, and New Zealand Hepatitis B surface antigen-positive results must be notified by laboratories in NSW

Note: Hepatitis D virus (delta agent) is a deficient virus that is entirely dependent on concurrent hepatitis B infection. Measures to control hepatitis B should control HDV.

4.1.8 Hepatitis C

Causative organism	Hepatitis C virus
Incubation period	Up to several months for acute infection
How far back to trace	6 months prior to onset of acute symptoms; if asymptomatic according to risk history
Usual testing method	Serology for hepatitis C, hepatitis C polymerase chain reaction (PCR) test to confirm persistent infection through detection of circulating viral RNA
Common symptoms	Most people experience no symptoms Some people may have acute hepatitis with nausea, dark urine, jaundice, abdominal discomfort, fatigue
Likelihood of transmission	Rare. Sexual transmission of hepatitis C is controversial. The likelihood of transmission via sex is generally low. However, there have been reports of sexual transmission between HIV positive MSM
Likelihood of long-term sexual partner being infected	<5% (if no other risk factors)
Protective effect of condoms	Unknown
Transmission by oral sex	Probably rare
Duration of potential infectivity	Unknown, but possibly lifelong; increased if high viral load. PCR-negative people appear to be non-infectious
Important sequelae	Severe hepatitis, chronic liver disease, cirrhosis and liver cancer
Direct benefit of detection and treatment of contacts	Hepatitis C-infected partners should be monitored and managed and may respond to treatment
Usual management of contacts	Counselling and testing (antibodies may take up to 6 months to develop)
Contact tracing priority	High for needle-sharing contacts, blood donors and recipients High for children born to an infected mother Low for sexual contacts Minimal if PCR test negative
Notification	Acute viral hepatitis C is notifiable by all doctors in all Australian states and territories, and New Zealand If the index patient has received or donated blood within 6 months of developing symptoms, also advise the relevant blood bank

4.1.9

Lymphogranuloma venereum (LGV)

Causative organism	<i>Chlamydia trachomatis</i> serovars L1–L3
Incubation period	3-30 days
How far back to trace	1 month before symptom onset
Usual testing method	Nucleic acid amplification testing of swab from anus, genital ulcer or bubo aspirate, confirmed by genotyping at a reference laboratory
Common symptoms	Proctitis is common. Genital ulceration and inguinal buboes are seen less commonly in msm.
Likelihood of transmission per act of unprotected intercourse	Unknown
Likelihood of long-term sexual partner being infected	Unknown
Protective effect of condoms	Probably high
Transmission by oral sex	Probably rare
Duration of potential infectivity	Weeks to months, possibly years
Important sequelae	Inguinal and pelvic abscesses, anal stricture, likely enhanced transmission of HIV.
Direct benefit of detection and treatment of contact	Cure
Usual management of contacts	<p>Counselling, clinical examination and rectal swab +/- testing of urine, genital ulcer or bubo aspirate for LGV. Alert the laboratory to the possibility of an LGV strain so PCR or genotyping is performed on chlamydia positive specimens.</p> <p>Treat asymptomatic contacts presumptively with azithromycin 1g orally as a single dose.</p> <p>Contacts with proctitis or buboes should be treated with doxycycline 100mg orally twice daily for 21 days or azithromycin 1g orally once weekly for 3 weeks.</p>
Contact tracing priority	High as the number of LGV cases reported in Australasia has been limited
Notification	Notifiable by laboratories in some Australian states and territories; not notifiable in New Zealand

4.1.10 Mycoplasma genitalium

Causative organism	<i>Mycoplasma genitalium</i> (Mg)
Incubation period	Unknown but symptoms commonly develop within 1–3 weeks
How far back to trace	There is currently insufficient data to provide a definitive period for this, but partner notification is recommended
Usual testing method	Nucleic acid amplification testing on first pass urine in men (urethral swab less sensitive) and first pass urine, high vaginal or cervical swab in women
Common symptoms	Urethral discharge or dysuria in men May be asymptomatic Is a cause of cervicitis in women and likely cause of PID Symptoms of cervicitis/PID include dyspareunia, post-coital bleeding, vaginal discharge and abdominal pain Commonly asymptomatic in men and women
Likelihood of transmission per act of unprotected intercourse	Unknown
Likelihood of long-term sexual partner being infected	38–63% of sexual partners infected
Protective effect of condoms	Probably high
Transmission by oral sex	Unknown but likely Mg is detectable in the pharynx but studies indicate it is uncommon
Duration of potential infectivity	Uncertain; however, persistent infection is common: 25% of infections persist > 12 months and infections up to 2–3 years have been reported
Important sequelae	PID and infertility in women
Direct benefit of detection and treatment of contacts	Cure
Usual management of contacts	Counselling, clinical examination, testing and treatment of partners with azithromycin 1g. Azithromycin 1g as a single dose cures up to 85% of infections, therefore a test of cure is recommended at one month. Moxifloxacin 400mg daily for 7–10 days is highly effective for azithromycin failures where azithromycin resistance is suspected or known.
Contact tracing priority	High
Notification	Not notifiable in Australia or New Zealand.

4.1.11

Syphilis

Causative organism	<i>Treponema pallidum</i>
Incubation period	9–90 days (mean 30) to primary syphilis 30–150 days to secondary syphilis 5–35 years to tertiary syphilis
How far back to trace	According to sexual history and clinical stage of infection: Primary syphilis – 3 months plus duration of symptoms Secondary syphilis – 6 months plus duration of symptoms Early latent syphilis – 12 months
Usual testing method	Serology for syphilis Ulcer swab can be tested by nucleic acid amplification
Common symptoms	Anogenital or oral ulcers Rash Early infection commonly asymptomatic
Likelihood of transmission per act of unprotected intercourse	Early syphilis (primary, secondary, early latent): >20 % Late latent and tertiary: usually not infectious
Likelihood of long-term sexual partner being infected	Up to 50% if early syphilis; <1% if no contact during infectious period
Protective effect of condoms	High if lesions covered by condoms
Transmission by oral sex	Probably common
Duration of potential infectivity	Up to 24 months (rare after 12 months)
Important sequelae	Neurosyphilis, cardiovascular syphilis, and congenital infection Enhanced HIV transmission
Direct benefit of detection and treatment of contacts	Cure
Usual management of contacts	Consultation with sexual health physician in all cases is suggested <ol style="list-style-type: none"> 1. Presumptively treat all sexual contacts of patients with primary or secondary syphilis regardless of serology with benzathine penicillin G 1.8g (2.4 mU) as a single dose by intramuscular injection or procaine penicillin 1g by intramuscular injection daily for 10 days 2. If the exposure was greater than 12 months ago and the patient has positive serology, treat as for late infection: benzathine penicillin 1.8g by intramuscular injection once weekly for 3 weeks 3. Doxycycline 100mg twice daily orally for 14 days (possible recent infection) or 28 days (late infection) are alternatives if the contact is penicillin allergic or needle-phobic
Contact tracing priority	High
Notification	Notifiable by doctors in all Australian states and territories, and in New Zealand; as well as laboratories in some states

4.1.12 Trichomoniasis

Causative organism	<i>Trichomonas vaginalis</i>
Incubation period	5–28 days
How far back to trace	There is currently insufficient data to provide a definitive period for this, but partner notification is recommended
Usual testing method	Wet preparation microscopy and culture are less sensitive than nucleic acid amplification testing
Common symptoms	10–50% of women and most men are asymptomatic Symptoms in women: vaginal itch, discharge Symptoms in men: urethral discharge and dysuria
Likelihood of transmission per act of unprotected intercourse	Unknown but probably moderate to high Perinatal transmission 5%
Likelihood of long-term sexual partner being infected	Up to 70% of male partners of infected women and 60–100% of female partners of infected men
Protective effect of condoms	Probably high
Transmission by oral sex	Unknown
Duration of potential infectivity	Women can be infected with <i>Trichomonas vaginalis</i> for up to 3–5 years, and men, probably up to 4 months
Important sequelae	Preterm birth Enhanced HIV transmission
Direct benefit of detection and treatment of contacts	Cure
Usual management of contacts	Counselling, clinical examination and testing. Treat male and female sexual partners presumptively with metronidazole or tinidazole 2g orally as a single dose or metronidazole 400mg twice daily for 5 days
Contact tracing priority	High
Notification	Not notifiable in Australia or New Zealand

4.1.13 Tuberculosis

Tuberculosis (TB) is a communicable disease acquired when a person inhales the bacterium in droplets coughed out by someone with infectious pulmonary TB. It is not transmitted sexually or via blood transmission.

About one-third of HIV-infected people worldwide are co-infected with TB disease. In Africa, HIV is the single most important factor determining the increased incidence of TB, and co-infection with HIV and TB is of growing concern in Asia. The incidence of TB in Australia is low as is the rate of HIV/TB co-infection. Approximately 85% of TB cases in Australia occur in individuals born overseas. People with HIV infection are at higher risk of becoming infected with TB after exposure, and HIV infection increases the risk of progression of latent infection to active disease, with disseminated and extrapulmonary disease being more common in HIV- infected individuals. An immunocompetent adult has a lifetime risk of developing TB disease following infection with TB of 5–10%, whereas a person who is HIV-infected has a lifetime risk of 50% and an annual risk of 10%.

HIV testing should be undertaken on all people diagnosed with TB, irrespective of whether risk factors for HIV are identified or not, and all HIV-infected people should be assessed for TB. HIV positive individuals with TB disease and low CD4 counts often have chest X-ray findings that are not typical of pulmonary TB. Multidrug resistant TB is a growing concern worldwide. All people with suspected active TB should be referred to physicians with specialist knowledge of TB. This is particularly important for people with HIV/TB co-infection.

Contact tracing may also identify HIV-infected individuals (adults or children) with latent infection (LTBI) that do not have active TB disease. This is particularly in families living with TB/HIV and so testing for HIV among susceptible contacts of a case with TB/HIV is important in addition to screening for LTBI. HIV-infected individuals with LTBI and no evidence of active TB disease require isoniazid preventive therapy in addition to other HIV-related management such as cotrimoxazole preventive therapy and anti-retroviral therapy.

Causative Organism	<i>Mycobacterium tuberculosis</i>
Incubation Period	Exposure to <i>M. tuberculosis</i> may result in LTBI but not active TB disease. TB disease may occur months to years after infection or may never appear.
Common Symptoms	Symptoms of pulmonary TB may include a cough that lasts for more than 3 weeks, pleuritic chest pain, haemoptysis, fever, night sweats and unexplained weight loss.
Notification	TB is notifiable in all states and territories in Australia, and New Zealand. Medical practitioners, other health professionals and public health laboratories are legally required to report cases of TB in Australia to the state and territory health authorities.
Aims of contact tracing	<ul style="list-style-type: none">♦ To identify people who have been exposed to the index patient♦ To identify the people who are infected with LTBI and to detect secondary cases of TB disease♦ To identify the people with LTBI requiring preventive treatment, that is, people with no evidence of TB disease who are susceptible to developing TB disease such as young children aged < 5 years and people with HIV-infection♦ To provide treatment and follow up for those people identified with latent or active TB disease♦ To identify the source case, especially if the index case is a child aged less than <5 years old.

Early identification and treatment of LTBI and active TB disease minimises morbidity, prevents transmission to others and reduces the pool of infection in the community. Contact tracing is an integral part of any TB control program. It is undertaken by staff experienced in supporting people who, for cultural reasons, often feel stigmatised by the diagnosis. Confidentiality and privacy are maintained, and the TB control program is experienced in developing the rapport required to identify contacts.

Likelihood of transmission The likelihood of a contact being infected with TB is a combination of the index patient's infectivity, together with the contact's physical proximity, duration of exposure and vulnerability to infection.

People with extrapulmonary TB are rarely infectious. People with LTBI infection are not infectious.

Contact priorities The public health authorities are experienced in the case and contact management of TB. Priorities for contact tracing are based on the characteristics of the index patient, susceptibility and vulnerability of contacts, and circumstances of the exposure(s). Initial screening is offered to all household contacts of any person with active TB disease, irrespective of the site of infection.

The following people are assigned high priority and extra vigilance for TB disease is required following exposure to TB; all household contacts, close relatives and friends who are frequent visitors to the household, work colleagues who have frequent close contact particularly in a closed environment and HIV-infected contacts.

Other contacts assigned high priority are children aged <5 years, those receiving >15mg of prednisone or its equivalent for >4 weeks; those on immunosuppressive agents, including multiple cancer chemotherapy agents, antirejection drugs for organ transplantation, and tumor necrosis factor alpha (TNF- α) antagonists.

How far back to trace The infectiousness of the index case is the most important determinant. Practical estimation is used, based on the case symptoms and extent of disease. In general, for symptomatic, smear positive pulmonary TB the infectious period would be 3 months prior to diagnosis, unless there is evidence of protracted symptomatic illness prior to this date.

Tuberculin Skin Test The Tuberculin Skin Test (TST) is the primary method for diagnosis of LTBI worldwide. The TST has well recognized limitations. The specificity of the TST for the diagnosis of LTBI is adversely affected by BCG vaccination and cross-reaction with non-tuberculous mycobacteria. The TST does not detect active disease and false negatives are not uncommon in immunocompromised people, including HIV-infected. The cut-off recommended by the World Health Organization for a positive TST in HIV-infected individuals is lower (>5mm) than for HIV-uninfected (> 10mm).

Interferon-Gamma Release Assays (IGRAs) IGRAs (like the TST) provide information about TB infection and cannot be used to confirm or exclude the diagnosis of active TB. The role of IGRAs in the diagnosis of LTBI is still unclear.

IGRAs are blood tests based on measurement of IFN- γ release by T-cells in response to in-vitro stimulation with antigens specific to *M. tuberculosis*. Evidence suggests that IGRAs are more consistent and are more specific compared with TST because there is less cross-reactivity with BCG vaccination or environmental exposure to other non-tuberculous mycobacteria. Currently there are limited consistent data to guide their use in young children (< 5 years). IGRAs are more sensitive than TST in immunocompromised people such as HIV-infected or malnourished.

The treatment of TB The treatment of TB, particularly of HIV co-infected people, is prolonged and complex and requires coordination between HIV and TB physicians.

4.2. Conditions where contact tracing should be considered

Sexual health specialists differ in their approach to the management of partners of patients diagnosed with epididymitis and pelvic inflammatory disease (PID) as the results of STI testing are generally not available at the initial visit, and a sexually transmitted pathogen is often not found. For cases of PID or epididymitis where a specific pathogen is found, contact tracing may be required. Please refer back to sections 4.1.1 to 4.1.13 to the notes relating to that specific pathogen.

4.2.1 Epididymitis

Causative organisms	<i>Chlamydia trachomatis</i> , <i>Neisseria gonorrhoeae</i> , Coliforms Note: Sexually transmissible causes are more likely in younger men (<35 years), while urinary tract pathogens such as coliforms are more likely in older men (>35 years) A pathogen is often not identifiable
Incubation period	Poorly defined, probably days to weeks depending on the organism
How far back to trace	See 4.1.3 and 4.1.5 if chlamydia or gonorrhoea are isolated
Usual testing method	Clinical diagnosis may be reinforced by detection of urethritis on gram stain chlamydia and gonorrhoea nucleic acid amplification testing and urine microscopy and culture
Common symptoms	Scrotal pain, swelling and erythema may be associated with dysuria and urethral discharge
Likelihood of transmission per act of unprotected intercourse	Depends on specific pathogen
Likelihood of long-term sexual partner being infected	Depends on specific pathogen
Protective effect of condoms	High for sexually transmitted pathogens
Transmission by oral sex	Relevant for <i>N. gonorrhoeae</i>
Duration of potential infectivity	Depends on specific pathogen
Important sequelae	If untreated, gonococcal, abscess formation Some evidence for decreased fertility
Direct benefit of detection and treatment of contacts	Cure where a pathogen is found
Usual management of contacts	Counselling, clinical examination, test for <i>C.trachomatis</i> and <i>N. gonorrhoeae</i> Consider presumptively treating sexual contacts with azithromycin 1g orally as a single dose; and for gonorrhoea if suspected (see 4.1.5)
Contact tracing priority	High – Where <i>C. trachomatis</i> or <i>N. gonorrhoeae</i> isolated Medium – Younger men and their current sexual partners where a sexually transmitted pathogen is not isolated Low – Older men and their previous sexual partners, where a sexually transmitted pathogen is not isolated None – Where a urinary tract pathogen is isolated
Notification	Not notifiable

4.2.2

Pelvic inflammatory disease (PID)

Causative organisms	<i>Chlamydia trachomatis</i> , <i>Neisseria gonorrhoeae</i> , <i>Mycoplasma genitalium</i> <i>Note:</i> PID in women under the age of 35 years is often due to sexually transmissible pathogens, while PID in older women is less likely to be associated with a sexually transmitted pathogen. In many cases of PID a specific pathogen is not found.
Incubation period	Poorly defined; depends on pathogen
How far back to trace	See 4.1.3, 4.1.5, 4.1.10 if chlamydia, gonorrhoea or <i>Mycoplasma genitalium</i> are isolated
Usual testing method	Clinical diagnosis Test for chlamydia, gonorrhoea and <i>M. genitalium</i>
Common symptoms	Commonly mild or subclinical Pelvic pain, intermenstrual or post-coital bleeding, deep dyspareunia Sometimes vaginal discharge
Likelihood of transmission per act of unprotected intercourse	Depends on specific pathogen
Likelihood of long-term sexual partner being infected	Depends on specific pathogen
Protective effect of condoms	High for sexually transmitted pathogens
Transmission by oral sex	Unknown
Duration of potential infectivity	Depends on specific pathogen
Important sequelae	Infertility Chronic pelvic pain Ectopic pregnancy Fitz-Hugh Curtis Syndrome
Direct benefit of detection and treatment of contacts	Cure where a pathogen is isolated
Usual management of contacts	Counselling, clinical examination, test for <i>C.trachomatis</i> , <i>N. gonorrhoeae</i> and <i>M. genitalium</i> Consider presumptively treating all male sexual contacts with azithromycin 1g orally as a single dose; and for gonorrhoea if suspected (see 4.1.5)
Contact tracing priority	High – Where <i>C. trachomatis</i> , <i>N. gonorrhoeae</i> or <i>M. genitalium</i> are isolated Medium – Younger women and current male sexual partners where a sexually transmitted pathogen is not isolated Low – Older women and previous sexual partners where a sexually transmitted pathogen is not isolated
Notification	Not notifiable

4.3. Infections where contact tracing is not recommended

There are a number of common genital infections where contact tracing is not recommended. These have been included for completeness so that health care professionals who encounter these infections are aware that contact tracing is not required.

4.3.1 Herpes

Causative organism	Herpes simplex viruses (HSV) types 1 and 2
Incubation period	Usually 2 to 12 days, but may occur more than 12 months later Most remain either asymptomatic or have unrecognised symptoms (for example, mild non-specific rash, sore, spot, fissure or crack in the skin) Many first episodes are not from recent infection
Usual testing method	Nucleic acid amplification testing
Common symptoms	Recurrent anogenital ulcers or blisters Can be severe with systemic symptoms with primary infection
Likelihood of transmission per act of unprotected intercourse	Low. Higher if lesions present; however, can occur in absence of lesions
Likelihood of long-term sexual partner being infected	Variable
Protective effect of condoms	Moderate and probably depends on site of lesions
Transmission by oral sex	Significant for HSV type 1
Duration of potential infectivity	Lifelong
Important sequelae	Neonatal infection Physical and psychosexual morbidity Enhanced HIV transmission
Direct benefit of detection and treatment of contacts	Limited. Frequent symptomatic recurrences can be suppressed with treatment
How far back to trace	Contact tracing not recommended
Usual management of contacts	Counselling
Contact tracing priority	Low and not recommended
Notification	Not notifiable

4.3.2 Warts

Causative organisms	Human papillomaviruses (HPV) – usually types 6 & 11
Incubation period	3 weeks to >12 months. Most HPV infection is subclinical
Usual testing method	Clinical examination
Common symptoms	Anogenital warts
Likelihood of transmission per act of unprotected intercourse	High
Likelihood of long-term sexual partner being infected	>60 %
Protective effect of condoms	Moderate
Transmission by oral sex	Rarely of clinical significance
Duration of potential infectivity	Months, probably years if HPV infection is persistent
Important sequelae	Psychosexual morbidity Possibly enhanced HIV transmission
Direct benefit of detection and treatment of contacts	None, unless already symptomatic
How far back to trace	Contact tracing not recommended
Usual management of contacts	Counselling
Contact tracing priority	Low and not recommended. The majority of partners are probably already infected subclinically
Notification	Not notifiable

5. Privacy, confidentiality and public health law

5.1. Introduction

'Privacy' and 'confidentiality' are distinct concepts. Privacy laws regulate the collection and use of personal health information. The legal duty of confidentiality obliges health care practitioners to protect their patients against inappropriate disclosure of personal health information. The duties to protect privacy and maintain confidentiality are not absolute, particularly when the health of others may be at risk.

This chapter provides an overview of Australian law and policy on privacy and confidentiality relating to the diagnosis and treatment of patients with sexually transmissible infections. This information does not constitute legal advice. Practitioners faced with uncertainty in this area should contact the health department or privacy commission in their state or territory, or seek independent legal advice. A list of relevant resources and professional guidelines can be found on the Australian Models of Care database available on the ASHM website at www.ashm.org.au/ModelsofCare.

5.2. Why are privacy and confidentiality important?

Health professionals are ethically obligated to protect patient confidentiality. The Code of the Australian Medical Association (AMA) provides that 'exceptions to this [duty] must be taken very seriously. They may include where there is a serious risk to the patient or another person, where required by law or where there are overwhelming societal interests.'

The integrity of the health system relies on the protection of privacy and confidentiality because:

- ♦ Patient autonomy requires that individuals be free to choose, within limits (discussed below), who accesses information about their health;
- ♦ People may be reluctant to seek medical attention if they fear their information could be disclosed to others. This 'chilling effect' could have implications for the future prevention, treatment and study of medical conditions;
- ♦ A health system with strong privacy mechanisms will promote public confidence in healthcare services; and
- ♦ Disclosure that individuals have tested for, or are living with, HIV/AIDS or other STIs can invite social stigma and discrimination.

5.3. Australian privacy laws

The Commonwealth Privacy Act 1988 applies to federal and ACT government health bodies. States and territories, other than South Australia and Western Australia, also have Acts dealing with the protection of health information. In South Australia, Cabinet has issued Information Privacy Principles which apply to government agencies. Every jurisdiction now has a dedicated commissioner or committee to handle complaints relating to breaches of privacy, as do registration boards and health complaints agencies. Generally speaking, federal and state laws are consistent; however, the lack of a national scheme has been identified as a matter requiring reform.

5.4. Collecting information

Commonwealth, state and territory laws require that practitioners collect health information about a patient with the patient's consent, and for a use to which that consent relates. Patient consent to collecting information is commonly implied by their behaviour. If there is doubt, this should be resolved by discussion with the patient. Accurate records should be kept both to assist patient care and as evidence that relevant consents have been obtained (see case of PD v Y below).

Exceptions to this general rule include: emergencies where neither the patient nor the patient's representative can provide consent; where the collection of information is required by law, or in circumstances relating to defence of legal claims. A practitioner may also collect health information where this is necessary to prevent or lessen a threat to life or wellbeing of a person, or to lessen a threat to public health or safety.

5.5. Security/storage of health information

Health services should have in place:

- ♦ Procedures to give access to the information only to those people who are authorised to have access;
- ♦ Security measures to prevent unauthorised access to the records;
- ♦ Where practicable, procedures for storing the information in a way that the identity of the person is not readily apparent from the face of the record, for example by the use of identification codes; and
- ♦ Where the record is not to be retained, secure procedures for destroying the records.

Electronic records pose particular challenges. Electronic record systems pose increased risks for access by unauthorised staff and 'browsing' and data leakage. Medical practices must address the security of data storage/transfer systems, including the risks posed by staff who may intentionally or inadvertently access electronic records for reasons unrelated to the provision of health care.

5.6. Accessing personal records

Every jurisdiction recognises a general right of patients to access their own health records. However, record-keepers may, in some instances, be required or authorised to refuse access. A patient may be refused access to information where such access may: endanger the life or wellbeing of a person; affect the privacy of other individuals; be prejudicial to a legal investigation or relevant to civil proceedings between the patient and record-keeper.

People notified by contact tracers are not entitled to access information about the contact's identity, behaviour or diagnosis without that person's consent, even if that information is in their own records. Should a patient wish to access their own record, details of the identity of any contacts contained in their record should be removed.

5.7. Disclosure of information

Just as consent is required for medical treatment, consent may be required for disclosure of information. Consent is obtained if a patient knows how and why their information will be used. If a patient's record contains particularly sensitive information, for example, information concerning a sexual assault, it would be advisable to inform them about how their information will be handled and their consent obtained.

There are many exceptions to the general rule requiring consent for disclosure. Practitioners often need to share information to deliver optimum health care. However, only information required for the treatment of the patient should be shared. Group practices should formulate clear internal communication policies and procedures in order to exercise reasonable care, particularly in sensitive situations such as delivering test results.

There are other significant exceptions to this general rule. Disclosure is permissible during emergencies where neither the patient nor the patient's representative can provide consent. Disclosure of information may be required by law. For example, every state and territory has legislation mandating the notification of certain infectious diseases to health authorities. Notification requirements prescribed by law vary between jurisdictions. Depending on the state or territory, notifications may be required in code, or by name.

Disclosure of a person's health status without their consent is not justified where the observance of standard infection control precautions makes disclosure unnecessary. However, disclosure may be warranted to prevent or lessen a threat to life or wellbeing of a person, or to lessen a threat to public health or safety. A health care worker may have suffered a needle-stick injury in circumstances where there is a real risk of transmission and it is not possible to conceal the identity of the source patient who has refused to consent to disclosure. A practitioner may form the view that a third party may be at risk of contracting a notifiable disease because of their patient's actions. In such instances, law and/or policy may authorise or permit a practitioner to report this to their health department or take other action.

Regulation 10 (2) of the NSW Public Health (General) Regulation 2002 (2002-644) allows information to be disclosed to the Director-General if a person has reasonable grounds to believe that failure to provide the information could place the health of the public at risk. Section 55 of the Victorian *Public Health and Wellbeing Act 2008* allows a person to disclose information to the Department of Health if the person reasonably believes that the disclosure is necessary to assist the Secretary, Chief Health Officer or authorised officers to exercise a power under the Act. Under section 30 of the South Australian *Public and Environmental Health Act 1987* a medical practitioner is to furnish the Department with such information as it may require with respect to a person whose case they have reported. This is reinforced by the section 41 power, enabling the Chief Executive to require a person to furnish information for the purposes of the Act. In Western Australia, under section 276A of the Health Act 1911, if the practitioner has reasonable grounds to believe that the patient may engage in behaviour that is likely to put other persons at risk of infection, he or she may provide that patient's name, address and telephone number to the Department. The Executive Director Public Health may also require this information. Under the Northern Territory *Notifiable Diseases Act*, section 8 states that if a medical practitioner believes a person may be infected with a notifiable disease they are to advise the Department. According to section 9, an infected person must provide the medical practitioner with the names and addresses of all persons from whom the notifiable disease may have been contracted. A person suspected of being infected must provide the names and addresses of all persons with whom he or she has been in contact during a period of time specified by the medical practitioner.

In Tasmania, if a medical practitioner believes their patient is placing others at risk, section 20 of *HIV/AIDS Preventive Measures Act 1993* permits him or her to consult an approved specialist medical practitioner. The medical practitioner may then inform any sexual contact of that person of the HIV status of that person. Similarly, doctors and nurse practitioners may advise the chief health officer where a patient refuses to advise contacts, and be authorised to inform contacts under section 108 of the ACT *Public Health Act 1997*. Departments may also have protocols in place specifically addressing what is to happen when it is believed that a person living with HIV is placing others at risk.

5.8. Some Case Law:

Duty of care to a sexual partner

In *BT v Oei* [1999] NSWSC 082, the defendant doctor was found to have a duty of care to a patient's sexual partner, even though the partner was not herself a patient of the doctor. The case arose in New South Wales and involved a man (AT) who reported a flu-like illness in late 1991 and developed acute hepatitis B in early 1992. A woman (BT), subsequently formed a sexual relationship with AT and became infected with HIV. BT sued the doctor, claiming that his failure to diagnose AT's HIV infection was negligent. The following considerations were important to the finding of negligence:

- ♦ BT asserted, and the Court agreed, that the doctor should have advised AT to have an HIV test when AT first presented; and
- ♦ The provisions of the *Public Health Act 1991* (NSW) require a doctor who believes a patient is HIV-infected to inform that patient of the danger he/she poses to others and to advise the measures he/she should take to protect others from cross-infection.

Having failed in these respects, Dr Oei was found negligent and in breach of the duty of care owed to his patient's partner.

5.9. Failure to follow-up positive test results

Kite v Malycha (1998) 71 SASR 321 held that a surgeon was negligent for not informing a patient that a breast lump biopsy showed cancer cells. The surgeon did not have a system for detecting that the patient had not received the test result. Kite is potentially significant because:

- ♦ Testing for HIV antibody status is largely anonymous (that is, the blood sample is often sent without patient identification but with a code assigned by the referring doctor); and
- ♦ A doctor who does not have a system to check that results are received for all requested/referred tests and that those results are communicated to the relevant patient, may be considered negligent; therefore
- ♦ Applying *BT v Oei*, it is possible that the doctor's liability could extend beyond their own patient to anyone else unwittingly infected by that patient.

5.10. Counselling obligations and duty of care to a sexual partner

In *PD v Dr Y & Dr X* [2003] NSWSC 487, PD and her future husband (FH) attended a medical practice for testing of HIV and other diseases. They saw Dr Y, who informed them to attend when the results were returned but did not inform them that, in the absence of their consent, he would not be able to disclose any information about one person's HIV status to the other.

PD was informed that her results were negative. She asked a practice staff member the status of FH's results but was told the results were confidential. FH's results were positive for HIV and hepatitis B. Dr Y rang FH and advised that he had tested positive and made him a follow-up appointment at the practice. Dr Y neither raised any issue arising from the joint consultation nor asked whether FH was proposing to tell PD. FH visited the practice and saw the medical director, Dr X, who was unaware of FH's relationship with PD. Dr X referred FH to an immunology clinic but there was no record of FH having attended the follow-up appointment.

FH lied and told PD his result was negative. Despite PD returning to the clinic on two subsequent occasions for different reasons, she did not see Dr Y, and these matters were not discussed. PD discovered she was infected with HIV when she was pregnant with their child. PD sued the doctors who had seen her, alleging that they had a duty to prevent her from foreseeable harm.

The Court found for her but for different reasons, namely because the doctors had failed to:

- ♦ Provide pre-test counselling according to health department guidelines;
- ♦ Contact FH to tell him that unless he attended the HIV clinic and demonstrated to them that he had informed his fiancée of his HIV status they would refer him to the Director-General of the Department of Health as a person known to be HIV positive who was not attending for review and was putting others at risk; and
- ♦ Report FH to the health department as permitted by law.

An appeal by the clinic was dismissed and the findings at first instance were upheld: see *Harvey & 1 Ors v PD* [2004] NSWCA 97.

6. Evaluation

6.1. Clinical feedback

The outcomes of contact tracing can be assessed by health care providers at the individual patient level.

Index patients diagnosed with an STI may attend for a test of cure or repeat test and this is an ideal time to confirm that patient referral has occurred. If the index patient reports they have not yet notified contacts, the health care provider may wish to offer further support to the patient, including further counselling or provider referral. The patient may be able to provide details of identified contacts' testing, results and treatment; however, lack of knowledge of outcomes does not necessarily mean contacts have not been appropriately informed. When provider referral is used, the health care provider is usually in a better position to confirm that contacts have been notified.

When the contact is reported as attending elsewhere, the initial health care provider is not entitled to further information about the contact without the contact's permission. Confirming that contacts have been appropriately assessed may be facilitated by the contact attending the same agency, although index patients are not entitled to information about their sexual partners.

If known, details of identified contacts' testing, results and treatment, should be recorded in the index patient's record, including the source of this information, for example index patient, other agency. Although complaints about the contact tracing process by either index patient or their contacts are rare, health care providers need to be alert and responsive to these.

6.2. Primary care evaluation

The following is a checklist that can be used to evaluate contact tracing in primary care.

1. Contact tracing discussed with all index patients diagnosed with:
 - ♦ HIV
 - ♦ Chlamydia
 - ♦ Gonorrhoea
 - ♦ Syphilis
 - ♦ Viral Hepatitis
 - ♦ Trichomoniasis
2. Health care provider is aware of and offers a variety of methods of contact tracing where appropriate:

Patient referral:

- ♦ Verbal counselling
- ♦ Links to websites
- ♦ Other resources such as information handouts on STIs
- ♦ Contact letters

Provider referral:

- ♦ Contact tracing by doctor or practice nurse
 - ♦ Referral to specialist contact tracing or other service
3. Health care provider checks on progress of contact tracing when index patient next seen and offers further assistance if required.

4. Repeat testing at 3 months post treatment is offered to patients who have had chlamydia. If tests are again positive, consideration is given to more intensive contact tracing counselling.
5. All clients attending as contacts of chlamydia, gonorrhoea, early syphilis, *Mycoplasma genitalium* or trichomoniasis are offered both presumptive treatment and testing.

6.3. Program evaluation

Specialist services should have formal evaluation of their contact tracing programs. The ideal outcome measures to use in both audits and comparative trials remain open to debate. In the United Kingdom, national management standards of the satisfactory management of at least 0.4 contacts per case of chlamydia and gonorrhoea in large cities, and 0.6 contacts per case of chlamydia and gonorrhoea outside large cities, were based on published contact tracing program audits. Audits have also been published in Australia and provide an opportunity for comparison.

The following quantitative measures are suggested for use in audits as they enable comparisons both across time and between services.

- ◆ Number of index patients
- ◆ Number of contacts identified for notification
- ◆ Number of contacts known to be notified, and calculation of notification index = number of contacts notified divided by number of index patients
- ◆ Number of contacts known to be treated, and calculation of treatment index = number of contacts treated divided by number of index patients
- ◆ Prevalence of infection among contacts of index patient, if known
- ◆ Prevalence of infection among clients attending as contacts
- ◆ Cost of program

The following qualitative measures are also suggested:

- ◆ Acceptability of the program or intervention to index patients
- ◆ Acceptability of the program or intervention to contacts
- ◆ Staff perceptions of the program or intervention
- ◆ Community perception, particularly in relation to confidentiality
- ◆ Adverse outcomes of the program or intervention.

For comparative trials the previous outcomes may be used; however, biological outcomes should be considered. In a number of recent randomised trials of partner notification, the primary outcome has been the reduction in repeat or persistent infection in the index patient. This may be measured as the index patient testing positive at some time, at least six weeks after initial treatment.

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Appendix A: Manual reference group

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Appendix B: Sexual health services 2010

AUSTRALIA

NATIONAL

Australasian Chapter of Sexual Health Medicine

145 Macquarie Street
SYDNEY NSW 2000
Tel: 02 9256 9643
Fax: 02 9256 9693
Email: sexualhealthmed@racp.edu.au
Web: www.racp.edu.au

ACT

GARRAN

Canberra Sexual Health Centre

The Canberra Hospital
Gillmore Crescent
GARRAN ACT 2605
Tel: 02 6244 2184
Fax: 02 6285 3395
Email: cshc@act.gov.au
Web: www.health.act.gov.au/sexualhealth

NSW

ALBURY

Albury Sexual Health Service

Albury Community Health Service
596 Smollett Street
ALBURY NSW 2640
Tel: 02 6058 1800
Fax: 02 6058 1801
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

ARMIDALE

Armidale Community Health Centre

Clair House
cnr Butler and Rusden Streets
ARMIDALE NSW 2350
Tel: 02 6776 9600
Fax: 02 6776 4900
Email: graham.smith@hnehealth.nsw.gov.au

BOURKE

Bourke Sexual Health Service

Community Health Centre
26 Tarcoon Street
BOURKE NSW 2840
Tel: 02 6870 8883
Fax: 02 6870 8898
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

BROKEN HILL

Broken Hill Sexual Health

Primary Health Centre
Broken Hill Base Hospital
Thomas Street
BROKEN HILL NSW 2880
Tel: 08 8080 1556
Fax: 08 8080 1611
Freecall: 1800 451 624
Email: jlenton@gwahs.health.nsw.gov.au
Web: www.health.nsw.gov.au/publichealth/sexualhealth

CAMPBELLTOWN

Campbelltown Community Health Centre

261 Queen Street
CAMPBELLTOWN NSW 2560
Tel: 02 9827 8022
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth
Note: (Monday 1:30-3pm)

CAMPERDOWN

RPA Sexual Health Clinic

Building 21, RPA Hospital
25 Lucas Street
CAMPERDOWN NSW 2050
Tel: 02 9515 3131
Fax: 02 9515 3112
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

CARINGBAH

Caringbah Sexual Health Clinic - South Zone

Community Health Caringbah
The Sutherland Hospital, 430 Kingsway
CARINGBAH NSW 2229
Tel: 02 9522 1000
Fax: 02 9588 1080

CESSNOCK

Hunter Area Outreach Clinic - Cessnock

Community Health Service
View Street
CESSNOCK NSW 2325
Tel: 02 4931 2003
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

COFFS HARBOUR

Coffs Harbour Sexual Health Clinic - Clinic 916

Coffs Harbour Health Campus
345 Pacific Highway
COFFS HARBOUR NSW 2450
Tel: 02 6656 7865
Fax: 02 6656 7817
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

DARETON

Wentworth/Balranald Sexual Health Service

Dareton Primary Health Centre
42-44 Tapio Street
DARETON NSW 2717
Tel: 03 5021 7200
Fax: 03 5027 4109
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

DARLINGHURST

Kirketon Road Centre

Above the Darlinghurst Fire Station
Victoria Street (entrance)
DARLINGHURST NSW 2010
Tel: 02 9360 2766
Fax: 02 9360 5154
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

DUBBO

Greater Western Area Health - Dubbo Sexual Health Service

203 Brisbane Street
DUBBO NSW 2830
Tel: 02 6841 2480
Fax: 02 6841 2490
Freecall: 1800 451 624
Email: mash@gwahs.health.nsw.gov.au
Web: www.health.nsw.gov.au/publichealth/sexualhealth

FORSTER

The Lakes Clinic

Forster Community Health Centre
16 Breese Parade
FORSTER NSW 2428
Tel: 02 6555 1800
Fax: 02 6554 8874
Freecall: 1800 451 624
Email: donna.muscardin@hnehealth.nsw.gov.au
Web: www.health.nsw.gov.au/publichealth/sexualhealth

GOSFORD

Holden Street Clinic

69 Holden Street
GOSFORD NSW 2250
Tel: 02 4320 2114
Fax: 02 4320 2020
Freecall: 1800 451 624
Email: jlittle@nscchahs.health.nsw.gov.au
Web: www.health.nsw.gov.au/publichealth/sexualhealth

GOULBURN

Goulburn Community Health Centre - Sexual Health Service

Goldsmith Street
GOULBURN NSW 2580
Tel: 02 4827 3913
Fax: 02 4827 3943
Freecall: 1800 451 624
Web: www.health.nsw.gov.au/publichealth/sexualhealth

GRAFTON

Clinic 229

Grafton Base Hospital
Arthur Street
GRAFTON NSW 2460
Tel: 02 6640 2229
Fax: 02 6640 2239
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

GRIFFITH

Griffith Community Health Centre

39 Yambil Street
GRIFFITH NSW 2680
Tel: 02 6966 9900
Fax: 02 6964 1743
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

KATOOMBA

Blue Mountains Sexual Health/HIV Clinic

Blue Mountains Hospital
Great Western Highway
KATOOMBA NSW 2780
Tel: 02 4784 6560
Fax: 02 4782 4659
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

KEMPSEY

Kempsey Sexual Health Service - Clinic 33

Kempsey Community Health
Polwood Street
KEMPSEY NSW 2440
Tel: 02 6562 6066
Fax: 02 6562 8116
Freecall: 1800 451 624
Email: alison.mears@ncahs.health.nsw.gov.au
Web: www.ncahs.nsw.gov.au/sexual-health

KINGSWOOD

Nepean Sexual Health & HIV Clinic

The Court Building, Nepean Hospital
Derby Street Entrance
KINGSWOOD NSW 2747
Tel: 02 4734 2507
Fax: 02 4734 2620
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

KOGARAH

Short Street Centre Sexual Health Service

St George Hospital, Ground Floor
Pritchard Wing, Short Street
KOGARAH NSW 2217
Tel: 02 9113 2742
Fax: 02 9588 7521
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

LIGHTNING RIDGE

Lightning Ridge Sexual Health Service

Opal Street
LIGHTNING RIDGE NSW 2834
Tel: 02 6829 9900
Fax: 02 6829 9918
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

LISMORE

Lismore Sexual Health Service

North Coast Area Health Service, Lismore
Base Hospital
4 Shepherd Lane
LISMORE NSW 2480
Tel: 02 6620 2980
Fax: 02 6620 2985
Freecall: 1800 451 624
Email: shaidslbh@ncahs.health.nsw.gov.au
Web: www.ncahs.nsw.gov.au/sexual-health

LIVERPOOL

Bigge Park Centre

cnr Elizabeth & Bigge Streets
LIVERPOOL NSW 2170
Tel: 02 9827 8022
Fax: 02 9602 4352
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

MT DRUITT

Mt DrUITt Sexual Health Clinic

Kelly Close Services
 Kelly Close
 MT DRUITT NSW 2770
 Tel: 02 9881 1206
 Fax: 02 9881 1331
 Freecall: 1800 451 624
 Web: [www.health.nsw.gov.au/
 publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

NAROOMA

Narooma Community Health Centre - Sexual Health Service

cnr Field & Graham Streets
 NAROOMA NSW 2546
 Tel: 02 4476 2344
 Fax: 02 4476 1731
 Freecall: 1800 451 624
 Email: chris.taylor@gcahs.health.nsw.gov.au
 Web: [www.health.nsw.gov.au/
 publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)
 Note: 1300 139 887 - Appointments
 Interpreter Services available on
 request

NEWCASTLE

Pacific Clinic - Newcastle Sexual Health Service

Level 2, 670 Hunter Street
 NEWCASTLE NSW 2300
 Tel: 02 4016 4530
 Fax: 02 4016 4535
 Freecall: 1800 451 624
 Email: sexualhealth@hnehealth.nsw.gov.au
 Web: [www.health.nsw.gov.au/
 publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

NOWRA

Shoalhaven Sexual Health Clinic

Shoalhaven District Hospital
 Shoalhaven Street
 NOWRA NSW 2541
 Tel: 02 4423 9353
 Fax: 02 4423 9392

ORANGE

Orange Sexual Health Clinic

Community Health Centre
 96 Kite Street
 ORANGE NSW 2800
 Tel: 02 6392 8600
 Fax: 02 6392 8624
 Freecall: 1800 816 925
 Web: [www.health.nsw.gov.au/
 publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

PARRAMATTA

Parramatta Sexual Health Clinic

Parramatta Health Service, Jeffrey House
 Level 1, 162 Marsden Street
 PARRAMATTA NSW 2150
 Tel: 02 9843 3124
 Fax: 02 9893 7103
 Freecall: 1800 451 624
 Web: [www.health.nsw.gov.au/
 publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

PORT MACQUARIE

Port Macquarie - Clinic 33 Sexual Health Service

Port Macquarie Community Health
 Morton Street
 PORT MACQUARIE NSW 2444
 Tel: 02 6588 2750
 Fax: 02 6588 2837
 Freecall: 1800 451 624
 Email: alison.mears@ncahs.health.nsw.gov.au
 Web: www.ncahs.nsw.gov.au/sexual-health

QUEANBEYAN

Queanbeyan Community Health Centre - Sexual Health Service

cnr Erin & Collett Streets
 QUEANBEYAN NSW 2620
 Tel: 02 6298 9233
 Fax: 02 6128 9977

ST LEONARDS

Clinic 16 - Northern Sydney Sexual Health, HIV & Viral Hepatitis Service

Block 3, Building 10
 Royal North Shore Hospital
 Herbert Street
 ST LEONARDS NSW 2065
 Tel: 02 9926 7414
 Fax: 02 9926 5582
 Freecall: 1800 451 624
 Web: [www.health.nsw.gov.au/
 publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

Manly Sexual Health Service

Clinic 16, Royal North Shore Hospital
Herbert Street
ST LEONARDS NSW 2065
Tel: 02 9926 7414
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

SURRY HILLS

Albion Street Centre

150-154 Albion Street
SURRY HILLS NSW 2010
Tel: 02 9332 9600
Fax: 02 9331 6519
Freecall: 1800 451 624
Web: [www.sesiahs.nsw.gov.au/
albionstcentre](http://www.sesiahs.nsw.gov.au/albionstcentre)

SYDNEY

Sydney Sexual Health Centre

Sydney Hospital
Macquarie Street
SYDNEY NSW 2000
Tel: 02 9382 7440
Fax: 02 9382 7475
Email: sshc@sesiahs.health.nsw.gov.au
Web: [www.sesiahs.health.nsw.gov.au/
sydhosp/services/sshc.asp](http://www.sesiahs.health.nsw.gov.au/sydhosp/services/sshc.asp)

TAMWORTH

Clinic 468 - Formerly Bligh Street Clinic

468 Peel Street
TAMWORTH NSW 2430
Tel: 02 6766 3095
Fax: 02 6766 6835
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

TAREE

Manning Clinic

Taree Community Health Centre
64 Pulteney Street
TAREE NSW 2430
Tel: 02 6592 9315
Fax: 02 6592 9775
Freecall: 1800 451 624
Email: donna.muscardin@hnehealth.nsw.gov.au
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

TWEED HEADS

Clinic 145 - Tweed Valley Sexual Health Service

145 Wharf Street
TWEED HEADS NSW 2485
Tel: 07 5506 6850
Fax: 07 5506 6866
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/
publichealth/sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

WAGGA WAGGA

Wagga Wagga Sexual Health Service

79 Brookong Avenue
WAGGA WAGGA NSW 2650
Tel: 02 6938 6492
Fax: 02 6925 0617

WARRAWONG

Illawarra Sexual Health Service

Port Kembla Hospital
Fairfax Road
WARRAWONG NSW 2502
Tel: 02 4223 8457
Fax: 02 4276 2521
Freecall: 1800 451 624
Web: [www.health.nsw.gov.au/publichealth/
sexualhealth](http://www.health.nsw.gov.au/publichealth/sexualhealth)

NT

ALICE SPRINGS

Clinic 34 - Alice Springs

Centre for Disease Control, Alice Springs
Hospital
Gap Road
ALICE SPRINGS NT 0871
Tel: 08 8951 7549
Fax: 08 8951 7555
Web: www.health.nt.gov.au

DARWIN

Clinic 34 - Darwin

Centre for Disease Control
87 Mitchell Street
DARWIN NT 0800
Tel: 08 8999 2678
Fax: 08 8999 2688
Email: clinic34@nt.gov.au
Web: www.health.nt.gov.au

KATHERINE

Clinic 34 - Katherine

Centre for Disease Control
O'Keefe House, Katherine Hospital
KATHERINE NT 0851
Tel: 08 8973 9049
Fax: 08 8973 9048
Web: www.health.nt.gov.au

NHULUNBUY

**Centre for Disease Control -
Gove District Hospital**

cnr Chesterfield Circuit &
Matthew Flinders Way
NHULUNBUY NT 0881
Tel: 08 8987 0357
Fax: 08 8987 0355
Web: www.health.nt.gov.au

Clinic 34 - Nhulunbuy

Centre for Disease Control
cnr Chesterfield Circuit &
Matthew Flinders Way
NHULUNBUY NT 0880
Tel: 08 8987 0357
Fax: 08 8987 0355
Web: www.health.nt.gov.au

TENNANT CREEK

Clinic 34 - Tennant Creek

Health Development
cnr Schmidt & Windley Streets
TENNANT CREEK NT 0860
Tel: 08 8962 4250
Fax: 08 8962 4420
Web: www.health.nt.gov.au

QLD

BAMAGA

Bamaga Sexual Health Clinic

c/o Bamaga Hospital
PO Box 99
BAMAGA QLD 4876
Tel: 07 4090 4219
Fax: 07 4090 4251
Web: www.health.qld.gov.au/sexhealth

BRISBANE

AIDS Medical Unit

Level 2
270 Roma Street
BRISBANE QLD 4000
Tel: 07 3837 5622
Fax: 07 3837 5672
Email: amu@health.qld.gov.au
Web: www.health.qld.gov.au/sexhealth

Brisbane Sexual Health Clinic

Level 1
270 Roma Street
BRISBANE QLD 4000
Tel: 07 3837 5611
Fax: 07 3837 5640
Email: bshc@health.qld.gov.au
Web: www.health.qld.gov.au/sexhealth

BUNDABERG

Q Clinic

Bundaberg Base Hospital
271 Bourbong Street
BUNDABERG QLD 4670
Tel: 07 4150 2754
Fax: 07 4150 2769
Email: BBH-QClinic@health.qld.gov.au
Web: www.health.qld.gov.au/sexhealth

CAIRNS

Doll's House Sexual Health Clinic

The Esplanade
CAIRNS QLD 4870
Tel: 07 4050 6205
Fax: 07 4050 6359
Email: CairnsSHS@health.qld.gov.au
Web: [www.health.qld.gov.au/sexhealth/
help/cairns.asp](http://www.health.qld.gov.au/sexhealth/help/cairns.asp)

IPSWICH

S.H.op101 - Ipswich Sexual Health Service

Health Plaza
21 Bell Street
IPSWICH QLD 4305
Tel: 07 3817 2428
Fax: 07 3281 0565
Email: Shop101@health.qld.gov.au
Web: www.health.qld.gov.au/sexhealth

KIPPA RING

Redcliffe Sexual Health & HIV Service

Redcliffe Community Health Centre
181 Anzac Avenue
KIPPA RING QLD 4021
Tel: 07 3897 6300
Fax: 07 3897 6311
Email: Redsxh@health.qld.gov.au
Web: www.health.qld.gov.au/northside/
documents/sexual_health_hiv.pdf

MACKAY

Mackay Sexual Health & Sexual Assault Services

Mackay Community Health Centre
12–14 Nelson Street
MACKAY QLD 4740
Tel: 07 4968 3919
Fax: 07 4968 3885
Web: www.health.qld.gov.au/sexhealth/
help/mackay.asp

MIAMI

Gold Coast Sexual Health Service

2019 Gold Coast Highway
MIAMI QLD 4220
Tel: 07 5576 9033
Fax: 07 5576 9030
Email: sexualhealthgc@health.qld.gov.au
Web: www.health.qld.gov.au/sexhealth

MOUNT ISA

Mt Isa District Sexual Health Services

Doreen Street Clinic, Mt Isa Base Hospital
Doreen Street
MOUNT ISA QLD 4825
Tel: 07 4744 4805
Fax: 07 4745 4590
Email: mt_isa_sexual_health@health.qld.gov.au
Web: www.health.qld.gov.au/sexhealth

NAMBOUR WEST

Sunshine Coast – Wide Bay Sexual Health and HIV Service

87 Blackall Terrace
NAMBOUR WEST QLD 4560
Tel: 07 5470 5244
Fax: 07 5476 2491
Web: www.health.qld.gov.au/sexhealth/
help/sunshine_coast.asp

NORTH WARD

Townsville Sexual Health Unit

35 Gregory Street
NORTH WARD QLD 4810
Tel: 07 4778 9600
Fax: 07 4778 9641
Web: www.health.qld.gov.au/sexhealth

PALM ISLAND

Palm Island Sexual Health Service

Joyce Palmer Health Service
Beach Road
PALM ISLAND QLD 4816
Tel: 07 4752 5100
Fax: 07 4752 5151
Web: www.health.qld.gov.au/sexhealth

ROCKHAMPTON

Rockhampton Sexual Health and HIV Service

Sandrock House
Canning Street
ROCKHAMPTON QLD 4700
Tel: 07 4920 5555
Fax: 07 4920 5557
Web: www.health.qld.gov.au/sexhealth
Note: Mobile: 0417 729 903

THURSDAY ISLAND

Men's & Women's Health - Thursday Island

Douglas Street
THURSDAY ISLAND QLD 4875
Tel: 07 4069 0413
Fax: 07 4069 2235
Web: www.health.qld.gov.au/sexhealth

TOOWOOMBA

Toowoomba Sexual Health Service

Toowoomba Base Hospital, Kobi House
Pechey Street
TOOWOOMBA QLD 4350
Tel: 07 4616 6446
Fax: 07 4616 6456
Web: www.health.qld.gov.au/sexhealth

WEIPA

Weipa Sexual Health Program

Cape York Health Service
WEIPA QLD 4874
Tel: 07 4082 3651
Fax: 07 4069 7405
Web: www.health.qld.gov.au/sexhealth

WOOLLOONGABBA

Princess Alexandra Sexual Health - PASH

Princess Alexandra Hospital
Ipswich Road
WOOLLOONGABBA QLD 4102
Tel: 07 3240 5881
Fax: 07 3240 5540
Email: pash@health.qld.gov.au
Web: www.health.qld.gov.au/pash

SA

ADELAIDE

Clinic 275

275 North Terrace
ADELAIDE SA 5000
Tel: 08 8222 5075
Fax: 08 8232 3504
Freecall: 1800 806 490 - SA only
Email: stdservices@health.sa.gov.au
Web: www.stdservices.on.net

TAS

BURNIE

Sexual Health Service - Burnie

11 Jones Street
BURNIE TAS 7310
Tel: 03 6434 6315
Fax: 03 6431 7851
Web: www.dhhs.tas.gov.au/health__and__wellbeing/sexual_health

DEVONPORT

Sexual Health Service - Devonport

Level 1, Room 18
23 Steele Street
DEVONPORT TAS 7310
Tel: 03 6421 7759
Fax: 03 6421 7767
Web: www.dhhs.tas.gov.au/health__and__wellbeing/sexual_health

HOBART

Sexual Health Service - Hobart

60 Collins Street
HOBART TAS 7000
Tel: 03 6233 3557
Fax: 03 6231 2944
Freecall: 1800 675 859
Email: sexual.health@dhhs.tas.gov.au
Web: www.dhhs.tas.gov.au/health__and__wellbeing/sexual_health

LAUNCESTON

Sexual Health Service - Launceston

42 Canning Street
LAUNCESTON TAS 7250
Tel: 03 6336 2216
Fax: 03 6331 3454
Email: sexualhealth.north@dhhs.tas.gov.au
Web: www.dhhs.tas.gov.au/health__and__wellbeing/sexual_health

VIC

BALLARAT

Ballarat Community Health Centre*

Sexual Health Clinic
710 Sturt Street
BALLARAT VIC 3350
Tel: 03 5338 4540
Fax: 03 5332 6617
Email: info@bchc.org.au
Web: www.bchc.org.au
Note: * Medicare card required

CARLTON

Melbourne Sexual Health Centre

580 Swanston Street
CARLTON VIC 3053
Tel: 03 9341 6200
Fax: 03 9347 2230
Freecall: 1800 032 017
TTY: 03 9347 8619
Web: www.mshc.org.au

EAGLEHAWK

Community Health Bendigo - STI/BBV Service*

Seymour Street
EAGLEHAWK VIC 3556
Tel: 03 5434 4300
Fax: 03 5434 4366
Email: info@bchc.org.au
Web: www.bchc.org.au
Note: * Medicare card required

FRANKSTON

Frankston Hospital - Sexual Health Clinic*

Hastings Road
FRANKSTON VIC 3199
Tel: 03 9784 7650
Fax: 03 9784 7319
Web: www.health.vic.gov.au
Note: * Medicare card required

GEELONG

Sexual Health Clinic - Geelong*

Barwon Health, Geelong Hospital
Clinic 4, Bellarine Centre
GEELONG VIC 3220
Tel: 03 5226 7802
Fax: 03 5226 7254
Web: www.health.vic.gov.au
Note: * Medicare card required

PRAHRAN

HIV, Hepatitis & STI Education & Resource Centre - ERC

Fairfield House, The Alfred Hospital
Moubray Street
PRAHRAN VIC 3181
Tel: 03 9076 6993
Fax: 03 9076 5294
Email: erc@alfred.org.au
Web: www.hivhepsti.info

Victorian HIV Service & Infectious Diseases Clinic

Alfred Hospital
PRAHRAN VIC 3181
Tel: 03 9276 6081
Fax: 03 9276 6528
Web: www.health.vic.gov.au

TRARALGON

Latrobe Regional Hospital - AIDS/STD Clinic*

Princes Highway
TRARALGON VIC 3844
Tel: 03 5173 8111
Fax: 03 5173 8097
Web: www.health.vic.gov.au
Note: * Medicare card required

WODONGA

Vermont Street Health Clinic

79 Vermont Street
WODONGA VIC 3690
Tel: 02 6051 7535
Fax: 02 6051 7536

WA

FREMANTLE

Fremantle Hospital - Infectious Diseases Department

Alma Street
FREMANTLE WA 6160
Tel: 08 9431 2149
Fax: 08 9431 2035
Web: www.fhhs.health.wa.gov.au

Mainly Men Clinic

Quarry Health Centre
7 Quarry Street
FREMANTLE WA 6160
Tel: 08 9430 4544
Fax: 08 9430 8114
Note: Wednesday PM

Quarry Health Centre

7 Quarry Street
FREMANTLE WA 6160
Tel: 08 9430 4544
Fax: 08 9430 8114
Web: www.health.wa.gov.au
Note: For under 25s

Sexual Health Service - B2 Clinic

Fremantle Hospital
Alma Street
FREMANTLE WA 6160
Tel: 08 9431 2149
Fax: 08 9431 2035
Web: www.fhhs.health.wa.gov.au

KALGOORLIE

Goldfields Population Health Sexual Health Clinic

36-42 Ware Street
KALGOORLIE WA 6432
Tel: 08 9080 8200
Fax: 08 9080 8201
Web: www.health.wa.gov.au

NORTHBRIDGE

FPWA Sexual Health Services

70 Roe Street
NORTHBRIDGE WA 6003
Tel: 08 9227 6177
Fax: 08 9228 9010
Web: www.fpwa.org.au

PERTH

Royal Perth Hospital - Sexual Health Clinic

Wellington Street
PERTH WA 6001
Tel: 08 9224 2178
Fax: 08 9224 3557
Web: www.rph.wa.gov.au

ROCKINGHAM

Rockingham Clinic

Station Youth Centre
Baralda Court
ROCKINGHAM WA 6168
Tel: 08 9527 7464
Web: www.health.wa.gov.au
Note: Thursday PM

SUBIACO

King Edward Memorial Hospital - Sexual Health Clinic

Bagot Road
SUBIACO WA 6008
Tel: 08 9340 1383
Fax: 08 9340 1016
Web: www.health.wa.gov.au

NEW ZEALAND

ASHBURTON

Ashburton Sexual Health Clinic

Ashburton Hospital
Elizabeth Street
ASHBURTON 7700
Tel: +64 3 307 8453
Fax: +64 3 307 8472
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

AUCKLAND

Auckland Central Sexual Health Clinic

Greenlane Clinical Centre - Building 7, Level 3
Greenlane West
AUCKLAND 92024
Tel: +64 9 630 9770
Fax: +64 9 630 9783
Email: akstd@adhb.govt.nz
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

BLLENHEIM

Blenheim Sexual Health Clinic

68 Seymour Street
BLLENHEIM 7201
Tel: +64 3 578 3044
Fax: +64 3 578 3047
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

CHRISTCHURCH

Christchurch Sexual Health Centre

Christchurch Hospital
33 St Asaph Street
CHRISTCHURCH 8011
Tel: +64 3 364 0485
Fax: +64 3 379 8373
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

DANNEVIRKE

Dannevirke Outreach Clinic

Gordon Street
DANNEVIRKE 4930
Tel: +64 6 350 8602
Fax: +64 6 350 8609
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

DUNEDIN

Dunedin Sexual Health Clinic

Frederick Street Entrance
Dunedin Hospital
DUNEDIN 9054
Tel: +64 3 470 9780
Fax: +64 3 470 9781
Email: alison.stewart@phsouth.co.nz
Web: www.phsouth.co.nz

University Sexual Health Clinic

University of Otago
cnr Walsh & Albany Streets
DUNEDIN 9016
Tel: +64 3 479 8212
Web: www.otago.ac.nz/studenthealth
Note: Available for University of Otago students only

GISBORNE

Gisborne Sexual Health Centre

Community Health Centre
141 Bright Street
GISBORNE 4010
Tel: +64 6 868 9005
Fax: +64 6 863 1373
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

GLENFIELD

Auckland North Sexual Health Clinic

418 Glenfield Road
GLENFIELD 0629
Tel: +64 9 443 9580
Fax: +64 9 443 2554
Email: akstd@adhb.govt.nz
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

GORE

Gore Sexual Health Clinic

Gore Hospital
9 Birch Lane
GORE 9710
Tel: +64 3 214 5768
Fax: +64 3 214 7276
Web: [www.herpescoldsore.com/
support/std_clinics_new_z](http://www.herpescoldsore.com/support/std_clinics_new_z)

GREYMOOUTH

West Coast Sexual Health - Greymouth Clinic

Link Clinic, 1st Floor
Grey Hospital
GREYMOOUTH 7802
Tel: +64 3 768 0499
Fax: +64 3 768 2799
Email: sexual.health@westcoastdhub.health.nz
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)
Note: ext. 2874

HAMILTON

Hamilton Sexual Health Service

3 Ohaupo Road
HAMILTON 3206
Tel: +64 7 839 8732
Fax: +64 7 839 8892
Web: www.waikatodhb.govt.nz

HASTINGS

Hastings Sexual Health Service

HASTINGS 4120
Tel: 0800 303099
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

HENDERSON

Auckland West Sexual Health Clinic

Westpac House, 2nd Floor
362 Great North Road
HENDERSON 0612
Tel: +64 9 836 0838
Fax: +64 9 836 0839
Email: akstd@adhb.govt.nz
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

INVERCARGILL

Southland Hospital - Invercargill Sexual Health Service

Southland Hospital
Kew Road
INVERCARGILL 9812
Tel: +64 3 214 5768
Fax: +64 3 214 7276
Email: shona.fordyce@sdhb.govt.nz
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

LEVIN

Horowhenua STD Clinic

Horowhenua Hospital
Liverpool Street
LEVIN 5510
Tel: +64 6 350 8602
Fax: +64 6 350 8609
Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

LOWER HUTT

VIBE - Lower Hutt

4 Daly Street
 LOWER HUTT
 Tel: +64 4 566 0525
 Fax: +64 4 586 2054
 Email: info@vibe.org.nz
 Web: www.vibe.org.nz
 Note: Health and Support Service for
 People 10 - 24 years

Vibe Youth Health Service

12 Daly Street
 LOWER HUTT
 Tel: +64 4 566 0525
 Email: info@vibe.org.nz
 Web: www.vibe.org.nz

MANGERE

Auckland South Sexual Health Clinic

12 Waddon Place
 MANGERE 2022
 Tel: +64 9 255 5172
 Fax: +64 9 255 5178
 Email: akstd@adhb.govt.nz
 Web: [www.herpescoldsores.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

NAPIER

Napier Sexual Health Centre

76 Wellesley Road
 NAPIER 4110
 Tel: +64 6 834 1878
 Fax: +64 6 835 4813
 Freecall: 0800 303 099
 Web: [www.herpescoldsores.com/support/
std_clinics_new_zealand.htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

NEW PLYMOUTH

New Plymouth Sexual Health Clinic

56 Gover Street
 NEW PLYMOUTH 4310
 Tel: +64 6 759 8269
 Fax: +64 6 759 8369
 Web: [www.herpescoldsores.com/support/
std_clinics_new_zealand.htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

PALMERSTON NORTH

Palmerston North Sexual Health Centre

Rimu Hostel
 Palmerston North Hospital
 PALMERSTON NORTH 4410
 Tel: +64 6 350 8602
 Fax: +64 6 350 8609
 Web: [www.herpescoldsores.com/support/
std_clinics_new_zealand.htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

QUEENSTOWN

Wakatipu Sexual Health & Family Planning Clinic

9 Isle Street
 QUEENSTOWN 9300
 Tel: +64 3 441 0565
 Fax: +64 3 441 0501
 Web: [www.herpescoldsores.com/support/
std_clinics_new_zealand.htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

ROTORUA

Rotorua STD Clinic

Rotorua Hospital
 ROTORUA 3010
 Tel: +64 7 349 7918
 Fax: +64 7 349 7980
 Web: [www.herpescoldsores.com/support/
std_clinics_new_zealand.htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

TAHUNANUI

Nelson Sexual Health Clinic

31 Pascoe Street
 TAHUNANUI 7011
 Tel: +64 3 546 5255
 Fax: +64 3 546 1993
 Web: [www.herpescoldsores.com/support/
std_clinics_new_zealand.htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

TAUPO

Cafe for Youth Health

Waiora House
 129 Spa Road
 TAUPO
 Tel: +64 7 378 3895
 Fax: +64 7 378 3890
 Email: info@youthcafetaupo.org.nz
 Web: <http://www.youthcafetaupo.org.nz/>

TAURANGA

Tauranga STI Clinic

Jacaranda House
Tauranga Hospital
TAURANGA 3110
Tel: +64 7 579 8157
Fax: +64 7 579 8158
Web: [www.herpescoldsores.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

TIMARU

Timaru STD Clinic

Timaru Hospital
TIMARU 7910
Tel: +64 3 684 4000
Fax: +64 3 684 4000
Note: Ask for ext. 8762

UPPER HUTT

VIBE - Upper Hutt

2 Sinclair Street
UPPER HUTT
Tel: +64 4 528 6261
Fax: +64 4 586 2054
Email: info@vibe.org.nz
Web: www.vibe.org.nz
Note: Health and Support Service for
People 10 - 24 years

WANAKA

Wanaka Sexual Health & Family Planning Clinic

28 Dungarvon Street
WANAKA 9305
Tel: +64 3 443 1226
Fax: +64 3 443 1472
Web: [www.herpescoldsores.com/support/
std_clinics_new_zealand.htm](http://www.herpescoldsores.com/support/std_clinics_new_zealand.htm)

WHANGANUI

Whanganui STD Clinic

Outpatients Department
Whanganui Health District Health Board,
Heads Road
WANGANUI 4540
Tel: +64 6 348 1234
Fax: +64 6 348 1304
Note: ext. 8334

WELLINGTON

Wellington Sexual Health Service

(Compasshealth)
17 Adelaide Road
Newtown
WELLINGTON 6021
Tel: +64 4 385 9879
Freecall: +64 0800 188 881
Email: Kim.Lund@compasshealth.org.nz
Web: www.compasshealth.org.nz
Note: Monday, Thursday, Friday 9am-
4.30pm; Tuesday 9am-8pm

Wellington Sexual Health Service and Tu Pakari Ora - SAATS

Cuba Street Clinic
275 Cuba Street
WELLINGTON 6011
Tel: +64 4 385 9879
Freecall: 0800 188 881
Email: Kim.Lund@compasshealth.org.nz
Web: www.compasshealth.org.nz
Note: Monday, Thursday, Friday 9am-
4.30pm; Tuesday 9am-8pm

Willis Street Outreach Clinic - Wellington

New Zealand Prostitutes Collective
202 Willis Street
WELLINGTON 6011
Tel: +64 4 382 8791
Fax: +64 4 801 5690
Email: info@nzpc.org.nz
Web: www.nzpc.org.nz

WESTPORT

Westport Clinic

Outpatients Department
Buller Hospital
WESTPORT
Tel: +64 3 788 9030
Fax: +64 3 788 8221
Email: sexual.health@westcoastdhb.health.nz

WHAKATANE

Whakatane STD Clinic

Outpatients Department
Whakatane Hospital - Stewart Street
WHAKATANE
Tel: +64 7 306 0804
Fax: +64 7 307 8761

WHANGAREI

Whangarei Sexual Health Clinic - 123 Clinic

17 Norfolk Street

WHANGAREI 0110

Tel: +64 9 438 6123

Fax: +64 9 438 6124

Email: theclinic@northlanddhb.co.nz

Web: [www.herpescoldsore.com/
support/std_clinics_new_zealand.
htm](http://www.herpescoldsore.com/support/std_clinics_new_zealand.htm)

WYNDHAM

Wyndham Sexual Health Clinic

John Beange Health Centre

Redan Street

WYNDHAM

Tel: +64 3 206 4056

Fax: +64 3 206 4059

Appendix C: References and further reading

The following publications are recommended as additional resource materials for persons who wish to expand their knowledge or seek further guidance on contact tracing.

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Appendix D: Useful resources & websites

WEB-BASED PARTNER NOTIFICATION TOOLS:

The Drama Downunder –

www.thedramadownunder.info

- ◆ This national testing and treatment campaign for homosexually active men includes an email or SMS partner notification service and referral information for testing sites. Patients can also sign up for SMS or email reminders for their next sexual health check. It is managed by the Australian Federation of AIDS Organisations (AFAO).
- ◆ Note: The Drama Downunder has replaced WhyTest.org in NSW. Clients using Whytest will be redirected to The Drama Downunder once whytest's website is no longer in operation.

Let Them Know – www.letthemknow.org.au

- ◆ This website helps people diagnosed with chlamydia inform their sexual partners by email or SMS, and provides tips on how to have the conversation in person. It was developed by the Melbourne Sexual Health Centre.

ALLIED ORGANISATIONS AND RESOURCES:

Australasian Chapter of Sexual Health Medicine, RACP

www.racp.edu.au/page/australasian-chapter-of-sexual-health-medicine/

- ◆ Includes clinical services and training.

Australasian Society for HIV Medicine (ASHM)

www.ashm.org.au

- ◆ Provides clinical guidelines, resources and training.

Australian Federation of AIDS Organisations (AFAO)

www.afao.org.au

- ◆ Provides education, policy and advocacy.

Australian Injecting and Illicit Drug Users League (AIVL)

www.aivl.org.au

- ◆ Provides education, policy and advocacy on issues related to people who use or have used injecting or illicit drugs.

Federal Privacy Commissioner

www.privacy.gov.au

- ◆ Performs functions covered under the *Privacy Act* 1988, which regulates the way in which personal information can be collected, how it is kept secure, and how it is used and disclosed.

FPA Pre-test & Post-test Counselling Guide for GPs

http://www.fpnsw.org.au/fs_33_gpcuecard.pdf

- ◆ A resource for GPs who see patients who have migrated from or travelled in a country with a high HIV prevalence.

HIV, Hepatitis & STI Education and Resource Centre

www.hivhepsti.info

- ♦ Online resources and factsheets.

Multicultural HIV/AIDS and Hepatitis C Service (MHAHS)

www.multiculturalhivhepc.net.au

- ♦ Provides clinical support (in NSW only), community development and education and media services.

National Association of People Living with HIV/AIDS (NAPWA)

www.napwa.org.au

- ♦ Provides education, advocacy and policy.

National Centre in HIV Epidemiology and Clinical Research

www.nchecr.unsw.edu.au

- ♦ Up-to-date surveillance data and reports.

National Management Guidelines for Sexually Transmissible Infections 7th Edition

<http://mshc.org.au/Portals/6/NMGFSTI.pdf>

- ♦ Provides a concise and current reference for the recommended treatments for Sexually Transmissible Infections (STIs).

National Notifiable Diseases Surveillance (NNDS) – Department of Health and Ageing

www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-nndssintro.htm

- ♦ For information on nationally notifiable diseases.
- ♦ Download Australian national initiatives from the Australian Government Department of Health and Ageing:
- ♦ Second National Sexually Transmissible Infections Strategy 2010-2013
[www.health.gov.au/internet/main/publishing.nsf/Content/ohp-national-strategies-2010-sti/\\$File/sti.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-national-strategies-2010-sti/$File/sti.pdf)
- ♦ Sixth National HIV Strategy 2010-2013:
www.ashm.org.au/images/sixth_national_hiv_strategy_2010-2013.pdf
- ♦ Third National Hepatitis C (HCV) Strategy 2010-2013
[www.health.gov.au/internet/main/publishing.nsf/Content/ohp-national-strategies-2010-hcv/\\$File/hcv.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-national-strategies-2010-hcv/$File/hcv.pdf)
- ♦ Third National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy 2010-2013
www.ashm.org.au/images/publications/guidelines/aboriginal_torres_strait_islander_bbv_strategy10-13.pdf
- ♦ National Drug Strategy
www.nationaldrugstrategy.gov.au/

WA Guidelines for Managing Sexually Transmitted Infections

<http://silverbook.health.wa.gov.au/>

- ♦ The guidelines deal with the syndromic approach to STIs, as well as management of the notifiable STIs and a range of non-notifiable STIs

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ashm

Supporting the HIV, Viral Hepatitis and Sexual Health Workforce

www.ashm.org.au/ctm

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