

INTRODUCTION

Poor outcomes in health care may be due to excessive variation in the processes of care. Establishing standards of care is a major step towards improving the management of disease.

In areas of Western Australia (WA), the incidence of some sexually transmitted infections (STIs) is at epidemic levels. As part of its continued response to this problem, the Western Australian Department of Health (DoH) is updating these clinical guidelines, aiming to promote the principles of best practice to the wide range of providers who are responsible for STI management in this State.

The manual, *Guidelines for managing sexually transmitted infections*, has been updated by a small working party in consultation with other sexual health providers throughout the State (see page xvii for a list of contributors).

SCOPE

This manual deals with the syndromic approach to STIs, as well as management of the notifiable STIs (chlamydia, donovanosis, gonorrhoea, human immunodeficiency virus infection/acquired immunodeficiency syndrome [HIV/AIDS], syphilis, chancroid and viral hepatitis), and a range of non-notifiable STIs. It is presented in a convenient loose-leaf form, which allows health professionals to insert additional material and photocopy as appropriate. The material will also be available on the DoH website: www.health.wa.gov.au/hpg.

THREE PROVIDER GROUPS TARGETED

The manual addresses the three main provider groups in WA: primary care doctors, nurses in remote areas and Aboriginal health workers. These three groups have different training and understanding about STIs, and their roles may vary from place to place.



Introduction

The manual may prove of value when reviewing the curriculum for the training of all health care providers involved in managing STIs.

ORGANISATION OF THE MANUAL

The manual is divided into three parts.

Part 1 contains seven sections, each marked by a divider:

- ◆ general principles
- ◆ history and examination
- ◆ patient presentation and specimen collection
- ◆ screening of asymptomatic men and women
- ◆ sexually transmitted infection syndromes
- ◆ contact tracing (managing sex partners)
- ◆ screening for high-risk populations.

Part 2 has details of each of the notifiable STIs and Part 3 has details of a range of non-notifiable infections.

Different readers will make different use of this manual and the same reader will use it differently on different occasions. With this in mind, there has been some deliberate repetition of information and cross-referencing between sections.

For example, the STI syndrome section refers to treatment for specific infections and also refers the reader to the appropriate sections within the guidelines.

BEST PRACTICE

All too frequently, administering an antibiotic has been regarded as all that is necessary for the management of STIs. Best practice in sexual health is more than testing and treatment. Proper risk assessment, patient education and counselling, follow-up and contact tracing are also essential to controlling the spread of STIs. It is hoped that the widespread use of this manual, and the recommended practices contained within it, will significantly improve the response to this serious public and individual health issue.



1.1 GENERAL PRINCIPLES

1.1

EFFECTIVE CLINICAL MANAGEMENT OF PATIENTS WHO MAY HAVE AN STI OR HIV

Elements of effective clinical management

The elements of effective clinical management are:

- ◆ appropriate physical environment
- ◆ confidential and culturally secure environment
- ◆ good clinical history taking
- ◆ examination and collection of specimens
- ◆ laboratory investigations
- ◆ communication of results to patients
- ◆ interpretation of results and formulation of diagnosis
- ◆ treatment and education
- ◆ directly observed single dose therapy as appropriate
- ◆ contact tracing
- ◆ long-term follow-up and education for prevention.

Essentials of patient care specific to STI/HIV

The essentials of patient care specific to STI/HIV are:

- ◆ education about safer sexual practices
- ◆ individual rights and responsibilities
- ◆ offering tests for HIV and other blood-borne viruses (BBVs)
- ◆ investigating for other possible STIs
- ◆ informing the person of and gaining consent for:
 - the investigations that may be required
 - the need for contact tracing
 - the confidentiality of the consultation
 - the notification requirements for STI/HIV
- ◆ negotiating the involvement of sexual partners in testing for STI/HIV
- ◆ considering the need to advise parents, legal guardians or the appropriate authority if the patient is a minor or otherwise legally incompetent (see page 10).



THE CLINIC ENVIRONMENT

The clinic or location where patients are interviewed and examined should, as far as possible:

- ◆ be as accessible as possible (consider disability issues)
- ◆ be private and secure from interruptions
- ◆ provide all the equipment necessary for an examination and for specimen taking (see pages 30 and 31)
- ◆ comply with accepted infection control guidelines*
- ◆ meet the special gender and cultural needs of the local population through careful consideration of entrances and clinic identification.

Rationale: The clinic layout and appointment arrangement should not deter patients from presenting for initial or follow-up assessment. The clinic entrance and reception area should be private, so that patients do not feel that others can identify them as having presented for an STI consultation.

RESPECT FOR PATIENTS' SPECIAL NEEDS

In organising STI/HIV consultations, give priority to the patient's gender and cultural needs.

Match the gender of the service provider to these needs where appropriate.

Respect the cultural needs of communities when scheduling clinics and examining patients.

Rationale: Denial of cultural needs may result in denial of patient access to STI/HIV services. Many people prefer to consult with a provider of the same gender, and this should be arranged whenever possible. Each health service will have different capabilities and resource limitations, which cannot be overcome by dictating standards. However, assistance should be sought from representatives of cultural groups to develop strategies to meet their special needs.

* Department of Health and Ageing 2004, *Infection Control Guidelines for the prevention of transmission of infectious diseases in the health care setting*, Australian Government, Canberra, available at <<http://www.health.gov.au/internet/wcms/Publishing.nsf/content/icg-guidelines-index.htm>> [accessed 09.06.06].



Special considerations

When providing STI/HIV health services to specific cultural groups, the assistance of group representatives may be helpful during history taking, examination, specimen taking, counselling, prevention, education and contact tracing.

OPPORTUNISTIC SCREENING

As part of an opportunistic health screen, consider offering an STI check (taking a brief sexual history and making appropriate investigations) to patients who have no symptoms or signs of STIs but are in a high-risk group (i.e. youth, have changed sexual partner recently, injecting drug user, have previous history of STIs, are living in a region where STI rates are high).

Use of “self-collected” first void urine (in males and females) and self-obtained low vaginal swabs (SOLVS) (in females) as screening tests for NAT (PCR) is recommended. A brief sexual history with further relevant investigations for syphilis and BBVs is appropriate in this screening context.

In areas where STI rates are high, services should consider population-based opportunistic screening in clients of reproductive age, particularly within regions where STI rates remain high. Services should strive for the “normalisation” of sexual health checks and include them within the context of a broader “well-person’s check”.

Opportunistic screening may be effective:

- ◆ when the patient requests an STI check
- ◆ when a client presents for other health care, including:
 - a women’s health screen (well-person’s check)
 - a men’s health screen (well-person’s check)
 - a first antenatal visit
 - a prison/institutional health check



- an adolescent health interview
- a contraception interview
- ◆ in primary health care settings in endemic areas
- ◆ in primary or secondary health care settings for high-risk populations, based on patient history.

Rationale: Opportunistic screening may detect asymptomatic infection. It also raises the opportunity to educate patients on reproductive and sexual health. Patients can then make their own informed decisions regarding contraceptive needs and STI/HIV screening.

The desired outcomes of primary health care screening are to promote safer sex and empower patients to identify their need for screening.

HISTORY

Taking a sexual and drug history will establish high-risk behaviour, defined as:

- ◆ more than one sexual partner without using condoms, or
- ◆ substance abuse.

See Section 1.2 on history taking for more information (page 19).

SUGGESTED RANGE OF TESTS

In general, test patients presenting for STI/HIV assessment for:

- ◆ gonorrhoea
- ◆ chlamydia
- ◆ syphilis
- ◆ HIV
- ◆ hepatitis B
- ◆ hepatitis A, if symptomatic or if there is a history of male-to-male and/or oral-anal sex and vaccination is contemplated if negative
- ◆ hepatitis C, if there is a history of injecting drug use.

Consider testing for other non-notifiable diseases, e.g. genital herpes, trichomoniasis.



Steps towards HIV/STI testing with informed consent

It is important for patients to be able to give informed consent prior to testing. A detailed sexual and drug history should be obtained. This will help to determine the level of information required by the patient (see page 19).

PRINCIPLES FOR COMMUNITY SCREENING*

Community screening is defined as mass STI/HIV screening of populations and is only considered in areas of high prevalence.

Any community screening program must meet the following requirements:

- ◆ Appropriate community representatives should be consulted and asked to endorse the program. They should be invited to help develop protocols for screening and be involved in implementing the screening program.
- ◆ Resources must be adequate to manage detected cases and their contacts.
- ◆ An education strategy must form part of the screening program, addressing:
 - confidentiality of results (to state clearly how the privacy of the individual will be protected)
 - prevention, including safe sex behaviours.
- ◆ Screening protocols must contain accepted confidentiality guidelines to protect the privacy of the individuals and communities to be screened.
- ◆ All individuals must give full and informed consent before being screened.

* Originally developed by the Kimberley Public Health Reference Group and modified by consultation workshops held at Broome Aboriginal Medical Service and the Centre for Aboriginal Studies, Curtin University of Technology, 1996.



- ◆ Health service providers who deliver services to the community to be screened should be informed of the start of the program and the protocols to be used. The community will determine which providers should be informed and how this should occur.
- ◆ All information obtained via the screening program (particularly test results) are the property of that community. None of it should be used for research purposes, or publicised in any way, without the understanding and permission of the community.

PREVENTION AND EDUCATION FOR STI/HIV

Every STI consultation is an opportunity for preventive education.

It is important that this education is not judgemental, but some assessment of patient beliefs, sexual practices and culture is required for service providers to understand potential risks and how they might reduce those risks.

Discuss the following points with patients:

- ◆ **Abstinence while infected.** It is particularly important that patients understand that they must not have sex while being treated, to reduce the risk of transmission of their STI. In the case of HIV infection, patients need to understand the need for lifelong safe sexual practices. They also need to be aware of the legal issues associated with knowingly putting another person at risk of HIV infection.
- ◆ **The advantages of a long-term, monogamous relationship in the prevention of an STI.** Encourage patients to discuss their sexual behaviour with their partners and to communicate their sexual needs. It is important to emphasise the need for honesty in the relationship rather than to assume long-term fidelity.



- ◆ **Use of condoms and water-soluble lubricant.** Check that patients know how to use condoms and where to get them. Discuss the issue of negotiating condom use, especially to encourage women to feel that they can raise the subject with their partners.
- ◆ **Reducing the number of sexual partners.** Obviously, the fewer the partners, the lower the risk. It is also important to explain that a series of monogamous relationships without condoms can be just as risky as numerous casual partners.
- ◆ **STI check-ups.** Encourage patients to have STI checkups, particularly before undertaking any new sexual relationship.
- ◆ **Other risk behaviours.** Review these with the patient and discuss ways to reduce risks. For example, people who inject drugs need sterile injecting equipment and information about needle exchange programs.
- ◆ **Notification requirements.** Explain that some STIs must be reported to health authorities, pointing out the advantages to public health and emphasising that patient confidentiality will be respected.



CHILD SEXUAL ABUSE AND STIs

1.1 Sexual abuse is “the involvement of dependent, developmentally immature children and adolescents in sexual activities which they do not fully comprehend, are unable to give informed consent to and that violate social taboos of family roles”.* The importance of the definition lies in the acknowledgment of the limitations of children to give truly informed consent and their risk of exploitation. Child sexual abuse is not acceptable in any group of people. It is not “just a family matter”, but many children are afraid to report an incident to the police because the abuser is often a family friend or relative. Other people who may have concerns about sexual abuse may hesitate to report it because they are not totally certain abuse is occurring. Tragic outcomes of child abuse may occur when reporting is delayed.

Most cases of child sexual abuse do not result in an STI. However, if an STI (such as gonorrhoea, chlamydia, trichomoniasis, genital herpes or genital warts) is isolated from the genitalia or throat of a child or an adolescent under the age of 16 years, then sexual abuse should be considered.

Any disease occurring in babies under 12 months of age could arise from maternal transmission and the parents should be tested. Genital warts in children can also occur as a result of autoinoculation.

Management of a child with an STI

- ◆ Treat the child for their infection and investigate for other STIs.
- ◆ Always ensure a subsequent test of cure.
- ◆ Remember there will be another person, probably an adult, who is also infected and who requires contact tracing.

* Kempe RS & Kempe CH 1978, *Child Abuse*, Fontana/Open Books, London, p. 60.



- ◆ As a health care provider, you have a responsibility to assist in protecting children who may be victims of child sexual abuse. The occurrence of an STI in a child is strong, circumstantial evidence that abuse is occurring.
- ◆ As of 1 July 2004, all notifications (under the Infectious and Venereal Disease provisions of the *Health Act 1911*) of STIs in children **under 14 years of age**, and which are verified by public health disease control staff to be valid and resulting from, or likely to be a result of, a sexual means of transmission, will be reported by the Director of the Communicable Disease Control Directorate (CDCD) to nominated officers in the Department of Community Development (DCD) and the WA Police (see Appendix A, page 183). In addition, where public health disease control staff become aware that a notified STI in a child aged **14 years or above, but below 16 years of age**, may be a result of sexual abuse, then those cases should be similarly reported.
- ◆ Further information is available from:
 - the local Population Health or Sexual Health Unit (see page 203). Please note that some Population Health Units (PHUs) are developing enhanced protocols. Contact the public health nurse at the PHU for details.
 - Child Protection Unit, Princess Margaret Hospital: (08) 9340 8646
 - Sexual Assault Resource Centre (SARC): (08) 9340 1828 (24 hour), Toll-free 1800 199 888 (country callers only)
 - Department of Community Development – contact the appropriate regional office.

The services above are prepared to discuss anonymously any cases where you have concerns about what you should do.

- *Guidelines for Responding to Child Abuse and Neglect and the Impact of Family and Domestic Violence* (DoH, 2004).



STI/HIV NOTIFICATIONS

Under the *Health Act 1911*, all medical and nurse practitioners practising in Western Australia are legally required to report the diagnosis of infectious diseases that are of public health significance. These infectious diseases include some STIs (i.e. chlamydia, gonorrhoea, donovanosis, syphilis, chancroid) as well as hepatitis and HIV infection.

Medical practitioners must complete the appropriate notification forms for all patients diagnosed with a notifiable STI/HIV, as soon as possible after confirmed diagnosis.

- ◆ Notifications should be forwarded to the Communicable Disease Control Directorate (CDCD), DoH, for cases resident in the metropolitan area, or to the appropriate population/public health unit (PHU) for cases resident in regional areas.
- ◆ The [standard notification form](#) (see page 14) is used for all notifiable infectious diseases except HIV infection. If assistance with contact tracing is required, full patient details should be recorded on the form.
- ◆ The [HIV/AIDS notification form](#) (see page 15) is used for surveillance of HIV/AIDS. A new notification form must be completed for each stage of infection, i.e. HIV infection, AIDS diagnosis, death.
- ◆ Enhanced surveillance for gonorrhoea, donovanosis and hepatitis C – Enhanced surveillance permits the collection of behavioural, demographic and microbiological data, to provide a more detailed insight into the changing epidemiology of infections and therefore to guide prevention and control programs. In the metropolitan area, information is often collected



from a notifying doctor by telephone. However, if this is not possible or if the doctor is based outside the metropolitan area, the enhanced surveillance form is posted to the doctor for completion.

- ◆ Notification forms can be obtained from the Epidemiology and Surveillance Program of the CDCD: (08) 9388 4999.
- ◆ Australian National Notifiable Diseases Case Definitions for STIs/BBVs can be found in Appendix E, page 204.
- ◆ Indigenous notification - Reporting Aboriginal and Torres Strait Islander (ATSI) status is important. Without a record of Indigenous status, the ability to resource and support service providers and communities to address STIs is impaired. The best way to determine whether someone is of ATSI origin is to ask the person.



INFECTIOUS DISEASE NOTIFICATION FORM

1.1

Date received by DOH:

Department of Health
NOTIFICATION FORM

20

Notification ID:

YOU MAY NOTIFY BY POST, TELEPHONE OR FACSIMILE
RETURN TO: Communicable Disease Control Directorate
PO Box 8172, Perth Business Centre WA 6849
Telephone: (08) 9328 4852 Fax: (08) 9328 4848
A.N. emergency: (08) 9328 5552

1. PATIENT

Family name:

Given name:

Street address:

Suburb/Town:

Postcode (optional):

Phone:

Home:

Mobile:

2. PATIENT DETAILS

Sex: Male Female

Date of birth:

Occupation, or name of any school/childcare centre attended (please specify):

Recent travel overseas: No Yes (please specify):

Infection acquired: WA Interstate Overseas

Country of birth: Australia Other (please specify):

Ethnicity: Aboriginal or Torres Strait Islander Other

3. DETAILS OF CONDITION

How was infection identified? clinical presentation contact tracing screening

Date of onset:

Date of death (if relevant):

Was the patient hospitalised? No Yes

CONFIRMATION OF DIAGNOSIS

lab lab pending linked to lab-confirmed case clinical only

If lab-confirmed, specify method:

FOLLOW-UP/CONTACT TRACING (Tick one or more boxes below)

(I) am informed that DOH may investigate possible contacts/sources

All contacts have been/all to be tested and treated by me

Other (please specify):

4. DOCTOR/HOSPITAL DETAILS (must be complete and legible)

Name:

Address:

Postcode:

Signature:

Date:

Tick this box if you require more forms and pre-paid envelopes or print from www.notifications.health.wa.gov.au:

5. NOTIFIABLE INFECTIOUS DISEASES Tick box below

WA Health Act (1911). Please notify conditions by telephone, plus face-to-face (two (2) or more linked cases), and enteric infection in a food handler, health professional or (DHO) care worker. Otherwise fax or post the notification form.

Adverse event following immunisation - USE SEPARATE FORM

Amoebiasis

Amoebic meningitis

Antrax

Arboviral encephalitis (MVE, Kuryn, JE, other: specify)

Borna's Disease Virus infection

Botulism (food-borne)

Brucellosis

Campylobacter infection Species:

Chlamydia (genital infection)

Choleera

Creutzfeldt-Jakob Disease (CJD: classical or variant)

Cryptosporidiosis

Dengue fever

Diphtheria

Gonorrhoea Penicillin sensitivity: Yes No unknown

Haemolytic uraemic syndrome

Haemophilus influenzae type b infection (invasive)

Hepatitis A

Hepatitis B newly acquired (>12 yrs) carrier/unspecified

Hepatitis C newly acquired (>12 yrs) unspecified

Hepatitis (other) D E

HIV/AIDS - USE SEPARATE NOTIFICATION FORM

Hydatid disease

Influenza A B

Legionella infection Species:

Leprosy

Leptospirosis

Listeriosis

Lymphoma infection (ABL, other: specify)

Malaria Species:

Measles

Molluscum

Meningococcal infection meningitis septicaemia

Methicillin Resistant Staphylococcus aureus (MRSA) infection

Mumps

Paratyphoid fever

Pertussis

Pneumococcal infection (invasive)

Psittacosis

Pulmonary anthrax

Q fever

Rabies

Ross River Virus infection

Rotavirus

Rubella non-congenital congenital

Salmonella infection Serotype:

Scarlet fever

Schistosomiasis (Bilharzia)

Severe Acute Respiratory Syndrome (SARS)

Shiga toxin (Shiga toxin) producing E coli (STEC/STEC) infection

Shigellosis (Bacillary dysentery) Species:

Syphilis 1st 2nd (early latent (<12 yrs)) (late latent F) congenital

Tetanus

Tuberculosis

Typhoid fever

Typhus (Rocky Mountain)

Varicella chikungunya zoster unspecified

Vibrio parahaemolyticus infection

Viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa, Marburg)

Yellow fever

Yersinia infection

RARELY NOTIFIED DISEASES

Diphtheria Plague Smallpox Tularemia

Chancroid (soft sore) Donovanosis (Granuloma inguinale)

6. CLINICAL COMMENTS

HP 10/11



HIV/AIDS NOTIFICATION FORM

Communicable Disease Control Branch, Department of Health, Western Australia				
NOTIFICATION OF HIV/AIDS				
HDWA ID:	20			
<i>Please tick one or more boxes/circles where applicable.</i>				
1. NOTIFYING DOCTOR				
Name _____				
Hospital/clinic _____				
Address _____				
Postcode _____	Phone _____			
Reason for Notification <i>(tick one of the following)</i>				
New case: first notification <input type="checkbox"/>				
Previously notified but now change of status <input type="checkbox"/>				
Diagnosed elsewhere: first notification in WA <input type="checkbox"/>				
If elsewhere, please specify _____				
2. PATIENT INFORMATION				
HIV infection without AIDS				
First two letters of family name	<input type="text"/> <input type="text"/>			
First two letters of given name	<input type="text"/> <input type="text"/>			
AIDS				
Family name	<input type="text"/>			
Given name	<input type="text"/>			
Address	<input type="text"/>			
Date of Birth	___ / ___ / ___			
Postcode of residence	<input type="text"/>			
Sex	<input type="checkbox"/> male <input type="checkbox"/> female <input type="checkbox"/> transsexual			
Aboriginal	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown			
Country of birth	<input type="text"/> Australia <input type="text"/> Other (specify) _____			
If Other, year of arrival in Australia	<input type="text"/>			
Residency status	Resident of WA <input type="checkbox"/>			
<i>(tick one)</i>	Other Australian resident <input type="checkbox"/>			
	Overseas resident <input type="checkbox"/>			
	Overseas visitor to WA <input type="checkbox"/>			
First confirmed HIV antibody test	___ / ___ / ___			
Reason for test	Known contact with HIV <input type="checkbox"/>			
<i>(tick one)</i>	STD consultation <input type="checkbox"/>			
	Other high risk behaviour <input type="checkbox"/>			
	Routine screening <input type="checkbox"/>			
If Routine, specify	_____			
	Patient is a Health Care Worker <input type="checkbox"/>			
	Patient is a Sex Worker <input type="checkbox"/>			
Date of last negative test (if any)	___ / ___ / ___			
Most likely place of acquiring infection	State/Territory (specify) _____			
	Australia (state unknown) _____			
	Other country (specify) _____			
Date of seroconversion illness	___ / ___ / ___			
3. CLINICAL STATUS				
Antiretroviral therapy:	Indicate month/year			
Treatment commenced	___ / ___ / ___			
Current CD4+ Count	<input type="text"/>			
Date of CD4+ Count	___ / ___ / ___			
Current clinical status <i>(tick one)</i>				
	Asymptomatic <input type="checkbox"/> <i>(go to Exposure)</i>			
	Symptomatic without AIDS <input type="checkbox"/> <i>(go to Exposure)</i>			
	AIDS <input type="checkbox"/>			
	Deceased <input type="checkbox"/>			
Diseases indicative of AIDS at diagnosis <i>(as apply)</i>				
	<table border="0" style="width:100%;"> <tr> <td></td> <td style="text-align: center;"><i>proven</i></td> <td style="text-align: center;"><i>clinical</i></td> </tr> </table>		<i>proven</i>	<i>clinical</i>
	<i>proven</i>	<i>clinical</i>		
Pneumocystis carinii pneumonia	<input type="checkbox"/>	<input type="checkbox"/>		
Oesophageal candidiasis	<input type="checkbox"/>	<input type="checkbox"/>		
Kaposi's sarcoma	<input type="checkbox"/>	<input type="checkbox"/>		
	(site) _____			
Herpes simplex virus	<input type="checkbox"/>	<input type="checkbox"/>		
	(site) _____			
Cryptococcosis	<input type="checkbox"/>	<input type="checkbox"/>		
	(site) _____			
Cryptosporidiosis (diarrhoea > 1 month)	<input type="checkbox"/>	<input type="checkbox"/>		
Toxoplasmosis	<input type="checkbox"/>	<input type="checkbox"/>		
	(site) _____			
Cytomegalovirus	<input type="checkbox"/>	<input type="checkbox"/>		
	(site) _____			
Mycobacteriosis	<input type="checkbox"/>	<input type="checkbox"/>		
	(type) _____			
	(site) _____			
Pulmonary tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>		
Lymphoma	<input type="checkbox"/>	<input type="checkbox"/>		
	(type) _____			
	(site) _____			
HIV encephalopathy	<input type="checkbox"/>	<input type="checkbox"/>		
HIV wasting syndrome	<input type="checkbox"/>	<input type="checkbox"/>		
Invasive cervical cancer	<input type="checkbox"/>	<input type="checkbox"/>		
Recurrent pneumonia	<input type="checkbox"/>	<input type="checkbox"/>		
	<i>(2 or more episodes in 1 year)</i>			
Other	<input type="checkbox"/>	<input type="checkbox"/>		
	<i>(specify) _____</i>			
If patient is deceased				
Date of death	___ / ___ / ___			
Cause of death	AIDS related <input type="checkbox"/>			
If not AIDS, specify other cause of death	_____			



STI/HIV COUNSELLING

Counselling is important in managing STIs/HIV and should be considered at every contact with the patient.

As a minimum, consider counselling at the first presentation and subsequently during treatment and follow-up.

Rationale: Counselling is an opportunity to educate and support the patient in prevention strategies. The key points are: building mutual trust and respect, communicating the confidentiality of the diagnosis, and the reasons for testing and contact tracing; formulating expectations from treatment; and promoting awareness of risk behaviours.

Counselling should also include discussion of the implications of STI/HIV testing (e.g. testing does not prevent transmission). Emotional reactions can accompany a positive STI/HIV diagnosis, with delayed reactions sometimes occurring several days after the consultation.

General considerations

A pre-test discussion should address:

- ◆ confidentiality
- ◆ the reason for the tests
- ◆ risk activities
- ◆ understanding of statutory notifications
- ◆ awareness of the disease process
- ◆ awareness of modes of transmission and prevention.

Counselling when delivering a **negative diagnosis**

provides an opportunity to reinforce pre-test discussions and prevention education.

Counselling when delivering a **positive diagnosis** should address:

- ◆ patient lifestyle and support systems, including those in whom the patient might confide
- ◆ potential for a crisis (e.g. suicide).



If the diagnosis is positive, avoid overloading the patient with excessive information and arrange for further counselling at a later time. During the first and subsequent consultations:

- ◆ stress the confidentiality of results and treatment
- ◆ confirm the patient's understanding of the infection
- ◆ if the patient is ready to deal with more information, provide further details of the infection and how to prevent transmission
- ◆ continue to educate concerning risk behaviour
- ◆ stress the importance of contact tracing
- ◆ undertake partner management with careful consideration of the risk of violence (for the client and/or partners) or seek assistance from public health practitioners
- ◆ provide information about patient support organisations (see page viii).

FOLLOW-UP SCREENING

Patients who have had negative test results after presenting for STI/HIV assessment should return three months later to be tested again for:

- ◆ hepatitis B
- ◆ HIV
- ◆ syphilis.

Patients with gonorrhoea or chlamydia from endemic areas, or those with high-risk behaviours, should be re-screened for these diseases at the time of the three month follow-up. A test of cure should be performed for rectal chlamydia at three months.



General principles

Patients with a history of recent injecting drug use should return three to six months later to be re-tested for hepatitis C.

At the time of review remember to ask patients about any new symptoms.

Rationale: These infections have a “window period” when the test may not be positive even though the patient is infected. Repeat testing provides an opportunity for further patient education, particularly for high-risk patient groups.



1.2 HISTORY AND EXAMINATION

RELEVANT HISTORY

The majority of patients may be asymptomatic.

However, a patient may present with symptoms or for a “checkup” if they feel they have been at risk.

Symptoms may be:

- ◆ dysuria
- ◆ discharge
- ◆ itch
- ◆ lumps
- ◆ ulcers
- ◆ rash
- ◆ menstrual problems
- ◆ abdominal pain
- ◆ hair loss
- ◆ enlarged groin lymph nodes.

SEXUAL HISTORY

- ◆ Does the patient have a regular sex partner and when did they last have sex?
- ◆ Does the patient have casual sex partners and when did they last have sex?
- ◆ What are the possible risk behaviours of sexual partners?
- ◆ What type of contraception is used? Are condoms used?
- ◆ Does the patient, or do the partners, have a history of previous STIs?
- ◆ Does the partner have any symptoms?
- ◆ Are sexual activities vaginal; oral; anal?
- ◆ Are their sexual contacts from overseas or interstate?

Rationale: A full and relevant clinical history enables the service provider to anticipate what might be found on physical examination. In addition, it is important to determine what risk factors may be present. Information about sexual practices also determines which sites should be examined and the range of specimens to be collected.

An understanding of past medical events will provide important clues for the diagnosis and management of STIs, e.g. was there a previous blood transfusion; was the patient overseas?



Special considerations

- ◆ The STI consultation involves personal and sensitive issues that can cause the patient considerable fear and apprehension. Stress the point that all information will be confidential.
- ◆ Give adequate time to the interview. It is helpful to let the patient talk freely and to tell his/her story in their own time - a friendly non-judgemental listening ear is often the best approach. Provide opportunities for the patient to ask questions.
- ◆ Ask direct questions (e.g. “Who did you have sex with?”). Do not use ambiguous terms (e.g. “sleep with”). Note, however, that open questioning can be offensive to some cultural groups.
- ◆ It may be necessary to jog the patient’s memory by linking sexual encounters with events significant to the patient (e.g. rodeos, Easter, Christmas, visits to relatives).
- ◆ It is useful to start questioning about sexual partners with the most recent sexual encounter, slowly working backwards.
- ◆ If the patient forgets the names of contacts, a description of the contact may be useful.
- ◆ Be adaptable when obtaining a sexual history. Experienced judgement by the service provider will determine which approach is most appropriate in the light of any language or cultural factors that may apply.
- ◆ If English is not the patient’s first language, use an appropriately trained interpreter or staff member, not a family member. (See Appendix D, page 203, for further information about interpreter services.) Consider also whether the patient needs additional support from a carer or person of the same gender or cultural group during the consultation.
- ◆ Do not presume the sex of the partner as this may lead to inaccurate information.



DRUG HISTORY

Ask about legal drugs that may affect the disease or its diagnosis, as well as other drugs:

- ◆ current medications
- ◆ antibiotics, whether prescribed or not, taken now or in the past three months
- ◆ topical medications containing antibiotics, antiseptics or steroid preparations
- ◆ injecting drug use now or in the past, including anabolic steroids and recreational drugs
- ◆ alcohol and other recreational drugs
- ◆ known drug allergies.

Rationale: A patient's drug history is important information because of the potential interactions between drugs and the possibility that the patient has a drug allergy.

Other risks to consider:

- ◆ blood transfusion before 1985
- ◆ body piercing
- ◆ tattoos
- ◆ gynaecological history – Pap smears, last normal menstrual period.



CONSENT TO PHYSICAL EXAMINATION

Obtain informed consent to the examination and the tests to be conducted before proceeding.

Rationale: No medical procedures can be done without the patient's informed consent. Obtaining informed consent requires sensitive and explicit communication, so that the patient can understand what is going to happen, as well as the nature of the disease being considered and the investigations proposed.

Special considerations

- ◆ Explaining the proposed examination and getting the patient's consent are the first steps towards actively involving the patient in managing the infection.
- ◆ An interpreter may be needed if English is not the patient's first language. (See Appendix D, page 203, for further information about interpreter services.) Consider the use of visual materials (e.g. posters) when explaining the examination to all patients.

THE PHYSICAL EXAMINATION

Examination should include the genital area, and the oral and perianal areas, as indicated by the patient's history.

For women with a suspected STI, a vaginal examination using a speculum should be undertaken.

Where a woman declines to have a vaginal examination or it is culturally inappropriate, a self-obtained low vaginal swab (SOLVS) can be used to test for chlamydia or gonorrhoea in an asymptomatic woman. (See page 36 and Appendix F, page 220.)

It should be recognised that examination is not just for obtaining swabs, and is best practice.

Rationale: A thorough physical examination is necessary to accurately diagnose and treat a patient with suspected STI/HIV. This applies to all STIs, including chlamydia and donovanosis.



Special considerations

- ◆ Special care should be exercised to avoid contact with infectious materials. Wearing gloves is essential and eye protection should be worn when there is risk of material splashing.
- ◆ In all patients with anorectal pain or discharge, proctoscopy should be performed to exclude anal canal or lower rectal disease.
- ◆ For vaginal examination, always use a vaginal speculum, warmed to body temperature, to visualise the cervix. Bimanual pelvic examination should be performed in patients with lower abdominal symptoms. If there is extensive disease with donovanosis or herpes, a vaginal examination may be painful and may have to be temporarily deferred.

STI CLINICAL MANAGEMENT AND SEXUAL CONTACT INTERVIEW AND TRACING FORMS

Forms used by Kimberley Population Health Unit to aid in the assessment of possible STIs are provided here as examples that can be adapted by individual providers.

These have been updated since the 2001 edition of the Guidelines was published.



STI CLINICAL MANAGEMENT FORM

COMPLETE FRONT & BACK PAGES FOR: All named contacts of patients with STI and all patients with STI symptoms, eg: urethral discharge, genital ulcer, vaginal discharge, epididymitis, genital rash, PID.						
PATIENT DETAILS Please Print		DATE PRESENTED		REASON		
Name _____		/ / 200__		Self Referral <input type="checkbox"/>		
Address _____				Opportunistic <input type="checkbox"/>		
Post Code _____				Contact <input type="checkbox"/>		
Tel: H _____ M _____				Positive Lab. Result <input type="checkbox"/>		
SEXUAL HISTORY						
Date of Birth _____		Does the patient have any regular sexual partners? Y <input type="checkbox"/> N <input type="checkbox"/>				
Country of Birth _____		Does the patient have casual sexual partners? Y <input type="checkbox"/> N <input type="checkbox"/>				
Sex Male <input type="checkbox"/> Female <input type="checkbox"/>		Sexual partners M <input type="checkbox"/> F <input type="checkbox"/> MF <input type="checkbox"/>				
Race Indigenous <input type="checkbox"/> Other <input type="checkbox"/>		Previous STI _____ Y <input type="checkbox"/> N <input type="checkbox"/>				
SIGNS OR SYMPTOMS - DURATION & DESCRIPTION		Pregnant LMP ___/___/20__ Y <input type="checkbox"/> N <input type="checkbox"/>				
Asymptomatic <input type="checkbox"/> _____		Sexual Activities Oral <input type="checkbox"/> Vaginal <input type="checkbox"/> Anal <input type="checkbox"/>				
Discharge <input type="checkbox"/> _____		Condom Use Always <input type="checkbox"/> Usually <input type="checkbox"/> Sometimes <input type="checkbox"/> Never <input type="checkbox"/>				
Dysuria <input type="checkbox"/> _____		Sexual Contact in last 12 months Interstate <input type="checkbox"/> Overseas <input type="checkbox"/>				
Genital Lesion <input type="checkbox"/> _____		Injecting Drug Use Y <input type="checkbox"/> N <input type="checkbox"/>				
Rash <input type="checkbox"/> _____		Body Piercing/ Tattoo Professional <input type="checkbox"/> Other <input type="checkbox"/> Date ___/___/___				
Hair Loss <input type="checkbox"/> _____						
Other <input type="checkbox"/> _____						
ESSENTIAL TESTS						
PCR swab (gono & chlam +/- trich)		Urethra <input type="checkbox"/>	Cervix <input type="checkbox"/>	Vagina <input type="checkbox"/>	Rectum <input type="checkbox"/>	Throat <input type="checkbox"/>
Charcoal MC&S swab + slide (if discharge present or gono contact)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
First void urine PCR (gono & chlam +/- trich)		<input type="checkbox"/>				
Blood tests Syphilis <input type="checkbox"/> HIV <input type="checkbox"/> HepB <input type="checkbox"/>		Tests Refused (specify) _____				
ADDITIONAL TESTS						
HepA <input type="checkbox"/>		HepC <input type="checkbox"/>	B-HCG <input type="checkbox"/>			
SOLVS-PCR <input type="checkbox"/>		Pap smear <input type="checkbox"/>	Vag pH _____			
PCR-HSV <input type="checkbox"/>		PCR-Donovanosis <input type="checkbox"/>	PCR-Syphilis <input type="checkbox"/>			
Other Tests _____						
SAFE SEX COUNSELLING		Condom demonstration <input type="checkbox"/> Issued condoms <input type="checkbox"/> Advised where to access condoms <input type="checkbox"/>				
PROVISIONAL DIAGNOSIS & COMMENTS		Allergies _____				
TREATMENT		Treatment given _____				
Further treatment required: (drug, dose and date) _____						
Review appointment date / / 200__						
Where screening took place _____						
Clinician's Name: _____		Signature: _____		Date: / / 200__		
Send back page of completed form in sealed envelope to the STI co-ordinator at your health service unit						
STI CO-ORDINATOR USE ONLY						
Lab confirmed Dx Gono <input type="checkbox"/> Chlam <input type="checkbox"/> Syph <input type="checkbox"/> HIV <input type="checkbox"/> HepB <input type="checkbox"/> Other _____ No STI <input type="checkbox"/>						
All sexual contacts contacted, examined and treated Y <input type="checkbox"/> N <input type="checkbox"/> Date form received / / 200__						
If patient had STI's, at least 1 contact found with same STI's Y <input type="checkbox"/> N <input type="checkbox"/> Case review date / / 200__						



SEXUAL CONTACT INTERVIEW AND TRACING FORM

Name	DOB/Age	Partner	Address	Date of last sexual contact & location	Attempts to locate (dates, details) & date last seen in clinic	Epidemiological Rx given	Results of lab tests
		Regular Casual Sex Worker				ZAP Y <input type="checkbox"/> N <input type="checkbox"/> LA.Bicillin Y <input type="checkbox"/> N <input type="checkbox"/> Date:	Gono Chlam Syph pos <input type="checkbox"/> neg <input type="checkbox"/> new <input type="checkbox"/> neg <input type="checkbox"/> neg <input type="checkbox"/> old <input type="checkbox"/> Clear <input type="checkbox"/> neg <input type="checkbox"/>
		Regular Casual Sex Worker				ZAP Y <input type="checkbox"/> N <input type="checkbox"/> LA.Bicillin Y <input type="checkbox"/> N <input type="checkbox"/> Date:	pos <input type="checkbox"/> neg <input type="checkbox"/> new <input type="checkbox"/> neg <input type="checkbox"/> neg <input type="checkbox"/> old <input type="checkbox"/> Other <input type="checkbox"/> neg <input type="checkbox"/>
		Regular Casual Sex Worker				ZAP Y <input type="checkbox"/> N <input type="checkbox"/> LA.Bicillin Y <input type="checkbox"/> N <input type="checkbox"/> Date:	pos <input type="checkbox"/> neg <input type="checkbox"/> new <input type="checkbox"/> neg <input type="checkbox"/> neg <input type="checkbox"/> old <input type="checkbox"/> Other <input type="checkbox"/> neg <input type="checkbox"/>
		Regular Casual Sex Worker				ZAP Y <input type="checkbox"/> N <input type="checkbox"/> LA.Bicillin Y <input type="checkbox"/> N <input type="checkbox"/> Date:	pos <input type="checkbox"/> neg <input type="checkbox"/> new <input type="checkbox"/> neg <input type="checkbox"/> neg <input type="checkbox"/> old <input type="checkbox"/> Other <input type="checkbox"/> neg <input type="checkbox"/>
		Regular Casual Sex Worker				ZAP Y <input type="checkbox"/> N <input type="checkbox"/> LA.Bicillin Y <input type="checkbox"/> N <input type="checkbox"/> Date:	pos <input type="checkbox"/> neg <input type="checkbox"/> new <input type="checkbox"/> neg <input type="checkbox"/> neg <input type="checkbox"/> old <input type="checkbox"/> Other <input type="checkbox"/> neg <input type="checkbox"/>
		Regular Casual Sex Worker				ZAP Y <input type="checkbox"/> N <input type="checkbox"/> LA.Bicillin Y <input type="checkbox"/> N <input type="checkbox"/> Date:	pos <input type="checkbox"/> neg <input type="checkbox"/> new <input type="checkbox"/> neg <input type="checkbox"/> neg <input type="checkbox"/> old <input type="checkbox"/> Other <input type="checkbox"/> neg <input type="checkbox"/>

<p>Tips for interviewing</p> <ul style="list-style-type: none"> Take your time Be non-judgmental Use plain English Ask direct questions eg Who did you have sex with, 	<p>Contact Tracing</p> <table border="1"> <thead> <tr> <th>Disease</th> <th>M</th> <th>F</th> </tr> </thead> <tbody> <tr> <td>Gonorrhoea</td> <td>3 Mins</td> <td>3 Mins</td> </tr> <tr> <td>Chlamydia</td> <td>3 Mins</td> <td>3 Mins</td> </tr> <tr> <td>HIV test present</td> <td>3 Mins</td> <td>3 Mins</td> </tr> <tr> <td>If contact of positive syphilis</td> <td>20mins</td> <td>20mins</td> </tr> </tbody> </table>	Disease	M	F	Gonorrhoea	3 Mins	3 Mins	Chlamydia	3 Mins	3 Mins	HIV test present	3 Mins	3 Mins	If contact of positive syphilis	20mins	20mins	<p>To jog patient's memory</p> <ul style="list-style-type: none"> List sexual encounters with significant events significant to the patient, eg rooves, Easter, Xmas, visits to relatives Start with the most recent sexual encounter and work backwards 	<p>To jog patient's memory</p> <ul style="list-style-type: none"> Stress the importance of an accurate contact history (prevents re-infection of the patient, female infertility, congenital STI in babies, STI spreading in their community) Get a description of the contact - where does she live, what does she look like, who does she associate with Ask patient (if literacy) to write names of contacts on paper 	<p>Inform the patient</p> <ul style="list-style-type: none"> All information re sexual history and lab tests is confidential Lab test results will go to their doctor and Kimberley Population Health Unit.
Disease	M	F																	
Gonorrhoea	3 Mins	3 Mins																	
Chlamydia	3 Mins	3 Mins																	
HIV test present	3 Mins	3 Mins																	
If contact of positive syphilis	20mins	20mins																	





1.3 PATIENT PRESENTATION AND SPECIMEN COLLECTION

ESSENTIAL TESTS

As a general rule, patients who are suspected of having an STI should be offered testing for:

- ◆ chlamydia
- ◆ gonorrhoea
- ◆ syphilis
- ◆ hepatitis B
- ◆ HIV.

Consider testing for other non-notifiable diseases (e.g. genital herpes, trichomoniasis).

Test for hepatitis A if symptomatic or if there is a history of male-to-male and/or oral-anal sex and vaccination is contemplated if negative.

Test for hepatitis C if there is a history of injecting drug use.

Tests for donovanosis are indicated by the presence of characteristic genital lesions, generally after syphilis and herpes have been excluded as causes.

HIV testing should also be considered in the presence of:

- ◆ Possible seroconversion illness (fever, myalgia, rash)
OR
- ◆ Atypical or severe prolonged infections without other apparent cause (e.g. oral candidiasis, oral hairy leukoplakia, severe persistent genital herpes, persistent lymphadenopathy).

ESSENTIAL COMMUNICATION

Mutual trust and respect, counselling and patient education are essential parts of STI management.



On Presentation

Ask: am I the right person to examine this patient? If not, find an alternative service provider. Otherwise:

- ◆ take medical/sexual/drug history
- ◆ explain confidentiality of patient records
- ◆ explain the examination and specimen collection you are about to do
- ◆ obtain consent for all investigations.

Counselling with Examination

- ◆ Talk about prevention and safe sex practices.
- ◆ Talk about what a positive test result would mean.
- ◆ Explain the notification requirements for STIs, emphasising their importance to public health, and reassuring the patient that their privacy will be respected.

Interpreting the Test Result

- ◆ Test results are usually reported as either positive or negative.
- ◆ If you are unclear about the significance of a test result, discuss it and your patient's history and clinical findings with a clinical microbiologist at the laboratory.
- ◆ Remember the test results do not have perfect sensitivity or specificity.
- ◆ Use your clinical judgement to treat the patient – not just laboratory results.

On Confirming an STI Diagnosis

- ◆ Explain the diagnosis.
- ◆ Explain the treatment.
- ◆ Emphasise the need for sexual abstinence during treatment.
- ◆ Emphasise the importance of returning for follow-up.

Contact Tracing

- ◆ Inform the patient of the importance of contact tracing.
- ◆ Explain that their identity will not be disclosed.
- ◆ Discuss possible contacts over the past three months.
- ◆ Consider who is the appropriate person to follow up contacts.
- ◆ Obtain permission to follow up contacts.



For more information about contact tracing, see pages 57-68.

Follow-up

Repeat messages about prevention and safe sex.

NUCLEIC ACID TESTS

Tests that detect specific sequences of deoxyribonucleic acid (DNA) are now available to detect gonorrhoea, chlamydia and to a limited extent, other STIs.

These tests are nucleic acid tests (NAT), (a generic term which includes polymerase chain reaction [PCR] or ligase chain reaction [LCR]). They use similar techniques and the choice depends on the laboratory.

The NAT process identifies DNA sequences found only in the organism being tested, making it a highly specific test. NAT also amplifies very low amounts of DNA so that they are easily detected, making the technique highly sensitive. These two properties of the test make it much more accurate than the older technique of microscopy and culture. Also, NAT is effective with smaller specimen samples, and can identify chlamydia and gonorrhoea in a urine sample. Recently, studies have suggested that, in a woman, the sensitivity of NAT testing in self-obtained vaginal swabs is better than that of urine, particularly for the detection of gonorrhoea.

Gonorrhoea culture is still required where there is urethral or cervical discharge. Current methods with NAT do not allow antibiotic sensitivity testing and therefore, it is still important that, when patients present with a discharge, swabs are sent for culture.

NAT may also be used for other STI pathogens, including herpes simplex, mycoplasma, ureaplasma, donovanosis, trichomoniasis and chancroid. These tests may not be widely available and may be limited to research settings.



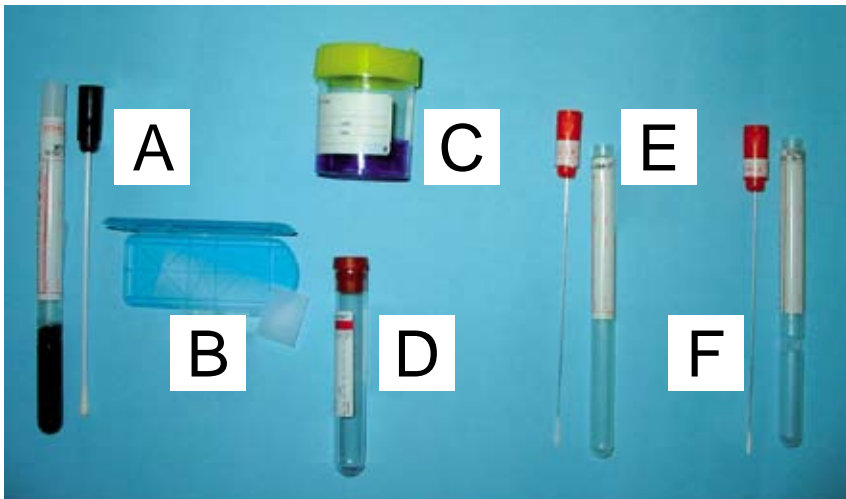
SAMPLE TEST PACK FOR DIAGNOSTIC TESTING

A ready-to-use test pack will simplify STI consultations and save time.

Such kits can be provided by the laboratory that supplies testing services. The composition of the pack will depend on the range of tests that the referral laboratory can conduct.

Male kit

- A. Swab with charcoal transport medium for collecting urethral discharge (if present) and making a smear and sending for culture.
- B. Glass slide in slide holder for making a smear of urethral discharge.
- C. Urine container for first void urine for chlamydia and gonorrhoea NAT (shaded area equals 20 mls).
- D. Clotted blood tube for serological tests.
- E. Wire/plastic shaft fine swab for urethral swab (if required) for chlamydia and gonorrhoea NAT.
- F. Wire/plastic shaft fine swab for herpes NAT.



Female kit

- A. Swab with charcoal transport medium for collecting a high vaginal specimen for a smear and culture.
- B. Glass slide in a slide holder for making a smear of the high vaginal specimen.
- C. Swab with charcoal transport medium for collecting cervical discharge (if present) and making a smear to send for culture.
- D. Glass slide in slide holder for making an endocervical swab (ECS) smear.
- E. Wire/plastic shaft fine swab for collection of an ECS sample for chlamydia and gonorrhoea NAT.
- F. Urine container for first void urine for chlamydia and gonorrhoea NAT (shaded area equals 20 mls).
- G. Clotted blood tube for serological tests.
- H. Wire/plastic shaft fine swab for collection for herpes NAT.

Note: If required, a high or low vaginal swab can also be sent for *Candida* culture.



SAMPLE PROTOCOL FOR CHLAMYDIA AND GONORRHOEA DIAGNOSIS

For men

When a discharge is present

- ◆ Milk discharge forward.
- ◆ **To make a smear**, pick up discharge on a standard plastic-shafted cotton swab and roll it onto a glass slide. Allow to air dry and label. This should be placed in a slide holder and the slide holder labelled with the patient's name and date of birth or medical record number, and the site, date and time of collection.
- ◆ The swab is then placed in charcoal (black) transport medium. The swab should be labelled with the patient's name and date of birth or medical record number, and the site, date and time of collection. **This should remain at room temperature for transport to the laboratory.**
- ◆ Ask the patient to pass 20 mL of first void urine* into a yellow-topped urine container labelled with the patient's name and date of birth or medical record number, and the site, date and time of collection. Store and keep cool during transport, preferably at about 4 °C.

No discharge present

- ◆ Ask the patient to pass 20 mL of first void urine into a yellow-topped urine container labelled with the patient's name and date of birth or medical record number, and the site, date and time of collection. Store and keep cool during transport, preferably at about 4 °C. (Note: in males there is no need to wait for two hours since last voiding.)
- ◆ If the patient is unable to pass urine, take a urethral swab. Use the same type of swabs as for an endocervical swab for NAT.

* First void urine is the first amount of urine passed - not a midstream sample.



For women

- ◆ Pass a speculum.
- ◆ Take a high vaginal swab and smear to exclude other pathogens.
- ◆ Take vaginal pH.
- ◆ Take a Pap smear first if indicated.
- ◆ Clean mucus off the cervix.
- ◆ Collect an endocervical sample with a wire shafted swab (orange-topped) or a cytobrush.
 - If the swab for NAT is used, place it back into the container provided. No transport medium is required. The swab should be labelled with the patient's name and date of birth or medical record number, and the site, date and time of collection.
 - If the cytobrush is used, make a Pap smear, if required, then place the brush into the plastic container. No transport medium is required. Label with the patient's name and date of birth or medical record number, and the site, date and time of collection.
 - NAT swab and Pap smear can be stored at either room temperature or in the fridge but the culture should not be refrigerated.
- ◆ If pus is present or the cervix is inflamed, also collect an endocervical swab for microscopy, culture and sensitivity testing (MC&S).
- ◆ Ask the patient to pass 20 mL of first void urine into a yellow-topped urine container labelled with the patient's name and date of birth or medical record number, and the site, date and time of collection. Keep cool during transport, preferably at about 4 °C.

See also the flowcharts on pages 34 and 35.



SPECIMEN COLLECTING: MEN

Discharge present: Milk discharge forward to collect specimens for sensitivity testing using swab, charcoal medium and glass slide; and collect 20 mL first void urine for chlamydia and gonorrhoea NAT.

No discharge: Collect 20 mL first void urine for chlamydia and gonorrhoea NAT (if **no urine available**, take urethral swab instead).

Men who have anally receptive sex with men: take two anal swabs (one for culture and sensitivity, and one for NAT). Also collect two throat swabs (one for culture and sensitivity, and one for NAT) if there is a history of receptive oral sex.

Collect blood for serological tests: syphilis, HIV and hepatitis B. Also test for hepatitis A if symptomatic or if there is a history of male to male and/or oral-anal sex and there is an intention to vaccinate if negative; and hepatitis C if there is a history of injecting drug use.

Order the tests for the laboratory: label all specimens clearly and prepare for transport.

Consider treatment: if there is any doubt about follow-up, start treatment based upon clinical diagnosis.

1.3



SPECIMEN COLLECTING: WOMEN

Urine available:

Collect 20 mL first void urine for chlamydia and gonorrhoea NAT (collect after swabs).

Urine not available:

Take urethral swab for chlamydia and gonorrhoea NAT.

Take vaginal pH. Pass speculum and visualise cervix. Collect high vaginal swab for MC&S using swab, glass slide and charcoal medium.

- ◆ Pap smear required:
 - use wooden spatula first then cytobrush
 - make pap smear on glass slide
 - cytobrush can be used for NAT (check with the laboratory if the test is available).
- ◆ Pap smear not required:
 - collect endocervical smear for NAT, using swab
 - if pus present or cervix is inflamed, also collect endocervical smear for MC&S using swab, glass slide and charcoal medium.

Collect blood for serological tests: syphilis, HIV and hepatitis B. Also test for hepatitis A if symptomatic or if there is a history of oral-anal sex and there is an intention to vaccinate if negative; and hepatitis C if there is a history of injecting drug use.

Women who have anal sex with men: take two anal swabs (one for culture and sensitivity and one for NAT). Also collect two throat swabs (one for culture and sensitivity and one for NAT) if there is a history of oral sex.

Order the tests for the laboratory: label all specimens clearly and prepare for transport.

Consider treatment: if there is any doubt about follow-up, start treatment based upon clinical diagnosis.



SPECIMEN COLLECTION AND HANDLING CHECKLIST

All specimens

- ◆ Specimens must be clearly labelled with the patient's name, date of birth, or medical record number, site of collection, date and time of collection.
- ◆ Specimens should reach the laboratory within 24 hours, whenever possible. Gonorrhoea yield will diminish after this time.
- ◆ In some circumstances, HIV tests may be coded so that the person being tested is not personally identified.

Urine samples

- ◆ Keep urine samples for NAT refrigerated. Transport as soon as possible.

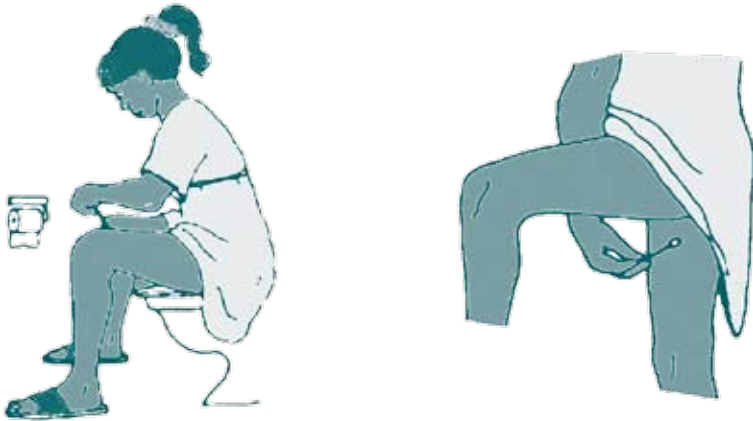
Self-obtained vaginal swabs

- ◆ Self-obtained vaginal swabs enable specimen collection from the genital tract of asymptomatic women for chlamydia and gonorrhoea tests when a vaginal examination is refused.
- ◆ A physical examination, including a vaginal speculum examination is recommended for all women with genital or STI symptoms.
- ◆ Patient instructions for taking a self-obtained low vaginal swab (SOLVS) are shown on the next page.



Patient Instructions

This is how to take your own swab for a SOLVS PCR test



1.3

Put the tip of the cotton swab stick about 2 cm (length of one finger joint) inside your vagina.



Turn the swab around once.

Count to 10 while leaving the cotton swab stick in the vagina.

Urethral swabs

- ◆ Urethral swabs should be collected two hours after passing urine.
- ◆ If patient has recently passed urine and cannot wait, collect specimens.

Gonorrhoea culture swabs

- ◆ Remove swabs from refrigerator before use and allow to warm to room temperature.
- ◆ Make a smear on a glass slide and place the swab in charcoal (black) transport medium.
- ◆ Smears and swabs will have a diminished yield if processed more than 24 hours after collection. NAT at the same time will improve detection of gonorrhoea.
- ◆ Keep specimens in an insulated container between 10 °C and 25 °C.
- ◆ Avoid extremes of temperature. **Never place gonorrhoea swabs for culture in the refrigerator.**
- ◆ All smears should be allowed to air dry before sealing and labelling.

VAGINAL pH TESTING

Vaginal pH testing should be carried out as part of a full examination using narrow range pH paper (range pH 4 – 6).

Performing the test

The test should be performed on vaginal secretions, which are taken from near the opening of the vagina. Secretions taken higher up may be contaminated by cervical secretion, which has a higher pH and will give a falsely elevated vaginal pH reading. The test should not be performed if the patient is menstruating or has had unprotected sex in the last 24 hours or is pre-pubertal or post-menopausal.



- ◆ Either use a loop or swab, and press some vaginal secretion on to the paper allowing the moisture to adsorb onto the pH paper.
OR
- ◆ press some pH paper on to the walls of the vagina.
OR
- ◆ hold the pH paper at the opening of the vagina and press the moist lips of the vulvae onto the paper (no speculum is needed for this latter method).

Wait 30 seconds and then compare the colour change on the paper with the colour range given on the pH paper container. Holding the paper with a bright light behind it assists with interpretation of the colour change.

Interpreting the test

A vaginal pH reading of >4.5 is abnormal unless the woman is post-menopausal and not on hormone replacement therapy.

Elevated readings are found in the following circumstances:

- ◆ bacterial vaginosis
- ◆ trichomoniasis
- ◆ desquamative inflammatory vaginitis
- ◆ post-menopausal not on hormone replacement therapy.

False high readings are found in the following situations:

- ◆ cervical secretion is sampled instead of vaginal secretion
- ◆ sexual intercourse in the last 24 hours
- ◆ examining glove touches the paper
- ◆ patient menstruating.

Elevated vaginal pH and HIV

- ◆ Low vaginal pH is hostile for HIV and infected lymphocytes.
- ◆ High pH (>5) may contribute to increased susceptibility to HIV.





1.4 SCREENING OF ASYMPTOMATIC MEN AND WOMEN

The majority of patients seen are asymptomatic. However, this does not mean they are not infected. Often patients request screening or it can be offered at times when they present, e.g. for cervical screening, contraception or a well person's check. People at highest risk include:

- ◆ sexually active young males and females who are 25 years or younger, and not in a stable, long-term relationship
- ◆ those travelling away from home
- ◆ those living in areas with a high incidence of STIs
- ◆ people who have recently changed sexual partner
- ◆ people who have multiple sex partners
- ◆ substance users.

ASYMPTOMATIC MALES

The following investigations should be undertaken:

- ◆ physical examination is important as often patients may not be aware of lesions
- ◆ first void urine specimen for gonorrhoea and chlamydia NAT (a generic term which includes PCR or LCR)
- ◆ if no urine is available, a urethral swab for NAT.

ASYMPTOMATIC FEMALES

The following investigations should be undertaken:

- ◆ physical examination is important as often patients may not be aware of lesions
- ◆ vaginal swabs for smear and culture
- ◆ endocervical swabs for NAT
- ◆ endocervical swabs for MC&S, if pus is present or cervix is inflamed
- ◆ first void urine for NAT.



Screening of asymptomatic men and women

If an asymptomatic female declines to have a physical examination, collect a first void urine and self-obtained low vaginal swab for NAT.

ALL CASES

- ◆ If the patient has had anally receptive sex, take two anal swabs for both gonorrhoea (culture and sensitivity) and chlamydia (NAT).
- ◆ If the patient has had receptive oral sex, take two throat swabs for both gonorrhoea (culture and sensitivity) and chlamydia (NAT).
- ◆ Where appropriate, consider collecting blood for serological tests - syphilis, HIV and hepatitis B. Also test for hepatitis C if there is a history of injecting drug use. It is only necessary to test for hepatitis A if symptomatic or if there is a history of male-to-male and/or oral-anal sex, and if there is an intention to vaccinate if negative.

(Refer to page 135 about who should be vaccinated.)

- ◆ Provide safe sex advice and promote condom use.
- ◆ Review at one week and check results for diagnosis.
- ◆ Review at three months after exposure – this provides an opportunity to repeat blood tests for syphilis/hepatitis B/HIV. Consider retesting for gonorrhoea and chlamydia in those at high-risk of re-infection. Rectal chlamydia always requires a proof of cure. Persistent infection raises the possibility of lymphogranuloma venereum (LGV) and further specific testing is required.



1.5 SEXUALLY TRANSMITTED INFECTION SYNDROMES

Syndromic testing and treatment is a public health approach in areas with high rates of STIs.

According to the World Health Organization:*

A syndrome is a group of symptoms that patients describe combined with the signs that providers observe during examination. Although STDs (sexually transmitted diseases) are caused by many different organisms, these organisms only cause a limited number of syndromes.

The four main STI syndromes are:

- ◆ vaginal discharge in women
- ◆ urethral discharge/dysuria in men
- ◆ genital ulceration in both men and women
- ◆ lower abdominal pain in women.

Acute proctitis is also discussed in this section.

VAGINAL DISCHARGE

Vaginal discharge may originate from either the vagina, cervix or upper genital tract. Vaginal discharges are commonly due to bacterial vaginosis, candidiasis and trichomoniasis (although the latter is rare in urban areas).

Vaginitis

Symptoms

- ◆ There may be an odour (as in the case of bacterial vaginosis or trichomoniasis) or itch (candidiasis) or vulval swelling or soreness (trichomoniasis or candidiasis).
- ◆ Vaginal infections (as opposed to cervical infections) may cause increased volume of vaginal discharge usually noticed by the patient, i.e. is symptomatic.

* World Health Organization 1997, *STD Case Management. The Syndromic Approach for Primary Health Care Settings - Participants' Version*, WHO, Manila, available at <www.wpro.who.int/sites/hsi/documents/Training+Manual+on+STD+Case+Management.htm>



STI syndromes

Signs

On examination there is usually increased discharge noted at the introitus and, on inserting a speculum, a pooling of vaginal discharge in the posterior fornix or adherent to the vaginal walls. It is important to note the colour and consistency of the discharge, its odour, and whether the vaginal walls are inflamed.

Cervicitis

Cervicitis is defined as >30 white blood cells per high-powered field (WBC/HPF) microbiologically and clinically as inflammation (redness, swelling, contact bleeding, discharge).

Symptoms

- ◆ Cervical discharge is usually more scanty and may not be noticed by the patient, i.e. asymptomatic, although the patient may notice a change in colour to yellow as the discharge becomes purulent or mucopurulent.
- ◆ These may be due to STIs such as gonorrhoea, chlamydia or genital herpes. Alternatively, they may be due to physiological causes such as hormones or exposed columnar epithelium (ectopy) causing increased mucoid or mucopurulent discharge at the cervix.
- ◆ Coexisting urethral infection can occur in women with sexually acquired cervicitis. A history of dysuria without urinary frequency is an important clue to the possible presence of an STI.

Signs

- ◆ On speculum examination a purulent or mucopurulent discharge from the endocervical canal is an important sign as 80 per cent of cases are likely to be due to gonorrhoea or chlamydia.
- ◆ Often this is associated with an inflamed, oedematous and friable ectropion with contact bleeding when taking swabs or smears.



- ◆ Often a previously unnoted cervical discharge is seen on the tip of the swab.
- ◆ **Note** – most cases of cervicitis are asymptomatic and may also not have any signs, i.e. the cervix can look entirely normal in cases of gonorrhoea and chlamydia.
- ◆ Other organisms associated with cervicitis include *Herpes simplex*, *Trichomonas vaginalis*, and anaerobes. In some cases of clinically evident mucopurulent cervicitis, no pathogens are able to be isolated.

Investigations and specimen collection

Laboratory tests allow precise diagnosis, and should be performed.

If the patient complains of or shows signs of a vaginal discharge:

- ◆ Take a medical history and undertake a physical examination.
- ◆ Examine the urethra and vulva for redness and discharge. If urethral discharge (pus) is present, swab for culture.
- ◆ Pass a speculum, and visualise the vagina and cervix.
- ◆ Collect a high vaginal swab using a charcoal swab and smear first on a glass slide for microscopy then place in charcoal transport medium.
- ◆ Test vaginal pH on indicator paper (normal is pH ≤ 4.5). Note if there is a fishy odour.
- ◆ If pus is present or the cervix is inflamed, take two endocervical swabs - one for MC&S and one for NAT.
- ◆ Collect endocervical specimens for gonorrhoea and chlamydia using a swab or cytobrush for NAT.
- ◆ Collect first void urine for gonorrhoea and chlamydia NAT.
- ◆ If the patient has urinary frequency, take a mid-stream specimen for culture and sensitivity.
- ◆ If ulcers are also present, take a swab from the ulcers for genital herpes (see “genital ulceration” section on page 49).



STI syndromes

- ◆ If abdominal pains are present, perform a pelvic examination (see “lower abdominal pain syndrome” section on page 52).
- ◆ Perform a pelvic examination on every new patient or where there is abdominal pain.

Special considerations

- ◆ If the patient has had anally receptive sex, take two anal swabs for gonorrhoea (culture and sensitivity) and chlamydia (NAT).
- ◆ If the patient has had oral sex, take two throat swabs for gonorrhoea (culture and sensitivity) and chlamydia (NAT).
- ◆ Collect blood for serological tests - syphilis, HIV and hepatitis B. Also test for hepatitis C if there is a history of injecting drug use. It is only necessary to test for hepatitis A if symptomatic or if there is a history of male-to-male and/or oral-anal sex and if there is an intention to vaccinate if negative.

(Refer to page 135 about who should be vaccinated.)

Immediate treatment

Without waiting for laboratory results, proceed as follows:

Vaginitis

- ◆ If itchy, reddened vaginal walls, soreness or reddened or swollen vulva and a normal or low pH (≤ 4.5), treat for candidiasis (see page 142).
- ◆ If vulval soreness, redness, copious greenish discharge, and reddened vaginal walls and cervix, a fishy odour and a raised pH >4.5 , treat for trichomoniasis (see page 179).
- ◆ If vulva and vaginal walls are not inflamed or sore or itchy, a slight homogenous grey-white discharge with a fishy odour, and a raised pH >4.5 , treat for bacterial vaginosis (see page 140).
- ◆ If the vaginal pH is >4.5 , treat as for bacterial vaginosis or trichomoniasis (see pages 140 and 179).



Cervicitis

- ◆ If a purulent cervicitis is seen, treat for both gonorrhoea (see page 84) and chlamydia (see page 77).
- ◆ If shallow painful ulcerative lesions are seen on the vulva and there is cervicitis, treat for genital herpes (see page 153).
- ◆ If abdominal pains accompany the cervicitis, treat for pelvic inflammatory disease (PID) (see page 168).
- ◆ In all cases, educate the patient about safer sex practices and promote condom use.
- ◆ Partner(s) should be investigated and treated as soon as possible, preferably within 24 hours.
- ◆ Advise return visit for review and discussion of results.
- ◆ Patients should be advised not to have sex for a week and until their partner has also completed treatment.

1.5

URETHRAL DISCHARGE/DYSURIA IN MEN (urethritis)

- ◆ Symptoms and signs described in urethral discharge syndrome vary and may include urethral discharge, dysuria, and meatal inflammation without urinary frequency.
- ◆ Urethritis is defined as >5 WBC/HPF on a smear.
- ◆ There may be white cells or bacteria in the urethral exudate seen on a smear on a glass slide, or *Chlamydia trachomatis* and *Neisseria gonorrhoeae* may be isolated from urethral swabs.
- ◆ Laboratory testing is always required to confirm the diagnosis and to identify the infecting pathogen.
- ◆ If there are symptoms of urinary frequency, then a bladder infection may also be possible.
- ◆ Other organisms associated with urethritis include *Ureaplasma urealyticum*, *Mycoplasma genitalium*, *Herpes simplex*, *Trichomonas vaginalis*, and anaerobes. However, *U. urealyticum* and anaerobes may also exist as normal urethral flora in many men.



STI syndromes

- ◆ In many cases of clinically evident and laboratory-proven urethritis, no pathogens are able to be isolated.

Investigations and specimen collection

If discharge present or recent symptoms of discharge

- ◆ Milk discharge forward to see any discharge at the meatus, collect specimens for MC&S. Smear first onto a glass slide for microscopy then place the swab in charcoal transport medium for culture and sensitivity.
- ◆ Collect first void urine for chlamydia and gonorrhoea NAT. Inspect the urine for presence of threads as this helps confirm diagnosis of urethritis.
- ◆ If there is urinary frequency, collect a midstream urine specimen for culture and sensitivity.

Special considerations

- ◆ If the patient has had anally receptive sex, take two anal swabs for gonorrhoea (culture and sensitivity) and chlamydia (NAT).
- ◆ If the patient has had receptive oral sex, take two throat swabs for gonorrhoea (culture and sensitivity) and chlamydia (NAT).
- ◆ Collect blood for serological tests – syphilis, HIV and hepatitis B. Also test for hepatitis A if symptomatic or there is a history of male-to-male and/or oral-anal sex and if there is an intention to vaccinate if negative (see page 135). Test for hepatitis C if there is a history of injecting drug use.

Immediate treatment

- ◆ If discharge is present or if there is a good symptomatic history and the presence of threads in first void urine, treat for both gonorrhoea (see page 84) and chlamydia (see page 77).



- ◆ In all cases, educate the patient about behaviour change, i.e. safer sex practices, and promote condom use.
- ◆ Partner(s) should be investigated and treated as soon as possible.
- ◆ Advise return visit, if necessary, to check that symptoms have settled and to perform a test of cure.
- ◆ Patients should be advised not to have sex for a week and until their partner has also completed treatment.

GENITAL ULCERATION

- ◆ Genital herpes (*Herpes simplex* infection) is the most common STI causing genital ulceration in Australia. Symptomatic infection causes multiple painful, shallow irregular-edged ulcers or blisters anywhere in the anogenital region. They usually produce painful inguinal lymphadenopathy on the same side as the lesion. However, lesions may be more like linear splits or minor abrasions.
- ◆ Primary syphilis is rare in urban Australia, but must always be excluded if a solitary, long-lasting, painless thickened indurated ulcerative lesion is present, especially if there has been recent sexual contact in remote Indigenous communities in Australia, increasingly within the urban gay population, or in South-East Asia or Africa. Occasionally there are two kissing lesions that touch each other in a flexure. There is usually rubbery inguinal adenopathy on the same side as the lesion.
- ◆ Donovanosis is found in northern and central Australia, and may produce beefy, smelly, painless red lesions, beginning as a nodule or nodules, which then slowly erode and enlarge.
- ◆ Chancroid produces single or multiple painful lesions with secondary infection and purulent sloughing, and may produce very large painful inguinal adenopathy leading to ulceration (a bubo). It is not endemic to Australia and should be considered in patients with sexual contact in Africa, India or South-East Asia.



STI syndromes

- ◆ Lymphogranuloma venereum (LGV) is rare, seen only in those with sexual contacts in countries where these infections are endemic such as South-East Asia, India and Africa. It produces a small, painless, transient genital ulcer, and then painful enlargement of the inguinal nodes (bubo) both above and below the inguinal ligament. Subsequently, abscess formation and fistulae develop and finally blockage of the lymphatics and oedema occurs.
- ◆ Diagnostic procedures for, and management of, genital ulceration, when the diagnosis is uncertain or the patient has recently returned from overseas, should be done by or in consultation with a specialised STI or sexual health service or a sexual health physician.
- ◆ Pyogenic infections, trauma, drug eruptions, secondarily infected scabies, candidiasis, Behcet's disease, other dermatological conditions and neoplasms sometimes cause ulcerative lesions and may present diagnostic difficulties.

Investigations and specimen collection

If a patient complains of a genital sore or ulcer:

- ◆ Take a medical history especially about travel, sex in high-risk areas and length of time the ulcer has been present.
- ◆ Examine the ulcer, check for a rolled edge and induration or thickening of the ulcer base, or inguinal adenopathy.
- ◆ If it is a blister or looks like herpes, try to collect some blister fluid on a swab and send for NAT.
- ◆ If the ulcer is clinically suggestive of donovanosis or syphilis:
 - clean the ulcer with saline if required. From the inside edge of the ulcer/nodule take a dry swab. Send this swab to test for donovanosis, syphilis and herpes simplex virus by requesting "Genital Ulcer Disease (GUD) NAT".



- Collect an impression smear (scrape and slide) or any other confirmatory tests for donovanosis (see page 94).
- Take blood for syphilis serology, and offer HIV and hepatitis B serology.

Immediate treatment

- ◆ Do not apply any antibiotic cream or give oral antibiotics if syphilis or donovanosis is in doubt/suspected without first having taken adequate swabs and syphilis serology.
- ◆ If multiple painful, shallow irregular-edged ulcers or multiple recurrent vesicular lesions are evident, treat for genital herpes (see page 153).
- ◆ Refer all suspected cases of ulcers due to syphilis, donovanosis or chancroid to a specialist centre, or discuss management with a sexual health or infectious diseases specialist.
- ◆ Where painless ulcers are evident, treatment for donovanosis and syphilis should be commenced in areas where laboratory diagnosis is likely to be delayed:
 - bicillin 1.8 g intramuscularly plus
 - azithromycin 1 g orally (directly observed).
- ◆ In all cases, educate the patient about safer sex practices and promote condom use. Give out condoms.
- ◆ Partner(s) should be investigated and treated as appropriate.
- ◆ Stress importance of a return visit in one week.
- ◆ Patients should be advised to avoid sex until ulcers have healed and partners have also been investigated and treated if necessary.
- ◆ If rectal LGV is suspected, three weeks of antibiotic therapy such as doxycycline 100 mg 12-hourly is recommended.



LOWER ABDOMINAL PAIN SYNDROME

Women often present with lower abdominal pain. The causes range from minor but uncomfortable problems such as constipation or period pain, to life-threatening problems such as a ruptured ectopic pregnancy or appendicitis.

Some simple rules to manage lower abdominal pain include:

- ◆ Always do a pregnancy test on women of child-bearing age.
- ◆ Think past an obvious cause of the pain, e.g. many women have an abnormal dipstick urine test, but urinary infection may not be the cause of the pain.
- ◆ Pelvic inflammatory disease (PID) is a common cause of lower abdominal pain in areas of high rates of gonorrhoea and chlamydia in WA. Always think about PID as a possible diagnosis and treat early to avoid complications especially if the patient is at risk of infertility (e.g. young, recurrent STIs, past infertility, following termination of pregnancy).
- ◆ Take a risk history.

If a patient complains of lower abdominal pain, take a medical history, examine and consider:

- ◆ urinary tract infections – dysuria (pain on passing urine) and frequency
- ◆ appendicitis – usually central abdominal pain moving to the right lower quadrant and accompanied by nausea, vomiting and poor appetite
- ◆ gastroenteritis or colitis – accompanied by bowel changes, diarrhoea and blood or mucus
- ◆ endometriosis.

If the patient also has:

- ◆ missed a period or the last period is overdue
- ◆ had a recent delivery or abortion
- ◆ unexpected vaginal bleeding

consider ectopic pregnancy or other gynaecological conditions such as an ovarian cyst or endometritis.

1.5



It is important to perform a pregnancy test and exclude an ectopic pregnancy, which needs urgent referral to a gynaecologist.

The term PID refers to infections of the female upper genital tract – uterus, fallopian tubes, ovaries or pelvic cavity. It can be caused by gonorrhoea, chlamydia or anaerobic bacteria, or a variety of bacteria commonly found in the vagina, such as the different bacteria that can cause bacterial vaginosis, especially post-instrumentation.

Symptoms include constant pain in the lower abdomen that worsens with movement such as running or going up and down stairs, or pain with intercourse. There can be fever or raised temperature, malaise, irregular or heavy periods, or pain can start after a recent period.

Signs on pelvic examination include a cervical discharge and/or vaginal discharge, cervical excitation (pain on rocking the cervix), tenderness, heat or swelling in the fornices. Abdominal examination can show tenderness in the iliac fossae, guarding or rebound tenderness.

Clinical examination, investigations and specimen collection

If the patient has a temperature ($>38\text{ }^{\circ}\text{C}$), rebound tenderness, guarding, pain during examination and/or vaginal discharge, consider PID in the differential diagnosis of an acute abdomen. The following investigations should be performed where PID is considered:

- ◆ Examine the urethra and vulva for redness and discharge.
- ◆ Pass a speculum and visualise the vagina and cervix.
- ◆ On examination any vaginal discharge should be noted as that may indicate an ascending infection.
- ◆ Collect a high vaginal swab using a charcoal swab – smear initially onto a glass slide for microscopy and



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then insert in charcoal transport medium for culture and sensitivity.

- ◆ Test vaginal pH on indicator paper (normal is pH ≤ 4.5). Note if there is a fishy odour.
- ◆ On examination, the cervix should be observed carefully as any purulent discharge is significant.
- ◆ Take one endocervical swab for MC&S – smear initially onto a glass slide for microscopy and then insert in charcoal transport medium for culture and sensitivity. This specimen is suitable for culture of gonococci, anaerobes, *Mycoplasma spp.* and other endogenous flora.
- ◆ Take a second endocervical swab for chlamydia and gonorrhoea NAT.
- ◆ Perform a pelvic examination to check the pelvic area for masses, heat, tenderness, or fullness in the adnexa. An important sign is cervical excitation.
- ◆ Collect first void urine for gonorrhoea and chlamydia NAT.
- ◆ If the patient has urinary frequency, take a mid-stream specimen for culture and sensitivity.
- ◆ Do a pregnancy test.
- ◆ Pelvic ultrasound may be required.
- ◆ Take a full blood picture and measure erythrocyte sedimentation rate (ESR) as well as C reactive protein.

Immediate treatment

- ◆ Assess disease severity and consider hospitalisation.
- ◆ If PID is considered, treat immediately (see page 168).
- ◆ Undertake contact tracing and treatment of partner(s).
- ◆ Advise return visit in one week to ensure improvement and test of cure.
- ◆ Patients should be advised not to have sex until they have been assessed.
- ◆ In all cases, educate the patient about safe sexual behaviour.



ACUTE PROCTITIS

Organism

There are many causes of anal and rectal inflammation. This section is limited to sexually transmitted causes, but surgical conditions (e.g. fistulae or haemorrhoids) and inflammatory conditions (e.g. Crohn's disease) should always be considered.

Proctitis caused by sexually transmitted organisms is associated with anal sex and is usually caused by *Neisseria gonorrhoeae* or *Herpes simplex*. In homosexually active men, *Shigella* and *Campylobacter jejuni* infections may be acquired from sexual activities, and proctitis may occur as part of an infective enteritis caused by these organisms.

While *Chlamydia trachomatis* does not usually cause an acute proctitis, rates of rectal chlamydia are increasing and LGV proctitis has been documented as an ongoing epidemic amongst men who have sex with men in the Northern hemisphere.

Clinical presentation

Proctitis is suggested by anal discharge, blood and/or mucus in stools, and pain during defecation. Herpes often causes ulceration, while gonorrhoea causes a more generalised inflammation and exudate. A primary herpes proctitis tends to be extremely painful and uncomfortable, while a gonococcal proctitis is only rarely the cause of much discomfort.

Investigations

In suspected proctitis, proctoscopy should be performed unless patient discomfort makes this impossible, and the following investigations are suggested:

- ◆ swab of purulent exudate for Gram-stained smear and culture
- ◆ swab for chlamydia NAT
- ◆ swab for herpes culture and/or NAT
- ◆ faeces culture for enteric pathogens if history suggests infective cause.
- ◆ test for other STIs including HIV, LGV serology (if relevant).



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Treatment

In cases where a sexually transmitted cause is suspected, treatment should be given immediately before the results of tests are available. Treat for both gonorrhoea and chlamydia and consider the need for specific herpes therapy.

- ◆ ceftriaxone 250 mg intramuscularly, as a single dose
OR
- ◆ ciprofloxacin* 500 mg if a culture and sensitivities will be available
PLUS
- ◆ azithromycin 1 g STAT dose (preferred therapy)
OR
- ◆ doxycycline* 100 mg orally, 12-hourly for 10 days
OR
- ◆ roxithromycin 300 mg orally, daily for 10 days
PLUS if herpes is clinically suspected
- ◆ valaciclovir 500 mg orally, 12-hourly for five days
OR
- ◆ aciclovir 200 mg orally, five times daily for five days.

Rectal chlamydia should be treated with doxycycline 100 mg 12-hourly for three weeks following azithromycin 1 g STAT dose.

In addition, the following procedures are recommended:

- ◆ In all cases, educate the patient about safer sex practices and promote condom use.
- ◆ Partner(s) should be investigated and treated as appropriate.
- ◆ Advise return visit in one week.
- ◆ Patients should be advised not to have sex until they have been assessed.

* Ciprofloxacin and doxycycline should not be used for pregnant women or children, and doxycycline should not be used by women who are breastfeeding.



1.6 CONTACT TRACING (MANAGING SEX PARTNERS)

CONTACT TRACING: DEFINITIONS

Contact: A person who has had sex with, shared injecting equipment with, or has had some other high-risk exposure to the index case.

Sexual contact may be oral, vaginal, anal or some other form of sexual contact with the index case during the period when there was risk of transmission of infection.

Index case: The original person identified with an infection. The index case may or may not have infected other persons but represents a starting point for the process of contact tracing.

Contact tracing: The process of identifying contacts of the index case so that they can also be given appropriate testing, counselling and treatment.

1.6

PRINCIPLES OF CONTACT TRACING

- ◆ Health care providers should respect the human rights and dignity of the index case and the identified contacts.
- ◆ Contact tracing is an important element of STI/HIV care and prevention for communities, and this must be addressed by the diagnosing clinician. If there are any difficulties undertaking this, assistance may be sought from the local Population Health Unit (PHU) (see Appendix D, page 203, for contact details) or metropolitan-based contact tracers at the North Metropolitan Population Health Service (see page viii).
- ◆ Contact tracing should be voluntary and without coercion. The index case and contacts should have equitable and appropriate access to all available services, regardless of their willingness to cooperate



Contact tracing

with the contact tracing process. When an index case refuses to notify or permit notification of contacts, assistance is available from regional PHUs, Aboriginal Community Controlled Health Services (ACCHS) and the Communicable Disease Control Directorate (CDCD), particularly in cases of confirmed HIV.

- ◆ All aspects of contact tracing must be confidential, including written and database records. The anonymity of the index case must be protected unless written permission has been given to release this information to contacts.
- ◆ Contact tracing is best undertaken when appropriate and culturally sensitive support services are readily available to both the index case and contacts. Insensitive contact tracing can be counterproductive.
- ◆ Empirical treatment is effective in reducing the prevalence of disease within a community. Treating contacts at the first interview reduces disease transmission (see page 62).

INFORMATION FOR CONTACT TRACING

Information concerning recent sexual contacts is required from patients with a confirmed STI/HIV diagnosis for contact tracing purposes.

The primary care provider is responsible for ensuring that reasonable efforts are made to identify, and subsequently screen, identified sexual contacts.

Rationale: Contact tracing is necessary to interrupt the transmission of infection. The prime purpose is to identify people who may have an infection and require treatment.

When performed well, contact tracing supports sexual health education and prevention counselling, and can help bring about sustained behaviour change among people with STI/HIV infection.



Consent for contact tracing

- ◆ Refer to the principles of contact tracing (see page 57).
- ◆ Work with the index case to obtain their consent to contact tracing. When an index case refuses to notify or permit notification of contacts, assistance should be obtained from an experienced health service provider, such as local PHUs, and ACCHS.

Eliciting a risk history to identify contacts

- ◆ To assist the patient to identify likely contacts, particularly in rural and remote areas, ask about attendance at recent local events (e.g. sports weekends or trips to the regional town), and then specifically about whether they had a sexual encounter.
- ◆ Do not simply focus the index case on the most recent or apparent risk encounter. A general understanding of the index case's risk history will assist in counselling to avoid future risk. When taking a social and sexual history for STI/HIV:
 - ask open-ended questions
 - do not presume the sex of contacts
 - do not ask questions which imply a judgement
 - ask for explicit information which indicates the relationship with contacts
 - ask about substance use that may have contributed to risk
 - if necessary, repeat questions at subsequent visits
 - attempt to get further information about contacts, e.g. email contacts of partners or mobile telephone numbers may help. Offer assistance in contact tracing if practical.



CHOOSING A METHOD OF ADVISING CONTACTS

Patient (index case) referral: the index case personally notifies his or her contacts. This requires specific instructions including advice on which contacts to inform and what information to be communicated, including appropriate agencies for assessment and counselling.

Patient referral is recommended for well-informed, motivated and self-confident index cases. Discussion of various scenarios and how they can be dealt with may be helpful if the index case fears embarrassment or reprisal from contacts. It is important to use follow-up consultations to confirm that the contacts have been notified and assessed adequately.

Provider referral may be selected either at the index case's request, or at the suggestion of the primary health care provider. In such cases the provider may undertake to notify contacts directly, or seek assistance from another agency (e.g. ACCHS, PHU or CDCD). Provider referral requires the explicit approval of the index case, but offers greater anonymity to the index case.

Approaches to contact tracing by health care providers

Approach by phone

Advantages

- ◆ Quick, and allows an appointment to be made
- ◆ Cheap, especially if the contact is rarely home
- ◆ Confidential (provided that the source of the call is only revealed to the contact).

Disadvantages

- ◆ Provides verbal clues only
- ◆ Can be uncomfortable disclosing full details
- ◆ Can be intercepted by a third person
- ◆ Not practical when language or cultural barriers operate, or for the hearing impaired.



Approach by letter**Advantages**

- ◆ Some anxiety can be allayed by providing limited information about testing and confidentiality
- ◆ Allows the person to phone when their confidentiality is assured.

Disadvantages

- ◆ May create anxiety, especially if read when services are closed
- ◆ Inappropriate for disclosing details
- ◆ Difficult for people with literacy problems or the visually impaired.

A sample letter for patients to pass on to contacts is included in Appendix B, page 195. The health care provider should consider the appropriateness of using such a letter.

Approach in person**Advantages**

- ◆ The health care provider can give full details immediately, deal with the response and link in with appropriate supports
- ◆ Informal approaches in small communities will minimise confidentiality risks
- ◆ Depending on the circumstances and the health care provider's training, immediate testing may be offered.

Disadvantages

- ◆ Physically seeing the provider might affect their perception of confidentiality, particularly in small rural communities
- ◆ Can give impression of policing
- ◆ Costly/time consuming
- ◆ Testing on site can work against the individual's willingness to accept referrals.



Referral to another agency

Advantages

- ◆ Option for contact to attend another provider (not associated with the index case) may improve compliance with request
- ◆ Opportunity for the provider to limit their involvement to that of the index case
- ◆ May provide access to greater expertise/knowledge of social contexts
- ◆ Agencies may have other information about contacts
- ◆ Confidential if index case's identity not disclosed.

Disadvantages

- ◆ Break in continuity of care
- ◆ Complication of involving another party.

EMPIRICAL TREATMENT

For the curable, bacterial STIs, it is traditionally recommended that patients' partners be personally examined, counselled and treated. When practical, the partner should be managed by the health care provider or clinic that treats the index case.

Unfortunately, structural, geographical or other factors may make it difficult for follow-up of the partner to be undertaken by the same health care provider. In such cases, the partner should be referred to a specific health care provider or clinic known to be competent in STI management and sensitive to sexual health issues; it is probable that non-specific advice to the patient (e.g. "make sure your partner gets checked") often goes unheeded.

Public health agencies have a responsibility to ensure that clinical services are available to partners who cannot be treated by the index case's provider, by providing care at public clinics or facilitating referral to alternate sources of care.



One strategy that is effective in reducing the prevalence of diseases within a community is *empirical treatment*.

This is where the contact of a proven case of gonorrhoea, chlamydia, trichomoniasis or non-specific urethritis (NSU) is treated on the day they are interviewed and investigated, rather than waiting until the results are back. Treatment should be offered regardless of whether the contact is symptomatic or not, even if the contact declines testing.

The rationale for this treatment is:

- ◆ these diseases are highly infectious so there is a high probability that the contacts are infected
- ◆ the contact interview may be the only opportunity there is for treatment due to the high mobility of the patient group
- ◆ the sooner treatment is initiated the less likely transmission is to occur
- ◆ the treatment is simple (one dose) and has an acceptable side effect profile.

As syphilis is less infectious and the treatment more difficult, empirical treatment is not recommended for asymptomatic contacts of syphilis and the serology results should be reviewed before treatment is commenced.

A sample letter for your patient's contact to pass on to their own GP is provided in Appendix B, page 196. The letter explains:

- ◆ that they have been in contact with a person diagnosed with an STI
- ◆ that they might have also contracted an STI
- ◆ the importance and need for examination and testing, and that empirical treatment should be given for readily treatable bacterial STIs.



Contact tracing

FOLLOW-UP

Follow-up for contact tracing is essential to ensure that the spread of disease is interrupted. If the primary health care provider is not in a position to ensure that identified contacts are traced and receive screening and treatment, contact tracing support may be obtained from other agencies (e.g. ACCHS, PHUs or CDCD).

URGENCY OF CONTACT TRACING

Undertake contact tracing as soon as the index case can provide the necessary information.

Urgent (or immediate) contact tracing is necessary when there is concern that a contact is placing others at immediate risk of infection and for antibiotic resistant organisms such as penicillin-resistant *Neisseria gonorrhoeae*.

Rationale: The longer that contact tracing is delayed, the greater the likelihood of an infected contact transmitting the infection to other individuals (or re-infecting the index case). While it is accepted practice to await confirmation of the infection before starting contact tracing, this should be reconsidered for rural and remote areas, where laboratory results may not be received for a week. There is a risk that, after a week, it will be more difficult to locate and treat the contact quickly. Delays in treating contacts are considerably reduced if contact tracing is begun when the index case first presents.

Special considerations

- ◆ If the index case is acutely physically ill or emotionally distressed, it may be better to defer the issue until a subsequent consultation, provided that the index case can be relied upon to return.
- ◆ For many index cases, the issue of notifying contacts will have a high priority and the provider should assist them to deal with the issue immediately.



- ◆ For readily treatable and very infectious diseases (e.g. chlamydia, gonorrhoea and syphilis), contact tracing is usually dealt with during the same visit. Contact tracing is more often deferred to a later consultation for chronic viral STIs, particularly HIV. This may avoid compounding the patient's acute crisis, and offer the counsellor the opportunity to ensure that the information provided by the index case to their contacts is accurate.
- ◆ **Penicillin-resistant gonorrhoea should be seen as a matter of urgency to reduce transmission and ensure that current treatment guidelines remain valid.**

UNCOOPERATIVE PATIENTS

Advise regional PHUs of uncooperative patients, particularly in the case of penicillin-resistant gonorrhoea and HIV.

Inform the appropriate PHU representative directly and confidentially.

A strategy for a short-term management plan should be agreed between the primary health care provider and the PHU.

Rationale: Infectious diseases legislation places control of communicable diseases under the management of PHUs. However, this is a last resort, when counselling by the primary health care provider has been unsuccessful in persuading the index case to comply with contact tracing and treatment protocols. This decision is also largely dependent on the nature of the index case's diagnosis.

- ◆ Patients should be reassessed to find out why they are reluctant to cooperate.



Contact tracing

Problems and possible solutions for uncooperative patients

- ◆ *Fear of loss of confidentiality:* Offer provider referral for greater anonymity.
- ◆ *Unassertive patient unwilling to confront contacts:* Practise role playing (perhaps with counsellor assistance).
- ◆ *Patient not reconciled to diagnosis:* Allow more time and support.
- ◆ *Unaware of seriousness of consequences:* Provide appropriate education materials and discuss.
- ◆ *Little concern for consequences to contacts:* Explain that contacts tend to find out eventually; emphasise the risk of re-infection and any legal requirements.
- ◆ *Socio-cultural differences between the health care provider and the patient:* Seek the assistance of a culturally appropriate agency.
- ◆ *Fear of reprisal from partner/s:* Explain disease process. Encourage and provide support - Discuss various scenarios and how they can be dealt with and also offer to inform partner.
- ◆ *Shame of having a disease:* Explain disease process.

SAMPLE STI AND HIV CONTACT TRACING FORMS

Forms used by the North Metropolitan Area Health Service's Population Health Service to aid in contact tracing of both STI and HIV contact/index cases are provided here as examples that can be adapted by individual providers.



STI CASE INVESTIGATION REPORT

Notification # 2006 -	Hosp. #:	Diagnosis:	Index / Contact			
Name:					Sex: M / F	
Address:						
Telephone: <small>(Home) (Work) (Mobile)</small>						
Age/dob:		Marital status:			Ethnicity:	
Interpreter required: yes / no		Language(s)				
Referring - diagnosing Dr/Clinic:						
Phone No. of Dr/Clinic:			Referring Dr/Clinic contacted: yes / no			
Date:						
Known allergies:						
Treated: yes / no Treatment given:						
Index name code, dob and notif. # (if applicable):						
Comments:						
CONTACTS: from most recent, inc. possible mode of transmission					Contact tracing follow up by:	
Name, sex, age/dob, & ethnicity	Address & phone no.	Date of contact	Client	Dr.	NMPHU	Lost to F/U
Comments:						
Comments:						
Comments:						

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Contact tracing

HIV CASE INVESTIGATION REPORT

Notification # 2006 -		Hosp. #:	Diagnosis:	Index / Contact				
Name:						Sex: M / F		
Age/dob:		Marital status:			Ethnicity:			
Interpreter required: yes / no		Language(s)						
Address:								
Telephone: <small>(Home)</small> <small>(Work)</small> <small>(Mobile)</small>								
Referring - diagnosing Dr/Clinic:								
Phone No. of Dr/Clinic:			Referring Dr/Clinic contacted: yes / no					
			Date:					
Possible mode of exposure:								
Date diagnosed:		Date of sero-conversion:		CD4 Count:		Date:		
Index name code, dob and notif. # (if applicable):								
Comments:								
CONTACTS: from most recent, inc. possible mode of transmission				Contact tracing follow up by:				
Name, sex, age/dob, & ethnicity		Address & phone no.		Date of contact	Client	Dr.	NMPHU	Lost to F/U
Comments:								
Comments:								
Comments:								

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1.7 SCREENING FOR HIGH RISK POPULATIONS

STI TESTING RECOMMENDATIONS FOR CURRENT SEX WORKERS

New patients	Routine history and examination with all sites tested.
Swabs/urine:	Swab sites: Vagina, anus, oropharynx, endocervix, urethra. Collect first void urine.
Serology:	Hepatitis A, B, and C, HIV, syphilis. (Immunisation for hepatitis A and B should be offered).

Follow-up patients

Swabs:	Three-monthly – if 100% condom use, more frequently if <100% condom use.
Serology:	Three-monthly (hepatitis B and C, HIV, syphilis).
Cytology:	12-monthly (unless abnormal smear, then according to smear results).

If condom breakage Follow-up within three days (set baseline)
Repeat swabs in two weeks
Baseline serology – repeat at three months.

Medical certificate Can be certificate of attendance only and not a “clearance” as such, i.e. should only state date screening was performed.

Exclusion periods* Seek advice from an experienced sexual health physician.

* The Sexual Health & Blood-borne Virus Program, DoH feels that sex workers with HIV or who are HBsAg positive should cease working in the sex industry where there is likely to be exchange of body fluids.



STI TESTING RECOMMENDATIONS FOR ALL ASYMPTOMATIC YOUNG PEOPLE (UNDER 25 YEARS)*

- ◆ These recommendations should apply regardless of whether condoms are used or not.
- ◆ Patients with genital symptoms should have appropriate diagnostic tests and also be opportunistically screened for other STIs.

Annually (for those who have changed sexual partner/s)

- ◆ Chlamydia (urine/cervix)
- ◆ Hepatitis B serology – immunise.

More frequent screening

More frequent testing may be required following a particular risk exposure.

Repeat testing for chlamydia is recommended three to six months after positive diagnosis.

Once a patient is immunised against hepatitis B virus (HBV), further serology is unnecessary.

* Royal Australasian College of Physicians, Australasian Chapter of Sexual Health Medicine 2004, *Clinical Guidelines for the Management of Sexually Transmissible Infections among Priority Populations*, RACP, Sydney, available at <www.racp.edu.au/public/SH_clinical_guidelines.pdf> [accessed 09.06.06]



STI TESTING RECOMMENDATIONS FOR ALL ASYMPTOMATIC SEXUALLY ACTIVE PEOPLE WHO HAVE INJECTED DRUGS IN THE PREVIOUS 12 MONTHS*

- ◆ The lifestyles of people who inject drugs may also involve sexual risk taking behaviours. Therefore, the sexual health needs of people who inject drugs, as well as health issues associated with their drug practice, need to be addressed.
- ◆ These recommendations should apply regardless of whether condoms are used or not, and whether or not safe injecting practices are reported.
- ◆ Patients with genital symptoms should have appropriate diagnostic tests and also be opportunistically screened for other STIs.

Annually

- ◆ Chlamydia (urine/cervix)
- ◆ Hepatitis B serology – immunise if negative
- ◆ Hepatitis C serology (if hepatitis C virus [HCV] negative)
- ◆ Syphilis
- ◆ HIV serology (if HIV-negative)

Consider

Hepatitis A serology – immunise if negative

More frequent screening

More frequent testing may be required following a particular risk exposure.

Once a patient is immunised against hepatitis A virus (HAV) and HBV further serology is unnecessary.

* Royal Australasian College of Physicians, Australasian Chapter of Sexual Health Medicine 2004, *Clinical Guidelines for the Management of Sexually Transmissible Infections among Priority Populations*, RACP, Sydney, available at <www.racp.edu.au/public/SH_clinical_guidelines.pdf> [accessed 09.06.06]

STI TESTING RECOMMENDATIONS FOR MEN WHO HAVE SEX WITH MEN*

- ◆ These recommendations should apply regardless of whether or not condoms are used. A regular partner, increasing age or bisexuality is not necessarily protective of an STI.
- ◆ Patients with genital symptoms should have appropriate diagnostic tests and should be opportunistically screened for other STIs.

With or without symptoms, all men who have sex with another man in the previous year should be offered tests for STIs **at least once a year** in the following way:

- ◆ gonorrhoea (throat/urine/anus)
- ◆ chlamydia (throat/urine/anus)
- ◆ hepatitis A serology – immunise if negative
- ◆ hepatitis B serology – immunise if negative
- ◆ syphilis
- ◆ HIV serology (if HIV-negative)

Clinical indicators include:

- ◆ any anal sex
- ◆ any anal symptoms (bleeding, itching, discharge, pain)
- ◆ HIV-positive
- ◆ past history of gonorrhoea or chlamydia
- ◆ sexual contact with someone recently diagnosed with an STI
- ◆ request for a test.

More frequent screening

- ◆ Testing three to six monthly is recommended for men who attend sex-on-premises venues (SOPVs), use recreational drugs or seek partners via the internet.

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Follow-up testing

People diagnosed with chlamydia or gonorrhoea should be retested in three months.

- ◆ Once a patient is immunised against HAV and HBV further hepatitis A or B serology is unnecessary.
- ◆ For people with HIV, HBV surface antibody levels may need to be checked periodically after hepatitis B immunisation.
- ◆ **Consider** – *Herpes simplex virus* (HSV) type-specific serology.

* Royal Australasian College of Physicians, Australasian Chapter of Sexual Health Medicine 2005, *Sexually Transmitted Infection Testing Guidelines for Men who have Sex with Men*, RACP, Sydney, available at <http://www.racp.edu.au/public/SH_MSMguidelines.pdf> [accessed 09.06.06].



