Sexual health for travellers

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BACKGROUND Sexually transmitted infections (STIs) are prevalent worldwide, yet a high proportion of international travellers engage in unprotected sex while overseas and may be at risk.

OBJECTIVE This article discusses some of the STIs that may be acquired abroad, and suggests key points of pretravel advice for the general practitioner to give the traveller before departure.

DISCUSSION Many travellers will visit their GP for pretravel vaccinations and advice. This presents an ideal opportunity for pretravel sexual health education and discussion on the risks and prevention of HIV and other STIs.

International travel is popular among Australians and every month nearly 250 000 people travel overseas.[1] Studies have shown that a high proportion of travellers engage in casual sex during their visit abroad, while a third to over a half of these travellers do not consistently use condoms.[2–4] Many people have received little or no effective pretravel advice on sexual behaviour[5] and are unaware of the risks of acquiring a sexually transmitted infection (STI) while abroad.[6] Substantial numbers of travellers go on holiday with the planned intention of having casual sex.[6,7] In addition, the use of excess alcohol and drugs by many young people while on holiday, can lead to reduced inhibitions and increased risk taking behaviour.[7]

Sexually transmitted infections are among the most common notifiable infectious diseases worldwide. While it is difficult to estimate the global burden of many STIs due to poor notification systems in developing countries, the World Health Organisation (WHO) estimate an annual incidence of 333 million cases worldwide excluding HIV (Table 1).[8] In addition there are 42 million people worldwide living with HIV or AIDS.[9] Travel is known to be a major contributing factor in the global spread of STIs. Those who return home before symptoms become apparent may have had further sexual contacts, often with a regular partner, before the infection is diagnosed and treated.

Human immunodeficiency virus

The relationship between HIV and the other STIs is well established. The presence of many STIs causes genital lesions or inflammation, which facilitates the transmission of HIV between sexual partners and can increase the risk of HIV transmission by 3–5-fold.[10]

While the prevalence of HIV in Australia has remained relatively constant at 0.1% of adults over the past few years, HIV has reached pandemic proportions in other regions of the world (Table 2).[9] Travellers who engage in unsafe sexual practices outside Australia may be at increased risk of exposure to HIV.

With the availability of antiretroviral medication, steps can by taken to prevent HIV

Table 1. Global incidence of common STIs*

Gonococcal infections	62 million
Chlamydia	89 million
Syphilis	12 million
Trichomoniasis	170 million

*Source: WHO

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Table 2. Prevalence and transmission of HIV according to region*

Region	Adults/children living with HIV/AIDS	Prevalence rate (%)	Main mode of transmission: Heterosexual (hetero)/ men who have sex with men (MSM)/ intravenous drug users (IVDU)
Sub-Saharan Africa	29.4 million	8.8	Hetero
North Africa and Middle East	550 000	0.3	Hetero, IVDU
South/Southeast Asia	6.0 million	0.6	Hetero, IVDU
East Asia and Pacific	1.2 million	0.1	IVDU, MSM, hetero
Latin America	1.5 million	0.6	MSM, IVDU, hetero
Caribbean	440 000	2.4	Hetero, MSM
East Europe/ Central Asia	1.2 million	0.6	IVDU
Western Europe	570 000	0.3	MSM, IVDU
North America	980 000	0.6	MSM, IVDU, hetero
Australia/New Zealand	15 000	0.1	MSM
Total	**42 million**	**1.2**	

*Source: WHO/UNAIDS

seroconversion even after a suspected contact – either sexual or nonsexual (eg. needlestick injury) – in the form of postexposure prophylaxis (PEP). A combination of two or three antiretroviral medications can be started within 72 hours following exposure to an HIV positive contact and continued for four weeks.[11] Travellers to endemic areas should seek urgent medical advice following any episode of potential HIV exposure, however, they should be aware that PEP may be difficult or impossible to obtain in some developing countries. Those at high risk of exposure such as medical volunteers heading to remote areas with high rates of HIV infection, can be provided with a 'starter pack' of antiretroviral medication following consultation with an HIV specialist.[12]

Hepatitis

Hepatitis A and B are the only STIs that are preventable by vaccination. Hepatitis A is acquired though the orofaecal route, and may be sexually transmitted by oral or oro-anal sex. Outbreaks have recently occurred among homosexual men in western countries and it is now recommended that all men who have sex with men should be vaccinated if they are not already immune. Travellers who are likely to encounter contaminated food or water should also be offered vaccination.

In many developing countries (sub-Saharan Africa, much of Asia, the Pacific) most people become infected with hepatitis B during childhood and 8–10% of the overall population will become chronic and infectious carriers. High rates of hepatitis B are also found in the Amazon and in parts of eastern and central Europe.

Travellers may come in contact with hepatitis B through sexual contact or by engaging in other risks such as tattooing, acupuncture or body piercing. Contaminated blood products or medical equipment also pose a risk following unplanned or emergency medical treatment while abroad. Travellers may be unaware of the risk factors for hepatitis B and the importance of prevention. Although it is now recommended that all infants and preadolescents in Australia are routinely vaccinated against hepatitis B, many older people remain at potential risk. A study of 9000 European travellers showed that up to 75% had potential risk factors for contracting hepatitis B, yet just 19% were vaccinated against it.[13] A combined vaccine against hepatitis A and B confers equal immunity to separate vaccinations[14] and is popular due to fewer injections. An accelerated schedule of the combined vaccine can be given within three weeks and is suitable for last minute immunisation.[15] A booster immunisation should be given at 12 months.

Hepatitis C is primarily spread by direct contact with human blood, usually through contaminated needles or medical equipment, or through unscreened blood transfusions. Rates of sexual transmission are low.[16]

Syphilis and other genital ulcer diseases

Genital ulcer disease facilitates the spread of HIV and is therefore of major public health importance. As well as syphilis, which may present as a painless 'punched out' genital ulcer, other causes of tropical genital ulcers include chancroid, lymphogranuloma venereum and donovanosis. If the diagnosis is uncertain the overseas traveller should be referred to a sexual health specialist for diagnosis and treatment. Genital herpes is prevalent worldwide and a common cause of genital ulceration. In Australia the seroprevalence of herpes simplex virus (HSV-2) is usually quoted as 10–30%.[17] HSV-2 prevalence is considerably higher in many developing countries and has

been quoted as nearly 70% in Kenya, Uganda and Zimbabwe.[18,19] Rates are relatively low in Asia.[19]

Gonorrhoea

Gonorrhoea remains prevalent throughout the world with serious associated morbidity. The incidence of antibiotic resistant organisms is rising, and in parts of Asia 70% of organisms are penicillin resistant, and 25% are ciprofloxacin resistant.[20,21] This may be due to the availability and often inadequate dosing of over-the-counter medications in many developing countries. Reduced susceptibility to ceftriaxone has also been reported.[22] Travellers should be encouraged to seek medical attention if they develop symptoms. If gonorrhoea is suspected then a sample should always be taken for culture .

Chlamydia

Chlamydia trachomatis is the most common bacterial STI worldwide and predominantly affects young adults. The infection, which is usually asymptomatic, may lead to complications such as pelvic inflammatory disease, tubal factor infertility and ectopic pregnancy. Testing and screening for asymptomatic chlamydia has become easier since the advent of nucleic acid testing and urine chlamydia polymerase chain reaction is simple and convenient.

Trichomonas vaginalis

Trichomoniasis is a parasitic infection that can lead to vaginitis and vaginal discharge in women. Although relatively rare in Australia, an estimated 170 million cases occur worldwide annually, and it should not be forgotten. Diagnosis can be difficult due to the low sensitivity of available tests. The presence of the protozoa can be demonstrated by taking a high vaginal swab for wet preparation and culture. Male partners of affected females should be treated.

Pretravel advice

The aim of pretravel sexual health counselling is to increase awareness and knowledge of STIs and to reduce risk taking behaviour while abroad (Table 3). The prevalence of STIs in destination countries should be discussed. An assessment of likely sexual activity should be made and the patient asked directly whether they intend to have sex overseas. Several factors are associated with an increased likelihood of casual sex while abroad[2,3,23,24] and these are shown in Table 4. These risk factors need to be identified so that the higher risk traveller can be targeted to receive appropriate advice. In addition, travellers need to acknowledge that while in unusual or unfamiliar surroundings, their behaviour and attitudes can be modified leading to unplanned sexual activity.

With the exception of abstinence, condom use continues to be the single most effective method of prevention of STIs. Travellers should be aware that condoms purchased overseas may be of inferior quality and that hot, humid conditions can reduce their integrity.

Time should be taken to discuss contraception for female travellers. Some women may choose to carry emergency contraception that may be used in the case of split condoms, or where no contraception has been used at all.[25] Those on the combined oral contraceptive pill should be informed that gastrointestinal upsets such as diarrhoea or vomiting can lead to reduced absorption and therefore reduced efficacy of contraception. Some broad spectrum antibiotics, including doxycycline, may also affect the absorption of the combined pill by impairing the bowel flora. Patients should be advised to use additional contraceptive precautions while taking a short course of antibiotics and for one week

Table 3. Key issues in pretravel sexual health counselling

Planned sexual activity likely to occur
Destination country and prevalence of disease.
Condom use
Contraception
Vaccination
Postexposure prophylaxis for HIV

Table 4. Factors associated with casual sex abroad

Male
History of casual sex in home country
Single marital status
Long stay in destination country
Solo travel or travel with friends

afterwards. If the course of antibiotics exceeds three weeks (as may be the case when taking doxycycline for malaria prophylaxis) precautions can be discontinued as the bowel flora develop resistance to the antibiotic and is therefore unaffected.[26]

Conclusion

Sexually transmitted infections are common and preventable, and those engaging in unprotected sex while abroad are at increased risk. The general practitioner is in an ideal position to encourage that appropriate preventive measures are taken, and to reinforce the safe sex message to travellers preparing for a trip overseas.

Conflict of interest: none declared.

SUMMARY OF IMPORTANT POINTS

- Vaccination for hepatitis A and B should be recommended if appropriate.
- Travellers to high risk areas should be made aware of HIV PEP and its availability.
- Travellers should be aware that condoms can be affected by hot, humid conditions.
- GPs should reinforce the safe sex message during pretravel consultations.

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