

The following diseases are transmitted by sexual contact: gonorrhoea, chlamydia infections, chancroid, genital herpes, trichomoniasis, syphilis, chlamydia lymphogranuloma, granuloma inguinale, genital warts, pubic lice, scabies, viral hepatitis B and human immunodeficiency virus.

Sexually transmitted diseases in sailors are generally acquired through unprotected casual and promiscuous sexual contacts, often with prostitutes.

The most common symptoms of sexually transmitted diseases include discharge, redness and swelling of the genitalia, genital ulcers, lymph node enlargement, warts, and the presence of lice or mites on or in the skin. In some sexually transmitted diseases a single organ is affected. while in others the infection spreads throughout the body.

Clinical and laboratory facilities are necessary for accurate diagnosis of sexually transmitted diseases. Since such facilities are not likely to be available on board ship, the medical attendant can make only a presumptive diagnosis, based on rough clinical criteria. If the ship is more than one day from port, the medical attendant should start antibiotic treatment immediately when a sailor is thought to be suffering from a sexually transmitted disease. The subjective and objective symptoms, treatment, and response to treatment should be carefully recorded.

On arrival in port, the patient should be referred as soon as possible to a specialist who can perform the appropriate diagnostic tests and, if necessary, give additional treatment.

If possible, all sexual contacts of the patient should be traced and told to seek medical advice.

In case of any doubt concerning diagnosis or treatment, **RADIO MEDICAL ADVICE** should be obtained.

Urethritis and urethral discharge

Urethritis is characterised by a discharge from the orifice of the urethra, a burning sensation and pain on urination, or an itch at the end of the urethra. Urethritis may be caused by the gonococcus (gonorrhoea) or chlamydia.

Gonococcal urethritis tends to produce more severe symptoms than non-gonococcal urethritis. The incubation time of gonococcal urethritis can range from 1 to 14 days, but is usually 2–5 days. The discharge is generally abundant, yellow, creamy and purulent.

Non-gonococcal urethritis is generally caused by chlamydia, but in some cases, no causative organism can be found. The discharge in non-gonococcal urethritis is usually scanty, watery, mucoid or serous.

In men, a careful distinction must be made between urethritis and balanitis or posthitis, in which there are secretions from the glans penis and the prepuce (foreskin). Wearing disposable gloves, carefully retract the prepuce to determine the origin of the discharge or secretions.

In women, the same organisms that cause urethritis can cause infection of the cervix of the uterus and the urethra. In more than 60% of women with such infections, there are no visible symptoms. In the remaining cases, the principal sign is an increase in the vaginal discharge (see also Vaginal discharge).

Urethritis and urethral discharge
Swollen scrotum
Balanitis and posthitis
Genital ulcers
Lymph node swelling
Vaginal discharge
Pelvic inflammatory disease
Genital warts
Pubic lice
Scabies
Acquired Immunodeficiency syndrome
Proctitis
Treatment centres at ports
Instructions for medical attendants
Instructions for patients
Prevention of sexually-transmitted disease
(See also:
Viral hepatitis B)

Associated infections

Rectal infection

The organisms that cause urethritis can also infect the rectum. The main symptoms are a discharge of pus, sometimes mixed with blood, and itching around the anus.

Conjunctivitis

Male and female patients with urethritis may also develop an infection of the conjunctivae of the eye.

Treatment

It is not generally possible to make a definitive diagnosis of the cause of urethritis without laboratory facilities. Treatment must therefore be effective for both gonococcal and non-gonococcal infections, and must take account of the facts that the patient may be infected with more than one type of organism, and that some strains of gonococcus are resistant to penicillin. Patients should be given Ciprofloxacin 250 mg as a single and Doxycycline, one 100 mg capsule or tablet twice daily for 7 days.

This treatment should be effective for all urethral and rectal infections. If the patient also has conjunctivitis, 1% tetracycline ointment should be applied to the eye 3 times daily for one week. About one week after completion of treatment, the patient should attend a specialist clinic to verify that he is no longer infected.

Swollen scrotum

A swollen scrotum can be defined as an increase in volume of the scrotal sac, accompanied by oedema and redness. It is sometimes associated with pain (or a history of pain), urethral discharge, and a burning sensation on urination (see Urethritis and urethral discharge). The swelling of the scrotum is usually confined to one side.

Among ships' crews most cases of swollen scrotum are caused by inflammation of the epididymis, produced by sexually transmitted organisms. Such a cause should be strongly suspected in patients with urethral discharge or a recent history of it. The onset of epididymitis is often acute, but in some cases, it may develop over 24–48 hours. There may initially be an 'unusual sensation' in the scrotum, which is rapidly followed by pain and swelling. The pain is of a dragging, aching nature.

This condition must be distinguished from testicular twisting (see testicular pain, Chapter 7). In the latter case, the testis can become non-viable within 4–6 hours of onset of vascular obstruction. This condition occurs most frequently in children and is very rarely observed in adults over the age of 25. The presence of a history of urethritis would exclude the diagnosis. In cases of testicular twisting the testicle is often slightly retracted and elevation of the scrotum does not decrease the pain. This condition needs urgent referral. Other conditions that may lead to scrotal swelling include trauma (injury), inguinal hernia, mumps, and tumours.

Balanitis and posthitis

Balanitis is an inflammation of the glans of the penis, and posthitis is an inflammation of the prepuce. The two conditions may occur simultaneously (balanoposthitis). Lack of good hygiene, in particular in uncircumcised males, is a predisposing factor, as is diabetes mellitus.

In balanitis and balanoposthitis, a mild to profuse superficial secretion may be present. This must be carefully distinguished from urethral discharge. Wearing disposable gloves, retract the prepuce in order to determine the origin of the secretion.

Other signs include itching and irritation, causing considerable discomfort. Sometimes, the penis is swollen and retraction of the prepuce may be painful. Redness, erosion (superficial defects), desquamation of the skin of the prepuce, and secretions of varying aspects and consistency can be observed.

Treatment

The glans of the penis and the prepuce should be washed thoroughly with warm water antiseptic three times daily. Fluconazole 150 mg as a single dose should be given. If there is no improvement within one week, the patient should be referred to a specialist ashore.

Genital ulcers

Genital ulcers are a common reason for consultation, particularly in tropical countries. If not treated appropriately serious complications may arise from some of these conditions. Ulcers may be present in a variety of sexually transmitted diseases, including chancroid, genital herpes, syphilis, chlamydial lymphogranuloma, and granuloma inguinale.

The prevalence of these diseases varies according to geographical area. In Africa and South-East Asia, for instance, chancroid is the most common cause of genital ulcers, whereas in Europe and the USA, herpes genitalis is most common. Chlamydial lymphogranuloma and granuloma inguinale are much less common, and occur mainly in specific areas of the tropics. Chlamydial lymphogranuloma is endemic in West Africa and South-East Asia, while granuloma inguinale is prevalent in east Africa, India, certain parts of Indonesia, Papua New Guinea, and Surinam. Each of these diseases is described in more detail in the following pages.

Patients with one of these diseases usually complain of one or more sores on the genitals or the adjacent area. If the ulcer is located on the glans penis or on the inside of the prepuce, uncircumcised males may complain of penile discharge or of inability to retract the prepuce. In females, ulcers may be situated on the vulva, in which case the patient may complain of a burning sensation on urination.

Disposable gloves should be worn when examining the ulcers. The medical attendant should note the number and the characteristics of the lesions and the presence of lymph node swellings in the groin. Painless, indurated lesions can generally be attributed to syphilis; painful sores that bleed easily are attributable to chancroid; vesicular lesions that develop into superficial erosions or small ulcerations probably indicate herpes infection. Double infections are not uncommon, however, the clinical symptoms are often not sufficiently discriminatory to enable a definite diagnosis to be made without the help of laboratory tests. Knowledge of the relative importance of each disease in the area is crucial for a specific therapeutic approach. The recommended regimen is therefore aimed at curing the most frequently encountered diseases, chancroid and syphilis.

Treatment

Give simultaneously: 2.5 million units of benzylpenicillin, in one dose, intramuscularly and ciprofloxacin 250 mg orally. If the patient is allergic to penicillin, give Doxycycline 100 mg, by mouth, 2 times a day for at least 2 weeks.

When patients with syphilis are treated with penicillin, the so-called Jarisch-Herxheimer reaction may occur (see Syphilis). Bed rest should be advised for patients suffering from very painful genital ulcerations and lymph node swelling, and for those feeling severely ill.

As soon as treatment has started, patients should no longer be regarded as infectious and no special hygienic measures need to be applied. On arrival at the next port patients should be referred to a specialist together with all relevant information concerning their medical history.

Chancroid

Chancroid, almost always acquired during sexual intercourse, is caused by a bacterium. The incubation period (the time following the infecting contact to the initial appearance of symptoms) is short, usually averaging 3–5 days. The lesions are usually only seen in men; in women, clinical lesions are rare, but ulcers may be located in the vagina. The first lesion usually appears as a small inflamed bump, soon forming a blister or pustule, which breaks down within 2–3 days to become a very painful ulcer.

The classic chancroid ulcer (primary lesion) is superficial and shallow, ranging from a few millimetres to 2 cm in diameter. The edge usually appears ragged and is surrounded by a red zone. The base of the ulcer is covered by a necrotic exudate and bleeds easily. In contrast to the syphilitic chancre, the lesion is soft, and extremely painful and tender.

In males the most frequent sites of infection are the inner and outer side of the prepuce and the groove separating the head from the shaft of the penis.

About 1–2 weeks after the appearance of the primary lesion, the glands in the groin become enlarged, painful, and tender (buboes) (see Lymph node swelling, and Lymphatic

inflammation, Chapter 7). At first, the swellings appear hard and matted together, but they soon become painful and red. Some time later, the lymph nodes may enlarge, become fluctuant, and discharge pus.

Treatment

Give the patient Doxycycline 100 mg 2 times daily for 7 days. If the buboes persist or become fluctuant, **RADIO MEDICAL ADVICE** should be sought.

Genital herpes

Genital herpes is caused by a virus; the disease can follow an asymptomatic course, the virus being harboured within the nerves to the skin without producing symptoms. Usually, however, genital herpes in men appears as a number of small vesicles on the penis, scrotum, thighs, or buttocks. The fluid-filled blisters are usually painful, but sometimes produce only a tingling sensation. Within a day or two the blisters break, leaving tiny open sores which take 1–3 weeks to heal. Lymph glands near the site of infection may react by becoming swollen and tender.

In most cases, a clinical diagnosis can be made on the basis of the appearance of the lesions, in particular at the blister stage. At specialised clinics, laboratory tests may be used to confirm the diagnosis.

After the sores are healed, the virus remains dormant in the body. Weeks or months later, there may be recurrence of the active infection. These recurrent attacks tend to become less frequent with time and to be less severe than the initial attack, and the lesions tend to heal more quickly.

Treatment

A definite cure for genital herpes is not yet available. Lesions should be kept clean by washing the affected sites with soap and water, followed by careful drying. Analgesics may be given to reduce discomfort.

If you are in any doubt about whether the diagnosis of genital herpes is correct, the patient should be managed as described under Genital ulcers.

Syphilis

Syphilis is caused by a spirochaete which enters the body through the mucous membranes of the genitals, rectum, or mouth, or through small cuts or abrasions in ordinary skin.

The clinical course of syphilis is usually divided into three stages. The lesions of the primary and secondary stages are usually painless and cause little disability. They may heal without treatment, and the disease can lie dormant in the body for several years. In the late stages syphilis can cause serious damage to the brain, spinal cord, heart, and other organs.

The first stage, primary syphilis, is characterised by the presence of a sore (or chancre) at the point where the spirochaetes enter the body. There is a delay of 10–90 days (average 3 weeks) after contact before the onset of any visible sign of infection. Following the appearance of the initial chancre, there can be an additional delay of a few weeks before the blood test for syphilis will become positive. The typical chancre occurs in the groove separating the head from the shaft of the penis. However, a chancre may occur anywhere on the body where there has been contact with an infected lesion. Such lesions are usually single, but there may be more than one. The primary chancres are often smooth and clean-looking on the surface. Sometimes the lesion ulcerates and leaves a reddish sore with the base of the ulcer covered by a yellow or greyish exudate. Unless there is also infection with other bacteria or with herpes virus, the ulcer will be painless. The lesion has a characteristic firmness (like cartilage) when felt between the thumb and forefinger (gloves must be worn).

Often there will be one or more rubbery, hard, painless, enlarged lymph nodes in one or both groins, or in other regions if the sore is not on the genitals. In the presence of a secondary infection, the nodes may be tender. Usually these lesions will heal spontaneously within 6 weeks. At the chancre stage, the patient is highly contagious.

The secondary stage of syphilis usually develops about 6–8 weeks after the appearance of the primary chancre. In fact, the primary syphilitic chancre may still be present at the time of onset of the secondary stage. However, the secondary stage may be the first manifestation, occurring some 10–14 weeks after the infected contact. The most consistent feature of secondary syphilis is a non-itching skin rash, which may be generalised in the form of small, flat or slightly elevated pink spots, which gradually darken to become dark red in colour. They may be particularly localised on the palms, soles, or genital areas. A less frequently encountered sign is patchy loss of scalp hair. Patients with secondary syphilis may complain of malaise (not feeling well), headache, sore throat, and a low-grade fever (38.5 C). The presence of these symptoms plus a generalised rash and/or a rash involving the palms and the soles, which does not itch, and is associated with enlarged small lymph nodes in the neck, armpits and groins, should arouse suspicion of secondary syphilis. Other signs of the secondary stage may be the occurrence of moist sores, particularly in the genital area, or of flat, moist warts in the anogenital region. It should be noted that moist lesions of secondary syphilis are teeming with spirochaetes and are thus highly infectious. In the untreated patient the diagnosis is confirmed by microscopic examination of the lesions and by a blood test for syphilis.

The symptoms of the secondary stage will eventually disappear without treatment. The disease then enters the latent (hiding) phase, before reappearing as tertiary syphilis many years later.

Treatment

Patients with suspected syphilis should be given 2.5 million units of benzylpenicillin in a single dose, administered intramuscularly. If the patient is allergic to penicillin, give either 100 mg of Doxycycline by mouth, 2 times a day for 14 days or 500 mg of erythromycin by mouth, 4 times a day for 14 days. The patient should be referred to a specialist clinic at the next port of call.

Caution. When treated with antibiotics, about 50% of patients with primary or secondary syphilis will develop the so-called Jarisch-Herxheimer reaction, which usually appears 6–12 hours after the injection. This reaction is characterised by fever, chills, joint pain, increased swelling of the primary lesions, or increased prominence of the secondary rash. It is caused by the sudden destruction of a great number of spirochaetes and should not give rise to alarm. Analgesics may help to reduce the symptoms.

Chlamydial lymphogranuloma

Chlamydial lymphogranuloma is a systemic disease of venereal origin. The incubation time ranges from 4 to 21 days. The primary lesion is usually an ulcer, a vesicle, a papule or a pustule, not more than 5–6 mm in size and often located on the groove on the head of the penis in the male patient. Commonly single, the lesion is painless, transient, and heals in a few days without scar formation. In most cases, the patient does not even notice this primary ulcerative lesion. After the lesion has healed, the commonest symptom in heterosexual men is acute swelling of the lymph nodes in the groin, often on one side only. The swelling starts as a firm hard mass, which is not very painful, and usually involves several groups of lymph nodes. Within 1–2 weeks, the glandular mass (bubo) becomes attached to the skin and subcutaneous tissue and painful fluctuation occurs, followed by formation of pus. Not all buboes become fluctuant, some evolve into firm masses. Perforation of a bubo may occur, whereupon pus of varying aspect and consistency will be discharged. If not treated, chlamydial lymphogranuloma can produce severe scarring in the urogenital and rectal regions.

Treatment

Rest in bed is recommended for patients with chlamydial lymphogranuloma. An ice-bag may be applied to the inguinal region for the first two or three days of treatment to help relieve local discomfort and tenderness.

The patient should be given 100 mg of Doxycycline by mouth, twice daily for at least 2 weeks or 500 mg of erythromycin by mouth, 4 times daily, for at least 2 weeks. Fluctuating buboes require aspiration. If the bubo persists, **RADIO MEDICAL ADVICE** should be sought.

Granuloma inguinale

Granuloma inguinale is an infectious bacterial disease, with insidious onset. The sites usually affected are the genitals, the groin, the upper legs next to the groin, and the perianal and oral regions. The incubation period ranges from 17 to 50 days.

The earliest cutaneous lesion may be a papule or a nodule, which ulcerates, producing a single, enlarging, beef-like, velvety ulcer, or a coalescence of several ulcers. The typical ulcer in this disease is a raised mass, looking more like a growth than an ulcer. It has a smooth, elevated edge, sharply demarcated from the surrounding skin. There is no lymph node swelling and the general health of the patient is good. If not treated, the lesions may extend to adjacent areas of the body.

The diagnosis can usually be made on the basis of the typical clinical picture. At specialised clinics microscopic examination of crushed tissue smears is used to confirm the diagnosis in the untreated patient.

Treatment

The patient should be given Doxycycline 100 mg 2 times a day for at least 2 weeks. The patient should be referred to a specialist clinic at the next port of call.

Lymph node swelling

Lymph node swelling is the enlargement of already existing lymph nodes. It is unusual for lymph node swelling to be the sole manifestation of a sexually transmitted disease. In most cases, inguinal lymph gland swelling is accompanied by genital ulcers, infection of the lower limbs, or, in a minority of cases, severe urethritis. The swelling may be accompanied by pain and may be on one or both sides. Pain and/or fluctuation can sometimes be evoked by palpation.

The lymph node swelling may be regional (for instance in the groin in the presence of genital ulcers, etc.) or may involve more than one region (for instance in the case of secondary syphilis or human immunodeficiency virus infection).

The prepuce of patients suffering from lymph node swelling should always be retracted during examination in order to detect genital ulcers or scars of genital ulcers.

Treatment

The patient should be treated as described under Genital ulcers. If no improvement is noted within one week, **RADIO MEDICAL ADVICE** should be obtained.

Vaginal discharge

Sexually transmitted diseases in women often produce an increase in the amount, or a change in the colour or odour, of vaginal secretions. Vaginal discharge is probably the most common gynaecological complaint. It may be accompanied by itching, genital swelling, a burning sensation on urination, and lower abdominal or back pain.

Various infections can produce such symptoms.

Trichomoniasis is a common disease, particularly in tropical areas. It is characterised by a sometimes foul-smelling, yellow, or green foamy discharge.

Vaginal candidiasis is also a very common disease throughout the world. It is characterised by a white, curd-like discharge, vulvar itching, and sometimes a red and swollen vulva and vagina.

Bacterial vaginosis is very common. In general, there is no itch. The typical discharge is a grey sometimes foamy, fishy-smelling paste.

Other infections, e.g., gonorrhoea, may produce a white or yellow, watery or purulent discharge.

Infection with herpes virus usually produces painful lesions (redness, blisters, ulcers) on the vulva.

It should be remembered that more than one infection may be present at a time.

Treatment

In a situation without gynaecological examination facilities and in the absence of laboratory equipment the following practical approach should be followed. First the patient should be

treated for trichomoniasis and/or bacterial vaginosis (treatment A). If the condition does not improve, this treatment should be followed by an anti-gonococcal and anti-chlamydial treatment regimen (treatment B). If the symptoms still persist, an anti-candidiasis treatment (treatment C) should follow, or the patient should be referred to a specialist at the next port of call.

Treatment A

Give metronidazole 2.0 g, by mouth, in a single dose.

Treatment B

Give Doxycycline 100 mg, by mouth, 2 times a day for 7 days.

Treatment C

Fluconazole 150 mg, by mouth as a single dose.

Pelvic Inflammatory disease – Salpingitis

Pelvic inflammatory disease is a general expression covering various pelvic infections in women, caused by micro-organisms, which generally ascend from the lower genital tract (vagina, cervix) and invade the mucosal surface of the uterus, the fallopian tubes, and the peritoneum.

Pelvic inflammatory disease, caused by sexually transmitted pathogens, is a major cause of infertility and chronic abdominal pain, and may result in ectopic pregnancy. A vigorous approach to treatment is therefore justified.

The symptoms include mild to severe lower abdominal pain on one or both sides associated with fever and vaginal discharge (see Vaginal discharge).

The use of an intra-uterine (coil) device may be associated with the development of pelvic inflammatory disease. It should be noted that it is difficult to diagnose pelvic inflammatory disease without appropriate gynaecological and laboratory investigations; moreover, it is difficult to differentiate this disease from other causes of acute abdominal pain, e.g., appendicitis.

Treatment

In a case of suspected pelvic inflammatory disease, **RADIO MEDICAL ADVICE** should be obtained.

The treatment is Doxycycline, 100 mg twice daily for 14 days in combination with metronidazole, 1.0 g, by mouth, twice daily, for 14 days.

Caution. Patients should abstain from alcohol during treatment.

Genital warts

Genital warts are caused by a virus, and occur most frequently in young adults. In male patients, warts may be present on the penis, around the anus, and in the rectum. In females, the usual sites of infection are the vulva, the area surrounding the anus, and the vagina. Warts are soft, flesh-coloured, broad-based or pedunculated lesions of variable size. They may occur singly, or several may coalesce to form a large mass, often with a cauliflower-like appearance. Small warts cause little discomfort, but large genital or anal warts are embarrassing and uncomfortable to the patient and are liable to ulcerate; secondary infection and bleeding may then occur. Diagnosis is usually made on clinical grounds.

Treatment

There is no appropriate treatment that can be given on board ship. The patient should be referred to a specialised clinic at the next port of call.

Pubic lice

Pubic lice are nearly always sexually transmitted. The infection has become endemic in many countries, usually affecting young adults. The main symptom is moderate to severe itching, leading to scratching, redness, irritation and inflammation. The lice may be observed as small brown spots in the groin and around the genitals and anus. The nits attached to the hairs may be seen with the aid of a magnifying glass.

Treatment

Lindane cream, 1%, should be applied to the affected areas (pubic area, groin, and perianal region) at 8-hour intervals over a period of 24 hours. The patient should take a shower immediately before each application. At the end of the 24-hour period, the patient should again shower, and put on clean clothes.

Scabies

Scabies, caused by a mite, is now recognised as a sexually transmitted disease in industrialised countries. The most common symptom is itching, particularly at night. The lesions are roughly symmetrical.

The usual sites of infection are the finger webs, sides of the fingers, wrists, elbows, axillary folds, around the female breasts, around the umbilicus, the penis, the scrotum, buttocks and the upper part of the back of the thighs.

With the naked eye, only papules, excoriations and crusts may be seen. Using a magnifying glass, it is possible to detect the burrows of the mites.

Diagnosis is usually made on the basis of the clinical picture. At specialised clinics microscopic examination of skin samples can be performed, to detect the female scabies mite and her eggs.

Treatment

A thin layer of lindane cream, 1%, should be applied to the entire trunk and extremities and left for 8–12 hours. At the end of this period, the patient should take a shower or a bath, and change his clothes and bed linen.

Human Immunodeficiency Virus (HIV)

HIV infection is an increasing cause of premature death in both the developed and developing world. In the majority of cases spread is by sexual contact. HIV infects the white cells responsible for immunity to disease and as the infection develops so the patient's immunity to infection decreases and they become increasingly vulnerable to life-threatening infections. There are effective drugs which can slow down the progression of the disease very considerably. These drugs are expensive and only available to a small minority of patients. The majority of HIV infected patients in the developing world will not survive more than 5 years. HIV infection was originally called AIDS (acquired immune deficiency syndrome) because of the characteristic pattern of infections which developed in the first patients observed. This term is now of limited use as the original description of the disease bears little resemblance to the disease as it now exists outside the developed world.

HIV is present in the majority of the body fluids of an infected person. Nearly all infections result from contact with semen, vaginal secretions, blood or blood products. HIV is not transmitted through normal social contact, including kissing. All those with HIV infection should be regarded as infectious, whether or not they have symptoms of the disease.

Within a few weeks of infection the patient may experience a glandular fever like illness. Often this goes unnoticed, but occasionally the patient may be seriously unwell. At this point the HIV antibody test becomes positive. Following this the patient may be perfectly well for several years before developing serious infections. The first signs of HIV disease depend upon the exposure of the patient to infectious diseases. In poorer countries, where standards of housing and hygiene are low, patients will present, within 2 to 3 years, with diarrhoea, chest infections including tuberculosis and septicaemia. The patients have often lost a lot of weight and complain of fevers and tiredness. In developed countries patient may go many years before presenting with pneumonia, unusual skin cancers, meningitis and malignant tumours.

Treatment

Nearly all the infections that cause illness in patients with HIV can be treated with antibiotics. It is only the diseases that occur late on in HIV infection that require more complicated and expensive treatments. These diseases all require laboratory tests to make the diagnosis. Several drugs are effective at limiting the development of HIV and these have dramatically altered the

natural course of the disease which usually ended in death within 10 years. The use of these drugs requires frequent monitoring of the HIV infection.

Prevention

There is no vaccine available. Appropriate anti-viral therapy can prevent the spread of disease from mother to baby. It can also reduce the chance of infection following a needlestick injury. The most common way in which infection is spread is by sexual contact. Many prostitutes in the developing countries of Asia and Africa are HIV positive. Unprotected sexual intercourse with one of these prostitutes carries a very considerable risk of HIV transmission. The risk of transmission is greatly increased if either partner has another sexually transmitted disease, particularly genital ulcers. One way of reducing HIV transmission is to detect and treat sexually transmitted diseases. Barrier contraceptives and spermicides provide very considerable protection to HIV infection, but are not foolproof.

Proctitis

Proctitis is an infection of the rectum, often caused by sexually transmitted pathogens. In symptomatic infections, a discharge of pus from the anus, sometimes mixed with blood, can be observed. Itching around the anus may be present.

In females, proctitis is usually due to a secondary infection with vaginal discharge containing gonococci (see Vaginal discharge and Rectal infection). In male homosexuals, proctitis is caused by anal sexual contact with an infected person.

Treatment

Patients should be treated according to the regimens outlined for urethritis and urethral discharge. If there is no response to treatment within one week, **RADIO MEDICAL ADVICE** should be obtained.

Treatment centres at ports

Many ports have one or more specialist centres, where seafarers can obtain treatment for sexually transmitted diseases. Where they exist, these centres should be used in preference to the services of a general practitioner, since they have ready access to the necessary laboratory facilities, and experience of dealing with a large number of cases of sexually transmitted disease.

The clinic staff will advise on any further treatment and tests that may be necessary. A personal booklet is given to the seaman, in which is recorded the diagnosis (in code) and the treatment given, and which he should take with him if he visits a clinic in another port.

Instructions for medical attendants

The medical attendant should wear disposable gloves when examining any infected site in patients suspected of suffering from sexually transmitted disease. If the attendant accidentally touches any genital ulcer or discharge, or any material contaminated with pus from ulcers or discharge, he should immediately wash his hands thoroughly with soap and water.

If there is a sore on the penis or discharge from the urethra, a clean gauze dressing should be kept on the penis. This dressing should be changed frequently. In female patients suffering from genital ulcers or vaginal discharge, gauze or sanitary pads should be used.

Contaminated materials should be discarded in plastic bags, so that they will not be touched or handled by others.

Instructions for patients

The patient should avoid all sexual contact until a medical specialist confirms that he is free from infection. He should also make a special effort to practice good personal hygiene; for instance, he should use only his own toilet articles (toothbrush, razor, towels, washcloth etc.) and his own clothes and linen.

During the examination and treatment, the opportunity should be taken to inform the patient about his condition, sexually transmitted diseases in general, and the precautions to be taken to minimise the risk of acquiring them (see below).

Prevention of sexually transmitted disease

Being outside their normal environment and often in circumstances that allow for promiscuity, sailors are at special risk of contracting sexually transmitted diseases.

Avoidance of casual and promiscuous sexual contacts is the best way of minimising the risk of infection. Failing this, a mechanical barrier, such as a condom, can give both heterosexual and homosexual men and women a certain degree of protection against a number of sexually transmitted diseases. A supply of condoms should be available on board ship. The condom or rubber, is a thin elastic covering that forms a protective sheath over the penis. If properly used, it should prevent infection during intercourse, unless the point of contact with an infected lesion is beyond the area covered by the condom. The condom comes rolled before use. It must be placed over the penis before sexual contact. The tip of the condom should be held to form a pocket to receive the ejaculate and the rest of the condom unrolled to cover the entire penis. As soon as the male has had an orgasm, the penis should be withdrawn from the vagina before it softens, because loosening of the condom may expose the penis to infection. The condom is removed by grasping the open end with the fingers and pulling it down quickly so that it comes off inside out. The condom should be discarded without further handling in case it contains infectious material.

In women, the use of a diaphragm in combination with a spermicide cream offers some protection against the acquisition of some sexually transmitted diseases; however, condoms offer better protection. In risk situations, both partners should urinate at once after possible exposure. Each partner should subsequently wash his or her genitals and other possible infected areas.