

STD CONTROL IN PHC SETTINGS

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STI CARE SERVICES

The provision of STI care is an essential component of any Sexually Transmitted Infection (STI) control programme. STI care services represent an important setting to prevent new infections (by means of education of STI patients) and to reduce the duration of already established infections, thus reducing overall STI incidence and prevalence.

Taking care of persons with STI symptoms should be considered a priority in most developing countries as STI rank in the top ten reasons for medical consultations. Caring for symptomatic people is also a priority for any STI control programme because it is widely recognised that a population will not accept preventive interventions for STI (including HIV) unless effective curative services are already in place.

Patients with STI in developing countries have a choice among a wide variety of services from which they can seek care. A list of possible sources is shown in **table 1**.

Table 1: List of potential sources of STI care

The public sector

- Specialised STI clinics
- Outpatient departments of hospitals
- Primary Health Care setting, including health centres and dispensaries
- Reproductive health / Maternal and Child health clinics
- Family planning clinics

The private sector

- Private STI clinics
- Outpatient departments of private hospitals
- Private physicians and specialists
- Pharmacists (where it is legal to dispense antibiotics without prescription)
- First level care through nongovernmental organisations
- Workplace clinic services

The informal sector

- Traditional healers
- Pharmacists (where it is not legal to dispense antibiotics without prescription)
- Unqualified medical practitioners
- Vendors of antibiotics

From Sexually transmitted diseases: policies and principles for prevention and care UNAIDS documents/97.6

This chapter will briefly review the concepts and difficulties of the integration of STI prevention and care activities into health care systems. STI care providers need to deliver accessible, acceptable and high quality service. Advantages and disadvantages of the potential sources of STI care in the public sector are briefly reviewed. The choice on the most appropriate source may vary according to the epidemiological situation and the health structure system.

The private sector

In addition to government facilities, other facilities provide much of STD care, although they may frequently be ignored by the public programs. Other sector providers include both licensed and unlicensed practitioners. These sources are widely accepted and utilised by the people mainly for the privacy they ensure, but also for the common belief that they are more effective than the public health system. For these reasons, people often accept to pay to obtain services in the private sector more than what they would pay in the public one. The quality of the STD care provided in the private sector is difficult to assess and may vary substantially. Although evaluating STI care at private sectors is difficult, planning of a comprehensive programme will need to consider strengthening health care providers in the private sector as well. One possible tool is represented, for instance, by the organisation of information and training courses targeted to private and informal sector health care providers.

Integrated government programs should have two objectives while confronting with the private sector. First, they should offer a competitive service, delivering high quality care at lower prices, in order to limit the diversion of patients from the public to the private sector. Second, they should anyway ensure the co-ordination of efforts between the public and the private sector, in order to ensure that even the subjects using the private services may obtain appropriate case management.

Specialised dermato-venereology clinics

Specialised STI clinics have received a lot of attention and support (from external donors especially) in the past because they represent a highly visible form of intervention. As case management is likely to be very efficient, specialised STI clinics have been considered an optimal tool in the contest of STI control programmes.

Specialised STI clinics have indeed several advantages in terms of provision of STI care: staff allocation and training is usually adequate, drugs and other supplies regularly available, reporting is accurate and management and monitoring of activities are under the direct responsibility of the central unit.

However, it is virtually impossible to provide specialised clinics that are easily accessible to all population in both urban and rural areas. In addition, attendance to such clinics may be stigmatising, particularly for women. These clinics are expected to drain patients with STI who have been referred by PHC centres, but this is in an unlikely event, and most clients are first-contact patients. In fact, most patients with an STI who are referred to a second, frequently far-away clinic, usually report to alternative and often unlicensed health care sources. Referral of patients is therefore not recommended as it determines the loss of the opportunity to break at an early point the chain of transmission and to prevent later complications.

In general, specialised clinics are an inappropriate source of STI care for the general population, but they may still serve as reference centres. They can serve as training centres for health care providers, can provide essential epidemiological information to steer programme planning and monitoring, and perform operational research activities. In some urban settings specialised STI clinics can provide STI care for specific population groups at increased risk for STI, such as sex workers and their clients, migrant workers, truckers, and any other group with poor access to health care.

STI care in the PHC setting

An alternative to specialised STI clinics is the offer of case management in an integrated way using general outpatient agencies at Primary Health Care (PHC) facilities, including dispensaries or health centres. Only the PHC setting can allow for a wide accessibility, which represents an essential element of the care process for patients affected by an STI. Other services, such as Family Planning (FP), Ante Natal (AN) and Mother and Child Care (MCH) clinics offer a great potential for further extension of the network of health care services and should be involved in STI management as far as possible.

Integration of STI prevention and care activities into the existing health care system networks is a tough challenge: it is reasonable to fear that integration may mean adding tasks to unqualified and already overburdened staff, which leads to dilution of specific efforts and even poorer delivery of services. Two ways can be pursued to avoid this:

- the overall strengthening of the decentralised health care system
- the sharing of responsibilities by programs, units and departments

The STI package in decentralised health care systems

The integration of STI services into a decentralised health care system requires the existence of a package of possible intervention: the STI package. The package aims to provide highly effective, accessible, and acceptable care services at the first point of contact, and merges the two cornerstone principles of efficacy and simplicity.

Efficacy

Case management needs to be effective to stop current symptoms which have brought the patient to the care facility, to prevent the development of late complications, to reduce the risk of further transmission of the etiologic agent to sexual partners, to contain the possibilities that the current STD infection facilitates transmission or acquisition of HIV infection.

Stopping the symptoms is essential to maintain the trust of the people towards the facility. Which, in its turn is essential to avoid diversion of the clients to other sectors of health care constituted by unlicensed providers. An example: vaginal candidiasis is a very frequent condition in the female population presenting with vaginal discharge; although it is not sexually transmitted and may not determine direct complications to the women, it should be cared for, in order to clear the associated symptoms.

In practical terms, effective case management is achieved by an appropriate diagnostic flow and the use of drugs of high efficacy, as described below.

Simplicity

The STI package should be as simple as possible so that it can be easily incorporated into the everyday routine of health facilities. The less the routine is disturbed, the less resistance there will be from the staff.

Components of the STI package

Preventive and curative interventions should be merged in an STI package, a comprehensive tool which needs to be tailored on specific countries need, but which should still contain all the basic components of STI case management: diagnosis, treatment, education and counselling, treatment of partners, and case reporting.

Syndromic diagnosis

Etiologic diagnosis, the ultimate target as far as infectious diseases are concerned, established by microscope, laboratory culture, or serological tests is expensive, and involves delays in obtaining the results. Required techniques are simply unavailable in most settings in developing countries. Clinically oriented diagnosis, the usual alternative method, avoids expenditures for laboratory tests and is done on the spot. However, it is inaccurate or incomplete (mixed infections always unrecognised) in the majority of instances, leading to an unacceptable drop of effectiveness of case management.

Syndromic management has been proposed to overcome the limitations of etiologic and clinical diagnosis: it consists in identifying the syndrome the presenting patient complains of, and deliver treatment towards all the epidemiologically relevant agents causing that syndrome. Flow-charts are used to help the health care provider to reach a treatment decision. This approach is effective and complete; though over treatment certainly occurs, it has a competitive cost-effective profile considering that prevents late complications.

Laboratory tests

Syndromic diagnosis allows for appropriate case management in the absence of laboratory facilities, however, laboratory tests may be added whenever possible. Few tests are applicable to PHC setting, provide on-the-spot results and are therefore useful for STD case management:

- wet mount of vaginal samples to diagnose trichomoniasis, candidiasis and bacterial vaginosis in women presenting with vaginal discharge
- Gram stain of urethral samples to identify intracellular diplococci (suggestive of gonococcal infection) and leukocytes in men with urethral discharge
- syphilis serological tests (RPR or VDRL) at AN clinics for screening of the infection in pregnant women

Details on all the above tests are given in the relevant chapter of this book.

Risk score method in syndromic diagnosis

Women with vaginal discharge pose significant problems in syndromic case management, due to the difficulties in differentiating vaginal infections (yeasts, trichomonas, bacterial vaginosis) which are not, except for trichomonas, STI in strict terms, from cervical infections (gonorrhoea, chlamydia), which are true STI. To help in managing this specific problem the WHO has proposed and tested a system which considers the presence of markers of behaviours at increased risk of sexual exposure. These systems have been applied with some success to symptomatic women in countries of sub-Saharan Africa. The identified markers include young age, single status, history of multiple partners in the last month or of a new partner in the last three months. The presence of symptoms in the current sexual partner is also associated to the presence of cervicitis.

Treatment

The availability of effective drugs is an essential requirement for appropriate STI management. STI treatment should offer a cure rate of at least 95%. Using less costly but less effective drugs does not eradicate infection in a substantial proportion of cases, may lead to carrier state with transmission to sexual partners, and erode the confidence in health services. Preference is given to drugs which are given as a single dose because this increases substantially adherence to treatment. Preference is also given to orally administered drugs, thus avoiding risk of needle-prick accidental exposure to HIV

among health personnel and the clients. Pregnancy is a condition which requires special caution and, sometimes, second line drugs.

It is a specific task for the central level to envisage drugs which are acceptable and available in the country (**Table 2**). Co-ordination with the Essential Drug Programme is essential.

Table 2: List of drugs used for the treatment of STD

Non-proprietary name	Form	Strenght	Used in	FOB Unit price	Patent status
Acyclovir	tablet	200 mg	Herpes simplex	US\$1.746	On
Benzathin penicillin	vial	2.4 MU	syphilis	US\$ 0.398	Off
Benzyl penicillin	vial	0.6 g	neurosyphilis	US\$ 0.22	Off
Lindane	lotion	1%	scabies, pediculosis pubis	US\$ 1.04	Off
Cefixime	tablet	200 mg	chancroid, gonorrhoea	US\$ 2.069	On
Ceftriaxone	vial	250 mg	chancroid, syphilis, gonorrhoea, PID	US\$ 4.338	On
Ciprofloxacin	tablets	250 mg	gonorrhoea, chancroid	US\$ 1.134	On
Clindamycin	capsule	150 mg	PID	US\$ 0.72	On
Clotrimazole	Vaginal tablet	100 mg	candidiasis	US\$ 0.036	On
Cotrimoxazole	tablet	400/80 mg	donovanosis, chancroid, gonorrhoea	US\$ 0.0126	Off
Doxycycline	tablet/capsule	100 mg	LGV, chlamydia	US\$ 0.0138	Off
Erythromycin	tablet/capsule	250 mg	syphilis, chlamydia, chancroid	US\$ 0.038	Off
Gentamycin	ampouls	80 mg	PID	US\$ 0.0958	Off
Kanamycin	vial	1 g	gonorrhoea	US\$ 0.3585	Off
Metronidazole	tablet	250 mg	trichomonas, bacterial vaginosis	US\$ 0.072	Off
Miconazole	gel	25 mg/ml	candidiasis	US\$ 0.792	Off
Norfloxacin	tablet	400 mg	chancroid	US\$ 0.726	On
Nystatin	pessary	100,000 IU	candidiasis	US\$ 0.055	Off
Procaine penicillin	vial	1 g	syphilis	US\$ 0.2402	Off
Spectinomycin	vial	2 g	gonorrhoea, chancroid	US\$ 1.5378	On
Tetracycline	tablet	250 mg	syphilis, LGV, gonorrhoea, chlamydia	US\$ 0.0138	Off

From :Control of Sexually Transmitted Diseases, a Handbook for the design and management of Programmes. AIDSCAP / Family Planning International (with permission).

Education and counselling

Case management of a patient with an STI offers a unique opportunity to educate subjects who are likely to be very sensitive to the problem in order to prevent future acceptance of high risk behaviours.

Education involves giving patients practical information about their disease, its name, symptoms and treatment. It is also about helping a patient to understand how STI spread and why it is so important to treat them. Another vital part of education is helping patients to understand how they can protect themselves, their partner and children in the future.

Counselling is a face to face communication between a person with a problem and a person who tries to help solving the problem. Counselling of STI patients involves a whole range of skills from listening to their problems to giving them the motivation to follow medical advice.

Education and counselling of a person with an STI requires special skills, as these diseases involve the deeper part of an individual and are the targets for several prejudices. To this aim, the health care providers should receive training in counselling.

Condom supply

Condoms should be available throughout all regular health care services and, specifically, to patients with STIs. This is complementary to condom distribution through social marketing mechanisms.

Treatment of partner(s)

Partner(s) notification and treatment is a specific and essential component of STI case management, intended to interrupt the chain of transmission. The aim is to treatment all sexual partners (at least within the previous three months) of the index case for the same conditions as in the index case. Whenever implemented, contact tracing needs to observe the principle of confidentiality and non-compulsion as an essential prerequisite.

However, it seems reasonable to proceed to more intensive contact tracing activities only once routine STI prevention and care are functioning.

Case reporting

Case reporting has several purposes:

- assess disease burden, by providing an indicator of minimum incidence of recently acquired infections
- monitor trends in incidence of recently acquired infections
- provide information of which provider in the health care system is seeing STI patients, to assist in planning and managing programme efforts
- provide data necessary for managing health services (e.g. pharmaceutical distribution)

Syndromic case reporting is simple. An example of a reporting form, adopted at PHC clinics in the Indian Ocean countries, is shown in **table 3**. It should be noted that the adoption of a specific form for STI is impractical and unnecessary in an integrated system: the information should be contained in the general reporting form of the clinic.

Syndromes	Age				Total
	<15	15-19	20-40	>40	
Vaginal discharge					
Urethral discharge					
Genital ulcers male					
Genital ulcers female					
Abdominal pain					
Inguinal bubo males					
Inguinal bubo females					
Neonatal conjunctivitis					

Acceptability of services

Acceptability is mainly related to the capacity not to stigmatise clients: in this respect the PHC setting offers clear advantages compared to specialised clinics. However, the judgmental attitude of the caring staff may reduce clients acceptability even in a decentralised health care system. This issue should be included in retraining courses of staff.

Acceptability of the service may be reduced by other constraints, which may include, for example, inconvenient opening times, long waiting periods, or unattractive physical facilities. Ideally, services should be offered after usual working time as STI patients may delay seeking treatment or choose self-medication rather than asking for time off work. Appropriate time should be available for consultation of STI patients, as counselling and education, two essential elements of appropriate case management, require at least 20 minutes, a time which is hardly available in settings which are usually overcrowded by patients with all kind of health problems. The premises should also be appropriate: STI patients need privacy, both in case genital examination is required, and during the education and counselling activities.

Free services versus cost recovery methods

One factor which may reduce substantially accessibility of health care services is the cost of care. Although some countries are still offering free basic health care services for the entire population, many other have realised that cost-recovery systems are essential in order to sustain the costs of health at public facilities, as the regular health budgets in most developing countries are insufficient to afford acceptable standards. In many countries patients are used to pay for drugs, or at least making some contribution, and a policy of cost recovery may be considered as an option. However, the introduction of cost-recovery mechanisms should not discriminate against STI patients and should not ignore people needs. The introduction of cost recovery methods may turn into a decrease of the number of STI patient consultations, as it has been demonstrated in several settings. Costs should always be kept to a minimum, because a proportion of symptomatic subjects may still find it impossible to attend for financial constraints. However, since the private sector is not free, the minimum requirement for public health facilities is to offer a competitive service, delivering highly effective care at lower costs than those of the private sector.

Most common problems in STI delivery at PHC setting

Delivery of STI care in an integrated and decentralised setting is far from being an easy and automatically achievable task. It makes little sense to integrate STI care into a virtually non-existent or poorly functioning structure. Work overload and low salaries are common constrains. These represent the major structural draw-backs of the PHC system in most countries. These problems can be overcome by profound structural changes only, which are far beyond the scopes of integration of STI care into the PHC system.

Examples of some common obstacles that may additionally hamper integration of STI care into the PHC system are detailed in the section below.

Premises are not appropriate

STI case management requires privacy. Overcrowding, sharing the rooms with other patients or health care providers significantly hamper the possibility of privacy during clinical examination, and prevent the establishment of an appropriate climate for counselling and education.

Upgrading of premises is an example of investment costs that donors may wish to make to assist health development programmes, provided that this intervention fits into a comprehensive initiative,

and that recurrent costs originated by the upgraded premise can be met locally. In a cost-recovery system, part of the savings should go to maintenance of the premises.

Personnel is not adequate in number

This is an example of structural deficiency. It cannot be solved while implementing integration of STI services into the system. Great attention should be paid to limit new charges for STI and to maintain introduced practices as simple as possible.

Guidelines for STI care are not available

National guidelines for the management of a patient with STI must be produced and distributed by the central office (with the collaboration of the district management). Guidelines should be prepared through a large consensus of health care providers at central and peripheral levels.

Personnel not specifically trained for STI care delivery (and use of guidelines):

Once guidelines have been distributed health care providers need to be trained to use them appropriately. This can usually be achieved by means of decentralised, on-job, short-course training (one-day courses may be sufficient). Decentralised training requires a training of trainers approach organised by the central office.

Guidelines are not followed

The usual cause of this problem is the lack of training of the staff (see above). Lack of regular supervision, which is necessary to maintain an acceptable rate of observance to the guidelines, may be an additional reason. Alternatively, the algorithms proposed in the guidelines may either be too complicated or ineffective. Guidelines may therefore be revised to make them simpler. The efficacy of the proposed algorithm needs to be measured regularly and, if efficacy drops below an acceptable standard, the algorithm needs to be revised. Low efficacy of the algorithms may be due to wrong estimates or assumptions related to the following parameters

- spectrum of etiological agents causing the syndromes
- perception of symptoms by the patient
- antibiotic resistance
- availability and price of drugs

Gynaecological examination is not feasible

Gynaecological examination is not essential in the frame of syndromic case management. If the guidelines call for gynaecological examination appropriate premises, facilities (beds, specula, etc.) and specific training need to be in place.

The algorithms call for lab tests which are not available

This is a frequent mistake. Laboratory tests are attractive to policy makers, due the common belief that they make the intervention more visible, and to the clients, who have the impression of a higher quality management. Whenever laboratory investigations are included in standard management practices at PHC level, regular supply of reagents, appropriate stocking of reagents and quality control of tests need to be in place.

Recommended drugs are not available

The availability of effective treatment is an absolute requirement in an STI care setting. It is a specific task for the central level to envisage drugs which are acceptable and available, and to guarantee the regular supply of recommended drugs at the PHC network. In fact, unavailability of recommended drugs is one of the more common consequences of the financial problems faced by the public health system in many countries. Cost recovery methods may represent a solution in some settings.

Counselling is not performed

Poor staff communication skills is a common problem. It takes special efforts to appreciate the different disease perceptions, especially of adolescents. Appropriate and specific training on counselling skills need to be planned, performed, and evaluated.

Educational tool may be specifically prepared and distributed (flip charts, leaflets etc.).

Condoms and other means of education are not available

It is the responsibility of the STD control programme to ensure that condoms are widely available throughout all regular health care services. Whether condoms need to be distributed freely to STD patient is a matter of political decision.

There is no case recording

Registration of cases is done almost everywhere. Sometimes, however, the information registered is not useful or sufficient for the sake of case reporting of STI patients and monitoring of appropriateness of the use of the algorithms. Registers might need to be modified according to the scope.

There is no case reporting

It is not advisable to have a special reporting system for STI. Therefore it is essential that the official reporting form will include STI syndromes. Thereafter, the problem of regular reporting is common, not specifically related to STI. In special instances a specific surveillance system may be put in place, but this will generally be at sentinel sites and monitored by the STI units themselves.

Partners are not notified or treated

This is one of the major problems at PHC level, where it is difficult to dedicate special effort to this activity. A system of tags is advisable: tags are given to the patient to be passed to all partners under the responsibility of the patients him(her)self. The partners will be treated as the index case, being identified by the tag they present on consultation. Initially, the success rate of partner notification is usually very low, but it can be increased by appropriate counselling and education of the index case. Coercitive means of partner notification are impossible at the PHC level and are definitely counterproductive.

REFERENCE

1. Joint United Nations Programme on HIV/AIDS (UNAIDS). Sexually transmitted diseases: policies and principles for prevention and care. Document UNAIDS/97.6, 1997.

2. AIDSCAP / Family Planning International. From Control of Sexually Transmitted Diseases, a Handbook for the design and management of Programmes. Dallabetta G, Laga M, and Lamptey P Editors 1997.
3. World Health Organisation. Management of sexually transmitted diseases. WHO/GPA/TEM/94.1, 1994
4. Department for International Development. Sexually transmitted infections: guidelines for prevention and treatment. Health and population occasional paper, 1998.

