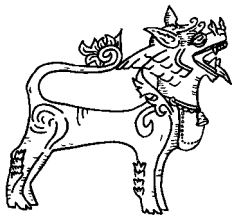
A STUDY ON HEALTH CARE PROVIDERS (HCPs) ON STD CASE MANAGEMENT



Submitted To:

Family Health International Nepal
Bakundol, Pulchowk
Lalitpur, Nepal

Submitted By:

New ERA
Kalopool, Sifal
Post Box 722
Kathmandu, Nepal

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~ New ERA Study Team

STUDY TEAM MEMBERS

1. Dr. Sudeep Kishore Bhattarai	-	Project Director
2. Dr. Bhaskar Mohan Kayastha	-	Dermatologist & Venereologist
3. Dr. Nanda Gurung	-	Medical Officer
4. Mr. Ashok Kumar Paudel	-	Research Assistant
5. Mr. Muneshwor Shrestha	-	Staff Nurse
7. Ms. Laxmi Thapa	-	Staff Nurse

1. Mr. Chandra Man Singh Dongol	-	ARP Officer
2. Ms. Sharmila Prasai	-	Asst. Data Processing Officer
3. Ms. Geeta Shrestha (Amatya)	-	Sr. Word Processor
4. Mr. Rajendra Kumar Shrestha	-	Office Assistant

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Introduction

Sexually transmitted diseases (STDs) such as gonorrhoea, syphilis, and chlamydia are common communicable diseases in Nepal. STDs produce many complications if left untreated. Gonorrhoea is the common cause of urethral stricture among men and salpingitis in women. Pelvic inflammatory diseases (PID) are often the causes of chronic sexually transmitted diseases and can lead to high levels of adverse pregnancy outcome such as infertility, ectopic pregnancy.

The presence of STD raises the risk of HIV transmission. It is known that HIV-infected person who also has STD is nine times more likely to pass HIV to his/her sex partner. Almost all cases of STDs are treatable. In one study carried out in rural Tanzania on the impact of improved treatment of STDs in 1995, it has been shown that improved treatment of STDs led to a 40 percent reduction in the spread of HIV. Diagnosis and treatment of STDs are thus the critical components of prevention and control of HIV/AIDS.

In many developing countries, where prevalence of STD is high and the facilities for etiological diagnosis of STD are largely limited, the World Health Organization (WHO) has recommended syndromic case management as an appropriate strategy for the prevention and control of STDs. Syndromic case management is based on identification of combination of signs and symptoms, knowledge of common causative organisms of those symptoms and their antibiotic sensitivity. It is cost-effective, does not require a specialist as well as laboratory facilities, and is suitable for any level of health system, including primary health care.

Nepal has adopted the syndromic case management method as a viable approach to prevent and reduce STDs. As a result a national guidelines on syndromic case management were developed. Health care providers, medical and other health professionals were trained on syndromic case management. Family Health International (FHI/Nepal), a USAID-funded agency, has supported both governmental and non-governmental agencies in many areas of AIDS prevention and control program in the country. FHI provided support to Nepal Medical Association (NMA) for training physicians on syndromic STD case management, as they play an important role in diagnosis and treatment of STDs. Similarly it provided support to Family Planning Association of Nepal (FPAN) for training its outreach workers such as Nurses, Health Assistants and Auxiliary Health Workers who are often the first to encounter STD patients.

Objectives

The present study was carried out a) to measure the output of FHI-supported training in terms of STD case management practices by trained physicians and b) to obtain baseline measure of STD case management skills of FPAN outreach workers.

Methodology

The study employed both qualitative and quantitative approach. The assessment of trained providers was done by actually observing cases being managed at their clinic followed by an interview. One hundred and four trained health providers were interviewed of whom 28 were observed by a team of field researchers. Case observation was recorded in observation form and interview response was recorded in semi-structured questionnaire. In-depth interviews were conducted to find out why some of the trained providers did not follow the treatment guidelines of STD case management.

Baseline data on FPAN providers were obtained by using interview questionnaire developed for the previous group. Interviews were carried out one day before the training, which also prevented the risk of contamination.

The field work began on 15 January 1999 and ended on 21 February 1999.

Main Findings of the Study

Trained Providers of NMA and FPAN:

(1) Result of Case Observation:

The quality of STD care provided by trained providers of NMA and FPAN was checked on standard criteria of history taking, standard technique of examination and treatment(PI 6) and advice on condoms and partner notification(PI 7).

- PI 6 : Of the total 28 health providers who were observed, 13 (46%) correctly assessed and treated cases of STDs.

- PI 7 : 8 (28%) provided appropriate advice on condom use and partner notification.

- 9 (32%) followed syndromic case management approach while 19 (68%) made clinical diagnosis and provided treatment even before laboratory results were obtained.

(2) Result of Interview:

- Of the total 104 health providers who were interviewed, 39 (37.5%) recommended correct treatment for urethral discharge in men.

- Ten health providers (9.6%) recommended correct treatment for vaginal discharge.

- Sixteen health providers (15.4%) recommended adequate treatment for female genital ulcer diseases.

- Twelve health providers (11.5%) recommended appropriate treatment for male genital ulcer diseases.

- In contrast to the findings of case observation, almost all of the trained providers claimed that they had advised the use of condoms and advised treatment for sex partners.

Untrained FPAN Outreach Workers:

- Of the total 49 FPAN outreach workers who were interviewed before their training, 12 (24.5%) recommended effective treatment for urethral discharge in men.

- Only 4 (8.2%) recommended effective treatment for vaginal discharge.

- Four (8.2%) suggested effective treatment for male genital ulcer diseases where as 3 (6.1%) suggested effective treatment for female genital ulcer.

- Almost all FPAN outreach workers said that they had advised the use of condoms and advised partner referral for STD treatment.

1.0 INTRODUCTION

1.1 Background

The sexually transmitted diseases (STDs) are common communicable diseases in Nepal and are highly prevalent among sex workers. Even though data on the incidence of different forms of STDs are not available, there are indications that the problem is on the rise in the country. A study conducted in 1993 by USAID/FHI among female sex workers in Kathmandu valley showed that 72 percent of women were infected with STDs, 42 percent with vaginal discharge, 36 percent with pelvic inflammatory diseases; 24 percent had ulcerative diseases, 4 percent urethritis and 21 percent tested Venereal Disease Research Laboratory (VDRL) positive. Another study by Save the Children Fund (US) from STD camp in Nuwakot district north of Kathmandu reported that an average of 4.3 percent tested VDRL positive.

STDs represent a major public health problem as they cause severe complications if left untreated. Gonorrhoea is the common cause of urethral stricture among men and salpingitis in women. Syphilis in tertiary stage leads to cardiovascular and neurological complications. In addition Pelvic Inflammatory Diseases (PID) among women can result in complications such as infertility, ectopic pregnancy and recurrent PID which are important public health concerns.

The socio-cultural taboo on sex and sexual diseases, especially its hidden nature among both urban and rural societies in Nepal, complicates, what is already an intricate problem for effective prevention and control.

Emergence of HIV/AIDS: In Nepal the first case of AIDS was reported in July 1988. Since then Nepal has reported 1067 HIV positive cases of which 209 were AIDS cases (NCASC, 1998). But it has been estimated that there may be 15-20,000 HIV infection cases in the country as many cases are not reported.

The concern over the prevalence of STD was highlighted as it is now known that STDs multiply the risk of HIV transmission. HIV infected person who has STD as well is nine times more likely to transmit HIV to others (The Prescriber, # 16 & 17, HIV/AIDS: Prevention, treatment and care). In one study conducted in rural Tanzania on the impact of improved treatment on HIV infection (The Lancet, 1995), it was shown that improved treatment of STDs led to a 40 percent reduction in spread of HIV. Therefore, like in many countries, Nepal has adopted diagnosis and treatment of STDs as key components of control and prevention of HIV.

The Government of Nepal started programmes to prevent AIDS, as early as 1986, in response to global AIDS prevention effort, prior to the first reported case of AIDS in the country. As a result STD/AIDS Control Committee was formed in 1986. In 1987/88 a one year plan on STD/AIDS control programme was implemented. Nepal has undergone several stages of STD/AIDS control and prevention activities. Since then a National Policy on STD/AIDS control was formulated in 1995. The policy addresses all major components of a prevention strategy for HIV/AIDS. The key strategies included, among others, are a) creation of awareness on HIV/AIDS prevention b)

prevention and control of STDs and c) involvement of multiple sectors on STD/AIDS prevention.

The strategy of prevention and control of STDs requires integrating STD case management (prevention and treatment) into basic health care, training health professionals for correct diagnosis and treatment combined with reliable drug supply in both urban and rural areas of the country.

1.2 STD Case Management

In many developing countries, where prevalence of STD is high, the facilities for etiological diagnosis of STDs are largely limited, the World Health Organization (WHO) has recommended syndromic case management of STDs as an appropriate strategy for the prevention and control of STDs. The syndromic approach to STD case management is cost effective, does not require specialists as well as laboratory facilities, and hence is suitable for any level of health system, including primary health care. Syndromic case management is based on identification of a combination of signs and symptoms, knowledge of common causative organisms of those syndromes, and their antibiotic sensitivity. Although STDs are caused by more than 20 different micro-organisms, there are seven common STD related syndromes. They are urethral discharge in men, vaginal discharge, scrotal swelling and pain, genital ulcer diseases in men and women, inguinal swelling and pain lower abdomen. The aim of syndromic case management is therefore to identify one of the seven syndromes and treat it with effective multi-drug therapy.

Nepal has adopted the treatment protocol on syndromic case management of STD as a viable approach to prevent and reduce the prevalence of STD. As a result national guidelines on STD management were developed and adapted in 1993, and revised in 1997.

The guidelines deal with two aspects of management a)treatment of infection with appropriate drugs and b) education and counselling, especially promoting condom use and the treatment of sexual partner(s). In addition national guidelines also include flow charts to be used for standardization of case management practice and reporting.

The entry point for each flow chart is the presence of a syndrome. In a syndrome such as vaginal discharge, the guidelines provide assessment of risk factors as a tool to distinguish between vaginal infections and cervical infections, an important distinction in minimizing the risk of over treatment.

1.3 STD Case Management Training

The Government of Nepal has focused attention on training health care providers at various levels to use locally adapted treatment protocol as a main component of STD case management. As a result physicians, health workers, and drug retailers have been trained in various parts of the country. A training package was developed for different categories of health providers. Nepal Medical Association (NMA) physicians were trained for two days. Training included topics on a) Urethral discharge in men; b) Vaginal discharge; c) Scrotal swelling and pain; d) Genital ulcer diseases in male; e) Genital ulcer diseases in female; f) Inguinal swelling and (g) PID. Risk of association of HIV with STD was discussed. Similarly session on health educational messages

were conducted as well. This training was carried out with the support of Family Health International (FHI).

FHI/Nepal, a USAID-funded agency, has supported both governmental and non-governmental agencies in many areas of AIDS prevention and control programmes in the country. Recently it has also supported training programme for Family Planning Association of Nepal (FPAN) providers from outreach clinics. The training was offered by University of Heidelberg, using the training manual developed for STD case management for peripheral health workers. The training lasted three days.

1.4 Objectives of the Study

The present study has two purposes. First, it was designed to measure the outputs of FHI supported training in terms of STD management practices by trained health care providers.

Second, as the timing of this study coincided with the proposed training of FPAN outreach providers on STD case management, it was decided to include pre-training assessment of FPAN providers alongside the above study. The data thus obtained will serve as a baseline necessary for evaluation of the effectiveness of the training in the future.

The specific objectives are:

(1) To ascertain the quality of case management--including diagnosis, treatment, and advice on use of condoms and partner notification for treatment provided by trained health care providers trained by NMA and FPAN.

(2) To obtain a baseline measure of STD management skills by untrained FPAN outreach workers.

(3) To identify areas of current case management practice for correction at the later date.

2.0 METHODOLOGY

2.1 Study Approach

As the purpose of this study is to evaluate (a) case management practice of trained providers and (b) to obtain baseline data of FPAN outreach workers, both qualitative and quantitative methods were employed.

The assessment of trained providers was done by actually observing the cases being managed at the clinic followed by an interview. The reason for conducting observation first was to avoid the influence of an interview on case management practice under observation. Providers who had seen STD cases during last month were included for observation. This criteria was set due to low case load of STD patients. In addition many physicians trained by NMA were from many sub-specialities such as pharmacology, radiology, anaesthesiology, medical biochemistry and pathology who do not see cases of STD either in health institutions or in private practice. That is why the numbers in "Observation" column in Table 2.1 are less than "Interviews' column.

Observation of cases provides all relevant information such as patient characteristics, patient-provider interactions and examination of both male and female patients. This observation clearly provided good insights on the quality of case management. However it should be noted that observed patient-provider interactions are not always representative of unobserved "real-life" interactions. Similarly in interview methods biases typically occur in that providers often give answers which are not reflected in their practices.

Baseline data of FPAN providers were obtained by using interview questionnaire developed for the previous group as the same instrument will be used for evaluation at a later date. Interviews were carried out one day before the training and at the same time, which also prevented the risk of contamination.

As determined by either observation or interview, in-depth interviews were conducted to find out why some of the trained providers did not follow the treatment guidelines of STD case management.

2.2 Sample Size and Selection Procedure

As mentioned earlier, this study includes two sets of sample a) NMA trained physicians on STD case management and b) FPAN outreach workers, who will be trained on STD case management.

The FPAN outreach workers were easily approachable for pre-training assessment and hence all 49 trainees were included in the sample. In case of physicians trained by NMA and FPAN, the list of physicians was updated regarding a) present posting; and b) area of their specialization according to the record of the Ministry of Health and FPAN. The list of NMA trained physicians was further verified during the conference of Nepal Medical Association held in Birgunj. Those

physicians who were on study leave, out of station for long time and others not willing to be interviewed were excluded in the sample. Therefore, a total of 104 trained physicians were selected.

Following review of the data, 20 health care providers were followed up from among the trained providers who did not follow the treatment protocol based on the national guidelines. The distribution of health providers and the sample size is presented in Table 2.1.

The sample size is relatively low and does not cover the broad geographical areas. Therefore most of the findings should be interpreted as more qualitative rather than reliable quantitative estimates. Nevertheless the findings can be used to guide interventions.

Table 2.1: Distribution of Health Providers and Sample Size by Type of Clinic/Providers

Types of Providers	Total Numbers	Sample Size	
		Interview	Observation
1. NMA trained physicians	148	99	24
2. Trained providers of FPAN static clinic			
a. Chitwan	4	4	3
b. Itahari	1	1	1
3. Sub-total 1 & 2	153	104	28
4. FPAN outreach providers (untrained)	49	49	NA

2.3 Data Collection Instruments

Data collection instruments, namely, observation form and interview questionnaire, were developed based on the prototype provided in the 1994 GPA methods package entitled "Evaluation of a National AIDS Programme: A Methods Package". These instruments were modified based on the context of STD management in Nepal.

Observation Form: The observation form was used to observe Health Care Providers (HCP)-Patient interaction. This method derives information on the practice of the HCP on history taking, examination, diagnosis, treatment and advice for prevention of STD. In addition it also records the patient characteristics such as marital status, occupation, etc which are necessary to assess the risk factors and treatment of sex partners. Observation was done to determine whether the HCP was following an agreed set of procedure in relation to STD case management (PI 6 and

PI 7). Prevention Indicator (PI 6) measures the proportion of STD patients who are assessed and treated in appropriate way based on the national guidelines whereas Preventive Indicator (PI 7) measures the proportion of STD patients who received appropriate advice on condom use and on partner notification. Observation also captured other equally important information such as availability of adequate space, privacy, examination equipment, and condoms which are necessary for successful case management (Annex 6).

Interview Questionnaire: Interviews with HCPs were carried out after observation. Most of the health providers trained by NMA belonged to many other sub-specialities who either did not see cases of STD or their case load was so low that interview questionnaire was directly applied. The interview questionnaire was designed to obtain information on diagnosis and treatment routines of HCPs especially in relation to four diseases (Gonorrhoea, Non-gonococcal urethritis, Syphilis and Chancroid) and four syndromes (urethral discharge in men, vaginal discharge, genital ulcer diseases in men, genital ulcer diseases in women). The result of the interview compliments that of observations and provides insights to the reported behaviour of the HCP. The questionnaire also provided additional information on the knowledge of the HCPs and the constraints they identified in connection to the management of STD (Annex 7).

In-depth Interview: In-depth interview was done subsequent to review of observation form and interview questionnaire. Trained HCPs who did not follow recommended guidelines were contacted for in-depth interview to find out reasons for lack of adherence.

2.4 Recruitment and Training of Field Researchers

A total of six researchers were recruited. Two of them were experienced medical persons, one specialized in dermatology and venereology and the other had work experience in gynaecology. The remaining four were composed of two male research assistants and two trained female nurses.

A three-day training on STDs and its syndromic management was organized for the researchers in New ERA. Training programme was developed in line with the research needs on both observation of provider-patient interactions on case management as well as interview. In addition a two-day practical training session was conducted in the field. This training combined with field programme were done to provide understanding of the field situation and at the same time to ensure consistency of recording.

2.5 Pre-testing

During the practical field session, pre-testing of the observation form and interview questionnaire were carried out. Questionnaires were revised based on the experience of the pre-test.

2.6 Field Work

Field work began on 15 January 1999. The team of six researchers along with the Project Coordinator went to Chitwan. The team carried out pre-training assessment of FPAN outreach workers. Observation and interview of Chitwan-based FPAN providers as well as NMA trained physicians were also completed. After finishing the work there the team was split into two

groups. Each group had both male and female researchers and one doctor. One group moved to Butwal and covered Bhairahawa, Janakpur, Rajbiraj, Dharan and Itahari. The other went to Birgunj and covered Bhadrapur, Birtamod, Damak and Biratnagar. The field work was completed on the third week of February.

Each group contacted physicians under study and made appointments. Those physicians who don't see STD cases or who had not seen one in the last month were interviewed. The remaining physicians were observed and then interviewed. The questionnaire was checked for completeness at the end of each work day by the field co-ordinator.

2.7 Data Processing and Analysis

All completed questionnaire and observation forms were brought to the New ERA office for coding and analysis. Drugs prescribed by the providers were recorded in their generic name. The appropriateness of the prescription was determined by a team of researchers consisting of dermato-venereologist and the project director using national guidelines and WHO criteria of drug therapy. The open ended questions were grouped. Data were entered in the computer and verified, edited and analyzed.

Indicators for measuring the standard of case management (PI 6 and PI 7) were analyzed from the observation. The appropriate assessment and treatment for PI 6 and appropriate advice on condom use and partner notification (PI 7) was assessed using the standard for PI 6 and PI 7 provided in the 1994 GPA methods package entitled "Evaluation of a National AIDS Programme: A Methods Package", developed by the Global Programme on AIDS,WHO to assist national AIDS programme evaluation. The package provides different methods to measure HIV/AIDS prevention related indicators including STD case management.

Analysis of the data was done by each disease and each syndrome.

3.0 FINDINGS OF THE STUDY

3.1 Observation of Cases

3.1.1 General Observation

All patients seeking STD care were observed. Due to the low case load, only 28 cases could be observed, 12 were males and 16 females and 20 married. They presented with the following symptoms:

Urethral discharge	6
Vaginal discharge	8
Genital ulcer	6
Lower abdominal pain	7
Scrotal swelling	1

Patients were very shy and hesitant to disclose their complaints to the attending physicians. A few STD patients waited till all other patients were seen by the attending physician.

In 11 clinics (39%) out of 28, the privacy of HCPs and patient was not maintained; their conversation could be overheard by others waiting outside the consultation room. Ten HCPs (35%) did not have vaginal speculum and 3 (11%) did not have gloves. In many instances, the attitude of physicians was to dispose the patients with prescription rather than drugs and prevention counselling. As a result, equally important aspects of case management, such as counselling, risk reduction by promoting condom usage and treatment of sexual partners were left out. Nine (32%) out of 22 physicians followed syndromic case management approach while 19 (68%) made clinical diagnosis and provided treatment before the result of laboratory investigations was obtained.

3.1.2 Observation of Case Management

HCPs were checked on two basic standards of Preventive Indicators (PI 6 and PI 7). For PI 6 the standard on history taking, examination and treatment was tested. For PI 7 the standard on promotion of condoms and partner notification was assessed. The results on PI 6 and PI 7 are given in Table 3.1.

The score on PI 6 and PI 7 indicates that health care providers lag far behind in providing adequate management of STD patients. Fifteen (54%) out of 28 trained HCPs insufficiently assessed and treated patients and 20 (72%) out of 28 provided inadequate preventive advice. The score reflects incomplete treatment, overdose and wrong treatment. Analysis of observation based on treatment provided is presented in Annex 1.

Table 3.1: Results on PI 6 and PI 7

	Standard Criteria	Observed Providers (N=28)		Remarks
		Yes (%)	No (%)	
PI 6	1. History 2. Examination 3. Treatment	26 (92.9) 26 (92.9) 13 (46.4)	2 (7.1) 2 (7.1) 15 (53.6)	A positive score on PI 6 is marked based on the a) relevant history talking, b) acceptable examination, and c) treatment based on WHO/or national guidelines
Final Score		13 (46.4)	15 (53.6)	
PI 7	1. Advice on condoms 2. Advice on partner/s notification	8 (28.6) 18 (64.3)	20 (71.4) 10 (35.7)	Scores on PI 7 is marked positive based on a) promotion of condoms for STD & HIV infections, and b) patient advice on treatment of recent sex partners.
Final Score		8 (28.6)	20 (71.4)	

3.2 Individual Interview

3.2.1 Characteristics of Study Sample

The study sample of this group consists of (a) 104 physicians and FPAN providers from static clinics who had received training on STD case management, and (b) 49 FPAN outreach workers who had not yet been trained. The outreach FPAN providers consists of staff nurses, Auxiliary Nurse Midwives, Health Assistant/CMA and Auxiliary Health Workers. Table 3.2 provides distribution of NMA physicians and FPAN outreach workers by area of speciality.

Table 3.2: Distribution of Providers by Area of Speciality

Type of Health Care Provider	NMA Physicians	FPAN Outreach Workers	Total
1. Staff Nurse/ANM	2	33	35
2. Dermato-venereologist	4	0	4
3. GYN/OBS	9	0	9
4. General Practitioner	31	0	31
5. Physician	9*	0	9
6. Pharmacologist	2	0	2
7. Paediatrician	7	0	7
8. ENT Surgeon	3	0	3
9. General Surgeon/Orthopaedic Surgeon	11	0	11
10. Pathologist	5	0	5
11. Radiologist	4	0	2
12. Ophthalmologist	4	0	4
13. Medical Educationist	2	0	2
14. Anasthesiologist	4	0	4
15. HA/CMA	0	9	9
16. AHW/Health Aid	0	6	6
17. Others	7	1	8

* 3 FPAN trained physicians are included in NMA physicians category

Table 3.2 reveals that 69 (66%) out of 104 trained physicians belonged to different sub-speciality who are unlikely to see case of STD either in health institutions or in the private practice. Similarly FPAN outreach workers represent heterogeneous groups with varying educational background and skills.

3.2.2 Case History and Examination

Since appropriate treatment of STD patients depends upon arriving at a correct recognition of syndrome, it is expected that the health care providers would take relevant history of the patient's illness and follow proper procedure of examination. They were asked what would they ask routinely when patients suspect or report with a complaint of STD?. Their responses were checked against standard criteria of eliciting history.

Table 3.3: Number of NMA-Trained Physicians and FPAN Outreach Workers by Standard Criteria of History Taking

Standard Criteria	Trained Providers (N=104)			FPAN Outreach Health Workers (N=49)		
	Spontaneous	Probed	Total (%)	Spontaneous	Probed	Total (%)
	Yes (%)	Yes (%)		Yes (%)	Yes (%)	
1. Present symptoms	99 (95.2)	5 (4.8)	104 (100)	48 (98.0)	1 (2.0)	49 (100.0)
2. Onset/duration of symptoms	85 (81.7)	19 (18.3)	104 (100)	33 (67.3)	16 (32.7)	49 (100.0)
3. Recent sexual contact	82 (78.8)	22 (21.2)	104 (100)	14 (28.6)	34 (69.4)	48 (98.0)
4. History of sex since the onset of symptoms	54 (51.9)	44 (42.3)	98 (94.2)	11 (22.4)	36 (73.5)	47 (95.9)
5. Use of condoms	14 (13.5)	84 (80.8)	98 (94.2)	10 (20.4)	36 (73.5)	46 (93.9)

Table 3.3 gives the percentage of NMA trained physicians and FPAN outreach workers by criteria of history taking. STD is transmitted by direct sexual contact and, therefore, it is important for the providers to ask present symptoms, its onset and recent sexual contact. Of the NMA physicians all responded "yes" spontaneously. Of the FPAN outreach workers all responded "yes" after probing.

Table 3.4 provides the examination routines of both male and female STD patients by NMA trained physicians and FPAN outreach workers. Proper examination of patients is a key medical routines which guides the providers to arrive at a correct diagnosis. In case of STD, many genital lesions are concealed by the foreskin of penis and folds of vulva. Therefore, full exposure of genitals, retraction of foreskin of penis (in male) and separation of skinfolds of vulva (in female), in addition to observation of discharge are the essential components of basic examination criteria.

Based on the above criteria, it can be seen that higher percentage of providers responded "yes" to the above methods of examination. In case of examination routines for female STD patients quite a number of physicians (9.6%) said that they would refer to gynaecology while 3.9 percent did not know the examination techniques.

Table 3.4: Number of NMA Trained Physicians and FPAN Outreach Workers by Standard Procedure of Examination

Standard Criteria (Male)	Trained Providers (N=104)			FPAN Outreach Health Workers (N=49)			
	Spontaneous	Probed	Total (%)	Spontaneous	Probed	Total (%)	Refer to Male Provider
	Yes (%)	Yes (%)		Yes (%)	Yes (%)		(%)
1. Patient asked to undress so that genitals are fully exposed	93 (89.4)	10 (9.6)	103 (99.0)	32 (65.3)	9 (18.4)	41 (83.7)	7 (14.3)
2. Patient examined for urethral/penile discharge	98 (94.2)	5 (4.8)	103 (99.0)	40 (81.6)	1 (2.0)	41 (83.7)	7 (14.3)
3. Genital examined for lesions after retracting the foreskin	81 (77.9)	22 (21.2)	103 (99.0)	21 (42.9)	19 (38.8)	40 (81.7)	7 (14.3)

Standard Criteria (Female)	Trained Providers (N=104)					FPAN Outreach Health Workers (N=49)			
	Sponta-neous	Probed	Total (%)	Refer to Gynae (%)	Don't know (%)	Spontan-eous	Probed	Total (%)	Refer to Female Provider
	Yes (%)	Yes (%)				Yes (%)	Yes (%)		(%)
4. Patient asked to undress so that genitals are fully exposed	81 (77.9)	7 (6.7)	88 (84.6)	10 (9.6)	4 (3.9)	42 (85.7)	5 (10.2)	47 (95.9)	1 (2.0)
5. Patient asked to lie down on her back with knee flexed and leg apart	80 (67.9)	8 (7.7)	88 (84.6)	10 (9.6)	4 (3.9)	40 (81.6)	7 (14.3)	47 (95.9)	1 (2.0)
6. Genital examined for lesions after separating the valva	81 (77.9)	7 (6.7)	88 (84.6)	10 (9.6)	4 (3.9)	37 (75.5)	10 (20.4)	47 (95.9)	1 (2.0)
7. Patient examined for vaginal discharge	78 (75.0)	10 (9.6)	88 (84.6)	10 (9.6)	4 (3.9)	41 (83.7)	6 (12.6)	47 (95.9)	1 (2.0)
8. Speculum examination performed	47 (45.2)	26 (25.0)	73 (70.7)	10 (9.6)	4 (3.9)	25 (51.0)	16 (32.7)	41 (83.7)	1 (2.0)
9. Bimanual examination performed	40 (38.5)	41 (39.4)	81 (77.9)	10 (.6)	4 (3.9)	19 (38.8)	22 (44.9)	41 (83.7)	1 (2.0)

3.2.3 Medicines Suggested by Providers for STDs

The rational drug therapy for STD infections depends on selection of appropriate antimicrobials in correct doses which should be continued only as long as necessary. For example, acute, uncomplicated, gonorrhoea in men and women can be completely cured with single dose of effective therapy.

The present study reveals that the practice of selection of drugs in appropriate dose and duration is far from satisfactory. The providers in this evaluation tend to over prescribe the medicines. For a case of gonorrhoea, practitioners suggested 19 different kinds of medicines. The suggested medicines include antibiotics, metronidazole, vitamins as well as betaine ointment. Even though many prescribed ciprofloxacin, the drug of choice for gonorrhoea, but the drug was given in higher dose and for a long period of time. The common practice of prescribing ciprofloxacin is 500 mg two times a day for seven days. Similarly Benzathine Penicillin was prescribed in fractional doses over weeks rather than appropriate higher single dose. The detail of suggested medicines by types of diseases and syndromes is presented in Annexes 2,3,4 & 5.

3.2.4 Treatment Recommended for Sexually Transmitted Diseases

Providers were asked to recommend treatment for specific STD infections based on the etiological diagnosis. Their responses were checked with the national and WHO guidelines. In addition unnecessary medicines suggested by the providers were noted as "Polypharmacy".

3.2.5 Treatment Recommended for Specific STD Infections

Gonorrhoea is a common sexually transmitted diseases that can be completely cured by a single dose therapy of ciprofloxacin as recommended by both national guidelines and WHO guidelines. Table 3.5 presents that 72 NMA trained physicians (69%) and 26 FPAN outreach workers (53%) selected appropriate drug but the drug was not administered in correct doses and duration, resulting in lower score in treatment. Only 42 (40.38%) NMA trained physicians correctly prescribed the treatment for gonorrhoea. Four (3.85%) of the trained providers even did not know what to prescribe, when the patient sought treatment for gonorrhoea. Two pathologists, one surgeon and one general practitioner were among the trained physicians who did not know the treatment for gonorrhoea. Similarly only 18 FPAN outreach worker (36.7%) correctly prescribed the treatment for gonorrhoea.

Table 3.6 presents treatment regime for non-gonococcal urethritis by NMA trained physicians and FPAN outreach workers. Both gonococcal and non-gonococcal infections show urethral discharge symptoms. It is seen from the table that 43 NMA trained physicians (41.3%) and 10 FPAN outreach workers (20.4%) knew correct prescription for the disease. Even among the trained physicians 8 (7.7%) did not know what to prescribe if a patient is diagnosed as having the aforesaid infection. Physicians who did not know the treatment of non-gonococcal urethritis belong to sub-speciality like cardiology, ophthalmology, psychiatry, paediatrics etc.

Table 3.7 analyses the treatment for primary syphilis suggested by NMA trained physicians and FPAN outreach workers. The table reveals that 92 trained physicians (88.4%) selected appropriate drug but the drug was given in inappropriate doses and therefore the treatment score is 50 percent. Similarly 17 FPAN outreach workers (34.7%) selected correct drug but in incorrect doses and duration and therefore the treatment score 8.1 percent.

Table 3.5: Treatment for Gonorrhoea

Treatment Status	Trained NMA Physicians (N=104)			FPAN Outreach Workers (N=49)		
	Fits National/or WHO Guidelines	Does Not Fit Either	Don't Know	Fits National/or WHO Guidelines	Does not Fit Either	Don't Know
1. Drug	72 (69.23)	28 (26.92)	4 (3.85)	26 (53.06)	21 (42.85)	2 (4.09)
2. Dose	42 (40.40)	57 (54.80)	5 (4.80)	18 (36.73)	29 (59.18)	2 (4.09)
3. Duration	48 (46.16)	51 (49.04)	5 (4.80)	18 (36.73)	29 (59.18)	2 (4.09)
4. Treatment	42 (40.38)	58 (55.77)	4 (3.85)	18 (36.73)	29 (59/18)	2 (4.09)
5. Polypharmacy	61 (58.65)	-	-	42 (85.71)	-	-

Table 3.6: Treatment for Non-Gonococcal Urethritis

Treatment Status	Trained NMA Physicians (N=104)			FPAN Outreach Workers (N=49)		
	Fits National/or WHO Guidelines	Does Not Fit Either	Don't Know	Fits National/or WHO Guidelines	Does not Fit Either	Don't Know
1. Drug	58 (55.76)	38 (36.54)	8 (7.70)	16 (28.59)	14 (28.57)	19 (38.78)
2. Dose	57 (54.80)	39 (37.50)	8 (7.70)	10 (20.40)	19 (38.78)	20 (40.82)
3. Duration	44 (42.30)	52 (50.00)	8 (7.70)	12 (34.82)	17 (34.70)	20 (40.82)
4. Treatment	43 (41.34)	53 (50.96)	8 (7.70)	10 (20.40)	19 (38.78)	20 (40.82)
5. Polypharmacy	77 (70.03)	-	-	28 (57.14)	-	-

Table 3.7: Treatment for Primary Syphilis

Treatment Status	Trained NMA Physicians (N=104)			FPAN Outreach Workers (N=49)		
	Fits Nationals/or WHO Guidelines	Does Not Fit Either	Don't Know	Fits National/or WHO Guidelines	Does not Fit Either	Don't Know
1. Drug	92 (88.46)	6 (5.77)	6 (5.77)	17 (34.69)	17 (34.69)	15 (30.62)
2. Dose	62 (59.61)	36 (34.62)	6 (5.77)	10 (20.41)	23 (46.94)	16 (32.65)
3. Duration	61 (58.65)	37 (35.58)	6 (5.77)	5 (10.20)	28 (57.15)	16 (32.65)
4. Treatment	52 (50.00)	46 (44.23)	6 (5.77)	4 (8.16)	29 (59.19)	16 (32.65)
5. Polypharmacy	6 (5.77)	-	-	30 (61.22)	-	-

Table 3.8: Treatment for Chancroid

Treatment Status	Trained NMA Physicians (N=104)			FPAN Outreach Workers (N=49)		
	Fits National/or WHO Guidelines	Does Not Fit Either	Don't Know	Fits National/or WHO Guidelines	Does not Fit Either	Don't Know
1. Drug	25 (24.04)	43 (41.35)	36 (34.61)	10 (20.40)	4 (8.17)	35 (71.43)
2. Dose	18 (17.31)	50 (48.08)	36 (34.61)	7 (14.28)	7 (14.28)	35 (71.43)
3. Duration	17 (16.35)	51 (49.04)	36 (34.61)	8 (16.32)	6 (12.25)	35 (71.43)
4. Treatment	15 (14.43)	53 (50.96)	36 (34.61)	7 (14.28)	7 (14.28)	35 (71.43)
5. Polypharmacy	48 (46.15)	-	-	11 (22.44)	-	-

Table 3.8 shows the treatment suggested for chancroid by NMA trained physicians and FPAN outreach workers. Of the 104 trained physicians 15 (14.4%) and of the FPAN outreach workers 7 (14.2%) could recall the correct treatment regime of this disease. This is a critical score which needs to be highlighted in the training. Thirty-six (34.6%) of the trained physicians did not know the treatment for chancroid. Of those who did not know the treatment are eight general practitioners, four gynaecologists, two physicians and the rest comprised of other specialities.

3.2.6 Treatment Recommended for Syndromes

Providers were asked to recommend treatment in the absence of definitive diagnosis for "Specific STD Syndromes". Their responses were checked with effectiveness of the treatment for the possible causative organisms that produce such a syndrome. Analysis of the treatment regime by syndrome is presented in the following tables.

Table 3.9 gives the treatment regime for urethral discharge in men by trained physicians and FPAN outreach workers. Urethral discharge in men is caused by two common micro-organisms, namely Neisseria gonorrhoeae and Chlamydia trachomatis. Treatment of urethral discharge by syndromic approach is to prescribe medicines which are effective for both. From the table only 39 (37.5%) NMA trained physicians and 12 (24.5%) FPAN outreach workers suggested appropriate medicines. The majority of physicians are still providing treatment for gonorrhoea instead of providing therapy for two possible pathogens that produces urethral discharge.

Table 3.10 presents the treatment for vaginal discharge recommended by trained physicians and FPAN outreach workers. Vaginal discharge is caused by many organisms such as Neisseria gonorrhoeae, Chlamydia trachomatis, Candida albicans and Trichomonas vaginalis. In absence of definitive diagnosis, syndromic approach advocates treatment for all the common causative organisms. The table reveals that only 10 (9.6%) of NMA trained physicians and 4 (8.2%) of FPAN outreach workers recommended correct treatment. The majority of physicians prescribe treatment for one or sometimes two among four possible pathogens that produce vaginal discharge syndrome. In addition 13 (12.5%) of trained providers did not know what to prescribe if a patient sought treatment for vaginal discharge.

Table 3.11 reveals the medicines suggested for genital ulcer diseases in male and Table 3.12 shows treatment for genital ulcer diseases in female. Both in male and female, the genital ulcer diseases are caused by Treponema pallidum and Haemophilus, ducreyii. Effective treatment, therefore, is to prescribe treatment for both. Of the NMA trained physicians 12 (11.5%) recommended adequate treatment for male genital ulcer diseases and 16 (15.4%) recommended appropriate treatment for female genital ulcer diseases. Of the FPAN outreach workers 4 (8.2%) recommended appropriate treatment for male genital ulcer diseases of 3 (6.1%) correctly recommended treatment for female genital ulcer diseases.

Table 3.9: Treatment for Urethral Discharge in Men

Treatment Status	Trained NMA Physicians (N=104)			FPAN Outreach Workers (N=49)		
	Fits National/ or WHO Guidelines	Does Not Fit Either	Don't Know	Fits National/or WHO Guidelines	Does not Fit Either	Don't Know
1. Effective against (N. Gonorrhoeae)	62 (59.6)	38 (36.6)	4 (3.8)	24 (49.0)	15 (30.6)	10 (20.4)
2. Effective against (Chlamydia Trachomatis)	48 (46.2)	52 (50.0)	4 (3.8)	14 (28.6)	25 (51.0)	10 (20.4)
3. Effective against both	39 (37.5)	61 (58.7)	4 (3.8)	12 (24.5)	27 (55.1)	10 (20.4)
4. Polypharmacy	57 (54.8)	-	-	22 (44.9)	-	-

Table 3.10: Treatment for Vaginal Discharge

Treatment Status	Trained Providers Suggesting Medicines (N=104)			FPAN Outreach Health Workers Suggesting Medicine (N=49)		
	Fits National/or WHO Guidelines	Doesn't Fit either	Don't Know	Fits National/or WHO Guidelines	Doesn't Fit either	Don't Know
1. Effective against (N.Gonorrhoeae)	58 (55.8)	33 (31.7)	13 (12.5)	21 (42.9)	25 (51.0)	3 (6.1)
2. Effective against (Chlamydia Trachomatis)	61 (58.7)	30 (28.8)	13 (12.5)	15 (30.6)	31 (63.3)	3 (6.1)
3. Effective against (Candida albicans)	22 (21.2)	69 (66.3)	13 (12.5)	19 (38.8)	27 (55.1)	3 (6.1)
4. Effective against (Trichomonas Vaginalis)	46 (44.2)	45 (43.3)	13 (12.5)	24 (49.0)	22 (44.9)	3 (6.1)
5. Effective against all	10 (9.6)	81 (77.9)	13 (12.5)	4 (8.2)	42 (85.7)	3 (6.1)
6. Polypharmacy	30 (28.8)	-	-	29 (59.2)	-	-

Table 3.11: Treatment for Male Genital Ulcer Diseases

Treatment Status	Trained NMA Physicians Suggesting Medicines (N=104)			FPAN Outreach Health Workers Suggesting Medicine (N=49)		
	Fits National/or WHO Guidelines	Doesn't Fits either	Don't Know	Fits National or WHO Guidelines	Doesn't Fit either	Don't Know
1. Effective against (T. Pallidium)	46 (44.2)	49 (47.2)	9 (8.6)	9 (18.4)	27 (55.1)	13 (26.5)
2. Effective against (H. Ducreyii)	27 (26.0)	68 (65.4)	9 (8.6)	15 (30.6)	21 (42.9)	13 (26.5)
3. Effective against both	12 (11.5)	83 (79.9)	9 (8.6)	4 (8.2)	32 (65.3)	13 (26.5)
4. Polypharmacy	32 (30.8)	-	-	18 (36.7)	-	-

Table 3.12: Treatment for Female Genital Ulcer Diseases

Treatment Status	Trained NMA Physicians Suggesting Medicines (N=104)			FPAN Outreach Health Workers Suggesting Medicine (N=49)		
	Fits National/or WHO Guidelines	Doesn't Fit either	Don't Know	Fits National or WHO Guidelines	Doesn't Fit either	Don't Know
1. Effective against (T. Pallidium)	42 (40.4)	43 (41.2)	19 (18.4)	5 (10.2)	36 (73.5)	8 (16.3)
2. Effective against (H. Ducreyii)	31 (29.8)	54 (51.8)	19 (18.4)	14 (28.6)	27 (55.1)	8 (16.3)
3. Effective against both	16 (15.4)	69 (66.2)	19 (18.4)	3 (6.1)	38 (77.6)	8 (16.3)
4. Poly pharmacy	38 (36.5)	-	-	27 (55.1)	-	-

In the treatment of all STDs, providers tend to prescribe drugs which are unnecessary "polypharmacy". On one hand, the recipient of the services are paying more money for their illness, and on the other, they are not receiving adequate treatment for complete cure. The situation is clearly detrimental as patients' after treatment could have false confidence of cure and therefore would continue to transmit the diseases to their sex partners.

3.2.7 Issues on Promotion of Condoms and Partner Notification

The strategy of STD control is based on prevention of diseases through promotion of safe sexual behaviour, early diagnosis and treatment of infected persons as well as getting the sex partners treated. During interview 99 percent of trained physicians and 98 percent FPAN outreach workers reported that they promote condom usage for prevention of HIV and STD. About 96 percent of NMA trained physicians and 100 percent of FPAN outreach workers said that they notify the partner(s) for treatment.

Table 3.13: Distribution of Providers on Condom Promotion and Partner Notification

Condom Advice and Partner Notification	NMA Physicians (N=104)	FPAN Outreach Workers (N=49)
1. Advised Use of Condoms		
Yes	103 (99.0)	48 (98.0)
No	1(1.0)	1(2.0)
2. Partner Notification		
Yes	100 (96.2)	49(100.0)
No	4(3.8)	0(0.0)

Twenty-eight providers under observation were compared with their reported behaviour in interview to see if there was any difference. Remarkable difference was observed between observation and interview, especially in issues of condom promotion and partner notification. All 28 providers said that they promote condom as part of STD management, but during observation only 10 (36%) promoted condom and only one provider (0.03%) actually gave condoms to the patient.

Similarly 26 (93%) out of 28 providers said that they notify the sex partner(s) for treatment, but during observation only 18 providers (64%) advised patients for treatment of their recent sexual partners.

3.2.8 Drug Supply

Adequate supply of drugs for treatment of STDs is one of the factors that determines the practising behaviour of health care providers. In urban areas patients buy drugs in pharmacies if

they are not available in health institutions. In rural areas where pharmacies are not available, the health institutions are the primary source of access to essential drugs. During interview, 19 FPAN outreach workers (38.8%) said that they have problems with drug supply. They cited their problems as listed in the Table 3.14

Table 3.14: Problems of Drug Supply

Types of Problems	FPAN Outreach Workers (N=19)
Drugs of choice not available	6 (31.6%)
Drugs for syndromic treatment are expensive	6 (31.6%)
Drug supply inadequate	4 (21.1%)
No regular supply of STD medicines	2 (10.5%)
Patients allergic to drugs	1 (5.3 %)

The above table indicates that the lack of essential drugs for treatment of STDs is a problem which is expressed by FPAN outreach workers in various ways. While reviewing the list of essential drugs by level of care, it was noticed that "ciprofloxacin", a drug of choice for the treatment of gonorrhoea, was not included on the list of essential drugs for Primary Health Care Centre and levels below. Similarly other drugs, such as Benzathine Penicillin, were also not included.

4.0 CONCLUSIONS AND RECOMMENDATIONS

1. Observations in the field during the study indicate that the majority of patients with STDs consult health care providers at their private clinics rather than in public health institutions. The majority of STD cases who come for private consultation with medical professionals are seen by general practitioners, skin-VD specialists and gynaecologists. Even in a hospital setting where skin and VD services are not available, general practitioners (medical officers) screen and treat cases of STDs. Therefore the training programme should target the above groups. The present study shows that many medical professionals who were trained belong to different speciality and sub-speciality who usually don't see STD patients.

   Similarly STD management training was provided to a large number of FPAN outreach workers made up of both old experienced staff and the newly recruited persons in the same sitting. The category of staff trained comprise cross section of all different health workers with varying educational backgrounds and skills. Thus it is recommended that training should be conducted in small groups of people who have similar background.

2. The findings of the study show that more than half of the trained health care providers did not follow the treatment recommended in the national STD guidelines. In-depth interviews were conducted to find out reasons why HCPs did not adhere to the recommended guidelines on STD management. During discussions one third of the physicians interviewed mentioned that STD case management guidelines is not for doctors, but it is made for paramedicals. Some said that syndromic approach is not good. Reasons cited for this are as follows:

   (a) Laboratory investigation is needed. If the treatment is provided before the result of laboratory test, there will be a loss in follow up of the patient.

   (b) Why is multitherapy needed if the disease can be cured by single drug regime?

   (c) Syndromic approach is expensive and advocates overuse of drugs.

   (d) Etiological diagnosis is better than syndromic as surgical cases might confound the STD case even if risk assessment may be positive.

   (e) Vaginal discharge syndrome is vague.

   One quarter of physicians who were interviewed did not believe in single dose therapy for the treatment of gonorrhoea. They argued that they are used to prescribing the drug in fractional doses for five days and had obtained good results. Some physicians also said that drugs recommended in the guidelines are limited as new drugs, such as cynomycin (minocycline), have not been included.

The result of in-depth interviews clearly suggests that discussions are needed regarding selection of drugs, purpose and effectiveness of a single doses in terms of cure rate, use of fractional doses, and choice of appropriate duration of therapy. It seems that in two-day training programme there is hardly anytime left to discuss these issues.

3. During the interviews it was also disclosed that many doctors did not participate fully in the training for various reasons. Some attended only one day while others attended only one session. The situation clearly demands good organization and management of training programme.

4. For a training to be effective, essential commodities must be provided to ensure that new skills could be put into practice. In this study it was noticed that essential drugs for treatment of STDs were not even included on the list of essential drugs for peripheral health workers. Therefore the policy decision on inclusion of STD drugs on the list of essential drugs for peripheral health institutions should be made as early as possible, and in places where health care providers are trained, drugs should be supplied.

5. The practice of providers on condom promotion and partner notification, important components in reducing transmission of STDs, is remarkably low. The result of in-depth interviews indicate that medical practitioners do not see their role as promoter of condoms. They said that condoms are being promoted through mass media and therefore there is no need for them to repeat; others believe that this is part of family planning programme; some remarked upon the difficulty of explaining about condoms when STD patient is female while others said that they needed free condoms and Penis model for demonstration. Similarly, regarding partner notification, some said that it is difficult to get the history of sexual partners due to cultural reasons and therefore probing this issue will offend the patients. Others told that many patients do not want to take medicines to partners.

   Therefore, it may be worth looking into the possibility of providing condoms to practitioners for free distribution to encourage them to become an energetic advocates of condom-use. Notification of partners is a difficult issue that needs to be addressed within the cultural context of the society. Practitioners are in a better position to notify sexual partner(s) and should be encouraged to do so. Practitioners may have to devote some time to explain and convince patients to get their partner(s) treated. To prevent embarrassment, when possible, female HCP should counsel female STD patient.

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ANNEXES

ANNEX - 1

Diagnosis and Treatment for 28 STD Patients Under Observation

No. of Observations	Diagnosis	Treatment	Fits National Guideline	Fits WHO Guideline	Both
1.	Cervicitis	1.1 Tinidazole, 500 mg., Orally x BD x 10 days 1.2 Tab. Clotrimazole, 100 mg. Intravaginal x OD x 7 days	No	No	No
2.	Chronic Cervicitis	2.1 Doxycycline, 100 mg., Orally x BD x 7 days 2.2 Metronidazole and Chloramphenicol cream, Locally x OD x 8 days 2.3 Mucobo Forte Orally 1 cap. x OD x 10 days	No	No	No
3.	Gonococcal urethritis	3.1 Inj. Ceftriaxone, 250 mg. IM x Stat	Yes	Yes	Yes
4.	Cervicitis	4.1 Ciprofloxacin, 500 mg. orally x stat 4.2 Doxycycline, 100 mg. orally x BD x 7 days 4.3 Metronidazole, 400 mg. Orally x TID x 7 days 4.4 Clotrimazole and metronidazole V.T. Intravaginal x OD x 7 days	Yes	Yes	Yes
5.	Syphilis with	5.1 Inj. Benzathin Penicillin, 1.2 million unit	No	No	No

No. of Observations	Diagnosis	Treatment	Fits National Guideline	Fits WHO Guideline	Both
	candidiasis	IM x weekly 3 doses 5.2 Minocycline, 100 mg. Orally x BD x 10 days 5.3 Tindazole, 300 mg. Orally x BD x 7 days 5.4 Di-ethyl Carbamazine Citrate, 100 mg. Orally x TID x 20 days			
6.	Urethral discharge	6.1 Ciprofloxacin, 500 mg. Orally x BD x 2 days 6.2 Tinidazole, 300 mg. Orally x BD x 5 days	No	No	No
7.	Syphilis	7.1 Inj. Benzathin Penicillin 2.4 million unit IM x Stat	Yes	Yes	Yes
8.	Gonorrhoea	8.1 Inj. Benzathin Penicillin 2.4 million unit IM x Stat 8.2 Ciprofloxacin, 1000 mg Orally X Stat 8.3 Doxycycline, 100 mg. Orally x BD x 7 days	No	No	No
9.	PID	9.1 Ciprofloxacin, 500 mg. Orally x Stat 9.2 Doxycycline, 100 mg. Orally x BD x 14 days 9.3 Metronidazole, 400 mg. Orally x TID x 14 days 9.4 Cycloneif, 20 mg.	Yes	No	No

No. of Observations	Diagnosis	Treatment	Fits National Guideline	Fits WHO Guideline	Both
		Orally x SOS x 3 days			
10.	Vaginal discharge	10.1 Ciprofloxacin, 500 mg. Orally x Stat 10.2 Tinidazole, 2 gm. Orally x Stat 10.3 Clotrimazole V.T., 200 mg. Intravaginal x OD x 3 days.	No	No	No
11.	PID	11.1 Ciprofloxacin, 500 mg. Orally x Stat 11.2 Doxycycline, 100 mg. Orally x BD x 14 days 11.3 Tinidazole, 2 gm. Orally x Stat 11.4 Clotrimazole V.T., 200 mg. Intravaginal x OD x 3 days	Yes	Yes	Yes
12.	Urethral discharge	12.1 Ciprofloxacin, 500 mg. Orally x Stat 12.2 Doxycycline, 100 mg. Orally x BD x 14 days	Yes	Yes	Yes
13.	Secondary Syphilis	Not prescribed drugs	-	-	-
14.	PID with ch. cervicitis	14.1 Doxycycline, 100 mg. Orally x BD x 5 days 14.2 Clotrimazole, 200 mg. Intravaginal x OD x 10 days	No	No	No

No. of Observations	Diagnosis	Treatment	Fits National Guideline	Fits WHO Guideline	Both
		14.3 Diclofenac sodium, 50 mg. Orally x TID x 5 days			
15.	Vaginitis	Not prescribed drugs	-	-	-
16.	PID	16.1 Ciprofloxacin, 500 mg. Orally x Stat 16.2 Tinidazole, 500 mg. Orally x BD x 10 days	No	No	No
17.	Gonococcal urethritis	17.1 Ciprofloxacin, 500 mg. Orally x Stat 17.2 Doxycycline, 100 mg. Orally x BD x 7 days 17.3 Clotrimazole, 200 mg. Intravaginal x OD x 15 days	Yes	Yes	Yes
18.	No Diagnosis made	No treatment given	-	-	-
19.	PID	19.1 Doxycycline, 100 mg. Orally x BD x 7 days	No	No	No
20.	Gonorrhoea (Female)	20.1 Ciprofloxacin, 500 mg. Orally x Stat 20.2 Doxycycline, 100 mg. Orally x BD x 7 days 20.3 Tinidazole, 2 gm. Orally x Stat 20.4 Clotrimazole V.T., 200 mg.	Yes	Yes	Yes

No. of Observations	Diagnosis	Treatment	Fits National Guideline	Fits WHO Guideline	Both
		Intravaginal x OD x 6 days			
21.	Epididymo-orchitis	21.1 Ciprofloxacin, 500 mg. Orally x Stat 21.2 Doxycycline, 100 mg. Orally x BD x 14 days 21.3 Metronidazole, 400 mg. Orally x TID x 14 days	Yes	Yes	Yes
22.	PID	22.1 Ciprofloxacin, 500 mg. Orally x Stat 22.2 Doxycycline, 100 mg. Orally x BD x 14 days 22.3 Metronidazole, 400 mg. Orally x TID x 14 days	Yes	No	No
23.	Viral infection	Refer to Venerologist	-	-	-
24.	Herpes genitalis	24.1 Acyclovir cream Locally x Qid x 7 days	Yes	Yes	Yes
25.	Gonococcal infection	25.1 Cephalexin, 3 gm. Im x Stat	No	No	No
26.	Trichomoniasis	26.1 Metronidazole, 400 mg Orally x TID x 7 days	Yes	No	No
27.	Cervicitis	27.1 Tetracycline, 400 mg. Orally x BD x 14 days 27.2 Tinidazole, 2 gm. Orally x BD x 14 days	No	No	No

No. of Observations	Diagnosis	Treatment	Fits National Guideline	Fits WHO Guideline	Both
		27.3 Clotrimazole V.T., 200 mg. intravaginal x OD x 6 days 27.4 Diclofenac Sodium, 50 mg. Orally x BD x 14 days			
28.	Condyloma Acuminate	28.1 Podophyllin solution locally x weekly x 5 doses	Yes	Yes	Yes

ANNEX - 2

Number of FPAN Outreach Workers Suggesting Medicines by Syndrome

Disease/Drugs	Urethral Discharge		Vaginal Discharge		Genital Ulcer Disease (Male)		Genital Ulcer Disease (Female)	
	N	%	N	%	N	%	N	%
1. Ciprofloxacin	25	64.1	22	47.8	10	27.8	7	17.1
2. Doxycycline	13	33.3	14	30.4	11	30.6	9	22.0
3. Erythromycin	1	2.6	1	2.2	4	11.1	7	17.1
4. Tetracycline	3	7.7	2	4.3	4	11.1	4	9.8
5. Cotrimoxazole	1	2.6	7	15.2	2	5.6	4	9.8
6. Amoxycillin	3	7.7	5	10.9	3	8.3	3	7.3
7. Ampicillin	3	7.7	-	-	-	-	1	2.4
8. Cephalexin	-	-	-	-	-	-	1	2.4
9. Cloxacillin	-	-	2	4.3	-	-	-	-
10. Inj. Benzathine Penicillin	3	7.7	1	2.2	8	22.2	6	14.6
11. Inj. Procaine Penicillin	1	2.6	1	2.2	1	2.8	1	2.4
12. Inj. Benzyl Penicillin	1	2.6	-	-	5	13.9	4	9.8

Disease/Drugs	Urethral Discharge		Vaginal Discharge		Genital Ulcer Disease (Male)		Genital Ulcer Disease (Female)	
	N	%	N	%	N	%	N	%
13. Metronidazole	7	17.9	20.0	43.5	1	2.8	2	4.9
14. Tinidazole	4	10.3	11.0	23.9	2	5.6	2	4.9
15. Clotrimazole V.T.	2	5.1	19.0	41.3	3	8.4	4	8.7
16. Vit. B. Complex	1	2.6	1	2.2	-	-	4	9.7
17. Betadine Ointment	-	-	5	10.9	1	2.8	-	-
18. Miconazole	-	-	1	2.2	-	-	1	2.4
19. Lucor	-	-	1	2.2	-	-	-	-
20. Ibuprofen	-	-	1	2.2	1	2.8	3	7.3
21. Soframycin Ointment	-	-	-	-	-	-	-	-
22. Baralgan	-	-	-	-	1	2.8	-	-
23. Antibiotic Ointment	-	-	1	2.2	3	8.4	3	7.3
24. Alkali Mixture	-	-	-	-	-	-	1	2.4
25. Ferrous Sulphate	-	-	-	-	-	-	1	2.4

ANNEX - 3

Number of FPAN Outreach Workers Suggesting Medicines by Specific Infection

Disease/Drugs	Gonorrhoea		Non-Gonococcal Urethritis		Primary Syphilis		Chancroid	
	N	%	N	%	N	%	N	%
1. Ciprofloxacin	25	53.2	11	36.7	13	38.2	8	57.1
2. Doxycycline	19	40.4	13	43.3	8	23.5	5	35.7
3. Erythromycin	1	2.1	2	6.7	3	8.8	1	7.1
4. Tetracycline	8	17.0	3	10.0	4	11.8	2	14.3
5. Cotrimoxazole	3	6.4	3	10.0	1	2.9	1	7.1
6. Amoxycillin	2	4.3	-	-	1	2.9	1	7.1
7. Ampicillin	-	-	1	3.3	1	2.9	-	-
8. Cephalexin	1	2.1	1	3.3	1	2.9	-	-
9. Cloxacillin	1	2.1	-	-	-	-	-	-
10. Norfloxacin	-	-	1	3.3	-	-	-	-
11. Inj. Benzathine Penicillin	6	12.8	-	-	9	26.5	-	-
12. Inj. Benzyl Penicillin	2	4.3	-	-	6	17.6	-	-
13. Inj. Procaine Penicillin	1	2.1	-	-	-	-	-	-
14. Metronidazole	12	25.5	9	30.0	6	17.6	3	21.4
15. Tinidazole	5	10.6	5	16.7	2	5.9	1	7.1

Disease/Drugs	Gonorrhoea		Non-Gonococcal Urethritis		Primary Syphilis		Chancroid	
	N	%	N	%	N	%	N	%
1. Ciprofloxacin	25	53.2	11	36.7	13	38.2	8	57.1
16. Clotrimazole V.T.	3	6.4	1	3.3	2	5.9	1	7.1
17. Vit. B. Complex	2	4.3	-	-	1	2.9	-	-
18. Betadine Ointment	3	6.4	-	-	-	-	-	-
19. Ibuprofen	1	2.1	1	3.3	1	2.9	-	-
20. Rifampicin	-	-	1	3.3	-	-	-	-
21. Diclofinac	1	2.1	1	3.3	-	-	-	-
22. Alkali Mixture	-	-	1	3.3	1	2.9	-	-
23. Ferrous Sulphate	1	2.1	-	-	-	-	-	-

ANNEX - 4

Number of NMA Trained Physicians Suggesting Medicines by Syndrome

Disease/Drugs	Urethral Discharge		Vaginal Discharge		Genital Ulcer Disease (Male)		Genital Ulcer Disease (Female)	
	N	%	N	%	N	%	N	%
1. Ciprofloxacin	65	65.0	61	67.0	19	20.0	18	21.2
2. Doxycycline	48	48.0	57	62.6	21	22.1	20	23.5
3. Metronidazole	15	15.0	50	54.9	7	7.4	13	15.3
4. Tetracycline	2	2.0	4	4.4	2	2.1	4	4.7
5. Cotrimoxazole	1	1.0	-	-	1	1.1	1	1.2
6. Amoxycillin	1	1.0	1	1.1	2	2.1	4	4.7
7. Ampicillin	-	-	-	-	-	-	1	1.2
8. Cephalexin	2	2.0	-	-	-	-	-	-
9. Cloxacillin	-	-	-	-	-	-	-	-
10. Erythromycin	2	2.0	2	2.2	15	15.8	14	16.5
11. Inj. Benzathine Penicillin	12	12.0	5	5.5	46	48.4	42	49.4
12. Inj. Procaine Penicillin	1	1.0	-	-	10	10.5	6	7.1
13. Inj. Benzyl Penicillin	-	-	-	-	2	2.1	2	2.4
14. Inj. Ceftriazone	1	1.0	-	-	2	2.2	2	2.4
15. Tinidazole	10	10.0	25	27.5	1	1.1	2	2.4
16. Clotrimazole V.T.	-	-	44	48.4	2	2.1	6	7.1

Disease/Drugs	Urethral Discharge		Vaginal Discharge		Genital Ulcer Disease (Male)		Genital Ulcer Disease (Female)	
	N	%	N	%	N	%	N	%
17. Betadine V.T.	-	-	2	2.2	6	6.3	-	-
18. Muconazole V.T.	-	-	1	1.1	-	-	-	-
19. Azithnomycin	1	1.0	1	1.1	-	-	-	-
20. Norfloxacin	13	13.0	4	4.4	-	-	-	-
21. Kanamycin	1	1.0	-	-	-	-	-	-
22. Savlone Solution	-	-	1	1.1	-	-	-	-
23. Lucor	-	-	1	1.1	-	-	-	-
24. Fluconazole	-	-	1	1.1	-	-	-	-
25. Flamycin Solution	-	-	1	1.1	-	-	-	-
26. Sulfadizine	-	-	1	1.1	-	-	-	-
27. Ibuprofen	-	-	-	-	1	1.1	1	1.2
28. Aclovir Cream	-	-	-	-	4	4.2	2	2.4
29. Antibioctic Ointment	-	-	-	-	5	4.4	6	7.1
30. Cynomycin	-	-	-	-	1	1.1	1	1.2
31. Chloramphenicol	-	-	-	-	1	1.1	1	1.2
32. Griseofulvin	-	-	-	-	-	-	1	1.2

* The table excludes the number of physicians who did not know the treatment.

ANNEX - 5

Number of NMA Trained Physicians Suggesting Medicines by Specific Infectious

Disease/Drugs	Gonorrhoea		Non-Gonococcal Urethritis		Primary Syphilis		Chancroid	
	N	%	N	%	N	%	N	%
1. Ciprofloxacin	64	64.0	27	28.1	6	6.1	10	14.9
2. Doxycycline	26	26.0	51	53.1	6	6.1	21	31.3
3. Metronidazole	6	6.0	22	22.9	3	3.1	3	4.5
4. Tetracycline	6	6.0	5	5.2	1	1.0	6	9.0
5. Cotrimoxazole	1	1.0	4	4.2	-	-	1	1.5
6. Amoxycillin	3	3.0	1	1.0	2	2.0	-	-
7. Ampicillin	1	1.0	-	-	1	1.0	-	-
8. Cephalexin	2	2.0	1	1.0	1	1.0	1	1.5
9. Cloxacillin	-	-	1	1.0	-	-	-	-
10. Erythromycin	4	4.0	5	5.2	4.	4.1	15	22.4
11. Inj. Benzathine Penicillin	14	14.0	5	5.2	67	68.4	15	22.4
12. Inj. Procaine Penicillin	10	10.0	-	-	16	16.3	7	10.4

Disease/Drugs	Gonorrhoea		Non-Gonococcal Urethritis		Primary Syphilis		Chancroid	
	N	%	N	%	N	%	N	%
13. Inj. Benzyl Penicillin	2	2.0	-	-	4	4.1	4	6.0
14. Inj. Ceftriazone	7	7.0	-	-	7	7.1	-	-
15. Tinidazole	3	3.0	8	8.3	2	2.0	3	4.5
16. Clotrimazole V.T.	2	2.0	3	3.1	-	-	1	1.5
17. Alkali Mixture	-	-	1	1.0	-	-	-	-
18. Azithromycin	5	5.0	1	1.0	-	-	-	-
19. Norfloxacin	8	8.0	16	16.7	1	1.0	-	-
20. Minocycline	-	-	3	3.2	1	1.0	2.	3.0
22. Nalidixic Acid	-	-	2	2.1	-	-	-	-
22. Gentamycin	-	-	1	1.0	-	-	-	-
23. Corticosteroid	-	-	-	-	1	1.0	-	-
24. Synomycin	-	-	-	-	-	-	1	1.5

Note: The table excludes the number of physicians who did not know the treatment.

ANNEX - 6

CONFIDENTIAL

FORM - 2
HEALTH FACILITY SURVEY
OBSERVATION OF HEALTH CARE PROVIDER (HCP)
FHI/New ERA - 1999

District:
Location:
Name of HCF:

Health Care Facility: 1. Pvt. Clinic2. HP/SHP3. FPMC4. Hosptl 5. H. Centre
Health care provider: 1. Nurse/ANM2. Doctor3. HA4. AHW/Health Aids
5. Others (Specify)
Sex of HCP: 1. Male 2. Female
Observation number: _____

Patient Characteristics:

1. Sex 1. Male 2. Female
2. Age _____ (completed years)

3. Marital Status 1. Married 2. Unmarried
3. Did not asked

4. Other relevant circumstances relating to last sexual contacts

1. Prostitute 2. Truck Driver
3. Victim of Assault 4. Others (Specify) _____

5. Presenting STD Complaint
_____
_____

Facility Observation

6. Is the following facilities available in the HCP/HCF clinic?

	Yes	No
1. Examination table	1	2
2. Examination light	1	2
3. Examination gloves,	1	2
4. Vaginal speculum	1	2
5. Cleanliness	1	2
6. Others _____ (specify)	1	2

7. Is the privacy of HCP patient discussion is observed?

	Yes	No
1. HCP and patient discussion could be overheard	1	2
2. Examination can be seen by others	1	2

8. Are the following issues addressed?

	Yes	No
1. Nature of present symptoms?	1	2
2. Onset or duration of symptoms?	1	2
3. History of recent sexual contacts?	1	2
4. History of sex since then	1	2
5. Use of condom	1	2

6. Past history of similar symptoms 1 2 (If yes, Go to Q.8.1)

8.1 If yes, what antibiotics used? _____

9. Are patient's genitals fully exposed, with female patient lying down on her back with flexed knee and legs separated?

1. Yes 2. No

10. Are examination gloves used?

1. Yes 2. No

11. Are the external genitalia thoroughly examined for discharge and lesions?

1. For uncircumcised men is the foreskin retracted?
2. For women are labia separated and inspected?

1. Yes 2. No

For women only:

12. Is a speculum examination performed?

1. Yes 2. No

12.1 If yes, is an adequate light source used?

_____
_____

13. Is a bimanual examination performed?

1. Yes 2. No

14. Examination of other parts - groins/body rashes etc.?

1. Yes 2. No

15. Is a Gram stain obtained?

1. Yes 2. No

15.1 If yes, is the result of the Gram stain available on the day of the consultation?

_____
_____

16. Is dark field microscopy obtained?

1. Yes 2. No

16.1 If yes, is the result of dark field microscopy available on the day of consultation?

_____
_____

17. Is a RPR/VDRL obtained?

1. Yes 2. No

17.1 If yes, is the result of the RPR/VDRL available on the day of the consultation?

_____
_____

18. Does the HCP obtain/request laboratory investigations other than those in questions 15-17?

1. Yes 2. No

18.1 If yes, which tests?

_____
_____

19. Ask the HCP what his/her diagnosis is and write down

_____
_____

20. Were the results of any laboratory tests available to the HCP before that diagnosis?

1. Yes 2. No

21. Ask the HCP what therapy he or she is prescribing/providing to the patient, at this consultation

DRUG 1 name: •quantity: •dosage: 1 daily 2 bid 3 tid 4 qid 5 stat 6 others (specify)_____ •route: 1 im 2 oral 3 topical •duration of treatment (days): _____
DRUG 2 name: •quantity: •dosage: 1 daily 2 bid 3 tid 4 qid 5 stat 6 others (specify)_____ •route: 1 im 2 oral 3 topical •duration of treatment (days): _____
DRUG 3 name:

•quantity: •dosage: 1 daily 2 bid 3 tid 4 qid 5 stat 6 others (specify)_____ •route: 1 im 2 oral 3 topical •duration of treatment (days): _____
DRUG 4 name: •quantity: •dosage: 1 daily 2 bid 3 tid 4 qid 5 stat 6 others (specify)_____ •route: 1 im 2 oral 3 topical •duration of treatment (days): _____

1. Effective syndromic treatment
2. Effective etiologic treatment
3. Ineffective

22. Will the final treatment depend on the results of laboratory tests?

1. Yes 2. No

23. Where does the patient obtain the prescribed drugs?

1. At this clinic same day (free) 4. At this clinic and at the pharmacy
2. At this clinic same day (paid) 5. Other (Specify) _____
3. At the pharmacy/chemist shop

24. Is there any delay (more than four hours) between the initial consultation and the provision of treatment?

1. Yes 2. No

25. Does the HCP instruct the patient on the importance of completing the full course of treatment?

1. Yes 2. No

26. Is the risk of AIDS/HIV mentioned?

1. Yes 2. No

27. Are condoms promoted for STD/HIV prevention?

1. Yes 2. No

28. Are condom(s) provided/sold to the patient?

1. Yes 2. No

28.1 If yes, how many condoms are provided?

_____

29. Are instructions on condom use offered?

1. Yes 2. No

30. Is patient urged to refer partner(s) for treatment or is patient given drugs for partner?

1. Yes 2. No

PI 6		YN
	- History (Q8) - Examination (Q11) - Treatment (Q21)	12 12 12
Final score		12
PI 7	- Advice on condom (Q27) - Advice on partner notification (Q30)	12 12
Final score		12

PI 6; Final score, is positive if Q8, Q11, Q21 are "Yes";
PI 7; Final score, if Q27, Q30 are "Yes", except reasons revealed by Q3, Q4
v
Remarks/observations: _____

Date: _____
Observer's code: _____

ANNEX - 7

CONFIDENTIAL

FORM - 3

HEALTH FACILITY SURVEY
INTERVIEW OF HEALTH CARE PROVIDER (HCP)
FHI/New ERA - 1999

District :
Location :
Name of HCF :

COMPLETE THIS SECTION BEFORE INTERVIEW:

Health Care Facility: 1. Pvt. Clinic 2. HP/SHP 3. FPMC
4. Hospital 5. Health Centre
Health Care Provider: 1. Nurse/ANM 2. Doctor 3. HA
4. AHW/Health Aids 5. Others (Specify)

Sex of Health Care Provider: 1. Male 2. Female

Was this HCP observed managing an STD patient? _____

1. How many cases of STD did you see at this clinic last month?

_____ cases

2. How many cases of STD do you see at this clinic during last 3 months?

_____ cases

3. When patients report with a complaint of STD, what do you routinely ask them?

What do you ask about?	Spontaneous Yes	Probed	
		Yes	No
1. Present symptoms?	1	2	3
2. Onset/duration of symptoms?	1	2	3
3. Recent sexual contacts?	1	2	3
4. History of sex since then?	1	2	3
5. Use of condom?	1	2	3

4. Do you routinely perform a physical examination?

1. Yes 2. No

5. IF YES,

Describe Each Step of how you would examine a male STD patient		Spontaneous Yes	Probed	
			Yes	No
5.1	Patient asked to undress so that genitals are fully exposed	1	2	3
5.2	Patient examined for a urethral/penile discharge	1	2	3
5.3	Genitals examined for lesions after retracting the foreskin	1	2	3

Describe Each Step of how you would examine a female STD patient		Spontaneous Yes	Probed	
			Yes	No
5.4	Patient asked to undress so that genitals are fully exposed	1	2	3
5.5	Patient asked to lie down on her back with knee flexed and legs apart	1	2	3
5.6	Patient examined for lesions on vulva and labia separated	1	2	3
5.7	Patient examined for vaginal discharge	1	2	3
5.8	Speculum examination performed	1	2	3
5.9	Bimanual examination performed	1	2	3

6. Do you have the following?

1. an examination table? 2. bivalve vaginal specula?
3. an examination light? 4. examination gloves?

7. What type of diagnosis do you base your treatment on?

1. An etiologic diagnosis based on laboratory investigation
2. A syndromic diagnosis such as urethral discharge or genital ulcer disease?
3. A clinical diagnosis based on clinical judgement?

1. Etiologic 2. Syndromic 3. Clinical 4. Others (Specify) _____

8. Do you have a microscope in this clinic?

1. Yes 2. No

8.1 IF YES, in this clinic, do you perform:
1. Wet-mount microscopy to diagnose STDs?
2. Gram stains to diagnose STDs?
3. VDRL tests?
4. Others (Specify) _____

9. Do you send your STD patients (or specimens) to another facility for laboratory investigations?

1. Yes 2. No

9.1 IF YES, what tests have you requested most often in the past month? MAXIMUM OF THREE TESTS

1. _____
2. _____
3. _____

10. In your experience, what is the first choice of treatment that you usually prescribe for a patient with:

• ***gonorrhoea?*** DRUG name • quantity: • dosage: 1. daily 2. STAT3. bid4. tid5. qid 6. other (specify) ____ • route: 1. im 2. oral 3. topical • duration of treatment (days):
• ***gonorrhoea?*** DRUG name • quantity: • dosage: 1. daily 2. STAT3. bid4. tid5. qid6. other (specify) ____ • route: 1. im 2. oral 3. topical • duration of treatment (days):
• ***gonorrhoea?*** DRUG name • quantity: • dosage: 1. daily 2. STAT3. bid4. tid5. qid 6. other (specify) __ • route: 1. im 2. oral 3. topical • duration of treatment (days):
• ***gonorrhoea?*** DRUG name

• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• *gonorrhoea?*

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***non-gonococcal urethritis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***non-gonococcal urethritis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***non-gonococcal urethritis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***non-gonococcal urethritis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***non-gonococcal urethritis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***primary syphilis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***primary syphilis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***primary syphilis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***primary syphilis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• ***primary syphilis?***

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• *chancroid?*

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• *chancroid?*

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• *chancroid?*

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• *chancroid?*

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

• *chancroid?*

DRUG name
• quantity:
• dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
• route: 1. im 2. oral 3. topical
• duration of treatment (days):

11. In the absence of a definitive diagnosis, what is the first choice of treatment that you usually prescribe for:

- ***a male patient with a urethral discharge?***

1) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

- ***a male patient with a urethral discharge?***

2) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

- ***a female patient with a vaginal discharge?***

1) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical 4. Intra vaginal
   - duration of treatment (days):

- ***a female patient with a vaginal discharge?***

2) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical 4. Intra vaginal
   - duration of treatment (days):

- ***a female patient with a vaginal discharge?***

3) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical 4. Intra vaginal
   - duration of treatment (days):

- ***a female patient with a vaginal discharge?***

4) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical 4. Intra vaginal
   - duration of treatment (days):

- ***a male patient with a genital ulcer?***

1) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

- ***a male patient with a genital ulcer?***

2) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

- ***a male patient with a genital ulcer?***

3) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

- ***a male patient with a genital ulcer?***

4) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

- ***a female patient with a genital ulcer?***

1) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

- ***a female patient with a genital ulcer?***

2) DRUG name
   - quantity:
   - dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____
   - route: 1. im 2. oral 3. topical
   - duration of treatment (days):

•	***a female patient with a genital ulcer?***
3)	DRUG name • quantity: • dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____ • route: 1. im 2. oral 3. topical • duration of treatment (days):

•	***a female patient with a genital ulcer?***
4)	DRUG name • quantity: • dosage: 1. daily 2. STAT 3. bid 4. tid 5. qid 6. other (specify) ____ • route: 1. im 2. oral 3. topical • duration of treatment (days):

12. Where do your patients usually obtain the drugs you prescribe for them?

1. At this clinic/hospital (free)
2. At this clinic/hospital (paid)
3. At the pharmacy/chemist shop
4. At this clinic and at the pharmacy
5. Other, SPECIFY:

13. Do you have any problem with drug supply?

1. Yes 2. No

13.1 IF YES, what problem?

_____

_____

14. Are there any particular drugs which you feel are essential for the treatment of STDs but to which you have no access?

1. Yes 2. No

14.1 IF YES, which?

_____

_____

15. What type of syringes and needles do you usually use?

_____

_____

16. Do you give any special education/advice to your STD patients?

1. Yes 2. No

16.1 IF YES, What special education or advice do you provide?

1. To take all prescribed medicine
2. To use condoms
3. To tell sexual partner for treatment
4. Others (Specify) _____

17. Do you tell your patients to take all the medications you have prescribed?

1. Yes 2. No

18. Do you advice your patients to use condoms?

1. Yes 2. No

19. Do you advice your patients to tell their sexual partner(s) to have treatment?

1. Yes 2. No

19.1 IF YES, how?

_____

_____

20. Do you keep a supply of condoms in this clinic?

1. Yes 2. No (Go to Q. 24)

21. Was this clinic ever out of stock of condoms in the last 12 months?

1. Yes 2. No (Go to Q.24)

22. How many condoms are in stock at this clinic today?

_____

22.1 Did you verify the number?

1. Yes 2. No

23. Do you provide condoms to your STD patients?

1. Yes always 2. Sometimes 3. No

23.1 IF ALWAYS OR SOMETIMES:

How many condoms each time?No. _____

23.2 Are the condoms free?

1. Yes 2. No

24. Do you provide instructions to your patients on how to use condoms?

1. Yes, always 2. Yes, Sometimes 3. Never

25. Do you follow any specific treatment guidelines in your management of STD patients?

1. Yes 2. No

25.1 IF YES, which?

1. National STD case management guidelines
2. WHO recommend dosage of schedule/treatments for STDs
3. Other (specify) _____

26. Have you received a copy of the STD treatment schedules recommended by the National STD Control Programme?

1. Yes 2. No

27. Do you provide drugs to PREVENT your clients from contracting STDs (do you provide STD prophylaxis)?

1. Yes 2. No

28. What is your main qualification?

1. Qualified medical practitioner 2. Qualified nurse
3. Others (Specify) _____

28.1 If medical practitioner,
What is your speciality? SELECT ANY ONE

1. Venereologist
2. Dermato-venereologist
3. Dermatologist
4. GYN/OBS
5. Urologist
6. General Practitioner
7. GP/Venereologist
8. Other (Specify) _____

29. Where do you work in public, private clinics or both?

1. Public 2. Private 3. NGO 4. Others (specify) _____

30. What are the main constraints on your work with STD?

_____

_____

_____

PI 6		YN
	- History (Q.3)	12
	- Examination (Q.5)	12
	- Treatment (Q.10-11)	12
Final score		12
PI 7	- Advice on condom (Q.18) - Advice on partner notification (Q.19)	12 12
Final score		12

P16: Final score is positive if Q.3, Q.5 and Q.10-11 are "Yes"
F17: Final score is positive if Q.18 and Q.19 are "Yes"

Interviewers Codes: _____ Date: _____