SAARC Guidelines for Partnership With Manpower Agency in Prevention & Control of Tuberculosis & HIV/AIDS

SAARC Tuberculosis & HIV/AIDS Centre
Thimi, Bhaktapur, GPO Box 9517, Kathmandu, Nepal
Tel: 00977-1-6631048, 6632601, Fax: 00977-1-6634379
Email:saarctb@mos.com.np, Website:www.saarctb.com.np

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FOREWORD

TB is a multi-faceted disease which cannot be addressed by the health sector alone. Only through a well coordinated and cohesive partnership we can truly make our region free of TB & HIV.

Tuberculosis is one of the major public health problems in the SAARC Region with immense socio-economic impact. In the year 2006, a total 1.7 million all types of TB cases were notified .This represents 69.3% of the 2.5 million estimated cases; the 0.7 million new smear positive cases notified account for 65.3% of the 1.1 million estimates. According to this estimate SAARC Region was bearing 30.3% of the global new sputum smear positive cases. Average of 0.5 million died from TB in the SAARC Member States in the year 2006. As a result, the social and economic losses due to TB are huge.

The global HIV epidemic has emerged as a formidable challenge to public health, development and human rights. By the end of 2007, an estimated 33.2 million persons were living with HIV/AIDS (PLWHA) in the world and in South Asia Region up to 2006, these were estimated 2.64 million PLWHA.

TB & HIV/AIDS are not only medical problems but socio-medical problems too. Experience shows that without involving different sectors/sections of the society these problems cannot be tackled. Therefore, Partnerships for Control also imply looking for new opportunities to work closely with communities. Each community's problems are best understood by them and solutions therefore also lie with them. That is why STC has started partnership development programme with different stakeholders in this mission.

Manpower Agencies are the important bodies which can help National Programmes of TB & HIV/AIDS to deal with the migrant and mobile population making them aware about these diseases and its control measures. The partnership will help National Tuberculosis Programme (NTP) and National AIDS control Programme (NACP) to control these diseases among the migrant & mobile population and ultimately to their family and society.

The STC has identified **Manpower Agency** as one of the potential partners to be involved in this mission along with others like media, pharmacists, students, medical colleges, Travel Agency and private sector.

I would like to appreciate the efforts made by our staff for bringing out this document **"SAARC Guidelines for Partnership with Manpower Agency in Prevention & Control of TB & HIV/AIDS".** I hope this document will provide updated statistics & general information on TB and HIV/AIDS & will also help to strengthen National Programmes to develop partnership with Manpower Agency in prevention and control of TB & HIV/AIDS.

We look forward to your valuable comments/suggestions and urge to collaborate in fight against TB and HIV/AIDS.

2007, Kathmandu Director, STC

List of Abbreviations

AFB	Acid Fast Bacilli
AIDS	Acquired Immuno Deficiency Syndrome
ARV	Anti-Retroviral
BCC	Behaviour Change Communication
DOT	Directly observed treatment
DOTS	The internationally recommended control strategy for TB
DST	Drug Susceptibility Test
EQA	External Quality Assurance
EP	Extra Pulmonary
HIV	Human Immuno Deficiency Virus
IEC	Information, Education and Communication
INGOs	International Non Governmental organizations
IDU	Injecting Drug User
MDR	Multi Drug-resistant
MoU	Memorandum of Understanding
MSM	Men having Sex with Men
MTB	Mycobacterium Tuberculosis
NGOs	Non- Governmental Organizations
NACP	National AIDS Control Programme
NTP	National Tuberculosis Programme
NGO	Non Governmental Organization
PLWHA	People Living With HIV/AIDS
PTB	Pulmonary Tuberculosis
STC	SAARC Tuberculosis & HIV/AIDS Centre
TB	Tuberculosis
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

Chapter-I

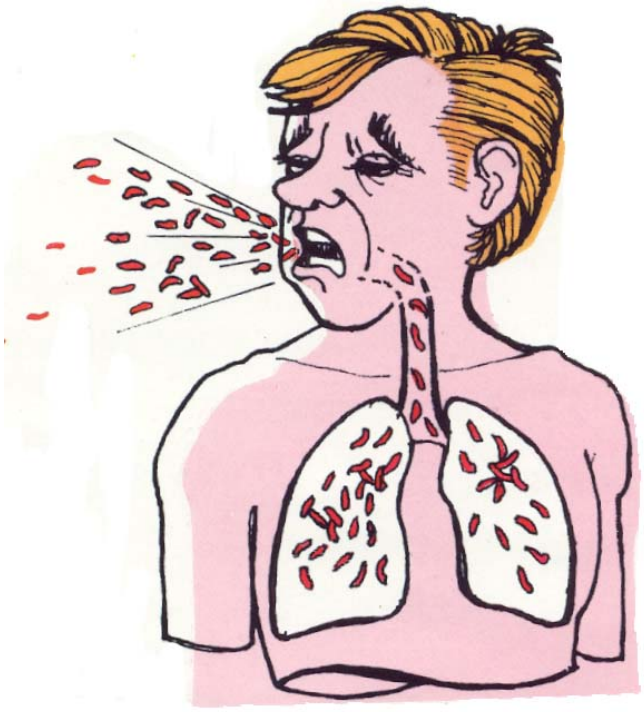
General Information on TB

1. What is Tuberculosis (TB)?

Tuberculosis is a communicable disease caused by an organism called Mycobacterium tuberculosis. This organism is also called as **tubercle bacilli.** Usually they affect the lungs.

2. How does TB spread?

When a person with pulmonary TB coughs, sneezes, laughs, or talks tubercle bacilli are spread into the air in tiny droplets. People who are in close contact can breathe in these droplets and become infected.



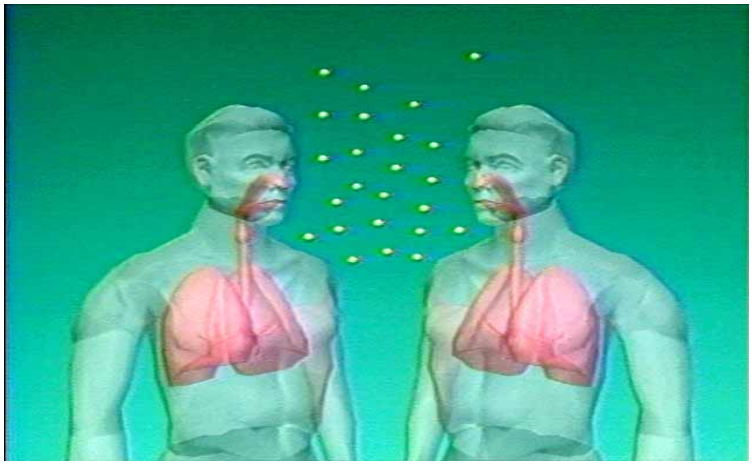
3. What is a case of TB?

A patient in whom TB has been bacteriologically confirmed or diagnosed by a clinician.

4. How many types of TB are there?

There are two types of TB (according to organ/parts of the body affected):

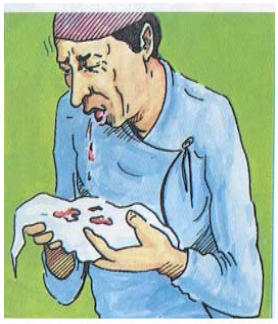
Pulmonary TB- When tuberculosis occurs in the lungs then it is called as pulmonary TB.



Extra-Pulmonary TB- If TB affects organs other than lungs, such as lymph nodes, bones and joints, genitourinary tract, meninges, pleura, intestines etc. it is called as Extra Pulmonary TB.

5. What are the symptoms of pulmonary TB?

Symptoms of pulmonary TB include:



- Cough more than two weeks
- Chest pain
- Low-grade fever, especially in the evening.
- Loss of weight
- Loss of appetite
- Blood stained sputum
- Night sweat

6. Who are vulnerable to TB?

Following individuals are at risk of contracting infections and developing the disease because of their exposure to a patient with TB.

- Family and close contacts of the patients
- The elderly
- People who inject illicit drugs
- People who live or work in certain setting, such as nursing homes, prisons, shelters for the homeless or TB treatment centres
- People with HIV infection
- People addicted to alcohol
- Malnourished people
- People with poorly controlled Diabetes
- People having chronic lung diseases
- Smokers
- People suffering from cancers

7. How is TB detected/ diagnosed?

Pulmonary TB can be detected by sputum examination. At present, microscopic examination of sputum is the best method for diagnosis of pulmonary TB. Chest X-ray may help in diagnosis of TB of the lungs. The smear microscopy is better method of diagnosis than X-ray because it is simple, easy to perform; less expensive and more reliable. Microscopy services are provided free of cost.

B. DOTS Strategy in TB Control

1. What is DOTS and why DOTS?

Tuberculosis is entirely curable and Directly Observed Treatment Short-course (DOTS) is the best ever known available strategy to cure TB patients and control TB. Under this strategy TB suspects **are tested free of cost**. The diagnosed TB patients receive free treatment with recommended standard drugs and are observed taking every single dose at least for the intensive phase (first 2 to 3 months) of their 6-8 months treatment regimens. For the rest of the treatment course, patients are kept under strict supervision. This ensures that TB patients take all their drugs regularly in proper doses for the full-recommended period of treatment course, which ultimately ensures their cure.

2. What are the elements of DOTS strategy?

The DOTS strategy consists of five elements:

1) Political Commitment
2) Good quality case detection using sputum smear microscopy in person who have cough of more than two weeks duration.
3) Short-course chemotherapy using standardized regimens and recommended case management protocols including direct observation of treatment
4) Regular supply of good quality anti-TB drugs, and
5) A standardized recording and reporting system that allows an objective assessment of individual patient outcomes as well as overall programme performance.

3. Why it is necessary to have directly observed treatment?

At least one third of the patients receiving self-administered treatment do not adhere to treatment. It is impossible to predict which patients will take medicines regularly. Therefore, directly observed treatment is necessary at least in the initial phase of treatment to ensure adherence and achieve sputum smear conversion. A TB patient missing even one attendance can be traced immediately and counseled. No method other than directly observed treatment has been able to achieve 85% cure rate of new smear positive cases.

4. What are the evidences that DOTS works?

In areas where DOTS was implemented, cure rates of up to 95% have been recorded, even in very poor countries. More over DOTS prevents transmission of new infections and the development of multi-drug resistant TB. The DOTS strategy has been ranked by the World Bank as one of the most cost-effective of all health interventions.

5. What are the benefits of DOTS?

The benefits for patients themselves are the increasing treatment completion resulting in rapid cure. Furthermore, case management under DOTS strategy can prevent death, sequel & relapse. Moreover, DOTS can reduce community transmission of tubercle bacilli as well as emergence of drug resistance strains.

DOTS is the internationally recommended cost-effective strategy for TB control. DOTS cures patients, saves lives, prevents the development and spread of drug resistance, and reduces disease transmission.

DOTS can:

- Prolong life and improve its quality
- Stop the spread of TB
- Prevent emergence of multi-drug resistance TB
- Reverse the trend of multi-drug resistance TB

Treatment of TB under DOTS strategy is very effective, if a patient takes treatment:

- ❖ with right combination of drugs
- ❖ with correct dose
- ❖ regularly for full period of the course (6-8months) as advised by physician.

C. Burden of TB and HIV/AIDS

1. Tuberculosis Burden within the SAARC Region

Tuberculosis is one of the major public health problems in the SAARC Region with immense socio-economic impacts. Almost 50% the adult population of this Region has already been infected with *Mycobacterium tuberculosis* and is at risk of developing tuberculosis disease. In the year 2005/6 a total 1.7 million all types of TB cases was notified. This represents 68.2% of the 2.5 million estimated cases; the 0.7 million new smear positive cases notified account for 63.7% of the 1.1 million estimates.

According to this estimate SAARC Region was bearing 30.3% of the total global new sputum smear positive cases (with 23% of population share). India, Bangladesh, Pakistan and Afghanistan are occupying the 1st, 5th, 6th and 22nd positions in the list of 22 high burden nations {*according to estimated incidence (absolute number) of TB: high burden countries.2005}* with India revealing the highest (21.0%) global absolute burden of TB. These 4 SAARC nations account for 28.5% of the total global absolute burden of TB.

Average of 4.18 % died from TB in the SAARC Member States in the year 2006, highest mortality noted in India is 7.5%. More than 75% of these cases and deaths occur among 15 - 54 years age group, economically the most productive age group. As a result the social and economic loses due to TB are huge.

By adopting DOTS strategy this Region has been started to show success in TB control. In the year 2005/6 SAARC Region has covered over 99.5% of its population with DOTS and detected 63.7% of the total estimated new smear positive cases. This Region has already achieved the target of 85% (now 86.4%) treatment success rate of detected new smear positive cases. Major challenges are however there in control of TB, such as

- Sustaining quality in diagnosis and case management
- Expanding DOTS services in other public sector, private sector and hard to reach areas
- Improving the quality of implementation and making it more accessible to people in order to increase case detection

- Strengthening human resources in terms of numbers and technical capacity
- Strengthening laboratory network and improving EQA and supervision
- Building infrastructure and technical capacity for culture and DST for management of MDR-TB
- Establishing effective coordination between NTP and NACP
- Tackling migration & cross border issue

There is obviously commitment within this Region for achieving TB control targets for Millennium Development Goals.

Economic and Social Costs associated with TB

TB is a major barrier to social and economic development. More than 90% of global TB cases and deaths occur in the developing world, where 75% of cases are within the economically most productive age-group (15-54 years). An adult with TB (in the developing world) loses on average 3-4 months of work time and the economic losses to the family and community are staggering. The estimates suggest a loss of 20-30% of annual household income and, if the person dies of the disease, an average of 15 years of lost income. Within India, every year, more than 300,000 children are forced to leave school because of their parents' illness due to TB, and approximately 100,000 women lose their status as mothers and wives i.e., abandoned by their families because of TB illness.

2. HIV/AIDS Burden within the SAARC Region

All the SAARC Member States are reporting cases of HIV and AIDS and the epidemic is spreading rapidly in most. On the basis of available information it can be assumed that around 3.2 million estimated HIV infected people are living within the region. The danger of SAARC region rests in the low general population, which may be undermining the gravity of the situation prevalence rates.

Estimated number of people living with HIV in SAARC Region, end 2005

Country	Estimated Population (in millions)	HIV Prevalence Rate (%) among Adults	Estimated No. of PLWHA	AIDS Deaths
Afghanistan	29.86	<0.1	1000	<100
Bangladesh	141.8	<0.1	11000(6400– 18000)	500 (<1000)
Bhutan	0.67	<0.1	500	100 (<200)
India	1114.2	0.9	2.47 million	
Maldives	0.29	<0.1	52	12
Nepal	25.66	0.55(0.3– 1.3)	70256 (40000– 1680000s)	5100 (2800– 8400)
Pakistan	158.0	0.1(0.1– 0.2)	84000 (46000– 150000)	3000 (1700– 4900)
Sri- Lanka	20.47	<0.1	5000 (3000–8300)	<500
Regional	1490.95		**2.64 million**	

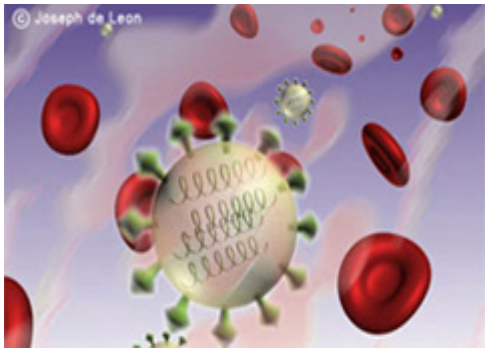
Source: National HIV/AIDS Reports 2006

Chapter-II

What is AIDS?

People have been warned about HIV and AIDS for over twenty five years now. AIDS has already killed millions of people, millions more continue to become infected with HIV, and there's no cure - so AIDS will be around for a while yet. However, some of us still don't know exactly what HIV and AIDS *actually are*. This page sorts the myths from the facts about AIDS.

What is HIV?



HIV (Human Immunodeficiency Virus)

HIV is a virus. Viruses infect the cells of living organisms and replicate (make new copies of themselves) within those cells. A virus can also damage human cells, which is one of the things that can make an infected creature become ill.

People can become infected with HIV from other people who already have it, and when they are infected they can then go on to infect other people. Basically, this is how HIV is spread.

HIV stands for the '*Human Immunodeficiency Virus*'. Someone who is diagnosed as infected with HIV is said to be 'HIV+' or 'HIV positive'.

Why is HIV dangerous?

The immune system is a group of cells and organs that protect your body by fighting disease. The human immune system usually finds and kills viruses fairly quickly.

So if the body's immune system attacks and kills viruses, what's the problem?

Different viruses attack different parts of the body - some may attack the skin, others the lungs, and so on. The common cold is caused by a virus. What makes HIV so dangerous is that it attacks the immune system itself - the very thing that would normally get rid of a virus. It particularly attacks a special type of immune system cell known as a CD4 lymphocyte.

HIV has a number of tricks that help it to evade the body's defenses, including very rapid mutation. This means that once HIV has taken hold, the immune system can never fully get rid of it.

There isn't any way to tell just by looking if someone's been infected by HIV. In fact a person infected with HIV may look and feel perfectly well for many years and may not know that they are infected. But as the person's immune system weakens they become increasingly vulnerable to illnesses, many of which they would previously have fought off easily.

The only reliable way to tell whether someone has HIV is for them to take a blood test, which can detect infection from a few weeks after the virus first entered the body.

How long does HIV take to become AIDS?

Without drug treatment, HIV infection usually progresses to AIDS in an average of ten years. This average, though, is based on a person having a reasonable diet. Someone who is malnourished may well progress to AIDS and death more rapidly.

Antiretroviral medication can prolong the time between HIV infection and the onset of AIDS. Modern combination therapy is highly effective and, theoretically, someone with HIV can live for a long time before it becomes AIDS. These medicines, however,

are not widely available in many poor countries around the world, and millions of people who cannot access medication continue to die.

How is HIV passed on?

HIV is found in the blood and the sexual fluids of an infected person, and in the breast milk of an infected woman. HIV transmission occurs when a sufficient quantity of these fluids get into someone else's bloodstream. There are various ways a person can become infected with HIV.

Ways in which you can be infected with HIV:

- *Unprotected sexual intercourse with an infected person* Sexual intercourse without a condom is risky, because the virus, which is present in an infected person's sexual fluids, can pass directly into the body of their partner. This is true for unprotected vaginal and anal sex. Oral sex carries a lower risk, but again HIV transmission can occur here if a condom is not used - for example, if one partner has bleeding gums or an open cut, however small, in their mouth.
- *Contact with an infected person's blood* If sufficient blood from an infected person enters someone else's body then it can pass on the virus.
- *From mother to child* HIV can be transmitted from an infected woman to her baby during pregnancy, delivery and breastfeeding. There are special drugs that can greatly reduce the chances of this happening, but they are unavailable in much of the developing world.
- *Use of infected blood products* Many people in the past have been infected with HIV by the use of blood transfusions and blood products which were contaminated with the virus - in hospitals, for example. In much of the world this is no longer a significant risk, as blood donations are routinely tested.
- *Injecting drugs* People who use injected drugs are also vulnerable to HIV infection. In many parts of the world, often because it is illegal to possess them, injecting equipment or works are shared. A tiny amount of blood can transmit HIV, and can be injected directly into the bloodstream with the drugs.

It is not possible to become infected with HIV through:

- sharing crockery and cutlery
- insect / animal bites
- touching, hugging or shaking hands
- eating food prepared by someone with HIV
- toilet seats

HIV facts and myths

People with HIV look just like Every body else

Around the world, there are a number of different myths about HIV and AIDS. Here are some of the more common ones:

'You would have to drink a bucket of infected saliva to become infected yourself' . . . Yuck! This is a typical myth. HIV is found in saliva, but in quantities too small to infect someone. If you drink a bucket of saliva from an HIV positive person, you won't become infected. There has been only one recorded case of HIV transmission via kissing, out of all the many millions of kisses. In this case, both partners had extremely badly bleeding gums.

'Sex with a virgin can cure HIV' . . . This myth is common in some parts of Africa, and it is totally untrue. The myth has resulted in many rapes of young girls and children by HIV+ men, who often infect their victims. Rape won't cure anything and is a serious crime all around the world.

'It only happens to gay men / black people / young people, etc' . . . This myth is false. Most people who become infected with HIV didn't think it would happen to them, and were wrong.

'HIV can pass through latex' . . . Some people have been spreading rumors that the virus is so small that it can pass through 'holes' in latex used to make condoms. This is

untrue. The fact is that latex blocks HIV, as well as sperm - preventing pregnancy, too.

What does 'safe sex' mean?

Safe sex refers to sexual activities which do not involve any blood or sexual fluid from one person getting into another person's body. If two people are having safe sex then, even if one person is infected, there is no possibility of the other person becoming infected. Examples of safe sex are cuddling, mutual masturbation, 'dry' (or 'clothed') sex.

In many parts of the world, particularly the USA, people are taught that the best form of safe sex is no sex - also called 'sexual abstinence'. Abstinence isn't a form of sex at all - it involves avoiding *all* sexual activity. Usually, young people are taught that they should abstain sexually until they marry, and then remain faithful to their partner. This is a good way for someone to avoid HIV infection, as long as their husband or wife is also completely faithful and doesn't infect them.

What is 'safer sex'?

Safer sex is used to refer to a range of sexual activities that hold *little* risk of HIV infection.

Safer sex is often taken to mean using a condom for sexual intercourse. Using a condom makes it very hard for the virus to pass between people when they are having sexual intercourse. A condom, *when used properly*, acts as a physical barrier that prevents infected fluid getting into the other person's body.

Is kissing risky?

Kissing someone on the cheek, also known as social kissing, does not pose any risk of HIV transmission. Deep or open mouthed kissing is considered a very low risk activity for transmission of HIV. This is because HIV is present in saliva but only in very minute quantities, insufficient to lead to HIV infection alone.

There has only been one documented instance of HIV infection as a result of kissing out of all the millions of cases recorded. This was as a result of infected blood getting into the mouth of the other person during open mouthed kissing, and in this instance both partners had seriously bleeding gums.

Can anything 'create' HIV?

No. Unprotected sex, for example, is only risky if one partner is infected with the virus. If your partner is not carrying HIV, then no type of sex or sexual activity between you is going to cause you to become infected - you can't 'create' HIV by having unprotected anal sex, for example.

You also can't become infected through masturbation. In fact nothing you do on your own is going to give you HIV - it can only be transmitted from another person who already has the virus.

Is there a cure for AIDS?

HIV medication can **slow** the Progress of the virus

Worryingly, surveys show that many people think that there's a 'cure' for AIDS - which makes them feel safer, and perhaps take risks that they otherwise shouldn't. These people are wrong, though - there is still no cure for AIDS.

There is antiretroviral medication which slows the progression from HIV to AIDS, and which can keep some people healthy for many years. In some cases, the antiretroviral medication seems to stop working after a number of years, but in other cases people can recover from AIDS and live with HIV for a very long time. But they have to take powerful medication every day of their lives, sometimes with very

unpleasant side effects. There is still no way to cure AIDS, and at the moment the only way to remain safe is not to become infected.

How HIV is detected or diagnosed?

HIV is diagnosed by clinical assessment and HIV testing. The usual HIV test is one that detects antibodies to HIV in the blood. Rarely, a single HIV test for an individual person may not be reliable. The usual recommendation in diagnosing HIV infection is therefore to perform two tests. Both should be positive for a diagnosis of HIV infection.

When a person gets infected with HIV, the virus will start to attack his/her immune system. After exposure, there is a 2-4 week period of intense viral replication before onset of an immune response (i.e. antibody production) and clinical illness. This period is called **window period**; in this period HIV testing will be negative.

In high prevalence, as many as 5% of those testing HIV antibody negative will actually be in the window phase and are really infected with HIV. People in these settings who test HIV negative should be counseled strongly to return in three months for repeat testing.

Diagnostic tests available for the diagnosis of HIV:

a. ELISA (Enzyme-Linked ImmunoSorbent Assay)
b. Rapid Tests
c. Western Immunoblot test (Confirmatory tests)

HIV and TB-relation

HIV is the most potent risk factor for progression to active TB both in people with recently acquired infection and those with latent Mycobacterium Tuberculosis (MTB) infection. HIV-positive TB patients also suffer increased morbidity from other HIV related diseases.

Increasing TB cases among PLWHA augment the risk of TB transmission to the general community whether or not HIV infected.

TB is the most common causes of HIV related illness and death. HIV not only increases the number of TB cases, but also alters the clinical course of TB disease.

Impact of HIV/AIDS on TB control:

- ❖ Increased case load of active TB attributable to HIV
- ❖ Increased HIV related morbidity and mortality in TB patients
- ❖ Increased emergence of drug resistance
- ❖ Higher default rates and lower cure rates
- ❖ High rates of adverse drug reactions during TB treatment
- ❖ Increased risk of TB transmission (including nosocomial transmission)
- ❖ Increased burden on TB services
- ❖ Delay of access to health services for TB suspects due to the stigma of HIV/AIDS

Impact of TB on HIV:

- Increased case load of active TB among PLWHA
- TB may accelerate the progression of HIV-related immuno-suppression
- Increased morbidity and mortality from TB among PLWHA
- Difficulties with diagnosing TB among PLWHA owing to the different clinical presentations of HIV related TB
- Increased burden on HIV services

Sub-Populations at higher risk (PHR) of getting HIV infection:

- Injecting Drug Users
- Sex workers : street based and Non-street (institute) based
- Clients of sex workers
- Labor migrant / Transport workers
- Men having Sex with Men (MSM)
- Housewives of migrants
- Street children
- Uniform service

Chapter-III

Treatment of Tuberculosis:

1. How TB disease is treated?

Tuberculosis is a curable disease and treated with the oral drugs & sometimes together with injections. **TB drugs are available at free of cost in all government health facilities.** The total duration of treatment is 6 to 8 months. It is essential to complete full course of treatment. If treatment is interrupted before completion of full course the drug resistance will develop which is dangerous to patient as well as to the community. Drug resistance TB is difficult to treat.

2. What are the effective anti-TB drugs?

Following are the main anti -TB drugs available everywhere.

Oral Drugs

- Isoniazid (H)
- Rifampicin (R)
- Pyrazinamide (Z)
- Ethambutol (E)

Injection

- Streptomycin (SM)

3. What are the adverse effects of anti-TB drugs?

Drugs used in the treatment of tuberculosis may sometimes cause side effects/adverse effects, such as loss of appetite, nausea, abdominal pain, joint pains, etc. These may cause the patients to stop taking medicines. Most TB patients complete their treatment without any significant adverse effects of drugs. However, a few patients do experience adverse effects. It is therefore important that patients need to be clinically monitored during treatment so that adverse effects can be detected promptly and managed properly. Health personnel can monitor adverse effects of drugs by teaching patients how to recognize symptoms of common adverse effects.

4. When to stop anti-TB drugs:

When a patient has minor side effects, explain the situation, offer symptomatic treatment and encourage to continue treatment. When a patient has a major reaction, stop the suspected drug(s) responsible at once. A patient who develops one of the following reactions must never receive that drug again.

Streptomycin: Skin itching, rash, deafness, dizziness

Most anti TB drugs: Yellowish discoloration of eyes (Jaundice), vomiting and confusion

Ethambutol: Visual impairment

Rifampacin: Rash, Shock

Refer patients with severe drug reactions to specialist centres.

5. How one can help TB patients understand more about their disease?

Patients are more likely to successfully complete their treatment if they understand about their disease and treatment. Patients are often afraid when they learn of their diagnosis, because they harbor misbelieves such as TB is an incurable disease. Reassure them and provide them with proper and relevant information;

- ❖ TB is caused by an organism/bacillus
- ❖ TB spreads by air through coughing, sneezing.
- ❖ TB is a curable disease and not a hereditary disease.
- ❖ Investigation of TB suspects and treatment of TB cases are free of cost.
- ❖ If there is a side effect, inform Health workers as soon as possible.

Talking to an individual patient or patients in groups and distribution of pamphlets and brochures containing basic TB information should help to improve the patients' knowledge on TB.

B. Drug resistance to anti TB drugs & MDR-TB

1. What is drug resistance & MDR-TB?

Drug resistant bacilli are the Mycobacterium tuberculosis bacilli, which are resistant to anti-tuberculosis drugs. Multi-Drug resistant (MDR) bacilli are the bacilli that are resistant to at least INH & Rifampicin. MDR is currently the most severe form of bacterial resistance.

2. Treatment of MDR-TB

Treatment of patients with MDR tuberculosis may have to involve second-line (reserve) drugs. These are drugs other than the standard essential anti-TB drugs. These reserve drugs are much more expensive, less effective and have many more side effects than standard drugs. They should only be made available to a specialized unit and not in the free market. It is the responsibility of National Health authorities to establish strong pharmaceutical regulations to limit the use of second-line drugs in order to prevent the emergence of drug resistance tuberculosis.

3. Priority is prevention

A country with limited resources may reasonably decide that its resources should be concentrated on ensuring that all patients complete the standard National treatment and are thereby cured. With good standard treatment meticulously administered, multi-drug resistance should not occur.

The most common assumption is that the emergence of **MDR-tuberculosis is always due to medical error** prescribing an unavailable regimen, using unreliable regimen, using unreliable drugs, or failing to ensure (by directly observed treatment and education of the patients and the family) that the patients takes the drug as prescribed and for the full period prescribed. **MDR tuberculosis should always be regarded as a result of failure of effective implementation of the National TB control programme.** Top priority should be given to preventing such failure.

4. MDR TB a consequence of poor treatment

In some countries MDR tuberculosis has arisen from poor treatment before the introduction of the National Programme or because some patients received poor treatment outside the National Programme. As a wide variety of different poor regimens may have been used for such patients, the MDR tuberculosis cases, which arise, will require detailed assessment by the specialized unit.

5. How MDR TB is produced?

As with other forms of drug resistance, the phenomenon of MDR tuberculosis is entirely man-made.

Drug resistant bacilli are the consequences of human error in any of the followings:

- Prescription of chemotherapy → wrong combination, inadequate dosages
- Management of drug supply → irregular supply
- Case management → Irregular treatment, lack of monitoring & supervision.
- Process of drug delivery to the patient → Irregular delivery, lack of supervisory visits

6. What is DOTS PLUS Programme?

The drugs used in the Directly Observed Therapy Short Course (DOTS) programme are the best for tuberculosis and called *First Line Drugs*. The name of the drugs being used in DOTS programme is mentioned in Chapter III. Most patients are cured using these drugs. However there are some **very few patients** who do not get cured using DOTS drugs. At the end of the re-treatment regimen these patients sputum is still smear positive for TB.

The DOTS PLUS Programme offers drug treatment to patients who have failed first line Drug re-treatment or who have culture proven MDR-TB, with drug sensitivity Testing (DST) showing resistance to at least Rifampicin and Isoniazid. DOTS PLUS is-a **second line of treatment,** after patients have failed on fully observed DOTS treatment and re-treatment or for patients, who have smear and culture positive with DST proven MDT Tuberculosis. This is why this treatment programme is called the **DOTS PLUS programme.**

Chapter-IV

Facts about TB & HIV/AIDS

1. TB:

- TB kills more youth and adults than any other curable infectious disease.
- More than 5000 people die from TB every day.
- For Industrial workers, TB results in huge losses due to long absenteeism, low productivity and costs for treatment.
- TB is a contagious disease but only people that are sick with pulmonary tuberculosis are infectious.
- Poverty increases the risk of tuberculosis; impoverishes its victims.
- DOTS restore health to young and adult people who are in their most economically productive years.
- More than 90% of TB cases and deaths occur in low and middle-income countries.
- TB carries a direct cost to the health services (diagnosis, treatment and control)
- DOTS can add two year of life to an HIV positive person and 25-30 years to an HIV negative person.
- TB is the leading cause of death among people who are HIV positive.
- Late diagnosis, inadequate treatment, over crowding, poor ventilation and repeated prison transfer encourage the transmission of TB infection.
- TB can be readily and inexpensively cured with DOTS.
- Every infectious patient cured reduced the risk to everyone of contracting TB.
- DOTS prevents new infections and the development of MDR-TB.
- From a public health prospective, poorly supervised, incomplete treatment of TB is worse than no treatment at all.

- In some parts of the world, the stigma attached to TB leads to isolation, abandonment and divorce of women.
- TB is the leading killer of people infected with HIV.
- TB causes at least 11% of AIDS deaths and possibly as many as 50%.
- More people are dying of TB today than ever before.
- TB is the biggest curable infectious killer of young people and adults in the world today.
- TB is an opportunistic disease that preys on weakened immune systems.

2. HIV/AIDS:

- AIDS Kills more than 8000 people every day world wide.
- World wide, 14 Million people are co-infected with TB and HIV-70% of them are concentrated in Africa.
- Treatment of TB can prolong and improve the quality of life for HIV-positive people.

With effective treatment Tuberculosis can be cured
& HIV can be managed to prolong lives

Guidelines for

Partnership Programme

with

Manpower Agency

Chapter-

1. TB & HIV Control a Shared Responsibility

SAARC TB and HIV/AIDS Centre is working with Manpower Agency (Foreign Job Employment Agencies) to prevent migrant people from tuberculosis and HIV/AIDS. The objective of this partnership is to mobilize the corporate sectors into the social activities.

2. Why do we need partnership with Manpower Agency?

Neither TB nor HIV/AIDS is only a medical problem; these are socio-medical problems and experiences shows that without involving different sectors/sections of the society these problems cannot be tackled. That is why STC has started partnership development programme with different stakeholders in this mission. Thus, Manpower Agency has been identified as one of the potential partners.

Migrants are particularly vulnerable population. Often they are seen as a threat to get infection from TB and HIV/AIDS at any time. Many migrants are young men. Often traveling alone or in small groups and is dislocated from the normal support and social control of their home environment. This situation leads itself to high-risk behaviour such as casual sex, drug use which they would not normally adopt in their home environment and which contributes to the spread of TB and HIV. The problem is pronounced along the international borders. SAARC attaches the highest importance in combating migratory problems of ill health and poverty.

Manpower Agencies are the important bodies to deal with the migrant population. They have to perform their (migrant) health checkup. So if they are made aware about these TB and HIV/AIDS diseases and what to do when they will identify TB & HIV/AIDS problems, it will help National Tuberculosis Programme (NTP) and National AIDS control Programme (NACP) to control these diseases among the migrant population and ultimately to their family and society.

3. Objectives of the partnership with Manpower Agency:

General objectives:

Enhancement of public awareness on TB/HIV and its prevention and control

Specific objectives:

- To disseminate update information on TB/HIV.
- To seek coordination and cooperation for control efforts on TB /HIV

4. Strategy to fulfill the objectives:

- Organize interaction programme with Industrial workers as well as management.

5. Role of Manpower Agency on TB/HIV control efforts

Many Manpower Agency provide health care and basic information on communicable diseases for migrants that may include TB and HIV/AIDS control activities. They can provide some or all of the following:

• Education and awareness about TB as part of general health education and awareness activities;

• Advocacy on TB control;

• TB symptoms to the nearest health facility for diagnosis and treatment;

• Support of TB patients during their treatment, including directly observing their treatment. Individual can make different contributions depending on their size and how they arrange their occupational health services. Employers with onsite health clinics can collaborate with the NTP to offer the option of directly observed treatment (DOT) in the workplace. Representatives and organizations can also undertake advocacy and awareness raising, and be a source of volunteers to support TB patients during their treatment, including DOT in the respective migrant workplace. Some

Agency may have an outsourcing arrangement, perhaps with local private practitioners, that could be used for referring TB suspects for diagnosis and treatment. Others may provide a health insurance scheme for their employees, in which case they should ensure that the scheme covers TB diagnosis and treatment, in line with NTP policies. In large workplaces, a significant number of persons may develop TB each year – possibly enough to justify the establishment of a DOTS Centre. The Agency could arrange for staff of at the clinic to help in identifying TB suspects and diagnosing cases, as well as helping patients to complete their treatment. The programme would report the numbers and types of TB cases found and their treatment outcomes to the NTP

Hence, then the role is to aware the migrants on update information on TB and HIV with advising proper use of drugs, which in turn enhance the control efforts implemented by TB/HIV programmes.

6. How to develop partnership with Manpower Agency?

To develop partnership with Manpower Agency, it is necessary to organize a brief interaction programme for them in collaboration with the Association. If there is no existence of such organization, all the migrants should inform individually or collectively for gathering in one proper venue for interaction programme. In the interaction objectives of partnership programme should be explained clearly.

7. How to organize partnership programme with Manpower Agency?

Responsibility:

The primary responsibility in organizing partnership programme with Manpower Agency goes to the National TB & HIV/AIDS Control Programmes, Director/Manager of the country.

The Director/Manager should appoint a programme officer for overall organization of partnership programme in the country.

At the periphery these programmes may be organized at the district level and main responsible person would be the district TB & HIV/AIDS coordinator.

Programme

Participants:

- Preparing to Migrant people
- Board Members of Manpower Agency
- Supporting staff

Interactive programme:

Talk programme with multimedia presentations on TB & HIV/AIDS problem, its prevention and control with emphasis on importance of partnership programme with Manpower Agency in TB/HIV control. In this regard the following points may be explained:

- General information on TB/HIV
- Magnitude of TB/HIV burden in World, Region, Country and Local level
- Causative agent and its mode of transmission
- Symptoms of pulmonary TB and HIV/AIDS
- Diagnosis of TB/HIV
- DOTS and its importance
- Complications of irregular drug taking
- Inappropriate doses or combinations of TB drugs
- Impact of HIV/AIDS on TB disease
- Preventive measures
- ARV and its implications
- Role of Manpower Agency in TB/HIV control programmes

During the interaction programme IEC materials/publications should be distributed to the participants. The IEC material can be given to the Agency for distribution to the Manpower Agencies.

Chapter-VII

A. Contribution of STC towards Prevention and Control of TB and HIV/AIDS

Strategies:

1. Regional Strategy for TB/HIV Co-infection

A regional strategy for TB/HIV Co-infection ahs been developed in 2003. The strategy presents an overview of interaction between the two epidemics and the impact of the co-infection on the epidemiology and control of both the diseases. It also provides guidelines for tackling the co-infection problems in the Region through collaborative efforts of both the programmes.

2. Regional Strategy for HIV/AIDS

On the directives of the 12th Summit of SAARC, a regional Strategy on HIV/AIDS has been developed through consultative process and close collaboration with the joint United Nations Programme on HIV/AIDS (UNAIDS) in 2005, which has been approved by 31st Session of Standing Committee of SAARC held in Dhaka on November 9-10 2005.

3. Development of common Protocols, Guidelines, Policies, Plan

For the development of common Protocols, policies, Strategies Plan and Guidelines and solution of common problems, issues, STC organized Seminars, Workshop, and Meetings at the different levels in SAARC Countries.

Remember!

TB and HIV/AIDS Control & Prevention is not only the responsibility of health services seekers and health care providers. It's a shared responsibility as these diseases are not only a medical problem but social as well. So every body has to contribute.

References:

1. SAARC Guidelines for Partnership with Pharmacists 2006, STC
2. SAARC Guidelines for Partnership with Media and School in prevention and control of Tuberculosis, 2006.
3. STC Report 2007 – Tuberculosis Control in SAARC Region
4. STC Report 2007 – HIV/AIDS and update in SAARC Region
5. History of TB Control Programme in the SAARC Region -2005, STC
6. Guidelines for Workplace TB Control Activities- the contribution of workplace TB control activities to TB Control in the community- WHO/ILO-2003-323
7. DOTS at the workplace, Guidelines for TB Control Activities at the Workplace- WHO New Delhi -2003
8. STC at glance

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