Om sri sai ram

**Addressing Needs of MDR TB Patients – Concept Note:**

**Multi-drug-resistant tuberculosis** (**MDR-TB**) is defined as [tuberculosis](http://en.wikipedia.org/wiki/Tuberculosis) that is [resistant](http://en.wikipedia.org/wiki/Antibiotic_resistance) to at least [isoniazid](http://en.wikipedia.org/wiki/Isoniazid) (H) and [rifampicin](http://en.wikipedia.org/wiki/Rifampicin) (R), the two most powerful [first-line treatment](http://en.wikipedia.org/wiki/Therapy#First_or_second_line) anti-TB drugs with or without resistance to other first-line drugs. MDR TB is important because patients with this type of drug resistance respond extremely poorly to standard anti-TB treatment with first-line drugs. MDR TB requires relatively costly laboratory diagnosis and treatment for at least two-years with drugs that are expensive, toxic, and not particularly potent. A case of MDR TB is about 20-40 times more expensive to manage than a case of drug-sensitive TB, and patient suffering is magnified.

**Reasons for MDR TB:** MDR-TB develops in otherwise treatable TB when the course of [antibiotics](http://en.wikipedia.org/wiki/Antibiotics) is interrupted and the levels of drug in the body are insufficient to kill 100% of bacteria. There are number of reasons for getting two ways that people get MDR TB:

* Firstly, people get acquired drug resistant TB when their [TB treatment](http://www.tbfacts.org/tb-treatment.html) is inadequate. This can be for a number of reasons, including the fact that patients fail to adhere to proper treatment regimes, the wrong drugs are prescribed, or substandard drugs are used for treatment.
* Secondly, transmitted or primary drug resistant TB results from the direct transmission of drug resistant TB from one person to another.
* Socio-Economic aspects pertaining to the patient taking MDR TB Treatment also have impact on the treatment adherence of the patient taking MDR TB treatment

**MDR TB – A Challenge:** MDR-TB remains a particularly challenging disease to treat for several reasons: patients must usually be hospitalized to undergo daily injections; patients are often isolated; adverse reactions to agents used to treat MDR-TB are very common; and duration of treatment can be as long as two years.

Because of these constraints, about 50 percent of patients end up interrupting their treatment before it is complete. The inability to offer patients a less toxic and less demanding regime led a different treatment conditions, including home-care is required.

**Approach:** Prevention counseling to patients taking first line will be a first tool in order to prevent MDR TB. A holistic approach will be followed in order to ensure a patient put on MDR Treatment completes his treatment. This holist approach will address the psycho, social, medical and economic aspects of the patient. This approach coupled with DOTS provision of convenient time to the patients will show greater impact. A five step approach will be followed be followed in the treatment

1. Prevention of MDR TB among person with TB taking First Line Treatment: In all the awareness activities about TB specific session on MDR TB is included. All the Cat 1 & 2 patients are counselled effectively on the side effects of non-adherence to treatment which could lead to MDR TB. Objective of these counselling sessions is to make people taking Cat 1 & 2 treatment understand prevention of MDR TB is lifesaving than curing it with treatment. Regular follow up is made by project staff as well and volunteer to ensure treatment adherence. They are also informed about the MDR TB treatment related aspects and complications.
2. Early Detection of MDR TB:Timely identification of person with MDR-TB is one of the most critical factors in controlling the spread of the disease. Criteria for the identification of patients who are at high risk of having MDR-TB are well defined. These include persons with TB who have failed TB treatment, those who have contact with a known person with MDR-TB, and those who had contact with a patient who died during the course of TB treatment.
   * Once a presumptive MDR-TB patient is identified are referred for Drug Susceptibility /Culture test. Most of the referred cases do not turn up due to transportation expenses involved and huge distance to be travelled near about 24km away. In order to fasten the whole process samples for testing will be collected and transported to nearby Accredited Drug Susceptibility/Culture Testing Centers by the project. This will have dual advantages firstly person with TB (and symptomatic for MDR TB) need not have to travel and spend money and secondly time will not be wasted for testing. Travel costs of the person transporting will be picked up by the project. Follow up such patients whose test results are pending will be done by the project.
   * All the persons who are in close contact with a person with TB who is taking Cat 2 treatment (suspect of MDR TB) will pre-examined for TB at Designated Microcopy Centers immediately. If anyone of the close contact are diagnosed with TB then their sputum sample will be sent for Drug Susceptibility/Culture Test.
   * Close Contacts of a person taking MDR TB will be regularly followed up for any symptoms of TB. If any symptoms are observed for a day also then their sputum will be tested at Designated Microscopy Centre and sputum sample will be sent for Drug Susceptibility/Culture Test.

Testing of the close contacts is essential in arresting the spread of TB and MDR TB

1. Personalized Care: Individual Treatment Companion will be employed to for a group on 5-7 MDR Patients taking treatment in an area. This Treatment Companion will be responsible for complete care of the designated MDR TB patients. They will also take up counselling sessions and help patient to handle socio economic aspects in successful completion of the treatment. Provision of DOTS will be done at the door step of the Person diagnosed with MDR TB at time convenient to them. This personalized care will be given during the first 12 months of the treatment. This initiative will prevent person with MDR TB from losing follow up to the treatment. This is because person with MDR TB will face severe side effects during this period and chances of dropping the treatment are high. Effective counselling keeps to be done during this period about the side effects and methods to manage them. During first six months person taking MDR TB treatment have to take Kanamycin injection, Treatment Companion who are trained in giving injections will do this work, reducing the additional cost which patient have to bare. Provision of DOTS at the home will also not hinder their usual work and need not worry about loss of wage. Treatment Companion will be in regular touch with MDR TB patient. This arrangement of Treatment Companion will be useful in giving psychological counselling which are the major side effects in intensive phase. Another major aspect where Treatment Companion will focus is to address the socio-economic requirements of the person taking MDR TB. This means that linking person taking MDR TB treatment to available government schemes. After 12 months of personalized care person taking MDR Treatment will be get acclimatized to the treatment, side effects, methods to manage them, will be psychologically fit and his socio-economic needs are addressed, at this time. Person with MDR TB will be linked to a Community DOTS Provider in his/her near vicinity for DOTs. After allocating the person taking MDR TB treatment to a Community DOTS Provider, Treatment Companion will visit them once in a week for follow up.
2. Addressing Psychological Needs of the person diagnosed with MDR TB: Providing the complete information about the disease, its treatment and adherence are the key components

* Treatment Preparedness: Once a person is registered for MDR Treatment (DOTS Plus). An extensive counselling session will be taken up to prepare patient to take the treatment. Objective of this counselling session is to give confidence to patient that MDR TB is curable and create hope for life. A detailed analysis of the psycho, social and economic aspects of the patient is done. A case management plan is made to meet the family and neighbours with patient consent
* Family Counselling of MDR TB Patient: Interaction with immediate care taker of the Person diagnosed with MDR TB is done in this counselling session. Care taker and person taking MDT TB treatment are explained about the treatment procedure of MDR TB. They are also cautioned about the probable side effects and precautions to be taken. Objective of this counselling session is to make family aware about MDR Treatment, clear of myths and misconceptions (if any), mobilize family support, and take commitment for treatment adherence. Further plan of allotting a Community DOTS Provider will be chalked out by Treatment Companion in consultation with person taking MDR TB treatment, Family members and Project Managers. This informed decision of selecting Community DOTS Providers in consultation is done to bring about ownership of treatment by the family and person taking MDR TB Treatment. Moreover precautions to be taken by the family members in order to prevent infection are also discussed.
* Treatment Adherence:DOTs will be provided at the door step and regular follow up visits are made by the Treatment Buddies to check the treatment adherence. As DOTS provision is done at patients door step chances of losing the link with treatment will not be there.

1. Addressing Socioeconomic needs of the MDR TB Patient:

* Get Together Meetings: MDR Support group meetings are organized at center with people taking MDR Treatment. Objective of these Support Groups is to bring all the patients taking MDR treatment at a place to sharing their experiences. This support group meeting acts as a forum for patients to open up and talk about their problems/issues and seek advice from their peers. These support group meetings also give a sort of psychological satisfaction to the patients that many others are like him/her are fighting with MDR TB. Motivation and sometimes spiritual lectures which aimed at building the confidence and hope are organized in these meetings. Similar sort of get-togethers of immediate care takers are organized separately to discuss about the challenges they face in handling MDR patients and steps they have taken to solve the issues. This also acts are forum for burnout of immediate care takers while dealing with MDR TB patients and renew their motivation
* MDR Support Groups: To address the social needs of Person diagnosed with MDR TB a support system in build with neighbors, family members and Treatment Companion coordinating meeting once in a month.
* Nutrition Support: TB Alert India had analyzed the reasons for treatment default in the cases which have lost to follow up to MDR Treatment. One major reason which did emerge was on responsibilities of the MDR patients. Most of them being the sole bread winners of the families and infection did not allow them to work. Basic need was the food to family, having understood the requirement TB Alert India with support of individual sponsors has facilitated provision of daily groceries per month for a period of 12 months. This at the least was addressing the immediate concern of the patient and their family members. Three such patients are being supported at present as support is sufficient for only three patients. Linking MDR TB cases with available social welfare schemes.

Objectives:

1. To reduce the incidence of MDR TB among the people taking first line TB treatment through effective counseling and ensuring treatment adherence
2. To support people with MDR TB in completing full course of MDR TB treatment by giving personalized care, by addressing psycho, social and economic related aspect ensuring successful MDR TB treatment completion as per the national program guidelines (40% cure)

Output Indicators:

1. About 95% of the people taking first line treatment will complete the treatment and are declared as cured/ treatment completed
2. About 40-50% of the people taking MDR TB Treatment will be completing the treatment and are declared as cured
3. Enhanced knowledge about MDR TB and Management of immediate care takers of the people taking MDR TB treatment by 15%
4. Improvement in the psychosocial conditions of the people taking MDR TB treatment

Activities planned:

1. Get together meetings
2. MDR Support Group Meetings
3. Recreational Activities
4. Nutritional Support
5. Collection and Transport of Sputum Sample for Drug Susceptibility Test
6. Counseling to people with TB taking Cat 1 treatment
7. Treatment Preparedness, Treatment Adherence Counseling and Family Counseling to Persons taking MDR TB Treatment
8. Linking of people taking MDR TB Treatment to available social welfare schemes