

# Strategies for Improving Treatment Completion

GLORIA K. (KITTY) SMITH, R.N.  
CLARK COUNTY COMBINED HEALTH DISTRICT  
SPRINGFIELD, OHIO

## Objectives

Upon completion of this presentation, you will be able to:

- Describe obstacles to treatment completion
- Describe strategies for improving treatment completion
- Identify and prioritize the objectives in the treatment process in your program to improve successful treatment completion

## Obstacles to Treatment Completion

- Poor adherence to treatment regimen – identified as a major obstacle to effective TB control
- Culture, including health beliefs or practices
- Social implications, real or perceived stigma
- Language barriers
- Lack of permanent residence
- DOT versatility
- Trust
- Support, lack of family or friends
- Hours of treatment, lack of flexibility of DOT therapy
- Lack of knowledge about TB or misunderstanding
- Limited financial resources
- Co-existing medical conditions
- Medication side effects

## Strategies to Overcoming Obstacles-1

### **Goal:**

Develop new treatment program, with the goal of effective treatment completion, by assessing current program practices and effectiveness.

**Step 1:** Determine effectiveness of your program. How many individuals has your program provided active TB treatment for in a specific number of years? How many of these individuals have completed treatment? How many of these individuals have completed treatment within the specified time? How many have of these individuals have had to start and stop during treatment? What are the pros and cons of making changes to your program?

**Step 2:** Develop new procedures for implementation of strategies, which will improve access and adherence to treatment. This can be accomplished by assessing the effectiveness of our programs' individual treatment and intervention strategies; making changes to improve strategies thereby improving adherence to treatment, avoiding relapse possibilities and lowering the chances of the development of MDR TB.

## Strategies to Overcoming Obstacles-2

### Considerations Include:

- Ensure language barriers are addressed, ascertain appropriately trained personnel to assist in translation
- Reinforce assessment, teaching, education and counseling for client and as appropriate client support
- Gather client input/buy-in
- Build trust with client and others who are in the home
- Improve communication between health personnel and patients; assure client is aware of those who will participate in their care
- Develop a calendar/schedule for the client
- Communicate with client; communication and reliability allow your client to trust their treatment team
- Offer and allow client input to the choices of directly observed therapy (DOT), for example the client may desire to come to the program for treatment (once able to leave their setting); they may desire someone to meet them in a place other than their home type setting
- Access to alternative care
- Assuring needs are met: Coupons, gift cards, travel assistance, food, clothing, shelter, etc.

### Desired Outcome:

- Client successful completion of treatment regime; based upon treatment time determined by physician, Infectious Disease consult, Department of Health personnel or contracted program staff

## What is the process?

Considerations from acknowledging a client is suspected of possible TB disease to treatment completion

- Obtaining necessary demographics, history of current suspect diagnosis, tests performed, tests needed, specimens, and X-rays
- Input of clinicians, laboratory results
- Assuring availability of treatment medications
- Availability of reliable source of health education material
- Continuity of care, not only within your program, but that of others if needing additional supportive care
- Good follow-up, contact investigation, referrals as needed
- Cooperation by the client to take the prescribed anti-tuberculosis medications

## What Does the O.R.C. Say About Tuberculosis?

### Ohio Revised Code – O.R.C.

O.R.C. 339.72 to 339.89 – are the rules which apply to Tuberculosis (TB) within the State of Ohio (It gives the counties the legal ability and authority to enforce compliance for those individuals with TB.)

Public health authorities may demand adherence by utilizing the Ohio Revised Code. The foregone conclusion is the legal authority should be followed to assure those who are infected with a contagious disease must not spread the disease to others.

Problems may arise with enforcing compliance through “letter of the law?”

- If a county proclaims the O.R.C. rules in the delivery of the investigation and treatment, their model of treatment becomes one which is no longer a strategy for care but a demand to care which may be interpreted negatively. This may lead to greater difficulty in treatment, poor adherence to medication therapy, non-compliance and sometimes an individual who disappears during treatment.

It is important to maintain a relationship of trust, education and motivation.

Treatment should not appear to be a punishment or an embarrassment to the client. The programs should advise, educate and teach regarding the disease. Educate the individual regarding the need for treatment and maintaining the health of those who surround them. Assure all information provided is appropriate to individuals needs, education level, and culture. Assess for their social needs, economic needs, and personal needs. If the treatment will be burdensome for them or interfere with their needs, they may find a way to break the treatment regime.

## Past Experience – Promoting Adherence-1

**Case 1** – 60 plus year old male, history of homelessness, alcoholism, drug use, incarceration, nomadic, mental health issues, symptomatic, with weightloss, chest pain, malnutrition, cough, night sweats, inability to drive legally, unreliable transportation, not employed, uninsured, living outside of city limits

**Case 2** – 20 plus year old hispanic male, unknown immigrant status, migrant worker, sharing home with 3 confirmed individuals, one of which is child under 5, other is child under 10, mild symptoms, slight cough, bicycle or friends for transportation, newly employed, uninsured, living within city limits

### What to do?

- How to accomplish addressing the situation of two TB cases, investigating and treating.
- Laboratory testing needed, x-rays already completed through programming and hospital, input of consulting physician and ODH staff, obtaining assistance, medication, planning, plans for education, teaching, care and providing both clients treatment through completion.

## Past Experience – Promoting Adherence-2



### How were we going to proceed as a health department?

- O.R.C. rules
- ODH TB information – utilization of expert health education regarding TB Care – to allow for good follow up care
- DOT plan
- CDC TB information
- JIT training

### Goals:

- Contact information to ascertain no other individuals were involved either as the primary case, contact cases or susceptible individuals who could be exposed.
- Treatment of both individual cases and any contacts who may be identified.
- Treatment in a non-judgmental, caring, individualized treatment regime for each case.
- We are all aware that good treatment strategy and follow through are necessary, but we all run into the problems which remain.

## Past Experience – Promoting Adherence-3



### Possible complications: Mistrust of the individual. Panic within the community.

- It is important to use public health powers in an appropriate manner. Pay attention to the fair, balanced and practical use of TB rules, especially those within O.R.C.
- If people believe they are being treated with fairness, they are more likely to comply with public health advice, treatment and prevention measures.

## Interventions to Barriers

- Health education addresses personal barriers concerning knowledge and understanding of treatment requirements.
- Assessing concerns will assist you in learning concerns. (IE: providing for family, near and far; maintaining their current residence; finding a place to live; providing for their food or that of animals)
- Giving clients “enablers” in small amounts, including gas cards, grocery cards, gift cards, and bus tickets may assist them as they are unable to work or have additional responsibilities due to their current illness and treatment.
- Perhaps, they are in fear of others knowing of their illness.

## What is Important to Your Strategies?

- Education of those involved in your programs
- Multi level training, CDC TB modules, and Contact investigation training
- Continued work toward identification of cases
- Understanding labs and tests required for:
  - determining a suspect case
  - follow through of a case
  - completion or wrap up of a case

Collaboration, community input, ODH input, leads, local employers of ethnic groups, recording, reporting, monitoring, reporting off
- Client enablers – American Lung, grants, your facility

## So, What is the Problem with Non-adherence?



Tuberculosis (TB), is most often curable, if effective treatment is initiated timely, uninterrupted, with proper anti-tuberculous drug therapy. Adherence to treatment is crucial for the cure of the individual, controlling the spread of tuberculosis (whether as active disease or latent infection), and minimizing the development of drug resistance TB.

### **Complications of Non-compliance or Lack of Adherence to Regime Include:**

- Slow to convert sputum from positive to negative (based upon culture results)
- Greater likelihood of drug resistance leading to longer and more intensive medication treatment
- Challenges due to treatment duration (usually six-nine months or longer). Treatment involves multiple drugs which can include side effects.
- Individuals who are uninsured, underinsured, or cannot afford copays and deductibles may have difficulty covering the cost if not covered by the public health system.
- Additionally, as in any illness, when a person begins to see improvements in their symptoms it is likely they will find it difficult to understand the need for continuation of the treatment for the necessary period of time to allow their body to completely recover and for the bacteria to be eradicated.

## What About Positive Contacts?-1



### **Treatment of Latent Tuberculosis Infection**

- "Latent tuberculosis infection (LTBI) is the presence of *M. tuberculosis* organisms (tubercle bacilli) without symptoms or radiographic or bacteriologic evidence of TB disease."
- Approximately 90-95% of those infected are able to mount an immune response that halts the progression from LTBI to TB disease.
- However, because prevention of TB has major public health implications, the Centers for Disease Control and Prevention (CDC) and the United States Preventive Services Task Force (USPSTF) recommend testing populations that are at increased risk for TB infection and treating those for whom TB disease has been ruled out.
- Health care providers must communicate the risks and benefits of treatment to their patients and encourage adherence and treatment completion." (Taken from CDC information)

## What About Positive Contacts?-2



### Communicating the Importance of Latent TB Infection Treatment

- Well informed individuals are more likely to understand the importance to medication follow through for LTBI
- It is important for them to understand “As long as TB germs are in the body, they can begin to multiply and cause disease”
- Some people are at higher risk for progression to active TB disease, including those who have recently been diagnosed with TB infection, medical conditions which make them more susceptible and those taking medication that may alter immunity
- Treatment completion for Latent TB infection can reduce the risk for TB disease by up to 90%
- It is important to explain to your client the treatment regimes are based on scientific research
- Generally, TB infection is treated with one medication, whereas TB disease initially requires the use of medications, unless the person has a drug resistant TB
- Those individuals who are homeless, substance abusers, foreign-born, incarcerated, migrant workers, HIV positive and the elderly may require additional considerations for treatment

## Strategy Ideas-1



### Collaboration with Community Agencies

- Partner with local health departments and community-based organizations that can provide:
  - *Case management* to ensure continuity of services
  - *Directly observed therapy (DOT)*, whereby a health care worker observes the ingestion of medication; highly recommended when using intermittent regimens and for high-risk patients, such as those whose treatment has been interrupted or who often miss appointments for medication refills
  - *Incentives*, which are small rewards that encourage or motivate patients. Local businesses and organizations may be a resource for incentives such as grocery store vouchers, nutritional supplements, movie tickets, or restaurant coupons
  - *Enablers* such as free van transportation or bus tickets, reminder letters or phone calls, and other assistance that makes it easier to keep appointments

## Strategy Ideas-2

### Effective Patient Education

- Have materials available in patient's primary language and at appropriate literacy level
- Include patient's family in health education whenever possible, because they can offer support
- Reinforce educational messages at each visit
- Give clear instructions regarding side effects and when to report them to a health care provider
- Allow opportunities for questions and answers

### Patient-focused Strategies

- Obtain patient's agreement to complete treatment before actually starting (patient contract)
- Recommend reminders such as watches, alarm clocks, cell phone reminder, reminder text or call, notes to self, pill boxes with days of the week
- Schedule monthly appointments to monitor progress
- Reinforce importance of treatment completion each visit to help maintain patient's commitment
- Tailor treatment regimen to patient's needs (daily vs intermittent dosing, alternate regimens)
- Recommend taking medication at same time every day and associate it with a daily activity such as mealtime, brushing teeth, etc.
- Recommend taking isoniazid with food if gastrointestinal upset is a problem

## Relating our Past Experiences

Clark County Combined Health District cases June 2012 thru August 2018:

- 2 cases 2012 – 60 plus U.S. born male, 20 plus hispanic male
- 1 case 2013 – 50 plus U.S. born male
- 1 case 2014 (MDR) – 30 plus hispanic male
- 3 cases 2017 – 30 plus hispanic male, 20 plus African female, 20 plus hispanic male

6 of 7 to completion, 1 lost to follow-up/moved to undisclosed location

What were our success tips?

## Resources and Sources

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**Promoting adherence to tuberculosis treatment**

Paul Garner<sup>a</sup>, Helen Smith<sup>a</sup>, Salla Munro<sup>b</sup>, Jimmy Volmink<sup>c</sup>

**Adherence to tuberculosis treatment**

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TB Education and Training Resources website

[https://www.cdc.gov/tb/publications/tbti/pdf/USPSTF\\_Recommendation\\_Statement\\_Screening\\_For\\_Latent\\_TB\\_Infection\\_in\\_Adults.pdf](https://www.cdc.gov/tb/publications/tbti/pdf/USPSTF_Recommendation_Statement_Screening_For_Latent_TB_Infection_in_Adults.pdf)

## Thank you!

- Any questions?