

The background of the slide features a large, semi-transparent watermark of the Rutgers University seal. The seal is circular and contains the text "RUTGERS UNIVERSITY" around the perimeter and "1823" at the bottom. The seal is centered behind the main text.

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NEW JERSEY MEDICAL SCHOOL

Tuberculosis Case Management and Adherence

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Case Management Defined

- A systematic process that provides coordinated, sequenced care along a continuum to a cohort of patients diagnosed or suspected of having TB through case finding, assessment, problem identification, planning, implementation, outcome identification, evaluation and documentation to ensure optimal TB treatment outcomes within acceptable time frames.

Define TB Case Management (NCM)

- The concept of TB case management was developed in response to identified program deficiencies; poor adherence rates resulting in lengthy, interrupted treatment regimens.
- The tasks, activities and responsibilities of TB case management are situated within the framework of public health, the process and the case management approach
- TB case management assigns responsibility and accountability for individual patient outcomes including adherence to therapy, completion of treatment and cure.

Poll Question 1

The concept of TB case management was developed in response to identified program deficiencies; poor adherence rates resulting in lengthy, interrupted treatment regimens.

- A. True
- B. False case management was in response to Direct Observed therapy
- C. None of the above

Why do we need TB Case Management ?

- The TB treatment guidelines emphasize the important role of case management:

“Given that tuberculosis treatment requires multiple drugs be given for several months, it is crucial that the patient be involved in a meaningful way in making decisions concerning treatment supervision and overall care.....The optimal organization of tuberculosis treatment often requires the coordination not only of primary and specialty clinical care services, but also community-based organizations and system combined with the diversity of characteristics of patients are best addressed by providing individualized patient-centered case management.” (ATS/CDC/IDSA, 2016)

What is Patient-Centered Care?

- Patient-centered care is an important underlying principle of quality health care systems and interventions



- The Institute of Medicine (IOM) defines patient-centered care as “providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions”
- Patient-centered TB care respects an individual’s right to participate actively as an informed partner in decisions and activities related to TB diagnosis and treatment**

Critical Concepts

- The case manager is responsible and accountable for a cohort of patients from initiation to completion of treatment, change in diagnosis, or death
- It is a patient-centered, proactive approach to care
- A multi-disciplinary team approach is utilized and is critical to the process; the case manager is the “head” of the team

Critical Concepts - 2

- It is a systematic approach designed to allow patients to experience care along a continuum rather than in fragments
- The case management process includes eight elements and specific activities are carried out in each element

Advantages of the Case Management System

- Sets a standardized system for establishing an appropriate plan of care
- Patient care is based upon an assessment and identification of problems; interventions and actions are based on achieving desired outcomes



Goals of Case Management

- All hospitalized individuals diagnosed with or being evaluated for TB disease receive uninterrupted care during transition from hospital to the outpatient setting.
- Disease progression and development of drug resistance is prevented.
- Each patient receives TB care and treatment according to published standards of care (Nahid et al., 2016).
- An integrated, coordinated system of health care allows patients to experience TB care along a continuum rather than in a fragmented manner.
- Patients' complete TB treatment within appropriate time frames and with minimal interruption in lifestyle or work.

Goals of Case Management - 2

- Transmission of TB within the community is prevented through effective contact investigations and other essential activities for controlling TB, including identification and treatment of TB infection.
- The patient/family/community is educated about TB infection, disease, and treatment.
- Individuals diagnosed with or being evaluated for TB disease are reported according to applicable regulations.
- TB prevention and control activities are implemented according to standards set by CDC.
- State and local TB regulations and policies are followed.

Eight Elements of NCM

- Case finding
- Assessment
- Problem identification
- Plan development
- Implementation
- Outcome Identification
- Evaluation
- Documentation

First Element - Case Finding

- Early identification of patients who were previously unknown to public health officials
- Supports linkage to care and treatment
- Prompt initiation of the essential activities to TB elimination to prevent transmission in the community
- Hospital surveillance
- Collaboration with private providers

Poll Question 2

Assessment of the patient begins:

- A. At the first interview
- B. At the first clinic visit
- C. When I receive the TB report of a new TB suspect or case
- D. Nurses do not assess TB patients

Second Element - Assessment

- Data collection on a timely basis
- Clinical assessment of the patient
- Assessment of the patient's biophysical/psychosocial health problems, spiritual needs, cultural beliefs and lifestyle, knowledge and beliefs about TB, and barriers to TB treatment
- Conducted in hospital, clinic, and field

Assessment

- Assessment is an ongoing and continuous process
- Information should be obtained from all individuals involved in the patient's care
- Assessment is both objective and subjective
- The plan of care is based on the assessment
- Assessment includes individual patients and cohort

Third Element - Problem Identification

- Identification of the actual or potential health problems specific to the patient or cohort of patients.
- It involves multiple-disciplines
- Problem identification is equivalent to the nursing diagnosis
- Errors in problem identification will lead to unsuccessful interventions and outcomes
- Conduct regular reviews of the patient record

Fourth Element - Planning

- The plan is based on the assessment and problems identified
- The plan includes interventions, education, anticipated behavioral outcomes
- It is important to determine the roles and responsibilities of the multi-disciplinary team in the plan

Planning

- A good plan will always include patient participation and commitment from each team member
- Negotiation must be part of any plan
- The case manager is responsible for the overall plan - documentation, monitoring, and ensuring change to meet new realities

Fifth Element-Implementation

- Includes provision of services, and/or assurance that services are provided according to the plan
- Requires educating, coordinating, monitoring, reporting, locating, referring, negotiating, documenting, and advocating for the patient
- Continual assessment and negotiation
- Collaborate with hospital or community providers as needed

Sixth Element – Outcome Identification

- Identifying expected outcomes and implement changes to overcome any barriers to an optimal outcome.
- Review modifications in the plan of care at specified intervals to determine if intermediate and expected outcomes were achieved. The nurse case manager should review all assessments and information to determine if the outcomes are realistic.
- Describe the reason(s) for the modification. Adjustment to a care plan should be based on assessments and critical thinking.
- Individualize to the person because often there are changes in the TB patient's circumstances during the lengthy course of treatment that is specific to that individual.

Seventh Element - Evaluation

- Evaluation of specific patient outcomes and cohort analysis is important
- Review of variances will allow the case manager to identify the frequency of clinical, operational, or system problems
- Additional resources, funding, and services can be identified

Eighth Element - Documentation

- Documentation is the measuring rod of the case management process
- Includes assessment, plan, variances, and evaluation
- Provides important information relative to the patient's care
- Supports outcomes, and can be utilized to facilitate positive changes

Poll Question 3

TB Nurse Case Management is Essential to the Goal of TB Elimination

A. True

B. False

C. Unsure

Importance of First Encounter

- Find out – How do you prefer to be addressed?
- Introduce yourself and your role in their care
- Establish rapport
- Establish caring, open relationship
- Explain TB in simple terms to make sure patient understands
 - Ask open-ended questions:
 - What does diagnosis TB mean to you?
 - Have you known anyone with TB?
 - What is your greatest concern?
 - Help relieve their anxiety



The Value of Patient Education

- Improved understanding of medical condition, diagnosis, disease
- Improved understanding of methods and means to manage multiple aspects of medical condition..
- **Increased Adherence** – Effective communication and patient education increases patient motivation to comply.
- Patient Outcomes – Patients more likely to respond well to their treatment plan – fewer complications.
- Informed Consent – Patients feel you've provided the information they need.
- Utilization – Fewer unnecessary phone calls and visits.

Communication Skills

- Avoid medical jargon
- Encourage questions
- Pay attention to nonverbal cues
- Try to avoid interruptions or distractions
- Don't use bias or leading questions



Photo: Candace Kugel CNM

Communication Skills (2)

- Don't give too much information
- Wait for feedback or responses
- Assess for physical discomfort
- Time pressure (too much or too little)
- Attentive body language
- Listen and respond to the patient's concerns
- Be respectful of the patient's beliefs
- Never show frustration or impatience



Communication Skills (3)

- Ask/look for patient feedback (body language, facial expressions, questions, need for clarifications)
- Explain why certain questions are asked - especially sensitive questions
- Be open to patient's own explanations/ beliefs of illness
- Clarify, add, and reinforce
- Use written material in conjunction with a verbal explanation

Questions about the Patient and TB

- What information do you have about TB?
- Why do you think you got sick when you did?
- How severe do you think your illness is?
- How do you feel about knowing you have TB? LTBI?
- What problems will having TB cause you?
- What do you fear about TB?
- How do your family members or close friends feel about your having TB?

Treatment Expectations

- Explain what to expect during the course of treatment?
- Tell me how you are about swallowing pills...
 - Explain number of medications may be reduced for TB
 - Explain the number of pills required if LTBI becomes active
- Explain why certain things were prescribed
 - DOT counted in doses
 - labs
 - Chest x-rays
- Explain benefits of treatment adherence
 - LTBI and risks of breaking down with TB

Medication and Side Effects

- It is crucial that patients understand the medication dosage and side effect
- Go over each medication separately
 - Show' the medication
 - Explain possible side effects and what to do when they experience a reaction
 - Explain interactions with other medications
- Use teach back method to ensure understanding
- Give written information



What You Need to Know About Your Medicine for Latent Tuberculosis (TB) Infection

ISONIAZID

You have been given medicine to treat your latent TB infection. You do not have TB disease and cannot spread TB to others. This medicine will help you **PREVENT** getting TB disease.

While on this Medicine:

- Tell your doctor or nurse if you have questions or concerns with the medicine.
- Go to your planned clinic visits.
- Discuss any alcohol use with your doctor. Alcohol use may cause side effects.
- Tell your doctor about all other medicines you are taking.
- Be sure to tell your other doctors that you are being treated for latent TB infection.
- Take all of your medicine as you were told by your TB doctor or nurse.
- Some people find that the medicine affects them less when taken with food.

Tips to Help You Take Your Medicine:

- ✓ Take your medicine at the same time every day.
- ✓ Set an alarm reminder for the time you should take your medicine.
- ✓ Ask a family member or friend to remind you.
- ✓ Use a pillbox.
- ✓ Put a reminder note on your mirror or refrigerator.
- ✓ Use a calendar to check off the day when you take your medicine.

Latent TB Infection Medicine Schedule:

(Providers: Indicate the appropriate schedule, days and number of pills)

Medicine	Schedule	Days	Number of pills per day	Length of time
Isoniazid	<input type="checkbox"/> Daily	Every day		9 months
	<input type="checkbox"/> Twice Weekly*	M T W Th F S Sun		

Your doctor may have you take vitamin B6 with your medicine.

Note: When isoniazid is to be taken 2 times a week, it should be given by directly observed therapy (DOT).*

IF YOU FORGET TO TAKE YOUR MEDICINE: If it is still the same day, take the dose as soon as you remember. If the day has passed, skip the missed dose and take your next scheduled dose — do not take 2 doses at the same time.

NOTES

Name of my doctor:
Name of my clinic:
Telephone number of my clinic:



Watch for these Possible Problems:

STOP taking your medicine right away **AND** call your TB doctor or nurse if you have any of the problems below:

- Less appetite, or no appetite for food
- An upset stomach or stomach cramps
- Nausea or vomiting
- Cola-colored urine or light stools
- Rash or itching
- Yellowing skin or eyes
- Tingling or numbness in your hands or feet

*Directly Observed Therapy (DOT)

You will meet with a health care worker to take your medicine. This plan is called directly observed therapy.

DOT can help you in several ways.

- The health care worker helps you to remember to take your medicine.
- You will complete your treatment as soon as possible.
- The health care worker will make sure you are not having problems with the medicine.

Adherence

- Adherence is the act of following the prescribed TB treatment from the beginning to the end. It includes:
 - Taking all TB medications as prescribed
 - Keeping all MD/Clinic appointments
 - Taking all laboratory and other tests as required, including submitting sputum as ordered
 - An individual is adherent to DOT when he/she has taken a minimum of 80% of the prescribed TB medications each month

Adherence Requires....

- A partnership between the patient and health care provider
- Active, voluntary collaboration of the patient in planning and implementing the treatment plan
- A sharing of responsibility for treatment outcomes

Assessing and Improving Adherence

- Treatment for TB requires a high pill burden for a long period of time which can involve many adverse events such as side effect or organ failure
- It is imperative to closely monitor each patient receiving chemotherapy. to the treatment regimen are a major focus of the overall
- It is a benefit to both the patient and public to have a successful treatment outcome and to prevent relapse
- Approaches to ensuring adherence management plan

Promoting Adherence

Adherence can be affected by positive or negative factors:

- Related to health system
- Social/family issues
- Personal factors
- Medication side-effects**

Interventions for Adherence

- Many different types of interventions
- Can be tailored to address specific challenges patient may face
- Best approach is multi-level strategy that addresses:
 - Patient
 - Regimen
 - Provider

Additional Strategies for Adherence

- Use of intermittent therapy
 - Monitor adherence rates weekly
 - Must be done via DOT
- Monitor Adherence monthly
- Address poor compliance immediately and adjust plan accordingly
 - make suggestions to the physician regarding treatment strategies to improve adherence
- Use of incentives and enables
- Educated patients about TB and treatment is based on doses ingested

Use of Enablers

Enablers are interventions to assist the patient in completing therapy

- Transportation Vouchers
- Convenient clinic hours and locations
- Clinic personnel that speak the language of populations served
- Reminder system for appointments and missed appointments

Use of Incentives

Integration of care for TB with care for other conditions

Incentives are interventions to motivate the patient, tailored to the individual patient wishes and needs and that are meaningful to the patient

- Food
- Restaurant and grocery store coupons
- Assistance with finding or provision of housing
- Clothing or personal products
- Books
- Patient Contracts

Enablers	Incentives
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Interventions to assist the patient in completing therapy

Interventions to motivate the patient, tailored to individual patient wishes and needs and, thus, meaningful to the patient

Transportation vouchers

Food stamps or snacks and meals

Convenient clinic hours and locations

Restaurant and grocery store coupons

Clinic personnel who speak the languages of the populations served

Assistance in finding or provision of housing

Reminder systems and follow-up of missed appointments

Clothing or other personal products

Social service assistance (referrals for substance abuse treatment and counseling, housing, and other services)

Books

Outreach workers (bilingual/bi-cultural as needed; can provide many services related to maintaining patient adherence, including provision of DOT, follow-up on missed appointments, monthly monitoring, transportation, sputum collection, social service assistance, and educational reinforcement)

Stipends

Integration of care for TB with care for other conditions

Patient contract

Calculating Adherence

- Adherence is determined by calculating the number of days of DOT divided by the number of available days of DOT
- This is referred to as the adherence rate
- It is always a good idea to calculate the adherence weekly
- DO NOT wait until the end of the month to identify non-adherence

Take-Home Points

- Case management is an essential component toward elimination
- Clinical outcomes have been improved with the introduction of the Nurse Case Management model
- Use knowledge and tools to overcome challenges and to advocate for patients

Questions?

