ACHIEVING LTBI TREATMENT COMPLETION: A CASE MANAGEMENT APPROACH

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Learning Objectives

- Upon completion of this session, you will be able to:
  - state several barriers to LTBI treatment completion
  - incorporate case management (CM) approaches to improve LTBI treatment completion outcomes in your practice
  - identify several resources available to support nurses and other healthcare providers with patients who will take treatment for LTBI
On average, what percentage of patients receiving treatment for LTBI complete treatment in your setting?

1. Haven’t started anyone yet
2. <30%
3. 30-65%
4. 66-80%
5. > 80%

Top 4 LTBI Treatment Confounders

1. Side effects or adverse reactions
2. Not convinced
3. Competing priorities
4. Insufficient support
Does it matter?

Estimate > 80,000 living with LTBI in Hawaii

LTBI CASE MANAGEMENT
Case Management Defined

A collaborative process of assessment, planning, facilitation, care coordination, evaluation and advocacy for options and services to meet an individual’s and family’s comprehensive health needs through communication and available resources to promote patient safety, quality of care, and cost effective outcomes.

~Case Management Society of America

Peoplecology – a new term to ponder

- “Peoplecology is about interacting with people in a way they feel better about themselves.”
  
  Tom Stuebner

- The study of how to build interpersonal skills to:
  - connect with people from all walks of life
  - overcome and bridge social and cultural barriers
  - listen, hear, and respond appropriately
  - engender a sense of being trustworthy and genuine

My interpretation
Case Management - Treating LTBI

- Conduct an **initial assessment**
- Provide **patient education** at each encounter
- Ensure **monthly face-to-face visit** with a clinician
  - Assess adherence
  - Assess for side effects/adverse effects
- **Refer** for further clinical evaluation when indicated
- **Coordinate care** including referral for other support services as indicated
- **Outreach** between visits to encourage adherence with clinic appointments and for follow-up
- **Closing** the case

What does it look like?

LTBI CASE MANAGEMENT

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Case Scenario

- 32 year old man, general laborer. Tuberculin skin test (TST) = 9mm
- He works and lives with his uncle who was diagnosed with smear-positive pulmonary TB
- Feels fine; denies any TB symptoms; CXR= normal
- During intake you learn he was born in the Philippines but has lived in Hawaii since age 13

Q: What information do you want to gather / discuss with him at this point?

Initial Assessment

- Education initiated related to LTBI and treatment
- Rapport established
- Baseline lab tests obtained
- Potential barriers to adherence are identified
- Supportive interventions mutually identified
- Linkage to supportive services initiated
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Patient Education

- Use a variety of methods
  - Communicated verbally
  - Through printed material
  - Other media (e.g., video)

- Patient should know:
  - what they are being treated for and the expectations surrounding treatment (e.g., how long, what monitoring or follow-up is necessary, etc.)
  - what the potential side effects are and what to do should he/she experience any

Translated Patient Ed Materials

Find TB Resources connects you to a worldwide library of online resources, training, and educational materials.
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But I had BCG!

My tuberculin skin test is positive because I had BCG vaccination.

1. Agree
2. Disagree
3. Maybe yes, maybe no
4. Not sure

Useful LTBI Resources for Providers

The On-line TST/IGRA Interpreter:

http://www.tstin3d.com/index.html

McGill University & McGill University Health Center Montreal
Quebec, Canada; Supported by the Public Health Agency of Canada and Stop TB Partnership

The BCG World Atlas:

http://www.bcgatlas.org/index.php

McGill University & McGill University Health Center Montreal
Quebec, Canada; Supported in part by the Public Health Agency of Canada
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Case Scenario – Month 1

- Came in for medication refill (RIF daily)
- He has no complaints, no rash, itching, fatigue, nausea, vomiting or jaundice
- Reports he missed a few doses… pill count shows five doses missed

Q: What information do you want to emphasize during this visit?
Addressing Competing Priorities

- Discuss the situations when doses are missed and together determine a few strategies to improve
  - Examples...
    - Forgetting to take dose in the morning
      - Take dose at bedtime
      - Memory aids - pill box; cell phone/watch alarm; notice on bathroom mirror
      - Attach pill taking to a daily routine
    - Likes to party on weekends
      - Work with client to identify an acceptable solution

Case Scenario – Month 3

- Came in two weeks late for medication refill
- Reports his truck broke down and had to find a way in to the clinic
- Has cut back on weekend drinking
- Feeling tired but attributes this to long hours and heavy labor

Q: What questions would you have as Case Manager?
Q: What further actions or interventions would you discuss?
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Assessing potential side effects (2)

Hepatotoxicity

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Nursing Assessment</th>
</tr>
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<tbody>
<tr>
<td>Nausea, vomiting + PLUS Abdominal pain, fatigue, and loss of appetite. Later stage symptoms may include: Fever Rash Jaundice (yellowing of the eyes and skin)</td>
<td>Some observations and questions for assessing nausea and vomiting PLUS: • Observe for signs of jaundice (yellowing of the skin and whites of the eyes) • Use pain assessment approach when patient reports pain (see Appendix A) Ask the patient: • Do you drink alcohol? If yes, how much, how often and when was your last drink? Check: • Latest liver function test (LFT), total bilirubin, serum albumin and electrolytes • Vital hepatic panel results • Urine and stool color • Patient’s nutritional status (weight and (BMI) and nutritional intake</td>
</tr>
</tbody>
</table>

Possible Offending Medications

<table>
<thead>
<tr>
<th>Anti-TB</th>
<th>ARIN</th>
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<tbody>
<tr>
<td>Inh</td>
<td>NVP</td>
</tr>
<tr>
<td>RIF</td>
<td>Pts</td>
</tr>
<tr>
<td>Rifb</td>
<td>(TPV or others)</td>
</tr>
</tbody>
</table>

Fatigue plus other symptoms such as N/V or abdominal pain
- Hold treatment
- Check liver function test (LFT)
- Refer for medical evaluation

Case Scenario - Completion

- Liver function test results were normal
- Provided with final month of RIF
- Completed 4 months of RIF daily with a few interruptions in treatment (5 months)
  - Must complete 4M of RIF within 6 months
- Treatment outcome letter provided to client

Treatment Success!
Establishing Supportive Measures

- Flexibility is key!
- Follow-up call to check in on patient’s status when needed
- Know the resources and contacts available in your community
- Establish a referral system that expedites access to priority support services (e.g., mental health and substance abuse services, services for homeless, etc.)
- For children, be creative! Have multiple suggestions of tips for medication administration and incentives (age appropriate)

Case Management Approaches Aimed at Quality Improvement (QI)

- Appointment reminder letters, phone calls, text messages
- No shows – call patient same day to reschedule
- Evaluate LTBI treatment outcomes periodically and report on them
- Educate staff who will have a role to play in interacting with the patient

"Before [QI] changes, our adherence rate was 27%. After making these changes, it went up to 80% compliance with the treatment plan with an actual completion rate of 67%"
Preparing Community Clinics

- Health Departments might consider:
  - Provide training for clinic staff on diagnosis, treatment and management of patients on treatment for LTBI
  - Provide template assessment and monitoring tools
  - Serve as a resource to answer questions clinic staff may have during period knowledge and experience is growing
  - Periodic quality assessment visits to monitor treatment outcomes and to provide supportive guidance

MORE RESOURCES FOR NURSES
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### Summary

- When adequately applied, a case management approach to LTBI treatment can positively impact treatment outcomes.
- Work with both staff and individual patients to problem solve barriers to treatment completion.
- Routinely track and report on your treatment outcomes to monitor effectiveness of strategies that you implement.