

Evaluation of patient perceptions of their health condition and beliefs about medications before and after pharmacist-provided Medication Therapy Management services in Nontuberculous Mycobacterial Lung Disease



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Background

- Pulmonary Nontuberculous Mycobacteria (NTM) disease is a chronic condition caused by various mycobacteria. The most common infectious pulmonary pathogen is *Mycobacterium avium complex*. These mycobacteria are naturally-occurring pathogens that can be found in water, soil and animal products.
- The actual incidence and prevalence of pulmonary NTM disease is currently unknown, however, it is estimated that 50,000 to 90,000 people in the United States have pulmonary NTM disease.¹
- Current ATS/IDSA guideline recommendations for treatment of pulmonary NTM disease usually includes a regimen of 2 or more antibiotics for 12 months or longer duration. Due to the complexity of their medication regimen and length of treatment, Medication Therapy Management (MTM) services are likely to be beneficial in identifying and resolving medication-related problems.²
- There is anecdotal evidence to suggest that some patients with pulmonary NTM use Complimentary and Alternative Medicine (CAM) to help treat their disease, yet there is no literature to support how widespread such use may be.
- The survey instrument being used for this study was based on a validated instrument that was guided by the Health Belief Model (HBM) and used previously by study investigators to examine health beliefs and perceptions about prescribed medicines and CAM for another chronic condition.

Objective

- To evaluate the impact that pharmacist-provided MTM services have on patient perceptions about their NTM lung disease and medications

Specific Aims

- Evaluate the effectiveness of providing education and counseling about pulmonary NTM disease and NTM medications through face-to-face MTM services
- Broaden patients' knowledge about the risks of having pulmonary NTM disease
- Educate patients on the importance of adhering to their NTM medications as prescribed
- Identify CAM being used by patients with pulmonary NTM disease as a substitute or in conjunction with standard NTM medication therapy

Methods

Design: Prospective, observational study

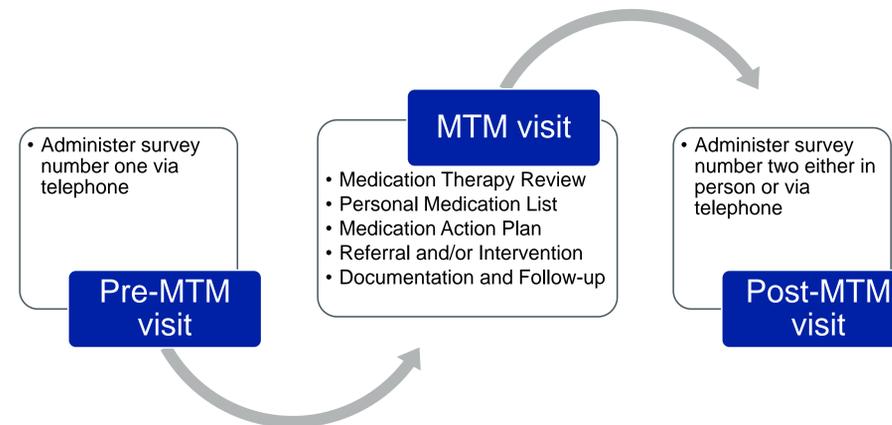
Inclusion Criteria

- Patients >19 and <91 years of age
- Diagnosis of pulmonary mycobacterial disease
- Currently taking anti-mycobacterial medications
- At least one clinic visit with pulmonologist

Exclusion Criteria

- Patients < 20 and >90 years of age
- Disease and treatment-naïve
- Previous MTM session
- Unable to reach via telephone

The Process



Sample Survey Questions

Likert-scale: strongly agree, somewhat agree, neutral, somewhat disagree and strongly disagree

Perceived Severity	Perceived Susceptibility	Perceived Benefits	Perceived Barriers
• "I live with a certain fear that comes from having NTM lung disease."	• "I do not think I will experience any major problems in the future that are caused by my NTM lung disease."	• "I treat my NTM lung disease now so that I can avoid future problems."	• "How many days in the last 30 days did you take (MEDICATION) exactly as prescribed."

Planned Analysis

- The descriptive and demographic variables will be analyzed by calculating summary statistics (e.g. mean, median, standard deviations, min, max, frequency).
- Paired t-test to evaluate the change in response scores from pre-MTM visit to post-MTM visit

Potential Impact

- The findings of this study may provide insight as to which specific patient perceptions predict certain health behaviors in patients with pulmonary NTM disease.
- The findings of this study may provide insight into how MTM can influence health behaviors, beliefs, and medication usage in patients with pulmonary NTM disease.
- The findings of this study may demonstrate a need for research to assess the effectiveness of CAM being used to treat pulmonary NTM disease.

Results

- Pending

Abbreviations

- NTM: Nontuberculous Mycobacteria
- MTM: Medication Therapy Management
- HBM: Health Belief Model
- CAM: Complimentary and Alternative Medicine
- ATS: American Thoracic Society
- IDSA: Infectious Diseases Society of America

Disclosure

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: All authors have nothing to disclose.

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