

**IUATLD North American Region
Annual Conference
February 22-25, 2017
Vancouver, British Columbia**

LIST OF OBJECTIVES

Basic Science Research (Post- Grad) –February 22, 2017

At the end of these presentations participants will be able to:

- 1) *IGRAs in Low –Risk Health Care Workers: What Have We Learned?*
 - a. describe the reproducibility of IGRA in low-risk health care workers to assist in accurate diagnosis of latent tuberculosis among health care workers
 - b. describe the sources of IGRA variability to design an effective, affordable infection –control program for health care workers

- 2) *Whole Genome Sequencing for the Diagnosis of Drug Resistance: are we there yet?*
 - a. describe the advantages of using whole genome sequencing technologies for the diagnosis of MTB drug resistance to improve patient outcomes
 - b. describe the steps and challenges facing clinical adoption of genome sequencing technologies to effectively and accurately diagnose drug resistant tuberculosis

- 3) *Understanding transmission in low-incidence settings with whole genome sequencing*
 - a. describe how genomics coupled to epidemiology can reveal the drivers behind transmission in low-incidence settings and use this information to better reduce transmission in these settings
 - b. identify the technical challenges associated with reconstructing tuberculosis transmission events and strategize to overcome these challenges to reduce TB transmission

- 4) *Genomic Sequencing and Surveillance of Nontuberculous Mycobacteria*
 - a. describe advantages and potential limitations of current IGRA assays and how it could improve diagnosis and treatment outcomes
 - b. identify new tools for genetic determination of drug resistance to improve patient outcomes
 - c. identify the value added by whole genome sequencing to epidemiologic investigation and how it could be part of an approach to accurately investigate outbreaks and help reduce transmission

WHO/ATS TB Treatment Guidelines - February 22, 2017 (Post-Grad)

At the end of these presentations participants will be able to:

- 1) *TB Laboratory Diagnostics LPA FLD/SLD*
 - a. apply the current WHO recommendations for the diagnosis of TB, including drug resistant TB to improve patient outcomes
 - b. explain the current landscape of TB diagnostic tests under development to improve diagnosis and treatment of patients

- 2) *ATS/CDC/IDSA Treatment of TB Guidelines*
 - a. list the nine GRADE-based recommendations of the 2016 and apply the recommendations for better treatment outcome
 - b. define the key changes in guidance for management of TB as compared to the prior edition of the guidelines published 2003 and how best to apply the treatment guidelines to treat patients more effectively
- 3) *Drug Resistant TB guidelines*
 - a. apply the WHO's updated recommendations for the treatment of MDR-TB to improve patient outcomes
 - b. address the clinical and programmatic challenges for an effective implementation of these new recommendations
- 4) *Ethics: Ethical issues in the implementation of the WHO's End TB strategy*
 - a. apply the new WHO guidance on ethics of TB management to improve patient compliance to treatment
 - b. use tools available to support uptake of this guidance for improved treatment outcomes

STOP TB Meeting: Global and Regional challenges in MDR-TB, February 23, 2017

At the end of these presentations participants will be able to:

- 1) *Meta-analysis of Short-Course MDR-TB Treatment Regimens*
 - a. describe the methodology and outcomes of the meta-analysis to understand and improve treatment outcomes for patients with drug resistance TB
 - b. assess the results of of short-course MDR-TB Treatment Regimens for MDR-TB programs in high resource settings and how this regimen can improve adherence for patients in these areas.
- 2) *Global Impact of the Short-Course MDR Regimen*
 - a. describe the context and potential impact on patient care of the short course regimen on global MDR-TB
 - b. identify key challenges in rolling out the short-course regimen, and continuing gaps for successful MDR-TB treatment and strategize how to overcome these challenges to improve patient care.
- 3) *Advocacy for Drug Access*
 - a. describe current global and regional issues in access to TB drugs, and medication shortages and their impact on patient outcomes
- 4) *The 3P Project: Accelerating Innovation and Access to TB Medications*
 - a. describe the key elements of the 3P Project for rapid development of new TB treatment drugs and regimens to improve patient care
 - b. identify 3 advantages of this approach for patients over traditional drug development describe the importance of the 3P Project in addressing a key part of the anti-microbial resistance in an effort to improve treatment outcomes.
 - c. describe current activities underway and models being considered to address these issues and improve patient access to care

NURSING SPONSORED SESSION: February 23, 2017

At the end of these presentations participants will be able to:

- 1) *TAIMA TB Youth Education Initiative* Learning objectives:
 - a. list challenges/barriers to implementing approaches aimed at increasing public health awareness among Inuit youth in an effort to improve health outcomes.
 - b. describe one or more strategies employed in the TAIMA TB Youth Education Initiative to address these challenges/barriers to public health efforts.

- 2) *New Technologies and TB – TB ECHO Projects*
 - a. describe how TB ECHO is being used by the NMDOH to augment the state's current TB control program to improve diagnosis and treatment of TB patients
 - b. explain how TB ECHO can be used to build professional communities of practice and learning among front line health workers, promote program quality improvement, and increase access to quality TB care and services

- 3) *Cultural Proficiency*
 - Fundamental Concepts
 - a. explain how cultural proficiency can strongly influence the quality and outcomes of client-centered TB care
 - b. list 5 ways people culturally identify themselves to address barriers
 - c. name 3 approaches to learn more about the cultures represented in patient populations and apply these approaches to improve patient outcomes
 - d. describe 4 specific strategies for interacting effectively with patients from diverse cultures and apply these strategies to improve outcomes
 - Orientation to SNTC Country Specific Guides for Health Professionals Working with Foreign-born Clients
 - a. describe the utility of the Guides to improve practice and improve patient care
 - b. access the guides to improve their patient outcomes

The George Comstock Lecture: February 23, 2017

Putting Quality on the Tuberculosis Agenda

- a. identify and understand available data on quality of TB care in high-burden countries, describe major gaps in the TB care cascade and strategize to overcome these gaps to improve patient outcomes
- b. describe methods for measuring quality of TB care and improved patient outcomes
- c. review examples of quality improvement programs that have worked or failed, and lessons from such case studies and apply lessons learned to improve outcomes

TB in Remote Northern and Indigenous Communities

February 24, 2017

At the end of these presentations participants will be able to:

- 1) *TB in the Global North - Caring for Those in Remote and Indigenous Communities*

- a. discuss the complexities and challenges to providing TB care and prevention to remote northern and indigenous communities to better engage in improving care for these populations
- b. explain the relevance of TB in these settings to global TB care and prevention efforts to improve care delivery to these communities
- c. identify epidemiological and clinical risk factors for poor neurological outcomes in pediatric central nervous system tuberculosis cases for better patient treatment and care

2) *Social Determinants of Health in Remote Communities*

- a. identify the key socioeconomic and cultural factors that influence health status and care delivery in remote northern communities to improve care delivery and outcomes
- b. describe the impact of these factors and consequent health challenges they create in improving care delivery and outcomes for individuals in remote communities

3) *Virtual Clinic Models for Managing Remote Care*

- a. identify virtual models of care delivery used to facilitate access to equitable care to those living in remote communities to improve care delivery and outcomes
- b. compare and contrast the benefits of virtual versus outpatient clinical care models for managing care in remote communities to improve care delivery and outcomes

4) *Implementation of GeneXpert Testing in Remote Communities: From A to Z*

- a. use a series of recently completed operational studies using Xpert MTB/RIF to highlight processes in operational research in a remote region of Canada to improve care delivery and outcomes
- b. explain the feasibility, test accuracy, cost effectiveness and impact on TB disease care outcomes in Iqaluit, Nunavut
- c. describe the shift of evidence to community engagement, to policy to government advocacy to fund a diagnostic test as a standard of care

5) *Access to IGRA in Remote Communities*

- a. determine the need to identify TB infection reservoir in remote communities to decrease disease burden in these communities
- b. describe strategies for implementation of interferon gamma release assays in remote settings to improve TB diagnosis and outcomes

The Beyond TB Lecture: Two million lives and counting: when and how does it end?

- a. describe the present state of TB globally and how it impacts TB control outcomes in North America
- b. apply lessons learned from HIV/AIDS epidemic and how it we can apply those in TB to improve delivery of TB care

TB Immigration and Migration: February 24, 2017

At the end of these presentations participants will be able to:

- 1) *Role of Expanded LTBI Testing and Treatment in TB Elimination Efforts*

- a. summarize and apply the USPSTF recommendations to improve screening and treatment of LTBI in high-risk persons
 - b. identify opportunities for and obstacles to expanded LTBI testing and treatment as well as potential future impact on TB patients in the United States
- 2) Screening and Treatment of LTBI in the foreign-born: Canadian Framework
- a. summarize the approach to LTBI screening and treatment in migrants residing in Canada to improve screening and treatment in this high risk population
 - b. identify strengths and weaknesses of this approach, including available evidence and evidence gaps
- 3) Screening and Treatment of LTBI in Alberta's Foreign-Born
- a. summarize the approach to LTBI screening and treatment among foreign –born in Alberta to improve screening and treatment in this high risk population
 - b. identify strength and weaknesses of this approach to improve treatment outcome
- 4) At the Intersection of TB and Migration: Challenges, Strategies and Successful Care
- a. identify challenges and successful strategies in delivering TB care to migrant populations to improve delivery of care to migrants
 - b. identify challenges specific to screening and treatment of LTBI in these populations to improve screening and treatment outcomes
- 5) *TB Screening in Immigrants and Refugees : Past, Present and Future*
- a. summarize and apply the approach and rationale to the evolution of CDC TB technical screening and treatment guidelines for lawful permanent resident applicants to the US to improve delivery of care to foreign-born population
 - b. identify and understand the impact of the 2007 Technical Instructions on TB in foreign born populations in the U.S. to improve screening and delivery of care

TB and New Technologies: February 25, 2017

At the end of these presentations participants will be able to:

- 1) *The WHO Digital Health Agenda for the End TB Strategy*
- a. describe how digital health interventions across the four functions framing the “agenda for action” can contribute to the different components of WHO’s post-2015 End TB strategy to improve TB treatment
 - b. describe how target products profiles (TPPs) can help different actors (health staff, system developers, researchers, patients) to converge their efforts to develop a priority digital health products and to enhance TB programme and patient outcomes
- 2) *VOT in the UK: Results of a Randomized Control Trial*
- a. describe the applicability and effectiveness of video observed treatment to support patients with risk factors for non-adherence to engage with and complete TB treatment in both RCT and 'real world' settings
 - b. explain that VOT is a multi-component intervention and examine the factors likely to promote patient uptake and use of VOT to improve outcomes
 - c. explore the wider potential of VOT both in different settings and disease groups to improve delivery of care

- 3) *Texting and LTBI adherence in British Columbia: Results of a Randomized Control Trial*
 - a. describe the trial evidence behind texting (SMS) supported medication adherence by patients to improve patient compliance to treatment
 - b. apply new ways to support TB outpatients for improved latent TB treatment outcomes
- 4) *Use of PCR-based Diagnostics in the Pacific Islands*
 - a. assess and understand the relationship between routine TB culture and GeneXpert results in the US Pacific to improve diagnosis of TB among Pacific Islanders
 - b. explain the impact of GeneXPert on MDR care in the US Pacific Islands to improve diagnosis of MDR TB in this population
- 5) *Use of PCR - based Diagnostics in the United States*
 - a. explain the appropriate uses for Xpert MTB/RIF Assay testing as it relates to more accurately assessing for infectiousness to inform isolation decisions for patients being evaluated for pulmonary Tuberculosis (TB) in airborne infection isolation (A.I.I.) rooms
 - b. apply the NTCA/APHL Xpert MTB/RIF Assay consensus statement algorithm to guide decisions regarding the removal of patients from A.I.I. to limit TB transmission and more effectively utilize resources
 - c. describe the role of Xpert MTB/RIF Assay within the clinical context when making decisions regarding the removal of patients from A.I.I. and in the diagnosis of TB, in order to improve patient outcomes

Subclinical TB: Immunology and Host Response: February 25, 2017

At the end of these presentations participants will be able to:

- 1) *Using PET/CT to Define Subclinical TB*
 - a. describe how sophisticated imaging can reveal heterogeneity among those with LTBI
 - b. explain how these findings will enable improved clinical management
- 2) *Developing an RNA Signature Predictive of TB Progression*
 - a. describe how modern molecular methods can contribute in the diagnosis of those at risk for TB progression
 - b. explain how these tests might be refined to allow for improved case finding and outcomes
- 3) *Can Infection with Mtb be Prevented?*
 - a. list factors which may contribute to the prevention of infection with *M.tb*
- 4) *What is Persistence?*
 - a. explain why prolonged TB treatment duration is required for improved outcomes
 - b. identify the need for therapies that target persistent *M.tb* for improved outcomes