Improving Care for TB-DM Cases
Can we make a difference?
NTNC Webinar
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Improving TB-DM Care
• Quick Update of TB-DM Link
• US Epidemiology of TB-DM
• Pacific Standards for TB-DM
• Hawaii TB-DM Evaluation
• Summary
NTNC Webinar:
Sailing through the Perfect Storm
Improving TB-DM Care

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DM Reported Among US Adults with TB – 2011

- NH-Pi
- Hispanic
- Asian
- AI-AN
- Black/AA
- White
- United States

0% 5% 10% 15% 20% 25%

TB and Diabetes Summary: 2-3-4-5

People with DM and TB have:

- 2x risk of remaining culture positive
- 3x risk of progression to TB disease
- 4x risk of relapse after standard tx
- 5x risk of death during TB treatment

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TB and DM Screening

Standard 1  Every person with TB over the age of 18 should be screened for DM

Hawaii Adult TB cases with Diabetes

2010  2011  2012  2013

24%  25%  33%  39%

Begin A1C testing with TB intake
Improving Care for TB-DM Cases

**TB and DM Screening**

- Standard 2: Persons with DM should be screened for TB disease and TB infection.
- Standard 3: Persons with DM who are identified with TB infection should be encouraged to take preventive therapy.

**Best Practices: RMI Diabetes Clinic**

- Program objectives:
  - To improve the implementation of USAR standards for the management of DM and diabetes.
  - To assess the risk of TB among persons with DM.
  - To improve the screening and treatment of TB among persons with DM.

**Possible Risk Profile for TB Screening in Persons with DM**

- Higher Risk
- Moderate Risk
- Lower Risk

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Treating TB in persons with DM

Standard 4 Clinicians may need to adjust TB treatment in persons with DM
Guideline 4.1 Ensure that TB medications are properly dosed
Guideline 4.2 Observe closely for TB treatment failure
Guideline 4.3 “Assure the Cure”

DM Management with TB Staff “Paradigm Change”

Standard 5 Use frequent contact in TB clinic to help manage DM
Standard 6 Use frequent DOT visits to help manage DM

Best Practices: Saipan Island

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IMPROVING CARE FOR TB-DM CASES

DM MANAGEMENT WITH TB STAFF
“Paradigm Change”

TB Program has at least 100 patient encounters during TB treatment

BEST PRACTICES: TB-DM EDUCATIONAL TOOL
(PITCA - Australian Respiratory Council)

- Standardized approach
- DOT-based education
- Weekly topics: TB and DM
  - Simplified and focused
  - “Brief Intervention”
    - 5 min or less
    - Repeated messages
Key Messages for TB & Diabetes

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Outcomes of TB and Glucose Control: 1935

<table>
<thead>
<tr>
<th>Change in Tuberculosis</th>
<th>Glucose Control during TB Treatment</th>
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<tbody>
<tr>
<td></td>
<td>Much Improved</td>
</tr>
<tr>
<td>Much Improved</td>
<td>7</td>
</tr>
<tr>
<td>Slightly Improved</td>
<td>4</td>
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<tr>
<td>Slightly Worse</td>
<td>2</td>
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<tr>
<td>Much Worse</td>
<td>3</td>
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Chi Test Probability = 0.02
**TB-DM Nurses Training: Yes We Can!**
- Ask about DM at monthly case conference and quarterly cohort review (Aug, 2010)
- Improve TB-DM Surveillance with A1C for every adult case on entry to TB Program (Dec, 2010)
- Expand A1C to q 3 months while tx (June, 2012)
- Initiate TBC Glucometry Training (Oct, 2012)
- Begin TBC Hemoglobin A1C Training (Feb, 2013)
- Started TBC Diabetes Education Training
  - 2 Afternoon sessions 3/13, 4/13
  - Community Clinic partnership

**Hawaii TB-DM Evaluation**
- Integrate Standard 5 and Standard 6 into care
  - Glucose testing at least monthly
  - A1C Testing every 3 months
  - Refer to DM Center for Care
  - TB-DM Patient Education in Clinic
  - TB-DM Patient Education during DOT
- Measure A1C on diagnosis for all adult TB Cases
- If DM, then measure A1C at 3 mo and 6 mo

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