Motivating your patients!

Adelaide McClintock, MD
Questions? Challenges?
Objectives

• Counsel a patient on his or her risk of activation of latent TB infection

• Describe common barriers to completion of therapy

• Use patient identified priorities to chose a treatment regimen that will maximize compliance

• Describe the utility of patient incentive programs in latent TB treatment, and how community alliances can be used to fund them
1. Start with a “true” diagnosis
Testing

Quantiferon (IGRA)

Patient Trust

Combine Screening
Quantiferon Cautions

Don’t Forget CXR

profiles.nlm.nih.gov
2. Help your patient consider the likelihood of active disease
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Latent TB

- High Prevalence
- Homeless
- Immune status
- Meds
- Prison
- Tob + IVDU
- HC Worker
- Age

Active TB
www.tstin3d.com

<table>
<thead>
<tr>
<th>TST Size:</th>
<th>IGRA Result:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select...</td>
<td>IGRA Not Done.</td>
</tr>
</tbody>
</table>

Age at immigration (if person immigrated to a low TB incidence country):
- Select...: 
- N/A: 

Country of birth:
- Select...

BCG status: Select...
For more info, visit: BCG World Atlas.

Recent contact with active TB: No Contact

Please select all the conditions that currently apply to the patient: (If none of these conditions apply, please leave boxes unchecked):
- AIDS
- Abnormal chest x-ray: fibronodular disease
- Chronic renal failure requiring hemodialysis
- Diabetes Mellitus (all types)
- Recent TB infection (TST conversion ≤ 2 years ago)
- Silicosis
- Tumor Necrosis Factor (TNF)-alpha inhibitors (e.g. Infliximab/Esarexcept)
- Young age when infected (0-4 years)
- Abnormal chest x-ray: granuloma
- Carcinoma of head and neck
- Cigarette smoker (>1 pack/day)
- HIV infection
- Transplantation (requiring immune-suppressant therapy)
- Treatment with glucocorticoids
- Underweight (< 90 per cent ideal body weight or a body mass index (BMI) ≤ 20)

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Risk of Activation

Below are the results for a patient with a Positive QFT Test, who is 40 years old, born in Ethiopia, immigrated at age 39, whose BCG status is Vaccinated at age < 2 years, who has had no contact with active TB, and who can be characterized by:

- Cigarette smoker (>1 pack/day)
- Diabetes Mellitus (all types)

The likelihood that this is a true positive test (PPV) is: 98%

The annual risk of development of active tuberculosis disease is estimated to be 0.52%.

The cumulative risk of active tuberculosis disease, up to the age of 80, is: 20.78%

If treated with INH, the probability of clinically significant drug-induced hepatitis is 1.2%, and the associated probability of hospitalization related to drug-induced hepatitis is 0.2%.
3. Play to your patient’s strengths
Immigrant/Refugee Assets

Motivation

Seen TB

4. Know what you can and can’t do
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Percent completing therapy

- ALL
- INH + RPT
- RIF
- INH only

Percent completed:

- 66.2%
- 85.1%
- 85.4%
- 51.8%
Real World Challenges

- Why?
- Stigma
- Short coverage
- Staff
- Live Far
- Priorities
Reasons for non-completion

- 132 participants who did not complete therapy
Reasons for non-completion

N=132 participants who did not complete therapy
Reasons for non-completion

N=132 participants who did not complete therapy

INH+Rifapentine  Rifampin only  INH only

Finances
5. One size does not fit all

Pick a regimen based on the person in front of you
(and his or her priorities)
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Choices

INH x9 months

Rifampin x 4 months

Weekly INH+ Rifapentine
Isoniazid (INH) daily x 9 months

Simple + Easy = Great
Isoniazid (INH) daily x 9 months

Long + Liver = Bad
INH + RPT weekly x 3 months

**Pro**
- Quick
- DOT
- Less liver tox

**Con**
- Pills
- DOT
- Interactions
INH and RPT weekly x 12 weeks

- Liver tox
- Thrombocytopenia
- Hypersens rxn
- Rash
- Nausea

Red Tears, urine, sweat
Rifampin daily x 4 months

**Pro**
- Short
- Simple
- Self administered

**Con**
- Interactions
- Unfamiliar
Rifampin daily x 4 months

- Rash
- Thrombocytopenia
- Nausea
- Neutropenia
- Abdominal pain
- Red Tears, urine, sweat
Choosing for your patient

- INH x 9 months (SLOW)
- Rifampin x 4 months (Medium)
- Weekly INH+ Rifapentine x 3 mo (FAST)
Choosing for your patient

- **INH x 9 months**
  - Few interactions

- **Rifampin x 4 months**
  - Multiple interactions

- **Weekly INH+ Rifapentine x 3 mo**
  - Multiple interactions
Choosing for your patient

INH x 9 months
1 pill

Rifampin x 4 months
2 pills

Weekly INH + Rifapentine x 3 mo
9 pills*
Choosing for your patient

- INH x 9 months
- Rifampin x 4 months
- Weekly INH+ Rifapentine x 3 mo

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Choosing for your patient

- INH x 9 months
  - Low completion rate

- Rifampin x 4 months
  - Better completion rate

- Weekly INH+Rifapentine x 3 mo
  - Better completion rate
6. Check in regularly (and keep it focused)
7. Consider some incentives
(but its probably OK if you can’t)
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Incentives vs. Enablers

Incentives

Material rewards for “good behavior” (continuing therapy)

Enablers

Rewards to remove financial barriers to accessing care (food, parking/bus passes)
Pioneer Square Incentive Program

• Engaged local restaurants and grocery shops to inquire about food vouchers, and wholesale clothing outlets regarding donations of cold-weather attire.

• Raised nearly $3,000 to purchase meal vouchers at a bakery and restaurant located within a block of several homeless shelters in Pioneer Square.

• Purchased nearly 600 meal vouchers for meals that cost up to $10 each.
Percent completing therapy in each clinic

Adjusted for type of monitoring and type of treatment
Cochrane Review, 2015

Incentives and enablers to improve adherence in tuberculosis

“Material incentives and enablers may have some positive short term effects on clinic attendance, particularly for marginal populations such as drug users, recently released prisoners, and the homeless, but there is currently insufficient evidence to know if they can improve long term adherence to TB treatment.”
Lessons learned
King County TB clinic does a great job of treating LTBI
Strategies to improve compliance

- Focused visits
- Engage your team (outreach, RNs)
- Monthly clinic visits when able
Strategies to improve compliance

• Shorter therapy courses

• “Creative” DOT

• Consider incentive programs (homeless incentives)
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Thank you!

Questions?