2023 Wisconsin Virtual TB Summit

"Ask the Experts" Panel: Post-Session Questions

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When would you recommend utilizing a culture liaison for active/latent cases? Is there a list of cultural liaisons around the state that we can access if needed?

CL and AL: There is no centralized list at the state level. Cultural liaisons may be helpful whenever you're in discussions about the understanding of disease or illness and the shared goals of screening or treatment. Who can best serve as a cultural liaison may differ depending on the cultural group an individual identifies with. If you're interested in forming relationships with persons who could serve as cultural liaisons in your community, you could explore the following settings:

- Religious organizations or churches
- Community advocacy groups
- Refugee resettlement agencies (RAs)
- Community health workers (CHWs)
- Interpreters or translators who are also culturally proficient

There was recently messaging that went out about a recall of Rifampin due to a plant shutdown. How do you see that impacting TB treatment?

CL and AL: The WI TB Program continues to monitor medication shortages at the state and national level and prioritizes use of medications accordingly. This could be a contributing factor for medication shortages, but it is likely multifactorial. When medications needed for treatment of active TB disease are in shortage, the WI TB Program reserves those medications for TB disease only and does not dispense these medications for clients with LTBI. The WI TB Program is in frequent communication with the dispensary pharmacy for current supplies and bulk ordering status. Please check with your locally contracted pharmacy if there is question of local availability of TB medications if your LTHD does not utilize the WI TB Program dispensary pharmacy.

KL: I can only comment on what we are hearing at a local level. We reached out to a local pharmacy that provides us with our active TB medications and they do not anticipate a supply issue as they obtain their rifampin from another manufacturer and not from the plant that shut down. Luckily, we are not reliant on one plant for our entire Rifampin supply and can likely shift to other supplies of Rifampin.

Can you discuss medical coverage options/eligibility for individuals with undocumented status? One LTHD noted a client's MA and TBMA applications were denied because of their undocumented status and their emergency MA application was also denied due to "single status." LTHD notes they have a difficult time getting people to cooperate with receiving needed medical services due to concern for high medical bills. LHD does utilize the TB Dispensary, but that has coverage limitations as well.

CL and AL: The WTBP acknowledges the challenges finding and funding medical care for people who are undocumented living in Wisconsin communities. There are unfortunately not many resources available. The Wisconsin TB Dispensary Program (WTBDP) is intended to be a safety net for individuals when no other resources are available. It is recommended to proactively seek clinics and providers who would be willing to provide services for those uninsured

needing TB or LTBI care. It is also an opportunity to educate on state funding available to provide financial assistance before services are needed urgently. A major limitation of the WTBP is the inability to assist with inpatient, emergency room, or urgent care services. Outpatient services that are not routinely covered by WTBP may be covered if the LTHD submits a request for pre-authorization for approval. Contact Pat Heger with the WTBP (DHSWITBProgram@dhs.wisconsin.gov) for more information.

KL: MA is administered at the county level. That means you will need to work with your local county agencies that process MA applications to determine eligibility criteria. If clients do not qualify for TBMA/MA, clients can utilize the TB dispensary program for TB related expenses. Clients can also explore charity care at the health system to see if all/a portion of their bill can be written off.

Could the WI DHS TB program review the TB assistance program and what it covers? One LTHD notes they are seeing more individuals facing housing insecurity and have difficulty assisting with housing needs for people in isolation for TB. This is especially challenging in rural areas.

CL and AL: The TAP program is available to assist in situations such as this. There is a process that should be followed to successfully be reimbursed for housing costs or other needs that surpass the designated cap. For more information on how to enroll in and utilize TAP, please see the TB Program website. Requests for more assistance can also be sent to DHSWITBProgram@dhs.wisconsin.gov.

What are the top priorities for case managing a new client with active TB and/or proceeding with contact investigation?

CL and AL: Top priorities include making sure the person with TB can safely remain in isolation, is medically stable, and is taking their medications via DOT. During this time, the most important thing may be building rapport and working through education about the recent diagnosis to ensure trust for the duration of the relationship. For TB care management, contact investigation is very important, but is usually not an emergency (note: there are some more urgent situations where window prophylaxis should be initiated ASAP). It may take time to fully develop the relationship so that the person knows the team is trustworthy and will provide the care needed for any people who are contacts to TB. It is likely worth spending the time building that relationship so that a thorough contact investigation can be performed as the client remembers and thinks through people who may be contacts. Utilizing the nurse care management guide may also be helpful as there are many aspects to treatment monitoring. Keep in mind that LTHDs are encouraged to utilize the TB Treatment Assistance Program (TAP) to assist the person with non-medical needs (including incentives and enablers) during treatment or assessment.

KL: The first priority is the patient/client with TB. Making sure they are started on treatment, are tolerating side effects, adhering to DOT, etc. is the main focus that the nurse should prioritize in the first couple weeks of treatment. Once things seem to be settled and client is tolerating meds, the nurse should start exploring contacts. Who has the client lived with, worked with, and spent prolonged periods of time with? The next priority should be getting a list of contacts. Sometimes it may take a bit for the client to recall all the contacts (depending on how far back you will need to go for the contact investigation…in some cases, we have gone back more than a year for the contact investigation). You may need to work with schools, employers, recreation clubs, faith organizations, etc. to help communicate messaging regarding the contact investigation/exposure notice. Depending on the size of the contact investigation, you may need to enlist the help of a colleague to help with the contact investigation. With some situations, we have one nurse focus on the client's care and the other nurse works on the contact investigation. I would recommend PHNs look into case management courses offered by Mayo TB Center (or any of the other TB Centers of Excellence) as they will provide critical information to being a successful TB nurse case manager.

When managing an active case's isolation, how do you get the case and their family/household members on board with isolation without creating fear? What strategies work best to frame isolation in a supportive way to promote adherence?

CL and AL: Tuberculosis has a long history and has had thousands of years to develop a reputation and stigma.

Fortunately, TB is now treatable, and LTBI therapy is highly effective at preventing TB disease. This was not always the case, and people may still have bad memories or experiences with TB therapy, isolation, or lack of treatment and ostracization. It is important to acknowledge this is true and to educate about the options available to them currently. TB is unlike many other infections in that it is extremely slow growing. This allows us to take a thorough approach to evaluating and testing people for infection who have been in contact with someone with infectious TB. Reassurance about LTBI not being infectious and that they will not need to quarantine due to their exposure is likely going to be one of the most helpful things in calming people down after they are notified they were exposed to TB. It may also be helpful to remind people of the role of public health and to discuss the differences in the context of COVID, since most people's only experience with public health has been through the pandemic response.

KL: I think it is important to stay calm and provide information in a clear, concise way. I think it can sometimes be helpful to clarify that it takes prolonged exposure to become infected. When I talk to people, I try to make sure they understand that the medications we provide will help them get better, that we will be monitoring their side effects and working with them to get better. However, sometimes TB can be very stigmatizing and no matter what you say, the family/household members will still believe what they want and you will sometimes need to work around those beliefs. For example, we had a client with pulmonary TB and the household members didn't want the person to live with them until they were non-infectious. Despite the PHN telling them that they had already been infected and that the client could remain at home (with maybe some additional protection measures like wearing a mask around others, staying in their room, etc.), the household members were firm with their beliefs and the client needed to find alternate housing until non-infectious. The key is to stay calm, be able to answer questions the family may have in a clear and calm manner and provide assurances to the family regarding case management.

What steps are frequently missed or overlooked when evaluating, treating, and case managing clients with active TB? Are there certain steps/factors more commonly overlooked in certain populations?

CL and AL: Among program evaluation metrics in Wisconsin a frequently missed element is HIV testing. Care managers can assist in getting their clients the best care possible by reminding clinicians that the person with TB should also be tested for HIV. Additionally, for people with pulmonary TB, sputum specimens should still be collected at least monthly after three negative smears and release from isolation, until the patient has *two consecutive negative sputum cultures.* This is called culture conversion and is an important indicator that the patient is being treated effectively.

The WI TB Program has a nurse care management guide, which details the important aspects of TB treatment and monitoring. The WI TB Program is also available for questions and assistance, please do not hesitate to reach out with questions or to be pointed to more resources.

KL: I think the biggest issue I have seen in my experiences relates to the evaluation for TB. Most providers have not seen TB (it's not common in WI) and that can lead to a delay in diagnosis. Too many times to count, I have seen clients misdiagnosed and treated for non-TB related diseases/conditions. Many times, providers will diagnose clients with community-acquired pneumonia when they are experiencing pulmonary symptoms and treat with antibiotics. The antibiotics may have some impact but the symptoms typically always return which prompts the client to be seen again for the same symptoms. I think we as TB clinicians need to do a better job of collaborating and partnering with our health care partners on the signs and symptoms of TB. It's easy for us in TB to "think TB" but when most of our health care partners don't see it on a routine basis, it can be more difficult to "think TB."

How can we better address/reduce stigma related to TB when talking with our patients and their families?

CL and AL: Organizations such as We Are TB are working to reduce stigma through awareness and education. Personal stories may also be a way to help reduce stigma and see that others are talking about their journey with TB. For healthcare workers and those working with clients with TB: Ending Stigma as Part of Patient-Centered Tuberculosis Care. See Heartland's guide to help reduce use of stigmatizing language.

KL: I think the first step is looking at the language you are using. We can do a lot by just changing the language we use with clients and the community. There are several resources online, including Heartland TB Center's Stop the Stigma

Campaign, which offer tools for how to use language differently. For example, don't use the phrase "TB Suspect." Instead, consider something like you are ruling out active TB for this client.

I think it is important to explain how this person got sick in the first place: they breathed in a germ. They were not dirty, they did not do anything wrong/immoral, they are not being punished by God…they simply inhaled a germ. Sometimes, the stigma is rooted in the client's culture and that can be difficult to change/shift mindsets. Do your best, start with changing your language and how you frame the conversation, ask questions to better understand their perspective and listen to your client.

What strategies should local public health be working on to increase testing and recognition of LTBI in persons with risk factors? What has been effective- for example, outreach in the community, collaboration with clinics, or other avenues?

CL and AL: Targeted testing for locally identified at risk populations is a pillar for reaching the goal of TB elimination. The WI TB Program hopes to again have funding available to support this type of testing at the LTHD level. Interested LTHDs should reach out to the WTBP to learn more about the next mini-grant funding opportunity.

KL: One thing that we have done in the past (pre-COVID) is go to clinics and offer lunch/learn training sessions. This has been really well received by resident clinics (teaching clinics/hospitals). Staff will bring their lunch and hear from a PHN about TB and TB in Wisconsin/their county. This helps get the message out there regarding who in our community has TB, how to screen for TB and who to target screening to in their clinic.

Are there any changes to the WI State Lab of Hygiene, such as lab updates, we should be aware of?

NS: Most of our testing remains consistent with that from previous years. We have validated TB growing on solid media plates or slants as a specimen type for the GeneXpert MTB/RIF testing, which should reduce the turnaround time for rapid rifampin susceptibility prediction for a subset of specimens.

We have instituted one new policy for AFB smear/culture testing: if we receive 3 or more **non-respiratory** specimens from a single patient collected from the same site at the same time, they will be pooled into a single AFB smear and culture (cardiac, lymphatic, and central nervous system specimens are exempt from this change). This change does not affect any respiratory specimens.

We also have a few new tests either currently under development, or in the very early planning phases. Our most exciting is the use of whole-genome sequencing for MTBC drug resistance prediction and speciation. This will allow us to predict resistance to first line drugs more quickly than waiting for the current culture-based susceptibility testing results, which can take weeks (or months in the case of a poorly growing or mixed/contaminated culture). It will also allow us to identify M. bovis and M. bovis-BCG isolates more rapidly than we currently are able to. We are also looking into developing a moxifloxacin susceptibility assay, as the 4-month HPMZ treatment requires this information.

How do you counsel patients who decline LTBI treatment? What information is important for them to know? Have you found any information or counseling strategies that influence patients to reconsider LTBI treatment?

CL and AL: Treatment for LTBI substantially reduces the risk of someone developing TB disease from a latent TB infection. It is important for clients to know that there are multiple treatment options, they are relatively short (3HP is given once weekly for 12 weeks), and usually well tolerated. LTBI therapy is not required, so talking to the client about risks and benefits can help them and their clinician come to a decision that works for them. We can't predict who will get sick from TB, but we do know what puts people at risk for progression. Talking to people about those factors that can increase the risks of progressing to TB disease may be helpful as well. The CDC has information available as well about LTBI progression: "Many people who have latent TB infection never develop TB disease. While not everyone with LTBI will develop TB disease, about 5–10% will develop TB disease over their lifetimes if not treated. Progression from untreated LTBI to TB disease is estimated to account for approximately 80% of U.S. TB cases. Some people who have LTBI are more likely to develop TB disease than others. People at high risk for developing TB disease generally fall into

these categories:

- Those who have been recently infected with TB germs
- Those with medical conditions that weaken the immune system including:
  - HIV infection
  - Substance use (such as injection drug use)
  - Specialized treatment for rheumatoid arthritis or Crohn's disease
  - Organ transplants
  - Severe kidney disease
  - Head and neck cancer
  - Diabetes
  - Medical treatments such as corticosteroids
  - Silicosis
  - Low body weight
- Children, especially those under age 5, have a higher risk of developing TB disease once infected."

KL: I think it is important to understand the client's motivations. If the client is not at a place to take treatment, it's important not to push the issue. Make sure they know all their options (the types of treatment available) and the risk/benefits of taking or not taking treatment. If they decide not to take treatment, it's important to let them know they can always change their mind, give them your contact info/who to call when they change their mind and what signs/symptoms to watch for (in the case they break down with TB). While we would like everyone to take LTBI treatment, it is sometimes not a reality for some clients and we need to be respectful of that.

What anticipatory guidance about common side effects do you give to patients starting TB medications? How would you recommend explaining/discussing the very long list of potential adverse drug events?

CL and AL: Discussing the most common side effects and adverse events of TB medications can be helpful but can also cause overwhelm or more confusion for some people. Assessing the level of detail and comfort that the client would like to go in to at first can be helpful in offering the right amount of information to keep the person safe and involved without overwhelming them. Repeating the most important things to look for and report immediately as well as using a teach-back style has proven successful in making sure the person understands what is being said. The goal is for the person with TB to be able to complete therapy with the least number of undesirable effects and anticipating some of the barriers can be helpful. The WI TB Program recommends utilizing the nurse care management guide for a list of the most common and important side effects or adverse events to alert the client to. Another resource that may be helpful for clients who prefer to read on their own or have a copy of the information is the Staying on Track with Tuberculosis Medicine guide from CDC. It is also helpful to encourage clients to report symptoms because there may be a relatively easy solution for the most common side effects. Although DOT can be burdensome for clients, it is also good to remind them that this process is also to be there for monitoring in the event that there is an undesired effect of TB therapy.

KL: I think it is important to review the common side effects with all clients starting TB medications. There are simple fact sheets in a variety of languages that can be given to clients/reviewed with them during their first visit. Typically, I would review the most common side effects and would not list out every potential adverse drug event. Just think about when you go to the pharmacy to start a new medication. The pharmacist typically will review the most common and provide you with a more comprehensive list to review on your own. I think we can consider that as one practice to adopt. Then, when meeting to dispense the next bottle/dose, you can review any side effects they are having, highlighting the most common and then asking another question like, "Any other side effects that I haven't mentioned?"

How often are people with infectious TB involuntarily confined or incarcerated due to non- adherence? Has that actually ever happened?

CL and AL: LTHDs and providers in Wisconsin have done a wonderful job at counseling, educating, and working with clients to avoid this outcome. But yes, historically involuntary confinement has occurred as a last resort to make sure someone with infectious TB was engaged in therapy.

KL: Not common. In the 15 years that I have worked in the TB program, I have only gone to court one time. In that situation, the client was being ruled out for TB, was experiencing homelessness and was having mental health issues that were impairing his judgment. In this situation, we were able to get a psych hold along with our TB confinement hold. During court for the TB confinement, the judge upheld the health orders the health department issued the week prior. I would say it is more common for me to issue health orders than going the involuntary confinement route. Typically, the health orders or a call from our attorney is the only intervention needed.

Are there any counseling services or resources available to discuss risks with pregnant people with TB or people with TB wanting to become pregnant?

CL and AL: As with most drug trials, pregnant individuals are underrepresented. Since there is less information on TB and LTBI medications and therapy during pregnancy, this is a conversation they should have individually with their provider(s).

KL: I would typically refer them back to their primary or ID provider to discuss this. I am not aware of any resources for TB Case Managers.

What are the TB screening recommendations for a new healthcare employee who reports LTBI treatment years ago but has no treatment documentation? What about an employee with documentation of treatment but no recent IGRA or chest x-ray?

CL and AL: See page 2 of the WI TB Program publication for follow up for HCWs with a documented history of a positive TB test.

KL: Typically, healthcare employees are required to have documentation of a TB test. Without documentation of a TB test or documentation of treatment/prior positive test, I would recommend testing the client again. If the test were positive, I would recommend a chest x-ray and symptom screen. I would repeat symptom screen annually for that employee. If a client has documentation of treatment but not a recent IGRA/Chest x-ray, I would accept the documentation and do symptom screens annually for this employee.

What resources or services are available to support people with TB who want to relocate to a different state? How would a local health department manage relocation?

CL and AL: The WI TB Program Treatment Assistance Program (TAP) can be utilized for some aspects of a move, *if relocation ultimately supports the patient through TB treatment*. If special accommodations need to be made and if someone undergoing TB treatment needs financial assistance, the WI TB Program may be able to assist. Please contact the WI TB Program at DHSWITBProgram@dhs.wisconsin.gov with any special requests or questions concerning reimbursement and how to submit requests. The LTHD will need to have a contract in place to utilize this program and the TB Program can work with LTHDs on that process if the need arises. Please note relocation while infectious is not recommended under most circumstances. Travel on public transportation while infectious is strictly prohibited.

KL: I am not aware of any resources for relocation. This would be an expense the client would need to cover. The local health department can coordinate transfer of care to where they are moving (i.e. interjurisdictional transfer to another health department) and provide the client with a month's worth of medications.

Can you provide guidance client masking during isolation? Should clients wear an N95/KN94 or does a surgical mask provide sufficient source control? Does the setting matter (public transportation, taxi, clinic, hospital, etc.)? If an infectious client refuses to wear a mask during an appointment, will a well- fitted N95 provide appropriate protection to the wearer?

CL and AL: The person with infectious TB should wear a surgical mask when around others and when attending medical appointments. Providers and healthcare workers who have been fit tested should wear a respirator when caring for the person with infectious or suspected infectious TB. People with confirmed or suspected infectious TB should be in

airborne infection isolation (AII) in healthcare settings. CDC information for healthcare settings available here. Patient information from CDC here. Travel on public transportation while infectious is prohibited.

KL: Clients should wear a surgical mask during isolation. Clients are typically not fit tested (or have they received medical clearance) for an N95 and should not be wearing N95s for that reason. Clients should wear a surgical mask while riding in a cab/car and while in the doctor's office. Clients should avoid mass public transit while infectious (whenever possible-typically, we will cab the client to their medical appointment if they do not have their own transportation). I have never had a situation where a client refuses to wear a mask at an appointment. If that were to happen, I believe the health system has the right to send the client away per their clinic policies/protect the health of others in the clinic. Health care providers should be wearing N95s during those visits. If necessary, the health department could write orders for the client who is refusing to mask during medical appointments.

When evaluating a client with a positive TST or IGRA screening, what is the best way to rule out extra- pulmonary TB before starting LTBI treatment? I am concerned about clients with undiagnosed EP TB developing drug resistance due to monotherapy LTBI treatment.

CL and AL: As this question points out, TB can inhabit and manifest in many parts of the body and is not limited to respiratory disease. This is a complicated topic, and probably best addressed on an individual level with a person's whole experience and clinical picture in mind. The WTBP has a medical consultant available for clinician assistance if a person has any undiagnosed symptoms or manifestations that a provider believes could be related to TB. Please email the WTBP main inbox to request a consultation.

KL: That's a really good question. There is no way to prevent this from happening but I think the most important thing that can be done by the health care provider is a comprehensive history and physical, including asking about any symptoms they are having from head to toe. That way, the provider is hopefully ruling out extra pulmonary TB by performing a comprehensive review of systems.

Does aging increase the risk for TB reactivation?

CL and AL: Aging could play a part in reactivation, but age as an independent risk factor for TB reactivation, is less clearly defined. It is likely multifactorial including increased risk of chronic diseases and other comorbid conditions, increased exposure due to higher historical TB rates, and age-related immuno-senescence.

I've gotten a lot of questions recently about the chances of a 'false positive' result on IGRA tests. Can someone speak to how you alleviate concerns regarding this with clients? What is the likelihood of such a result in the populations commonly screened in Wisconsin?

CL and AL: Considering pretest probability is important when interpreting positive test results (for both TST PPD and IGRA testing). A risk assessment should *always* be performed as part of TB and LTBI screening. In general, TB testing in the absence of risk factors is not recommended. But for those who must be tested due to workplace or other requirements but do not have risk factors, the CDC in their 2017 diagnostic guidelines recommends performing a confirmatory test after a positive test. LTBI treatment could be offered if both tests are positive. See the WI TB Program publication for interpretation of TB infection test results performed in populations with no risk factors present.

KL: First, I think it is important to stress that you need to understand why you are screening someone. Is it for work, school or volunteering? Is it part of a contact investigation or immigration screening? Does the person have a risk factor for TB (i.e. born in a country with higher rates of TB)? Once you understand the reason for testing, it may help inform your answer as to whether a false positive is likely. For example, if you are screening someone because they need a test for volunteering at a local hospital but they were born in WI, never travelled outside of the US and have never been exposed to anyone with TB, I would think that it could be a false positive. However, if someone is coming to you for screening because they need it as part of their immigration screening requirement and they were born and raised in Nepal, I may have a lower threshold to consider that test being a false positive. Remember, we need to look at the whole picture when it comes to TB. I think it is important to know how IGRAs work (especially when people have

concerns about their prior BCG vaccination), when to repeat an IGRA if you consider the initial to be a false positive and how to relay the messaging to the client.

I would recommend a repeat IGRA 3-6 months after the initial test if I thought the first was a false positive, and I thought the person had a low risk for TB exposure. If the person had a risk for TB exposure, I typically would not recommend repeat testing.

Can you please review the breakdown of the results from the Quantiferon and the T-spot? The results are always confusing. Are there any helpful resources you would recommend for reference?

CL and AL: See the WI TB Program publication for interpretation of IGRA test results. The lab itself performs a calculation based on each element tested and will report out a final interpretation as the result. The chart on page two of the linked publication outlines the basic cutoffs for each element of the test.

KL: Quantiferon Values-

- Mitogen: positive control
- Nil: negative control
- Mitogen minus Nil: Can the person mount an immune response with T cells?
- TB minus Nil: Do they have a T cell response to TB?
- TB 1: detects CD4 T cell response
- TB 2: Detection of CD4 and DC8 T cell responses