Community Health Newsletter

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What's New with the TB Program...

LTBI

Last year, the TB program started using the QFT blood test to screen for TB (after several decades of using the TB skin test). Remember, PHMDC switched to the QFT blood test because it was a more specific test than the TB skin test and yielded fewer false positives. Initial data suggests the Dane County Latent TB Infection (or LTBI) caseload

dropped 30% within the first 6 months of switching to the blood test. This saves PHMDC over $85,000 in case management costs!

Suspect

While a decreasing LTBI caseloads is good news, our TB suspect caseload is increasing. A TB suspect is someone who may have active TB disease. It is our responsibility to rule it out through sputum testing and requiring the client to obtain a chest x-ray or other radiology testing.

The increase in TB suspects may be attributed to more providers knowing what symptoms to look for, better differential diagnoses (other possibilities for the client's symptoms) or providers more comfortable with calling PHMDC for advice. Either way, the PHNs keep very busy with TB suspects.

Active

The complexity of active TB cases does not get easier either. Currently, PHMDC has 13 TB cases on directly observed therapy (DOT). 12 clients are foreign born while 1 client is US born (exposed to TB several years ago) Several TB clients have complex medical needs such as diabetes, dementia, chronic pain, etc.

TB clients often have trouble making ends meet because the TB diagnosis prevents them from working. The TB team helps find resources in the community or assists through an incentive program or the Corscott Fund.

Help Available

We are also using our DOT workers on a regular basis. Jesse Ramirez, Noemi Mendoza and Fuechuo Thao are 3 DOT workers who assist the PHNs with DOT and are great additions to the TB team!

The TB team now uses a DOT calendar in Outlook. Similar to our TB clinic calendars, room reservation calendars, etc, the team can now schedule who is doing DOT 7 days a week and access it from any network computer. This streamlines our clinic calendar and DOT calendar process, making it easier for nurses and DOT workers to find the calendars and make changes.

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TST vs. QFT vs. T-spot

We're now adding another TB test to our repertoire, T-spot. T-spot is very similar to the QFT blood test, measures the interferon-gamma in the blood.

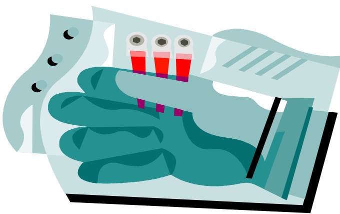
While the QFT and T-spot blood tests are very similar in function, the T-spot has a few advantages over the QFT:

- It's cheaper (at $50/test whereas the QFT is $130/test)
- We get the results within 2 days whereas with QFT, it could be up to a week later
- It's more efficient (we can draw the blood and mail to the lab- whereas with QFTs, we have to send clients to Meriter or St. Mary's Hospital).

While the QFT and T-spot are the TB team's preferred testing mechanism, they are not recommended or FDA approved for children under 5 years old since there has not been enough research done in this population. For these clients, we still recommend and use the TB skin test.

However, T-spot can be used for TB screening in all individuals, including HIV (+) and other immune compromised clients instead of only qualifying for the TB skin test.

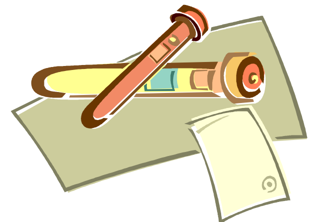
TB and HIV go hand in hand...and so do our Programs!



Now that the TB team can use T-spot for TB screening, the TB PHNs need to learn (or in some cases re-learn) how to draw blood...and who better to ask than the STI/HIV team staff who routinely draw blood for Hepatitis and HIV testing?!

Once T-spot became available to PHMDC, Kate Louther and Cheryl Robinson began discussing how this could work. A recent contact investigation was looming and we needed blood drawing staff in a hurry. We decided to use experienced HIV/STI staff to draw blood for the more immediate contact investigation and slowly train TB PHNs over time.

The STI/HIV team has 6 staff who can draw blood (venipuncture).



We hope that by January 2012, all TB PHNs will be trained in blood draws.

Recent Contact Investigations

Recently, the TB program has had some interesting contact investigation sites including:

- A school (over 180 people were identified in this contact investigation).
- An adult day care center (over 150 people were identified in this contact investigation)
- Hospitals and Clinics (usually, the hospitals and clinics are responsible for performing their own contact investigation since they know who had contact with the TB case and PHMDC provides advice for screening staff)
- A conference on the UW Campus (where people from all over the world attended)...talk about tracking people down!

PHEW!

Case Review-oh how complex TB still is!

2/11/11: TB suspect reported to PHMDC; abnormal chest x-ray and CT; client has had febrile illness since October 2010; denies cough, night sweats or weight loss. Home isolation started while awaiting sputum specimen results.

2/17: Released from isolation; negative sputum smears and Polymerase Chain Reaction (PCR) test negative (this is a DNA test).

2/23: Follow-up appt with MD; client started on TB medication (RIPE-see below for description).

2/24: rash develops; better with Benedryl

2/28: Induced sputum collected

3/23: Culture positive growth for TB on 2/28 sputum specimen

4/13: Pan Sensitive (not MDR or XDR TB); discontinue 2 TB drugs

5/20: Liver Function Enzymes (LFTs) slightly elevated

5/27: Client leaves for summer trip to China (home); to return 6/21

6/9: PHN continues DOT via Skype;works well for PHN and client!

6/9: Chinese embassy requires further testing before student visa approval (sputum tests); client will need to get prescriptions re-filled in China (much harder to do), finally able to find medications for TB.

8/16: Student Visa denied; client must complete TB treatment.

8/23: PHN and State sent letters to Chinese Embassy, client completed 6 months of treatment.

9/2: Client returns to Madison, WI.

TB Rates in Dane County (2010-2011 Data)

In 2010, there were 12 Active TB cases in Dane County.

- 9 were pulmonary TB
- 3 were extrapulmonary TB, specifically, TB of the spine, bladder and eye.
- All TB cases were foreign born, coming from Mexico, India, Ukraine, Laos, Argentina, Senegal and Kenya.

To date in 2011, there have been 11 TB cases reported in Dane County.

- 9 were pulmonary TB
- 2 were extrapulmonary (both from lymph nodes)
- All cases were foreign born, coming from Mexico, China, India, Korea, Tibet, Eritrea, Cambodia and Gambia.
- There is 1 MDR TB transfer case in Dane County at this time. TB transfer cases are originally diagnosed and started on treatment in another county or state. When a client moves, the initial county/state notifies PHMDC of the transfer TB case and PHMDC assumes case management.

Common TB lingo

LTBI: latent TB infection

INH: Isoniazid; medication to treat LTBI

RIF: Rifampin; medication to treat LTBI

RIPE: acronym for Rifampin, Isoniazid, Pyrazinamide and Ethambutol; 4 standard drugs for TB disease treatment.

MDR TB: multi-drug resistant TB; resistant to INH and RIF

XDR TB: extensively drug resistant TB; resistance to several TB medications.

DOT: directly observed therapy

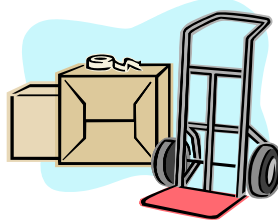
TST: TB skin test

TB Suspect: a person who may have active TB; may show signs or symptoms of active TB including but not limited to fever, cough, night sweats, weight loss, abnormal chest x-ray, etc.

Check out our new digs...

In August, the TB team moved into the Atrium. Check out our TB clinic room:

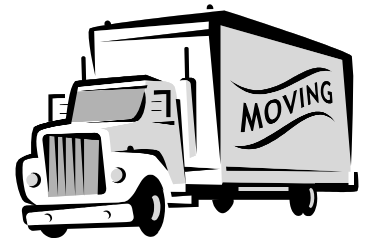
We even have an x-ray reader (on top of the fridge); Dr. Schlenker found it in surplus and donated it to us upon his move to San Antonio. The team is able to view clients' chest x-ray films and use them as teaching tools.



The fridge is used for storing PPD (for TB skin tests) as well as storing liquid INH medication for our clients. We use the freezer to store ice packs for specimen transportation.

We even have a sink which will come in handy when we start drawing blood for T-spots!

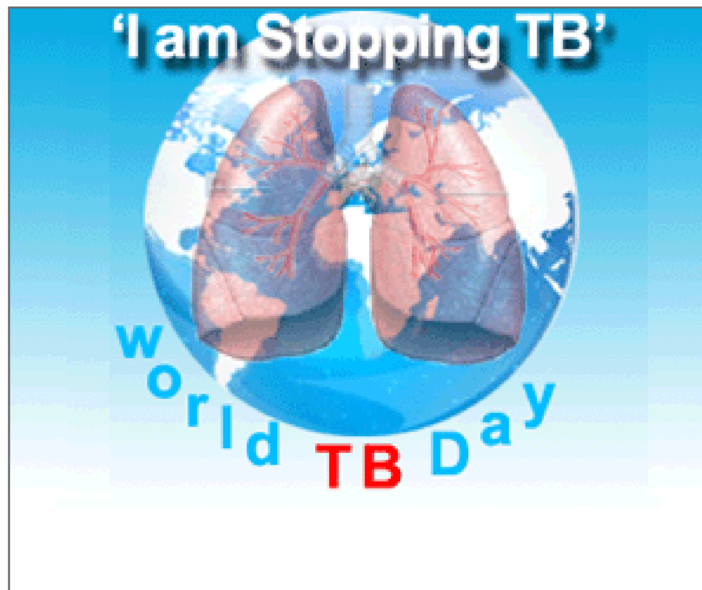
The TB team started using the TB clinic room in the Atrium in September.



Mark your calendars...TB Summit 2012

The TB team has long awaited another TB summit in Dane County. Some team members can't even remember the last time there was a TB summit in Dane County!

The team suggested we start planning a TB summit and invite providers from around the county and Wisconsin to participate.



Planning to Date...

Currently, Erin Polkinghorn, Julia Greenleaf, Holly Deegan, Brian Odegaard and Kate Louther are part of the Planning Committee. Philip Wegner, the State TB Nurse Consultant also will be joining the Planning Committee.

They sent out a survey to area providers in late July/ early August to learn what topics providers would like to hear about, potential speakers, whether they would like break-out lunch sessions, location of the event, etc.

The TB Summit will take place on March 23, 2012. Location and details to be determined. **Stay tuned!**