

# CHALLENGES IN MANAGING TREATMENT FOR LATENT TB INFECTION

Seattle King County  
[www.kingcounty.gov/tb](http://www.kingcounty.gov/tb)



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# TB IN WASHINGTON

- TB incidence rate in WA higher than national average (3.2 per 100,000 in 2022)
- Highest number of people diagnosed with active TB live in King, Pierce, and Snohomish Counties
- Every year in Washington there are TB deaths

# TB IN KING COUNTY

- Approximately 100,000 people have TB infection
- 111 residents were diagnosed with active TB in 2022
- Incidence of 4.8 cases per 100,000 in 2022
- About three deaths every year

# AMAZING STAFF



# NURSE CASE MANAGER (NCM) WHO WE ARE & WHAT WE DO

CASE & WORK-UP	TLTBI	JACK-OF-ALL-TRADES	MULTI-TASKING NINJA
<p>Treatment Management Evaluation Education</p>	<p>Contacts Class B Status Adjustor</p>	<p>Advocator Social Worker Detective Negotiator Educator Friend</p>	<p>Outside Providers Consultation Data Collecting Assisting Study PCP Coordination Team Point Person</p>

# WHO DO WE EVALUATE FOR LTBI



## CLASS B / STATUS ADJUSTOR



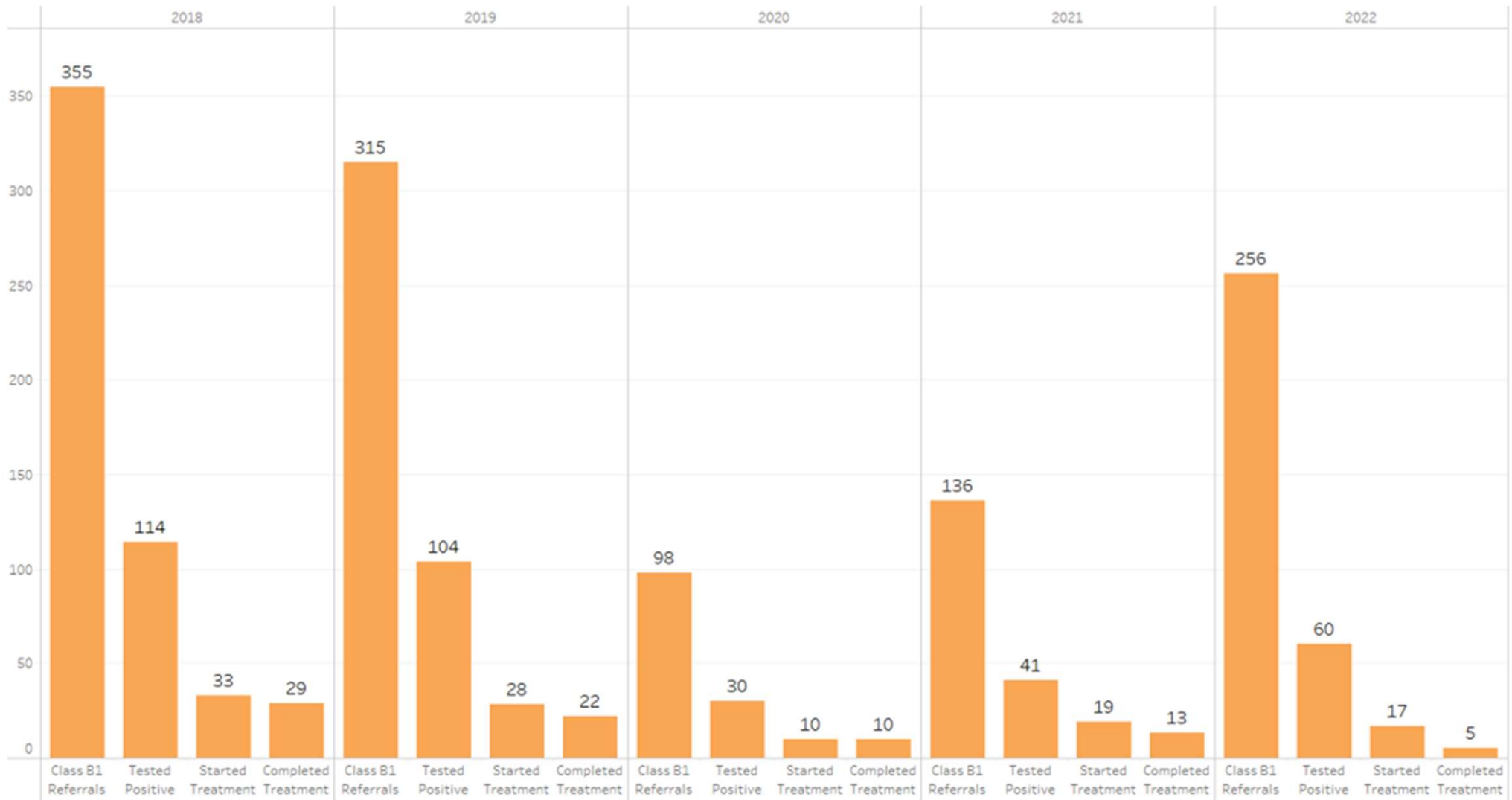
## CONTACTS

- Non-High-Risk Contacts (Household & congregate setting)
  - High Risk Close Contacts (People at the high-risk of developing TB disease)
    - Children younger than 5-years old
- OR
- Contacts with severe immunosuppression



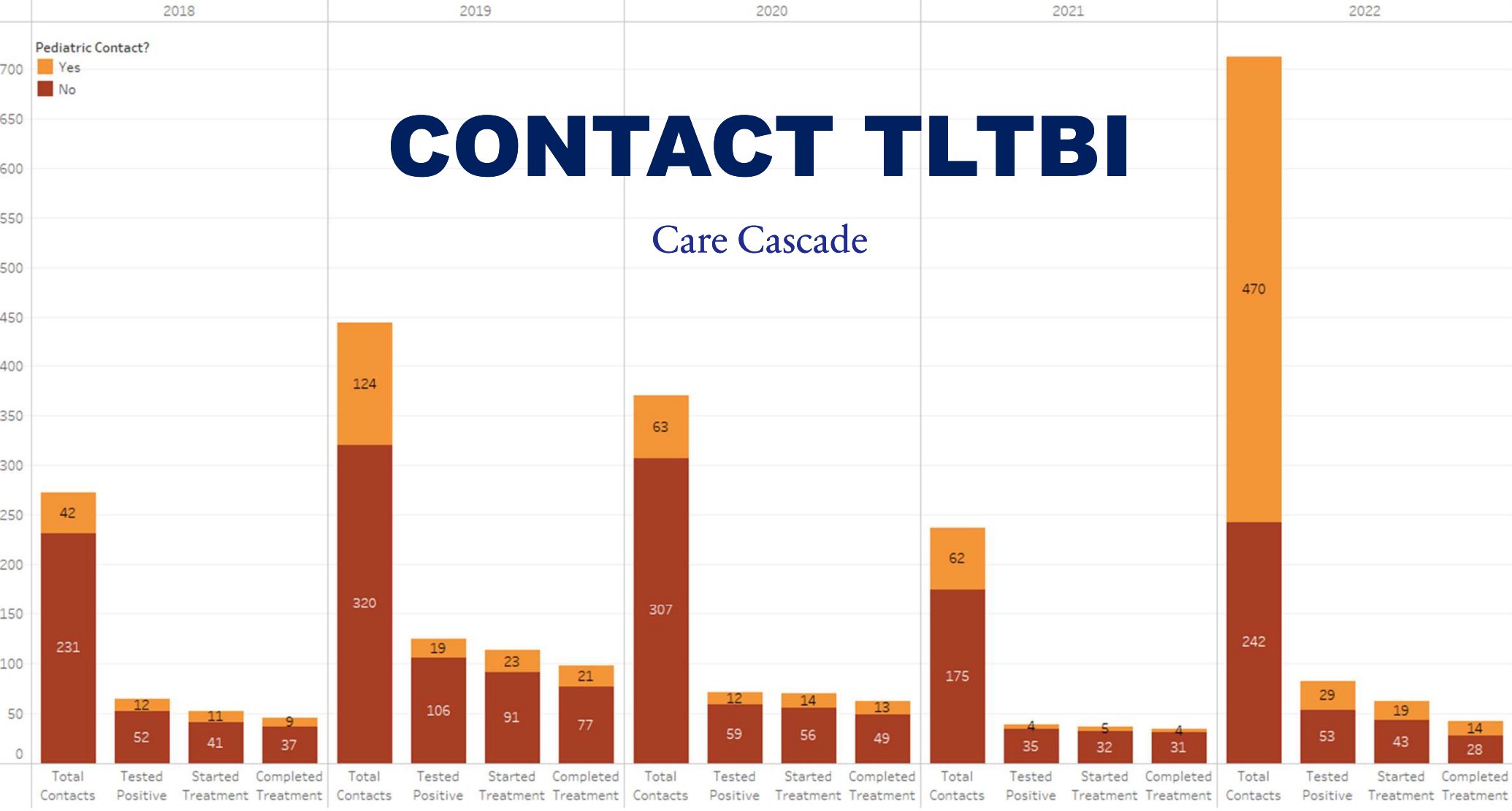
## POSSIBLE TB WORK-UP

## Care Cascade for Immigrants and Refugees with Class B1 Status, 2018-2022, King County, WA





LTBI Care Cascade of Contacts to Infectious TB Cases



# MANAGING CONTACTS ON TREATMENT FOR LTBI (TLTBI)

## High-Risk Contacts:

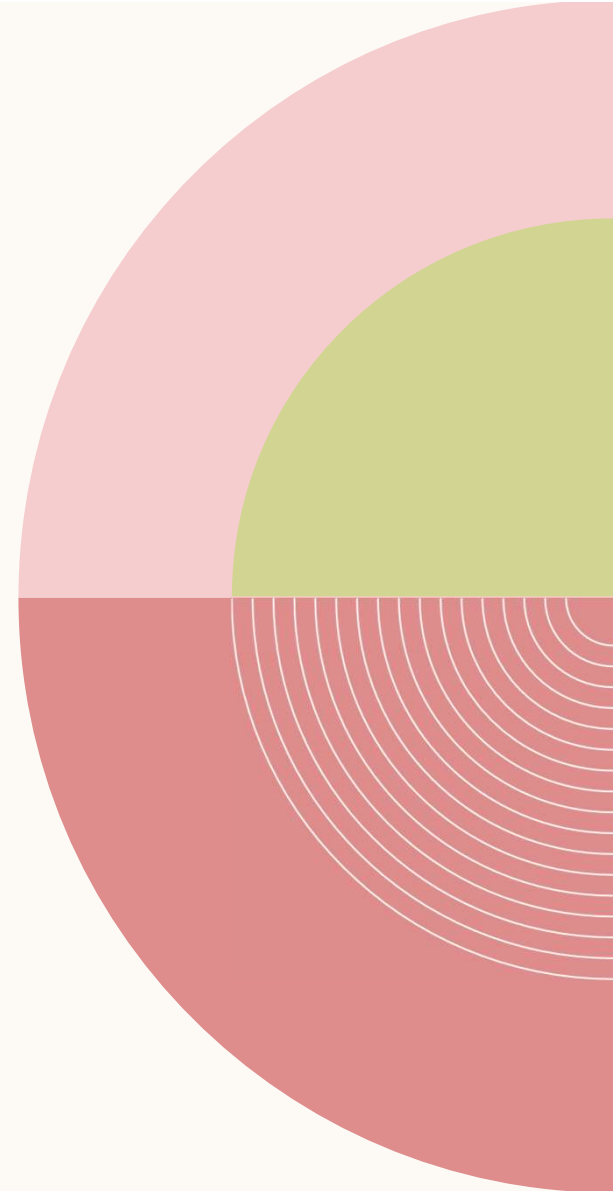
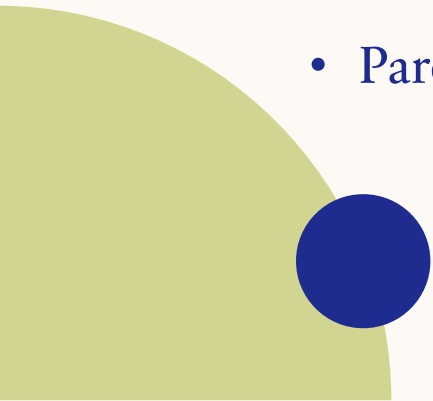
- NCM interview/prioritize
- Peds will be referred to PCP for evaluation / TLTBI / window treatment (PCP support)

## Non-High-Risk Contacts:

- DRIS Interview/Screening
- Clinic MD evaluation for TLTBI/Study
- NCM follows to manage TLTBI refills and monthly assessment per protocol (provide Treatment Summary / Result Letter)

# IS IT EASY TO REFER PEDS OUT FOR TB SCREENING?

- No PCP
- No health insurance
- Hard to get an appt @ PCP
- PCP needs guidance
- Parents/guardian receive continuous support



# GUIDANCE FOR TB EVALUATION & WINDOW PROPHYLAXIS

## • Under 6 months old

tuberculosis Control Program  
 25 Ninth Avenue, Box 359776  
 Seattle, WA 98104-2420  
 06-744-4579 Fax 206-744-4350  
 TTY Relay: 711  
 www.kingcounty.gov/health

**Public Health**  
 Seattle & King County

DATE>

AST, FIRST (DOB)

GUIDANCE FOR TB EVALUATION & WINDOW PROPHYLAXIS (CHILD 0 - 6 MONTHS OF AGE)

SUMMARY

\_\_ year-old child with close contact to a household member diagnosed with infectious TB (drug susceptibility results pending)  
 No TB symptoms reported to TB Control staff

RECOMMENDATIONS FOR EVALUATION

Evaluation can occur without any precautions for airborne transmission. Infants and small children do not transmit TB.  
 History: symptoms concerning for active TB include cough, fever, poor weight gain, poor appetite, wheezing, lymph node swelling, irritability, back/joint pain, change in mental status.  
 Physical exam  
**Place a tuberculin skin test (TST) and read results (induration) in 48 – 72 hours.**  
 Chest radiograph (both PA and lateral views)

RECOMMENDATIONS FOR MANAGEMENT DEPENDING ON EVALUATION OUTCOME:

If the clinical evaluation is suggestive of active TB OR if CXR is abnormal and suggestive of TB (e.g., hilar adenopathy, infiltrate), arrange ED evaluation at Seattle Children's or Mary Bridge's Hospitals. Please contact TB clinic for facilitation of Pediatric Infectious Disease teams' involvement.  
 If history, exam and CXR are normal, AND **TST  $\geq$  5mm**, treat for latent TB infection.

- Rifampin dosing for all children:
  - Rifampin 15-20 mg/kg PO once daily for a total of 4 months; max dose 600 mg per day
  - Rifampin comes in a 150-mg or 300-mg capsule.
  - Rifampin capsules can be opened by their parent, and contents mixed with semi-solid food vehicle.

If history, exam and CXR are normal, and **TST <5 mm**,

- Start "window prophylaxis" with rifampin (see dosing above).
  - Continue therapy as tolerated until the child becomes at least 6-month-old, and at least 8 weeks after the first TST, then repeat TST.**
  - If child remains clinically well, and repeat TST is < 5 mm, window prophylaxis can be stopped and routine well-child care continued.
  - If repeat TST is  $\geq$  5 mm, or if child develops symptoms or signs of active TB, please discuss with TB Control Program.

For any child on latent TB or window prophylaxis treatment:

- Obtain baseline or follow-up laboratory work only when the child has any risk factor for drug-induced hepatitis or develops signs/symptoms consistent with hepatitis. Otherwise, routine blood work is unnecessary.
- Advise parents to report any change in health status to you promptly.
- Conduct monthly follow-up clinical evaluations for symptoms or signs of active TB, and medication adherence and tolerance.

1 the meantime, please feel free to call any time to discuss questions or concerns: 206 – XXX- XXXX

## • 6 months old up to 5 years old

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AST, FIRST (DOB)

GUIDANCE FOR TB EVALUATION & WINDOW PROPHYLAXIS (CHILD 6-59 MONTHS OF AGE)

SUMMARY

\_\_ year-old child with close contact to a household member diagnosed with infectious TB (drug susceptibility results pending)  
 No TB symptoms reported to TB Control staff

RECOMMENDATIONS FOR EVALUATION

Evaluation can occur without any precautions for airborne transmission. Infants and small children do not transmit TB.  
 History: symptoms concerning for active TB include cough, fever, poor weight gain, poor appetite, wheezing, lymph node swelling, irritability, back/joint pain, change in mental status.  
 Physical exam  
**Perform a tuberculin skin test (TST) or TB blood test (i.e., QuantiFERON [QFT], TSPOT-TB):**

- For children <2 years old: place TST with 5TU intradermally on the anterior left upper forearm (alternate site: skin overlying left scapula).
- For children  $\geq$ 2 years old: draw a TB blood test (QFT or TSPOT). TST may be used only for a child born in the US.

Chest radiograph (both PA and lateral views)

RECOMMENDATIONS FOR MANAGEMENT DEPENDING ON EVALUATION OUTCOME:

If the clinical evaluation is suggestive of active TB OR if CXR is abnormal and suggestive of TB (e.g., hilar adenopathy, infiltrate), arrange ED evaluation at Seattle Children's or Mary Bridge's Hospitals. Please contact TB clinic for facilitation of Pediatric Infectious Disease teams' involvement.  
 If history, exam and CXR are normal, AND **QFT/TSPOT positive or TST  $\geq$  5mm**, treat for latent TB infection.

- Rifampin dosing for all children:
  - Rifampin 15-20 mg/kg PO once daily for a total of 4 months; max dose 600 mg per day
  - Rifampin comes in a 150-mg or 300-mg capsule.
  - Rifampin capsules can be opened by their parent, and contents mixed with semi-solid food vehicle.

If history, exam and CXR are normal, and **QFT/TSPOT is negative or TST <5 mm**,

- Start "window prophylaxis" with rifampin (see dosing above).
  - Continue therapy as tolerated, then repeat the same TB test as the first one (QFT/TSPOT or TST) 8 weeks later.**
  - If child remains clinically well, and repeat TST is < 5 mm, or QFT/TSPOT is negative, window prophylaxis can be stopped and routine well-child care continued.
  - If repeat TST is  $\geq$  5 mm, or repeat QFT/TSPOT is positive, or if child develops symptoms or signs of active TB, please discuss with TB Control Program.

For any child on latent TB or window prophylaxis treatment:

- Obtain baseline or follow-up laboratory work only when the child has any risk factor for drug-induced hepatitis or develops signs/symptoms consistent with hepatitis. Otherwise, routine blood work is unnecessary.
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*Team Work*  
**MAKE**  
*Dreams*



## **THANK YOU**

**June Pan, RN, BSN**

Seattle King County Public Health TB Control  
Public Health Nurse and Nurse Case Manager

[qiong.pan@kingcounty.gov](mailto:qiong.pan@kingcounty.gov)

425-390-2406 (work cell)

- **Mary Tuncil, PHN, Clinical Lead for CPU/Intake/RN Consult**
- **Donny Lee, Epidemiologist**
- **Elizabeth Kracen, MD**