A Story of Tuberculosis in Contra Costa County

Mario was 18 years old in 1938 when he was diagnosed with tuberculosis (TB). His illness was discovered during a school health screening at his high school in Martinez. At that time, one in nine adults died of TB and there were no medications to treat it. Mario was sent to Alum Rock sanatorium in San Jose. He was put on bed rest (he was only allowed to get up to go to the bathroom), required to eat a large amount of healthy food daily, and had air pumped into his chest cavity to collapse the part of his lung that was most affected by the TB infection. When he was sent home two months later, he continued on a strict regimen of diet and rest. He went to his doctor regularly to make sure his lung remained collapsed for the next 4 years, though he was able to return to school in the fall of 1939.

Mario continued to report to the Contra Costa County Health Department for yearly chest x-rays until 1977 when he was 57 years old. If Mario contracted TB today, he would be one of only 40 cases in the county. The rate of people who get TB in California has decreased 24 fold since 1938. Mario would take 6-9 months of medications for his TB in his community instead of having to leave his family and suffer a painful procedure far from home. He would have to stay home from school for 2-3 weeks instead of 11/2 years. Due to the hard work of scientists, healthcare professionals, and the public health workforce, in the past 100 years, TB has gone from a terrifying disease that was the number one cause of death and disability in the US, to an illness that is treatable and curable. We are lucky here in Contra Costa County to have access to the benefits of TB care and prevention that are still not available in many parts of the world today.

Public Health Department Role in Managing Tuberculosis

The Contra Costa Public Health Department TB Control Program is responsible for protecting the health of both individuals and our community. We are charged with investigating persons with known or suspected TB disease as well as persons exposed to TB to ensure successful TB treatment and to prevent the spread of TB in our community. The team of Public Health Nurses (PHN) and Disease Intervention Technicians monitor each person closely to ensure those with TB disease receive effective treatment, and those exposed to TB disease or are new Americans from TB-endemic countries (B-Immigrants) are located and receive prompt evaluation and treatment services. This is accomplished by intensive case management, thorough contact investigations and daily home visits to provide Directly Observed Therapy (DOT).

Consider screening and testing all persons at risk for Tuberculosis

More than 4 in 10 persons diagnosed with TB in 2019 were age 65 or older

More than 8 in 10 persons diagnosed with TB in 2019 were foreign born, most from Asia and Latin America

The majority of TB cases among immigrants were diagnosed 5 years or more after arrival in the U.S.

Latent tuberculosis infection (LTBI) should be treated regardless of age or country of birth.

Always consider LTBI treatment in the elderly. We are living longer with a higher quality of life. It is easier to treat LTBI in the elderly than it is to treat active TB disease.

Screen and test all persons with risk factors, regardless of length of time in the U.S.

For More Information:
Contra Costa Health Services
Centers for Disease Control and Prevention
Tuberculosis Control Program
http://cchealth.org/tb/
925-313-6740

Division of Tuberculosis Elimination
http://www.cdc.gov/tb/
https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TBCB.aspx
FACT: TUBERCULOSIS IS THE WORLD’S LEADING INFECTIOUS DISEASE KILLER.

#itsTimeToEndTB #TBfreeCA #WTBDay2020

Common Misconceptions about Tuberculosis Diagnosis and Treatment
Here is the Truth!

- Yes, you can have a false positive IGRA test, such as QFT
  - Also, a negative IGRA does not rule out TB infection or disease
  - IGRA/QFT is only one factor in diagnosing TB

- PCR is a great tool to rapidly diagnose TB, order it on at least one specimen
  - Keep in mind, a negative PCR does not necessarily rule out active TB disease
  - Be sure to consider all clinical information before ruling out TB

- There is no need to periodically retest patients with a negative TB skin test or QFT
  - Only retest if the patient has new risk factors for exposure (i.e. known contact or recent travel) and has symptoms suggesting TB or requires renewed clearance

- Patients with a history of BCG vaccine as a child should only be tested with an IGRA test, such as QFT

- Healthcare workers are not at a higher risk for TB infection than the general population
  - Proper infection control measures in healthcare settings work!

- Exposure evaluation for children less than 5 years old MUST include a TST or IGRA, chest x-ray (PA & LAT) and medical exam
  - Also, window treatment is highly recommended for children who are close contacts to TB cases
  - The TB Program/Public Health Nurse is your best resource for guidance

- LTBI can safely be treated during pregnancy or breastfeeding
  - In most situations it is safe to treat LTBI with rifampin while breastfeeding
  - High-risk pregnant women (i.e. recent converters or HIV positive) should be treated for LTBI during pregnancy

Common Abbreviations
- TST (tuberculin skin test) = PPD (purified protein derivative)
- IGRA (interferon gamma release assay) = QFT (Quantiferon) or T-SPOT
- LTBI (Latent Tuberculosis Infection)
- BCG (bacille Calmette-Guerin) vaccine
- NAAT (nucleic-acid amplification test) = PCR (polymerase chain reaction)