Tuberculosis Information

Santa Clara County PUBLIC HEALTH

For Health Care Providers and Schools

County of Santa Clara
Public Health Department

Administration
976 Lenzen Avenue, 2nd Floor
San José, CA 95126

DATE: April 15, 2014

TO: District Superintendents
School Nurses
Health Care Providers

FROM: Sara H. Cody, MD
Health Officer

Teeb Al-Samarrai, MD
Tuberculosis Controller

RE: **Change in the Tuberculosis (TB) School Mandate:**
From Universal Testing to Universal Risk Assessment and Targeted Testing

Beginning June 1, 2014, the Santa Clara County Tuberculosis (TB) School Mandate will change from a requirement for universal TB testing to a requirement for universal TB risk assessment.

Santa Clara County has required TB testing for students entering school since 1989. This Health Officer Mandate was implemented at that time because TB rates rapidly increased. It was intended to ensure that children with TB were diagnosed early and treated appropriately when the infection was latent or "silent." The California Health and Safety Code, § 121515, gives the county Health Officer authority to implement such mandates.

As TB rates have declined in the US and California, the Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics (AAP) and the California Tuberculosis Controller's Association (CTCA) have revised their recommendations. In place of universal TB testing, these bodies now recommend that healthcare providers ask a series of questions to assess a child's risk of exposure to TB and target TB testing for children at increased risk for TB exposure or developing TB disease. Although rates of TB have declined in Santa Clara County since the Mandate was put in place, we continue to have one of the highest rates of TB in the US. Santa Clara County has very few cases of active TB among children, however, children remain vulnerable to being exposed to TB from others and are at greater risk of progressing to active TB disease if latent or "silent" TB infection is not detected and treated early.

In February 2014, the Public Health Department convened a School Mandate Review Task Force — including school representatives and pediatricians from the community — to review our local TB data, the AAP/CDC/CTCA recommendations, the academic literature, the policies of similar jurisdictions across California and the US, as well as challenges and advantages of different policy

changes. Based on this review and discussion, Santa Clara County will no longer require universal testing but will transition to a mandate for universal risk assessment and targeted testing.

The new *Santa Clara County Public Health Department Risk Assessment for School Entry* form will be required for school registration effective June 1, 2014 for all children enrolling in kindergarten or transferring, at any grade level, from outside of Santa Clara County.

Please discard all prior references to the TB School Mandate and replace with the following documents:

- **NEW:** TB Risk Assessment for School Entry form (to be completed by healthcare providers)
- **Revised:** Guidelines to Revisions to the School Mandate and Requirements
- **Revised:** Frequently Asked Questions
- **Revised:** Dear Parent Letter
- **Revised:** Santa Clara County School Mandate Flow Chart
- **Revised:** IGRA Fact Sheet
- **NEW:** List of school health clinics and FQHCs in Santa Clara County

Please reproduce this entire packet for each school in your district as well as any location where centralized registration is done for new and transfer students. Please also feel free to post on District or School websites. These materials will also be available at www.sccphd.org/tb.

If you have questions about these changes, please contact the TB Prevention and Control Program at (408) 885-4214.

Thank you for helping us protect the health of children in Santa Clara County.

Child's Name: _____ **Birthdate:** _____ **Male/Female** **School:** _____
Last, First month/day/year

Address _____ **Phone:** _____ **Grade:** _____
Street City Zip

Santa Clara County Public Health Department
Tuberculosis (TB) Risk Assessment for School Entry

This form must be completed by a licensed health professional in the U.S. and returned to the child's school.

1. Was your child born in, resided, or traveled (for more than one month) to acountry with an elevated rate of TB*? ❑ **Yes** ❑ **No**
2. Has your child been in close contact to anyone with TB disease in their lifetime? ❑ **Yes** ❑ **No**
3. Is your child immunosuppressed; current, or planned? (e.g., due to HIV infection,organ transplant, treatment with TNF-alpha antagonist or high-dose systemic steroids (e.g., prednisone ≥ 15 mg/day for ≥ 2 weeks). ❑ **Yes** ❑ **No**

*Most countries other than the U.S., Canada, Australia, New Zealand, or a country in western or northern Europe. This does not include tourist travel for <1 month (i.e., travel that does not involve visiting family or friends, or involve significant contact with the local population).

If YES, to any of the above questions, the child has an increased risk of TB and should have a TB blood test or a tuberculin skin test (TST) unless there is either 1) a documented prior positiveIGRA or TST or 2) no new risk factors since last documented negative IGRA (performed at age ≥2 years in US or TST performed at age ≥ 6 months in U.S.)

All children with a current or prior positive IGRA/TST result must have a medical evaluation, including a chest x-ray (CXR; posterior-anterior and lateral for children <5 years old is recommended). CXR is not required for children with documented prior treatment for TB disease, documented prior treatment for latent TB infection, or BCG-vaccinated children who have a positive TST and negative IGRA. If there are no symptoms or signs of TB disease and the CXR is normal, the child should be treated for latent TB infection (LTBI) to prevent progression to TB disease.

Enter test results for all children with a positive risk assessment:

Date of (IGRA)	Result: ❑ Negative ❑ Positive ❑ Indeterminate
Tuberculin Skin Test (TST/Mantoux/PPD) Date placed: Date read:	Induration_____mm Result: ❑ Negative ❑ Positive
Chest X-Ray Date: _	Impression: ❑ Normal ❑ Abnormal
LTBI Treatment Start Date: _____ ☐ Rifampin daily - 4 months ☐ Isoniazid/Rifapentine - weekly X 12 weeks ☐ Isoniazid daily - 9 months ☐ Isoniazid and Rifampin daily - 3 months	☐ Prior TB/LTBI treatment (Rx & duration): _____ ☐ Treatment medically contraindicated _____ ☐ Declined against medical advice

Please check one of the boxes below and sign:

☐ Child has no TB symptoms, no risk factors for TB, and does not require a TB test.
☐ Child has a risk factor, has been evaluated for TB and is free of active TB disease.
☐ Child has no new risk factors since last negative IGRA/TST and has no symptoms.
☐ Child has no TB symptoms. Appointment for IGRA/TST scheduled on: _____.
☐

_____
Health Care Provider Signature, Title Date

Name/Title of Health Provider:
Facility/Address:
Phone number:

County of Santa Clara
Public Health Department

Tuberculosis Prevention & Control Program
976 Lenzen Avenue, Suite 1700
San José, CA 95126
408.885.2440

Testing Methods

An Interferon Gamma Release Assay (IGRA, i.e., QuantiFERON or T-SPOT.TB) or Mantoux tuberculin skin test (TST) should be used to test those at increased risk. An IGRA can be used in all children ≥ 2 years old and is preferred in BCG-vaccinated children to avoid a false positive TST result. A TST of ≥10mm induration is considered positive. If a child has had contact with someone with active TB disease (yes to question 2 on reverse), or the child is immunosuppressed, then TST ≥5 mm is considered positive. If a BCG-vaccinated child has a positive TST, and an IGRA is subsequently performed and is negative, testing is considered negative unless the child was exposed to someone with TB disease or is immunosuppressed. For immunosuppressed children, screening should be performed by CXR in addition to a TST/IGRA (consider doing both) and symptom review. TB screening can be falsely negative within 8 weeks after exposure, so are best obtained 8 weeks after last exposure.

Evaluation of Children with Positive TB Tests

- All children with a positive IGRA/TST result must have a medical evaluation, including a CXR (posterior-anterior and lateral is recommended for children <5 years old). A CXR is not required for a positive TST with negative IGRA in a BCG-vaccinated child, or if the child has documentation of prior treatment for TB disease or treatment for latent TB infection.
- For children with TB symptoms (e.g., cough for >2-3 weeks, shortness of breath, hemoptysis, fever, weight loss, night sweats) or an abnormal CXR consistent with active TB disease, report to the County of Santa Clara Public Health Department TB Program within one day. The child will need to be evaluated for TB disease with sputum AFB smears/cultures and nucleic acid amplification testing. A negative TST or IGRA does not rule out active TB disease in a patient with symptoms or signs of TB disease. The child cannot enter school unless active TB disease has been excluded or treatment has been initiated.
- If there are no symptoms or signs of TB disease and the CXR is normal, the child should be treated for latent TB infection (LTBI). Do not treat for LTBI until active TB disease has been excluded.
- Short-course regimens are preferred (except in persons for whom there is a contraindication, such as a drug interaction or contact to a person with drug-resistant TB) due to similar efficacy and higher treatment completion rates as compared with 9 months ofdaily isoniazid.

Treatment Regimens for Latent TB Infection

- Rifampin 15 - 20 mg/kg (max. 600 mg) daily for 4 months
- 12-dose Weekly Isoniazid/Rifapentine (3HP) Regimen:
  - Isoniazid
    2-11 years old: 25 mg/kg rounded up to nearest 50 or 100 mg (max. 900 mg)
    ≥ 12 years old: 15 mg/kg rounded up to nearest 50 or 100 mg (max. 900 mg)
  - Rifapentine
    10.0-14.0 kg: 300 mg
    14.1-25.0 kg: 450 mg
    25.1-32.0 kg: 600 mg
    32.1-50.0 kg: 750 mg
    >50 kg: 900 mg
  - Vitamin B6 50 mg weekly
- Isoniazid 10 mg/kg (range, 10-15 mg/kg; max. 300 mg) daily for 9 months. Recommended pyridoxine dosage is 25 mg for school-aged children (or 1-2 mg/kg/day).
- Isoniazid and Rifampin daily for 3 months: Children: Isoniazid 10-20 mg/kg (300 mg maximum) Rifampin 15-20 mg/kg; (600 mg maximum)

Santa Clara County Tuberculosis Screening Requirement for School Entrance Effective June 1, 2014

Guidelines to Revisions to the School Mandate and Requirements

1) What are the tuberculosis (TB) screening requirements for school entrance in Santa Clara County?

Students must undergo a TB risk assessment prior to entering kindergarten or upon transfer to Santa Clara County schools. Each student must be evaluated by a primary care provider who will 1) complete the *Santa Clara County Public Health Department TB Risk Assessment for School Entry* or 2) provide an After Visit Summary or similar print out from visit stating results of risk assessment, need for testing and appropriate test results as indicated.

TB risk assessment and test results (if indicated) must be submitted prior to in person school entry; documented TB risk assessment **up to twelve months prior to registration for school is considered valid.**

Students who have a positive risk assessment should have a TB test. All children with a positive TB test should undergo medical evaluation, including a chest x-ray. Chest x-ray is not required for children with documented prior treatment for TB disease, documented prior treatment for latent TB infection, or BCG-vaccinated children who have a positive TST and negative IGRA. The results of the chest x-ray should be included on the form. If the chest x-ray is normal and the child has no TB symptoms, they may start school. If the child has symptoms or an abnormal chest x-ray consistent with TB disease, the child must undergo further evaluation and cannot enter school unless active TB disease has been excluded or treatment has been initiated.

Please fax any forms reporting an abnormal chest x-ray to the TB Prevention and Control Program at (408) 885-2331.

2) How were the risk assessment questions chosen?

The questions on the TB Risk Assessment for School Entry form were adapted from the American Academy of Pediatrics Guidelines and the California Department of Public Health recommendations.

3) Who needs to satisfy the requirements of the Santa Clara County TB Mandate?

The requirement applies to the following students entering a public or private school in Santa Clara County beginning June 1, 2014 and later:

1. All students entering into kindergarten for the first time.
2. All students transferring to Santa Clara County schools into kindergarten through twelfth grade from a school outside of Santa Clara County.

Santa Clara County Tuberculosis Screening Requirement for School Entrance Effective June 1, 2014

4) Who is exempt from these requirements?

1. All students who have previously met the TB screening requirements of Santa Clara County AND who have not been residing outside the county greater than 12 months; this includes students with prior completion of the Santa Clara County Public Health Department TB Risk Assessment for School Entry form for Transitional Kindergarten (TK) or other school based early learning program in Santa Clara County (school programs begin after age 3).
2. Students transferring from one school to another within Santa Clara County AND have previously met the TB screening requirements.

5) Who can enroll/register in a Santa Clara County school before TB screening requirements are complete?

1. A student who falls under the provisions of the McKinney-Vento Homeless Assistance Act, Students with an IEP, and/or a student who is in Foster Care is not required to complete TB screening before school registration and may be immediately enrolled into school. TB screening is still required for these students and should be completed in a timely manner, e.g., within 20 calendar days of enrollment. Note: School district may extend time to complete screening for up to 45 calendar days.
2. A TB blood test (IGRA) or a tuberculin skin test (TST) is recommended 8-10 weeks after their return because it can take this long to develop an immune response. Consequently, for these students, ifthey have no symptoms of TB disease, the IGRA or TST can be deferred until then, but must be completed within 10 weeks of return to the U.S.
3. A student with a positive risk assessment may conditionally enroll before completing the school mandate if they have a scheduled appointment with their provider after the school start date. Results of test may not be available for 20 calendar days after their appointment.

6) What are acceptable TB tests?

1. Interferon Gamma Release Assay (IGRA) blood test, which must be done in the U.S., US Territories or US Military Base Medical Facility (recommended for children who are at least 2years old).
2. Mantoux Tuberculin Skin Test (TST), which must be done in the U.S., US Territories or US Military Base Medical Facility. (If testing was performed at < 6 months of age it should be repeated).
3. Exception to above: A positive IGRA or TST shall be accepted from any country.

7) What is the definition of a positive TB test?

1. A positive IGRA result interpretation is included in the laboratory report
2. A positive TST is 10 millimeters (mm) or more of induration (swelling). Redness alone at theskin test site is not considered a positive reaction.
3. If an individual has had recent contact to a person with active infectious TB or if they are immunosuppressed, they are considered to have a positive TST if there is 5 mm or more of induration.

Santa Clara County Tuberculosis Screening Requirement for School Entrance Effective June 1, 2014

8) What does a positive TB test mean?

A positive TB screening test suggests that the student has been infected with the bacteria that causes TB. Occasionally, a positive TB screening test identifies students with active infectious TB disease. It is important for students with a positive TB screening test to undergo medical evaluation to determine that there are no symptoms or signs of TB disease or whether their CXR has any findings consistent with active TB disease. If active TB disease has been excluded, the child should be treated for latent TB infection (LTBI). LTBI treatment is not mandated for school enrollment as LTBI is not infectious (cannot be transmitted to others), but treatment is advised to prevent the child from developing TB disease in the future.

9) What is the next step for a student with a positive IGRA or positive TSTresult? *Note: positive means past positive or current positive result*

1. Students with a positive IGRA, positive TST, or symptoms or signs of TB disease (not required for a positive TST with negative IGRA in a BCG-vaccinated) must submit evidence that they are free of pulmonary TB disease. This includes one of the following:

   a. Result of chest x-ray done in the United States, US Territories or US Military Base Medical Facility up to 12 months prior to school registration that does not show evidence of active pulmonary tuberculosis.

   b. Written documentation of prior treatment for latent TB infection. See Table on p. 8.

   c. Written documentation of ongoing treatment for latent TB infection.

   d. Written documentation of prior treatment for active TB disease.

   e. Written documentation of current treatment for active TB disease.

2. If the student does not have any of the above and does not have signs or symptoms of active TB (as documented by a medical provider), he/she may be conditionally enrolled, pending the results of the chest x-ray in accordance with school policy. It is recommended that conditional enrollment and admittance be extended for no more than 20 calendar days. However, school districts may extend the time before excluding the student for up to 45 days.

10) What is the next step for a student with an indeterminate IGRA test?

Students who have a positive TB risk assessment, an indeterminate IGRA test result, and a negative symptom review by a primary care provider may enter school.

Note to providers: If result is indeterminate, consider repeating the IGRA or placing a TST.

11) What should schools do if a student does not have a primary care provider?

If a student does not have a source of regular care, refer to the Child Health and Disability Prevention (CHDP) program at 1 (800) 689-6669 or provide our list of community clinics that offer IGRA or TST testing.

Santa Clara County Tuberculosis Screening Requirement for School Entrance Effective June 1, 2014

12) What records must students provide to meet the requirements of the TB Mandate?

1. The *Santa Clara County Public Health Department TB Risk Assessment for School Entry* form completed by a primary care provider in the U.S., U.S Territory or U.S. Military Facility
2. Students who are currently being treated or have completed treatment for TB or latent tuberculosis infection (LTBI) must provide written documentation from their health care provider. This should include medication name, dosage, date started, and date completed. This student does NOT require an additional chest x-ray.
3. Students who have a positive TB test results can present a visit summary stating a risk assessment was performed and follow up testing and evaluation completed by a primary care provider in the U.S., U.S Territory or U.S. Military Facility the *Santa Clara County Public Health Department TB Risk Assessment for School Entry*
4. Students who present a Risk Assessment which includes 1) no risk factors 2) no symptoms of TB and 3) no test required can present this Risk Assessment completed by a primary care provider in the U.S., U.S Territory or U.S. Military Facility lieu of the *Santa Clara County Public Health Department TB Risk Assessment for School Entry*.

13) Who can sign the TB Mandate Form?

1. If the Risk Assessment is negative an LVN, RN, PA, NP, or physician can sign form.
2. If the Risk Assessment is positive, but the TB test is negative an LVN, RN, PA, NP, or physician can sign form.
3. If the Risk Assessment and TB test are positive and requires a physical exam and chest x-ray, a PA, NP or physician needs to sign the form.

14) What is the process for obtaining a waiver that exempts a student with a positive risk assessment from the TB test?

1. To initiate the process for an exemption for a TB test, a student who has a positive TB risk assessment must have the medical provider write a note on the Santa Clara County TB Risk Assessment for School Entry form. The provider should document that TB testing was deferred due to personal beliefs and that the child has no TB symptoms.
2. Fax this form to the Santa Clara County TB Prevention and Control Program at (408) 885-2331.

15) Is there a process for obtaining a waiver that exempts a student from the TB Risk Assessment?

No, there is no waiver for the TB Risk Assessment.

Santa Clara County Tuberculosis Screening Requirement for School Entrance Effective June 1, 2014

Frequently Asked Questions

Can I have a TB test on the same day as a COVID-19 Vaccine?

Testing for TB infection with one of the immune-based methods, either an interferon release assay (IGRA) tuberculin skin test (TST), can be done before or during the same encounter as COVID-19 vaccination. When testing with TST or IGRA cannot be done at the same time as COVID-19 vaccination, these tests should be delayed ≥4 weeks after the completion of COVID-19 vaccination. COVID-19 vaccination should not be delayed because of testing for TB infection.

Should a child who has history of BCG vaccination have a TST or IGRA?

Because Interferon Gamma Release Assays (IGRAs) have increased specificity for TB infection in children vaccinated with BCG, IGRAs are preferred over the tuberculin skin test (TST) for children ≥2 years of age who have a history of BCG vaccination. If an IGRA is not done, the TST results can be utilized.

Medi-Cal does not have an age restriction for IGRA reimbursement.

Are there ever indications for doing both a TST AND an IGRA?

In general, a provider should choose the appropriate test and avoid doing both tests.

If a BCG-vaccinated child has a positive TST, an IGRA can be used to help determine if this is a false-positive test due to BCG vaccination or latent TB infection.

For children who are immunocompromised, consider performing both tests AND obtain a chest x-ray. If either the TST or IGRA is positive, and TB disease has been excluded, the child should be treated for latent TB infection.

What if the student has documentation of a previous positive TST/IGRA from outside the U.S, US Territories or US Military Base Medical Facility?

The student with documentation of a positive TST/IGRA will need to have a medical evaluation, including a chest x-ray in the UnitedStates, US Territories or US Military Base Medical Facility.

If someone does not want to submit to a risk assessment, can they get a TB test?

Yes, a TB test (either IGRA or TST), performed up to twelve months prior to registration for school, may be completedinstead of a TB risk assessment. If the test is positive, the child must have a medical evaluation by a licensed primary care provider in the U.S., US Territories or US Military Base Medical Facility, including a chest x-ray, with documentation of these results on the risk assessment form and provided to the child's school.

Santa Clara County Tuberculosis Screening Requirement for School Entrance Effective June 1, 2014

Frequently Asked Questions

This student left the county for an extended vacation. Do they still need a TB screening test?

If the student has extended travel (e.g., > 1 month) to a country other than the U.S., Canada, Australia, New Zealand, or a country in western or northern Europe with an elevated TB rate they should be evaluated for TB infection 8-10 weeks after they return but this will not be required for school re-entry.If the child has been residing outside of Santa Clara County for >12 months, the risk assessment must be completed again.

What is considered an adequate regimen for latent TB Infection?

Recommended treatment for latent TB infection is listed in the following table. Short-course regimens (rifampin daily for four months,12-dose weekly isoniazid/rifapentine and Isoniazid and Rifampin for 3 months) are preferred (except in persons for whom there is a contraindication, such as a drug interaction or contact to a person with drug-resistant TB) due to similar efficacy and higher treatment completion rates as compared with 9 months of daily isoniazid. If a student was previously treated with 6 months of isoniazid for LTBI, thisis also considered adequate treatment.

For additional information: www.sccphd.org/tb.

County of Santa Clara Public Health Department TB Prevention & Control Program: (408) 792-1381.

Santa Clara County Tuberculosis Screening Requirement for School Entrance Effective June 1, 2014

Table. Latent Tuberculosis Infection Treatment Regimens for Children

Drug(s)	Duration	Dose	Frequency	Total Doses
Rifampin (RIF)	4 months	Children: 15-20 mg/kg Maximum dose: 600 mg	Daily	120
Isoniazid (INH) and Rifapentine (RPT)	3 months	• Isoniazid 2-11 years old: 25 mg/kg rounded up to nearest 50 or 100 mg (max. 900 mg) ≥ 12 years old: 15 mg/kg rounded up to nearest 50 or 100 mg (max. 900 mg) • Rifapentine 10.0-14.0 kg: 300 mg 14.1-25.0 kg: 450 mg 25.1-32.0 kg: 600 mg 32.1-50.0 kg: 750 mg >50 kg: 900 mg • Vitamin B6 50 mg weekly	Once weekly	12
Isoniazid (INH) and Rifampin (RIF)	3 months	Children: INH: 10-20 mg/kg; 300 mg maximum RIF: 15-20 mg/kg; 600 mg maximum	Daily	90
Isoniazid (INH)	9 months	10 mg/kg (range, 10-15 mg/kg) Maximum dose: 300 mg Recommended pyridoxine dosage: 25 mg for school-aged children (or 1-2 mg/kg/day)	Daily	270

*Short-course regimens (rifampin daily for four months or 12-dose weekly isoniazid/rifapentine or Isoniazid and Rifampin daily for 3 months) are preferred (except in persons for whom there is a contraindication, such as a drug interaction or contact to a person with drug-resistant TB) dueto similar efficacy and higher treatment completion rates as compared with 9 months of daily isoniazid.

**Rifampin (RIF) is formulated as 150 mg and 300 mg capsules. Rifapentine (RPT) is formulated as 150 mg tablets in blister packs that should be kept sealed until usage. Isoniazid (INH) is formulated as 100 mg and 300 mg tablets.

References

American Academy of Pediatrics. Tuberculosis. In Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. Red Book: 2018 Report of the Committee on Infectious Diseases. 31st ed. Itasca, IL: American Academy of Pediatrics; 2018: 829-853.

Pang J, Teeter LD, Katz DJ, et al. Epidemiology of Tuberculosis in Young Children in the United States. Pediatrics. 2014;133:494-504.

California Pediatric TB Risk Assessment and User Guide (September 2018)
(https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TB-Risk-Assessment.aspx)

County of Santa Clara
Public Health Department

Administration
976 Lenzen Avenue, 2nd Floor
San José, CA 95126

April 15, 2014

Dear Parent/Guardian,

Santa Clara County continues to have one of the highest rates of tuberculosis (TB) in the United States. TB is a bacterial infection spread through the air and can affect the lungs, brain, bones, or any part of the body. Children can become infected when traveling, from household members, family, or visitors who are infected. Children exposed to someone with TB have a very high risk of developing active TB. If diagnosed early, TB is treatable and preventable.

Santa Clara County has required mandatory tuberculosis (TB) testing for students enrolling in school. However, **effective June 1, 2014, students enrolling into school will be required to undergo TB testing ONLY if their healthcare provider identifies a risk factor for TB exposure. Prior to school enrollment children will be required to have their healthcare provider complete the *Santa Clara County Public Health Department Risk Assessment for School Entry* form which is attached. Take this form to your provider to complete and return to your child's school.** This requirement applies to students attending both public and private schools in Santa Clara County and is based on the authority given the Santa Clara County Health Officer under the California Health and Safety Code, Section 121515.

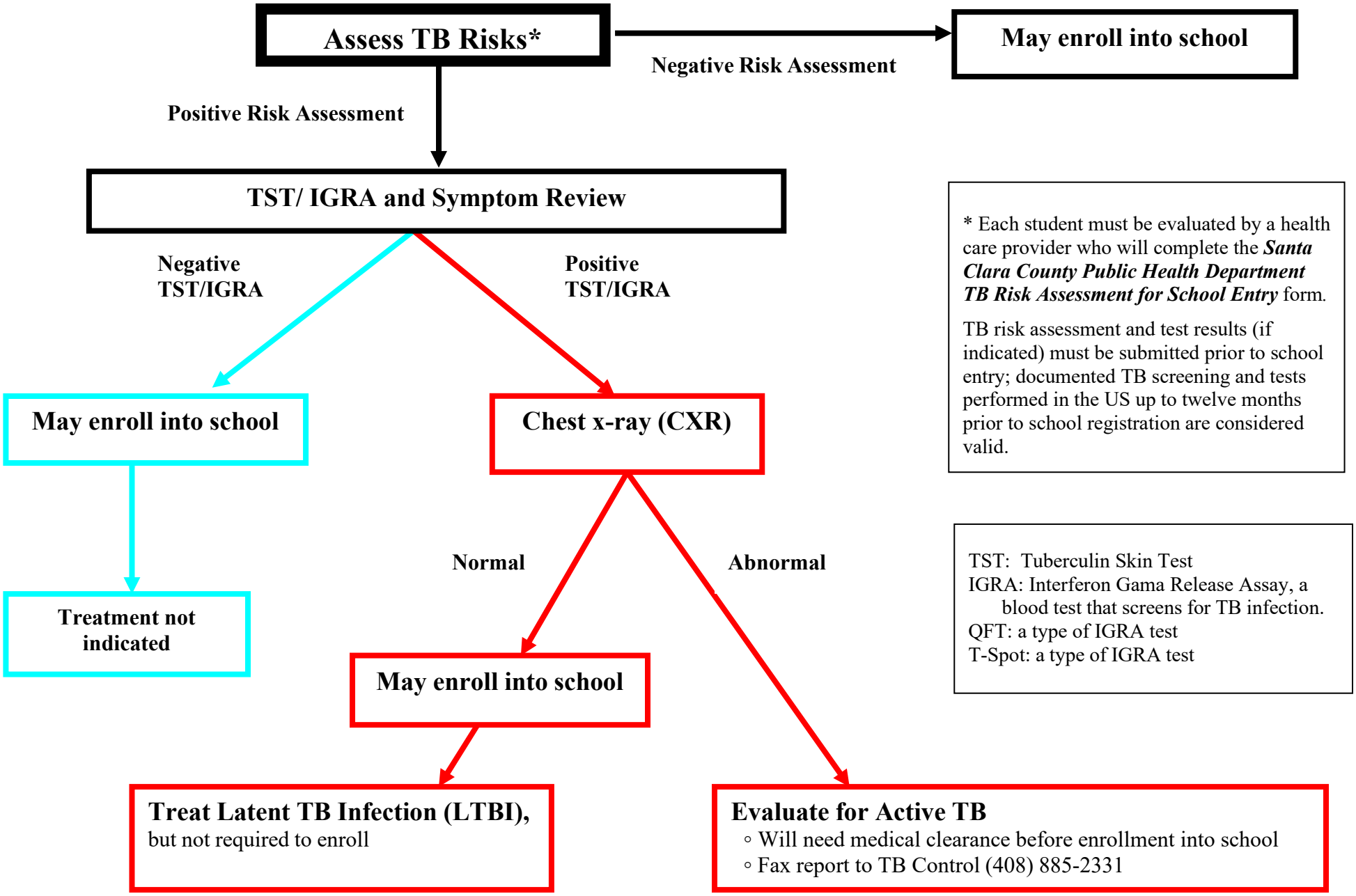
This new policy will decrease unnecessary testing and allow healthcare providers to ensure that children who have TB infection are evaluated and treated promptly.

Thank you for helping us protect the health of your children.

Sincerely,

Teeb Al-Samarrai, MD
Tuberculosis Controller

SANTA CLARA COUNTY TB SCREENING REQUIREMENT FOR SCHOOL ENTRANCE (K-12) EFFECTIVE JUNE 1, 2014



* Each student must be evaluated by a health care provider who will complete the ***Santa Clara County Public Health Department TB Risk Assessment for School Entry*** form.

TB risk assessment and test results (if indicated) must be submitted prior to school entry; documented TB screening and tests performed in the US up to twelve months prior to school registration are considered valid.

TST: Tuberculin Skin Test
IGRA: Interferon Gama Release Assay, a blood test that screens for TB infection.
QFT: a type of IGRA test
T-Spot: a type of IGRA test

4/15/2014

Interferon Gamma Release Assay (IGRA)
Provider Information and Guidelines for Interpretation

What is it?

Interferon Gamma Release Assays (IGRAs) are blood tests for detecting *M. tuberculosis* infection by measuring a person's immune response. White blood cells that recognize *M. tuberculosis* release interferon-gamma (IFN-γ) when mixed with peptide antigens that simulate *M.tb* proteins, including ESAT-6 and CFP-10. These proteins are not found in BCG strains and most non-tuberculous mycobacteria. IGRAs include the QuantiFERON and T-SPOT.TB tests.

A positive test can occur due to active tuberculosis (TB) disease or latent tuberculosis TB infection (LTBI). If not detected and treated, LTBI may later develop into TB disease.

What are the advantages of IGRA?

Prior BCG (Bacille Calmette-Guérin) vaccination does not cause a false-positive IGRA result.

Requires a single patient visit to conduct the test.

Does not boost responses for subsequent tests.

Less subject to reader bias and error when compared with the TST.

What are the disadvantages?

Errors in collecting or transporting the specimens or in running and interpreting the assay can decrease the accuracy of IGRAs.

Not recommended for children < 2 years old.

May be more expensive than a TST.

When should I use IGRA?

IGRAs are the preferred TB screening test in the following situations:

- Patients ≥ 2 years old who have received a BCG vaccine.
- Patients unlikely to return for the TST reading.

When should I use both a TST and IGRA?

For immunocompromised patients consider performing both tests and utilizing any positive result as evidence of infection.

Is IGRA covered by Medi-Cal?

YES! As of March 1, 2014, Medi-Cal removed the age restriction on Medi-Cal reimbursement of IGRA tests for children under 5 years old.

How do you interpret IGRA test results?

Negative: Same interpretation as a negative TST. A negative TST or IGRA does not rule out active TB disease in a patient with symptoms or signs of TB disease; they should be evaluated with a CXR and sputum AFB smears/cultures/nucleic acid amplification testing.

Positive: Same interpretation as positive TST. Medical evaluation, including a chest x-ray, is needed to evaluate for TB disease. If there are no symptoms or signs of TB disease and the CXR is normal, treatment for latent TB infection should be provided.

Indeterminate: Uninterpretable. Repeat IGRA or place TST per patient and provider preference.

Can IGRAs be done at the same time as receiving vaccinations?

Similar to TST, live virus vaccines (e.g., MMR, varicella) might affect IGRA test results. CDC recommends that both TST and IGRA testing in the context of live vaccine administration be done as follows:

- Either on the same day as vaccination with the live virus vaccine, OR
- At least 4 weeks after administration of the live virus vaccine.

Additional Information

CDC. Updated Guidelines for Using Interferon Gamma Release Assays to Detect *Mycobacterium tuberculosis* Infection - United States, 2010. *MMWR*. 2010; 59 (No.RR-5).

County of Santa Clara Public Health Department Tuberculosis Prevention & Control Program
www.sccphd.org/tb
Phone: 408-792-1381