



# National Health and Nutrition Examination Survey (NHANES)

## Tuberculosis Skin Test Procedures Manual



January 2011

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# **1. INTRODUCTION TO THE NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY**

This chapter provides a general description of the health examination surveys conducted by the National Center for Health Statistics (NCHS) and the ongoing National Health and Nutrition Examination Survey (NHANES). It also provides an overview of the tasks the interviewers are expected to perform during the survey.

## **1.1 History of the National Health and Nutrition Examination Programs**

The National Health Survey Act, passed in 1956, provided the legislative authorization for a continuing survey to provide current statistical data on the amount, distribution, and effects of illness and disability in the United States. To fulfill the purposes of this act, it was recognized that a data collection effort needed to be implemented that would involve at least three sources: (1) the people themselves by direct interview; (2) clinical tests, measurements, and physical examinations on sample persons; and (3) places where persons received medical care such as hospitals, clinics, and doctors' offices.

The NHANES surveys were created to fulfill this information need. They are unique in that interview and physical examination data are obtained from national samples of the U.S. population. The examination component is conducted in mobile examination centers (MECs) that travel to fifteen survey locations per year. NHANES data have been the cornerstone for numerous national health and nutrition policy and surveillance activities.

To comply with the 1956 act, between 1960 and 2004, the National Center for Health Statistics (NCHS), a branch of the Centers for Disease Control and Prevention (CDC), in the U.S. Department of Health and Human Services, conducted seven separate examination surveys to collect interview and physical examination data. In 1999, NHANES became a continuous survey with year round data collection.



The first three of these national health examination surveys were conducted in the 1960s:

1. 1960-62—National Health Examination Survey I (NHES I);
2. 1963-65—National Health Examination Survey II (NHES II); and
3. 1966-70—National Health Examination Survey III (NHES III);

NHES I focused on selected chronic disease of adults aged 18-79. NHES II and NHES III focused on the growth and development of children. The NHES II sample included children aged 6-11, while NHES III focused on youths aged 12-17. All three surveys had an approximate sample size of 7,500.

Beginning in 1970 a new emphasis was introduced. The study of nutrition and its relationship to health status had become increasingly important as researchers began to discover links between dietary habits and disease. In response to this concern, under a directive from the Secretary of the Department of Health, Education and Welfare, the National Nutrition Surveillance System was instituted by NCHS. The purpose of this system was to measure the nutritional status of the U.S. population and changes over time. A special task force recommended that a continuing surveillance system include clinical observation and professional assessment as well as the recording of dietary intake patterns. Thus, the National Nutrition Surveillance System was combined with the National Health Examination Survey to form the National Health and Nutrition Examination Survey (NHANES). Five surveys of this type have been conducted since 1970:

4. 1971-75—National Health and Nutrition Examination Survey I (NHANES I);
5. 1976-80—National Health and Nutrition Examination Survey II (NHANES II);
6. 1982-84—Hispanic Health and Nutrition Examination Survey (HHANES); and
7. 1988-94—National Health and Nutrition Examination Survey (NHANES III).

NHANES I, the first cycle of the NHANES studies, was conducted between 1971 and 1975. This survey was based on a national sample of about 28,000 persons aged 1-74. Extensive data on health and nutrition were collected by interview, physical examination, and a battery of clinical measurements and tests from all members of the sample.

NHANES II began in 1976 with the goal of interviewing and examining 28,000 persons aged 6 months to 74 years. This survey was completed in 1980. To establish a baseline for assessing

changes over time, data collection for NHANES II was made comparable to NHANES I. This means that in both surveys many of the same measurements were taken, the same way, on the same age segment of the U.S. population.

While the NHANES I and NHANES II studies provided extensive information about the health and nutritional status of the general U.S. population, comparable data were not available for many of the ethnic groups within the United States. HHANES, fielded from 1982 to 1984, aimed at producing estimates of health and nutritional status for the three largest Hispanic subgroups in the United States—Mexican Americans, Cuban Americans and Puerto Ricans—that were comparable to the estimates available for the general population. HHANES was similar in design to the previous HANES studies, interviewing and examining about 16,000 people in various regions across the country where there are large Hispanic populations.

NHANES III, conducted between 1988 and 1994, included approximately 40,000 persons selected from households in 81 counties across the United States. As previously mentioned, minority groups can have very different health status and characteristics, and thus black Americans and Mexican Americans were selected in NHANES III in large proportions. Each of these groups comprised 30 percent of the sample. It was the first survey to include infants as young as 2 months of age and to include adults with no upper age limit. For the first time a home examination was developed for those persons who were unable or unwilling to come into the exam center but would agree to an abbreviated examination in their homes. To obtain reliable estimates, children (1-5 years) and older persons (60+ years) were sampled at a higher rate. NHANES III also placed an additional emphasis on the effects of the environment upon health. Data were gathered to measure the levels of pesticide exposure, the presence of certain trace elements in the blood, and the amounts of carbon monoxide present in the blood.

In 1999, NHANES resumed data collection and became a continuous survey. Every 2 years, and any combination of consecutive years of data collection, constitutes a nationally representative sample of the U.S. population. This design allows for statistical estimates for groups and specific race-ethnicity groups as well as flexibility in the content of the questionnaires and exam components. New technologic innovations in computer-assisted interviewing and data processing resulted in rapid and accurate data collection, data processing, and publication of results.

The number of people examined in a 12-month period was about the same as in previous NHANES—about 5,000 a year from 15 different locations across the Nation. The data from the

NHANES have been used by government agencies, state and community organizations, private researchers, consumer groups, companies, and health care providers.

In addition to NHANES I, NHANES II, Hispanic HANES, and NHANES III, several other HANES projects have been underway since 1982. These projects have been a part of the HANES Epidemiologic Follow-up Survey, a multiphase project that has been conducting follow-up interviews with the NHANES I survey population in order to provide a longitudinal picture of the health of the U.S. population.

## **1.2 Overview of NHANES**

NHANES is designed to collect information about the health and diet of people in the United States. These data are used to fulfill specific goals. The overall goals of NHANES are to:

- Estimate the number and percent of persons in the U.S. population and designated subgroups with selected diseases and risk factors;
- Monitor trends in the prevalence, awareness, treatment, and control of selected diseases;
- Monitor trends in risk behaviors and environmental exposures;
- Analyze risk factors for selected diseases;
- Study the relationship between diet, nutrition, and health;
- Explore emerging public health issues and new technologies; and
- Establish a national probability sample of genetic material for future genetic testing.

Each year, a nationally representative sample of the civilian, non-institutionalized U.S. population, all ages, is interviewed and examined. NHANES data are released in 2-year cycles. One-year estimates may be produced if there is a compelling public health need and if one year of data can provide a reliable estimate. Data from 2-year cycle NHANES 1999–2008 are posted on the NHANES website. The URL is <http://www.cdc.gov/nchs/nhanes.htm>. A major advantage of continuous NHANES data collection is the ability to address emerging public health issues and provide objective data on more health conditions and issues.

Westat has been contracted to conduct the study through 2014. Each year nearly 7,000 individuals of all ages in households across the United States are randomly selected to participate. The study respondents include whites/others as well as an oversample of blacks, Hispanics, and starting in 2011, Asians. The study design also includes a representative sample of these groups by age, sex, and income level. Older persons will also be oversampled.

Selected persons are invited to take part in the survey by being interviewed in their homes. Household interview data is collected via computer-assisted personal interviewing (CAPI) and includes demographic, socioeconomic, dietary, and health-related questions. Upon completion of the interview, sample persons are asked to participate in a physical examination. The examination will be conducted in a specially equipped and designed Mobile Examination Center (MEC), consisting of four trailers. The MEC houses all of the state-of-the-art equipment for the physical exam and the tests conducted. The trailers are divided into rooms to ensure the privacy of each study participant during the examination and interview. This examination includes a physical examination conducted by a physician and laboratory tests, X-rays, and other health measurements and interviews conducted by highly trained medical personnel. The household interviews and MEC exams combined will collect data in the following important health related areas:

- Cardiovascular and respiratory disease;
- Diabetes mellitus;
- Oral health;
- Hearing;
- Infectious diseases and immunization status;
- Obesity, growth, and development;
- Dietary intake and behavior;
- Nutritional status;
- Physical activity;
- Mental health;
- Environmental exposures; and
- Other health-related topics.

### 1.3 Field Organization for NHANES

There are two levels of field organization for this study—the home office staff and the field staff.

- **Home Office Staff from Westat**—Project staff from Westat are responsible for overseeing the field work.
- **Field Staff**—The field staff consists of three groups of employees: The stand office staff, the interviewers, and the MEC staff.
  - *Stand Office Staff*—For the main study, there are three office staff teams. Each team will work at an office opened at a specific site (i.e., stand). Each stand office will be headed by a study manager (SM) and will include a field manager (FM), an office manager (OM), an assistant office manager (AOM), and a data equipment specialist (DES).
    - The study manager (SM) is responsible for the overall management of operations at a stand. S/he will also have primary responsibility for supervision of the household interviewers (health representatives).
    - The field manager's primary responsibility is to assist the SM and supervise the activities of the AOM. He or she will deal with administrative issues and ISIS and CAPI problems.
    - The office manager is responsible for the stand office operations and is the main conduit for the flow of work and information between the MEC and the household interviewing staff. S/he supervises one or more local office clerks hired to assist with office activities.
    - The assistant office manager is primarily responsible for quality control including data entry into the Integrated Survey Information System (ISIS), editing data collection materials, and verification of interviewer work.
    - The facilities equipment specialist is primarily responsible for the set up and maintenance of the field office computer systems and the MEC physical plant. S/he reports to the home office advance team staff.
  - *Interviewers*—This staff is primarily responsible for identifying and enrolling the survey participants, conducting the household interviews, and appointing the study participants for health examinations.

- Several times a week interviewers visit the stand office and report to the study manager. During the course of the study interviewers also interact with the other field office staff as well as home office staff.
- *MEC Staff*—This staff of health professionals conducts the physical examinations. The main study includes two exam teams traveling from stand to stand. There are 16 individuals on each traveling team: 1 MEC manager, 1 MEC coordinator, 1 licensed physician, 1 licensed dentist, 3 medical technologists, 4 health technicians, 2 MEC interviewers, 2 dietary interviewers, and 1 phlebotomist. In addition, local assistants are recruited, trained, and employed at each stand to assist the exam staff.
- *TB Readers*—These staff are responsible for conducting TB readings with survey participants who received the TB antigens during their MEC exam, making reminder calls, and entering results into the Field Follow-up Management System (FFMS). The TB Readers report to the home office.

#### **1.4 Overview of TB Reader Tasks**

This section provides an overview of the tasks TB Readers will be expected to perform. Each of these tasks is discussed in detail in later sections of this manual. In the overview that follows, certain key items are highlighted. The tasks TB Readers perform at a stand include:

1. Review daily schedule of appointments and note any comments from MEC staff;
2. Conduct appointment reminder telephone calls;
3. Contact sample persons (SPs) to reschedule missed appointments or to schedule an appointment for SPs who were not scheduled during their MEC exam;
4. Manage petty cash and provide the TB and transportation incentives to SP when their TB reading is completed;
5. Conduct TB readings in the field office;
6. Visit SP homes to conduct TB readings for SPs who cannot or refuse to come to the field office for their reading;
7. Use the TB Reading application to record test results;
8. Use the FFMS to manage appointments, reminder calls, and generating reports;
9. Work with interpreters as necessary;

10. Report adverse events/findings through the appropriate processes; and
11. Assist the field office staff with additional office tasks as needed.

## 2. TUBERCULOSIS SKIN TESTING

### 2.1 Overview of TB and TB Skin Testing

The Centers for Disease Control and Prevention (CDC), Division of Tuberculosis (TB) Elimination, is responsible for the TB skin-testing component of NHANES. The objective is to determine the prevalence of TB infection in the U.S. population. All sample persons (SPs) aged 6 years or older are offered testing for infection with the bacterium that causes TB.

TB is a disease caused by a germ called *Mycobacterium tuberculosis* that is spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine. When a person with infectious TB coughs or sneezes, droplet nuclei containing *M. tuberculosis* are expelled into the air. If another person inhales air containing these droplet nuclei, he or she may become infected. However, not everyone infected with TB bacteria becomes sick. As a result, two TB-related conditions exist: latent TB infection and active TB disease.

Persons with latent TB infection do not feel sick and do not have any symptoms. They are infected with *M. tuberculosis*, but do not have active TB disease. The only sign of TB infection is a positive reaction to the tuberculin skin test or TB blood test. Persons with latent TB infection are not infectious and cannot spread TB infection to others.

Overall, about 5–10 percent of infected persons will develop active TB disease at some time in their lives. About half of those people who develop active TB will do so within the first 2 years of infection. For persons whose immune systems are weak, especially those with HIV infection, the risk of developing active TB disease is considerably higher than for persons with normal immune systems.

People exposed to someone with active untreated infectious TB for prolonged periods are most likely to acquire the disease. Casual brief contact is unlikely to result in TB transmission.

Tuberculin skin tests and blood tests, allow clinicians to look for TB infection in household or workplace contacts of people with active disease. Treatment to prevent active TB disease is recommended for some persons whose skin test and clinical evaluation indicate TB infection, but who do not have TB disease, and who do not have contraindications to the medications.



## 2.2 TB Epidemiology

In the late 1980s TB reemerged as a serious problem in the United States. The major factors contributing to the increase in TB cases included deterioration of the public health infrastructure, the higher risk of TB associated with human immunodeficiency virus (HIV) infection, immigration from countries where TB is common, and outbreaks of TB in congregate settings (health care facilities, prisons, homeless shelters). Appropriate treatment was less available to many people with active disease who remained infectious for longer periods. Many others began treatment but were not followed to see if they had completed treatment. Few staff were available to test household contacts and prescribe treatment for those who were infected. Lack of public health resources resulted in a rise in TB cases.

A few geographic areas centered in large cities accounted for a large proportion of the rise in TB case rates. In most of those areas, including New York City, additional money was devoted to TB prevention and control in the early 1990s, and the numbers of cases began to decline in 1993. However, some groups remain at higher risk than others. These groups can be divided into two categories, people who are more likely to be exposed to TB, and people more likely to develop TB disease once infected.

People more likely to be exposed to TB include the following:

- Close contacts of a person with infectious TB;
- Foreign-born persons from areas of the world where TB is common;
- Medically underserved populations, low-income populations;
- Residents and employees of congregate settings whose clients are at increased risk for active TB; and
- Other groups identified locally as having an increased incidence of latent TB infection.

People more likely to develop TB disease once infected include the following:

- People whose immune systems are compromised (including those with HIV, diabetes mellitus, and some cancers);
- Infants and children;

- The elderly; and
- Populations defined locally as having an increased incidence of active TB.

Because of inadequate or inconsistent TB treatment, some individuals with active TB develop resistance to one or more of the medications used to treat TB. Drug-resistant TB is more difficult to treat and requires more medications and longer treatment periods.

Reporting cases of active TB helps public health personnel understand how well TB programs are working, but active disease represents only the tip of the iceberg. The much larger group of infected people without active TB is at risk of developing active disease some time in the future. In order to reach the national goal of TB elimination in the United States, it is critical to know the proportion of the population infected with TB, and test and treat the groups identified as having higher rates of infection.

Survey questions in conjunction with tuberculin skin testing can be utilized to estimate the percentage of a population infected with TB. Surveys also look at whether higher proportions of infected people are in certain geographic or ethnic groups. Studies estimate the overall number of TB-infected people in an area, and the groups most at risk of infection help evaluate the effectiveness of TB prevention and control programs and target areas for additional efforts.

NHANES I conducted in 1971–72 included a tuberculin skin testing component. The results allowed CDC to estimate that, at that time, TB infection occurred in 21.5 percent of the U.S. population between the ages of 25 and 74. NHANES 1999–2000 collected data and skin test results from 7,386 participants and determined that 4.2 percent of the civilian, non-institutionalized population, or 11,213,000 people, had latent TB infection (LTBI) in 1999–2000. NHANES 2011–2012 is the first population-based survey of TB infection in the U.S. population since NHANES I and will compare TB skin test results and blood test results for the diagnosis of TB infection in a representative sample of the U.S. population. It will be the first national study of the prevalence of TB infections in the United States based on this more specific blood test approved by the Food and Drug Administration in 2005.

NHANES 2011–2012 data will provide information on infection to supplement TB reports regularly received from TB control programs in health departments across the country, to achieve TB elimination in the United States.

## **2.3 Overview of TB Skin Testing**

To detect TB infection, a small drop of filtered tuberculin liquid is injected just under the top layer of the skin. The most commonly used TB skin test currently available uses purified protein derivative (PPD), a sterile fluid that contains killed purified, standardized mycobacteria components. If the person has been infected with TB, the immune system produces a response on the skin in the area of the test. This reaction is usually a small hard raised area of skin, which can be felt with the fingertips 48–72 hours after placing the test. TB skin test readers measure the reaction in millimeters (mm). Different reaction sizes, depending on the person being tested and the purpose of the test, are defined as positive, indicating that TB infection may have occurred at some time in the person's life.

In persons not previously infected with TB, the TB skin test usually produces no reaction, or sometimes produces a little redness or some soft swelling. These mild reactions represent irritation and do not indicate TB infection. A red area that is not raised or hard is not a measurable reaction.

Pregnant women, young children, people with immune system deficiencies, people who have recently had immunizations, and people who have had a positive TB test result in the past, can have a TB skin test. The test is contraindicated for people who have previously had a severe allergic reaction, including an anaphylactic reaction (an allergic response involving the whole body) and/or ulceration(s) at the test site. A severe allergic reaction is uncommon and usually subsides within a few days. No such reactions were recorded during NHANES I or II. Itching, redness, or swelling after a previous TB skin test does not disqualify a person for the NHANES TB skin test.

A positive reaction to the TB skin test indicates TB infection and does not mean the person has active TB disease. As noted earlier, only people with active TB disease can transmit TB to others.

## **2.4 Limitations of Tuberculosis Skin Testing and Implications**

Tuberculin skin testing is the most commonly used test for TB infection, but it has limitations. Some people who are infected with TB and who have other health problems, especially diseases affecting the immune system, may have a negative TB skin test result, that is, a false negative skin test result. False positive TB skin test results are also possible, and are more common when the

proportion of TB infection in a population is low. In some areas of the U.S. with low incidence of TB, this could lead to an overestimate of the proportion of people infected with TB. Finally, variability in the techniques of the person placing the skin test and reading results is a limitation.

## **2.5 TB Skin Test Results**

SPs aged 6 years or older receive a TB skin test. TB skin tests have been used safely in many surveys in the United States and elsewhere, and will provide an estimate, as does the newer blood test, of the prevalence of TB infection in the United States. SPs whose PPD tuberculin skin test result is above a minimum cutoff value ( $\geq 10$  mm) are given a written Report of Findings that states that they may have been infected with TB at some time during the past. They are instructed to contact their primary source of medical care or the TB control program at the local health department for a clinical evaluation.

### **3. PROTOCOL FOR PLACING SKIN TEST ANTIGENS**

#### **3.1 Overview**

Place or administer purified protein derivative (PPD) antigen on all sample persons (SPs) aged 6 years and older if they have completed phlebotomy. There is one safety exclusion question for TB. Ask SPs if they have had a previous severe reaction to the tuberculin antigen. Exclude only those who report a previous severe allergic reaction involving the whole body and/or ulceration at the site of a previous TB skin test from the TB component. There are two inclusion criteria. First, ask the SPs if they are available 46-76 hours after the placement to measure skin reactions. Second, examine the SPs to make sure that they have a forearm available for placement. Following the examination, each SP receives a tuberculin skin test (PPD) preferably in the left forearm if available. After administering the antigen, the phlebotomist schedules an appointment for the SP to return to the field office to have the skin reaction measured. The phlebotomist provides instructions informing the SP not to scratch or put lotions or ointment on the skin test areas. The coordinator gives the SP an appointment reminder card when the SP checks out of the MEC. Although TB skin tests can be measured 46-76 hours after placing the antigens, make initial appointments for the period 48-52 hours, if possible. This allows the TB reader time to contact the SPs if they miss their scheduled appointment.

#### **3.2 The Phlebotomy Component**

The phlebotomy component consists of blood collection, TB skin testing, and the Oral Glucose Tolerance Test (OGTT). Conduct the blood collection first, followed by the TB skin test, and then the OGTT. If the blood collection is delayed so that the SP can meet the fasting requirement, send the SP back to the coordinator area until the fast is met. Conduct the blood collection and TB skin test when the SP returns to phlebotomy after meeting the fasting requirement.

### **3.3 Equipment and Supplies**

The equipment and supplies required to place skin test antigens are listed below:

- Needle: sterile ½ inch., 27 gauge, short bevel
- Alcohol wipes
- 2 x 2 gauze pads
- Latex gloves
- Puncture-resistant sharps disposal container
- Permanent marking pen for labeling
- Small rectangular basket for housing single vial of Tubersol and prefilled syringe
- Stock multidose antigen vials stored in appropriately labeled box in laboratory refrigerator
- Laboratory refrigerator with automatically monitored temperature system
- Phlebotomy and TB refrigerators with a thermometer to manually monitor temperature recording
- Adverse Reaction Forms
- TB ruler with odd markings

#### **3.3.1 General Principles for Handling and Storing the PPD Antigens**

The principles for appropriate handling of the skin test antigen include controlling temperature, light, time in the syringe, and labeling.

Store skin test antigen in a temperature-monitored refrigerator except when removing the antigen to fill the syringe. Do not allow filled syringes to stand for more than 20 minutes before use, and discard unused filled syringes after 20 minutes. More than a brief exposure to room temperature or light can make the skin test antigen less effective. If syringes are prefilled and the liquid containing the antigen is left in the syringe for more than a very brief period, the antigen can attach to the wall of the syringe and

will not be injected into the SP's forearm, making the test ineffective. Antigen in vials also become less effective if exposed to heat or light for more than a brief period.

When a new vial is needed, retrieve it from the stock antigen box in the laboratory refrigerator. Label it with your initials and the date opened. Discard open vials 30 days after opening. When a vial is taken from the phlebotomy refrigerator to fill a syringe, check its expiration date and lot number. Enter the FDA lot number and expiration date into the computer system. Label the syringe with the time the syringe was filled.

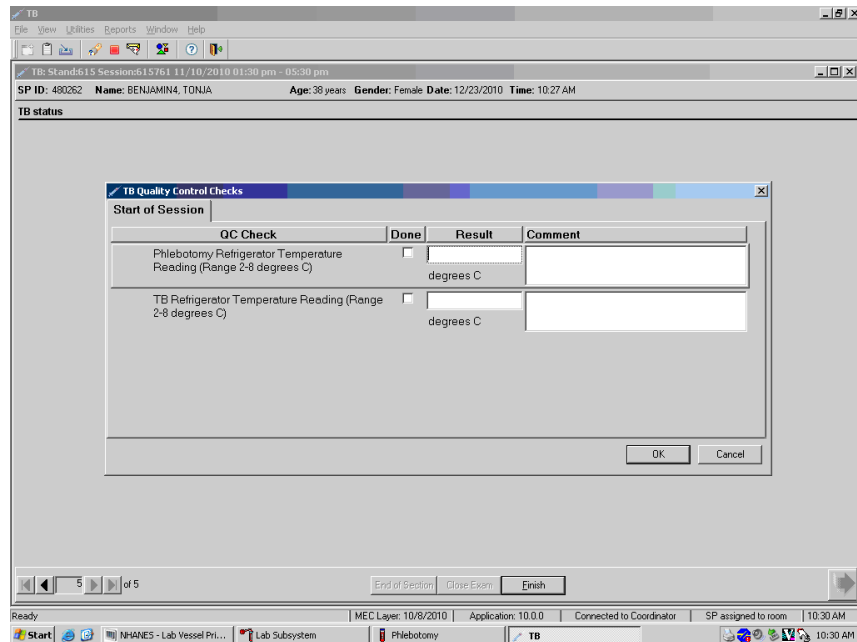
Store one opened vial of the antigen in its separate antigen tray in the phlebotomy and TB refrigerator. The phlebotomy and TB refrigerators will contain a thermometer for temperature monitoring. The thermometer unit measures the temperature of the liquid in the bottle.

The syringe may be filled before the phlebotomy or TB exam (prefilled) and kept with the vial used to fill the syringe in the tray in the refrigerator. Mark the syringe with time filled and discard if not used in 20 minutes.

### **3.3.2 Quality Control Procedures**

At the start of every session, record the phlebotomy refrigerator temperature and the TB refrigerator temperature in the TB Quality Control Checks. This is found under the Utility tab of the TB module (Exhibit 3-1).

Exhibit 3-1. TB Quality Control Checks screen



### 3.4 Procedures Preceding Skin Testing

Check that at least one forearm is available for administration of tuberculin tests. Place the skin test antigen in the volar surface (palm up side) of left forearm or if left forearm is unavailable, use right forearm. A forearm is considered unavailable only if (1) the forearm has been amputated; (2) the forearm is completely covered with a cast; (3) the entire surface of the forearm is severely scarred or covered with a rash or burn; or (4) there is a medical order not to place injections in the forearm.

After determining that the SP is eligible for testing (see Section 3.4.1), place the skin test on the left forearm, if available. If only one forearm is available, place the skin test on the available forearm. If neither forearm is available, exclude the SP from participating in the skin testing component.

#### 3.4.1 Screening SPs for Skin Test Eligibility

Ask each SP whether the SP has experienced a previous severe reaction to a skin test antigen. Read the exclusion question exactly as it is displayed on the computer screen: “Have you ever



had a severe reaction to a TB (Tuberculosis) skin test?” Do not consider a history of a previously positive reaction, a large induration, swelling, or redness at the skin test site as severe reactions, and do not exclude the SP from the skin testing component. Exclude SPs who report a previous severe skin test reaction from the TB skin testing component. A previous severe reaction to tuberculin antigen is an anaphylactic response (severe allergic reaction involving the whole body) and/or ulceration at the skin test site. Persons who are not available 46-76 hours later during the reaction measurement period are also excluded from skin testing. Refer SPs with questions to the NHANES physician.

### **3.5 PPD Antigen Skin Testing**

#### **3.5.1 Background: How PPD Antigen Skin Tests Work**

Purified protein derivative (PPD) is extracted from killed bacteria, which have been purified and filtered so that only harmless protein fragments, called antigens, remain. Antigens cannot infect people or cause disease. However, if a person has been infected with the bacteria at some time in the past, the body can recognize the antigens and mount an immune response. After a previously infected person has had the appropriate antigen placed just under the skin, a small local reaction in that area, signaling that the body has recognized the skin test antigen is usually seen 2 to 3 days later. Testing requires two visits, one to place the antigen, and one to measure the skin reaction.

#### **3.5.2 Skin Test Preparation Steps: Filling Syringes**

1. Locate antigen vial tray on the top shelf of the phlebotomy refrigerator.
2. Fill the syringe using the technique described below:
  - If needed, open a new antigen vial. Remove the metal cap from the vial. Mark the label with date opened and your initials.
  - For a previously opened vial, verify that today’s date is earlier than the expiration date recorded on the vial when it was opened. (If today’s date is later than the expiration date, discard the vial and obtain a new vial.)
  - Rotate or roll the vial back and forth gently to mix the antigen. Do not shake the vial or place it on the tube rocker.
  - For each use, cleanse the top of the vial with an alcohol wipe.

- Remove the needle guard.
  - Draw 0.1 milliliter of air into syringe (not more).
  - Inject air into the vial airspace (*not* the solution). With the vial resting on the table, hold the vial between the thumb and fingers of the non-dominant hand and insert the needle through the rubber stopper into the air space. Injection of air into the air space in the vial prevents creation of negative pressure within the vial, allowing antigen to be withdrawn easily. Injecting air into the solution creates bubbles and may interfere with withdrawing the correct amount of antigen (Figure 3-1).
  - Fill the syringe. Draw slightly more than 0.1 ml of antigen into the syringe by pulling back on the plunger with the vial inverted (Figure 3-1).
  - Remove the needle from the vial.
  - Remove excess volume/air bubbles from the syringe. Leave exactly 0.1 ml antigen solution in the syringe. Hold the syringe in an upright position and tap the barrel lightly to break up air bubbles. Draw back slightly on the plunger and push forward. Expel all air and excess fluid from the syringe and needle. Replace the needle guard unless the antigen is to be placed immediately. (See Figure 3-1.)
3. Return the antigen vial tray to the phlebotomy or TB refrigerator.

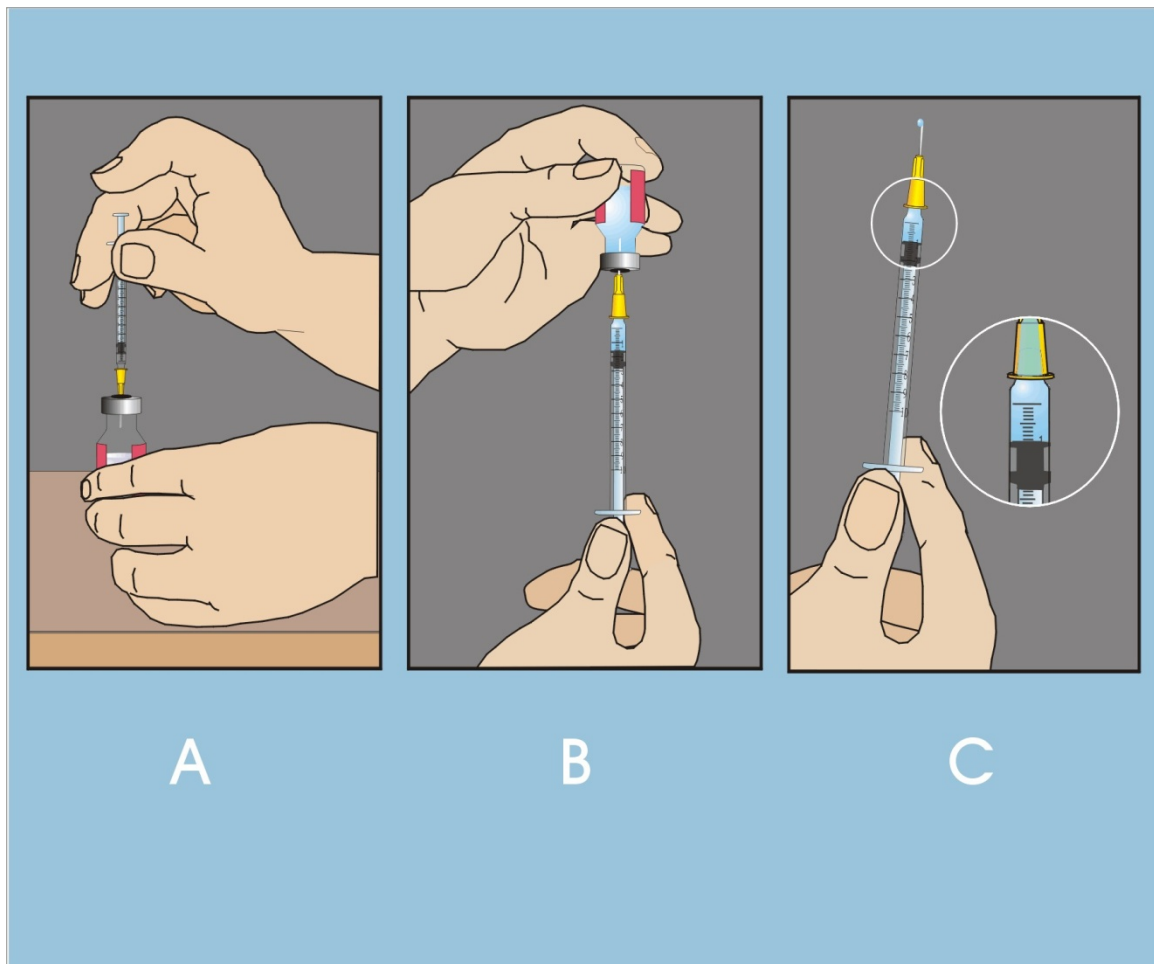


Figure 3-1. Syringe filled with exactly 0.1 ml antigen

Fill the syringe with antigen. (A) Inject a small amount of air (less than 0.1 ml) into the vial air space. (B) Invert the vial and withdraw slightly more than the 0.1 ml dose by pulling back on the plunger. Separate the syringe from the vial and remove air bubbles. Push plunger to the 0.1 ml line, completely filling the syringe and needle with the antigen. The filled syringe should contain exactly 0.1 ml of PPD antigen.

### 3.5.3 Skin Test Administration Steps

Procedures for administering the skin test antigen follow. Note, that immobilization of the forearm of young children will be needed. Have a medical technologist hold the child securely while the phlebotomist gently but firmly immobilizes the forearm.

1. Fill the syringe with the Antigen.
  - After phlebotomy, remove the antigen vial tray with syringe from phlebotomy refrigerator. Remove the filled syringe from the tray and replace the antigen vial tray in the phlebotomy refrigerator. Check that no more than 20 minutes have elapsed since the syringe was filled. (If more than 20 minutes have elapsed, discard the syringe in the puncture-resistant container and fill a new syringe according to the steps in Section 3.5.2.).
2. Selecting and cleaning the injection site
  - Select injection site on the left inner forearm with the palm up, at least 2” from the elbow, wrist, or other injection site as shown in Figure 3-2.
  - Avoid areas over veins; avoid sites that have lesions, heavy hair, bruises, scars, a muscle ridge, or tattoos.
  - Clean the injection site with an alcohol wipe using a circular motion beginning in the center and working toward the outside. Allow the area to dry thoroughly.
  - Put on gloves.

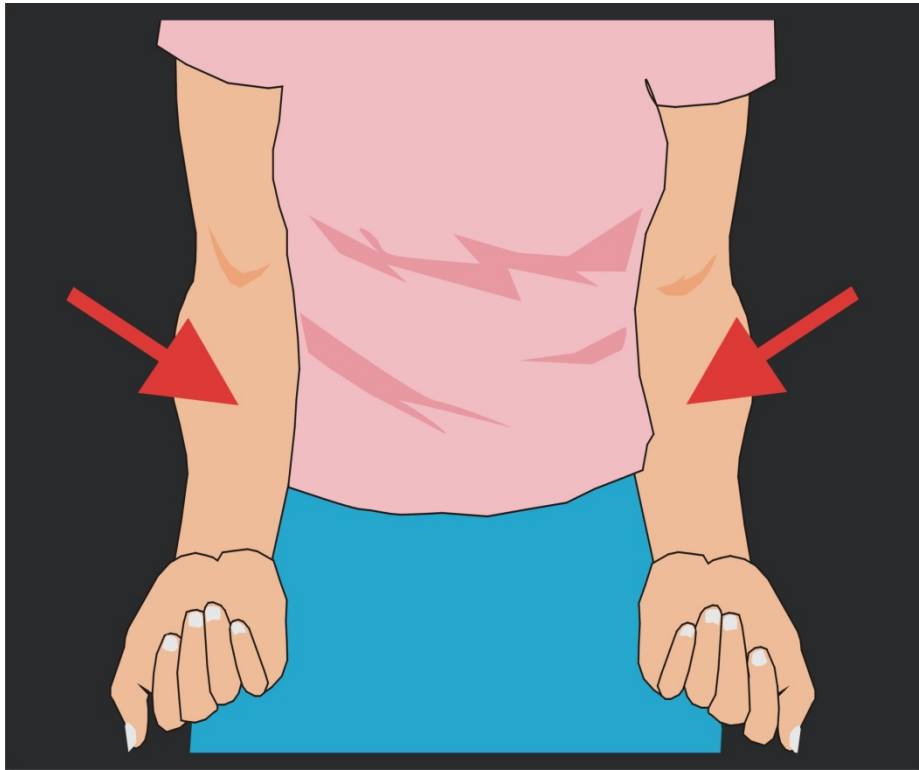


Figure 3-2. TB skin test placement sites

Administer antigen in the standard site: left inner forearm, if available, with the palm up, at least 2" from the elbow, wrist, or other injection site. Avoid areas over veins; avoid sites that have lesions, heavy hair, bruises, scars, a muscle ridge, or tattoos.

3. Inserting the needle and injecting the antigen - Intradermally (just beneath the skin surface) inject 0.1 ml of PPD antigen on the volar surface of the forearm with the 1/2", 27 gauge short beveled needle just beneath the skin surface with needle bevel up to form a small round wheal (at least 6 mm in diameter) at the injection site (Figure 3-3).
  - Rest the SP's forearm on a firm, well-lit surface.
  - Stretch the skin slightly over the site. This creates a firmer surface for needle insertion.
  - Hold the needle with the bevel up, 5° to 15° angle to the skin.
  - Insert the needle into the superficial layer of skin so that needle tip is visible beneath the skin surface.
  - Advance the needle until entire bevel lies just under the skin.

- Release the stretched skin. Refer to Figures 3-4 and 3-5 for incorrect needle insertion positions.
- Slowly inject the entire dose (0.1 ml antigen) forming a tense skin elevation (wheal) at least 6 mm in diameter (See Figure 3-3).
- Use TB ruler to measure the wheal. An adequate wheal is considered to be > that 6 mm.
- If an adequate wheal does not appear, re-administer the test at least 2 inches from the original site.
- Remove the needle without pressing or massaging the area.
- Engage the shielding needle guard and discard the used syringe immediately in the designated puncture-resistant container.
- Lightly blot injection site with a 2x2 gauze pad or cotton ball if a drop of blood appears.
- Discard contaminated gauze and used gloves according to NHANES procedures.
- Wash hands.
- Follow appropriate NHANES emergency procedures if unexpected reactions occur as skin tests are being placed.

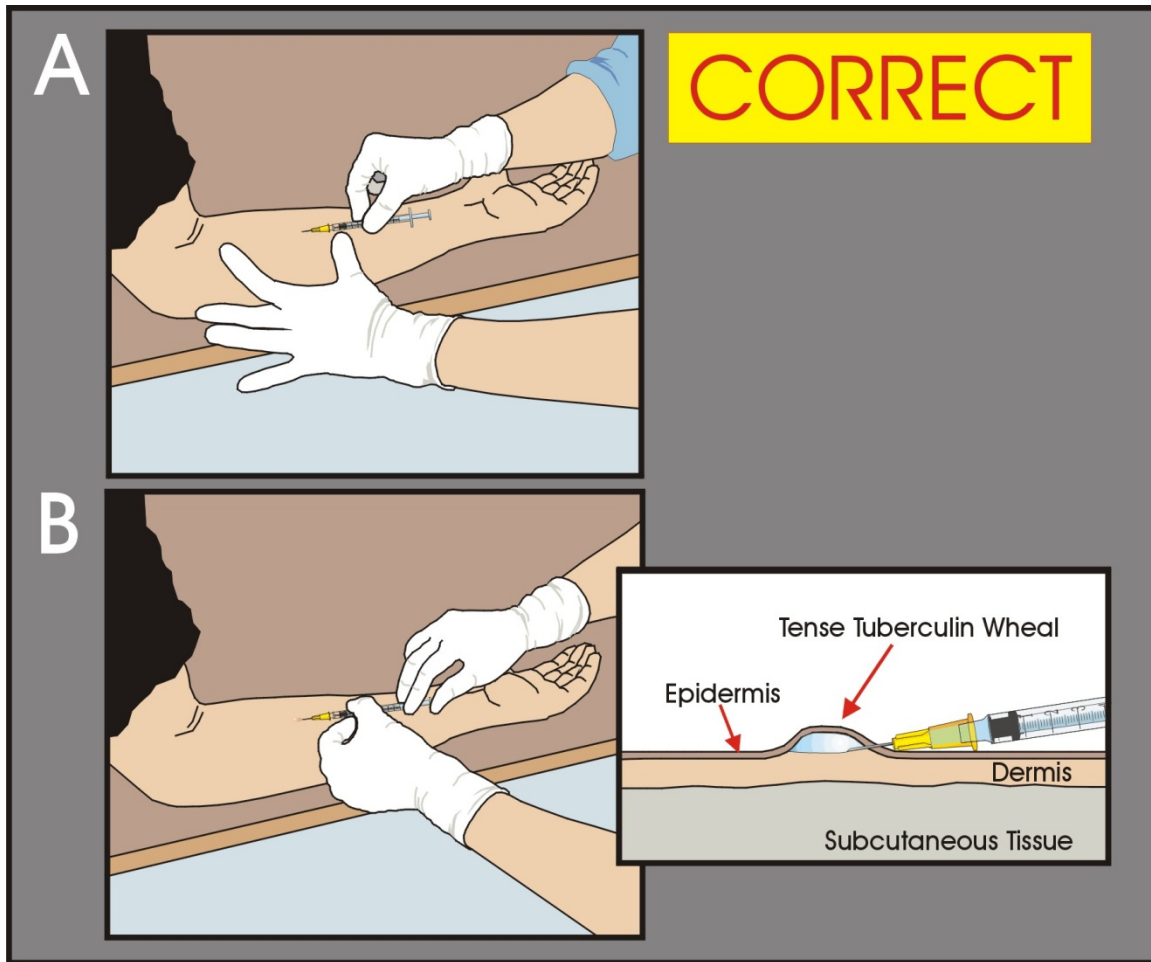


Figure 3-3. Correct skin test placement

Correct insertion: (A) Stretch the skin to make it taut at the site of injection. Hold the needle with the bevel up at a 5°-15° angle to the skin. Insert the needle into the dermis layer beneath the skin surface so that the needle tip is visible beneath the skin surface. Advance the needle until the entire bevel lies just under the skin. (B) Release the stretched skin. Support the needle and inject exactly 0.1 ml PPD antigen just beneath the skin surface, forming a small flat, anemic bleb or wheal (at least 6 mm in diameter).

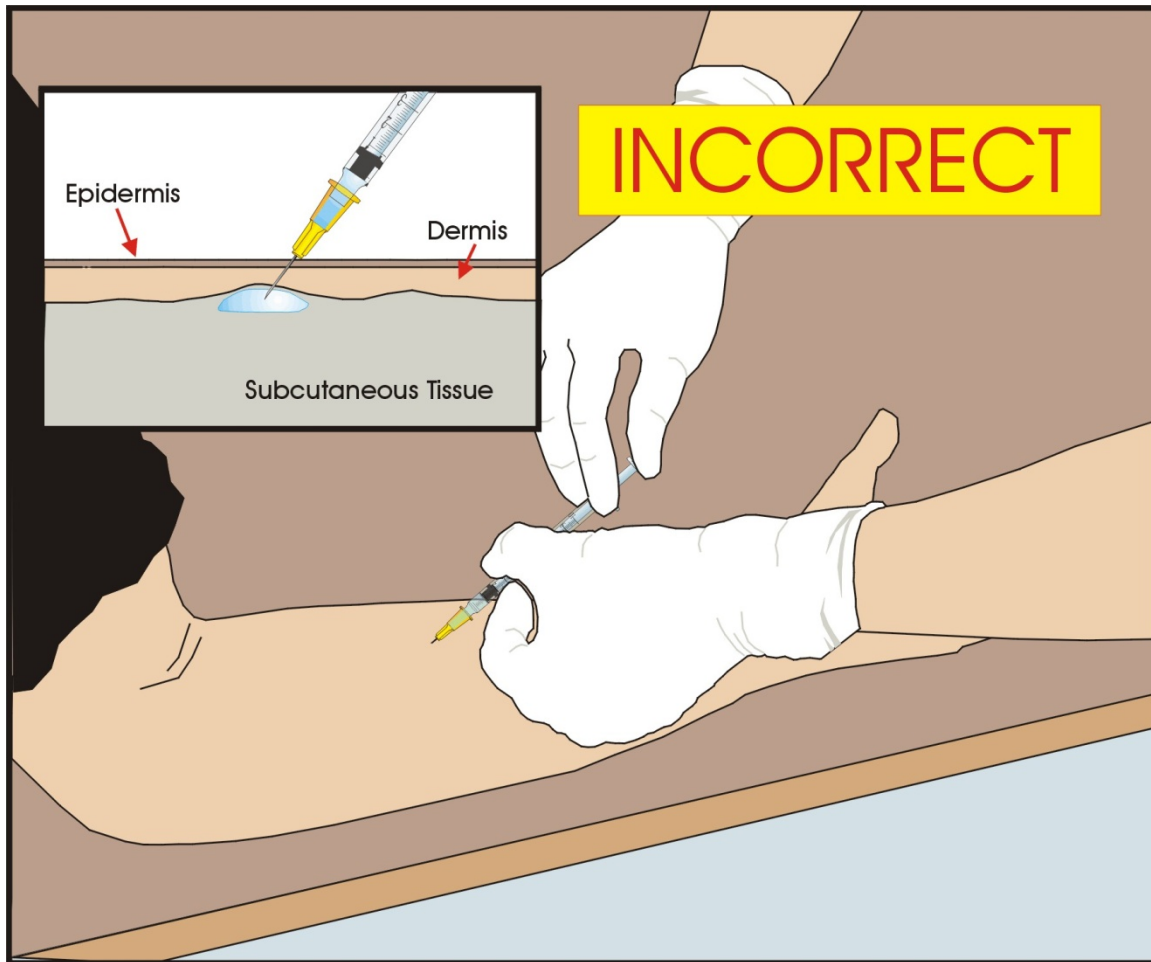


Figure 3-4. Incorrect skin test placement

Incorrect insertion into subcutaneous tissue occurs with an injection angle of greater than ( $>$ )  $15^\circ$ . No wheal will form because the antigen is administered too deeply.



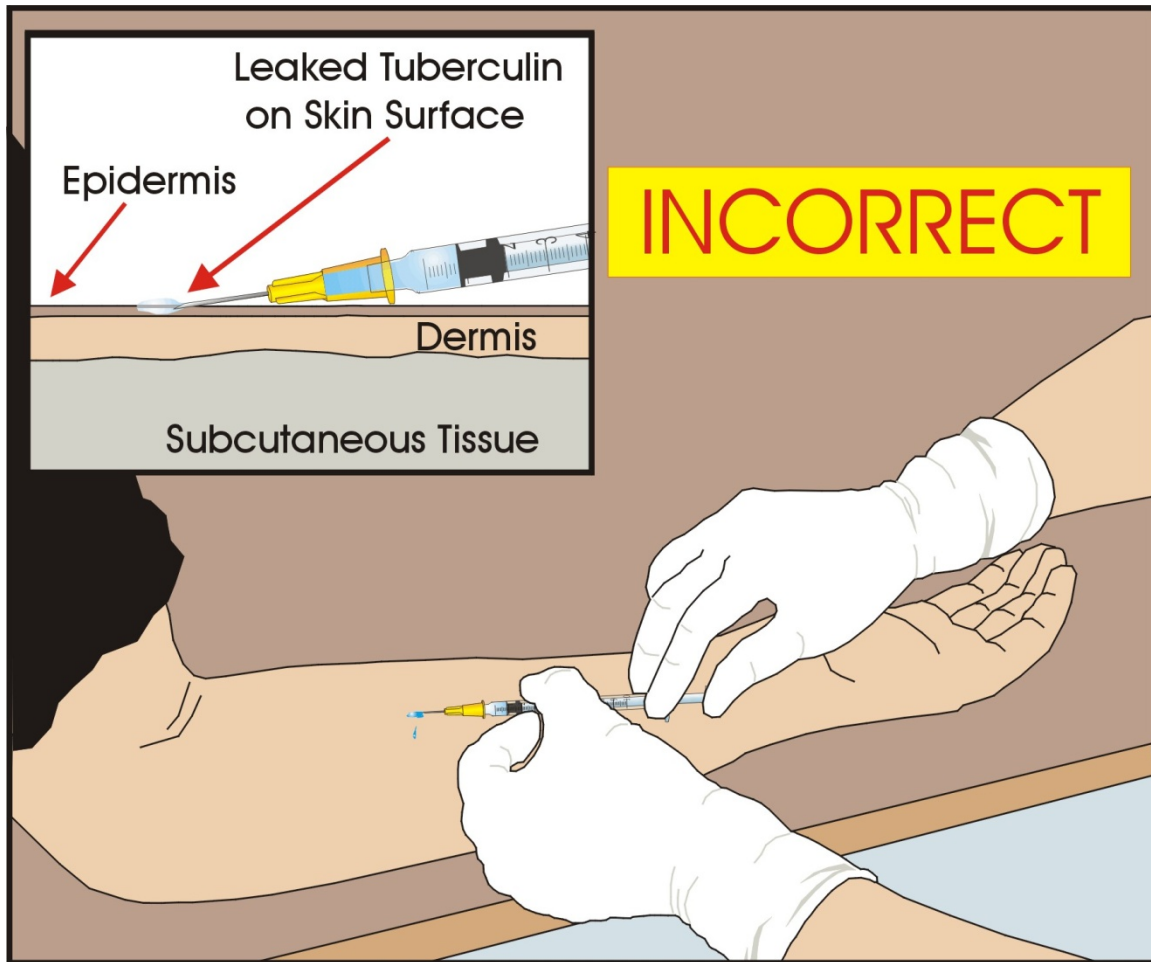


Figure 3-5. Incorrect skin test placement

Incorrect insertion occurs when the needle bevel is not completely inserted into the layer beneath the skin surface (dermis). This incorrect needle insertion position can cause leakage of antigen preventing the formation of a proper wheal.

### 3.6 Appointments for Measurement of Skin Reactions

Make an appointment for the measurement of the skin reaction to the test 46–76 hours after placing the skin test. Skin test readers may not conduct measurements outside this 30-hour window. Attempt to schedule the SP for the first appointment available 48 hours after administration of the skin tests. Make every effort to schedule appointments between 48 and 52 hours after administration of the

skin test. This allows the TB field readers approximately 24 hours to contact and obtain results on SPs who do not show up for their scheduled appointment.

The phlebotomist makes an appointment for the SP to return to the field office after placing the skin test antigen. The MEC coordinator gives SPs reading appointment reminders and maps to the field office when they check out of the MEC session. Information on all scheduled appointments is sent and received electronically at the field office. The TB field readers are responsible for contacting each SP to confirm the appointment date and time. The TB readers attempt to reschedule the appointment in the SP's home when the SP does not show up at the field office or MEC for a scheduled appointment.

The phlebotomist makes every effort to encourage SPs to have their skin test results measured in the field office. SPs are paid \$40 if they return to the field office and \$15 if the measurement of skin reaction is conducted in the SPs' homes. SPs are also paid transportation costs (taxicab or mileage) for travel to and from the field office. The appointment card includes information about all of the SPs' follow-up appointments. The SPs' check-out packets include directions to the field office, where their skin test results will be read.

The final screen of the TB placement application explains that mild itching, swelling, or irritation may occur and that these are normal reactions, which do not require any treatment. These normal reactions usually subside within a week or earlier. The phlebotomist reads aloud the instructions that are displayed on the phlebotomist's computer screen. These instructions remind SPs that they should avoid scratching their forearms and avoid placing anything (e.g., creams, lotion, or medication) on the site. SPs may wash their forearms lightly with mild soap and water without pressure. Immediately after placement, they should not touch or cover the wheal until it absorbs naturally; this occurs in about 10 minutes.

No immediate adverse reactions were recorded when skin tests using the same antigens were injected into the forearms of thousands of participants in NHANES I, and no such reactions are expected during the present survey. However, there is a theoretical possibility that anaphylactic shock can occur when any foreign substance is injected or ingested. If anaphylactic shock should occur after the injection of a skin test antigen, follow the procedures in the Emergency Procedures Manual, and report the occurrence to Dr. Kathryn Porter using the Adverse Reaction Form.

### 3.7 Entering Results in ISIS

The TB introduction screen displays after the Venipuncture Status screen (Exhibit 3-2).

When finished reviewing the Phlebotomy Status screen, use the mouse to select the bright blue arrow in the bottom right hand corner to progress to the next section (TB) or select [Enter] when this blue arrow is highlighted.

Exhibit 3-2. Phlebotomy status screen

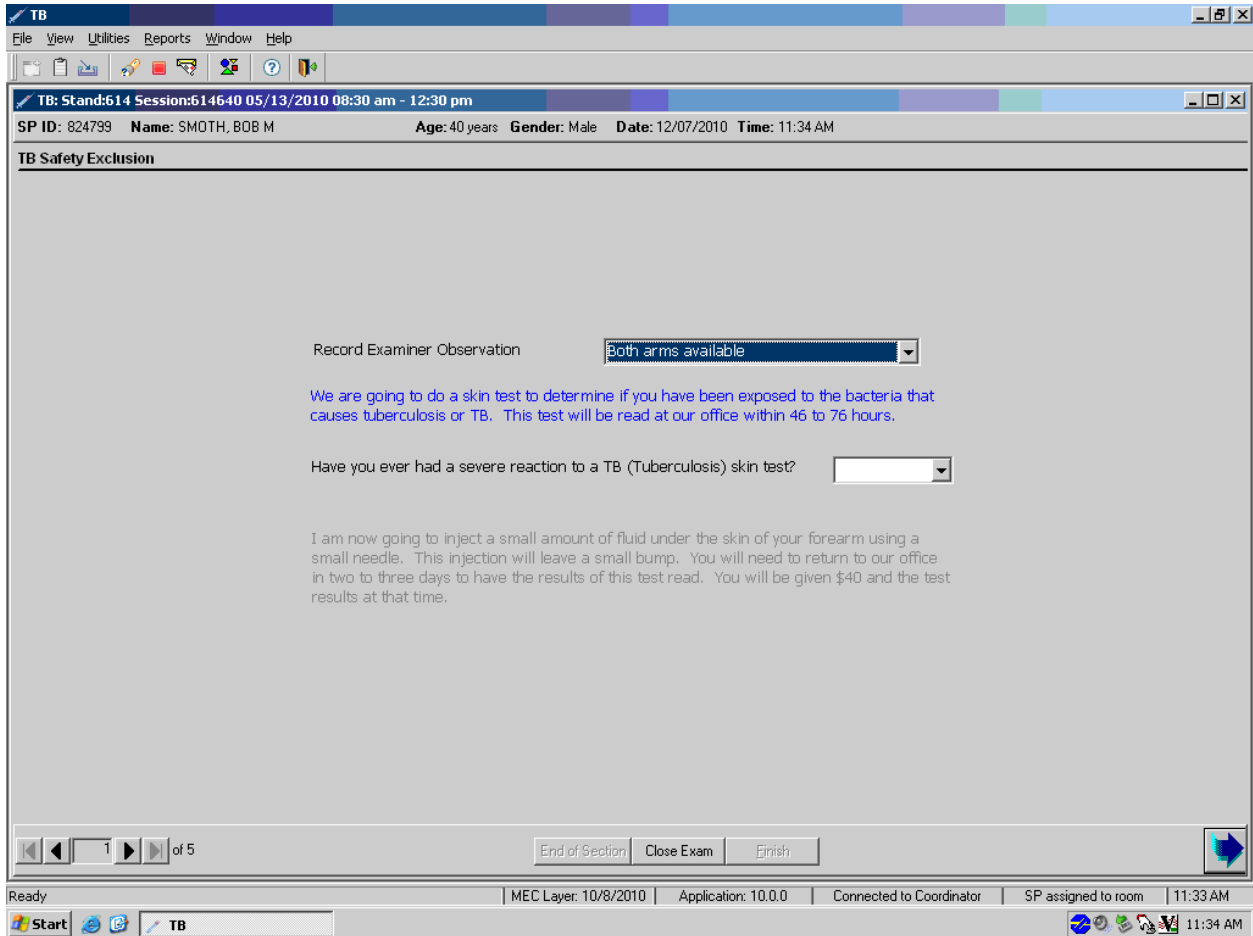
The screenshot shows a software window titled "Phlebotomy" with a menu bar (File, View, Utilities, Reports, Window, Help) and a toolbar. The main content area is titled "Phlebotomy Status" and contains a form with the following elements:

- Header information: "Phlebotomy: Stand:615 Session:615702 11/04/2010 05:30 pm - 09:30 pm", "SP ID: 654925", "Name: RUBIO, CARMEN JOY", "Age: 29 years", "Gender: Female", "Date: 12/03/2010", "Time: 11:00 AM".
- Status selection: A group box labeled "Status" containing three radio buttons: "Complete" (selected), "Partial", and "Not Done".
- Comments: A dropdown menu labeled "Comments".
- Other text: A text input field labeled "Other text".

At the bottom of the window, there is a navigation bar with "End of Section", "Close Exam", and "Finish" buttons, and a blue arrow button on the far right. The Windows taskbar at the bottom shows the Start button, a taskbar with "TB" and "Phlebotomy" windows, and a system tray with the time "11:04 AM".

The TB Safety Exclusion Screen displays (Exhibit 3-3).

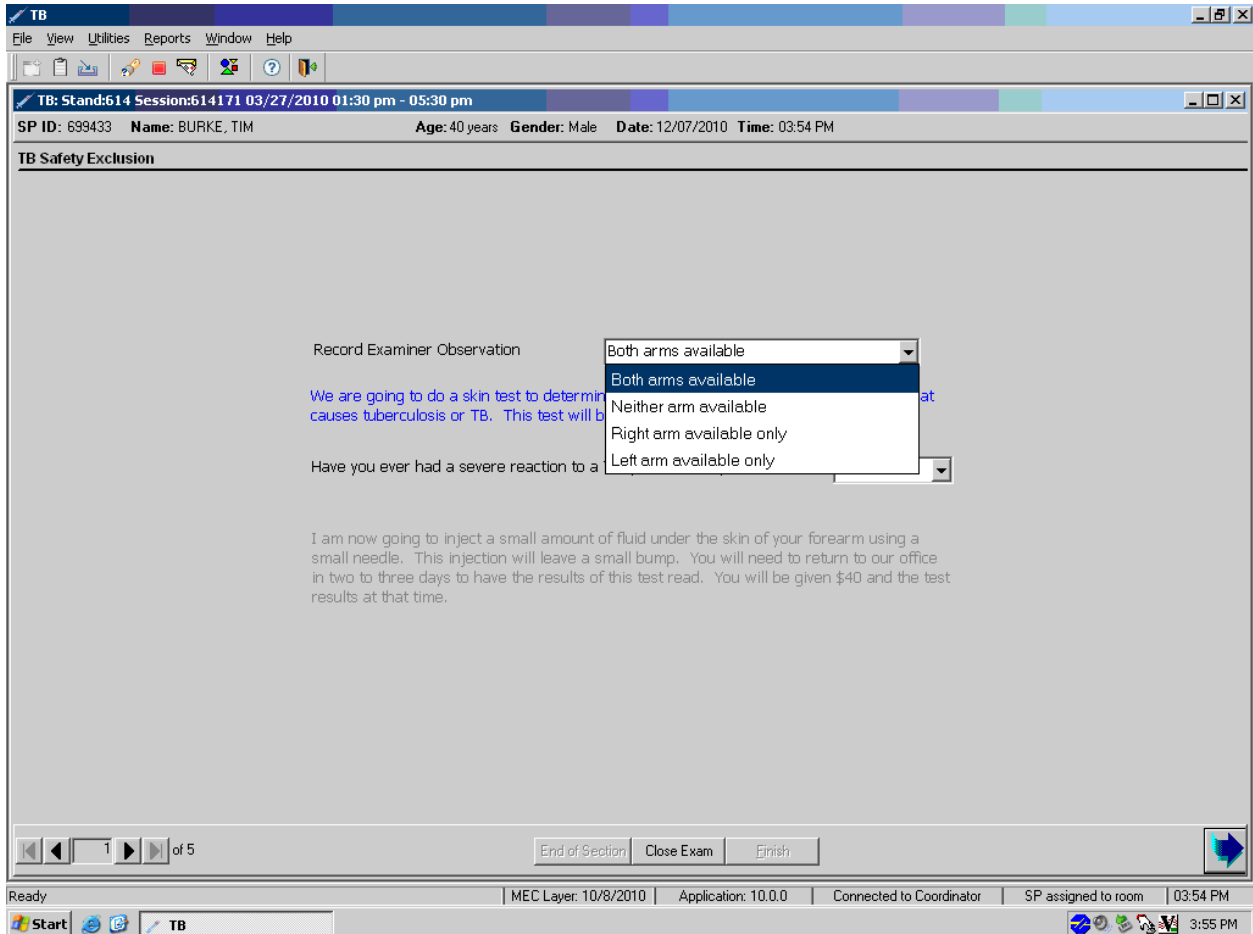
Exhibit 3-3. TB safety exclusion screen



Complete the forearm examination as described in Section 3.4. Proceed to record the observation.

Record the forearm observation (Exhibit 3-4).

Exhibit 3-4. Recording the forearm observation



To record the observation, use the mouse to direct the mouse arrow to the arrow on the drop-down list and click on your choice.

If neither forearm is available, the remaining parts of the introduction screen remain disabled. To move to the next screen, move the mouse to the bright blue arrow in the bottom right hand corner and click on it or select [Enter] when this blue arrow is highlighted.

Read the text under the Record Examiner Observation box aloud to the SP (Exhibit 3-5).

Exhibit 3-5. TB skin test question

Record Examiner Observation

We are going to do a skin test to determine if you have been exposed to the bacteria that causes tuberculosis or TB. This test will be read at our office within 46 to 76 hours.

Have you ever had a severe reaction to a TB (Tuberculosis) skin test?

I am now going to inject a small amount of fluid under the skin of your forearm using a small needle. This injection will leave a small bump. You will need to return to our office in two to three days to have the results of this test read. You will be given \$40 and the test results at that time.

End of Section Close Exam Finish

Ready | MEC Layer: 10/8/2010 | Application: 10.0.0 | Connected to Coordinator | SP assigned to room | 11:33 AM

Start | TB | 11:34 AM

Read the safety exclusion question and record the response (Exhibit 3-6).

Exhibit 3-6. Recording response to safety exclusion question

Record Examiner Observation

We are going to do a skin test to determine if you have been exposed to the bacteria that causes tuberculosis or TB. This test will be read at our office within 46 to 76 hours.

Have you ever had a severe reaction to a TB (Tuberculosis) skin test?

I am now going to inject a small amount of fluid under the skin of your forearm using a small needle. This injection will leave a small bump. You will need to return to our office in two to three days to have the results of this test read. You will be given \$40 and the test results at that time.

End of Section Close Exam Finish

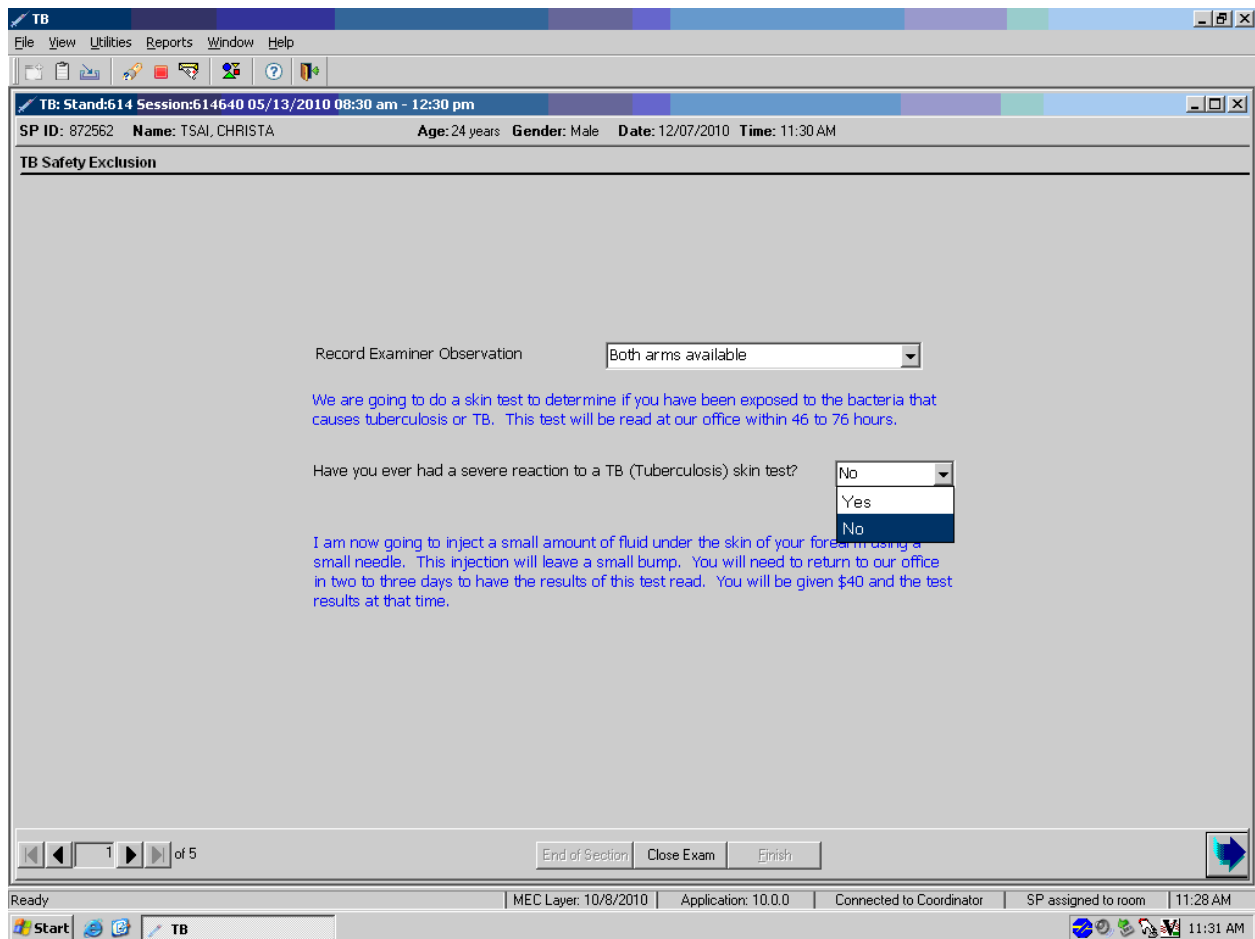
Record whether or not the SP has had a previous severe reaction; this is defined as ulceration at the site or an anaphylactic reaction (allergic reaction involving the whole body). Read the exclusion question exactly as it is displayed on the computer screen: “Have you ever had a severe reaction to a TB (tuberculosis) skin test?” Do not consider a history of a previously positive reaction, a large induration, swelling, or redness at the skin test site severe reactions, and do not exclude the SP from the skin testing component.

To record the response, move the mouse to the drop-down list and click on desired choice. Alternatively, to record the response, type the first letter of the correct choice and [Tab.] For example, type [Y/y] for “Yes” or [N/n] for “No.”

After recording a positive response, the remaining part of the introduction screen remains disabled. To move to the next screen, move the mouse to the bright blue arrow in the bottom right hand corner and click to select or select [Enter] when this blue arrow is highlighted.

Read the script to all SPs who report a negative response (Exhibit 3-7).

Exhibit 3-7. Script for negative responses



If the SP has not had a previous severe reaction to a skin test antigen, read the test description script. To move to the next screen, move the mouse to the bright blue arrow in the bottom right hand corner and click to select or select [Enter] when this blue arrow is highlighted.



Record the Lot # and Expiration Date for the Tubersol antigen (Exhibit 3-8).

Exhibit 3.8. Lot # and expiration date for antigen

train-05

SP ID: 790990 Name: GREEN, MACKENZIE H Age: 7 years Gender: Female Date: 03/01/2011 Time: 04:57 PM

**TB Placement**

Tubersol Lot#: Expiration Date:  
123AB67P 07/30/2011

Tubersol Applied: Left Arm

Tubersol wheal in mm:

2 of 5

End of Section Close Exam Finish

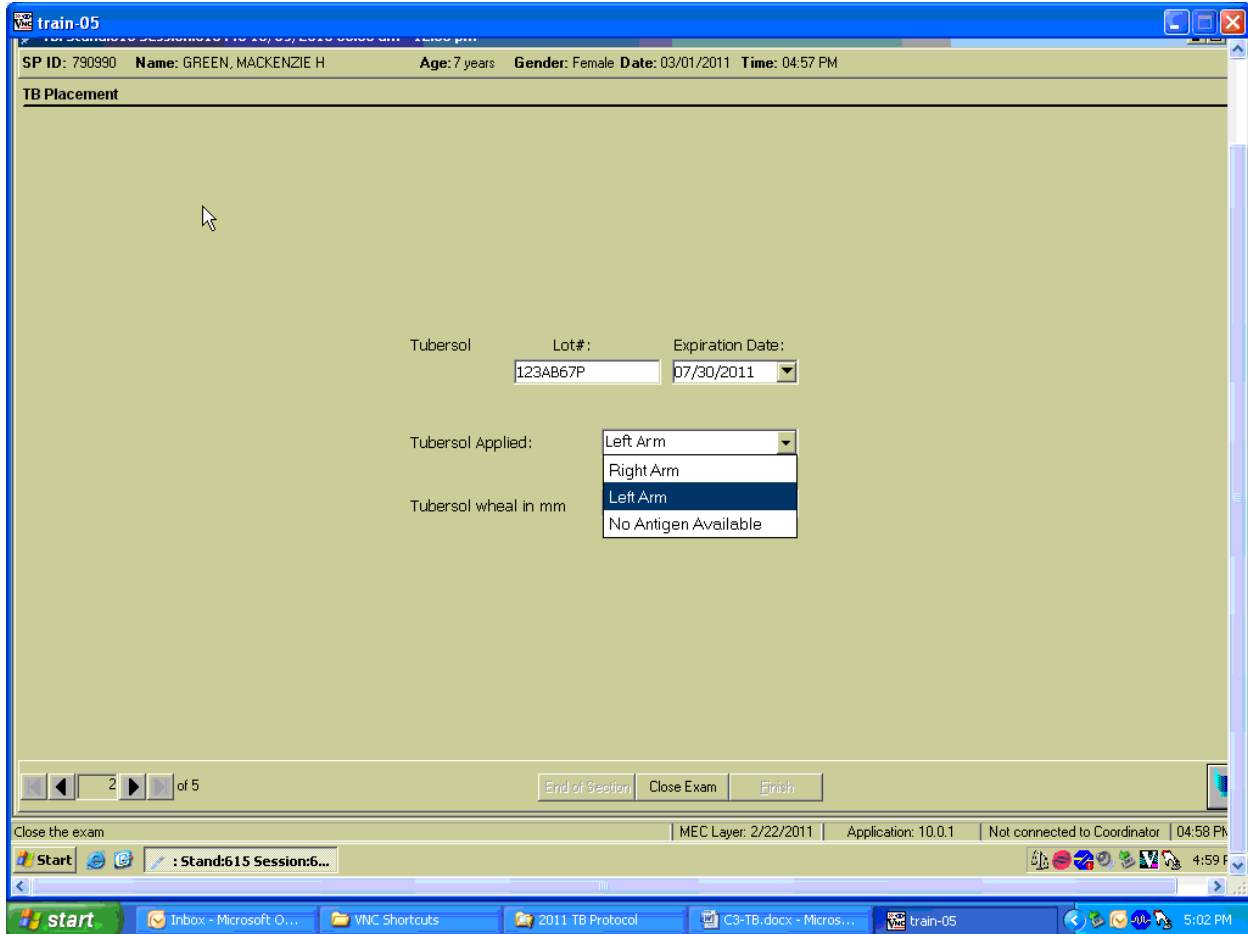
Close the exam | MEC Layer: 2/22/2011 | Application: 10.0.1 | Not connected to Coordinator | 04:57 PM

start | Inbox - Microsoft Ou... | VNC Shortcuts | 2011 TB Protocol | C3-TB.docx - Microso... | train-05 | 4:57 PM

Verify the existing Antigen information. The lot # and expiration date defaults to the last entry. To change either the lot # or the expiration date, use the numeric keyboard keys to type the correct information when the box is highlighted. Select [Tab] to move to the next box. Enter the date format as mm/dd/yyyy.

Select the arm to which the Tubersol antigen was applied (Exhibit 3-9).

Exhibit 3-9. Recording arm where antigen applied

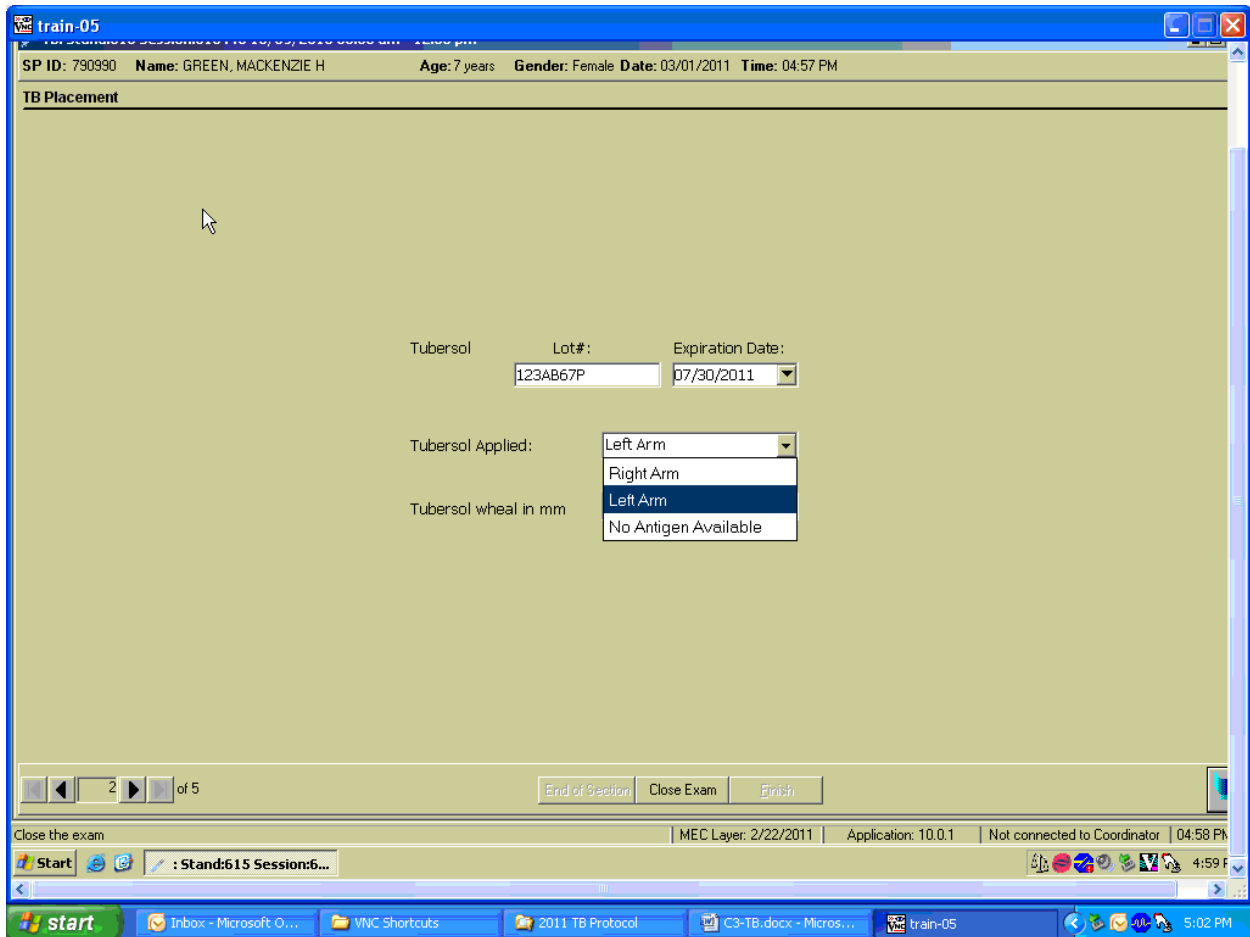


Store skin test antigen in a monitored-temperature refrigerator except when removing the antigen to fill the syringes. Do not allow filled syringes to stand for more than 20 minutes before use. Follow procedures described in Section 3.5.

To record the results of the Tubersol antigen application, move the mouse to the arrow on the drop-down list and click on the desired choice. Alternatively, to record the response, type the first letter of the correct choice and [Tab]. For example, type [Y/y] for “Yes” or [N/n] for “No.”

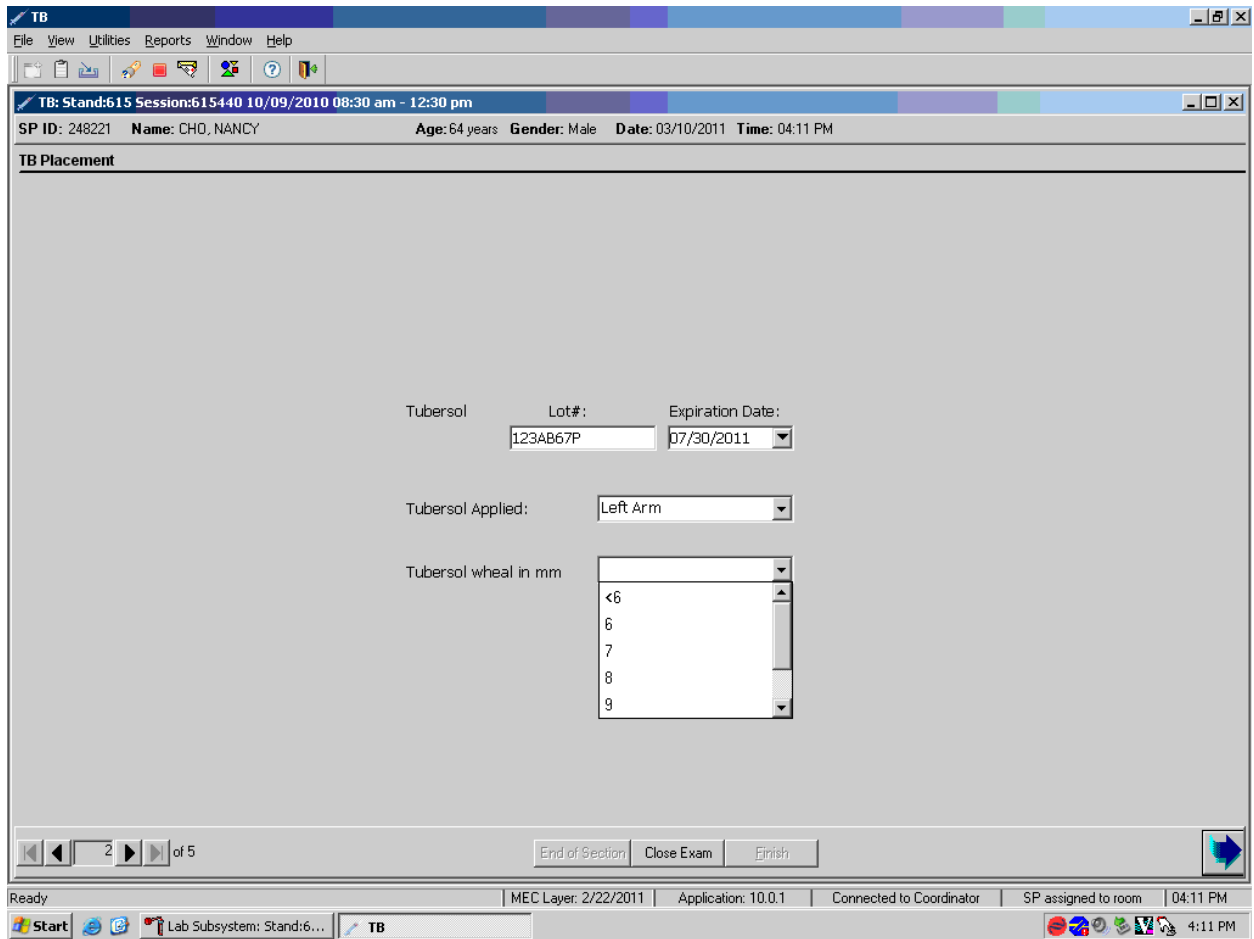
If the “No” or “No antigen available” option is selected for the Tubersol, the lot information will remain disabled (Exhibit 3-10).

Exhibit 3-10. Verifying antigen information



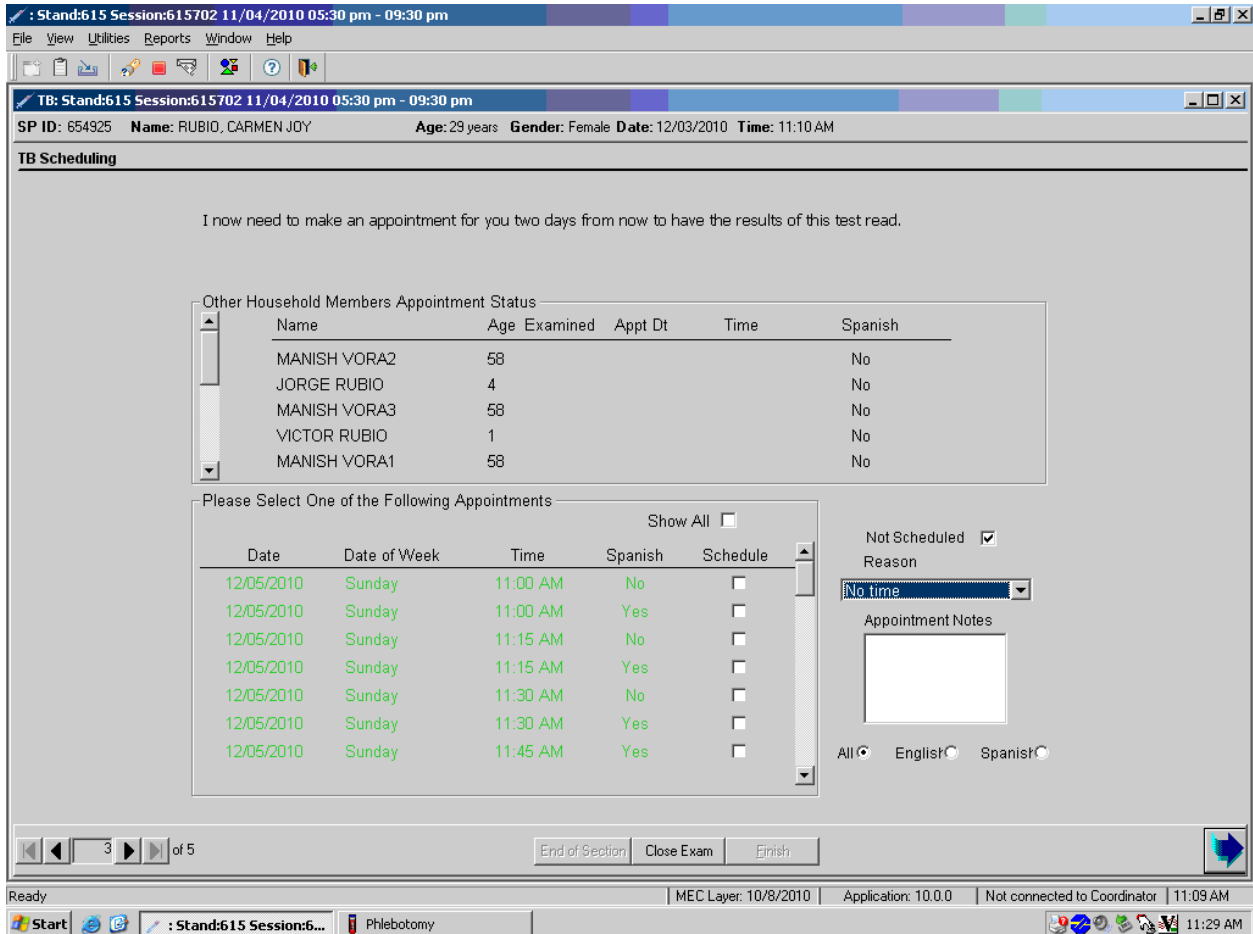
Use a CDC approved/calibrated ruler to measure the size of the wheal given during Tubersol placement. Record result in TB placement screen (Exhibit 3-11). Choices are <6, 6, 7, 8, 9, 10 and >10. If the wheal is less than 6, place another TB skin test because not enough antigen was placed to be considered a valid test.

Exhibit 3-11. Documenting the size of the wheal



Schedule the SPs reading (measurement) appointment (Exhibit 3-12).

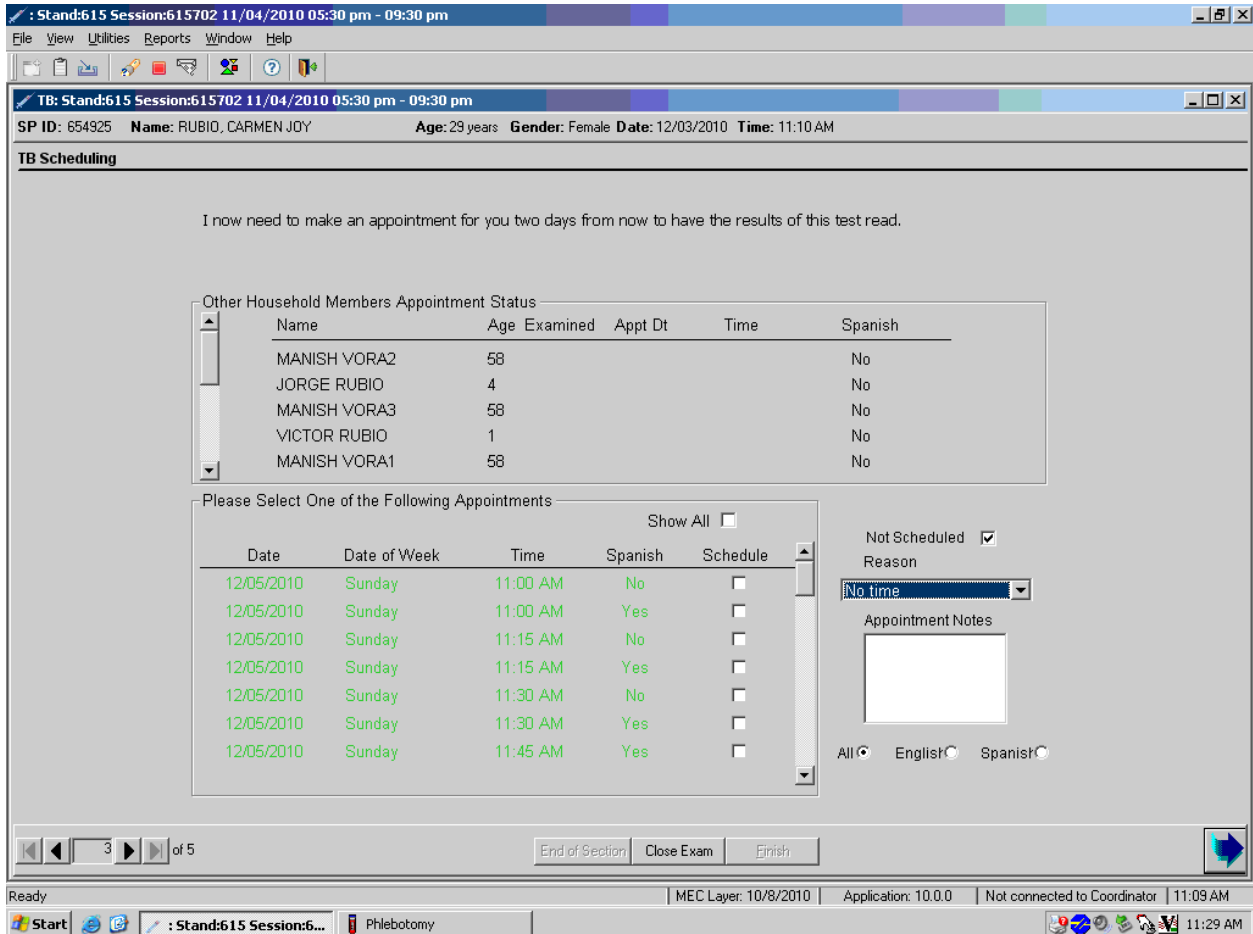
Exhibit 3-12. TB reading appointment



The appointment screen displays a list of SPs including the SP who just received the skin test(s) and any other family members who are also SPs in the same MEC session. The SP may make an appointment for himself or herself and for any or all other family members. If appointments already exist for any SP on the list, this information displays. The SP may change appointments for any or all of the SPs on the displayed list.

Read the text to the SP and review the available appointment slots (Exhibit 3-13).

Exhibit 3-13. TB reading appointment time slots

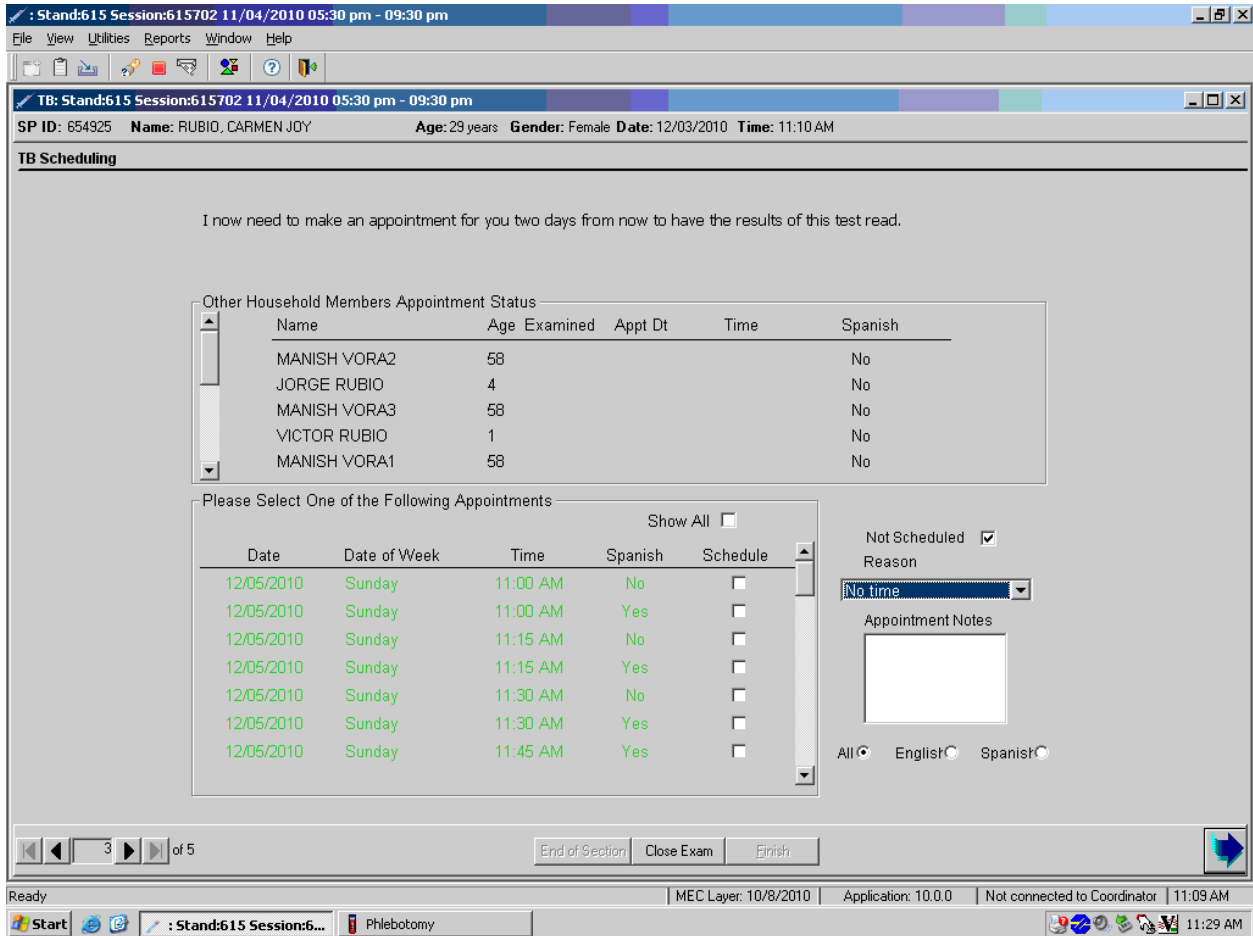


Read the text, “I now need to make an appointment for you two days from now to have the results of this test read” to the SP.

Display the preferable appointment time slots for which the SP is eligible, displayed in green font. Attempt to schedule SPs for sessions 48-52 hours from the current time, which are displayed in a green font. If none of these times are suitable for the SP, check the Show All box to display the expanded schedule. Time slots with a yellow font are next desirable appointments after the green slots. The yellow font time slots represent the 52-72 hours group of appointments. The red font represents the least desirable appointments in the 46-48 hour group and the 72-76 hour group.

Select the time slot (Exhibit 3-14).

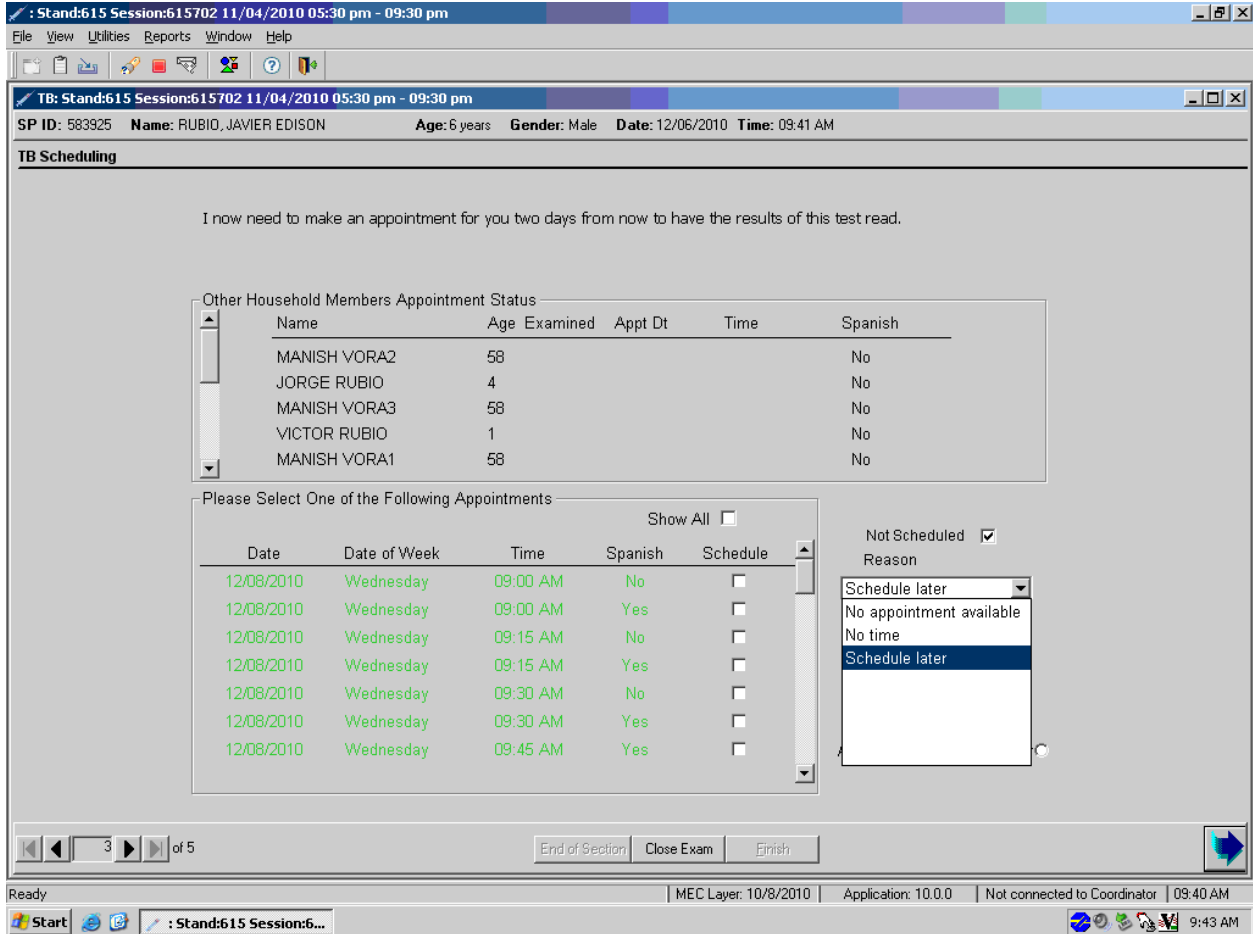
Exhibit 3-14. Selection of time slot



To select a time slot, click the box under Schedule that corresponds to the date and time of interest.

Attach a reason for SPs who refuse to make an appointment (Exhibit 3-15).

Exhibit 3-15. Reason for refusing appointment



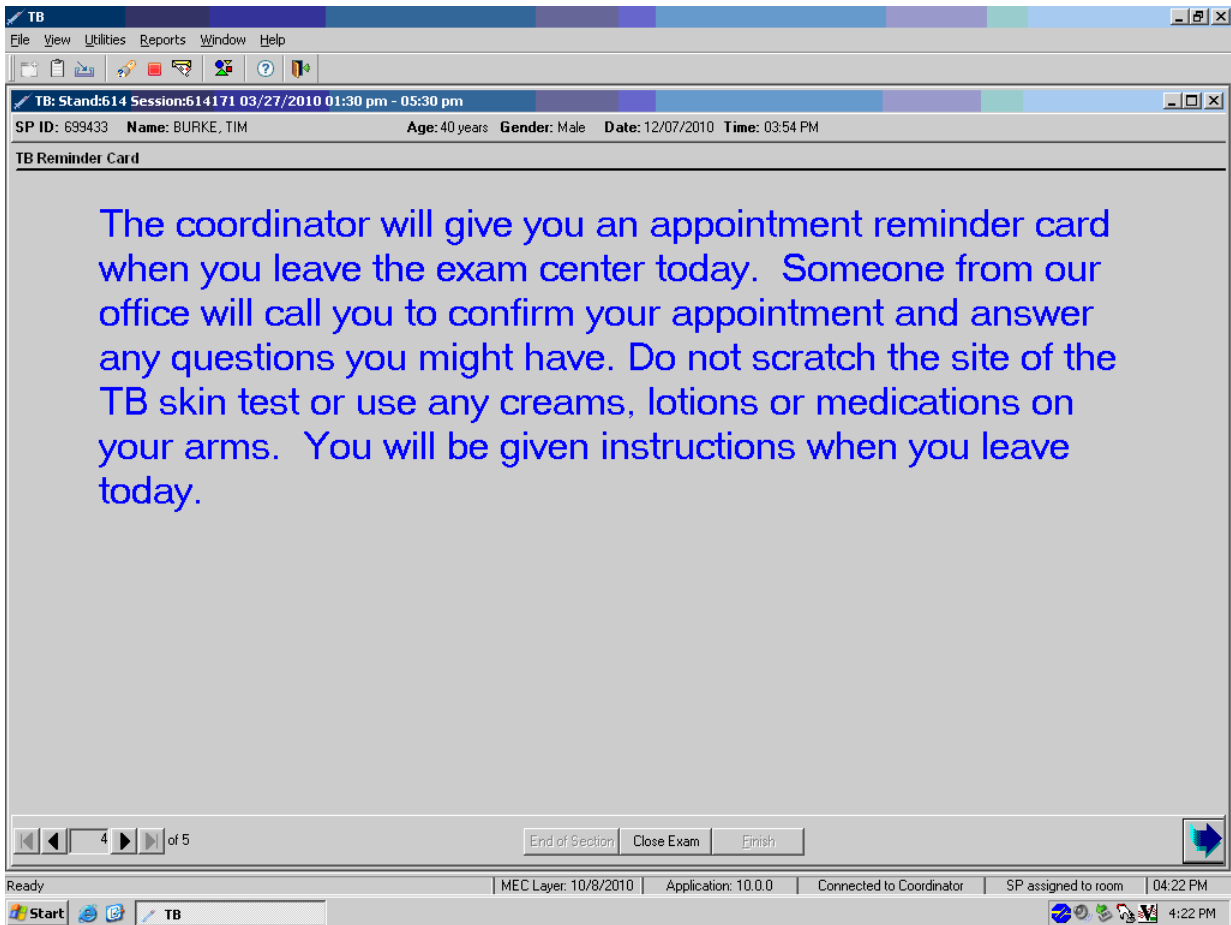
If the SP refuses to schedule an appointment, indicate the SP's request by leaving the Schedule box empty, placing a check mark in the Not Scheduled box and selecting the appropriate comment. To select the appropriate comment, move the mouse to the arrow on the drop-down list and click on the desired choice. ISIS transmits all scheduling information to the field office. The TB field readers contact the SP to schedule the appointment. To move to the next screen, move the mouse to the bright blue arrow in the bottom right hand corner and click, or select [Enter] when this blue arrow is highlighted.



Review the instructions with the SP.

The TB Reminder Card informational message window displays (Exhibit 3-16). Read these instructions to the SP. Answer any questions or concerns. To progress to the TB section status screen, move the mouse to the bright blue arrow in the bottom right corner and click to select.

Exhibit 3-16. TB Reminder Card



Review the TB section status (Exhibit 3-17).

Exhibit 3-17. TB status review

: Stand:615 Session:615702 11/04/2010 05:30 pm - 09:30 pm

File View Utilities Reports Window Help

TB: Stand:615 Session:615702 11/04/2010 05:30 pm - 09:30 pm

SP ID: 654925 Name: RUBIO, CARMEN JOY Age: 29 years Gender: Female Date: 12/03/2010 Time: 11:10 AM

**TB status**

Status

Complete  
 Partial  
 Not Done

Comments

Other text

5 of 5

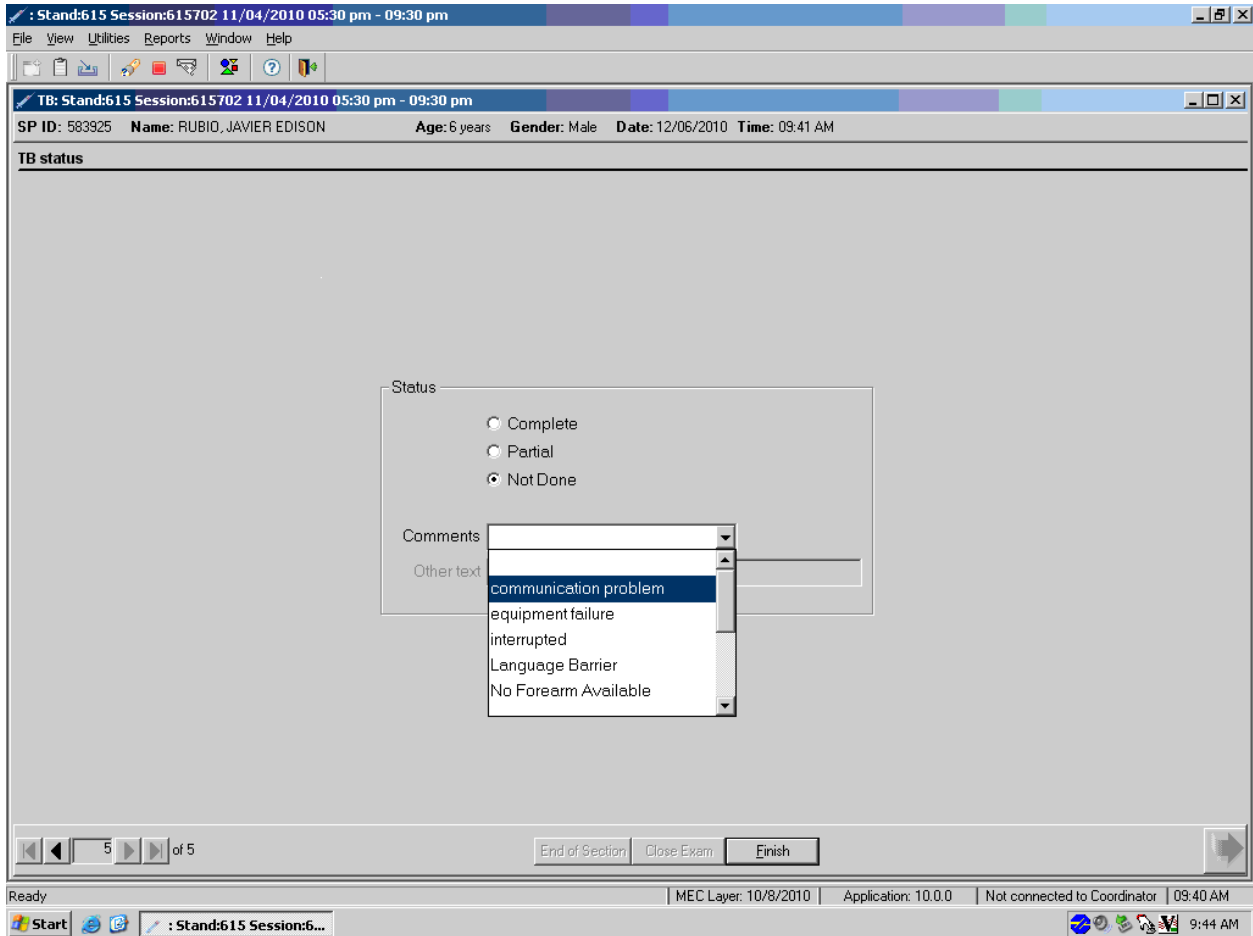
End of Section Close Exam Finish

Ready MEC Layer: 10/8/2010 Application: 10.0.0 Not connected to Coordinator 11:09 AM

The TB status is complete if the antigen was applied, partial if the SP needs to be re-assigned to the TB component, and not done if the SP was excluded or the antigen wasn't placed. If the SP was excluded as a result of a "Yes" response to the question, "Have you ever had a severe reaction to a tuberculosis (TB) skin test?" enter the "Safety Exclusion" comment in the Comments text box.

Use comment codes to explain Partial and Not Done statuses (Exhibit 3-18).

Exhibit 3-18. TB status with comment codes



Choose and enter the appropriate comment code when the TB section status is partial or not done (Exhibit 3-19). To record a comment in the Comments text box, move the mouse to the scroll arrow on the drop-down list and click on the desired choice. Use the scroll bar to view all choices. Alternatively, use the up and down keyboard arrows to scroll through the choices or type the first letter of the desired comment code.

Exhibit 3-19. List of comment codes and when used

Comment Code	Use when:
Safety exclusion	SP has had a previous severe reaction to a TB test.
SP refusal	The SP refuses to have the antigen administered. This is SP initiated nonresponse due to refusal. The SP refuses the component or a part of the component for any reason other than an illness or emergency. If the SP refuses in the reception area, the coordinator codes the exam. If the SP refuses after starting the exam, the examiner codes the exam.
No time	Not applicable
Physical limitation	SP is unable to have the test due to a physical problem.
Communication problem	SP is unable to understand and follow instructions for the component due to language, cognitive impairment, or other problem, and is unable to complete the test.
Equipment failure	Not applicable.
SP ill/emergency	The SP became ill or an emergency occurred and the test could not be performed on the SP.
Interrupted	The exam is interrupted, usually for a MEC-wide emergency, and cannot be completed by the SP.
SP did not meet fast	Not applicable
Other, text	If the above reason for a status Code of Not Done is not explained by one of the Comment Codes, the examiner must choose Other, text and record a comment in the text field.

When finished, use the mouse to direct the mouse arrow to the bright blue arrow in the bottom right hand corner and left click to progress to the end of the exam or select [Enter] when this blue arrow is highlighted.

### **3.8 Conducting the TB Exam in Spanish**

When the phlebotomist must administer the TB procedure to a SP who does not speak English and the phlebotomist does not speak the language of the SP, a translator who does speak the language of the SP assists the phlebotomist.

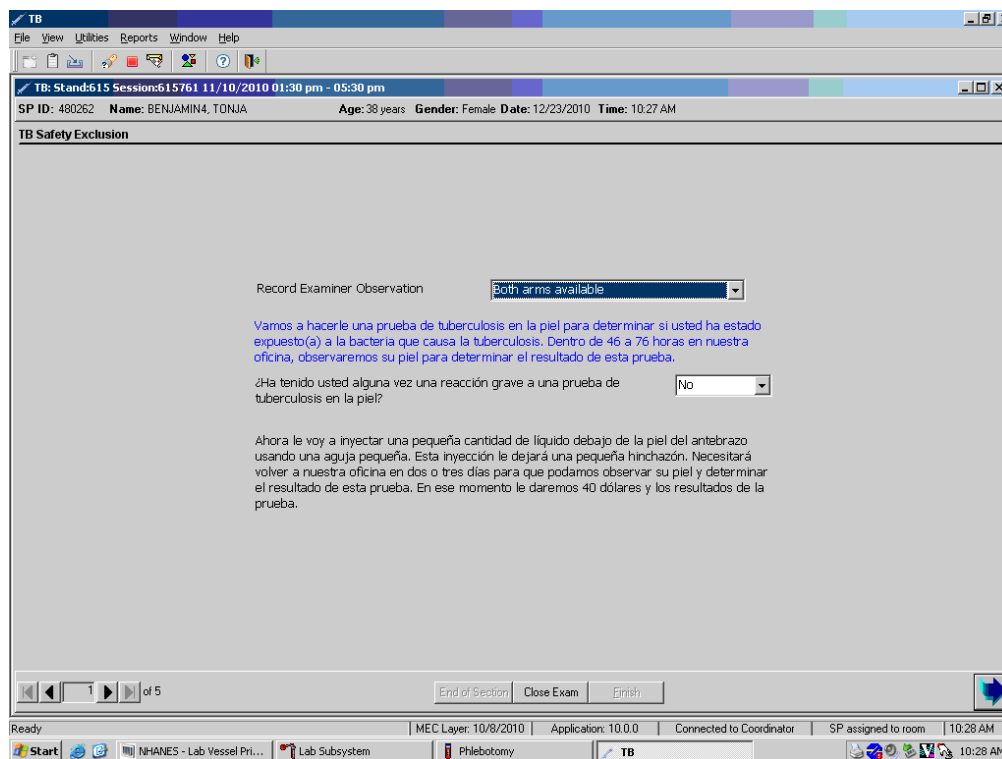
The translator stays with the phlebotomist and the SP for the entire procedure. It is very important that the phlebotomist be able to communicate with the SP if the SP becomes ill during the examination.

Convert the phlebotomy interview and fasting questionnaire text from English to Spanish or from Spanish to English at any time before, during, or after an exam.

To view the scripts in Spanish, move the mouse to {Utilities} in the menu bar, click on {Spanish}, or type [Ctrl] [S].

All scripts display in Spanish (Exhibit 3-20).

Exhibit 3-20. TB safety exclusion-Spanish



To return the scripts to English, move the mouse to {Utilities} in the menu bar, click and select {English}, or type [Ctrl] [E].

### 3.9 Severe Adverse Reactions during Antigen Administration

No immediate adverse reactions were recorded when skin tests using the same antigen were injected into the forearms of thousands of participants in NHANES I and no such reactions are expected during the present survey. However, there is a theoretical possibility that anaphylactic shock can occur when any foreign substance is injected or ingested. If anaphylactic shock should occur after the injection of a skin test antigen, complete an incident/emergency form for severe placement reactions (see Exhibit 3-21). Follow the procedures in the Emergency Procedures Manual. The occurrence must also be reported on the Adverse Reaction form, which is generated in the physician application, to Dr. Kathryn Porter. Email to Dr. Porter immediately.

Exhibit 3-21. MEC Incident/Emergency Report form



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service  
Centers for Disease Control and Prevention

National Center for Health Statistics  
5525 Belcrest Road  
Hyattsville, Maryland 20782

**MEC INCIDENT/EMERGENCY REPORT**

<b>Incident/Emergency</b>	<b>Person Type</b>
<input type="radio"/> Incident <input type="radio"/> Emergency	<input type="radio"/> SP <input type="radio"/> Tech <input type="radio"/> Other

<b>General Information</b>	
Physician Name:	Recorder Name:
Emergency Date:	Runner Name(s):
Start Time:                      End Time:	Who Called 911:
Location:	Who Found:
Description:	

<b>Personal Information</b>		
Person ID:	Age:	Gender:
Last Name:	First Name:	Middle Name:

---

DEPARTMENT OF HEALTH & HUMAN SERVICES

**MEC INCIDENT/EMERGENCY REPORT**

**Vitals**

Time	Heart Rate	Systolic BP	Diastolic BP	Respiratory Rate	Comments

**Treatment**

Time	Medication/Equipment	Comment



**MEC INCIDENT/EMERGENCY REPORT**

---

**Symptoms**

**Observation**

**Assessment**

**Plan**

**MEC INCIDENT/EMERGENCY REPORT**

---

**Urgent Care**

<input type="checkbox"/> Transported to Hospital	Hospital Name:
Ambulance Arrival Time:	Ambulance Departure Time:
Emergency Service Name:	
<input type="checkbox"/> Physician Accompanied SP to Hospital	

**Notification**

<input type="checkbox"/> Family Member Notified	Name:	Date/time:
Relation:		
<input type="checkbox"/> Family Physician Notified	Family Phys Named:	Date/time:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Exhibit 3-21. MEC Incident/Emergency Report form (continued)

**MEC INCIDENT/EMERGENCY REPORT**

**VITAL SIGNS DATA SHEET**

<b>Vitals</b>					
Time	Heart Rate	Systolic BP	Diastolic BP	Respiratory Rate	Comments

## 4. TUBERCULOSIS SKIN TEST READING PROTOCOL

### 4.1 Overview

Primary sample persons (SPs) aged 6 years old and over who meet the inclusion criteria are eligible for testing for TB infection with the tuberculin skin test (TST). In the MEC, the examiner (phlebotomist, medical technologists, and physician) injects 0.1 ml Tubersol antigen in the left forearm of the eligible SP and schedules a reading appointment with a specific reader in 15-minute increments 48-52 hours after placement. The TB Placer can expand the list of available appointments to 46-76 hours if the SP indicates that he or she is not available during the ideal reading window. It is extremely important to complete the reading during the ideal window of 48-72 hours. Only under rare situations should the reading occur between 46-48 or 72-76 hours from placement.

Six trained full-time TST readers read the TST result or measure the area of induration using a millimeter (mm) ruler. Enter all results into the TB Reader application.

TST readers conduct most TST readings in the field office. The readers make reminder calls and are also responsible for traveling to SP's homes to read the TST results of SPs who cannot or will not return to the field office. After the stand closes, conduct TST readings in a designated room in the staff hotel. If the TB Reader application is unavailable, record the data on the TB Reading Form (Exhibit 4-27) and enter the data once the application is available.

When the participant checks out of the MEC on the last few exam days, the coordinator gives the SP a hard-copy packet of informational material, including a reminder with the TB appointment date and time and a map to either the field office or to the staff hotel.

Participants receive \$40.00 if they come to the field office or to the hotel to have their TST results read within the 46-76 hour timeframe. Arrange for free transportation to the office or hotel or reimburse the participant for transportation expenses. Participants who are unable to go to the field office can have their test read at home and they receive \$15.00.

SPs receive either an automated printout or a written copy of their TST result at the time of the reading. Persons with a positive TST result (defined as induration greater than 10 mm) will be referred

to a community physician or local health department. The result will also be included in the Final Report of Findings sent to participants 12–16 weeks after the TST. Parents/guardians of minors under the age of 18 will be given the findings and, if indicated, the referral for their child(ren).

As noted earlier, a TST result must be read between 46 and 76 hours after administration placement of the TST. If the SP misses the field office reading appointment, contact the SP so that the reading can be completed in the office or the home before the 76-hour time limit is reached. Do not read skin tests if the time since the administration of the antigen exceeds 76 hours.

Two or more TST readers should read SP's reactions for Quality Assurance (QA) purposes for at least 25 percent of all readings. For these blinded independent duplicate readings (BIDRs), TST readers neither consult nor observe one another's readings. When a BIDR is performed, record results independently. Results may be discussed after both readers have recorded their results, but results cannot be changed. Gold standard readers (GSR) are designated by the Centers for Disease Control and Prevention, Division of TB Elimination, and visit NHANES sites for quality assurance purposes on a quarterly basis. Supervised readings may also take place, in which one or more TST readers read the results and discuss with a GSR. Discussion and coaching may take place during this type of reading but only one result is recorded.

Enter TB reading measurements directly into the TB Reader application at the time of the reading. The application automatically generates a Report of Findings (ROF) with the TST result. The ROF lists a "positive" or "negative" result for the test. Print and give the ROF to the SP at the time of the reading. When conducting readings in SP homes, complete a written report and give the report to the SP. For those who have a positive TST result, provide the address and phone number for the local health department.

Do not discuss findings while measuring and recording TST results. If the SP asks for findings before readings are completed, explain that the results can be discussed only after the computer-generated ROF reveals the result.

If a severe reaction is observed (ulcer, vesiculation, anaphylactic shock), complete an Adverse Reaction Form and email it to Dr. Kathryn Porter at NCHS.

## 4.2 Equipment and Supplies

The equipment and supplies required to measure skin reactions are listed below. Note that some nonconsumables remain with the field office, readers hand carry a subset of supplies from one stand to the next, while other supplies are restocked by the warehouse, and many forms are printed on site. Send all rulers and receipts to the home office supervisor after all SPs have been read. Record zero on the end of stand inventory sheet for these two items.

The makeup bag, light, money bag, and calculator travel with the readers from one site to the next. Record the count as “3” on the end of stand inventory sheet. A subset of consumable supplies also travels with the readers from one stand to the next; these are used for hotel and home readings after the stand closes. This includes the pencils, gauze, small baby oil bottle, ROF envelope, and money envelope. Account for these on the end of stand inventory sheet or the start of stand numbers will be off for the next team.

<b>Nonconsumables Stay with the Field Office Staff</b>	<b>Par Level</b>
Incandescent flexible-neck lamp	3
Locking money drawer	3
Stapler standard size	3
Tape dispenser, Scotch	3
Trash cans, 15”	3
<b>Nonconsumables Travel with TB reader to Each Stand</b>	<b>Par Level</b>
Reader light portable (for home readings)	3
Calculator with large keys (to calculate transportation costs, mileage, etc.)	3
Zippered bag (for money)	3
Cosmetic bag (for home exam supplies)	3
<b>Consumables from Warehouse</b>	<b>Par Level</b>
Cosmetic fine-tipped pencils, black	9
2 x 2 Nu gauze	6 pkgs (200/pkg)

TB reading rulers	12
Baby oil in small dropper bottle	6
Baby oil bottle	1
Tape, 3/4" Scotch	3
Box of staples	3
Large white envelope (for Report of Findings)	500
Money envelopes	400
Purell handsoap	3
Reminder card	40
<b>Hard-Copy Forms (Print Onsite)</b>	<b>Par Level</b>
Adverse Reaction (Should send by email but may need to fax)	20
Hard-copy data entry	40
Adult ROF-TB Neg English	40
Adult ROF-TB Neg Spanish	20
Adult ROF-TB Pos English	40
Adult ROF-TB Pos Spanish	20
Child ROF-TB Neg English	40
Child ROF-TB Neg Spanish	20
Child ROF-TB Pos English	40
Child ROF-TB Pos Spanish	20
Receipt Calculation and Signature Form	200
Name, address, and contact phone number for the local health department. (for positive tests when using hard-copy Report of Findings)	20

## 4.3 Procedures for Reading TST Results

### Preliminary Procedure

- Keep fingernails sufficiently short so that they do not protrude beyond the finger.
- Set up the computer and supplies in a well lit area, turn on the lamp, and support the arm being examined.
- Sharpen marking instrument (eyeliner pencil) to make a small, fine dot so that the dot is easily removed without friction.
- Introduce yourself to the SP and briefly explain the procedure.
- Confirm the identity of the SP and match it against the information on the computer screen.
- Read the correct forearm. The TB Reader data entry screen indicates whether the antigen was placed on the right or left forearm.

Ensure that the setting for reading is suitable and that equipment and supplies are at hand before a reading begins. TB readers introduce themselves and explain that the TB skin test measurement consists of examining the SP's arm to locate, mark, and measure any reaction. Inform the SP that the result is recorded in the computer and that the computer generates a report of the results after the examination.

Verify the identity of the SP before beginning the examination of the arms. All SPs received an appointment reminder when they exited the MEC. This document lists the SP's name. TB readers must rely on the person escorting the SP to the reading site to correctly identify younger SPs. Confirm the SP's identity and verify that the information contained on the application result screen is identical.

Have the SP sit in a well-lit area and provide arm support. Begin the examination on the arm that is designated on the TB Reader screen. This will be the right arm unless otherwise documented. After locating the site, rely on palpation (touch) with the fingertips to determine whether induration (a hard dense raised reaction) is present. Keep fingernails sufficiently short so that they do not protrude beyond the finger in order to read the result properly. (Figure 4-1).



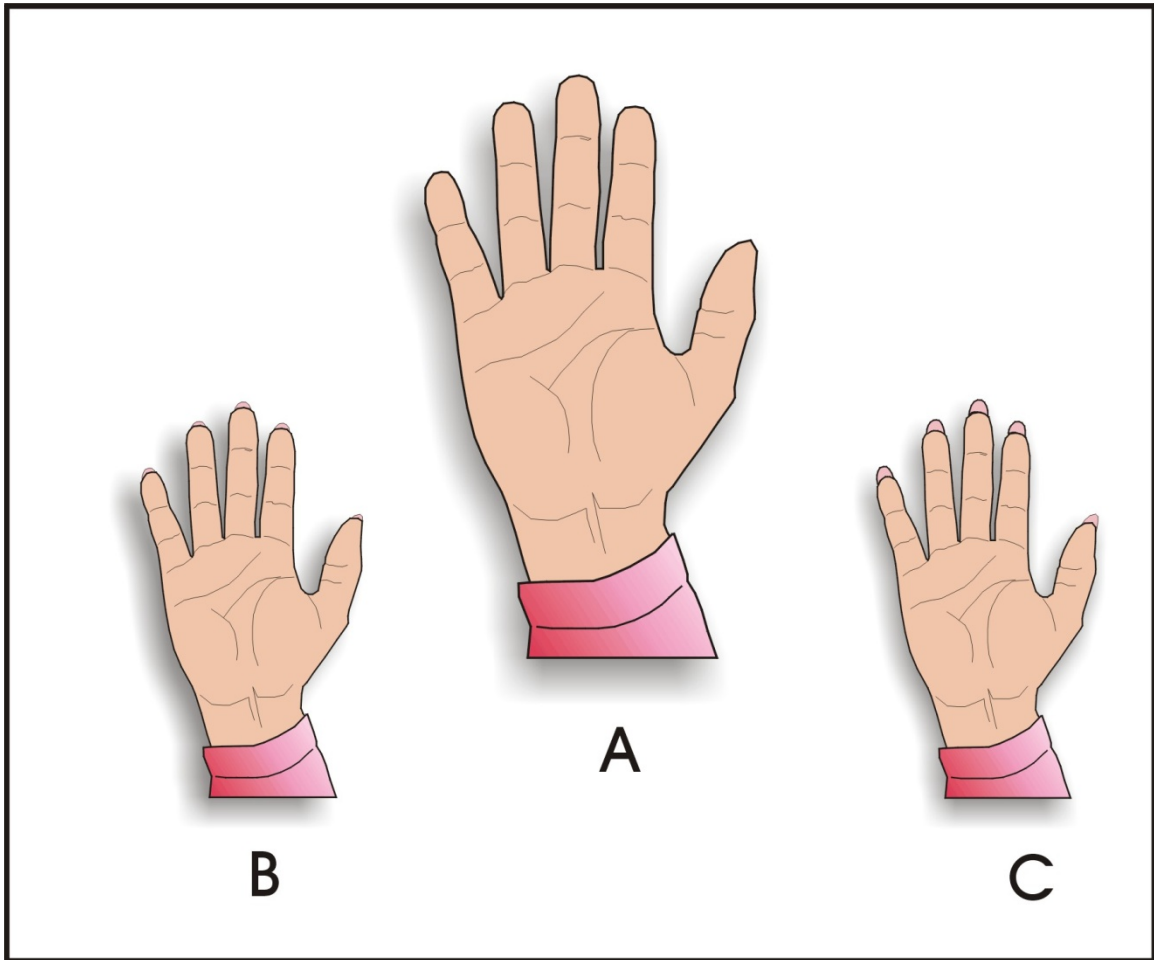


Figure 4-1. Correct and Incorrect Fingernail Length for Palpation Method

- A. Maintain fingernails sufficiently short so that they do not protrude beyond the fingertip in order to read the result properly.
- B. Nails should not be visible above the tips of the fingers.
- C. Nails should not be long and sharp.

Reactions to the antigen at the injection site range from no induration to a large, hard density in the skin. Only measure induration; if no induration is present, do not measure. Do not measure redness (also called erythema) and soft swelling. If induration is present, further palpate to locate the margins of induration transverse to the long axis of the forearm. Touch the area lightly with the pads of the fingertips with fingers together, using a light gentle motion (Figure 4-2). When palpating for margins, take care not to confuse a margin of induration with a margin of muscle on the forearm. If there is no hard density, record a 0 (zero) result even if other skin changes such as redness or soft swelling are noted.

If one margin of induration is definitely palpable, it is necessary to mark the margins on either side of the induration, even if the margin is not equally clear all the way around the area of hard denseness (Figure 4-3). Even if the area of induration is small, mark the margins and measure the area of hard density transverse to the long axis of the arm. Lightly mark each of the two sides of the induration with a dot (Figure 4-4). Do not mark other skin changes such as redness or soft swelling. If the margins of induration are irregular, mark and measure the largest diameter transverse to the long axis of the arm (Figure 4-5). The correct placement of the ruler is illustrated in Figure 4-6 and the incorrect placement of the ruler is illustrated in Figure 4-7.

Touch the area lightly with the pads of the fingertips with fingers together, using a light gentle motion.

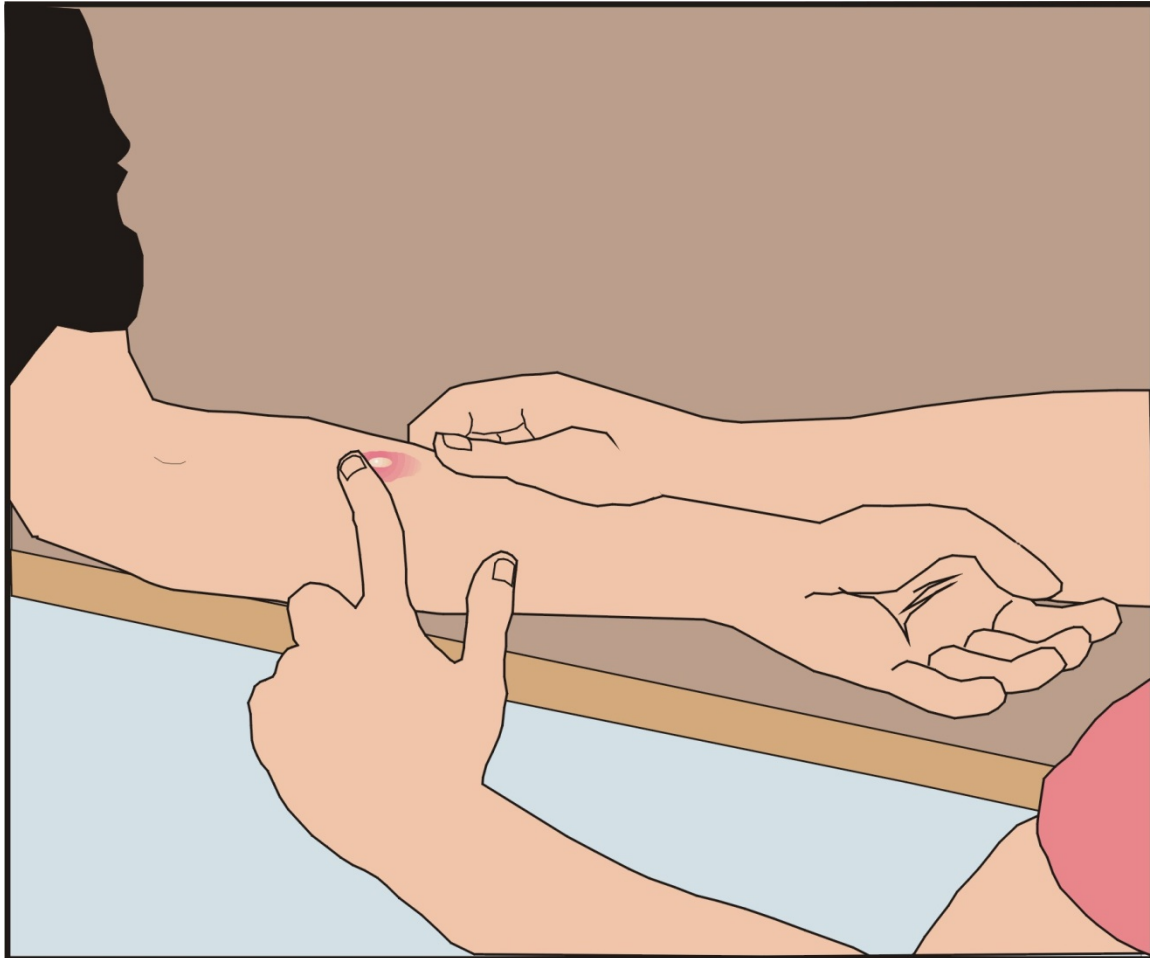


Figure 4-2. Palpating to Find the Borders of the Induration

Palpate to find the margins (borders) of induration transverse to the long axis of the forearm. With the SP's forearm bent 90° at the elbow, supported on a hard surface, lightly sweep the fingertips over the volar (palm up) surface of the forearm, and outline the margins of induration.

If one margin of induration is definitely palpable, it is necessary to mark the margins on either side of the induration, even if the margin is not equally clear all the way around the area of hard denseness.

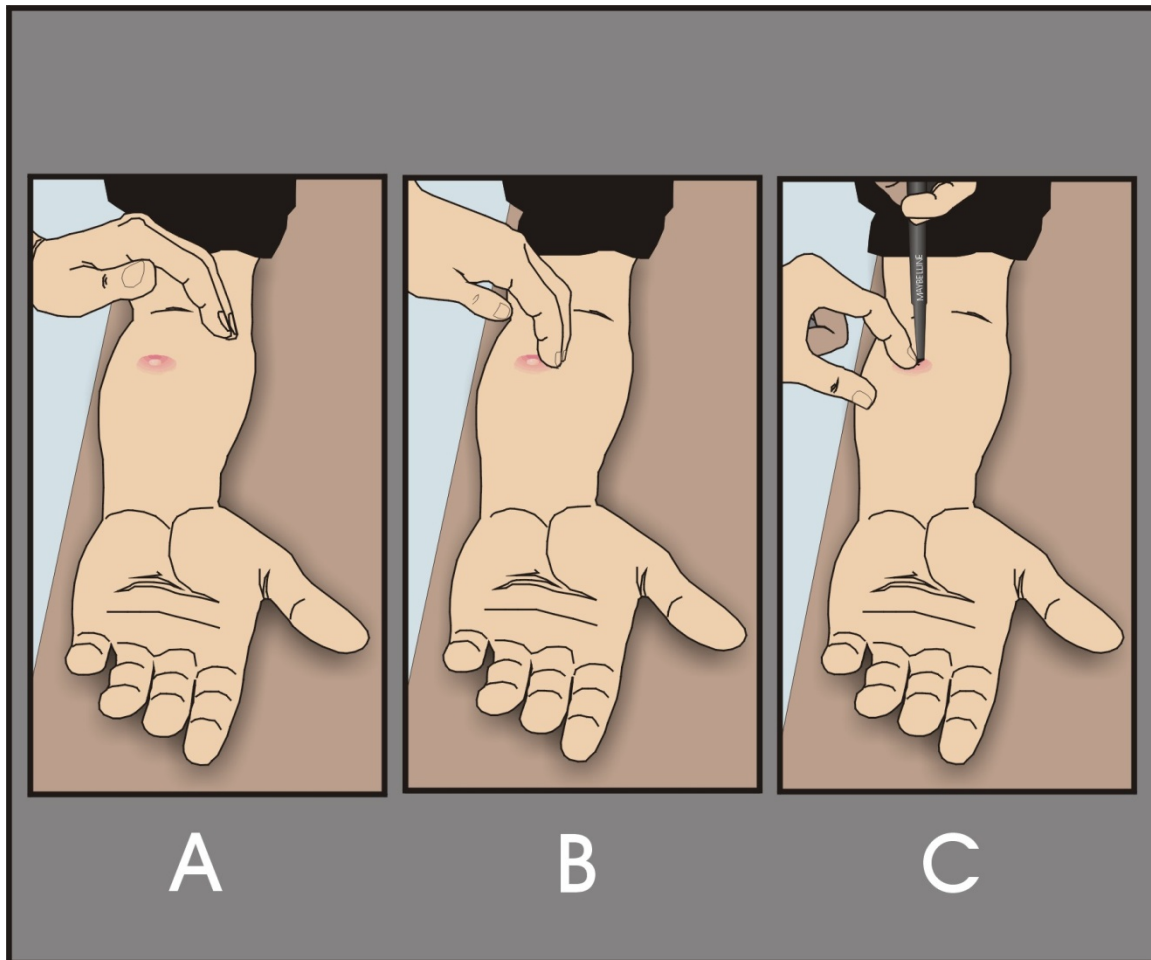


Figure 4-3. Marking the Margin Points at Either Side of the Widest Area of Induration Transverse to the Long Axis of the Forearm

- A. Hold palm over the injection site with fingertips at the outer edge of the arm.
- B. Without lifting, move the fingertip from the outer edge of the arm towards the induration. Rest the finger firmly against the induration margin border on one side before marking (fingertip remains in contact with skin at all times).
- C. Mark lightly with a fine dot at the widest edge of the induration, using the fingertip as a guide. Repeat procedure to place second mark on margin of induration.

Lightly mark each of the two sides of the induration with a dot.

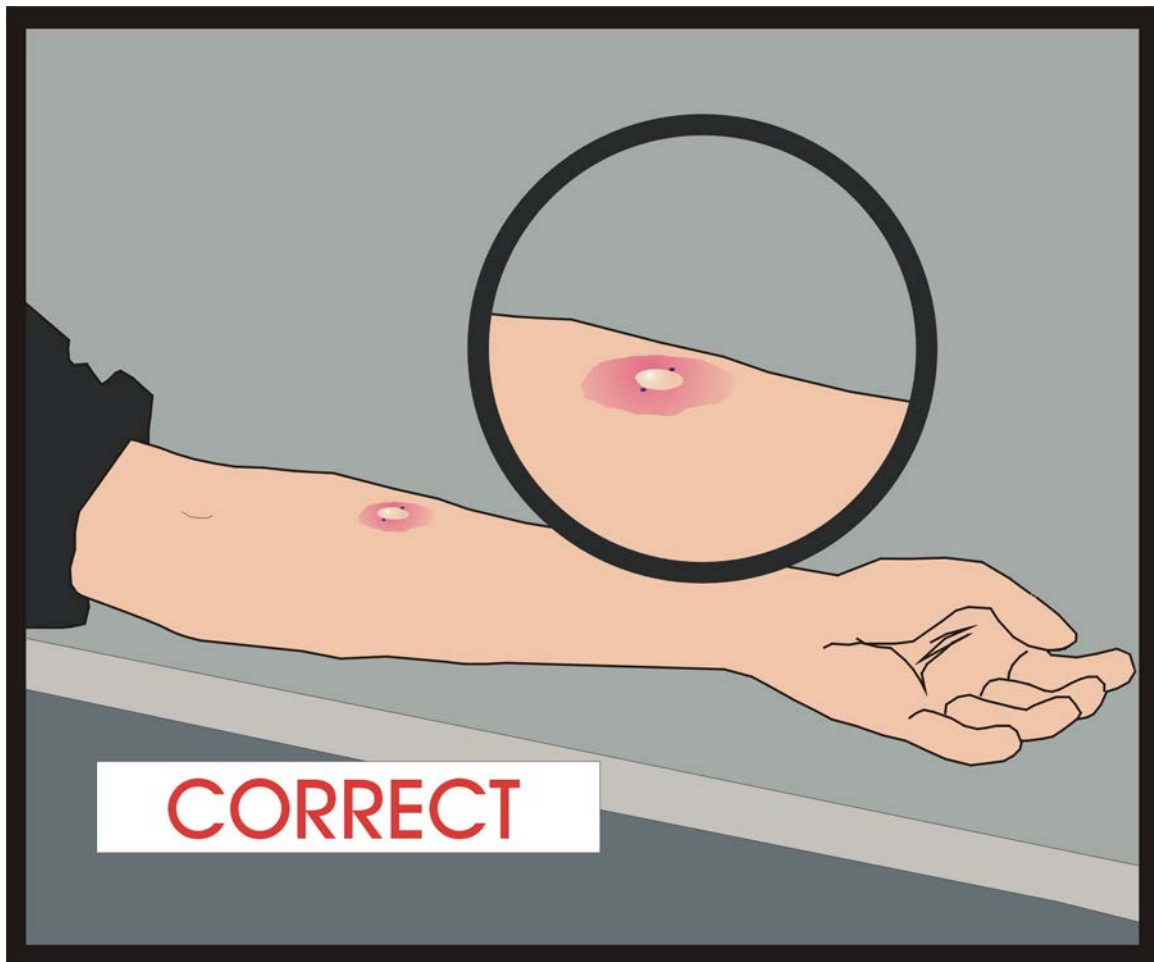


Figure 4-4. Correct Marking of the Points on the Margins of Induration

A correct marking - shows fine dot marks on two sides of the induration transverse to the long axis of the forearm.

Do not mark other skin changes such as redness or soft swelling.

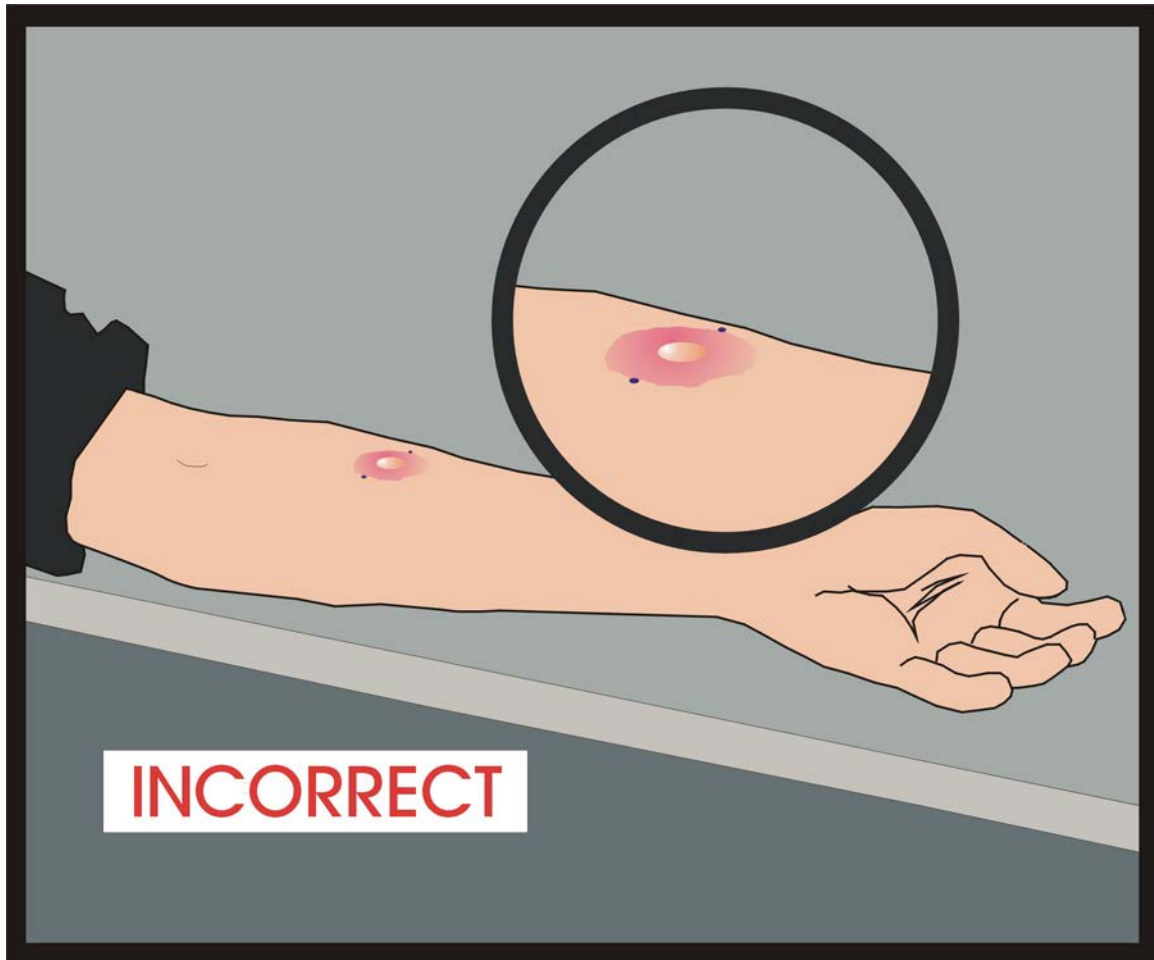


Figure 4-5. Incorrect Marking

An incorrect marking - shows fine dot marks on two sides of the redness or soft swelling transverse to the long axis of the forearm. Only mark hard density (induration).

Correct ruler placement.

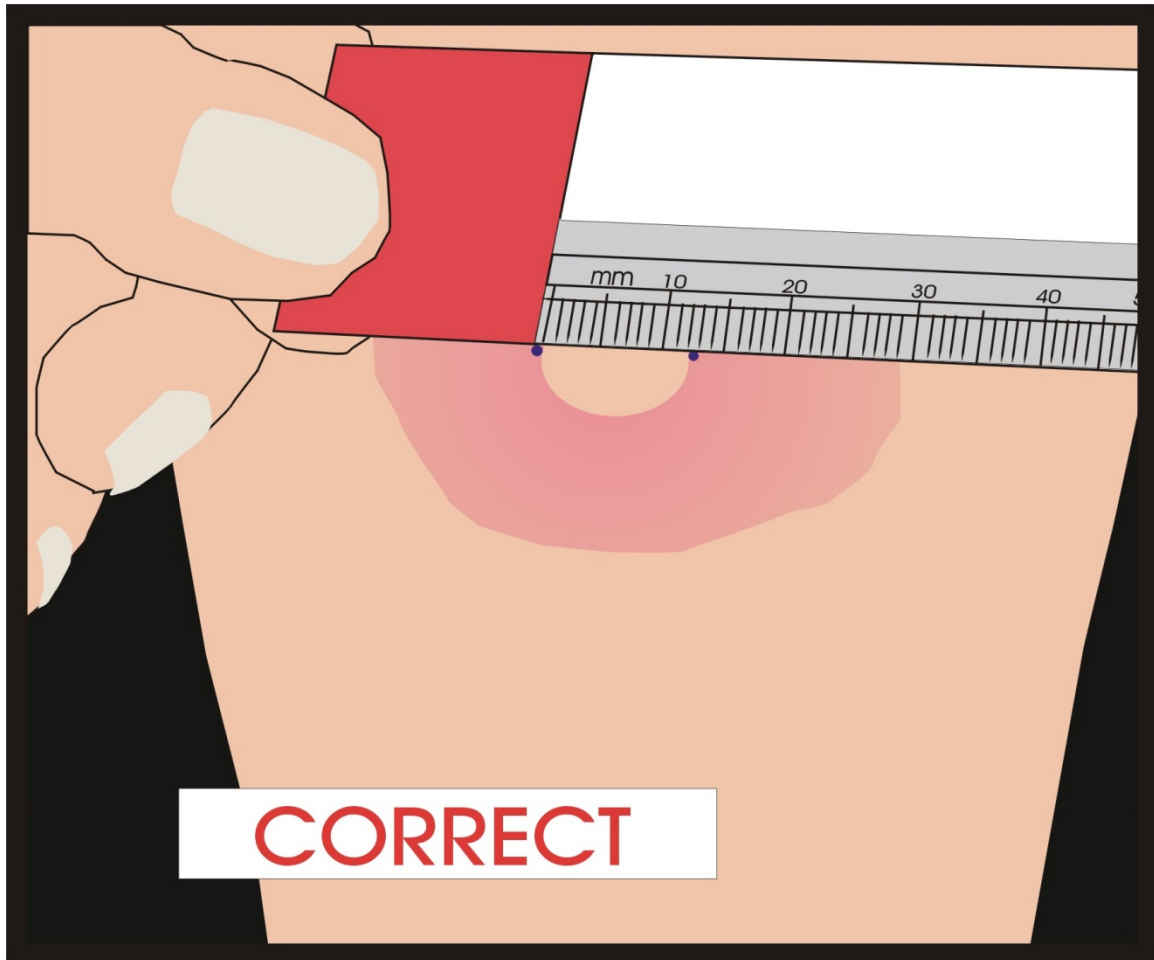


Figure 4-6. Correct Placement of the Millimeter Ruler to Measure the Induration  
TST result: 12 millimeters (mm)

Measure a TST result with the millimeter ruler. Place the zero millimeter ruler line inside the left dot edge. Read the ruler line inside the right dot edge. If the measurement falls between two divisions on the millimeter scale, record the lower mark.

Incorrect ruler placement.

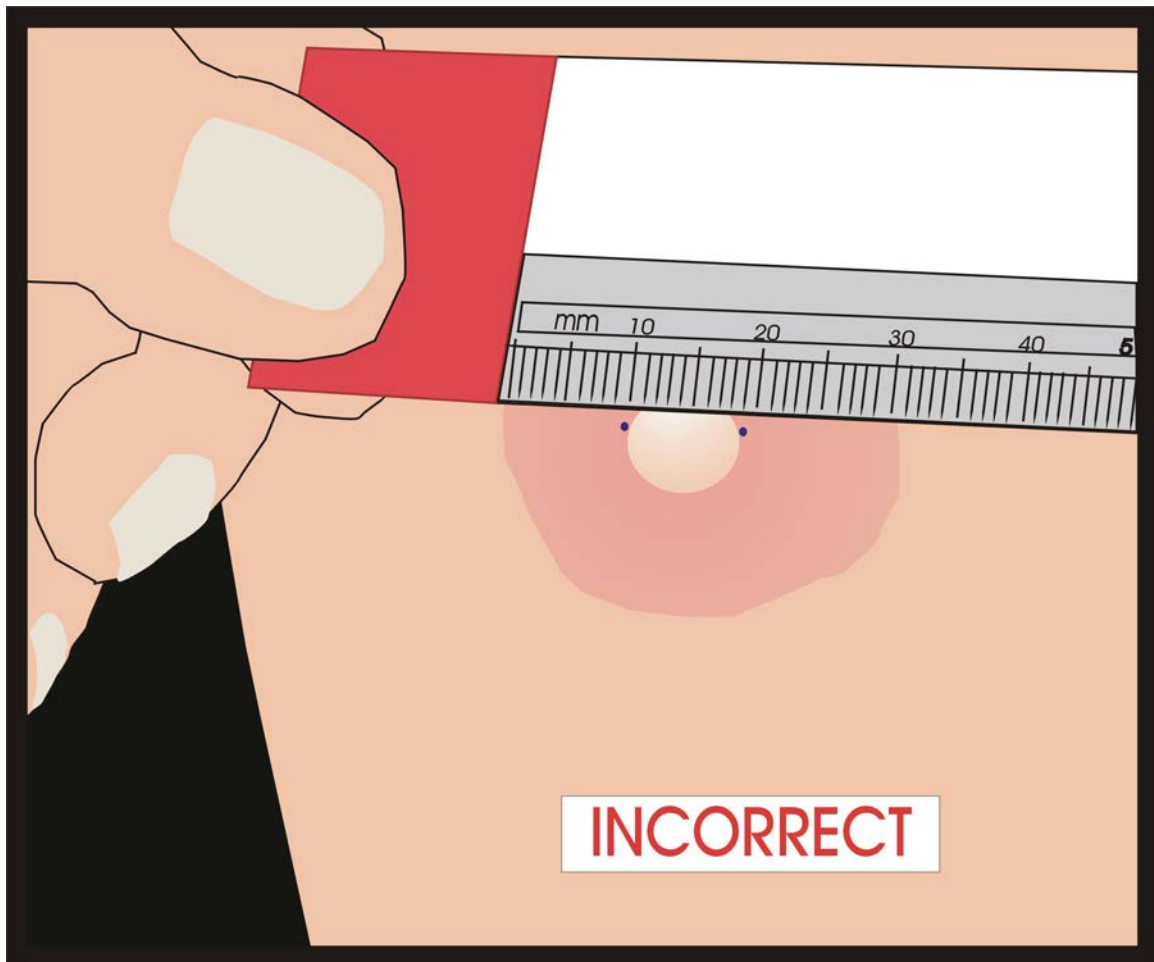


Figure 4-7. Incorrect Placement of the Millimeter Ruler to Measure the Points on the Margins of Induration

This is an incorrect ruler placement. The zero ruler line is incorrectly placed on the edge of redness instead of on the mark.



If a SP asks about the test findings during the examination of the arms, explain again that the findings must wait until the computer generates the ROF. After recording all results, the Report of Findings prints; read the text to the SP. Refer questions that cannot be answered by repeating the information printed on the ROF to Dr. Kathryn Porter.

#### **4.3.1 TST Protocol**

Using good light, carefully inspect the volar (palm up) surface of the forearm to locate the site of injection. Focus the palpation in this area.

##### **Palpate to Find the Margins (borders) of Induration**

- Lightly sweep the fingertips over the entire volar surface of the forearm to confirm the position of the injection site.
- Lightly sweep 2” diameter from injection site (four directions) to locate any area of induration (hard raised density) and to differentiate induration from muscular soft swelling.
- Use zigzag feather-like touch over the area of induration to outline the margins of induration. If the injection site is near a muscle margin, do not confuse the muscle margin with a margin of induration. Mentally note the provisional location of the margin points at either side of the widest area of induration transverse to the long axis of the forearm (Figure 4-2).
- Repeat the palpation method with forearm bent 45° at elbow to determine effect of position on the margin points (Figure 4-2).
- Hold palm over injection site with fingers transverse to the long axis of the forearm (see Figure 4-3).
- Move fingertips lightly on skin toward injection site.
- Maintain the arm in the position at which the margins are most clearly palpable in order to mark them. Once more, locate the position of margin points at either side of the widest area of induration transverse to the long axis of the forearm and proceed to marking.

**Mark the Margin Points at Either Side of the Widest Area of Induration Transverse to the Long Axis of the Forearm (Figures 4-3 and 4-5)**

- Palpate with forearm bent 90° at elbow.
- If the palpation revealed that the margin bordering one side of the induration was more definite than that on the other side, begin the marking procedure on that side.
- Without lifting finger, pull fingertip tight against the margin bordering the area of induration on one side before marking (fingertip remains in contact with skin at all times) (see Figure 4-3).
- Place single dot on skin at margin point (Figure 4-3 shown earlier).
- Repeat the procedure on the other side of the induration.
- If margin is indefinite on one side, follow the margin of induration around from the side on which it is more definite and place the second dot at the point across from the first dot located by this procedure.
- Inspect dots, repeat finger movement toward margins, and verify dot placement under adequate light by confirming that each dot is at the point where the fingertip meets the margin.
- Verification should confirm that dots are located where the distance between the points is the widest diameter between the margins of induration that is perpendicular to the arm length (Figure 4-4). This means that the two dots are across from one another and that an imaginary line drawn between the two dots would be at 90 degrees relative to the long axis of the forearm.
- Figures 4-4 and 4-5 (shown earlier) picture the correct and incorrect placement of dots defining the margins of induration.

**Measure: Placing and Measuring Skin Reactions with the Millimeter Ruler**

- Place the zero ruler line inside the left dot edge.
- Read ruler line inside right dot edge.
- If the measurement falls between two divisions on the millimeter scale, record the lower mark.
- Refer to Figures 4-6 and 4-7, shown earlier, for the correct and incorrect placement of the ruler for measuring hard density in the skin.

#### **4.3.2 Record Measurement on the TB Reader Application**

- Record millimeter measurement of skin reactions correctly.
- Record measurements between 0 and 86 millimeters as measured. Record measurements greater than 86 millimeters as 87+ millimeters. No reaction >86 millimeters is expected; if such a reaction is recorded, confirm that this is correct and complete an Adverse Reaction Form and email the form to Dr. Kathryn Porter on the same day.

#### **4.3.3 Inspect the Volar Surface of Each Forearm for Adverse Reactions**

- Note the presence or absence of other skin reactions such as vesiculation and bullae or ulceration and necrosis anywhere on the volar surface of the arm being examined. If any of these skin reactions are present anywhere on the volar surface, do not make a judgment about whether these are related to the skin test, but record their presence.
- Identify and record the presence or absence of vesiculations and/or bullae correctly. Vesiculation refers to small, fluid-filled, blister-like lesions. Bullae are similar to vesiculations but they are larger.
- Identify and record the presence or absence of ulceration and/or necrosis correctly. Ulceration refers to sloughing of damaged skin or a raw, open sore. Necrosis is the death of cells because of damage or disease.

Gently remove dots from forearm after measuring, using baby oil and gauze or cotton pad, or using eye makeup remover pad.

#### **4.4 Quality Control Measurement of Skin Reactions: (BIDRs)**

If performing BIDRs, complete the recording and remove marks from the arms before the additional reader enters the area for the reading. Previous readers should not remain in the reading area during a BIDR.

- Enter measurements and then select “Yes” to the QC question in order to obtain the blank QC screen before second reader comes into the area.
- Gently remove dots from forearm after measuring, using baby oil and gauze or cotton pad before the second reader comes into the area.

- Leave the area while the QC measurement of skin reactions takes place. Do not watch the second reading because nonverbal involuntary movements or facial expressions may bias the reading of the second reader.
- The second reader follows the procedure for reading noted above. A QC question also appears at the end of the second reader's readings. If there are no further readings, the second reader should select "No" to the QC question. If another reader is to perform a BIDR, the second reader should select "Yes."

#### **4.4.1 BIDRs by More Than Two Readers**

- Up to eight readers may record readings. This will allow BIDR comparisons between multiple pairs of readers (the first and second reader, the second and third reader, and the first and third reader, etc.).
- If an additional reading is to take place, the previous reader should complete his or her reading.
- The previous reader gently removes dots from forearm after measuring, using baby oil and gauze or cotton pad before the next reader comes into the area.
- Leave the area while the QC measurement of a skin reaction takes place. No previous reader should watch the next reader because nonverbal involuntary movements or facial expressions may bias the reading of the next reader.
- The next reader should follow the procedure for reading noted above. No QC question will appear after the eighth reader completes his or her readings. The report of findings prints after all readings are complete.

#### **4.5 Adverse Reaction Form**

If any skin reactions are present, complete an Adverse Reaction Form (Exhibit 4-1) while the SP is present.

Exhibit 4-1. Adverse Reaction Report

NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY

**TUBERCULOSIS (TB) SKIN TESTING  
ADVERSE REACTION REPORT**

<b>Sample Person (SP) Information</b>				
SP ID: _____ <i>Insert participant sample number.</i>				
<b>TB Skin Test (TST) Information</b>				
Date and Time of Administration:	_ _ - _ _ - _ _ _ _  MM DD YYYY	_ _  :  _ _  HR MIN	<input type="checkbox"/> AM <input type="checkbox"/> PM	
Date and Time of Reading:	_ _ - _ _ - _ _ _ _  MM DD YYYY	_ _  :  _ _  HR MIN	<input type="checkbox"/> AM <input type="checkbox"/> PM	
<b>TST Results</b>				
Arm:	Induration: _____ mm	Vesiculation/Bullae:	Ulceration/Necrosis:	Antigen
<input type="checkbox"/> Right <input type="checkbox"/> Left		<input type="checkbox"/> Present <input type="checkbox"/> Absent	<input type="checkbox"/> Present <input type="checkbox"/> Absent	<b>Tubersol</b>
<b>Report of Findings</b>				
TST result: <input type="checkbox"/> Positive <input type="checkbox"/> Negative		<b>Comments or descriptions of other adverse reactions:</b>		
<b>TST Reader</b>				
Tech ID: _____				

Expect a small percentage of minor adverse reactions with some TSTs, including those used in NHANES. These usually resolve within a few days. Record ulcerations, necrosis, vesications, or bullae on the ISIS computer screen. Report all adverse reactions quickly on the Adverse Reaction Form (Exhibit 4-8) so that Dr. Kathryn Porter has the necessary information if a SP with such a reaction calls her with a question, and email the form to her on the same day. Telephone Dr. Porter at (301) 458-4441 to let her know to expect the email. Record the SP's ID, the date and time, the nature of the reaction, and the arm on which the adverse reaction was noted.

#### **4.6 Report of Findings (ROF)**

After all readings are completed, provide the SP with the ROF. The TB Reader application generates this report automatically after the section status screen displays. For measurement of a skin reaction conducted in the home, the application indicates whether the result is positive or negative. The TB reader manually records this information on the ROF form.

Read the ROF to the SP. If the SP has questions about the measurement of the skin reaction or the ROF, attempt to answer the question by repeating the language of the ROF. If the SP is not satisfied, or if the SP has questions that cannot be answered by using the language of the ROF, refer the SP to Dr. Kathryn Porter at NCHS. Dr. Porter's telephone number is listed on the bottom of the ROF.

If the TST result is less than 10 mm, the SP receives a report indicating that, according to the skin test, he or she is not likely to have been infected with TB in the past, but the blood test for TB infection is still pending.

If the TST result is equal to or greater than 10 mm, the SP receives a report indicating that he or she may have been infected with TB at some time during the past, but that the blood test for TB infection is still pending, and further clinical evaluation is needed.


If the result is positive, the ROF will automatically include the referral to the local health department for further evaluation. Verify that the local health department address and phone number are included.

Confirm the result on the TB ROF against the computer-generated ROF at the start of each stand. Place the ROF in an envelope and hand it to the SP.

There are two versions of the TB ROF, one for children between the ages of 6 and 17 and one for adults, aged 18 years and older. The TB ROFs are shown in the following exhibits:

- Exhibit 4-2            Adult ROF: test is negative - English
- Exhibit 4-3            Adult ROF: test is positive - English
- Exhibit 4-4            Adult ROF: test is negative - Spanish
- Exhibit 4-5            Adult ROF: test is positive - Spanish
- Exhibit 4-6            Child ROF: test is negative - English
- Exhibit 4-7            Child ROF: test is positive - English
- Exhibit 4-8            Child ROF: test is negative - Spanish
- Exhibit 4-9            Child ROF: test is positive - Spanish

Exhibit 4-2. Adult ROF: test is negative – English



## National Health and Nutrition Examination Survey

### Preliminary Report of Findings

These measurements were obtained as part of a survey and do not represent a medical diagnosis. Interpretation of these measurements must be made by a physician.

Date of Examination:	12/27/2010
Participant Name:	Sienna N. Gonzalez
Participant Age at Interview:	42 years
Participant Age at Exam:	42 years
Participant Gender:	Female
SP ID:	784174

### Tuberculosis

Date skin test placed:	12/27/2010	Date skin test read:	12/30/2010
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Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.

The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.

Based on the skin readings, your test result for TB infection was negative (3.0 mm). This means that you probably have not been infected with TB.

If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.

English:	1-800-452-6115, press "2"	Chinese:	1-866-887-7996, press "1"
Spanish:	1-800-452-6115, press "3"	Korean:	1-866-887-7996, press "2"
		Vietnamese:	1-866-887-7996, press "3"




Sienna N. Gonzalez, 42 years, Female, 784174, 12/27/2010  
Centers for Disease Control and Prevention, NCHS 3311 Toledo Road, Room 4323, Hyattsville, Maryland 20782

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Exhibit 4-3. Adult ROF: test is positive – English



## National Health and Nutrition Examination Survey

### Preliminary Report of Findings

These measurements were obtained as part of a survey and do not represent a medical diagnosis. Interpretation of these measurements must be made by a physician.

<b>Date of Examination:</b>	12/27/2010
<b>Participant Name:</b>	Micah S. Smith
<b>Participant Age at Interview:</b>	47 years
<b>Participant Age at Exam:</b>	47 years
<b>Participant Gender:</b>	Male
<b>SP ID:</b>	861215

### Tuberculosis

Date skin test placed:	12/27/2010	Date skin test read:	12/30/2010
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Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.


The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.

Based on the skin readings, your test result for TB infection was positive (44.0 mm). This means that it is possible that you were infected with tuberculosis at some time during your life. Most people infected with tuberculosis never develop active TB disease. People who are infected but do not have active disease cannot spread TB to anyone else. If no one has told you before that you may have been infected with TB, we strongly recommend you take this report to your doctor or to the local health department as soon as you can. Your doctor or the health department may want to do another test to see if you need medicine to prevent active TB disease. The address and contact phone number for further evaluation at your local health department is:

County Health Department 78514 Rockledge Dr Suite 340-A Goldville, AL 20452-1252	451-250-1812 ext. 12315 451-587-4482 ext. 12400 800-888-2200
---	--

If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.

English: 1-800-452-6115, press "2"	Chinese: 1-866-887-7996, press "1"	
Spanish: 1-800-452-6115, press "3"	Korean: 1-866-887-7996, press "2"	
	Vietnamese: 1-866-887-7996, press "3"	




Micah S. Smith, 47 years, Male, 861215, 12/27/2010

Centers for Disease Control and Prevention, NCHS 3311 Toledo Road, Room 4323, Hyattsville, Maryland 20782

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Exhibit 4-4. Adult ROF: test is negative – Spanish



## Encuesta Nacional de Examen de Salud y Nutrición

### Informe Preliminar de Resultados

Estas mediciones se obtuvieron como parte de una encuesta y no representan un diagnóstico médico. La interpretación de estas mediciones debe hacerla un médico.

<b>Fecha del examen:</b>	12/27/2010
<b>Nombre del participante:</b>	Sienna N. Gonzalez
<b>Edad del participante al momento de la entrevista:</b>	42 Años
<b>Edad del participante al momento del examen:</b>	42 Años
<b>Género del participante:</b>	Mujer
<b>Número de identificación de SP:</b>	784174

<b>Fecha en la cual se tomó la prueba en la piel:</b>	12/27/2010	<b>Fecha en la cual se leyó la prueba en la piel:</b>	12/30/2010
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Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.

Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.

Basado en las lecturas de la prueba en la piel, el resultado de su prueba de tuberculosis fue negativo (3.0 mm). Esto significa que usted probablemente no ha estado infectado(a) con tuberculosis.

Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.

Inglés:	1-800-452-6115, oprima *2*	Chino:	1-866-887-7996, oprima *1*
Español:	1-800-452-6115, oprima *3*	Coreano:	1-866-887-7996, oprima *2*
		Vietnamita:	1-866-887-7996, oprima *3*




Sienna N. Gonzalez, 42 Años, Mujer, 784174, 12/27/2010

Centros para el Control y la Prevención de Enfermedades, NCHS 3311 Toledo Road, Hyattsville, Maryland 20782

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Exhibit 4-5. Adult ROF: test is positive – Spanish



## Encuesta Nacional de Examen de Salud y Nutrición

### Informe Preliminar de Resultados

Estas mediciones se obtuvieron como parte de una encuesta y no representan un diagnóstico médico. La interpretación de estas mediciones debe hacerla un médico.

<b>Fecha del examen:</b>	12/27/2010
<b>Nombre del participante:</b>	Micah S. Smith
<b>Edad del participante al momento de la entrevista:</b>	47 Años
<b>Edad del participante al momento del examen:</b>	47 Años
<b>Género del participante:</b>	Hombre
<b>Número de identificación de SP:</b>	861215

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<b>Fecha en la cual se tomó la prueba en la piel:</b>	12/27/2010	<b>Fecha en la cual se leyó la prueba en la piel:</b>	12/30/2010
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Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.


Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.

Basado en las lecturas de la prueba en la piel, el resultado de su prueba de tuberculosis fue positivo (44.0 mm). Esto significa que es posible que usted estuvo infectado(a) con tuberculosis en algún momento de su vida. La mayoría de las personas infectadas con tuberculosis nunca presentan la enfermedad activa de tuberculosis. Las personas que están infectadas, pero no tienen la enfermedad activa, no pueden contagiar a nadie con tuberculosis. Si nadie le ha dicho antes que usted puede estar infectado(a) con tuberculosis, le recomendamos enfáticamente que le lleve este informe a su médico o al Departamento de Salud local tan pronto como pueda. Es posible que su médico o el Departamento de Salud le quieran hacer otra prueba para ver si usted necesita medicinas para prevenir la enfermedad activa de tuberculosis. La dirección y el número de teléfono para evaluación adicional en su Departamento de Salud local es:

County Health Department 78514 Rockledge Dr Suite 340-A Goldville, AL 20452-1252	451-250-1812 ext. 12315 451-587-4482 ext. 12400 800-888-2200
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Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes entre las 8:30 de la mañana y las 6:00 de la tarde, hora de Este.

Inglés:	1-800-452-8115, oprima "2"	Chino:	1-866-887-7996, oprima "1"
Español:	1-800-452-8115, oprima "3"	Coreano:	1-866-887-7996, oprima "2"
		Vietnamita:	1-866-887-7996, oprima "3"

 Micah S. Smith, 47 Años, Hombre, 861215, 12/27/2010  
Centros para el Control y la Prevención de Enfermedades, NCHS 3311 Toledo Road, Hyattsville, Maryland 20782

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Exhibit 4-6. Child ROF: test is negative – English



## National Health and Nutrition Examination Survey

### Preliminary Report of Findings

These measurements were obtained as part of a survey and do not represent a medical diagnosis. Interpretation of these measurements must be made by a physician.

<b>Date of Examination:</b>	12/27/2010
<b>Participant Name:</b>	Landon J. Moore
<b>Participant Age at Interview:</b>	15 years
<b>Participant Age at Exam:</b>	15 years
<b>Participant Gender:</b>	Male
<b>SP ID:</b>	256339

**Tuberculosis**

Date skin test placed:	12/27/2010	Date skin test read:	12/29/2010
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Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.

The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.

Based on the skin readings, your child's test for TB was negative (2.0 mm). This means your child probably has not been infected with tuberculosis.

If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 8:00 PM Eastern Time, Monday through Friday.

English:	1-800-452-6115, press "2"	Chinese:	1-866-887-7996, press "1"
Spanish:	1-800-452-6115, press "3"	Korean:	1-866-887-7996, press "2"
		Vietnamese:	1-866-887-7996, press "3"




Landon J. Moore, 15 years, Male, 256339, 12/27/2010

Centers for Disease Control and Prevention, NCHS 3311 Toledo Road, Room 4323, Hyattsville, Maryland 20782

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Exhibit 4-7. Child ROF: test is positive – English



## National Health and Nutrition Examination Survey

### Preliminary Report of Findings

These measurements were obtained as part of a survey and do not represent a medical diagnosis. Interpretation of these measurements must be made by a physician.

<b>Date of Examination:</b>	12/27/2010
<b>Participant Name:</b>	Aaliyah H. Powell
<b>Participant Age at Interview:</b>	11 years
<b>Participant Age at Exam:</b>	11 years
<b>Participant Gender:</b>	Female
<b>SP ID:</b>	545182

**Tuberculosis**

Date skin test placed:	12/27/2010	Date skin test read:	12/30/2010
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Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.


The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.

Based on the skin readings, your child's test for TB was positive (> 86 mm). This means that it is possible your child was infected with tuberculosis at some time in his/her life. Most people infected with tuberculosis never develop active TB disease. People who are infected but do not have active disease cannot spread tuberculosis to anyone else. If no one has told you before that your child may have been infected with TB, we strongly recommend you take this report to your child's doctor or local health department as soon as you can. Your doctor or the health department may want to do another skin test and an examination to see if your child needs medicine to prevent active TB disease. The address and phone number for further evaluation at your local health department is:

County Health Department	451-250-1812 ext. 12315
78514 Rockledge Dr	451-587-4482 ext. 12400
Suite 340-A	800-888-2200
Goldville, AL 20452-1252	

If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.

English: 1-800-452-6115, press "2"	Chinese: 1-866-887-7996, press "1"	
Spanish: 1-800-452-6115, press "3"	Korean: 1-866-887-7996, press "2"	
	Vietnamese: 1-866-887-7996, press "3"	




Aaliyah H. Powell, 11 years, Female, 545182, 12/27/2010

Centers for Disease Control and Prevention, NCHS 3311 Toledo Road, Room 4323, Hyattsville, Maryland 20782

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Exhibit 4-8. Child ROF: test is negative – Spanish



## Encuesta Nacional de Examen de Salud y Nutrición

### Informe Preliminar de Resultados

Estas mediciones se obtuvieron como parte de una encuesta y no representan un diagnóstico médico. La interpretación de estas mediciones debe hacerla un médico.

<b>Fecha del examen:</b>	12/27/2010
<b>Nombre del participante:</b>	Landon J. Moore
<b>Edad del participante al momento de la entrevista:</b>	15 Años
<b>Edad del participante al momento del examen:</b>	15 Años
<b>Género del participante:</b>	Hombre
<b>Número de identificación de SP:</b>	256339

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<b>Fecha en la cual se tomó la prueba en la piel:</b>	12/27/2010	<b>Fecha en la cual se leyó la prueba en la piel:</b>	12/29/2010
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Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.

Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.

Basado en las lecturas de la prueba en la piel, el resultado de la prueba de tuberculosis de su niño(a) fue negativo (2.0 mm). Esto significa que su niño(a) probablemente no ha estado infectado con tuberculosis.

Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.

Inglés:	1-800-452-6115, oprima "2"	Chino:	1-866-887-7996, oprima "1"
Español:	1-800-452-6115, oprima "3"	Coreano:	1-866-887-7996, oprima "2"
		Vietnamita:	1-866-887-7996, oprima "3"




Landon J. Moore, 15 Años, Hombre, 256339, 12/27/2010

Centros para el Control y la Prevención de Enfermedades, NCHS 3311 Toledo Road, Hyattsville, Maryland 20782

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Exhibit 4-9. Child ROF: test is Positive – Spanish



## Encuesta Nacional de Examen de Salud y Nutrición

### Informe Preliminar de Resultados

Estas mediciones se obtuvieron como parte de una encuesta y no representan un diagnóstico médico. La interpretación de estas mediciones debe hacerla un médico.

<b>Fecha del examen:</b>	12/27/2010
<b>Nombre del participante:</b>	Aaliyah H. Powell
<b>Edad del participante al momento de la entrevista:</b>	11 Años
<b>Edad del participante al momento del examen:</b>	11 Años
<b>Género del participante:</b>	Mujer
<b>Número de identificación de SP:</b>	545182

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<b>Fecha en la cual se tomó la prueba en la piel:</b>	12/27/2010	<b>Fecha en la cual se leyó la prueba en la piel:</b>	12/30/2010
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Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.


Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.

Basado en las lecturas de la prueba en la piel, el resultado de la prueba de tuberculosis de su niño(a) fue positivo ( $\geq 86$  mm). Esto significa que es posible que su niño(a) estuvo infectado(a) con tuberculosis en algún momento de su vida. La mayoría de las personas infectadas con tuberculosis nunca presentan la enfermedad activa de tuberculosis. Las personas que están infectadas, pero no tienen la enfermedad activa, no pueden contagiar a nadie con tuberculosis. Le recomendamos enfáticamente que le lleve este informe al médico de su niño(a) o al Departamento de Salud local tan pronto como pueda. Es posible que el médico de su niño(a) o el Departamento de Salud quieran hacer un examen para ver si su niño(a) necesita medicinas para prevenir la enfermedad activa de tuberculosis. La dirección y número de teléfono para evaluación adicional en su Departamento de Salud local es:

County Health Department 78514 Rockledge Dr Suite 340-A Goldville, AL 20452-1252	451-250-1812 ext. 12315 451-587-4482 ext. 12400 800-888-2200
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Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes entre las 8:30 de la mañana y las 6:00 de la tarde, hora de Este.

Inglés:	1-800-452-8115, oprima "2"	Chino:	1-866-887-7996, oprima "1"
Español:	1-800-452-8115, oprima "3"	Coreano:	1-866-887-7996, oprima "2"
		Vietnamita:	1-866-887-7996, oprima "3"



Aaliyah H. Powell, 11 Años, Mujer, 545182, 12/27/2010  
Centros para el Control y la Prevención de Enfermedades, NCHS 3311 Toledo Road, Hyattsville, Maryland 20782

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Transfer the reading from the TB Reader screen to the Home Visit Tuberculosis Test Report of Findings form. If the value is 85 or less, write the value in the space on the form. If the value is greater than 86, write “greater than 86” in the space. Place a checkmark in the appropriate Negative or Positive check box.

If the ROF indicates that the test result is negative, explain that, although this test is negative, a blood test is still pending. If either the skin or blood test is positive, then the SP should visit his or her physician or the local health department. If the test result is positive, explain that it is possible the person was infected with the bacteria that cause TB but that clinical evaluation is needed. The ROF recommends that if the person has not previously had a positive skin test, he or she should report these findings indicating possible infection to the physician so that a clinical evaluation can be performed. The ROF also provides the name, address, and telephone number of the local health department where evaluation can be performed in case the SP does not have or does not wish to use a private source of medical care. Reassure the SP that infected individuals without active TB are not infectious to others, and that infection with TB bacteria does not mean the SP “has TB.” However, some infected people need treatment to prevent TB and that is why a clinical evaluation is important. Place the report in an envelope and hand it to the SP. If the SP wishes to discuss the findings further, refer him or her to Dr. Kathryn Porter at the telephone number on the bottom of the ROF.

Again, if the SP has questions about the TB skin test that was performed, or about the ROF, repeat the text displayed in the ROF and refer the SP to Dr. Kathryn Porter at NCHS if the text does not answer the question. Dr. Porter’s telephone number is listed on the bottom of the ROF.

In SP homes, the TB reader transfers the test result to the Home Visit Tuberculosis Test Report of Findings form and provides the SP with this copy of the ROF. For positive results, provide the additional document that contains the address and contact phone number for the local health department.

There are four versions of the form: Home Visit Tuberculosis Test Report of Findings – Adult (Exhibit 4-10) test is negative; Home Visit Tuberculosis Test Report of Findings – Adult test is positive (Exhibit 4-11); Home Visit Tuberculosis Test Report of Findings – Child (Exhibit 4-12) test is negative; and Home Visit Tuberculosis Test Report of Findings – Child test is positive (Exhibit 4-13). There are four Spanish versions of these same documents (Exhibits 4-14 through 4-17).



- Exhibit 4-10. Home Visit Tuberculosis Test Report of Findings – Adult: test is negative – English
- Exhibit 4-11. Home Visit Tuberculosis Test Report of Findings – Adult: test is positive – English
- Exhibit 4-12. Home Visit Tuberculosis Test Report of Findings – Child: test is negative – English
- Exhibit 4-13. Home Visit Tuberculosis Test Report of Findings – Child: test is positive – English
- Exhibit 4-14. Home Visit Tuberculosis Test Report of Findings – Adult: test is negative – Spanish
- Exhibit 4-15. Home Visit Tuberculosis Test Report of Findings – Adult: test is positive – Spanish
- Exhibit 4-16. Home Visit Tuberculosis Test Report of Findings – Child: test is negative – Spanish
- Exhibit 4-17. Home Visit Tuberculosis Test Report of Findings – Child: test is positive – Spanish

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT NEGATIVE**

Participant Name: _____	Sample Number: _____						
Date skin test placed: _____ MM/DD/YYYY	Date skin test read: _____ MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Negative</b></p> <p>Based on the skin readings, your test result for TB infection was negative (____ mm). This means that you probably have not been infected with TB.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table> <tr> <td>English: 1-800-452-6115, press “2”</td> <td>Chinese: 1-866-887-7996, press “1”</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press “3”</td> <td>Korean: 1-866-887-7996, press “2”</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press “3”</td> </tr> </table>		English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”	Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”		Vietnamese: 1-866-887-7996, press “3”
English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”						
Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”						
	Vietnamese: 1-866-887-7996, press “3”						

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT POSITIVE**

Participant Name: _____	Sample Number: _____						
Date skin test placed: _____ MM/DD/YYYY	Date skin test read: _____ MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Positive</b></p> <p>Based on the skin readings, your test result for TB infection was positive (_____ mm). This means that it is possible that you were infected with tuberculosis at some time during your life. Most people infected with tuberculosis never develop active TB disease. People who are infected but do not have active disease cannot spread TB to anyone else. If no one has told you before that you may have been infected with TB, we strongly recommend you take this report to your doctor or to the local health department as soon as you can. Your doctor or the health department may want to do another test to see if you need medicine to prevent active TB disease. The address and contact phone number for further evaluation at your local health department is provided separately.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table> <tr> <td>English: 1-800-452-6115, press “2”</td> <td>Chinese: 1-866-887-7996, press “1”</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press “3”</td> <td>Korean: 1-866-887-7996, press “2”</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press “3”</td> </tr> </table>		English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”	Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”		Vietnamese: 1-866-887-7996, press “3”
English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”						
Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”						
	Vietnamese: 1-866-887-7996, press “3”						
<p>The NHANES survey is a research study. Because no risk factor information was available at the time of the reading, a result of 10 mm or more of induration was considered positive.</p>							

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – CHILD NEGATIVE**

Participant Name: _____	Sample Number: _____						
Date skin test placed: _____ MM/DD/YYYY	Date skin test read: _____ MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your child’s blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If your child’s blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Negative</b></p> <p>Based on the skin test readings, your child’s result for TB infection was negative (____ mm). This means your child probably has not been infected with TB.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table> <tr> <td>English: 1-800-452-6115, press “2”</td> <td>Chinese: 1-866-887-7996, press “1”</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press “3”</td> <td>Korean: 1-866-887-7996, press “2”</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press “3”</td> </tr> </table>		English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”	Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”		Vietnamese: 1-866-887-7996, press “3”
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Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”						
	Vietnamese: 1-866-887-7996, press “3”						

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS - CHILD**

Participant Name: _____	Sample Number: _____						
Date skin test placed: _____ MM/DD/YYYY	Date skin test read: _____ MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Positive</b></p> <p>Based on the skin readings, your child’s test for TB was positive (____ mm). This means that it is possible your child was infected with tuberculosis at some time in his/her life. Most people infected with tuberculosis never develop active TB disease. People who are infected but do not have active disease cannot spread tuberculosis to anyone else. If no one has told you before that your child may have been infected with TB, we strongly recommend you take this report to your child’s doctor or local health department as soon as you can. Your doctor or the health department may want to do another skin test and an examination to see if your child needs medicine to prevent active TB disease. The address and contact phone number for further evaluation at your local health department is provided separately.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table> <tr> <td>English: 1-800-452-6115, press “2”</td> <td>Chinese: 1-866-887-7996, press “1”</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press “3”</td> <td>Korean: 1-866-887-7996, press “2”</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press “3”</td> </tr> </table>		English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”	Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”		Vietnamese: 1-866-887-7996, press “3”
English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”						
Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”						
	Vietnamese: 1-866-887-7996, press “3”						
<p>The NHANES survey is a research study. Because no risk factor information was available at the time of the reading, a result of 10 mm or more of induration was considered positive.</p>							

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT NEGATIVE**

Nombre del participante: _____	Número de la muestra: _____
Fecha en la cual se tomó la prueba en la piel:  _____	Fecha en la cual se leyó la prueba en la piel:  _____
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.</p> <p>Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.</p>	
<p><input type="checkbox"/> <b>Negativo</b></p> <p>Basado en las lecturas de la prueba en la piel, el resultado de su prueba de tuberculosis fue negativo (____ mm). Esto significa que usted probablemente no ha estado infectado(a) con tuberculosis.</p>	
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p> <p>Inglés: 1-800-452-6115, oprima “2” Chino: 1-866-887-7996, oprima “1” Español: 1-800-452-6115, oprima “3” Coreano: 1-866-887-7996, oprima “2” Vietnamita: 1-866-887-7996, oprima “3”</p>	

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT POSITIVE**

Nombre del participante: _____	Número de la muestra: _____
Fecha en la cual se tomó la prueba en la piel:  _____	Fecha en la cual se leyó la prueba en la piel:  _____
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.</p> <p>Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.</p>	
<p><input type="checkbox"/> <b>Positivo</b></p> <p>Basado en las lecturas de la prueba en la piel, el resultado de su prueba de tuberculosis fue positivo (____ mm). Esto significa que es posible que usted estuvo infectado(a) con tuberculosis en algún momento de su vida. La mayoría de las personas infectadas con tuberculosis nunca presentan la enfermedad activa de tuberculosis. Las personas que están infectadas, pero no tienen la enfermedad activa, no pueden contagiar a nadie con tuberculosis. Si nadie le ha dicho antes que usted puede estar infectado(a) con tuberculosis, le recomendamos enfáticamente que le lleve este informe a su médico o al Departamento de Salud local tan pronto como pueda. Es posible que su médico o el Departamento de Salud le quieran hacer otra prueba para ver si usted necesita medicinas para prevenir la enfermedad activa de tuberculosis. La dirección y número de teléfono para evaluación adicional en su Departamento de Salud local se proporcionan por separado.</p>	
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p> <p>Inglés: 1-800-452-6115, oprima “2” Chino: 1-866-887-7996, oprima “1” Español: 1-800-452-6115, oprima “3” Coreano: 1-866-887-7996, oprima “2” Vietnamita: 1-866-887-7996, oprima “3”</p>	
<p>La encuesta NHANES es un estudio de investigación. Dado que no había información disponible sobre el factor de riesgo al momento de determinar el resultado, un resultado de 10 mm o más de endurecimiento se consideró positivo.</p>	

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – CHILD NEGATIVE**

Nombre del participante: _____	Número de la muestra: _____
Fecha en la cual se tomó la prueba en la piel:  _____	Fecha en la cual se leyó la prueba en la piel:  _____
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. A continuación están los resultados de la prueba en la piel.</p> <p>Los resultados de la prueba de sangre de su niño(a) se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre de tuberculosis de su niño(a) es positivo, le notificaremos inmediatamente.</p>	
<p><input type="checkbox"/> <b>Negativo</b></p> <p>Basado en las lecturas de la prueba en la piel, el resultado de la prueba de tuberculosis de su niño(a) fue negativo (____ mm). Esto significa que su niño(a) probablemente no ha estado infectado con tuberculosis.</p>	
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p> <p>Inglés: 1-800-452-6115, oprima “2” Chino: 1-866-887-7996, oprima “1” Español: 1-800-452-6115, oprima “3” Coreano: 1-866-887-7996, oprima “2” Vietnamita: 1-866-887-7996, oprima “3”</p>	



**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – CHILD POSITIVE**

Nombre del participante: _____	Número de la muestra: _____
Fecha en la cual se tomó la prueba en la piel:  _____	Fecha en la cual se leyó la prueba en la piel:  _____
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. A continuación están los resultados de la prueba en la piel.</p> <p>Los resultados de la prueba de sangre de su niño(a) se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre de tuberculosis de su niño(a) es positivo, le notificaremos inmediatamente.</p>	
<p><input type="checkbox"/> <b>Positivo</b></p> <p>Basado en las lecturas de la prueba en la piel, el resultado de la prueba de tuberculosis de su niño(a) fue positivo (____ mm). Esto significa que es posible que su niño(a) estuvo infectado(a) con tuberculosis en algún momento de su vida. La mayoría de las personas infectadas con tuberculosis nunca presentan la enfermedad activa de tuberculosis. Las personas que están infectadas, pero no tienen la enfermedad activa, no pueden contagiar a nadie con tuberculosis. Le recomendamos enfáticamente que le lleve este informe al médico de su niño(a) o al Departamento de Salud local tan pronto como pueda. Es posible que el médico de su niño(a) o el Departamento de Salud quieran hacer un examen para ver si su niño(a) necesita medicinas para prevenir la enfermedad activa de tuberculosis. La dirección y número de teléfono para evaluación adicional en su Departamento de Salud local se proporcionan por separado.</p>	
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p> <p>Inglés: 1-800-452-6115, oprima “2” Chino: 1-866-887-7996, oprima “1” Español: 1-800-452-6115, oprima “3” Coreano: 1-866-887-7996, oprima “2” Vietnamita: 1-866-887-7996, oprima “3”</p>	
<p>La encuesta NHANES es un estudio de investigación. Dado que no había información disponible sobre el factor de riesgo al momento de determinar el resultado, un resultado de 10 mm o más de endurecimiento se consideró positivo.</p>	

#### **4.7 Remuneration**

Pay a base remuneration of \$40.00 for SPs who return to the field office or the staff hotel (after the stand closes) within the 46- to 76-hour window to have the test measurement taken. If the TB reader travels to the SP to take the measurement, or if test measurement is taken someplace other than the field office or the staff hotel, then pay the SP \$15.00.

#### **Transportation**

Examinees either provide their own transportation or take a cab provided by the survey staff. SPs are encouraged to provide their own transportation, if possible, and they will receive an additional transportation incentive if they do. The transportation incentive amount is calculated based on the stand and segment in which the SP lives and the amounts are predetermined by the field office staff. The segment transportation incentive amounts are determined at the start of each stand and will be provided to the TB readers when they arrive at the stand.

One payment is made for all SPs from a household who travel together to the field office or hotel. If a SP from the household comes to the appointment at a different time or at the same time but in a different vehicle, then an additional allowance can be paid.

For transportation by taxi, the field office attempts to arrange a voucher system to pay for cab fare. Under this arrangement, the taxi company provides vouchers that the TB Reader can use for the cab drivers when they drop off or pick up SPs. The field office or the taxi company provides the required number of vouchers on a daily basis, depending on the arrangement with the local taxi company. Less frequently, the taxi company requires a cash payment for transporting examinees. The TB reader must obtain a manual receipt from the taxi driver each time a cash payment is made for a fare. Ask the taxi to wait for the SP since the reading will usually take less than 15 minutes (longer if induration is present, or if supervised or blinded readings are being performed).

**Child Care/Adult Care**

Reimburse SPs who must hire a sitter to care for children, elderly, or handicapped persons in order to keep their TB skin test appointment. In addition, if a person is frail, ill, or handicapped and therefore needs help getting to the appointment, this “helper” can be paid. Pay for these services only if they are provided by a person not related to the SP. The fee for this service is \$5.25 an hour. Reimburse for the number of hours required.

For completed readings, complete a TB Receipt Calculation and Signature Form as the receipt (Exhibit 4-18.)

Exhibit 4-18. TB Receipt Calculation and Signature Form

<b>TB Receipt Calculation and Signature Form ¶</b>	
<b>Print Name</b> _____	¶
<b>Date</b> _____	¶
<b>Segment Number</b> _____	¶
<b>Base Remuneration</b> ⌘	⌘
<b>Transportation</b> ⌘	⌘
<b>Adult/Child Care</b> ⌘	⌘
<b>Total</b> ⌘	⌘
¶	
<b>Signature</b> _____	<b>Amount Received \$</b> _____ ¶

Ask the SP to sign the receipt indicating that he or she has received the cash payment. If the SP is between the ages of 6 and 17, the parent or adult accompanying the child to the field office signs the receipt. If an unaccompanied child age 12-17 arrives at the field office, the child can sign the receipt but another field office staff member also signs as a witness.

#### **4.7.1 Petty Cash**

The office manager (OM) provides the TB readers with the amount of cash required for the day's scheduled appointments and additional funds for unscheduled readings and readings performed in SP's homes. The TB readers reconcile the petty cash account with the OM weekly or when requested by the OM. The cash remaining in the TB petty cash fund, plus the value of the signed receipts, must equal the amount of cash advanced by the OM.

#### **4.8 Reports in the FFMS**

##### **4.8.1 Report of SPs with Scheduled Appointments – NOT YET AVAILABLE**

The report of SPs with scheduled appointments allows the TB readers to view all currently scheduled TB appointments. The report lists the SP's name, SP ID, address, telephone number, date, time that the antigen was administered, and a time range for reading the TB skin test result. The report also includes any comments entered by the MEC examination staff indicating where the SP requested that the TB skin tests be read (FO or home). Filters built into the report system allow the TB readers to select a range of dates and reading locations. The TB readers use the Report of SPs with Scheduled Appointments when making reminder telephone calls and as a schedule of the day's appointments.

##### **4.8.2 Report of SPs without Scheduled Appointments – NOT YET AVAILABLE**

This report lists all SPs who had the antigen administered but for whom no reading appointment exists. The report lists the SP's name, SP ID, address, telephone number, date and time antigens were administered, and a time range for reading the TB skin test results. The report also indicates the type of transportation arrangements made for the MEC appointment (self or taxi), and includes any

comments entered by the MEC examination staff indicating where the SP requested that the TB skin tests be read (FO or home).

#### **4.9 Refusal Conversion Phone Calls**

If a SP does not show up for field office scheduled appointment, attempt to reschedule the TB reading. TB skin test reading must occur between 46 and 76 hours after placement of the TST. The TB readers attempt to reschedule missed appointments for the earliest available appointment slot acceptable to the SP in the SP's home, but the reading must occur no later than 76 hours after administration of the antigen. The reader should prioritize missed appointments and attempt first to reschedule those SPs with the shortest time period left before the 76-hour cutoff ends. If the SP is offered a TB reading in the home and refuses, attempt an unannounced home visit if time permits before finally coding the reading as "Refused."

##### **4.9.1 Nonresponse Follow-up of SPs Who Miss a Scheduled TB Reading**

TB readers conduct unannounced home visits as time permits. These visits are primarily designed to increase the response rate for this component. Attempt to make one unannounced home visit for each SP who fails to show for a scheduled appointment; however, conduct home readings less than 75 hours after placement of the TST. Prioritize unannounced home visits so that visits are made first to SPs with the shortest time left before the 76-hour cutoff ends. If a home visit is attempted and no one is contacted, leave a reminder card at the home requesting that the SP call the field office to reschedule the appointment. Use the TB Skin Test Home Reminder Card for this purpose. Refer to Exhibit 4-19 and 4-20 for an illustration of the Home Visit Reminder Card in English and Spanish. This card is printed with English on one side and Spanish on the other.

Exhibit 4-19. Home Visit Reminder Card - English



<b>SKIN TEST READING</b>	I stopped by your home today to read your skin test.
Reminder	I am sorry that I missed you.
	Please call us at the number listed on the bottom of this card no later than:
	<hr/> <small>Date</small>
<small>44752 12/01/07 80590001014</small>	so we can make arrangements to meet with you.
	<hr/> <small>Our Local Office</small>
	National Health and Nutrition Examination Survey (NHANES)

Exhibit 4-20. Home Visit Reminder Card – Spanish



**OBSERVACIÓN DE LA PIEL**

Nota recordatoria

Hoy pasé por su casa para observar su piel y determinar los resultados de su prueba de tuberculosis.

Lamento no haberle encontrado.


Por favor llámenos al número anotado al final de esta tarjeta, no más tarde de:

Fecha \_\_\_\_\_

para poder programar una cita con usted.

Nuestra oficina local \_\_\_\_\_

Encuesta Nacional de Examen de Salud y Nutrición (NHANES, por sus siglas en inglés)



01752 11250 8000001104

#### 4.10 Reading TST Results after the Stand Closes

MEC examination staff place TB skin test antigen through the last MEC exam day at all stands. TB readers remain at each stand up to 3 days after the last examination session to measure skin reactions. The field office is not available during this period; therefore the measurement of tests placed on the last 2 to 3 days of the stand are read either in a designated room at the staff hotel or in the SP's home.

#### **4.10.1 End of Stand Procedures**

In most stands the field office closes immediately following the last MEC examination session. Confirm this date with the office manager. Complete the following tasks after the last MEC examination session:

1. Work with the home office supervisor to review appointments and work schedules.
2. Generate and review reports of reading appointments and SPs who received the skin test antigens but do not have scheduled appointments.
3. Obtain enough cash from the office manager (OM) for all scheduled and not scheduled appointments and transportation remuneration. The OM also provides a petty cash reconciliation form that is completed before the readers leave the stand.
4. Conduct an end of stand inventory.
5. Complete all TST readings.
6. Reconcile petty cash and obtain a cashier check for all remaining cash.
7. Send the cashier check and copies of documents, including printed reports, and the receipt book, to the home office supervisor.

Verify that each reader has sufficient supplies to complete all readings, including copies of ROF forms.

#### **4.10.2 Measurement of Skin Reaction after the Field Office Closes**

Once the field office closes, readers make reminder telephone calls from their hotel rooms and measure skin test reactions in SP homes and the designated room in the hotel. It is anticipated that the number of readings scheduled during this period will be relatively small. The TB readers should accompany each other whenever possible when conducting these end of stand readings, and should conduct BIDRs when possible.

The home office supervisor provides the readers with the date and time they may leave the stand to travel to the next stand. If all work is completed before this time, the TB readers may leave the stand after notifying their home office supervisor.



### **4.10.3 Tasks Completed before Leaving a Stand**

Before leaving a stand, the TB readers complete all readings and then contact the home office supervisor to notify him or her that TB readings at the stand have been completed. Do not leave any paperwork with confidential information at the stand. Send it to the home office so it can be shredded.

Return the following items in a FedEx box to the home office supervisor before leaving the stand:

1. Money order for any unspent remuneration funds. Attach the money order to the petty cash reconciliation form. Copies of any signed receipts are also attached to the form. The value of the money order added to the value of the signed receipts should equal the petty cash advanced to the TB readers;
2. The inventory sheet and copies of all other paperwork.; and
3. TB rulers.

Take the following items to the next stand:

1. Laptop
2. Printer
3. Calculator
4. Zippered money bag
5. Portable reader head lamp
6. TB reader cosmetic bag and supplies

### **4.11 Written Data Forms**

In the event that the TB Reading application is unavailable, use the TB Reading Form (Exhibit 4-21) to document the results and enter the information into the application as soon as it's available. Attempt to conduct BIDRs whenever possible. Complete a form for each type of reading and take care to note if it is the initial reading or a QC reading.

Exhibit 4-21. TB Reading Form

**TB READING FORM**

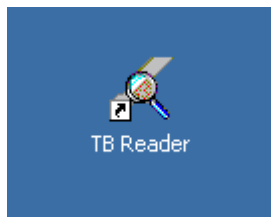
SP ID: _____	Name: _____ Last name, first name, middle name
Age: _____	Gender: _____
Date of Application: _____ MM/DD/YYYY	Time of Application: _____ XX hours XX minutes
Application Location: _____ Left arm or Right arm	
Current Date: _____ MM-DD-YYYY	Current Time: _____ HH:MM AM/PM
Is the number of hours since placement less than 76?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Technician Name: _____	Initial Reading <input type="checkbox"/> QC Reading <input type="checkbox"/>
Induration: _____ Whole number between 0 and 86	87+ mm <input type="checkbox"/> Refused <input type="checkbox"/> Could Not Obtain <input type="checkbox"/>
Vesiculation or Bullae:	Present <input type="checkbox"/> Absent <input type="checkbox"/> Could Not Obtain <input type="checkbox"/>
Ulceration or Necrosis:	Present <input type="checkbox"/> Absent <input type="checkbox"/> Could Not Obtain <input type="checkbox"/>

## 4.12 Entering Results in ISIS

ISIS provides data entry screens for entering the measurement of the skin test. Open the application, log on, and enter all results using the text boxes and drop-down lists on the screens. Once the Report of Findings (ROF) is displayed on the screen click print to actually print it. If the printer is not connected for some reason, for example a home reading, then transfer the data displayed on the screen to the appropriate Home Visit Tuberculosis Test Report of Findings form.

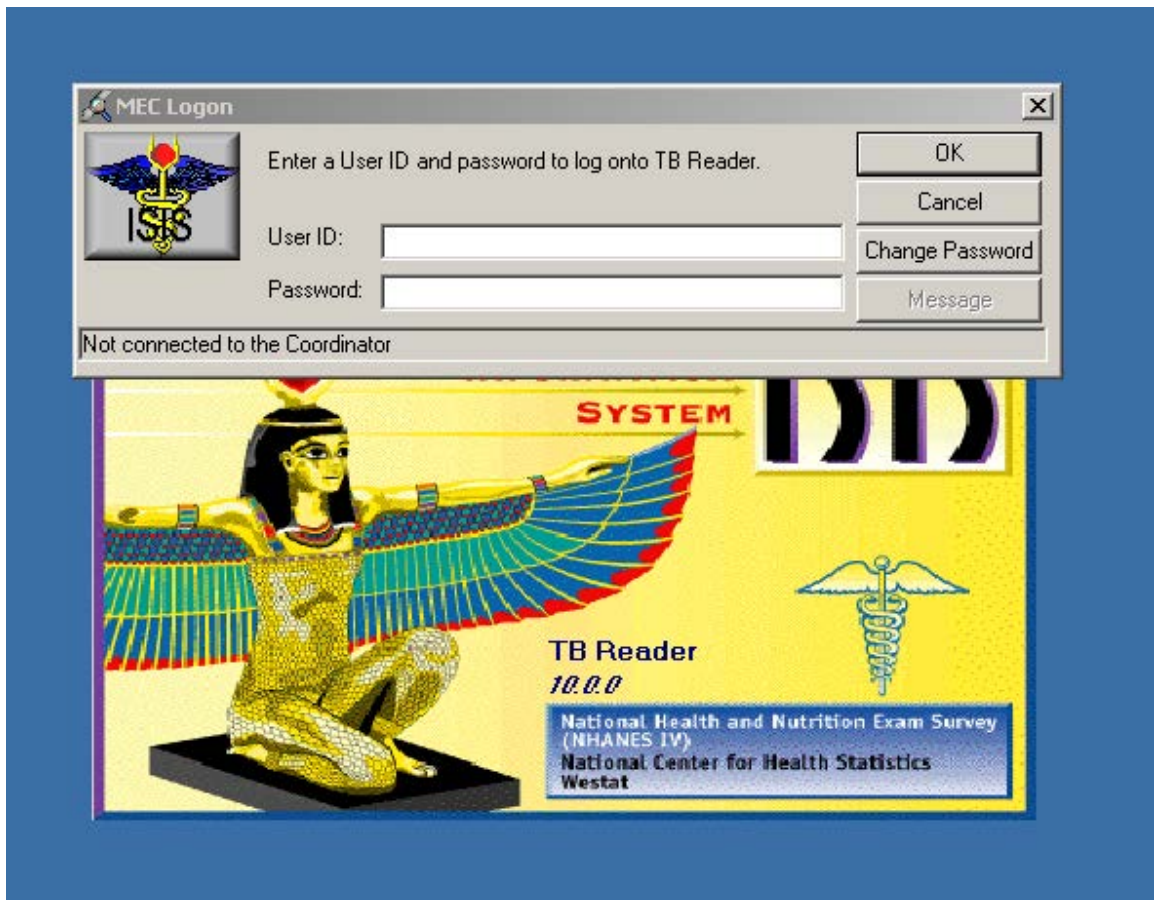
### 4.12.1 Begin the Exam and Logon

Open the TB Reader application. The application appears as an icon on the desktop.



To open or access the TB Reader application, double click on the icon.

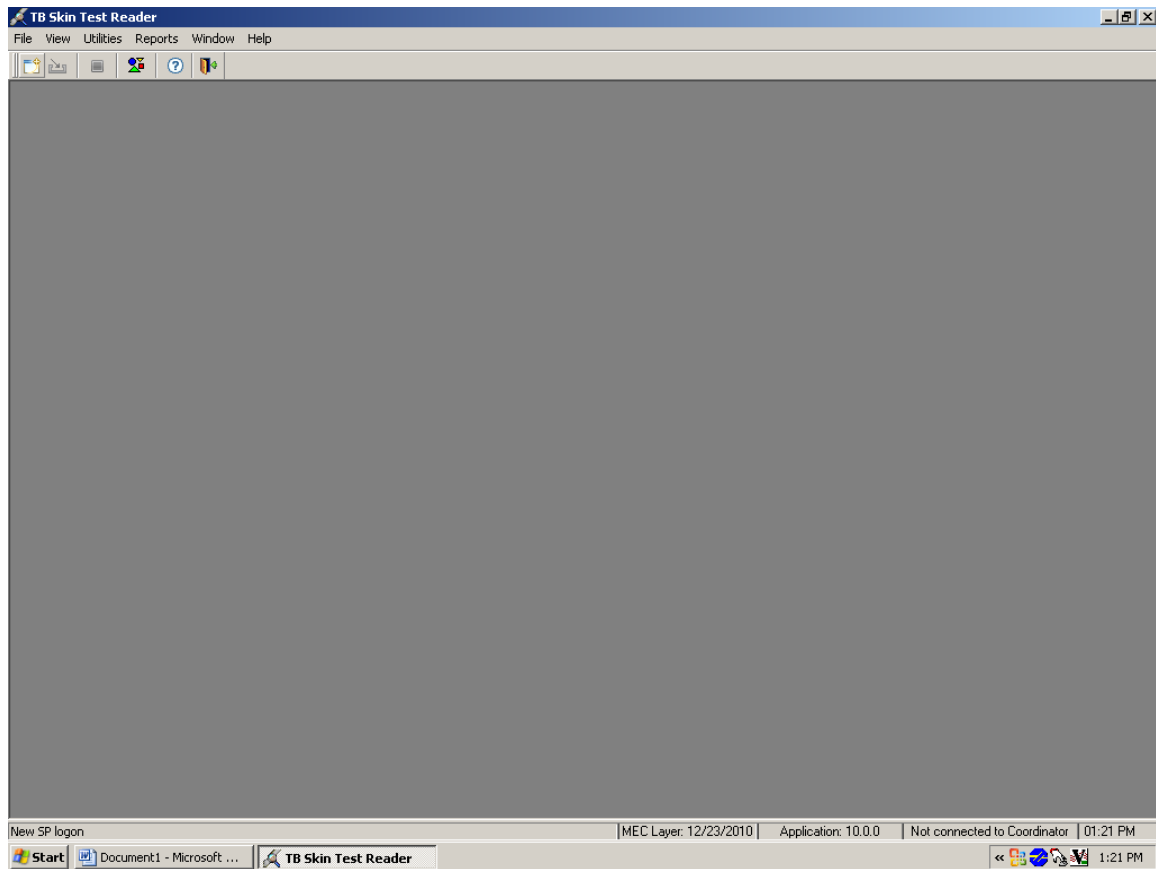
Log onto the TB Reader application.



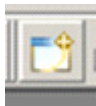
Type last name\_first initial in the User ID: text box, [TAB], and then type the password in the Password: text box. Click the OK button to proceed. To exit, click the Cancel button. To change the password, click the Change Password button.

## 4.12.2 Record TB Readings

The TB Reader exam screen displays.

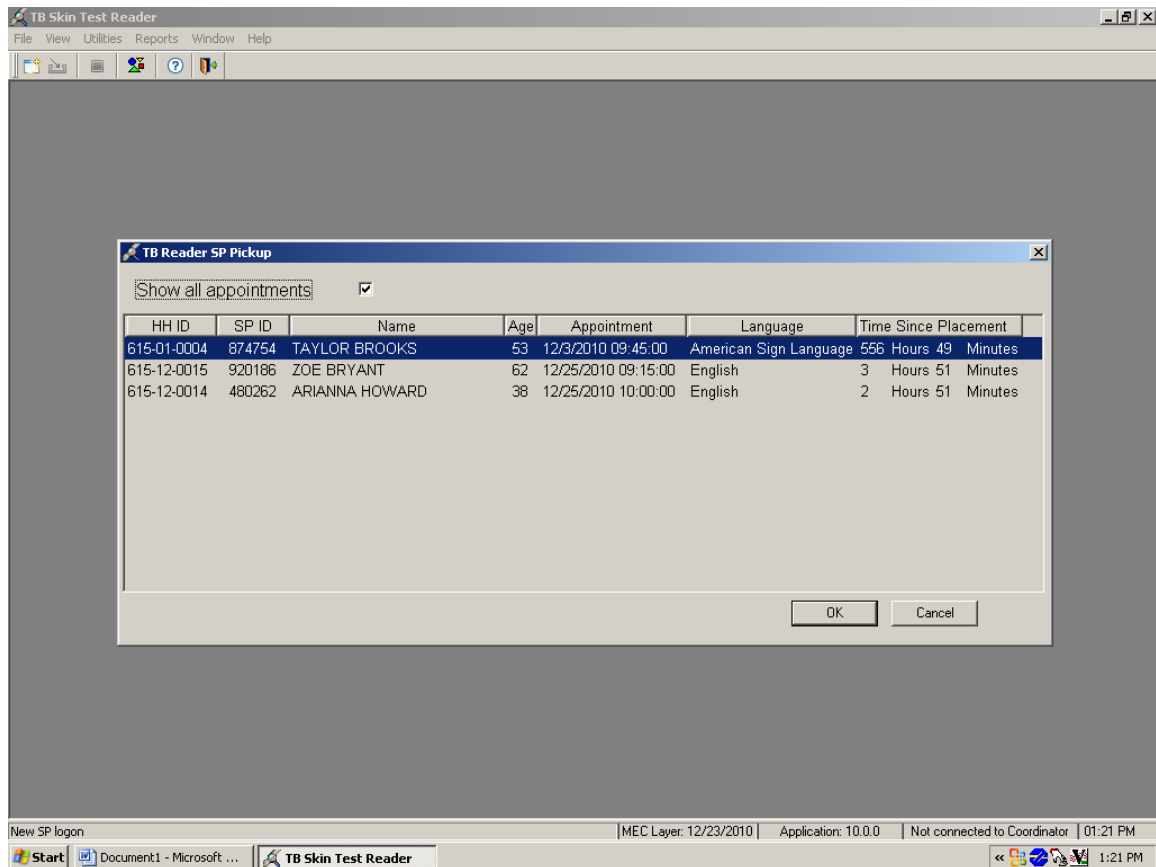


To access a list of SPs, click the left most button on the button bar.



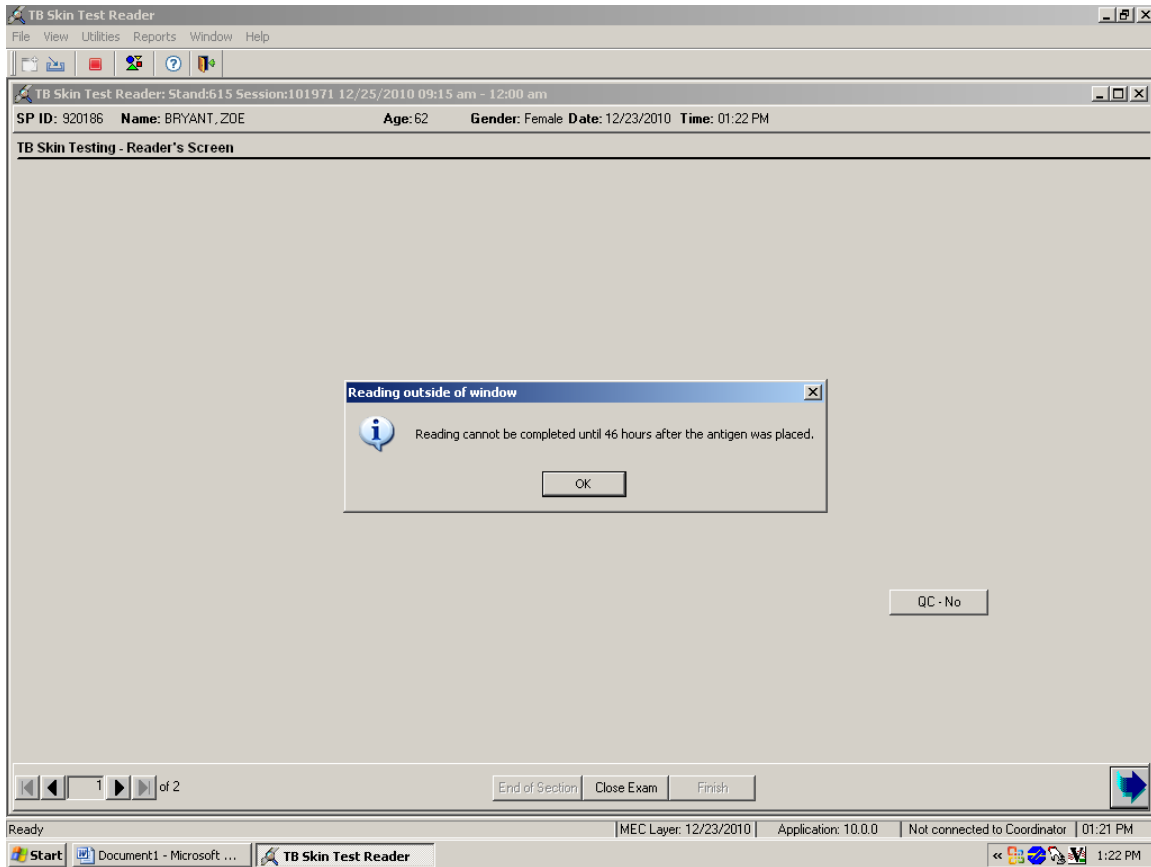
The TB Reader SP Pickup window displays.

The TB Reader SP Pickup window includes the Household ID, SP ID, Name, Age, Language, and Time Since Placement. The “Show all appointments” checkbox defaults to unchecked. When this box is unchecked it only shows SPs who are within the 46-76 hour reading window. Checking the box will display all SPs with antigens placed but not yet read.



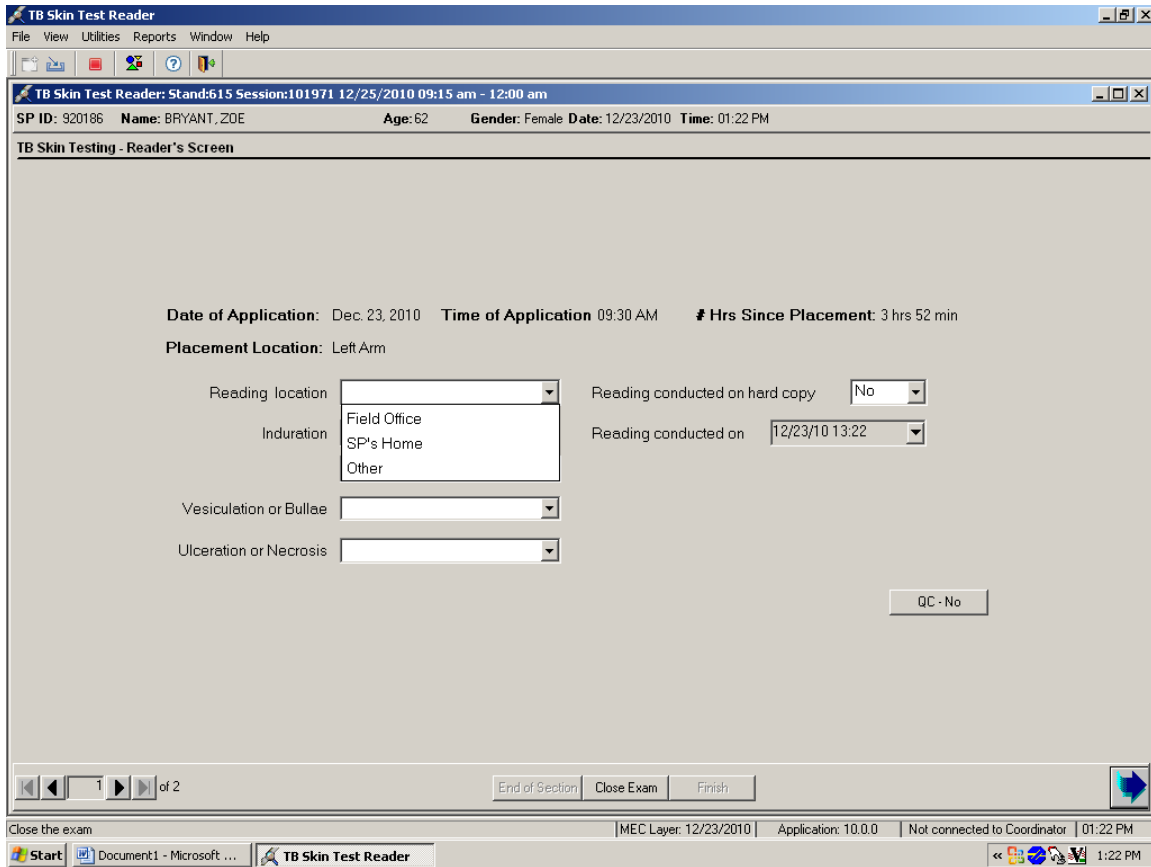
To select a specific SP, use the mouse to click on an SP or use the up and down arrows to highlight a row and click the OK button. To exit the window, click the Cancel button.

The TB Skin Testing – Reader’s Screen displays for all SPs whose time since placement is between 46 and 76 hours.



If the time since placement is outside the reading window an informational box displays.

The TB Skin Testing – Reader’s screen includes all the necessary information to complete the reading.



- SP ID, Name (last, first), Age, Gender, Current Date and Current Time
- Date of Application
- Time of Application (xx:xx AM or PM)
- # Hrs Since Placement (The number of hours and minutes since the antigens were placed)
- Placement Location: (Left Arm or Right Arm)
- Reading location (Field Office, SP’s Home, Other)
- Induration (measurement in millimeters)
- Vesiculation or Bullae (Present, Absent, Could not Obtain)
- Ulceration or Necrosis (Present, Absent, Could not Obtain)



- Reading conducted on Hard Copy (No, Yes)
- Reading conducted on (MM/DD/YY hh:mm)
- QC - No button (No, Yes)

The number of hours since the antigen application must be between 46 hours 0 minutes and 76 hours 0 minutes to be valid. If the elapsed time is less than 46 hours, ask the SP to return when the 46-hour minimum requirement is met. If the elapsed time is greater than 76 hours, inform the SP that the skin reaction cannot be measured. If the SP is interested in receiving test findings, refer them to the local health department or their regular source of medical care for another TB skin test.

Verify the date and time of application and the number of hours since placement. Use the Placement Location to identify the correct arm. Select the reading location.

Select the reading location by clicking on the drop-down list and choosing Field Office, SP's Home, or Other.

If the application is not available, complete the reading on hard copy. Document if the reading was conducted on hard copy.

**TB Skin Test Reader**

File View Utilities Reports Window Help

TB Skin Test Reader: Stand:615 Session:101971 12/25/2010 09:15 am - 12:00 am

SP ID: 920186 Name: BRYANT, ZOE Age: 62 Gender: Female Date: 12/23/2010 Time: 01:22 PM

**TB Skin Testing - Reader's Screen**

Date of Application: Dec. 23, 2010 Time of Application 09:30 AM # Hrs Since Placement: 3 hrs 52 min

Placement Location: Left Arm

Reading location: Field Office Reading conducted on hard copy: No

Induration: mm Reading conducted on: 12/23/10 13:00

Vesiculation or Bullae

Ulceration or Necrosis

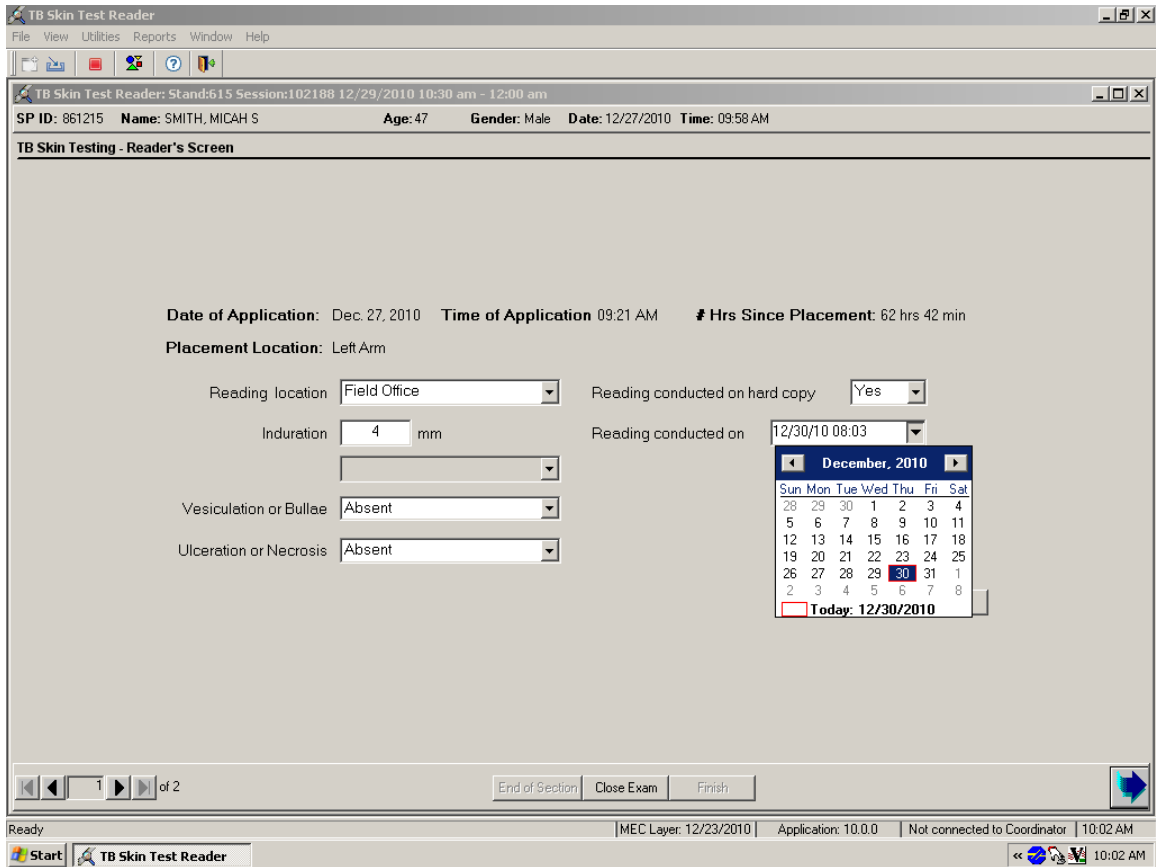
QC - No

End of Section Close Exam Finish

Close the exam MEC Layer: 12/23/2010 Application: 10.0.0 Not connected to Coordinator 01:22 PM

The field defaults to “No.” To change the answer from “No” to “Yes,” select “Yes” from the drop-down list.

The “Reading conducted on” text box is editable if the value of “Reading conducted on hard copy” is “Yes.” Use the calendar to correct the date and key enter the time to reflect the actual date and time of the reading written on the hard-copy form.

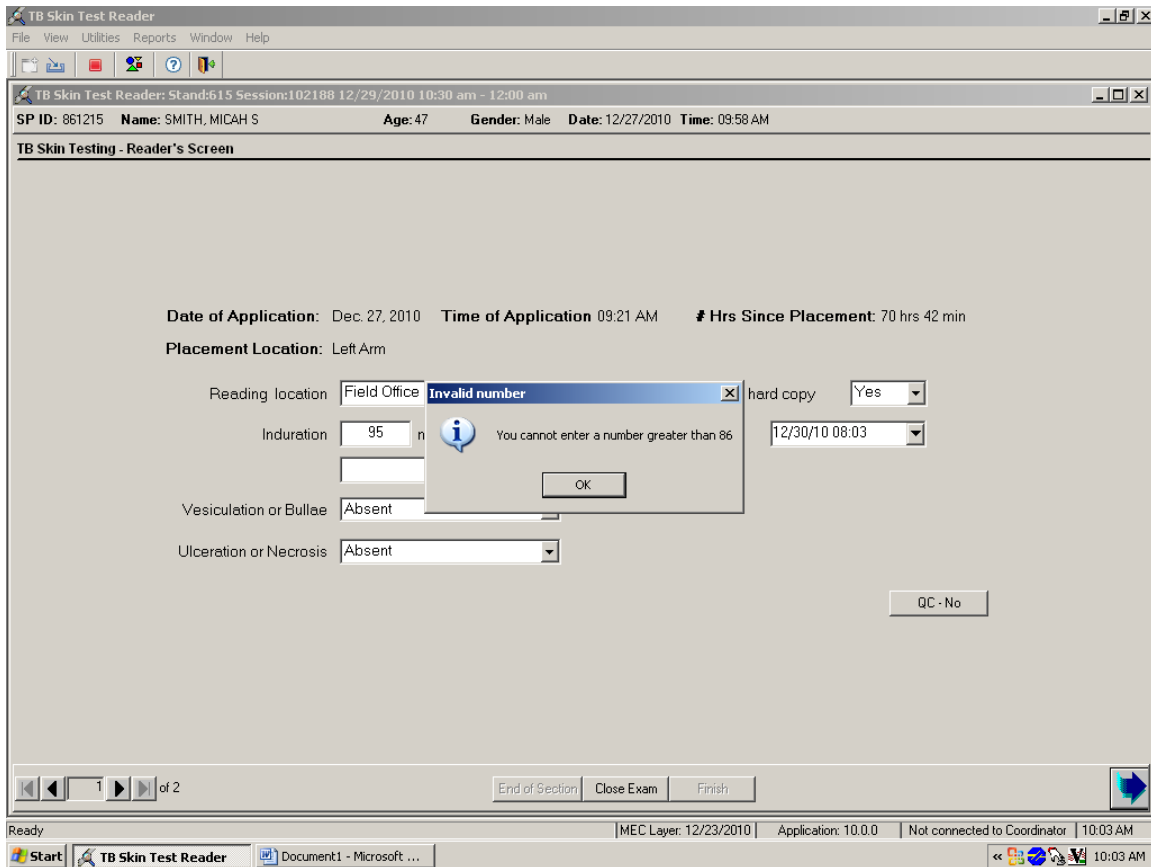


Enter the measurement of the diameter of the induration in millimeters in the “Induration” data entry field. Enter the induration measurement using the keyboard numeric keys. Select [Tab] to move to the vesiculation or bullae text box.

Either enter a numeric value between 0 and 86 or select one of the three options from the drop-down list. If the measurement is 87 millimeters or greater, select “87+ mm” from the drop-down menu.

If the SP refuses to allow measurement of the skin reaction, select “Refused” from the drop-down menu. If the measurement could not be obtained for any reason other than SP refusal, select “Could not obtain” from the drop-down menu. If selecting either the “Refused” or “Could not obtain” option, indicate the exact reason using the “comments” field on the final TB Skin Testing Status screen.

Only a value between 0-86 is permitted.



An Invalid number window displays if a value greater than 86 is entered in the Induration field. To remove the window, click on the OK button.

## Vesiculation or Bullae

Vesiculation and bullae are fluid-filled, blister-like lesions in the area of the TB antigen injection site. Indicate the presence or absence of vesiculation and/or bullae.

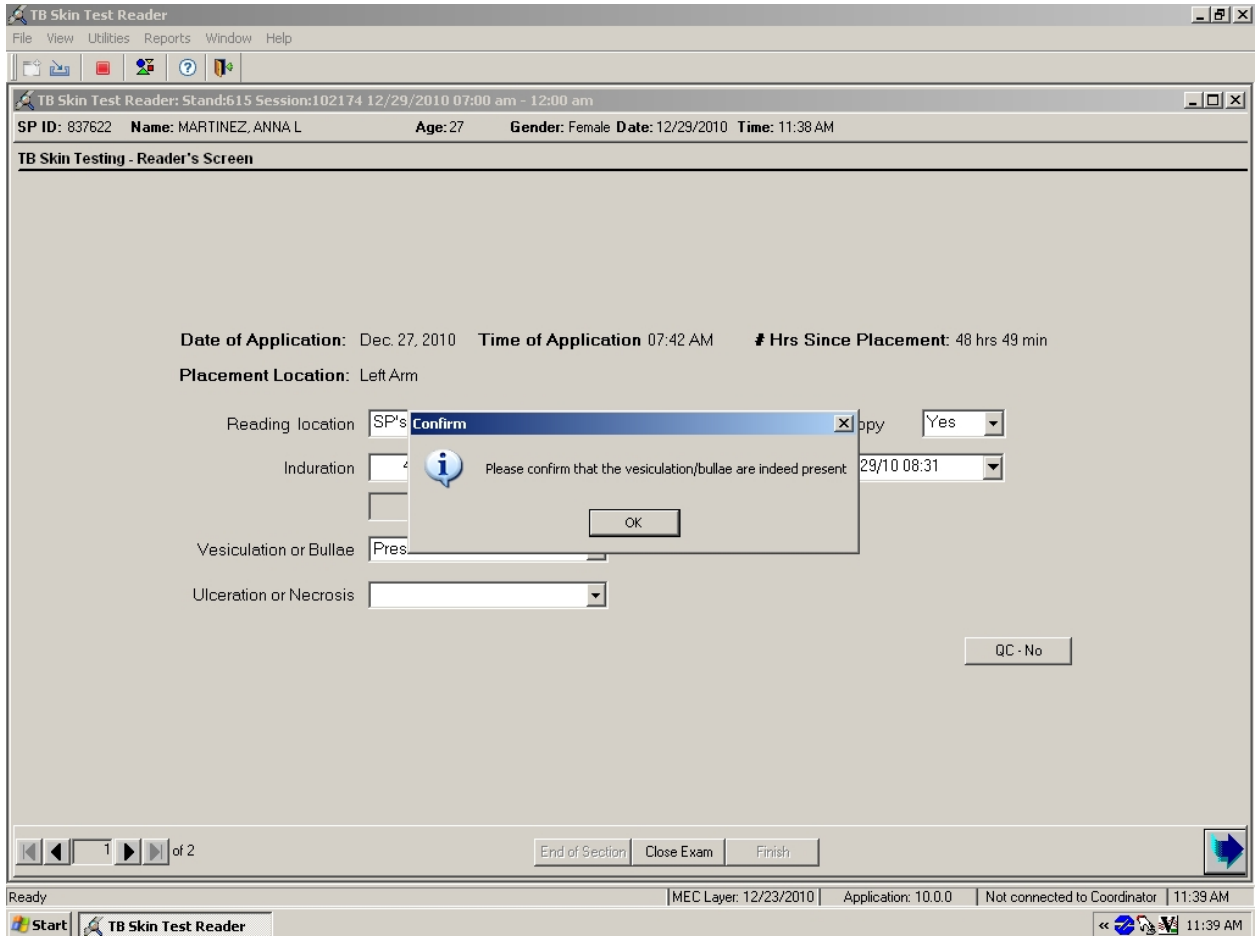
The screenshot shows the 'TB Skin Test Reader' application window. The title bar reads 'TB Skin Test Reader' and the menu bar includes 'File', 'View', 'Utilities', 'Reports', 'Window', and 'Help'. The main window title is 'TB Skin Test Reader: Stand:615 Session:101971 12/25/2010 09:15 am - 12:00 am'. Below this, patient information is displayed: 'SP ID: 920186 Name: BRYANT, ZOE Age: 62 Gender: Female Date: 12/23/2010 Time: 01:22 PM'. The main area is titled 'TB Skin Testing - Reader's Screen'. It contains the following fields and controls:

- Date of Application:** Dec. 23, 2010
- Time of Application:** 09:30 AM
- # Hrs Since Placement:** 3 hrs 52 min
- Placement Location:** Left Arm
- Reading location:** Field Office (dropdown)
- Reading conducted on hard copy:** No (dropdown)
- Induration:** 4 mm (input field)
- Reading conducted on:** 12/23/10 13:22 (dropdown)
- Vesiculation or Bullae:** A dropdown menu is open, showing three options: 'Absent', 'Present', and 'Absent' (highlighted).
- Ulceration or Necrosis:** A dropdown menu is open, showing three options: 'Absent', 'Present', and 'Could not obtain'.
- QC - No** (button)

At the bottom of the window, there are navigation buttons: 'End of Section', 'Close Exam', and 'Finish'. The system tray at the bottom shows 'Ready', 'MEC Layer: 12/23/2010', 'Application: 10.0.0', 'Not connected to Coordinator', and '01:23 PM'.

To record either “Present,” or “Absent,” or “Could not obtain,” select one of the three choices from the drop-down list. Indicate the presence or absence of vesiculation and/or bullae by selecting “Present” or “Absent” from the drop-down menu.

If the reader selects “Present,” a pop-up confirmation box appears with the statement, “Please confirm that the vesiculation/bullae are indeed present.”



If either vesiculation or bullae are present, complete an Adverse Reaction Form.

## Ulceration or Necrosis

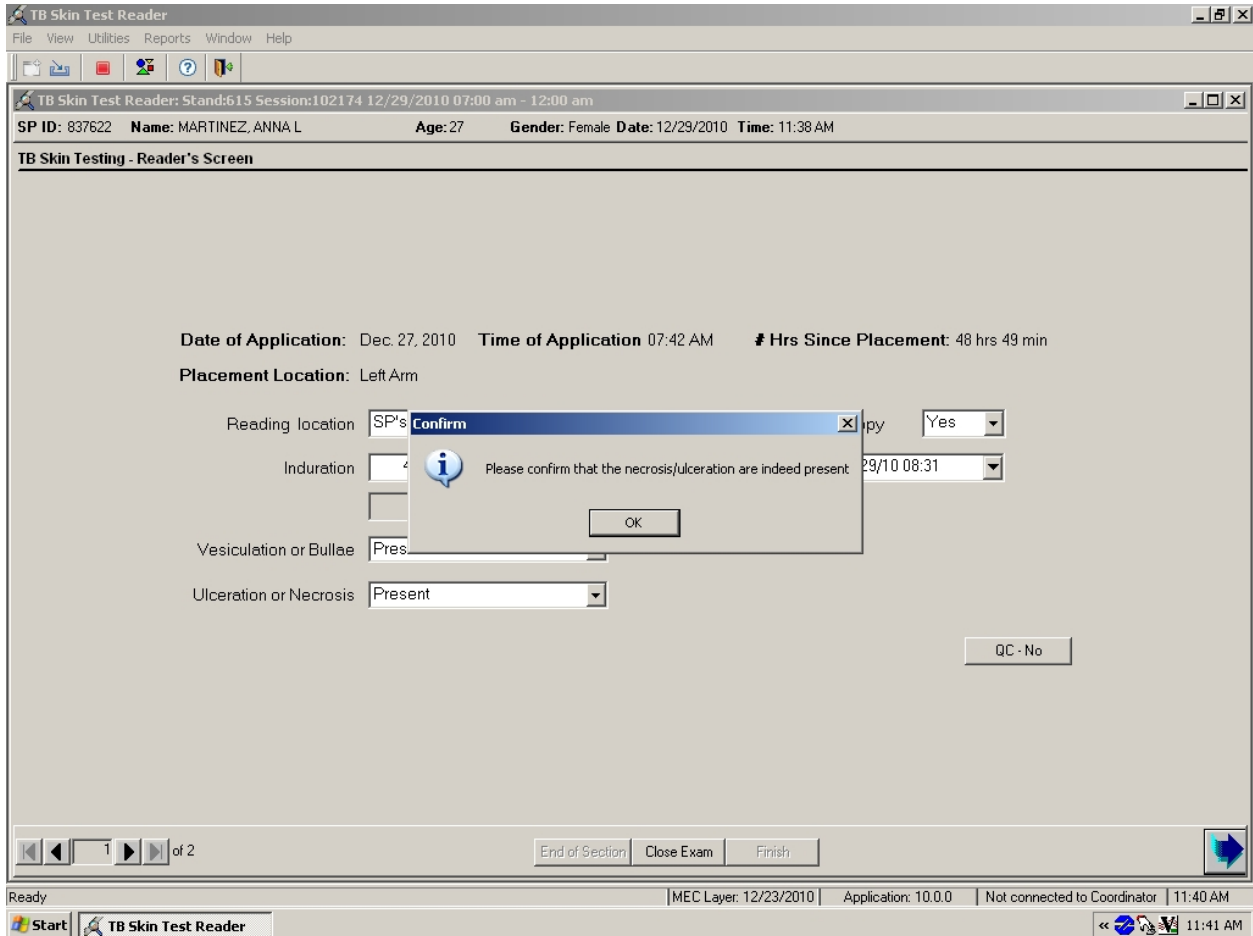
Ulceration and necrosis are terms that describe skin damage, usually raw, open sores.

The screenshot shows the 'TB Skin Test Reader' software interface. At the top, the window title is 'TB Skin Test Reader' and the menu bar includes 'File', 'View', 'Utilities', 'Reports', 'Window', and 'Help'. Below the menu bar, a status bar displays 'TB Skin Test Reader: Stand:615 Session:101971 12/25/2010 09:15 am - 12:00 am'. The main data area shows 'SP ID: 920186', 'Name: BRYANT, ZOE', 'Age: 62', 'Gender: Female', 'Date: 12/23/2010', and 'Time: 01:22 PM'. The title of the main window is 'TB Skin Testing - Reader's Screen'. The form contains the following fields: 'Date of Application: Dec. 23, 2010', 'Time of Application 09:30 AM', and '# Hrs Since Placement: 3 hrs 52 min'. 'Placement Location: Left Arm'. 'Reading location' is a dropdown menu set to 'Field Office'. 'Reading conducted on hard copy' is a dropdown menu set to 'No'. 'Induration' is a text input field with '4' and 'mm'. 'Reading conducted on' is a dropdown menu set to '12/23/10 13:22'. 'Vesiculation or Bullae' is a dropdown menu set to 'Absent'. 'Ulceration or Necrosis' is a dropdown menu with a list of options: 'Present', 'Absent', and 'Could not obtain'. A 'QC - No' button is located to the right of the dropdown menu. At the bottom of the form, there are navigation buttons: 'End of Section', 'Close Exam', and 'Finish'. The Windows taskbar at the bottom shows the 'Start' button, 'Document1 - Microsoft ...', and 'TB Skin Test Reader'. The system tray shows 'MEC Layer: 12/23/2010', 'Application: 10.0.0', 'Not connected to Coordinator', and '01:23 PM'.

To record either “Present,” or “Absent,” or “Could not obtain,” select one of the three choices from the drop-down list. Indicate the presence or absence of ulceration and/or necrosis by selecting “Present” or “Absent” from the drop-down menu.

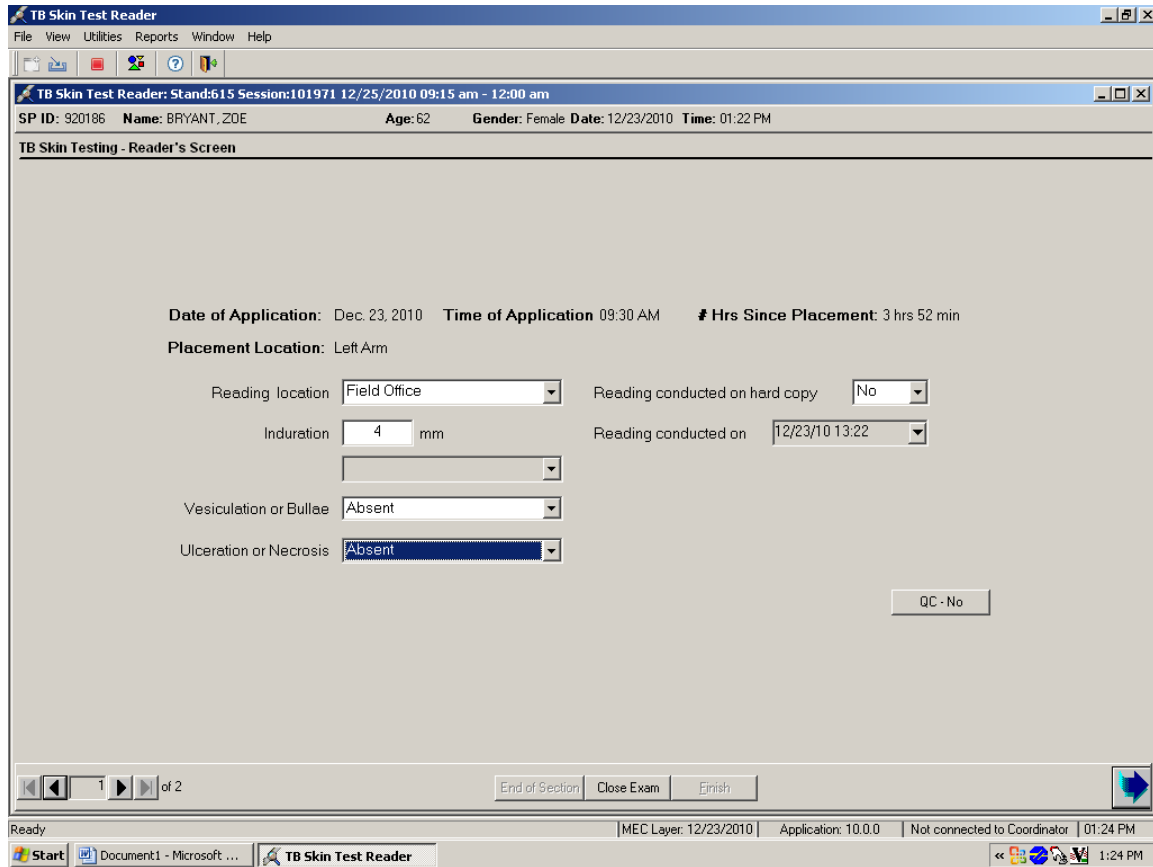


If the reader selects “Present,” a pop-up confirmation box appears with the statement, “Please confirm that the ulceration/necrosis are indeed present.”



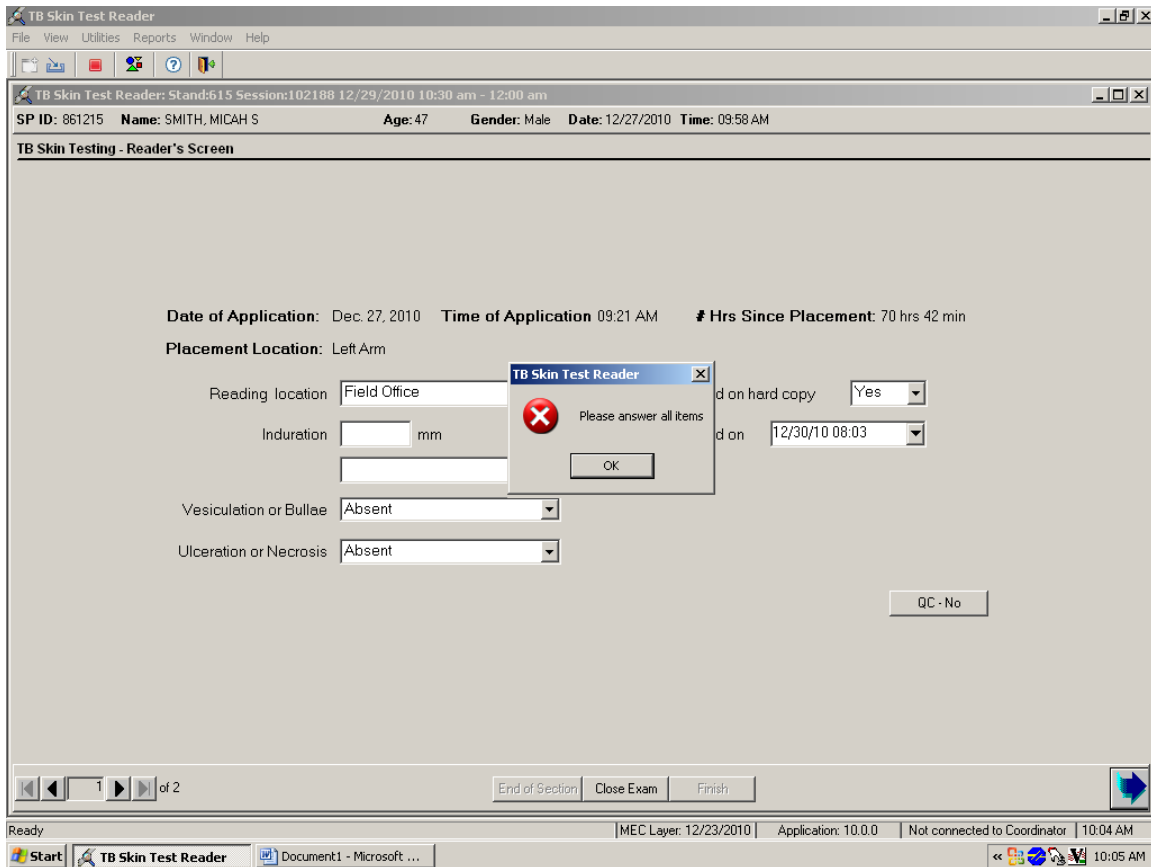
If either ulceration or necrosis is present, complete the Adverse Reaction Form.

If quality control measurement of skin reactions is not going to be completed on the SP, progress to the next screen. The TB Skin Testing Status screen displays.



To progress to the section status screen, click the bright blue arrow in the bottom right hand corner.

If the blue arrow is selected before all text boxes have data, a warning window displays.

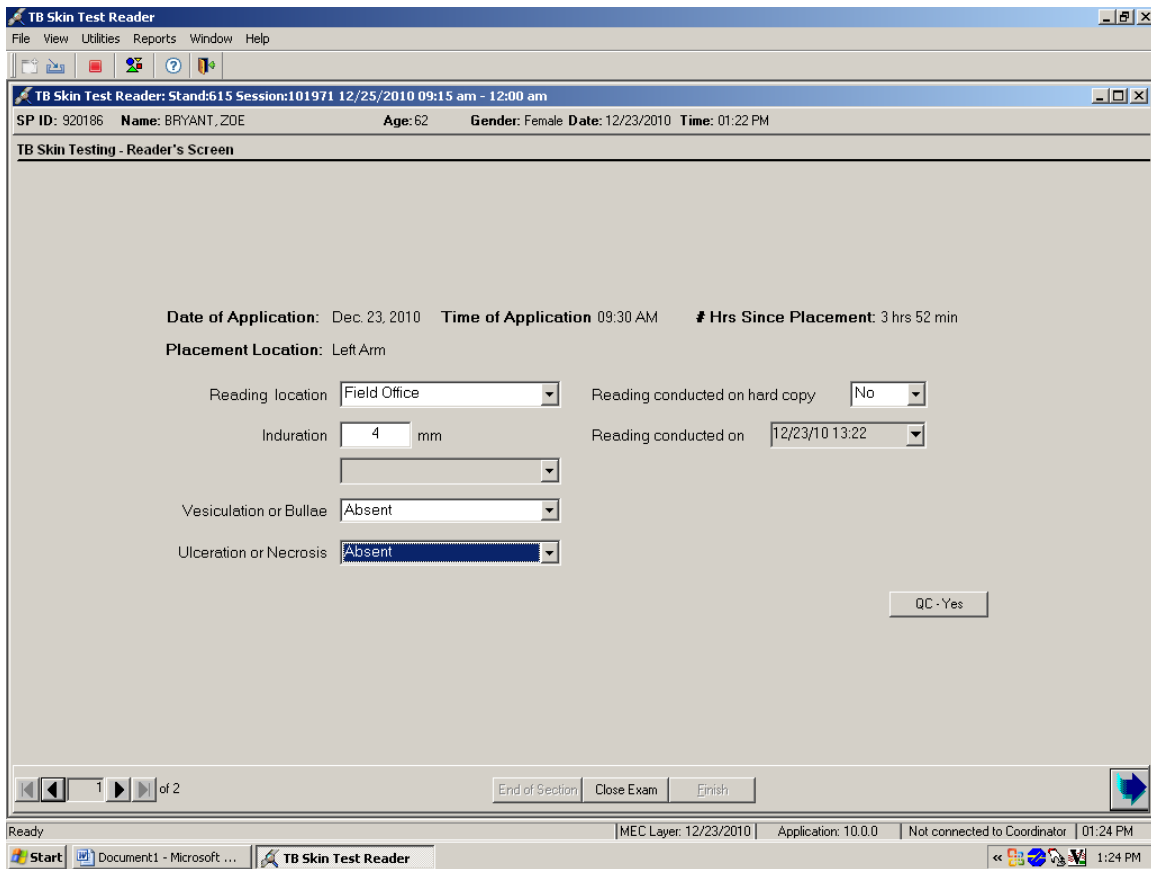


The warning box indicates that all items have not been answered. To remove the warning box, click the OK button.

### 4.12.3 QC Readings

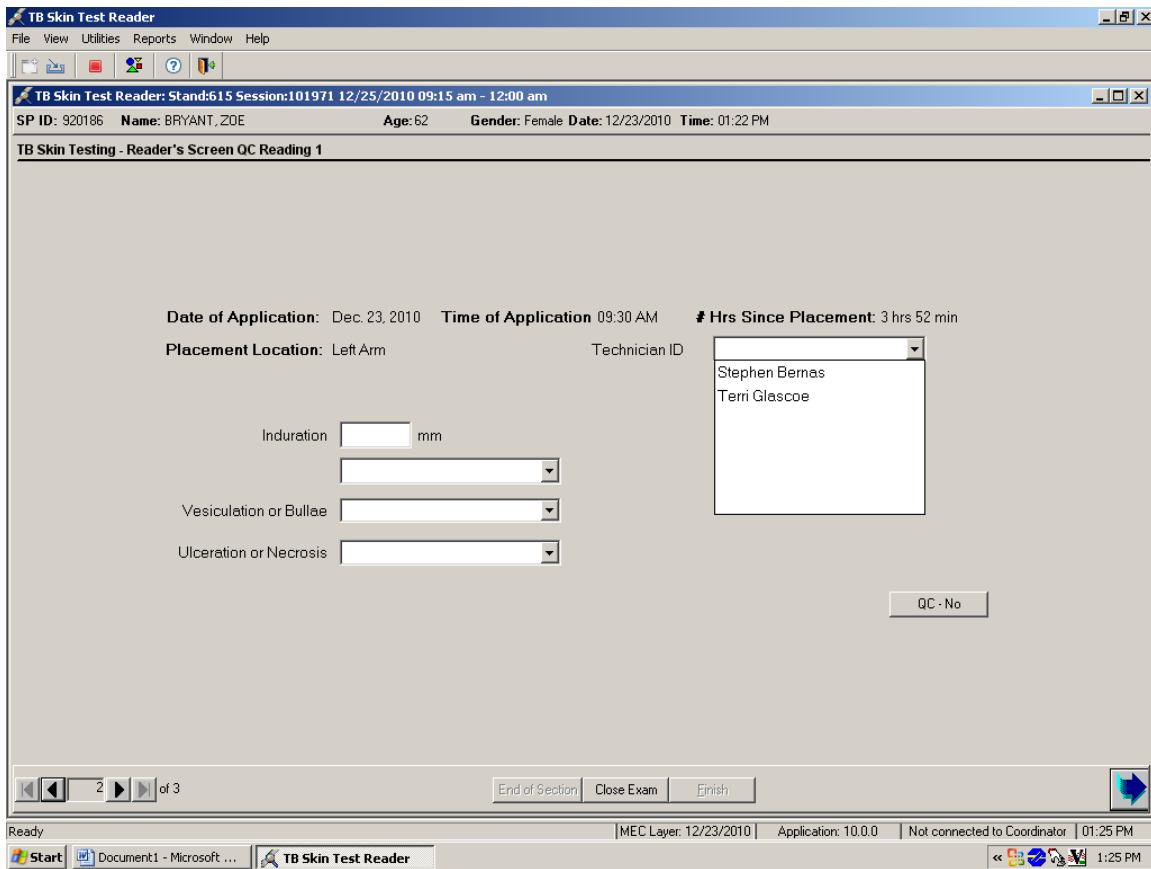
The TB Reader's QC screen is very similar to the Reader's screen used for recording the initial measurement of the skin reaction. Record all skin test measurements. All subsequent readers do not see the measurement obtained by any previous reader. After the final set of readings is completed, selecting the "next screen" arrow brings up the TB component status screen.

If a second TB reader is available and if the SP is willing to undergo a second set of measurements for quality control purposes, click the "QC-NO" button to allow another reader to record their readings. When this button is clicked, the "No" changes to "Yes."



When the "next screen" bright blue arrow is clicked the TB Reader's QC screen displays.

The TB Skin Test – Reader’s Screen QC Reading 1 displays. Select the Technician (Reader Name) ID from the drop-down list. Complete all readings and enter results. The TB Skin Test – Reader’s Screen QC Reading 1 does not include the Reading conducted on hard copy and Reading conducted on text boxes. It is assumed if the initial reading is done on laptop then the QC reading is done on the laptop and likewise if the initial reading is done on hard copy then the QC reading is done on hard copy. So, basically the entry on the first screen applies to both the initial entry and all related QC readings for the SP.



If there are no further readings, the second reader should select “No” to the QC question. If another reader is to perform a BIDR, the second reader should select “Yes.” Enter up to eight QC readings by clicking the “QC” button at the bottom of the TB Reader’s QC Screen. The “No” will change to “Yes” on this screen as it did on the previous screen when this button was clicked. When the “next screen” arrow is selected another QC Screen is displayed. The report of findings prints after all readings are complete.

#### 4.12.4 TB Skin Testing Section Status

ISIS assigns the component status for measurement of the skin reaction based on the following criteria:

- Complete - a numeric value entered in the induration field or 87+ selected from the drop-down.
- Not done - induration numeric field is left blank and “Could not obtain” or “Refused” is selected in the related drop-down list.

Review the TB Skin Testing – Status screen.

The screenshot shows the 'TB Skin Test Reader' application window. The title bar reads 'TB Skin Test Reader'. The menu bar includes 'File', 'View', 'Utilities', 'Reports', 'Window', and 'Help'. The main window area displays the following information:

TB Skin Test Reader: Stand:615 Session:101971 12/25/2010 09:15 am - 12:00 am

SP ID: 920186 Name: BRYANT, ZOE Age: 62 Gender: Female Date: 12/23/2010 Time: 01:22 PM

**TB Skin Testing - Status**

Status

Complete  
 Partial  
 Not Done

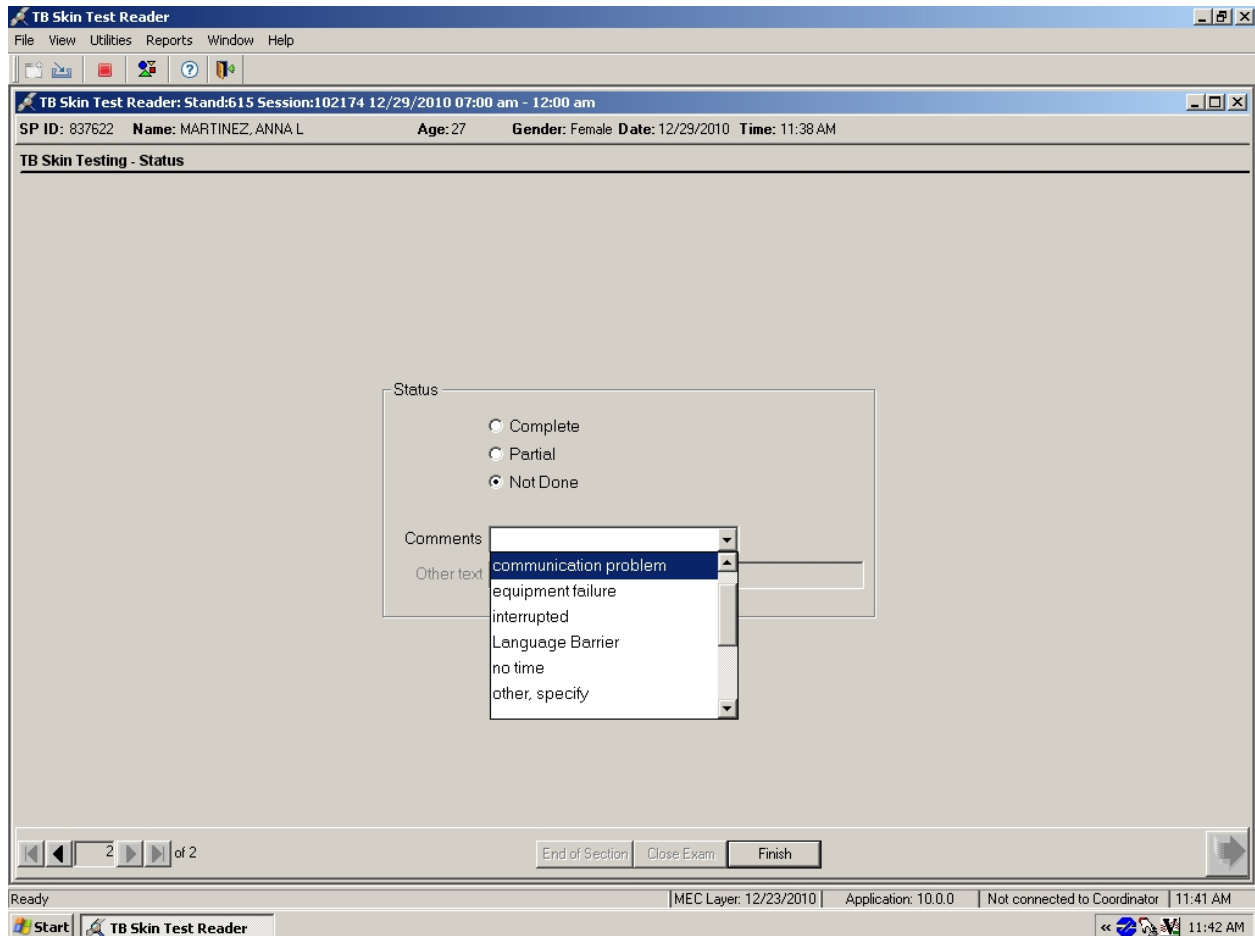
Comments

Other text

At the bottom of the window, there are navigation buttons: 'End of Section', 'Close Exam', and 'Finish'. The status bar at the very bottom shows 'Ready', 'MEC Layer: 12/23/2010', 'Application: 10.0.0', 'Not connected to Coordinator', and '01:26 PM'.

Enter a required comment if the component status is “Not Done.”

Choose and enter the appropriate comment code when the TB Skin Testing status is not done.



To record a comment in the Comments text box, select the desired code from the drop-down list.

<b>Comment Code</b>	<b>Use when:</b>
communication problem	SP is unable to understand and follow instructions for the component due to language, cognitive impairment, or other problem, and is unable to complete the test.
equipment failure	Not applicable
interrupted	The exam is interrupted, usually for a field office-wide emergency, and cannot be completed by the SP.
Language Barrier	SP is unable to understand and follow the instructions for the component due to language and interpreting difficulties, and is unable to complete the test.
no time	Not applicable
other, specify	If the above reason for a status Code of Not Done is not explained by one of the Comment Codes, the examiner must choose Other, text and record a comment in the text field.
physical limitation	SP is unable to have the test due to a physical problem.
Reading not done within 76 hours	The TB skin test reading was not completed within the 76 hour time limit.
safety exclusion	Not applicable
SP ill/emergency	The SP became ill or an emergency occurred and the test could not be performed on the SP.
SP refusal	The SP refuses to have the skin test read. This is SP initiated nonresponse due to refusal. The SP refuses the component or a part of the component for any reason other than an illness or emergency.

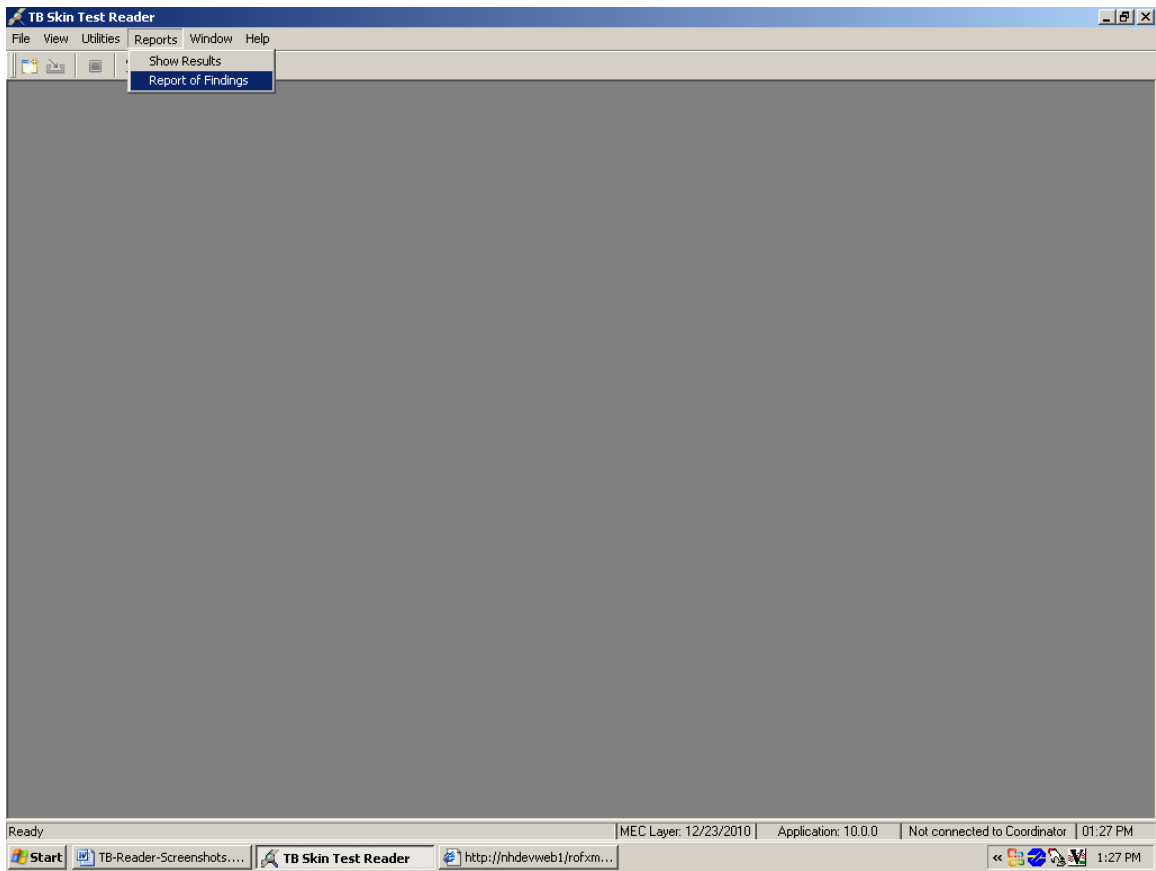
When finished, click the Finish button at the bottom, center of the screen.

The Report of Findings will be displayed and if a printer is connected, the ROF should be printed for the SP.

#### **4.12.5 Reprinting Report of Findings**

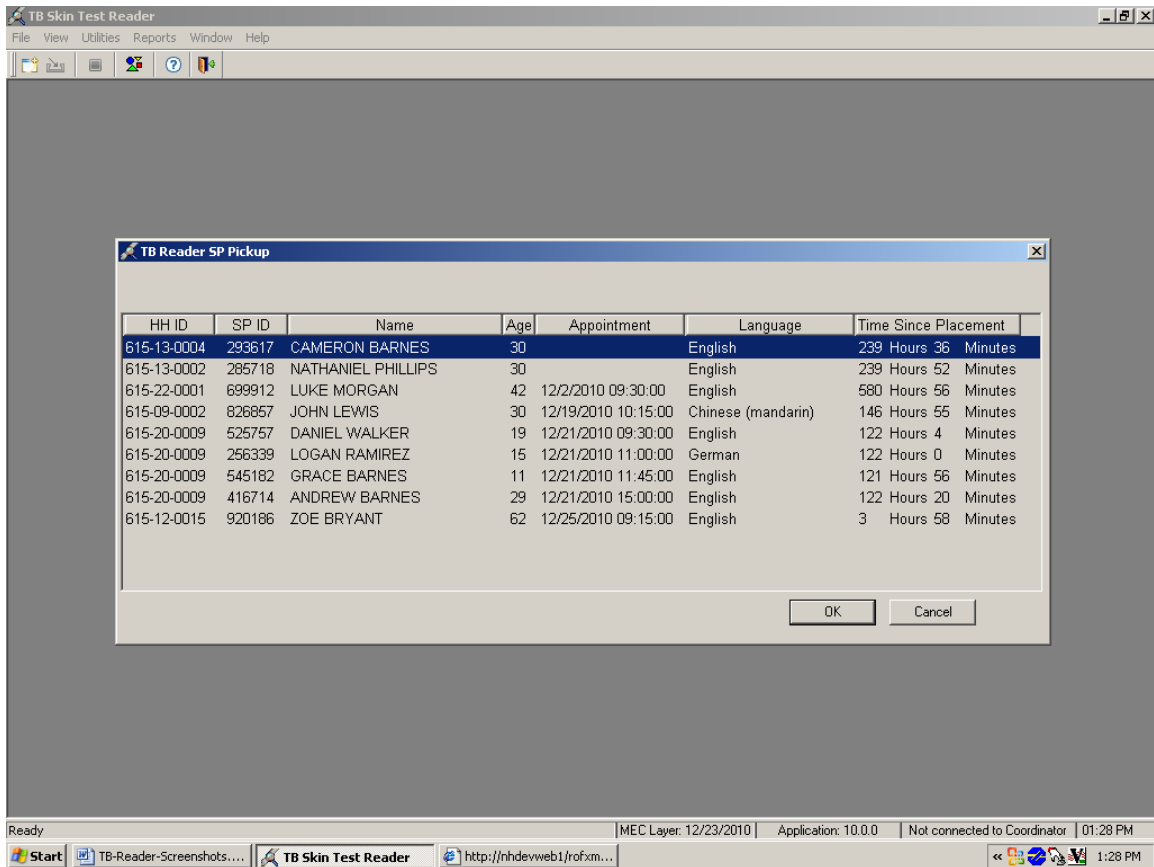
Reprint ad-hoc Report of Findings for individual SPs either in English or Spanish.





To reprint an ROF select the Report of Findings option under the Reports menu.

The TB Reader SP Pickup window displays.



Select the SP from the list by highlighting the row and click OK to continue. To exit click the Cancel button.

## 5. FIELD FOLLOW-UP MANAGEMENT SYSTEM (FFMS)

Use the Field Follow-up Management System (FFMS) to manage all TB reading appointments. Use this system to view, schedule, and reschedule appointments, and to record call results on a daily basis.

From a TB perspective, the FFMS has one main purpose and that is to manage the contacts and appointments for TB readings, although the FFMS is used by many different people on the NHANES study and serves many different purposes. It has been modified for the TB, readers, but was not specifically designed for TB, and for this reason it may display some fields that will not be used by the TB readers. All FFMS procedures that are needed to manage appointments are covered in this chapter. The actual data collected during the reading process will be recorded using the TB Reader application on the laptop.

As mentioned in the previous chapter, an appointment for an SP's TB reading will normally be scheduled by the MEC staff member after the placement of TB antigen during the SP's MEC exam. In general, MEC staff personnel performing the TB placement make the appointment for the TB reading 48-52 hours after the TB antigens are placed. However, if circumstances require, the appointment can and will be made between 46-76 hours after placement. Each TB reader will have a specific work schedule (days and hours) and will be assigned specific SPs to be read. The TB reader work schedule, and languages spoken, will be programmed in the placement application and will be used when making appointments.

Once an appointment has been scheduled, it is the TB Reader's responsibility to contact the SP again a day or two before the appointment. During this call:

- Follow the TB reading reminder call talking points.
- If the SP needs to reschedule, then schedule the reading for a time that is most convenient for the SP within 46-76 hours from placement, but as close to the 48-52 hour ideal window as possible.

In addition to conducting reminder calls for previously scheduled appointments, TB Readers are responsible for scheduling appointments for SPs who were not scheduled at the time their TB antigen was placed. Procedures for scheduling these appointments are covered later in this chapter.

Finally, during the course of the workday, record each attempt to contact an SP in the FFMS. If preferred, all contact attempts may be written on the TB Reminder Calls report but if this is done all of these contact results must be entered into the FFMS at the end of the workday. **Reminder: The TB Reminder Calls report and all other hard-copy documents containing confidential SP data must be locked in a desk or file cabinet when not in use and these documents must be shredded when no longer needed.**

## 5.1 Logging onto the FFMS

1. Double click on the FFMS Icon on your desktop to open the FFMS logon screen.

2. Enter user ID as last name\_ first initial.

3. Enter password.

4. Click on the blue login button.

Field Follow-Up Management System - Version 10.0.2

# Operations

Please Login

**User ID**

**Password**

Remember My Login

[Log In](#)

**Please Read Entirely Before Agreeing to Proceed:**

Information contained on this site is confidential and subject to protections specified in the Privacy Act of 1974 and Section 308(d) of the Public Health Service Act (42 USC 242M). Unauthorized access to this information and/or disclosure is a violation of these laws and regulations and subjects the violator to fines and possible incarceration. Note that any files downloaded to your PC must also be protected. You must delete these when they are no longer needed and cannot be transferred to media, other computers that are unprotected, (or to other Westat staff or external people not working for Westat on the NHANES project. Any questions regarding the transfer of this data will be referred to the Director of the NCHS Division of Health Examination Statistics and the NCHS Confidentiality Officer). Activity on this site is logged and monitored. If you do not have official business to conduct on this site, do not attempt to log-in.

**Version Details**

Version:

ITS Num	Description
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## 5.2 Summary of FFMS Functions

**Contact Manager** – Use this header to search for current phone and address information.

**Appointment Manager** – Use this header to view appointments by Day, Week, or Month, and to access the New Appt., Reschedule, Appt. Monitor, and Not Sched. tabs.

**Reminder Calls** – Use this header to display information needed to make reminder calls for upcoming appointments.

**Call History** – Use this header to search for the call history for an SP, enter result codes, and can also be used to reschedule an appointment.

Wednesday, December 29, 2010						
7:00 AM	837622	ANNA MARTINEZ	27yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem:
7:18 AM	418714	ANTHONY BAILEY	25yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem: Made
7:20 AM	480354	OWEN LEE	34yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem:
7:45 AM	525757	CALEB ADAMS	19yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem:
8:00 AM	636040	LUCAS TORRES	38yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem:
8:15 AM	329869	SOFHIA HOWASSQ	35yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem:
8:30 AM	286339	LONDON MOORE	15yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem:
9:15 AM	849425	JASPER CAMPBELL	22yrs	English	Scheduled, Firm Appt.	615 Jacquie Hogan Rem:
9:45 AM	784174	SIENNA GONZALEZ	42yrs	English	Appt. Completed	615 Jacquie Hogan Rem:

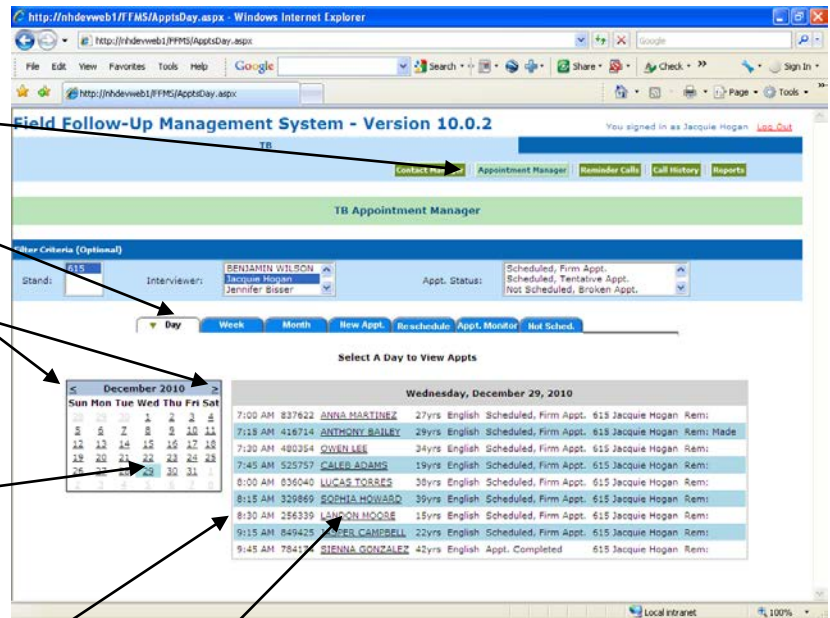
**Reports** – Will not be used by the TB Readers at this time.

The quickest and easiest way to see an overview of scheduled appointments is by using the day, week, or month tabs under the Appointment Manager link. These tabs display a calendar view of the appointments for a given day, week, or month. Note that for TB reading, the month tab will not be very useful, since TB readings must be completed within 76 hours of placement.

### 5.3 Viewing Appointments Using the Day Tab

Use the day tab to view all of the appointments for a given day. The day tab shows the appointment times, the SP's name, appointment status, and the name of the TB Reader with whom the appointment is scheduled.

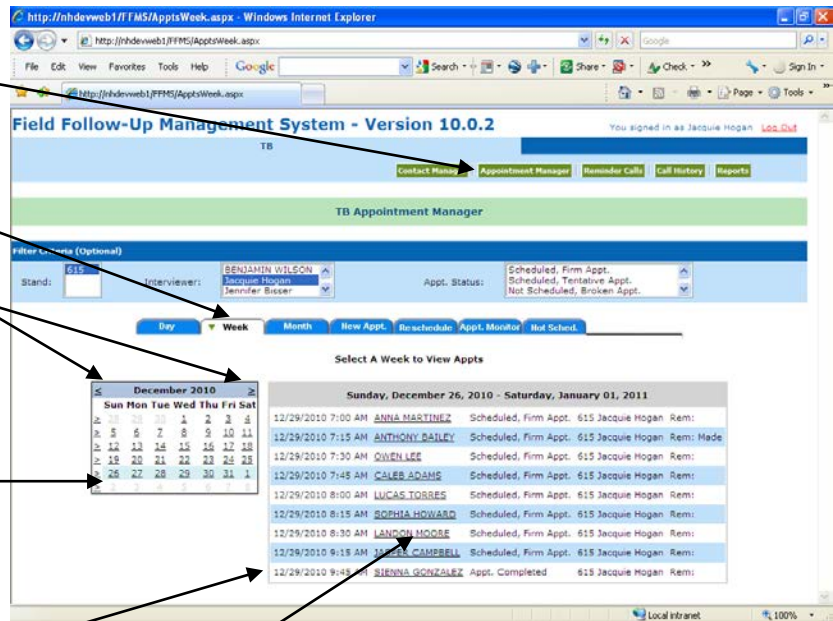
1. Click on the Appointment Manager header at the top of the screen.
2. Click on the "Day" tab.
3. Select the appropriate month by clicking on the  $\leq$  or  $\geq$  symbol on either side of the current month on the calendar.
4. Select the day to view appointments by clicking on the date within the calendar.
5. The appointments for that date appear to the right of the calendar.
6. Clicking on an SP's underlined name will display the call history. If needed, enter a call record or reschedule the appointment.



## 5.4 Viewing Appointments Using the Week Tab

Use the week tab to view all appointments for a given week. Only the appointment times and the name of the SPs appointed to that time slot display.

1. Click on the Appointment Manager header at the top of the screen.
2. Click on the “Week” tab.
3. Select the appropriate month by clicking on the  $\leq$  or  $\geq$  symbol on either side of the current week on the calendar.
4. Select the specific week to view appointments by clicking on the  $\geq$  next to the appropriate week.
5. The appointments for that week will display to the right of the calendar.
6. Clicking on an SP’s underlined name will display the Call History. If needed, enter a call record or reschedule the appointment.



## 5.5 Viewing Appointments Using the Month Tab

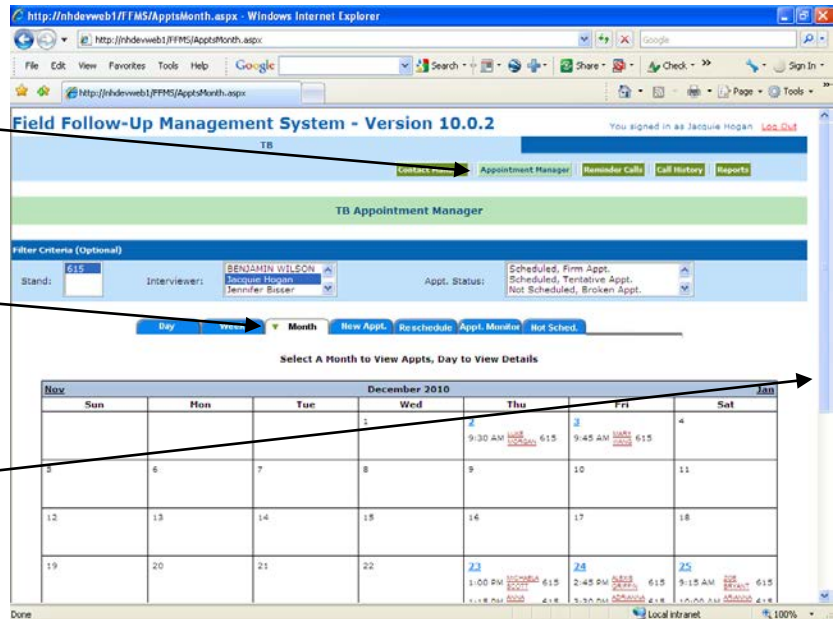
Use the month tab to view all of the appointments for a given month. Note that for TB reading, the month tab will not be all that useful, since TB readings must be completed within 76 hours of placement.

The names will appear in different colors indicating the appointment status. Green = scheduled, firm appointment; Black = scheduled, tentative appointment; Red = not scheduled, broken appointment; Blue = appointment completed; Brown = appointment final nonresponse.

1. Click on the Appointment Manager header at the top of the screen.

2. Click on the "Month" tab.

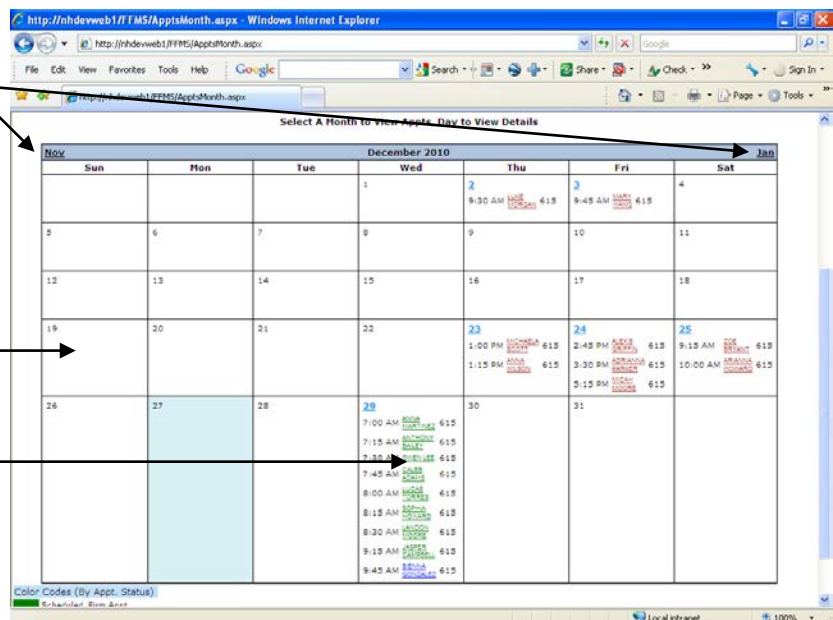
3. Due to the size of this screen, use the scroll bar to view the entire calendar.



4. Select the appropriate month by clicking on the  $\leq$  or  $\geq$  symbol on either side of the current month on the calendar.

5. A full calendar displays all of the appointments. They are color coded by appointment status (see the key at the bottom of the screen).

6. Clicking on an SP's underlined name will display the Call History. If needed, enter a call record or reschedule the appointment.





## 5.6 Viewing and Printing the Appointment Schedule

Use the Appointment Monitoring Report tool to view the upcoming appointments. Also use this report to view your broken appointments.

For each SP listed on the report the following information will be displayed:

- SP ID,
- SP Name,
- Participant No – Stand ID, Segment #, Serial #, Family #, and Person #. – Note that SPs with the same Stand ID, Segment #, and Serial # live in the same household, Age,
- MEC exam date,
- Appointment date and time,
- Assigned TB Reader,
- Number of hours since placement, and
- Address – the home address of the SP to be used if the SP prefers to have their reading completed at home.

The report can be filtered by appointment status, allowing the option to view only those SPs who are currently scheduled. The report can be sorted by:

- SP Name,
- SP ID,
- Participant No,
- Interviewer (TB Reader),
- Appointment Date/Time, or
- Hours Since Placement.

The report can be printed as it appears on the screen.

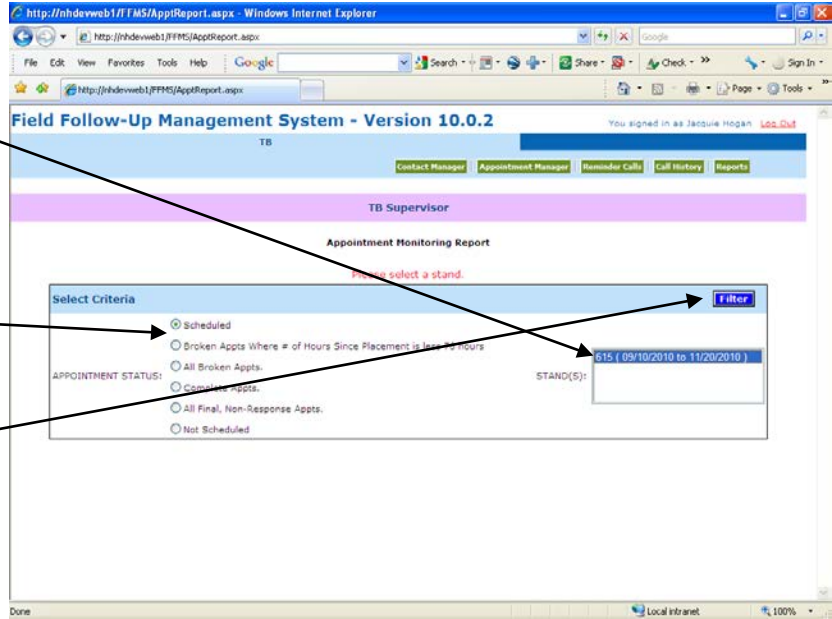
1. Click on the Appointment Manager header at the top of the screen.
2. Click on the “Appt. Monitor” tab.

The screenshot displays the 'Field Follow-Up Management System - Version 10.0.2' interface. At the top, there is a navigation bar with buttons for 'Contact memo', 'Appointment Manager', 'Reminder Calls', 'Call History', and 'Reports'. Below this is the 'TB Appointment Manager' section. It features a 'Participants (Optional)' section with filters for 'Stand ID' (set to 615), 'Interviewer' (with dropdowns for Benjamin Wilson and Jennifer Butler), and 'Appt. Status' (with options for Scheduled, Firm Appt., Scheduled, Tentative Appt., Not Scheduled, and Broken Appt.). Below the filters are tabs for 'Day', 'Week', 'Month', 'New Appt.', 'Reschedule', 'Appt. Monitor', and 'Not Sched.'. The 'Appt. Monitor' tab is selected. Below the tabs is a 'Select A Week to View Appts' section. It shows a calendar for December 2010 and a list of appointments for the week of Sunday, December 26, 2010, to Saturday, January 01, 2011. The appointment list includes names like ANNA MARTINEZ, ANTHONY BAILEY, OWEN LEE, CALEB ADAMS, LUCAS TORRES, SOPHIA HOWARD, LANDON HOWSE, JASPER CAMPBELL, and SIENNA GONZALEZ, along with their scheduled times and statuses.

3. Make sure that the correct stand is highlighted.

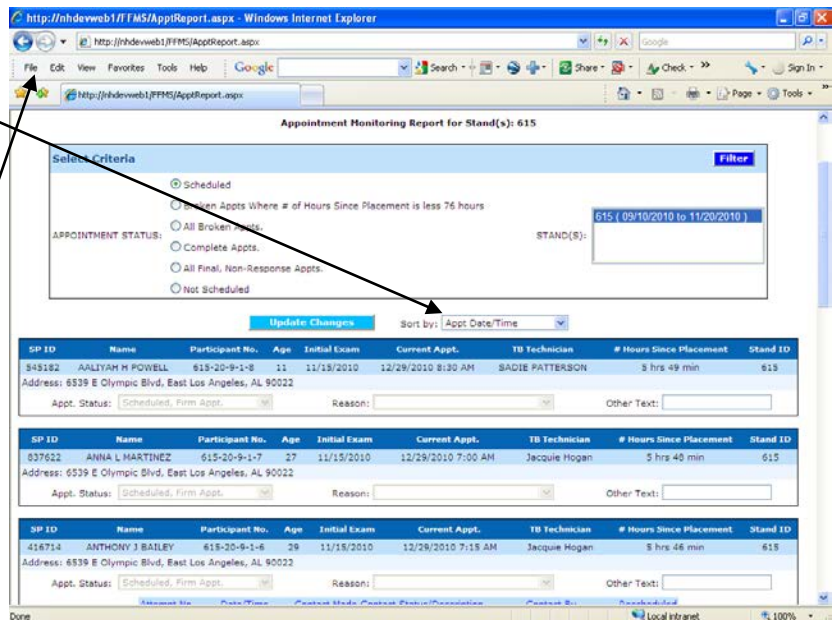
4. Select the desired appointment status.

5. Click the "Filter" button.



6. Sort the report as desired using the "Sort by" drop-down list.

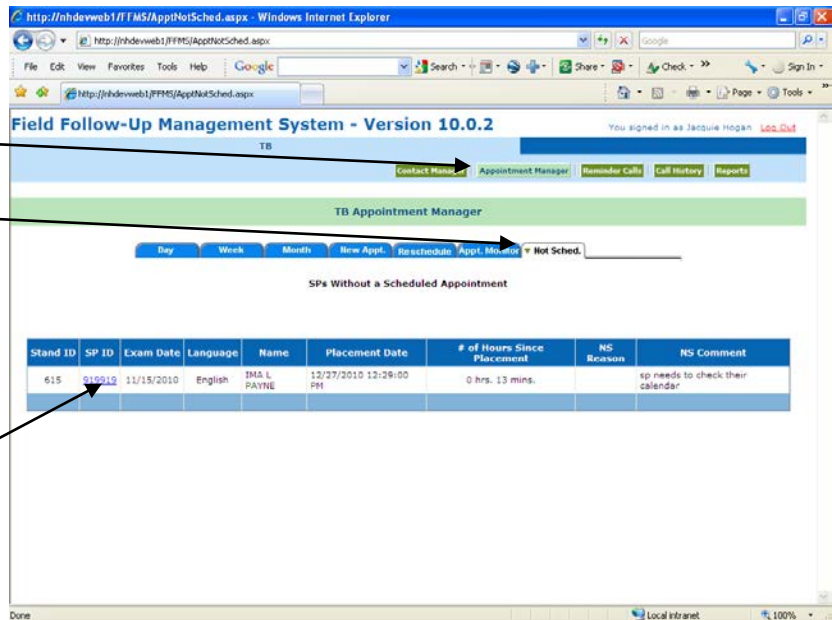
7. Print the report using the File, Print menu option.



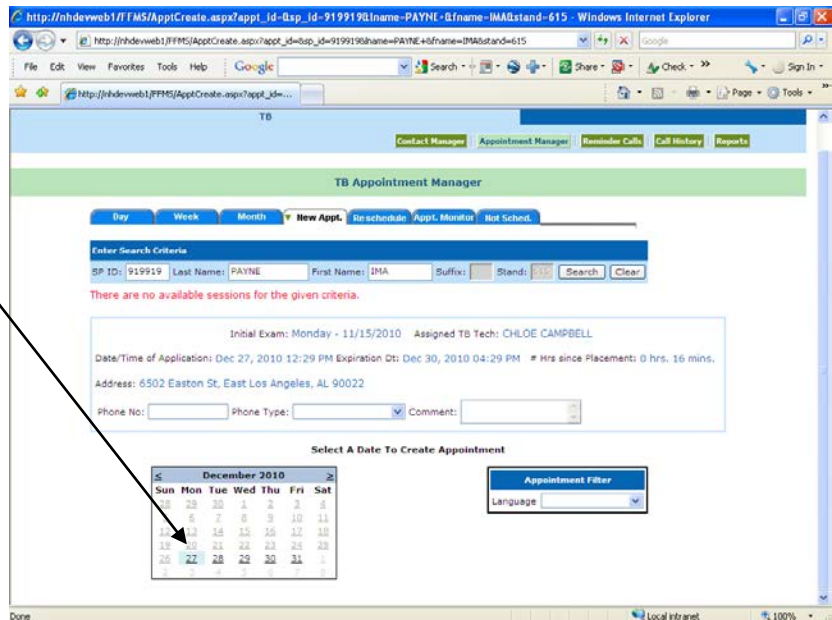
## 5.7 Scheduling Appointments for “Not Scheduled” SPs

While most of your SPs will be appointed by the MEC staff that places the SP’s antigen, some will not. This can happen for a variety of reasons, such as when the SP does not know their availability at the time of placement, or is willing to be placed but refuses to come to the field office for their reading. Regardless of the reason, these cases will appear on the list of not scheduled cases located on the “Not Sched.” tab. For these cases, it will be the TB Reader’s responsibility to schedule the reading appointment.

1. Click on the Appointment Manager button at the top of the screen.
2. Access the list of “not scheduled” appointments by clicking on the Not Sched. tab.
3. Contact the SP to schedule an appointment.
4. Click on the blue underlined SP ID to schedule an appointment.



5. Click on a calendar date to display appointment times available on that date.



6. Scroll the screen to display all available appointments on the selected date.

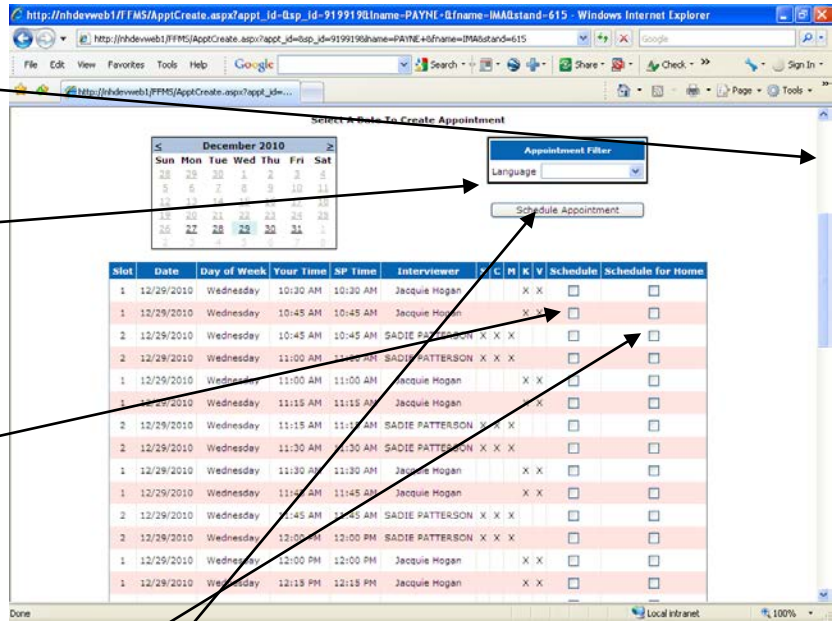
7. If needed, use the Language drop-down list to display appointments for readers who speak the SP's preferred language.

8. Check the "Schedule" box beside the desired appointment to schedule a reading in the field office.

**OR**

Check "Schedule for Home" for the desired appointment to schedule a reading at the SP's home.

9. If you are ready to schedule the appointment, scroll back up and click on the Schedule Appointment button.



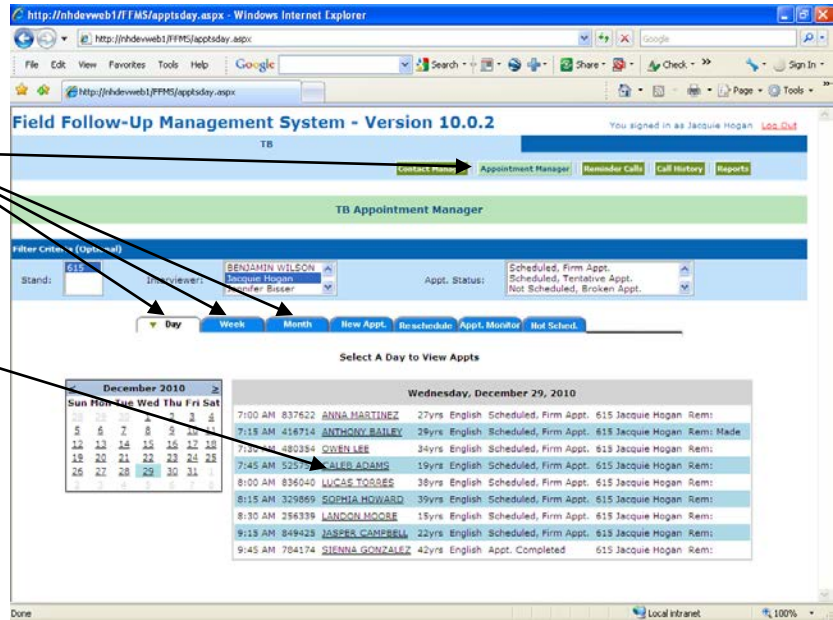
## **5.8 Rescheduling Appointments for SPs Already on the Schedule**

There may be times when an SP needs to reschedule their TB reading appointment. Use one of the two methods described below to find the SP's existing appointment and to reschedule them to a new appointment date and time.

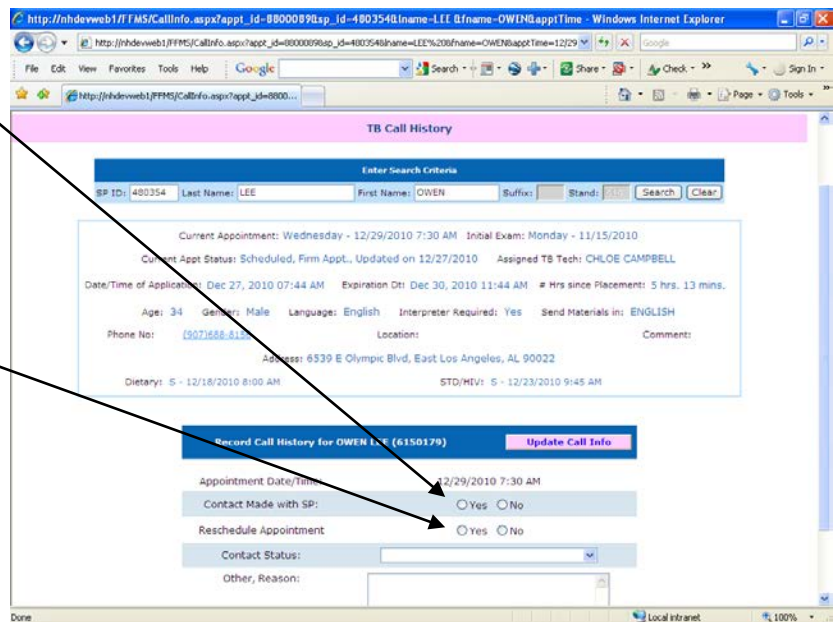
Remember to reschedule the reading for a time that is most convenient for the SP within 46-76 hours from placement but as close to the 48-52 hour ideal window as possible. Pay close attention to the expiration date and time displayed on the call history window to ensure that the convenient appointment is as close to the ideal window as possible.

**OPTION #1 – Use this option if the SP’s current appointment date is known.**

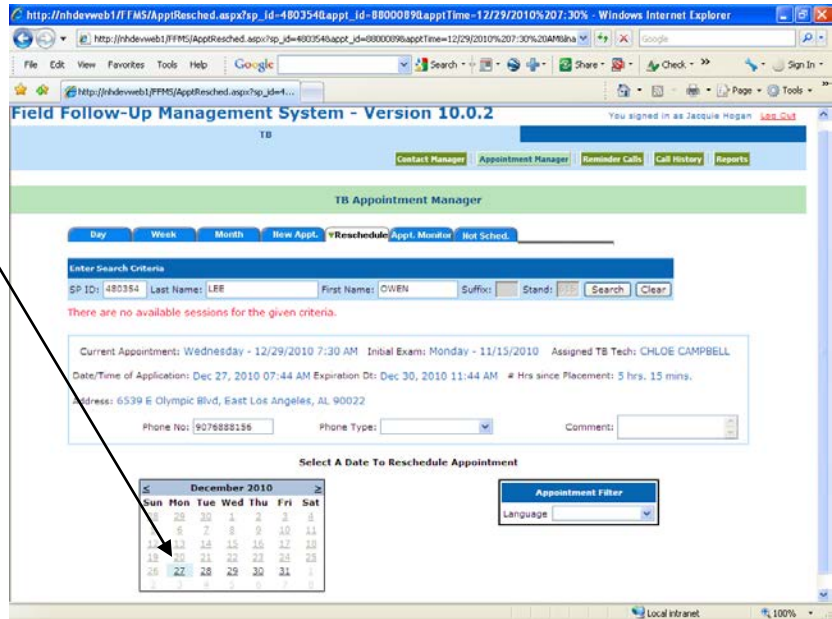
1. View the appointment you wish to reschedule on the Day, Week, or Month tab, or search for the SP under Call History.
2. Click on the underlined name of the SP.



3. Click “Yes,” contact made with SP.
4. Click “Yes,” reschedule appointment.



- Click on a calendar date to display appointment times available on that date.



- Scroll the screen to display all available appointments for the selected date.

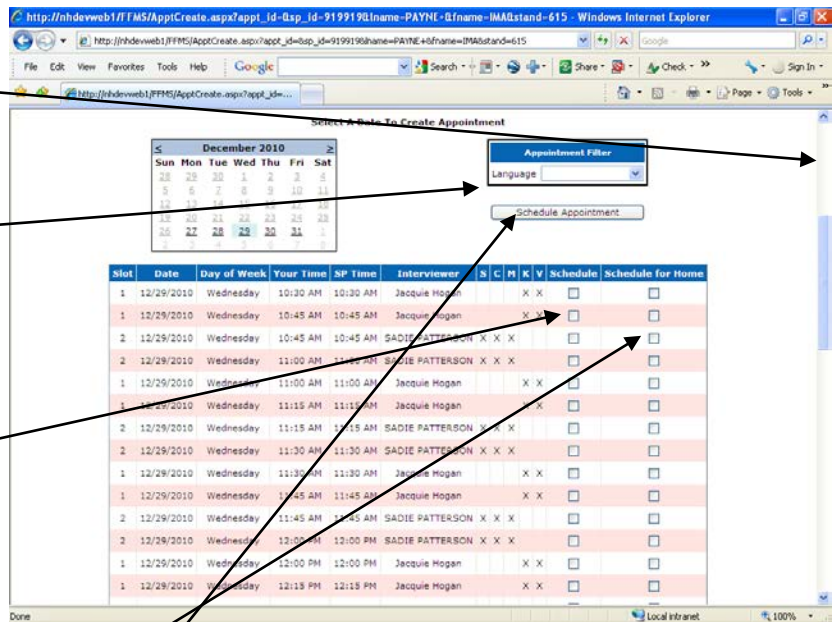
- If needed, use the Language drop-down list to display appointments for readers who speak the SP's preferred language.

- Check the "Schedule" box beside the desired appointment to schedule a reading in the field office.

**OR**

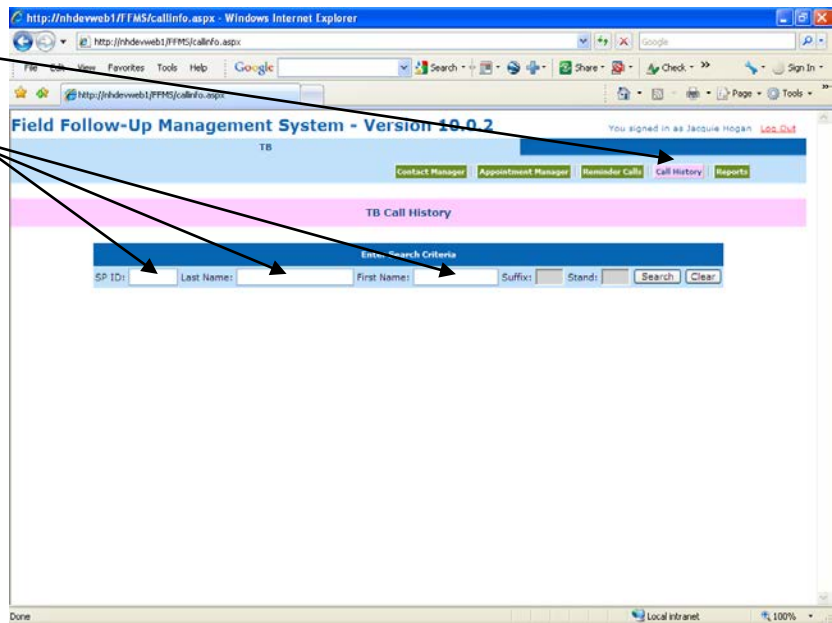
Check "Schedule for Home" for the desired appointment to schedule a reading at the SP's home.

- When ready to schedule the appointment, scroll back up and click on the Schedule Appointment button.

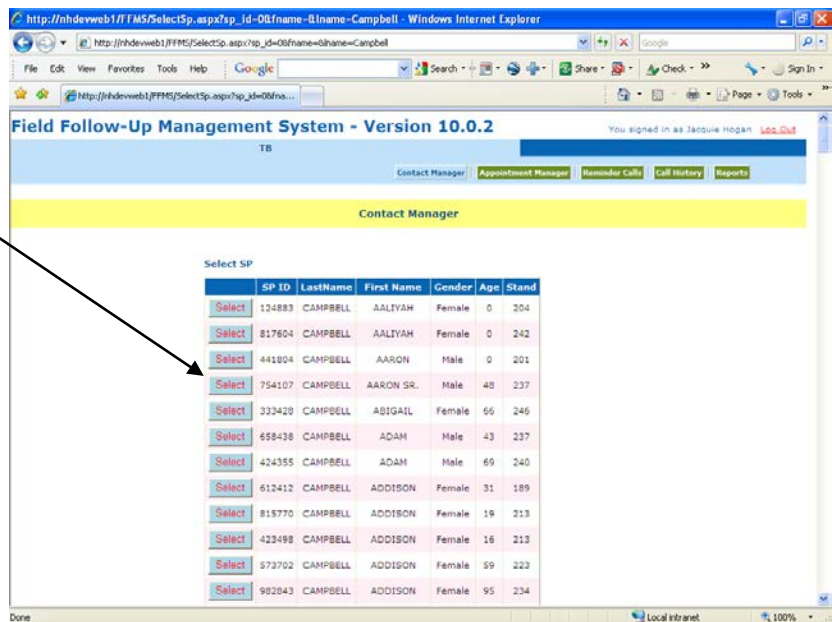


**OPTION #2 - Use this option if the SP's current appointment date is not known.**

1. Click on the Call History header at the top right of the screen.
2. Enter the SP ID, last name or first name, or any combination of the three for the SP and click on Search.



3. The FFMS will display all SPs who match the search criteria.
4. To view the Call History, click the select button next to the appropriate SP.
5. Follow steps 3 through 9 under option #1 to reschedule the appointment.





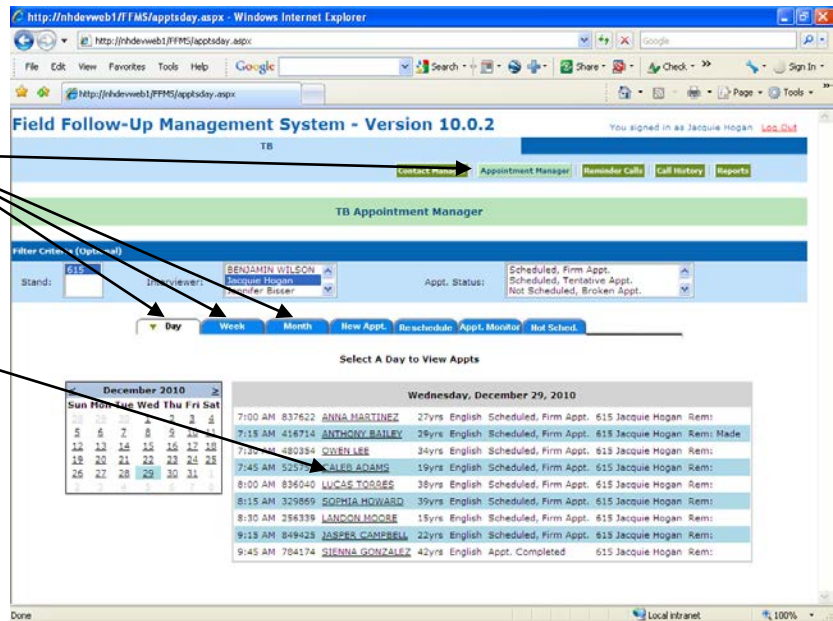
## 5.9 Call History

Use the Call History to record the results of all contact attempts and to reschedule appointments. There are two ways to view and make entries on the Call History. The first and easiest way is to click on the underlined name of the SP while viewing appointments in the day, week, or month view. This option works only if the appointment has been scheduled.

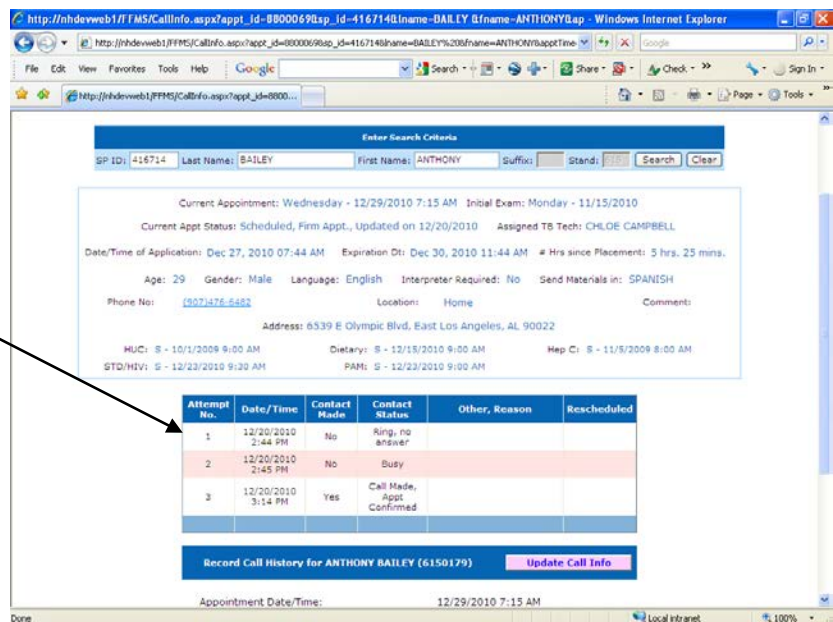
### OPTION #1

1. View the appointment you wish to reschedule on the Day, Week, or Month tab, or search for the SP under Call History.

2. Click on the underlined name of the SP.



3. Scroll down to view the Call History entries that have been made for the SP.



- Answer the two Yes or No questions appropriately. If the answer to the second question is “Yes,” the system automatically proceeds to reschedule the appointment.

Address: 6539 E Olympic Blvd, East Los Angeles, AL 90022

HUC: S - 10/1/2009 9:00 AM    Dietary: S - 12/15/2010 9:00 AM    Hep C: S - 11/5/2009 8:00 AM  
 STD/HIV: S - 12/23/2010 9:30 AM    PAM: S - 12/23/2010 9:00 AM

Attempt No.	Date/Time	Contact Made	Contact Status	Other, Reason	Rescheduled
1	12/20/2010 2:44 PM	No	Ring, no answer		
2	12/20/2010 2:48 PM	No	Busy		
3	12/20/2010 3:14 PM	Yes	Call Made, Appt Confirmed		

Record Call History for ANTHONY BAILEY (6150179)    Update Call Info

Appointment Date/Time: 12/29/2010 7:15 AM

Contact Made with SP:  Yes  No

Reschedule Appointment:  Yes  No

Contact Status:

Other, Reason:

- If the answer to the second question is “No,” select a result code from the drop-down menu. Click on the down arrow and select the appropriate code.

- If a result code of other was selected, type a reason into the text field provided.

- Click on the pink “Update call info” button.

Address: 6539 E Olympic Blvd, East Los Angeles, AL 90022

HUC: S - 10/1/2009 9:00 AM    Dietary: S - 12/15/2010 9:00 AM    Hep C: S - 11/5/2009 8:00 AM  
 STD/HIV: S - 12/23/2010 9:30 AM    PAM: S - 12/23/2010 9:00 AM

Attempt No.	Date/Time	Contact Made	Contact Status	Other, Reason	Rescheduled
1	12/20/2010 2:44 PM	No	Ring, no answer		
2	12/20/2010 2:48 PM	No	Busy		
3	12/20/2010 3:14 PM	Yes	Call Made, Appt Confirmed		

Record Call History for ANTHONY BAILEY (6150179)    Update Call Info

Appointment Date/Time: 12/29/2010 7:15 AM

Contact Made with SP:  Yes  No

Reschedule Appointment:  Yes  No

Contact Status:

Other, Reason:

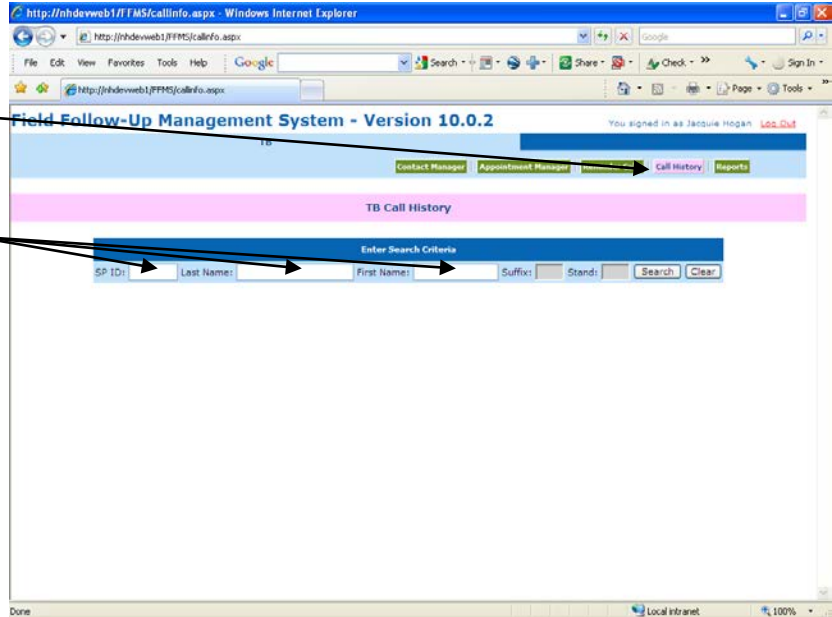
Ring, no answer  
 Answering machine, message left  
 Answering machine, no message left  
 Busy  
 Callback - appt. made  
 Initial refusal  
 Call - no appointment  
 Non-working phone/disconnected  
 No phone, did not call in at scheduled time  
 Not home  
 Call Intercept/Privacy Manager  
 Call Made, Appt Confirmed  
 Other

The second way to view and make entries on the Call History is through the Call History button at the top right of the screen. Use this to search for a case using the SP ID, first name, or last name, of any SP in the family.

**OPTION #2**

1. Click on the Call History header at the top right of the screen.

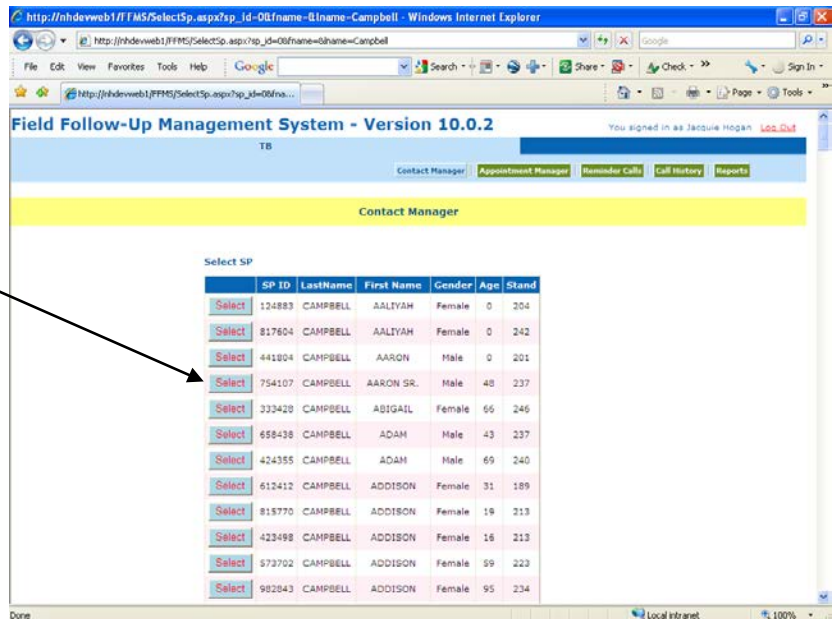
2. Enter the SP ID, last name or first name, or any combination of the three for the SP and click on Search.



3. The FFMS will display all SPs who match the search criteria.

4. To view the Call History, click the select button next to the appropriate SP. Be very careful to pick the correct SP.

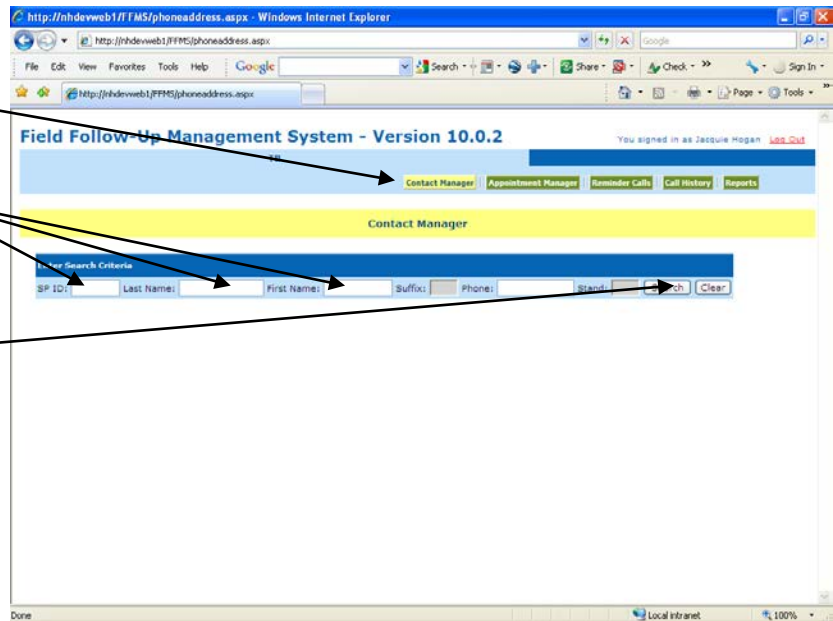
5. Follow steps 3 through 7 under option #1 to update the Call History.



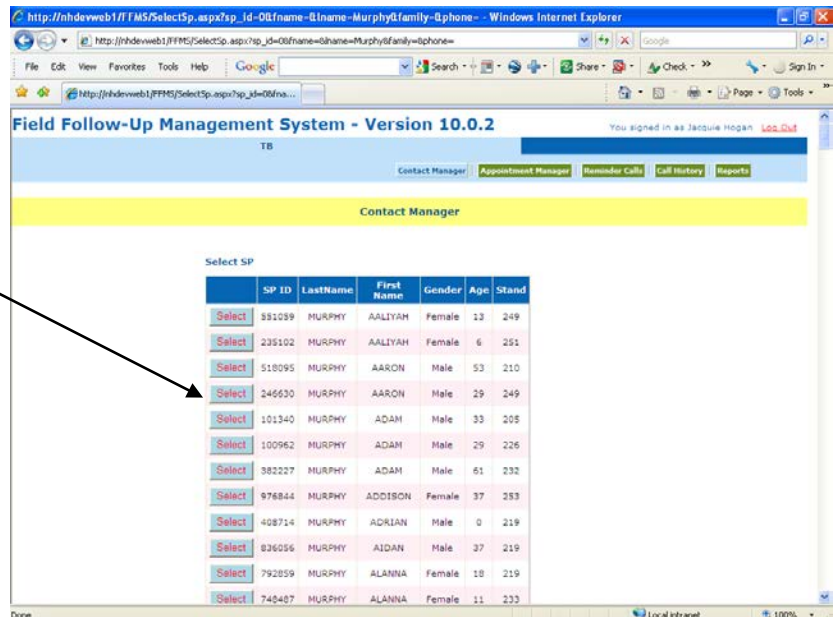
## 5.10 Contact Manager – Viewing Addresses and Phone Numbers

Use the Contact Manager to view the current phone number, street address, and mailing address for any SPs. Search by SP ID, last name, first name, or phone number, or a combination of any of the four.

1. Click on the Contact Manager header.
2. Enter the desired search criteria by typing in one or more of the boxes.
3. Click the “Search” button.



4. To view the contact information, select the appropriate SP.



5. SP phone and address information displays.

6. Note, that the FFMS cannot be used to update phone and address information so contact the field office staff if updates are needed.

Field Follow-Up Management System - Version 10.0.2

You signed in as Jacquie Hogan [Log Out](#)

TB

Contact Manager Appointment Manager Reminder Calls Call History Reports

Contact Manager

Enter Search Criteria

SP ID: 767995 Last Name: MURPHY First Name: ISAAC Suffix: Phone: Stand: 615 Search Clear

Stand is still active, contact your Field Office for problems with this information. FO Phone Information is currently not available.

Exam Information

Exam Date: 11/15/2010 8:30 AM Spanish Exam: No

Phone Information for ISAAC MURPHY

Phone Number	Ext.	Phone Type
9789685747		Home
3342342342		Neighbor/Relative

Address Information for ISAAC MURPHY

Address Type	Street Address	City	State	Zip
Mailing	6539 E Olympic Blvd	East Los Angeles	AL	90022
Street	6539 E Olympic Blvd	East Los Angeles	AL	90022

Local intranet 100%

## 5.11 Making Reminder Calls

Use the Reminder Calls window when making reminder telephone calls to display the list of SPs with scheduled appointments who have not yet confirmed their appointment. The report allows the TB reader to view all currently scheduled TB appointments which have not received a successfully completed reminder call. The report provides the ability to filter the list for appointments for today, the next day, next 2 days, and the next 3 days. Normally, the “Today” filter will not display any SPs since all reminder calls should be attempted and completed the day before the SP’s schedule appointment.

The report lists the following information for each SP: SP ID, SP Name, Phone No., Language, Appt. Date, Appt. Status, # Hrs Since Placement, Interviewer (primary TB Reader), Stand, Age, Call Made, and Call Attempted.

1. Use the “Call Made” checkbox to indicate that the reminder was successfully completed and the appointment was confirmed.

2. Use the “Call Attempted” checkbox to indicate that the reminder was attempted several times but the SP could not be reached to confirm their appointment. Only check this box when no additional attempts will be made.

SP ID	SP Name	Phone No.	Language	Appt. Date	Appt. Status	# Hrs Since Placement	Interviewer	Stand	Age	Call Made	Call Attempted
525787	CALEB L ADAMS	907-899-8665	English	12/29/2010 7:45 AM	Scheduled, Firm Appt.	73 hrs 39 min	Jacque Hogan	615	19	<input type="checkbox"/>	<input type="checkbox"/>
256339	LONDON J MOORE	907-627-2978	English	12/29/2010 8:20 AM	Scheduled, Firm Appt.	73 hrs 40 min	Jacque Hogan	615	15	<input type="checkbox"/>	<input type="checkbox"/>
836040	LUCAS S TORRES	907-616-9785	English	12/29/2010 8:00 AM	Scheduled, Firm Appt.	73 hrs 36 min	Jacque Hogan	615	38	<input type="checkbox"/>	<input type="checkbox"/>
329869	SOPHIA S HOWARD	907-374-8381	English	12/29/2010 8:15 AM	Scheduled, Firm Appt.	73 hrs 34 min	Jacque Hogan	615	39	<input type="checkbox"/>	<input type="checkbox"/>
849425	JASPER N CAMPBELL	907-155-9796	English	12/29/2010 9:15 AM	Scheduled, Firm Appt.	72 hrs 6 min	Jacque Hogan	615	22	<input type="checkbox"/>	<input type="checkbox"/>
813366	SOPHIE J STEWART	907-165-6206	English	12/29/2010 9:30 AM	Scheduled, Firm Appt.	72 hrs 6 min	SADIE PATTERSON	615	30	<input type="checkbox"/>	<input type="checkbox"/>
748963	CATHERAN H EVANS	907-992-1251	English	12/29/2010 9:15 AM	Scheduled, Firm Appt.	72 hrs 4 min	SADIE PATTERSON	615	41	<input type="checkbox"/>	<input type="checkbox"/>
580370	MITA'S DXA TRAINING 1			12/31/2010 9:00 AM	Scheduled, Firm Appt.	24 hrs 7 min	Jacque Hogan	618	8	<input type="checkbox"/>	<input type="checkbox"/>
284699	MITA'S DXA TRAINING 2			12/31/2010 9:15 AM	Scheduled, Firm Appt.	23 hrs 58 min	Jacque Hogan	615	16	<input type="checkbox"/>	<input type="checkbox"/>
490041	MITA'S DXA TRAINING 3			12/31/2010 9:45 AM	Scheduled, Firm Appt.	23 hrs 55 min	Jacque Hogan	615	28	<input type="checkbox"/>	<input type="checkbox"/>
325703	MITA'S DXA TRAINING 8			12/31/2010 10:45 AM	Scheduled, Firm Appt.	23 hrs 54 min	Jacque Hogan	615	41	<input type="checkbox"/>	<input type="checkbox"/>

When either “Call Made” or “Call Attempted” is checked the SP will be removed from this report, so only check these boxes when no additional attempts will be made to contact the SP.

When making reminder calls:

- Check the “Call Made” checkbox to indicate that the reminder was successfully completed and the appointment was confirmed.

- Check the “Call Attempted” checkbox to indicate that the reminder was attempted several times but the SP could not be reached.
- Record all contact attempts using the Call History functions outlined in Section 5.9;
- If needed, reschedule the SP’s appointment using the functions outlined in Section 5.8;
- If needed, use the Contact Manager functions outlined in Section 5.10 to obtain additional phones for SPs that cannot be reached.

**Appendix A**

**2011-2012 TB Ruler Specifications**



## 2011-2012 TB Ruler Specifications

### Manufacturer

Loomis Sales Corporation  
716 Maple Street  
Edmonds, WA 98020  
**Phone:** 425.776.8640  
**Fax:** 425.774.1628  
**Toll-free:** 877.869.6250  
email: [Chuck@LoomisSales.com](mailto:Chuck@LoomisSales.com)  
<http://loomissales.com/tbrulers>

### Specifications

- One thousand each of two types
- Plastic 6” ruler (150mm x 37mm)
- Clear
- Flexible
- Millimeter increments from zero to 90
  - 1000 rulers with 0, 10, 20, 30, 40, 50, 60, 70, 80, 90 (even markings)
  - 1000 rulers with 0, 5, 15, 25, 35, 45, 55, 65, 75, 85 (odd markings)
- Zero mark 15mm from the left edge
- Black ink
- Engrave the words, “1. Inspect, 2. Palpate, 3. Mark, 4. Measure” on the bottom (4mm high)
- Incrementally add a unique serial number to each ruler
  - Start with 0001 and 2011
  - Engrave in black on white on right edge

### Warehouse Quality Control Procedures

- When the new rulers arrived in the warehouse, the staff compared all new rulers to the master ruler and put the new rulers into circulation if all markings matched. (If any fail the calibration, notify NCHS and component staff.)
- Routinely send 12 rulers at the start of each stand – four for each of the three TB techs.
- Track each ruler by stand number and TB tech

### End of Stand Procedures

- TB techs send all rulers back to the home office supervisor at the end of every stand and she or he returns them to the warehouse supervisor who will compare them to the master ruler and put them back into circulation.

### Rotating Rulers

Warehouse - rotate the odd and even markings according to this schedule:

Even	Odd
278	279
281	280
282	283
284	285
286	287
288	289
290	291 and 292

## Master Ruler Calibration and Certification

### Contact

NIST  
ATTN: Chris Blackburn  
100 Bureau Dr. Mail Stop 8211  
Gaithersburg, MD 20899

Large Scale Coordinate Metrology  
(301) 975-6413  
[chris.blackburn@nist.gov](mailto:chris.blackburn@nist.gov)

Email letter that accompanied the master ruler:

*Mr. Blackburn,*

*I am sending you a six-inch metal ruler and request that NIST calibrate it at the first 20 mm marks and seven additional points at the 30, 40, 50, 60, 70, 80 and 90 marks.*

*I am enclosing a return air bill so you can ship the calibrated ruler to CJ Bittner in our warehouse in Gaithersburg.*

*Brenda Lewis  
CDC/NCHS, Rm 4219  
3311 Toledo Road  
Hyattsville, MD 20782  
301-458-4343  
[bgl1@cdc.gov](mailto:bgl1@cdc.gov)*

The price for tape calibrations is \$499 for a 7-point calibration, plus \$10 for each additional point (if any) that you would like calibrated.

Send the master ruler or tape to the following address:

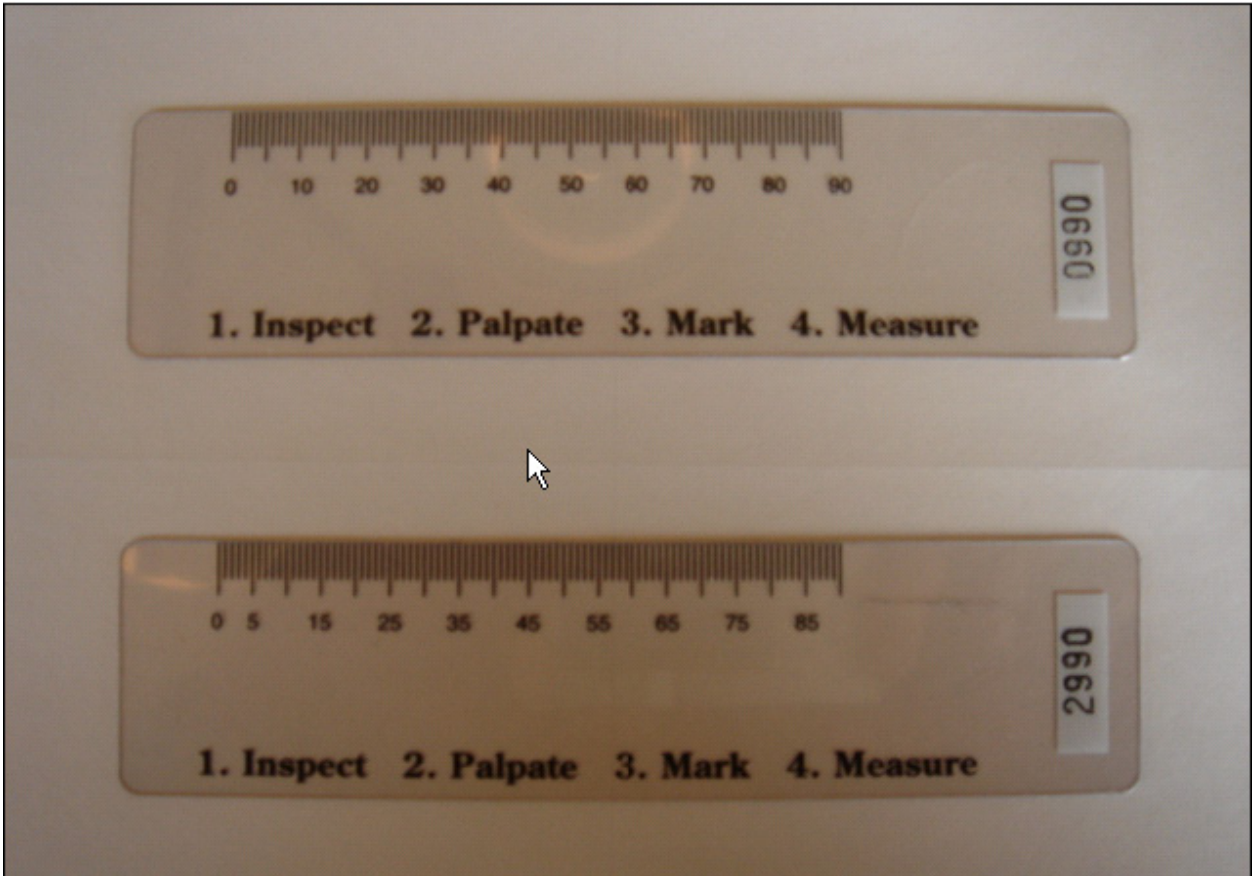
NIST  
ATTN: Chris Blackburn  
100 Bureau Dr. Mail Stop 8211  
Gaithersburg, MD 20899

Include a PO in the box with the tape, or fax it to (301) 975-5360, or send a pdf version to his email address. The PO should include a brief description of the tape (something like “100 foot Steel Tape” is fine) and a list of the points you would like calibrated. Alternatively, you can pay for the calibration with a credit card. Please contact him for more information about this option.

Return shipping can be charged to your FedEx/UPS account number (please include this on the PO) or will be a flat fee of \$30 added to the cost of the calibration.

The turnaround time for tape calibrations is 4 weeks from the time the tape is received by NIST.

Picture of rulers





## REPORT OF CALIBRATION

NIST Test No: 681/280109-11

October 26, 2010

For: US Department of Health and Human Services  
ATTN: Brenda Lewis  
331 Toledo Road  
Hyattsville, MD 20782

Item: 150 mm Steel Ruler

NIST Tape ID No. 15769

The ruler was supported on a horizontal flat surface during calibration. The tension applied to the ruler during calibration is specified in the table included in this report. The measured intervals were compared with a wavelength-corrected laser interferometer whose light source realizes a vacuum wavelength traceable to the definition of the SI meter.

The terminal points of each measured interval are the centers of the graduations at the edge of the ruler where the shortest graduations appear. The measured lengths at 20 °C (68 °F) between the terminal points of the indicated intervals are shown in the table. The unit of length is the meter.

The measurement uncertainty was evaluated following NIST Technical Note 1297, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, which is considered to be part of this Report. The expanded uncertainty  $U$  is calculated using a coverage factor  $k = 2$ . For a measured value of length,  $L$ , the true length is contained in the interval  $[L-U, L+U]$  with a level of confidence of approximately 95 %.

Tension (kg)	Interval (mm)	Length (mm)	Uncertainty (mm)
0	0 to 1	0.94	0.05
0	0 to 2	1.97	0.05
0	0 to 3	2.93	0.05
0	0 to 4	3.97	0.05
0	0 to 5	4.96	0.05
0	0 to 6	5.98	0.05
0	0 to 7	6.98	0.05
0	0 to 8	7.96	0.05
0	0 to 9	8.93	0.05
0	0 to 10	9.96	0.05

NIST Test No: 681/280109-11  
Item: 150 mm Steel Ruler

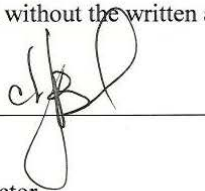
NIST Tape ID No.15769

0	0 to 11	10.95	0.05
0	0 to 12	11.97	0.05
0	0 to 13	12.97	0.05
0	0 to 14	13.98	0.05
0	0 to 15	15.00	0.05
0	0 to 16	15.96	0.05
0	0 to 17	16.93	0.05
0	0 to 18	17.94	0.05
0	0 to 19	18.92	0.05
0	0 to 20	19.92	0.05
0	0 to 30	29.95	0.05
0	0 to 40	39.96	0.05
0	0 to 50	49.96	0.05
0	0 to 60	59.99	0.05
0	0 to 70	69.98	0.05
0	0 to 80	79.97	0.05
0	0 to 90	89.99	0.05

The assumed coefficient of thermal expansion of the ruler is  $0.0000115 \text{ }^\circ\text{C}^{-1}$   
( $0.0000064 \text{ }^\circ\text{F}^{-1}$ ).

This Report shall not be reproduced except in full without the written approval of the Large Scale Coordinate Metrology Group.

Measurements were made by Chris Blackburn.



For the Director,  
National Institute of Standards and Technology



Dr. Steven D. Phillips, Group Leader  
Large-Scale Coordinate Metrology Group  
Mechanical Metrology Division  
Physical Measurement Laboratory

Order No: LETTER  
Date: October 26, 2010

## **Appendix B**

### **Hard-Copy Forms**

- **Adverse Reaction Report**
- **Data Entry – Reading Form**
- **Receipt Calculation and Signature Form**
- **Adult ROF-TB Neg – English**
- **Adult ROF-TB Neg – Spanish**
- **Adult ROF-TB Pos – English**
- **Adult ROF-TB Pos – Spanish**
- **Child ROF-TB Neg – English**
- **Child ROF-TB Neg – Spanish**
- **Child ROF-TB Pos – English**
- **Child ROF-TB Pos – Spanish**

NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY

TUBERCULOSIS (TB) SKIN TESTING  
ADVERSE REACTION REPORT

<b>Sample Person (SP) Information</b>				
SP ID: _____ <i>Insert participant sample number.</i>				
<b>TB Skin Test (TST) Information</b>				
Date and Time of Administration:	_ _ - _ _ - _ _ _ _  MM DD YYYY	_ _  :  _ _  HR MIN	<input type="checkbox"/> AM <input type="checkbox"/> PM	
Date and Time of Reading:	_ _ - _ _ - _ _ _ _  MM DD YYYY	_ _  :  _ _  HR MIN	<input type="checkbox"/> AM <input type="checkbox"/> PM	
<b>TST Results</b>				
Arm:	Induration: ___ mm	Vesiculation/Bullae:	Ulceration/Necrosis:	Antigen:
<input type="checkbox"/> Right <input type="checkbox"/> Left		<input type="checkbox"/> Present <input type="checkbox"/> Absent	<input type="checkbox"/> Present <input type="checkbox"/> Absent	Tubersol
<b>Report of Findings</b>				
TST result: <input type="checkbox"/> Positive <input type="checkbox"/> Negative		<b>Comments or descriptions of other adverse reactions:</b>		
<b>TST Reader</b>				
Tech ID: _____				





## TB Receipt Calculation and Signature Form

Print Name \_\_\_\_\_

Date \_\_\_\_\_

Segment Number \_\_\_\_\_

Base Remuneration	
Transportation	
Adult/Child Care	
Total	

Signature \_\_\_\_\_

Amount Received \$ \_\_\_\_\_

## TB Receipt Calculation and Signature Form

Print Name \_\_\_\_\_

Date \_\_\_\_\_

Segment Number \_\_\_\_\_

Base Remuneration	
Transportation	
Adult/Child Care	
Total	

Signature \_\_\_\_\_

Amount Received \$ \_\_\_\_\_

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT NEGATIVE**

Participant Name: _____	Sample Number: _____						
Date skin test placed: _____ MM/DD/YYYY	Date skin test read: _____ MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Negative</b></p> <p>Based on the skin readings, your test result for TB infection was negative (____ mm). This means that you probably have not been infected with TB.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table border="0"> <tr> <td>English: 1-800-452-6115, press “2”</td> <td>Chinese: 1-866-887-7996, press “1”</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press “3”</td> <td>Korean: 1-866-887-7996, press “2”</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press “3”</td> </tr> </table>		English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”	Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”		Vietnamese: 1-866-887-7996, press “3”
English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”						
Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”						
	Vietnamese: 1-866-887-7996, press “3”						

## HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT NEGATIVE

Nombre del participante: _____	Número de la muestra: _____
Fecha en la cual se tomó la prueba en la piel:  _____	Fecha en la cual se leyó la prueba en la piel:  _____
MM/DD/YYYY	
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.</p> <p>Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.</p>	
<input type="checkbox"/> <b>Negativo</b>	
<p>Basado en las lecturas de la prueba en la piel, el resultado de su prueba de tuberculosis fue negativo (____ mm). Esto significa que usted probablemente no ha estado infectado(a) con tuberculosis.</p>	
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p>	
Inglés: 1-800-452-6115, oprima “2”	Chino: 1-866-887-7996, oprima “1”
Español: 1-800-452-6115, oprima “3”	Coreano: 1-866-887-7996, oprima “2”
	Vietnamita: 1-866-887-7996, oprima “3”

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT POSITIVE**

Participant Name: _____	Sample Number: _____						
Date skin test placed: _____ MM/DD/YYYY	Date skin test read: _____ MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Positive</b></p> <p>Based on the skin readings, your test result for TB infection was positive (____ mm). This means that it is possible that you were infected with tuberculosis at some time during your life. Most people infected with tuberculosis never develop active TB disease. People who are infected but do not have active disease cannot spread TB to anyone else. If no one has told you before that you may have been infected with TB, we strongly recommend you take this report to your doctor or to the local health department as soon as you can. Your doctor or the health department may want to do another test to see if you need medicine to prevent active TB disease. The address and contact phone number for further evaluation at your local health department is provided separately.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table border="0"> <tr> <td>English: 1-800-452-6115, press “2”</td> <td>Chinese: 1-866-887-7996, press “1”</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press “3”</td> <td>Korean: 1-866-887-7996, press “2”</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press “3”</td> </tr> </table>		English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”	Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”		Vietnamese: 1-866-887-7996, press “3”
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<p>The NHANES survey is a research study. Because no risk factor information was available at the time of the reading, a result of 10 mm or more of induration was considered positive.</p>							

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – ADULT POSITIVE**

Nombre del participante: _____	Número de la muestra: _____						
Fecha en la cual se tomó la prueba en la piel:  _____	Fecha en la cual se leyó la prueba en la piel:  _____						
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. Los resultados a continuación son de la prueba en la piel.</p> <p>Los resultados de su prueba de sangre se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre para la tuberculosis es positivo, le notificaremos inmediatamente.</p>							
<p><input type="checkbox"/> <b>Positivo</b></p> <p>Basado en las lecturas de la prueba en la piel, el resultado de su prueba de tuberculosis fue positivo (____ mm). Esto significa que es posible que usted estuvo infectado(a) con tuberculosis en algún momento de su vida. La mayoría de las personas infectadas con tuberculosis nunca presentan la enfermedad activa de tuberculosis. Las personas que están infectadas, pero no tienen la enfermedad activa, no pueden contagiar a nadie con tuberculosis. Si nadie le ha dicho antes que usted puede estar infectado(a) con tuberculosis, le recomendamos enfáticamente que le lleve este informe a su médico o al Departamento de Salud local tan pronto como pueda. Es posible que su médico o el Departamento de Salud le quieran hacer otra prueba para ver si usted necesita medicinas para prevenir la enfermedad activa de tuberculosis. La dirección y número de teléfono para evaluación adicional en su Departamento de Salud local se proporcionan por separado.</p>							
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p> <table border="0"> <tr> <td>Inglés: 1-800-452-6115, oprima “2”</td> <td>Chino: 1-866-887-7996, oprima “1”</td> </tr> <tr> <td>Español: 1-800-452-6115, oprima “3”</td> <td>Coreano: 1-866-887-7996, oprima “2”</td> </tr> <tr> <td></td> <td>Vietnamita: 1-866-887-7996, oprima “3”</td> </tr> </table>		Inglés: 1-800-452-6115, oprima “2”	Chino: 1-866-887-7996, oprima “1”	Español: 1-800-452-6115, oprima “3”	Coreano: 1-866-887-7996, oprima “2”		Vietnamita: 1-866-887-7996, oprima “3”
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	Vietnamita: 1-866-887-7996, oprima “3”						
<p>La encuesta NHANES es un estudio de investigación. Dado que no había información disponible sobre el factor de riesgo al momento de determinar el resultado, un resultado de 10 mm o más de endurecimiento se consideró positivo.</p>							

**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – CHILD NEGATIVE**

Participant Name: _____	Sample Number: _____						
Date skin test placed: _____ MM/DD/YYYY	Date skin test read: _____ MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your child's blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If your child's blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Negative</b></p> <p>Based on the skin test readings, your child's result for TB infection was negative (____ mm). This means your child probably has not been infected with TB.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table border="0"> <tr> <td>English: 1-800-452-6115, press “2”</td> <td>Chinese: 1-866-887-7996, press “1”</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press “3”</td> <td>Korean: 1-866-887-7996, press “2”</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press “3”</td> </tr> </table>		English: 1-800-452-6115, press “2”	Chinese: 1-866-887-7996, press “1”	Spanish: 1-800-452-6115, press “3”	Korean: 1-866-887-7996, press “2”		Vietnamese: 1-866-887-7996, press “3”
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**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – CHILD NEGATIVE**

Nombre del participante: _____	Número de la muestra: _____						
Fecha en la cual se tomó la prueba en la piel:  _____ MM/DD/YYYY	Fecha en la cual se leyó la prueba en la piel:  _____ MM/DD/YYYY						
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. A continuación están los resultados de la prueba en la piel.</p> <p>Los resultados de la prueba de sangre de su niño(a) se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre de tuberculosis de su niño(a) es positivo, le notificaremos inmediatamente.</p>							
<p><input type="checkbox"/> <b>Negativo</b></p> <p>Basado en las lecturas de la prueba en la piel, el resultado de la prueba de tuberculosis de su niño(a) fue negativo ( ____mm). Esto significa que su niño(a) probablemente no ha estado infectado con tuberculosis.</p>							
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p> <table border="0"> <tr> <td>Inglés: 1-800-452-6115, oprima “2”</td> <td>Chino: 1-866-887-7996, oprima “1”</td> </tr> <tr> <td>Español: 1-800-452-6115, oprima “3”</td> <td>Coreano: 1-866-887-7996, oprima “2”</td> </tr> <tr> <td></td> <td>Vietnamita: 1-866-887-7996, oprima “3”</td> </tr> </table>		Inglés: 1-800-452-6115, oprima “2”	Chino: 1-866-887-7996, oprima “1”	Español: 1-800-452-6115, oprima “3”	Coreano: 1-866-887-7996, oprima “2”		Vietnamita: 1-866-887-7996, oprima “3”
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**HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS - CHILD POSITIVE**

Participant Name: _____	Sample Number: _____						
Date skin test placed:  _____	Date skin test read:  _____						
MM/DD/YYYY	MM/DD/YYYY						
<p>Two tuberculosis (TB) tests were performed as part of the National Health and Nutrition Examination Survey: a skin test and a blood test. Results below are for the skin test.</p> <p>The results from your blood test will be provided in the Final Report of Findings sent by mail 12–16 weeks after the examination. If the blood test for TB infection is positive, we will notify you right away.</p>							
<p><input type="checkbox"/> <b>Positive</b></p> <p>Based on the skin readings, your child's test for TB was positive (____ mm ). This means that it is possible your child was infected with tuberculosis at some time in his/her life. Most people infected with tuberculosis never develop active TB disease. People who are infected but do not have active disease cannot spread tuberculosis to anyone else. If no one has told you before that your child may have been infected with TB, we strongly recommend you take this report to your child's doctor or local health department as soon as you can. Your doctor or the health department may want to do another skin test and an examination to see if your child needs medicine to prevent active TB disease. The address and contact phone number for further evaluation at your local health department is provided separately.</p>							
<p>If you have any questions, you may call Dr. Kathryn Porter on one of our toll-free numbers below between 8:30 AM and 6:00 PM Eastern Time, Monday through Friday.</p> <table border="0"> <tr> <td>English: 1-800-452-6115, press "2"</td> <td>Chinese: 1-866-887-7996, press "1"</td> </tr> <tr> <td>Spanish: 1-800-452-6115, press "3"</td> <td>Korean: 1-866-887-7996, press "2"</td> </tr> <tr> <td></td> <td>Vietnamese: 1-866-887-7996, press "3"</td> </tr> </table>		English: 1-800-452-6115, press "2"	Chinese: 1-866-887-7996, press "1"	Spanish: 1-800-452-6115, press "3"	Korean: 1-866-887-7996, press "2"		Vietnamese: 1-866-887-7996, press "3"
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<p>The NHANES survey is a research study. Because no risk factor information was available at the time of the reading, a result of 10 mm or more of induration was considered positive.</p>							



## HOME VISIT TUBERCULOSIS SKIN TEST REPORT OF FINDINGS – CHILD POSITIVE

Nombre del participante: _____	Número de la muestra: _____						
Fecha en la cual se tomó la prueba en la piel:  _____	Fecha en la cual se leyó la prueba en la piel:  _____						
MM/DD/YYYY							
<p>Como parte de la Encuesta Nacional de Examen de Salud y Nutrición, se hicieron dos pruebas de tuberculosis: una prueba en la piel y una prueba de sangre. A continuación están los resultados de la prueba en la piel.</p> <p>Los resultados de la prueba de sangre de su niño(a) se proporcionarán en el Informe Final de Resultados que se envía por correo entre 12 y 16 semanas después del examen. Si el resultado de la prueba de sangre de tuberculosis de su niño(a) es positivo, le notificaremos inmediatamente.</p>							
<p><input type="checkbox"/> <b>Positivo</b></p> <p>Basado en las lecturas de la prueba en la piel, el resultado de la prueba de tuberculosis de su niño(a) fue positivo (____ mm). Esto significa que es posible que su niño(a) estuvo infectado(a) con tuberculosis en algún momento de su vida. La mayoría de las personas infectadas con tuberculosis nunca presentan la enfermedad activa de tuberculosis. Las personas que están infectadas, pero no tienen la enfermedad activa, no pueden contagiar a nadie con tuberculosis. Le recomendamos enfáticamente que le lleve este informe al médico de su niño(a) o al Departamento de Salud local tan pronto como pueda. Es posible que el médico de su niño(a) o el Departamento de Salud quieran hacer un examen para ver si su niño(a) necesita medicinas para prevenir la enfermedad activa de tuberculosis. La dirección y número de teléfono para evaluación adicional en su Departamento de Salud local se proporcionan por separado.</p>							
<p>Si desea hacer alguna pregunta, puede llamar gratis a la doctora Kathryn Porter a uno de nuestros números a continuación, de lunes a viernes, entre las 8:30 de la mañana y las 6:00 de la tarde, hora del Este.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Inglés: 1-800-452-6115, oprima “2”</td> <td style="width: 50%;">Chino: 1-866-887-7996, oprima “1”</td> </tr> <tr> <td>Español: 1-800-452-6115, oprima “3”</td> <td>Coreano: 1-866-887-7996, oprima “2”</td> </tr> <tr> <td></td> <td>Vietnamita: 1-866-887-7996, oprima “3”</td> </tr> </table>		Inglés: 1-800-452-6115, oprima “2”	Chino: 1-866-887-7996, oprima “1”	Español: 1-800-452-6115, oprima “3”	Coreano: 1-866-887-7996, oprima “2”		Vietnamita: 1-866-887-7996, oprima “3”
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