National Health
and Nutrition
Examination Survey

SPECIMEN
COLLECTION
PROCEDURES
MANUAL

nhanes

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1. HAIR COLLECTION PROTOCOL

1.1   Introduction – Specimen Collection

The Specimen Collection component consists of two sections, hair collection and nasal swab collection. The MEC coordinator assigns a SP (sample person) to the specimen collection/balance room. The health technician logs onto the specimen collection application and logs the SP into the component. The ISIS system presents the correct section screens according to the SPs person type, age, and gender. Primary male and female SPs ages 1-5 and females ages 16-49 are eligible for hair collection. Primary, home exam, and second exam SPs age 1+ are eligible for nasal swab collection.   Health technicians collect the hair and/or nasal swab on primary and second exam SPs, record the results in ISIS, escort the SP back to the coordinator, and transport the specimens to the MEC laboratory. The home examiner collects the nasal swab in the SP's home, records the collection results in ISIS and transports the nasal swab back to the MEC. The medical technologist logs the specimen(s) into the MEC laboratory using the laboratory application, stores the specimens and ships them to contract laboratories weekly.

1.2   Overview – Hair Collection

The purpose of hair collection is to obtain a suitable biological sample to determine total mercury levels in hair. Relationships exist between the concentrations of mercury in human scalp hair and dietary methylmercury exposures. Use the hair to characterize recent exposure to methylmercury over a relatively uniform time interval.

1.2.1   Specimen Requirement

Collect hair samples on primary male and female sample persons (SPs) ages 1-5, and women ages 16-49. Administer the questionnaire regarding hair treatment within the last month, and collect approximately 100 strands of hair from the occipital position of the head. Analysis requires a minimum of 50 mg. Collect as much as feasibly possible. Retain orientation of the hair strands, whenever possible.

1.2.2   **Procedure Summary**

Isolate a bundle of approximately 100 strands of hair in the occipital region and twist together. Cut hair as close as possible to the scalp. Fold a 1.5" x 2" Post-it® Notes over the end of the hair closest to the scalp, mark the Post-it® with an arrow indicating the end of hair closest to the scalp, and attach a white Plastiklip® over the Post-it® note. Place the hair sample in a zip closable bag. If the hair is too short to cut and clip together cut hair directly into the zip closable bag using thinning shears. Label the bag with the preprinted laboratory label, record collection results, and transport specimen to the laboratory.

1.3   **Reagents and Materials**

Equipment and Supplies

1.   Blunt tip scissors

2.   Thinning shears

3.   Plastiklips®

4.   1.5 x 2 Post-it® Notes

5.   Plastic and aluminum hair clips

6.   Disposable combs

7.   Zip closable plastic bags—6" x 6"

8.   Isopropyl alcohol—Solution 70%

9.   Disinfecting container— Instrument tray with cover

10.   Disposable powder free gloves

11.   Vacuum

1.4   **Collection Procedure**

1.4.1   **Preparation**

1.   Obtain the SP specific, preprinted labels for the current session from the label/ship laboratory area.

2.   Put on new gloves.

3.   Use a comb to partition the hair between the ears on the back of the head below the midline. This is the occipital area at the rear base of the head.

Back of head

Midline

Occipital area
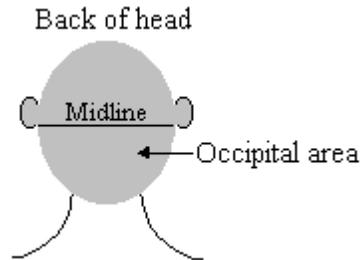
4.   Fasten the hair above the ears out of the way with plastic or aluminum hair clip(s).

1.4.2   Collection

1.   Isolate a small bundle of hair that is approximately the size of a pencil eraser (0.75 - 1.0 cm in diameter.)

2.   Twist the hairs together into a bundle.

3.   Cut the hair as close to the scalp as possible with the blunt tip curved scissors.

4.   Fold a 1.5 x 2 Post-it® Notes around the hair closest to the scalp.

5.   Attach a white Plastiklip® to the Post-it® Note.

6.   Draw an arrow on the Post-it® Note to designate the end closest to the scalp.

7.   Place the cutting with the Post-it® Note and Plastiklip® into the zip closable bag that contained the scissors and comb or use a clean unused zip closable bag. Do not place any hair that has fallen to the floor or counter into the bag. Immediately close and seal the zip closable bag, making sure hairs are not protruding through the opening. If necessary, use the comb to push hair completely into the bag or leave the comb in the bag with the hair.

8.   Cut from a second and third location in the occipital area if it is necessary to collect a sufficient sample.

9.   If hair is too short to be cut and clipped together, cut hair directly into the storage bag using thinning shears. Use a comb to lift up the hair. Place the shears close to the scalp and clip 2 or 3 times in the same location. Place the comb behind the shears and pull the comb and shears out together.

1.4.3   Concluding the Procedure

1.   Remove the clip(s) from the hair.

2.   Remove and discard gloves.

3.   Disinfect the scissors and clips by placing them in 70% isopropyl alcohol in a sealed disinfecting container. Allow these supplies to remain in the disinfecting container until the end of the session or for at least 20 minutes. Remove and place the clips and scissors on clean paper towels and allow them to air dry.

4.   Make up new individual collection kits. Place one pair of scissors and one new comb in a clean zip closable bag.

1.4.4   Specimen Transport

Transport the labeled specimen to the laboratory in a sealed zip closable bag.

1.   Store the specimen in a zip closable bag at room temperature.

1.4.5   Specimen Shipment

1.   Ship specimens weekly at ambient temperature.

1.5   Quality Control Samples

1.5.1   Container Blanks

Unused zip closable bags serve as container blanks. Container blanks assess the potential for sample contamination, or are used for direct post-study measurement with suitable QC material. When a new lot of zip closable bags is received at the warehouse, at least six bags are labeled as "container blanks" and are sent directly to the testing laboratory. All untested bags are quarantined until the testing laboratory returns the results and approves their use.

2. NASAL SWAB COLLECTION PROTOCOL

2.1 Introduction

The nasal swab collection section displays after the hair collection status screen since all primary SPs age 1+ are eligible for nasal swab collection. If the SP is not eligible for hair collection then the nasal swab section displays immediately after the SP is logged into the specimen collection component.

2.2 Overview – Nasal Swab

The purpose of collecting a nasal swab is to obtain a suitable biological sample to culture for the presence of *Staphylococcus aureus (S. aureus)*. *S. aureus* is one of the most common causes of skin and soft tissue infection in both the health care and community settings. Antimicrobial resistance in *S. aureus* has increased dramatically, particularly in the hospital, where the rapid emergence of methicillin-resistant *S. aureus* (MRSA) has left only one intravenous antimicrobial, vancomycin, as a treatment option; the appearance of *S. aureus* isolates with resistance to vancomycin (VISA) has led to concern that this organism may become untreatable with currently available antimicrobials. Previously limited to hospitals, MRSA infections have been increasingly reported in the community, and it is unclear whether resistance in spreading from hospitals or another unidentified source. Risk factors for MRSA infection include hospitalization, antimicrobial use, underlying medical illness, and proximity to individuals with MRSA infection or colonization, including health care workers. The carrier state is asymptomatic, and transmission of MRSA can occur from any individual colonized with MRSA. In order to estimate the potential for spread of MRSA in the community, it is important to measure the MRSA carriage rate through a population-based study. However, no prospective, population-based prevalence study has been done to measure the prevalence of MRSA in the community, and no national surveillance exists to provide a reliable national population estimate. Therefore, NHANES participants who consent will be cultured for MRSA.

2.2.1 Specimen Requirement

Collect a nasal swab on all primary, home exam and second exam SPs age 1+. Swab both nares using a BBL™ CultureSwab™.

2.2.2   Procedure Summary

Obtain the label from the label ship area or, if conducting a home exam, use one preprinted label. Log the SP into the component, peel open the swab pack, remove the white plug, remove the swab, insert swab 2 cm into one naris, rotate against the anterior nasal mucosa for 3 seconds, repeat this procedure using the same swab in the second naris, return the swab to the transport sleeve, label the swab with the preprinted laboratory label, record collection results, and transport specimen to the laboratory.

2.3   Reagents and Materials

2.3.1   Equipment and Supplies

1.   BBL™ CultureSwab™ #220099 (Liquid Stuart – single swab, plastic shaft)

Each BBL™ CultureSwab™ unit comprises a single peel pouch containing a rayon-tipped swab applicator used to collect the sample and a tube containing transport medium into which the swab applicator is placed after sampling. The BBL™ CultureSwab™ transport media is non-nutritious, buffered with phosphates, and provides a reduced environment due to their formulation with sodium thioglycollate. Organisms in the sample material are protected from drying by moisture in the transport medium. The medium is designed to maintain the viability of organisms during transport to the laboratory.

Store the BBL™ CultureSwab™ at 5-25°C. Do not freeze or overheat. Do not use after the expiration date, which is clearly printed on the outer box and on each individual sterile pouch unit and the specimen transport tube label.

2.4   Collection Procedure

2.4.1   Preparation

Obtain the SP specific, preprinted labels for the current session from the label/ship laboratory area. If conducting a home exam, use one preprinted paper labels.

If the SP has nasal discharge:

■ Ask the SP to attempt to clear the discharge by "blowing" his/her nose into non-scented tissue paper. (Allow one attempt.)

■ Assist children whenever necessary.

■ Do not try to clear the discharge with swabs, as this might be excessively traumatic.

2.4.2   Collection

1.   After washing hands, put on clean gloves if this is the only section for which the SP is eligible. It is not necessary to change gloves after the hair and before the nasal swab collection procedures.

1.   Peel open the BBL™ CultureSwab™ sterile pouch at the point indicated by the diagram on the outside of the package.

3.   Twist to remove the cap from the transport tube.

4.   Remove the swab.

5.   Insert the swab approximately 2 cm (approximately ¾ inches) into the naris.

6.   Rotate the swab against the anterior nasal mucosa for 3 seconds.

7.   Using the same swab, repeat for other naris.

8.   Place swab back into the transport tube.

9.   Push the end of the swab firmly to ensure that the swab is inserted into the end of the transport tube. Ensure that the swab tip is in contact with the moistened pledget.

10.   Secure the transport tube cap.

2.4.3   Concluding the Procedure

1.   Label the swab with the SP's preprinted label.

2.   Remove and discard gloves.

2.4.3   Specimen Transport

1.   Transport the labeled specimen to the laboratory.

2.   The medical technologist logs the specimen into the ISIS system by using the laboratory application.

3.   The medical technologist stores the specimen in a zip closable bag in refrigerator #2.

2.4.5   Specimen Shipment

The medical technologist ships the specimens weekly using refrigerant gel packs to maintain refrigerated conditions.

3. DATA ENTRY SCREENS IN ISIS

3.1   **Using ISIS and Recording the Results of the Specimen Collection in the MEC**

3.1.1   **Begin the Exam.**

Access the application.

To access the specimen collection application, use the mouse to direct the mouse arrow to the specimen collection icon on the desktop and double left click.

A SPECIMEN COLLECTION Message Center text box displays if a SP is assigned to the component.
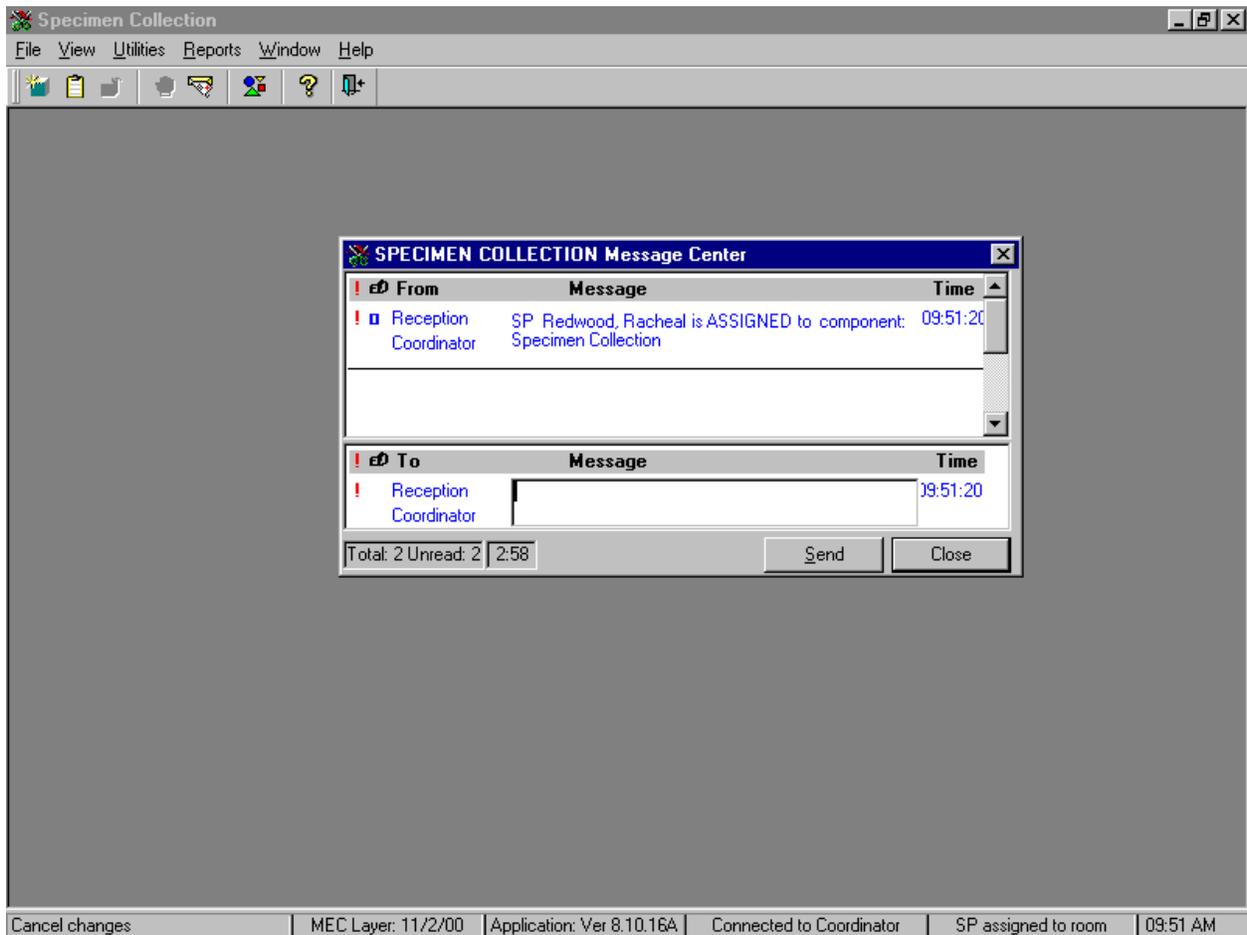
This text box contains a message from the coordinator indicating the name of the SP assigned to the specimen collection component. If desired, type a text message to the coordinator in the message section of the window. To send the message to the coordinator, use the mouse to direct the arrow to the Send button and left click. To close the window without entering a message, use the mouse to direct the arrow to the Close button and left click, or press [Enter].

Open an exam.
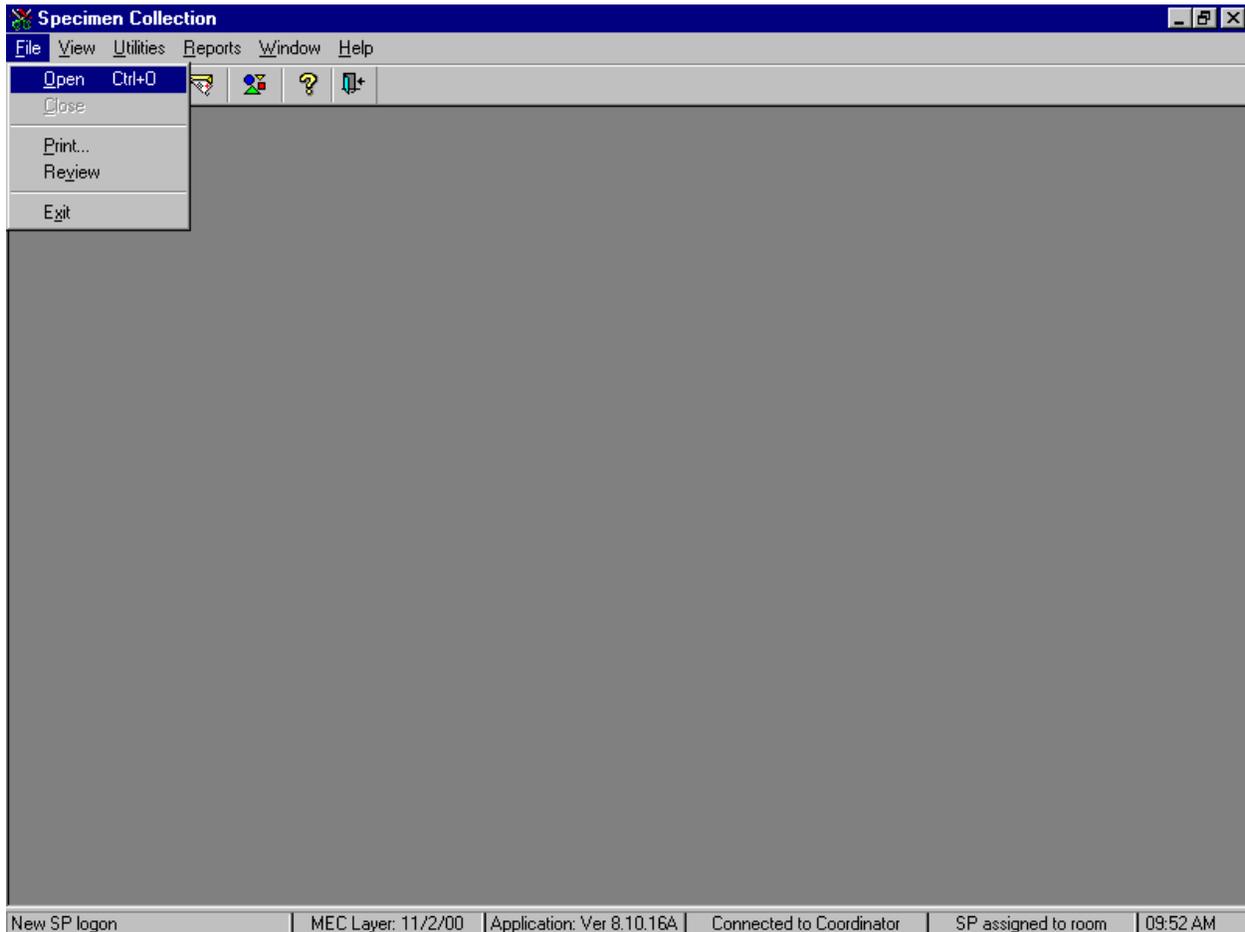
To open an exam, use the mouse to direct the mouse arrow to {File} in the menu bar, left click, drag the arrow to {Open} and left click, or type [Alt] [F], [O], or [Ctrl] [O].

The MEC Logon window displays.
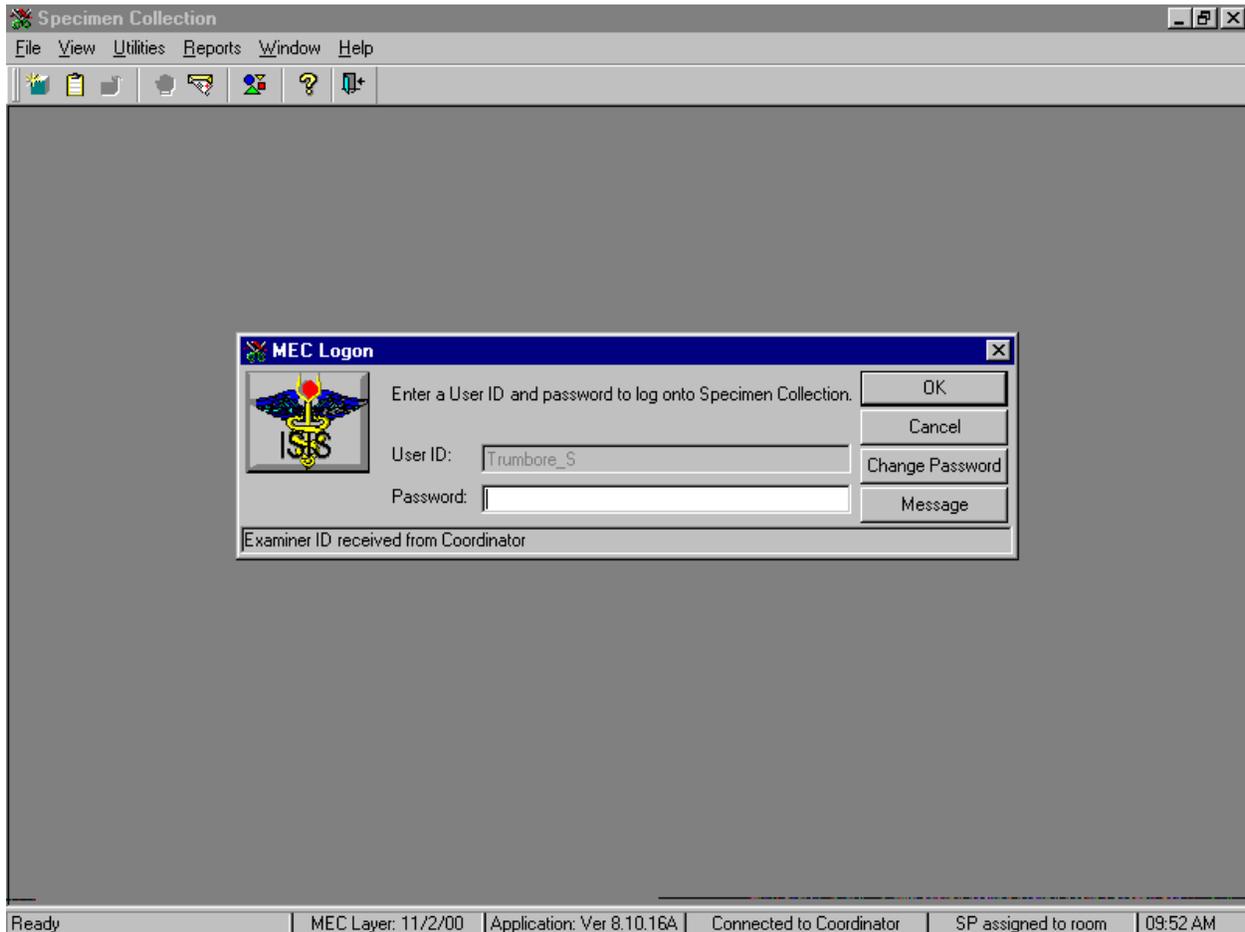
Type the password using the keyboard, and select [Enter] or use the mouse to direct the mouse arrow to the OK button and left click. To exit this screen without entering a password, use the mouse to direct the mouse arrow to the Cancel button and left click.

Log the SP into the component.
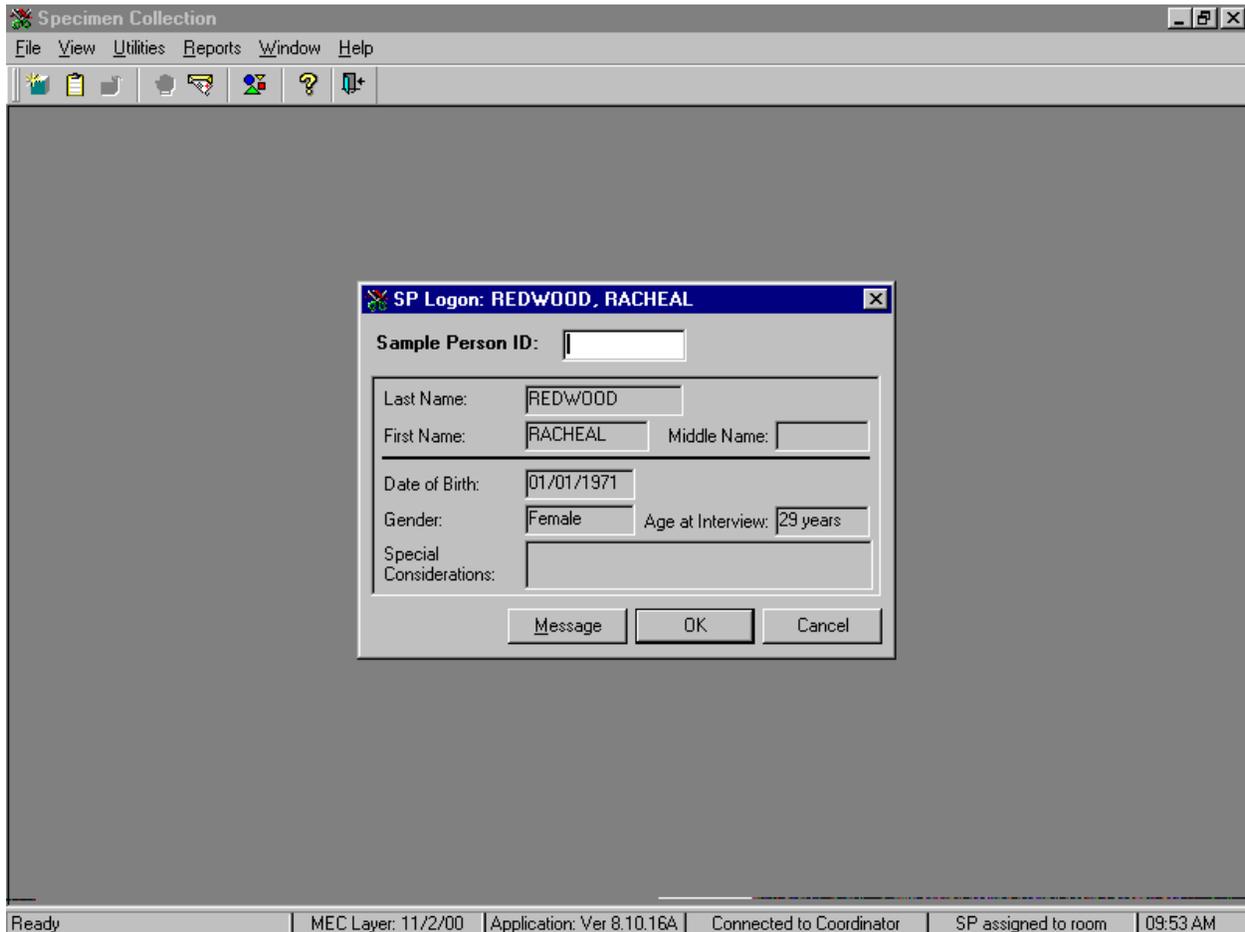
The SP Logon screen displays for the SP assigned to the component. Log the SP into the component by manually typing the SP ID from their bracelet in the Sample Person ID box or by using the barcode wand to scan the bracelet barcode.

Verify the information.

Verify all information that appears on the SP Logon window. If there is an error in any of this information, inform the coordinator immediately. The coordinator will verify and correct the information as necessary. To complete the SP logon process, press [Enter] or use the mouse to direct the arrow to the OK button and left click. To exit this SP logon screen, use the mouse to direct the arrow to the Cancel button and left click.

3.1.2 Hair Collection Screens

The ISIS presents the correct section screens according to the SP's person type, age, and gender. Primary male and female SPs ages 1-5 and females ages 16-49 are eligible for hair collection. Primary, home exam, and second exam SPs age 1+ are eligible for nasal swab collection.

The hair collection screen displays for primary male and female SPs ages 1-5 and females ages 16-49.

Recite "My name is _____ and I am going to cut one or more very small groups of hair from the lower back portion of your head. The hair cutting will not be noticeable. The hair allows researchers to look at the level of metal, mercury, in your hair. Hair is a biological marker just like the blood. Because of your participation in this study, researchers are going to be able to correlate the level of mercury in your blood and hair and compare it to your consumption of fish."

If the SP is reluctant to participate, ask probing questions to determine the source of the SP's reluctance and address those issues in a positive manner. Show an example of the amount of required hair, offer to use thinning shears, explain that nearly everyone agrees to provide a hair sample, and reassure the SP that it will not be noticeable.

Conduct the hair collection interview.

Conduct the hair interview by asking the question displayed on the screen, "Has your hair been given a permanent or been treated with a hair dye or hair straightener within the last month?" Administer the interview question immediately before performing the hair collection procedure. Read the text exactly and record the response.

Record the interview response.

Specimen Collection

File   View   Utilities   Reports   Window   Help

Specimen Collection: Stand:505 Session:505550 02/16/2000 08:30 am - 12:30 pm

SP ID: 743424   Name: REDWOOD, RACHEAL   Age: 29 years   Gender: Female   Date: 11/10/2000   Time: 09:54 AM

Hair Collection - Adult

Has your hair been given a permanent or been treated
with a hair dye or a hair straightener within the last month?

Hair Collected?

Sample ID:

Yes
No
Could Not Obtain

1 of 2   End of Section   Close Exam   Finish

Ready   MEC Layer: 11/2/00   Application: Ver 8.10.16A   Connected to Coordinator   SP assigned to room   09:55 AM

To record the response, use the mouse to direct the mouse arrow to the arrow on the drop-down list, left click, drag the mouse arrow to the desired choice, and left click. 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." Select [Tab] to move to the next text box.

Use new gloves and a new collection kit or clean supplies for each SP. Retain the zip closable bag containing the supplies for the hair sample. Place the correct preprinted bar code label on bag and collect the hair.

Record the collection results.

Record the collection results by typing [Y/y] for "Yes," or [N/n] for "No" and select [Enter] or [Tab]. Alternatively, to record the results, use the mouse to direct the mouse arrow to the drop-down arrow on the drop-down list, left click to display the responses, and drag the mouse arrow to "Yes" or "No" and left click.

After recording a positive result, the Sample ID text box highlights.

If the hair collection result is "Yes," the Sample ID text box activates. Enter the bar code sample ID from the bag into the Sample ID text box by manually typing the SP ID or by using the bar code wand to scan the bar code ID. To move to the next screen, press [Enter] or use the mouse to direct the arrow to the bright blue arrow in the navigation bar.

An informational text box displays if the sample ID is incorrect.
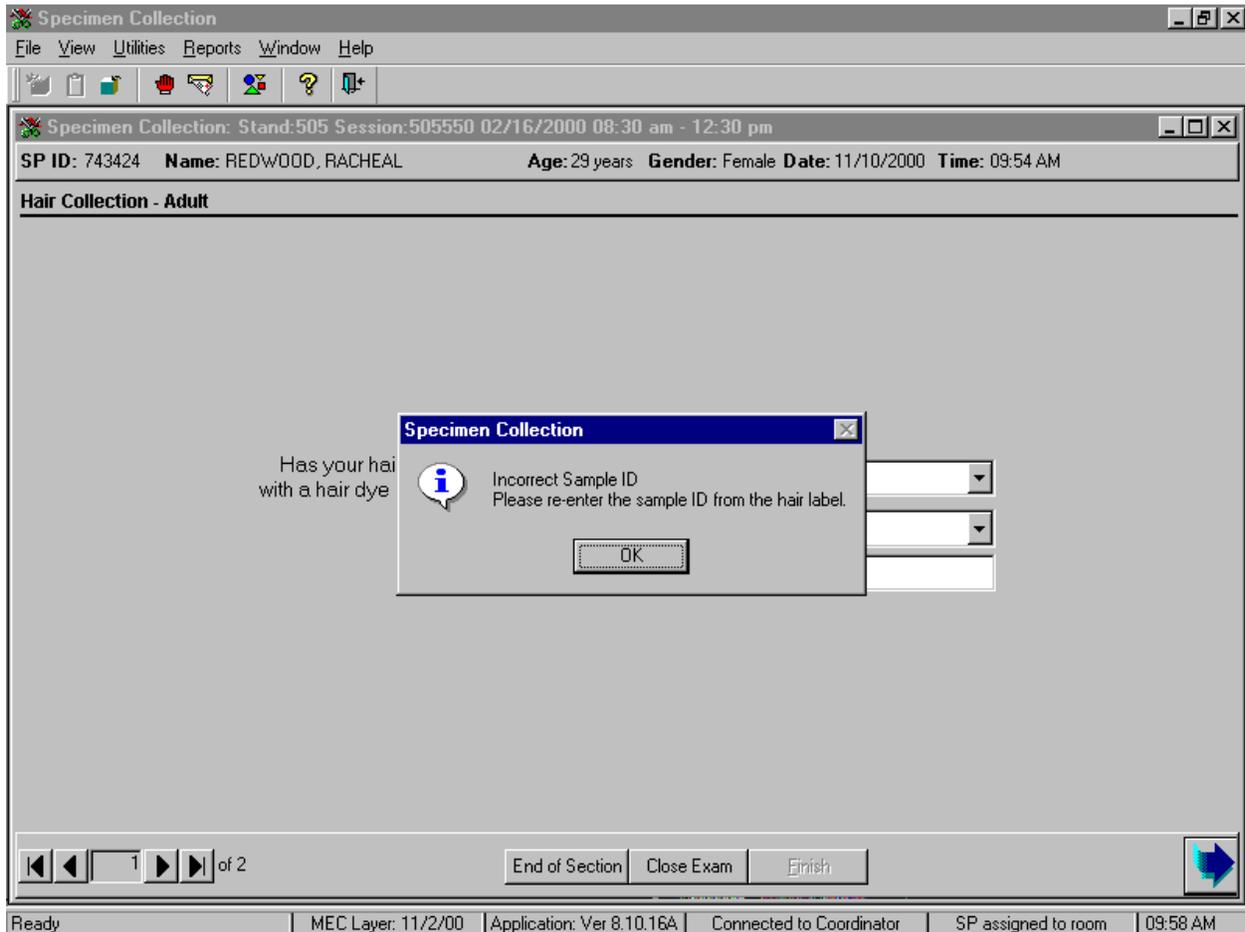
If the Sample ID in entered incorrectly, a Specimen Collection text box displays. To remove the text box, press [Enter] or use the mouse to direct the arrow to the OK button and left click.

If the label is incorrect, relabel the hair sample bag with the correct sample ID label. If the wrong Sample ID number was entered re-enter the correct sample ID number. To progress to the next screen, use the mouse to direct the arrow to the bright blue arrow in the navigation bar and left click, or press [Enter].

Review the status screen.

Component status codes indicate the degree of component examination completion. There are two standard codes for the hair component. The exam status is complete if any hair was collected, and not done if no hair was collected.

Choose and enter the appropriate comment code when the hair collection section status is not done.

To record a comment in the ▢Comments▢ text box, use the mouse to direct the mouse arrow to the scroll arrow on the drop-down list, left click, drag the mouse arrow to the desired choice and left click. 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.

Comment Code	Use when:
safety exclusion	Not applicable
SP refusal	**The SP refuses to have their hair collected. This is a SP initiated nonresponse due to refusal. The SP refuses the component for any reason other than an illness or emergency. If the SP refuses in the reception area, the coordinator can code the exam. If the SP refuses after starting the exam, the examiner will code the exam.**
no time	Not applicable
physical limitation	Not applicable
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	Not applicable
not enough hair	**The hair is too short or the style does not permit collection.**
technical difficulty	**The hair is braided, consists of hairpieces, or the hairstyle is too complicated to permit collection.**
other, specify	If the reason for a Not Done status code is not explained by one of the existing comment codes, choose Other, specify. Type appropriate text in the Other 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 next section (nasal swab collection) or select [Enter] when this blue arrow is highlighted.

3.1.3 Nasal Swab Collection Screens

The ISIS presents the correct section screens according to the SP's person type, age, and gender. The nasal swab collection section displays after the hair collection status screen since all primary SPs age 1+ are eligible for nasal swab collection. If the SP is not eligible for hair collection then the nasal swab section displays immediately after the primary, home exam, and second exam SP is logged into the specimen collection component.
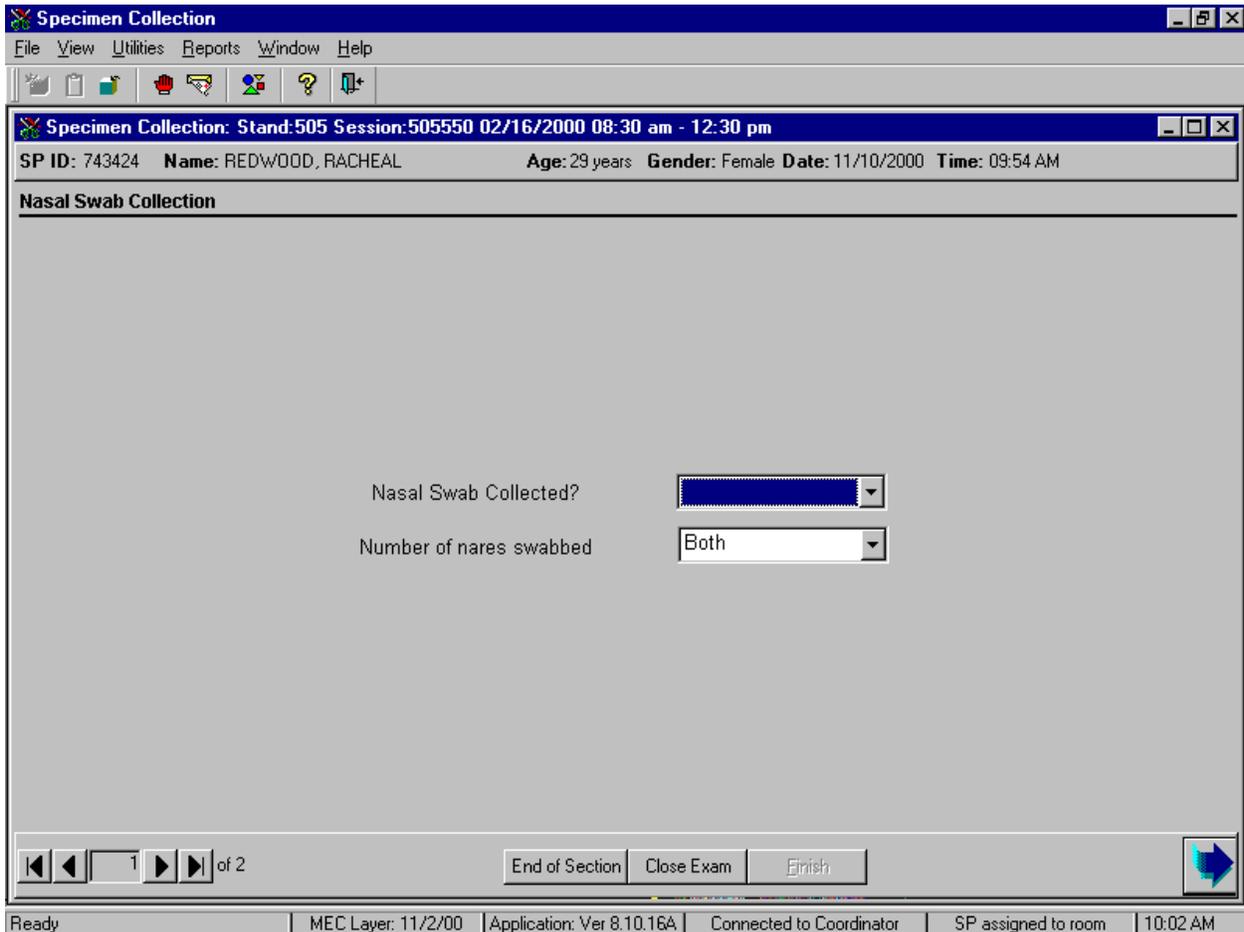
The nasal swab collection screen consists of one text box to record the collection results and a second text box to record the number of nares that were swabbed.

Collect the nasal swab and record the results.

To record the collection result, use the mouse to direct the mouse arrow to the arrow on the drop-down list, left click, drag the mouse arrow to the desired choice, and left click. 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." Select [Tab] to move to the next text box.

Record the number of nostrils that were swabbed.

After entering a "Yes" response in the Nasal Swab Collected text box, select [Tab] to move to the Number of nares swabbed text box. The Number of nares swabbed text box defaults to "Both."

If a "No" response is recorded in the Nasal Swab Collected text box, the Number of nares swabbed text box is disabled.

To change the number of nares swabbed result from "Both" to "One," use the mouse to direct the mouse arrow to the arrow on the drop-down list, left click, drag the mouse arrow to "One," and left click.

Select [Enter] to move to the Nasal Swab Collection Status screen or use the mouse to direct the mouse arrow to the bright blue arrow in the navigation bar to move to the next screen.

Review the status screen.

Component status codes indicate the degree of component examination completion. There are two standard codes for the nasal swab section. The section exam status is complete if either naris or both nares were swabbed, and not done if neither naris was swabbed.

Choose and enter the appropriate comment code when the nasal swab collection section status is not done.


To record a comment in the Comments text box, use the mouse to direct the mouse arrow to the scroll arrow on the drop-down list, left click, drag the mouse arrow to the desired choice and left click. 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.

Comment Code	Use when:
safety exclusion	Not applicable
SP refusal	**The SP refuses to have a nasal swab collected. This is a SP initiated nonresponse due to refusal. The SP refuses the component for any reason other than an illness or emergency. If the SP refuses in the reception area, the coordinator can code the exam. If the SP refuses after starting the exam, the examiner will code the exam.**
no time	Not applicable
physical limitation	Not applicable
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	Not applicable
other, specify	If the reason for a Not Done status code is not explained by one of the existing comment codes, choose Other, specify. Type appropriate text in the Other 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.

3.1.4 Concluding the Exam

A SPECIMEN COLLECTION Message Center text box displays indicating the SP's next exam location or component. Escort the SP to this location.
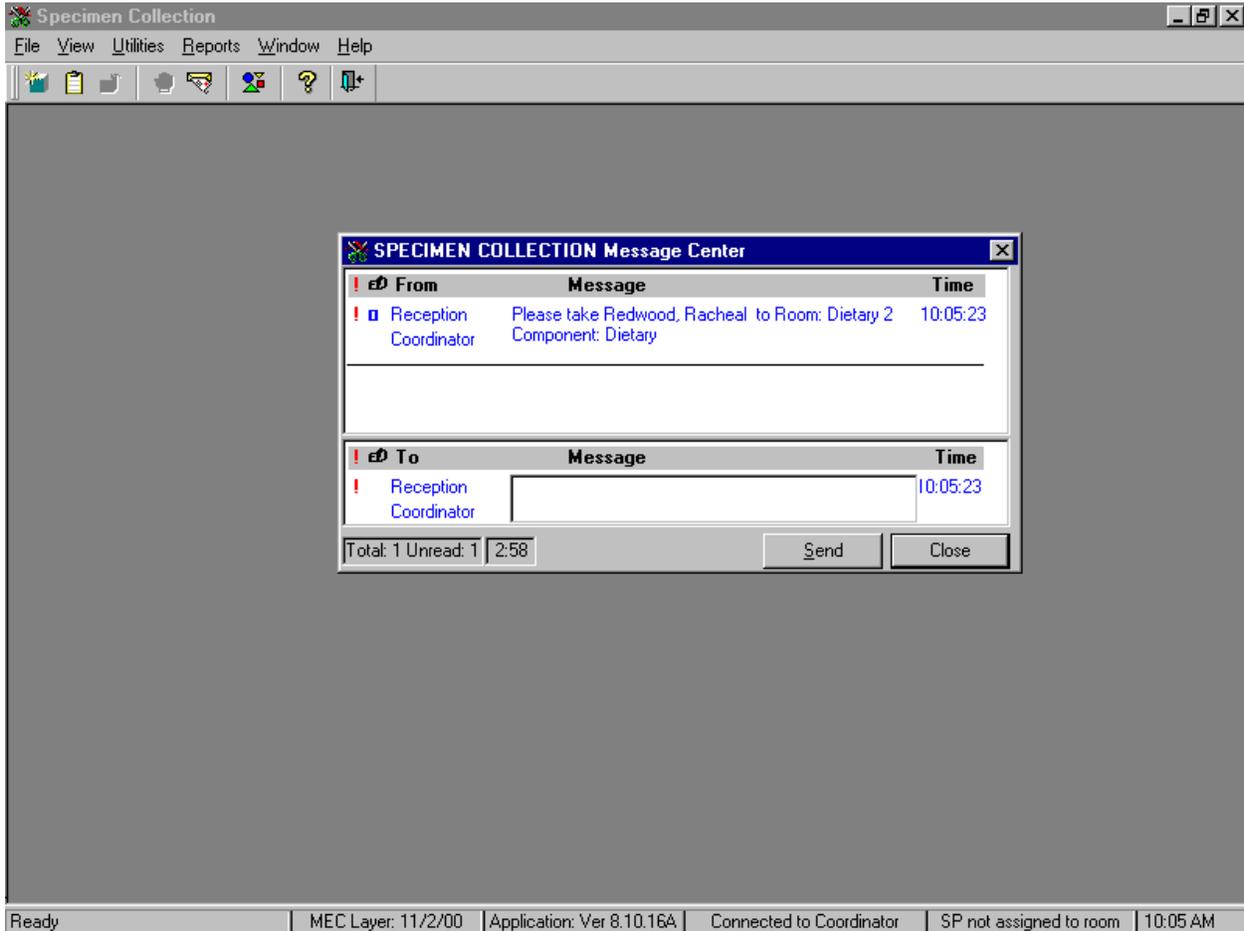
If desired, type a text message to the coordinator in the message section of the window. To send the message to the coordinator, use the mouse to direct the arrow to the Send button and left click. To close the window without entering a message, use the mouse to direct the arrow to the Close button and left click, or press [Enter].

3.2   Reviewing an Exam

To review a completed exam, use the mouse to direct the arrow to {File} in the menu bar, left click, drag the arrow to {Review}, and left click. The SP Login box displays. To view the list of previously examined SPs, use the mouse to direct the arrow to the drop-down list in the Sample Person Name: box, and left click. To select or highlight the correct SP, type the SP ID in the Sample Person ID: box or use the mouse to direct the arrow to the correct SP, and left click. The Sample Person ID and Sample Person Name fill in. To continue, use the mouse to direct the arrow to the Retrieve button and left click. The remaining data fills in the SP Login box. To move forward, press [Enter] or use the mouse to direct the arrow to the OK button and left click. (To cancel and exit the review utility, use the mouse to direct the arrow to the Cancel button and left click.) The hair collection screen displays the previous examination results. To progress to the next screen, press [Enter] or use the mouse to direct the arrow to the bright blue arrow in the navigation bar, and left click. The status screen displays. To complete the review process, press [Enter] or use the mouse to direct the arrow to the Finish button and left click.

3.3   Conducting the Specimen Collection Exam in Spanish

When the health technician must administer the hair collection question to a SP who does not speak English and the health technician does not speak the language of the SP, a translator who does speak the language of the SP assists the health technician.

Convert the hair collection interview text from English to Spanish or from Spanish to English at any time before, during, or after an exam.
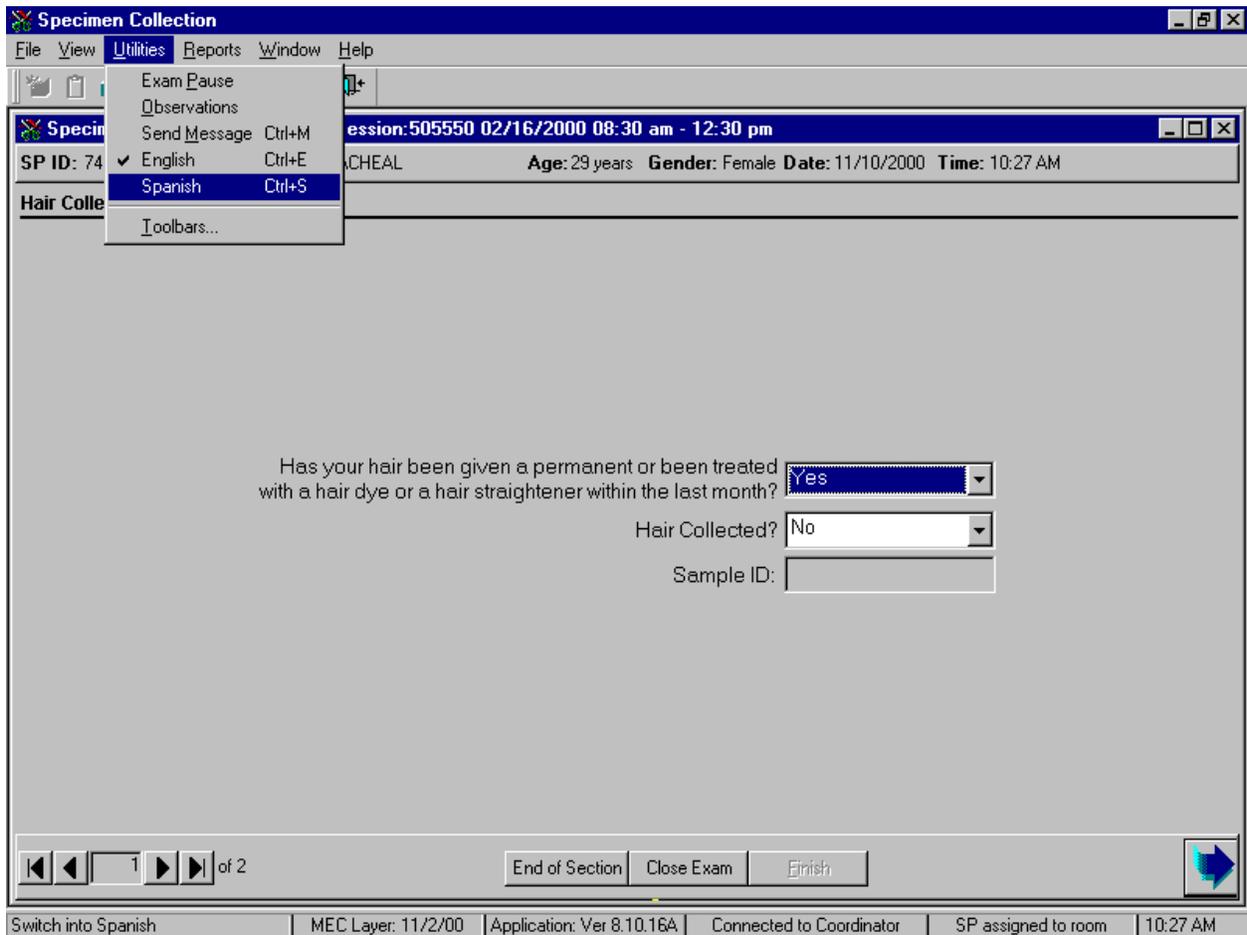
To view the scripts in Spanish, use the mouse to direct the mouse arrow to {Utilities} in the menu bar, left click, drag the arrow to {Spanish}, and left click, or type [Ctrl] [S].

All scripts display in Spanish.

To return the scripts to English, use the mouse to direct the mouse arrow to {Utilities} in the menu bar, left click, drag the arrow to {English}, and left click, or type [Ctrl] [E].

3.4   Using ISIS and Recording Results of Specimen Collection During a Home Exam

Open the specimen collection application.

To open the specimen collection application, use the mouse to direct the mouse arrow to the specimen collection icon on the desktop and double click.

Open an exam.
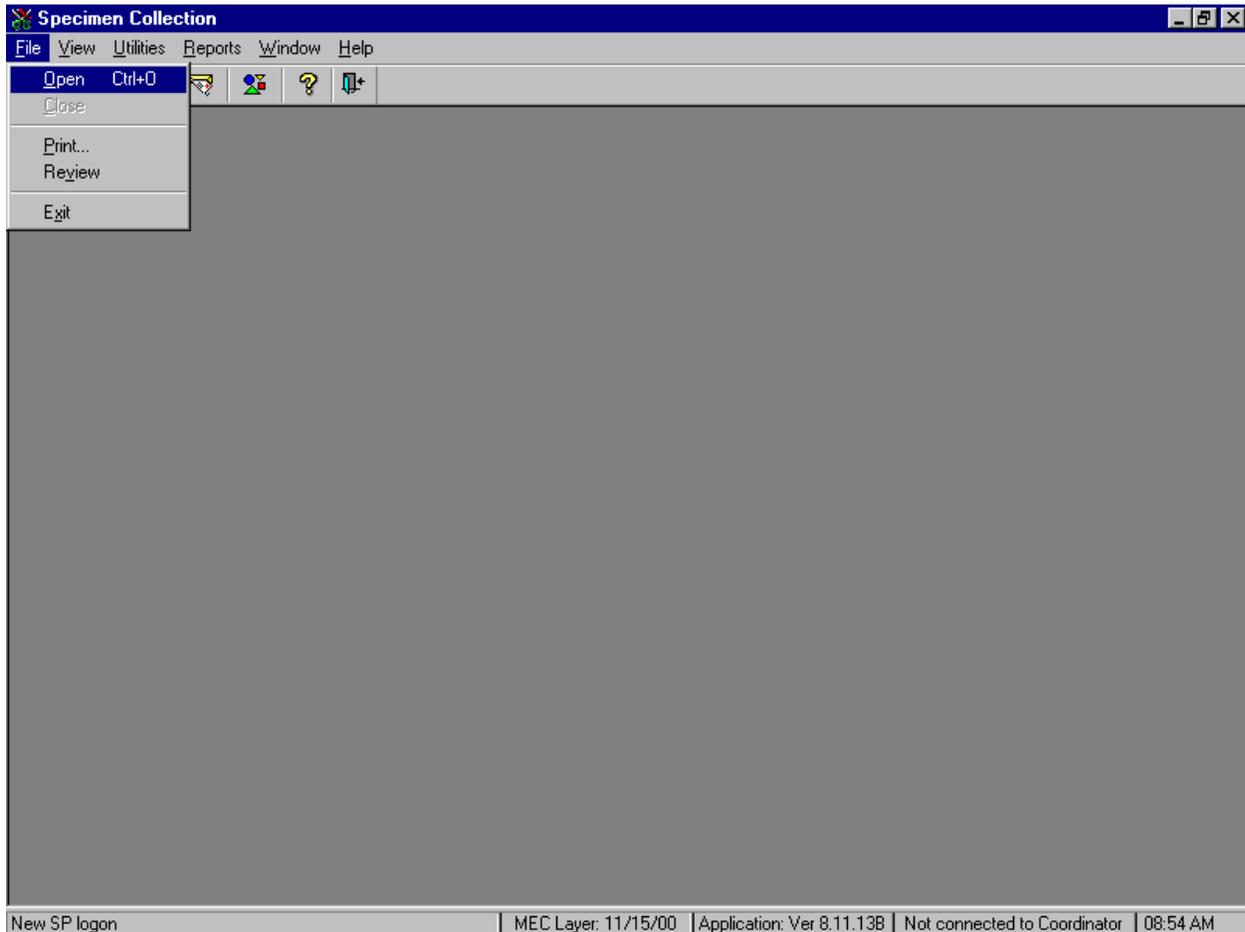
To open an exam, use the mouse to direct the mouse arrow to {File} in the menu bar, left click, drag the arrow to {Open} and left click, or type [Alt] [F], [O], or [Ctrl] [O].

The MEC Logon window displays.
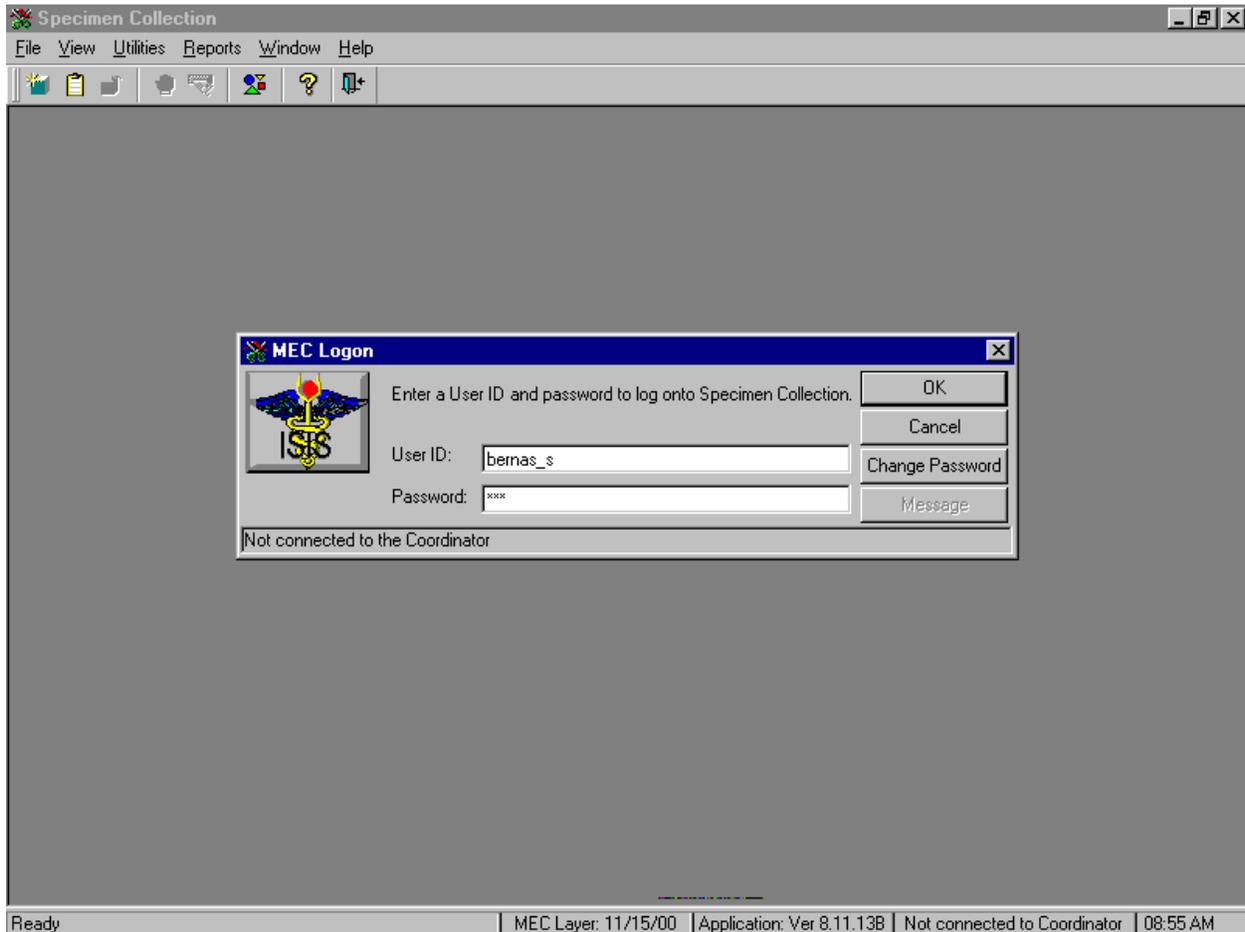
Type last name, underscore, and first initial in the User ID space, and [Tab] or [Enter]. Enter password using the keyboard keys and press [Tab], [Enter], or use the mouse to direct the arrow to the OK button and left click. To exit this screen without entering a password, use the mouse to direct the arrow to the Cancel button and left click.

Select the correct filter and session.
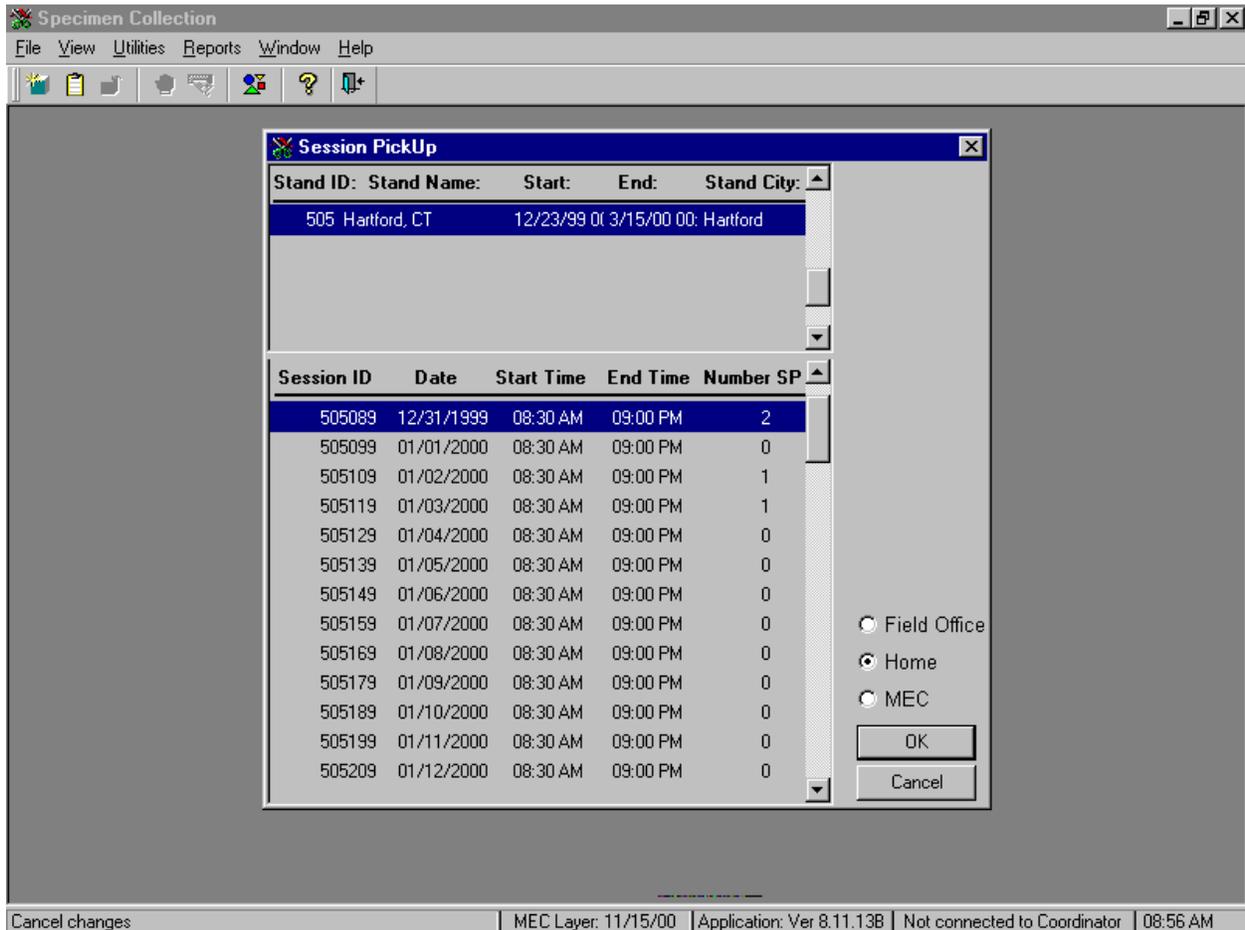
The Session PickUp window displays. To select the correct filter, use the mouse to direct the mouse arrow to the Home radio button and right click to pick up (or filter on) home exam sessions. The current stand is displayed in the top section of the window. To select or highlight the correct home session, use the mouse to direct the mouse arrow to the correct session, date, and time and right click. Alternatively, to select or highlight a session, use the up and down keys to move up and down the list until the correct session is highlighted and left click. Use the lower vertical scroll bar to view all sessions. To proceed, use the mouse to direct the mouse arrow to the OK button and right click or press [Enter]. To cancel, use the mouse to direct the mouse arrow to the Cancel button and right click.

Log the SP into the component.
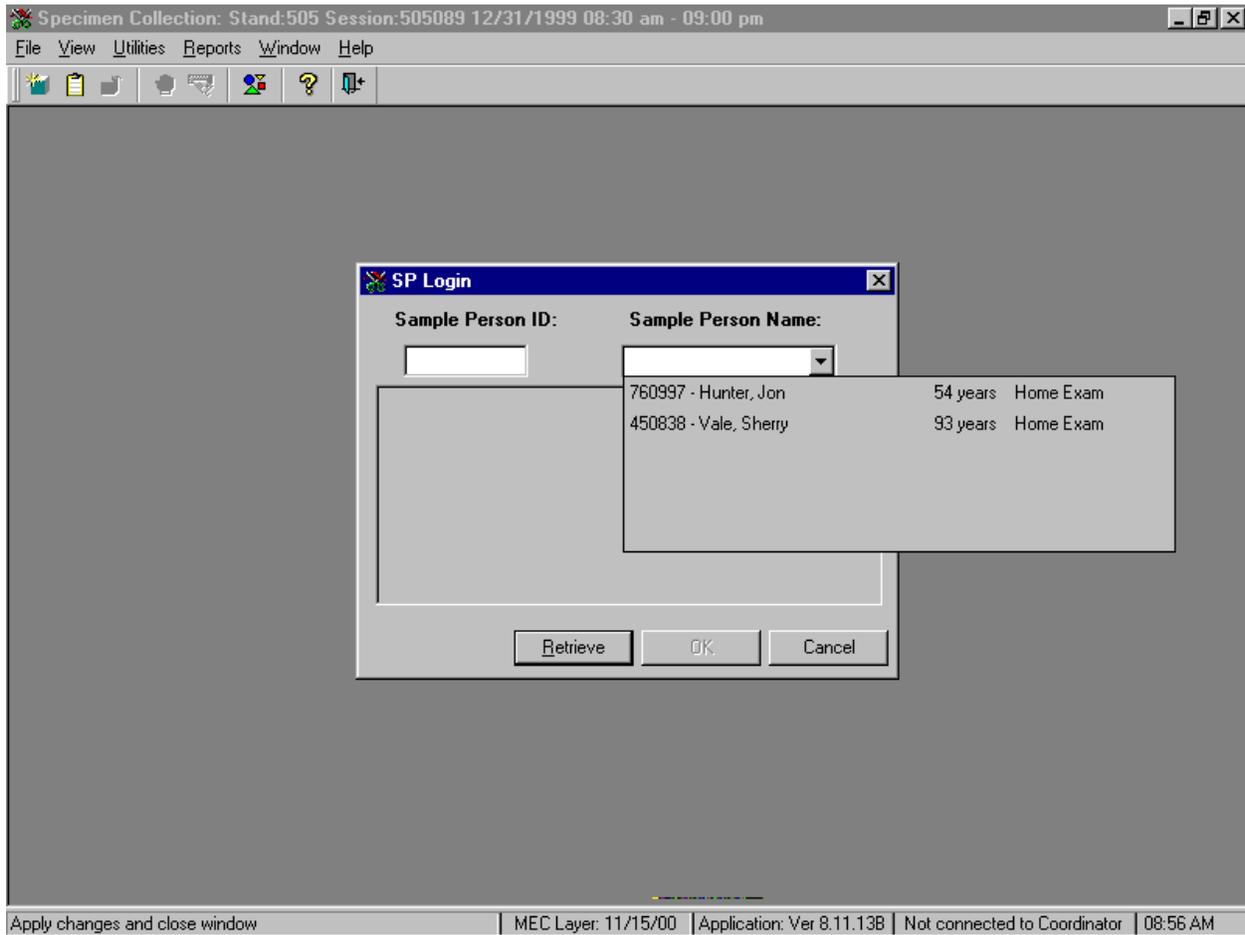
To log the SP into the component, use the mouse to direct the mouse arrow to the drop down list, drag the arrow to the correct SP, and left click.

The SP Logon window displays.

Verify all information that appears on the SP Logon window. To complete the SP logon process, press [Enter] or use the mouse to direct the arrow to the OK button and left click. To exit this SP logon screen, use the mouse to direct the arrow to the Cancel button and left click.

Collect the nasal swab, record the collection result, and record whether both nares or one naris was swabbed.

To record the result, use the mouse to direct the mouse arrow to the arrow on the drop-down list, left click, drag the mouse arrow to the desired choice, and left click. 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." Select [Tab] to move to the next text box.

After entering a "Yes" response in the Nasal Swab Collected text box, select [Tab] to move to the Number of nares swabbed text box. The Number of nares swabbed text box defaults to "Both."

If a "No" response is recorded in the Nasal Swab Collected text box, the Number of nares swabbed text box is disabled.

To change the number of nares swabbed result from "Both" to "One," use the mouse to direct the mouse arrow to the arrow on the drop-down list, left click, drag the mouse arrow to "One," and left click.

Select [Enter] to move to the Nasal Swab Collection Status screen or use the mouse to direct the mouse arrow to the bright blue arrow in the navigation bar to move to the next screen.

Review the status screen.

Component status codes indicate the degree of component examination completion. There are two standard codes for the nasal swab section. The section exam status is complete if either naris or both nares were swabbed, and not done if neither naris was swabbed.

Choose and enter the appropriate comment code when the nasal swab collection section status is not done.

To record a comment in the Comments text box, use the mouse to direct the mouse arrow to the scroll arrow on the drop-down list, left click, drag the mouse arrow to the desired choice and left click. 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.

Comment Code	Use when:
safety exclusion	Not applicable
SP refusal	**The SP refuses to have a nasal swab collected. This is a SP initiated nonresponse due to refusal. The SP refuses the component for any reason other than an illness or emergency.**
no time	Not applicable
physical limitation	Not applicable
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	Not applicable
other, specify	If the reason for a Not Done status code is not explained by one of the existing comment codes, choose Other, specify. Type appropriate text in the Other 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.

4. REFERENCES

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3. Emily Sheard, Nutritional Biochemistry Branch, March 20, 1979.

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5. Research Triangle Institute (1977). *Epidemiologic study conducted in populations living around nonferrous smelters to determine body tissue burdens of selected nonferrous metals.* Field Training Manual and Notebook File, EPA-RTP Contract No. 68-02-2442.

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