Chapter 3: Client Processes
Section 3:   Assessment
Lesson: Anthropometric/Biochemical for an Infant/Child

Objectives:

Upon completion of this lesson the user will be able to:
*   enter and interpret data in the Infant/Child Medical Data screen;
*   summarize how medical data is utilized by the TWIST system;
*   explain and utilize Infant/Child graphs; and
*   interpret and identify when to use "9s" as the unknown value for
         anthropometric or biochemical values.

Oregon Policies:

♦   625   Nutritional Risk Assessment
♦   626   Hemoglobin and Hematocrit Screening in WIC
♦   628   Anthropometric Screening

Overview:

Collecting, documenting, and assessing anthropometric and hematological data is
an important part of every certification.

TWIST will compare the participant's height, weight and blood work data to
established standards and assign risks based on this information. In addition,
TWIST will, plot anthropometric data on the appropriate growth charts.
In this lesson you will learn how to document anthropometric and hematological
information and view the graphs for infants and children.

Instruction:

Entering Anthropometric Data for an Infant/Child

The starting point for this lesson is:
         Client Process ⇨ Certification ⇨ Infant/Child ⇨ Medical Data

1.   **Retrieve the client for whom you wish to enter anthropometric
          and/or biochemical information.**

Figure 1: "Medical Data" Screen

2.   **Enter the date the height and weight were collected in the "Collection Date" field.**

•   This field defaults to the current date, but may be changed.
•   The correct format is MM/DD/YYYY.
•   Historical data may be entered back to the client's birthdate.
•   Use the "Insert" icon to add additional rows.
•   A certification will only be marked complete if a date not more than 30 days in the past has been entered.

3.   **In the "E/M" field in the "Weight" section, select the unit of measure from the drop down list.**

•   This field defaults to English.
•   If English is selected, weight is entered in pounds and ounces.
•   If Metric is selected, weight is entered in kilograms and grams.
•   TWIST saves the data in English and defaults to English when the screen is accessed.
•   For an unknown value, fill the "lbs" field with all 9s.

4.   **Enter the client's weight**.

The "Weight for Age" field is calculated by the system and displays the weight for age percentile after the data is saved.

5.   **In the "E/M" field in the "Length/Height" section, select the unit of measure.**

- This field defaults to English.
- If English is selected, length/height is entered in inches and eighths of an inch.
- If Metric is selected, length/height is entered in centimeters and millimeters.
- TWIST saves the data in English and defaults to English when the screen is accessed.
- For an unknown value, fill the inches field with all 9s.

6.   **Enter the client's length/height.**

7.   **Select how the client was measured, recumbent (lying down) or standing, from the drop down list in the "R/S" field.**

- This field defaults to recumbent for children less than 2 years of age.
- This field defaults to standing for children over 2 years of age. The field may be manually changed to recumbent for children who are unable to stand for a height measurement.

     The "**Length/Ht for Age**," "**Weight for Ht**" and "**BMI**" fields are calculated by the system and display the length/height for age, weight for height percentiles, BMI and BMI percentiles after the data is saved.

8.   **Click the "Birth Data" box if the weight and length/height information entered is the client's birth data.**

♫ NOTE: If no birth information is entered for clients up to 2 years of age, a message will pop-up stating "There is no birth information entered for this client. Would you like to enter it now?" Click "Yes" if you want to enter the birth information. Click "No" to close the pop-up.

9.   **In the "Medical Notes" field, double click to open the "Infant/Child Anthropometry Notes" pop-up.**

- Notes may be entered in a free-form text format.
- Click "OK" to save the note and close the pop-up.
- Click "Cancel" to close the pop-up without saving the note.

♫ NOTE: Information cannot be saved until all mandatory fields on this screen are filled. After the information on the screen has been saved, data entered becomes display only and cannot be removed or changed after the date of original entry.

Entering Hematological Data for an Infant/Child

1. **Enter the date the blood work was collected in the "Collection Date" field.**

   • This field defaults to the current date but may be changed.
   • The correct format is MM/DD/YYYY.
   • Historical data may be entered back to the client's birth date.
   • A certification will only be marked as complete if a date not more than 60 days in the past has been entered.

2. **Enter the hemoglobin or hematocrit value for the client.**

   • You may enter both a hemoglobin and a hematocrit value.
   • For an unknown value, fill the field with all 9s.
   • If a hemoglobin value less than 5.0 or greater than 18.0 is entered or if a hematocrit value less than 20.0 or greater than 56.0 is entered, a warning message will pop-up. To close the pop-up click "OK."

3. **Enter the blood lead level value if available.**

   This field is optional.

4. **Save.**

   • Click the "Insert" button to add additional rows for hematological data.
   • Click the "Remove" button to remove a row of data prior to the end of the day when the data is entered.

Entering Head Circumference Data for an Infant/Child

The fields in this section are similar to the "Anthropometric" and "Biochemical" sections of the Medical Data Screen.

1. **Enter the date the head circumference measurement was made.**

2. **Select the unit of measure from the "E/M" drop down list.**

3. **Enter the client's head circumference value.**
4. **Save.**

   • Click the "Insert" button to add additional rows for head circumference data.

- Click the "Remove" button to remove a row of data prior to the end of the day when the data is entered

Viewing the Graphs

1. **Click the "View Graph" button**.

   - Graphs are available for viewing after length or height and weight measurements are entered and saved on the Medical Data screen.
   - Plot points will appear as dots or Xs. X is used to indicate that a recumbent measurement has been plotted on a standing graph for children over age 2 years.
   - To enlarge the graph viewing area click the "Maximize" button.
   - To return the graph viewing area to the original size click the "Minimize" button.
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2. **Select the appropriate graph from the "Select Graph" drop down list.**

   - See the TWIST "Growth Chart" job aid for a list of graphs that are available in TWIST at each age.
   - Scroll down to see the graph.
   - Additional graphs can be viewed by returning to the select graph drop down.

3. **Click the "Print Graph" button to print a specific graph.**

4. **Click the "Print All Graphs" button to print all the graphs.**

5. **Click the "Close" button to return to the "Medical Data" screen.**

Viewing Adjusted Age Graphs

In order for premature infants anthropometric data to plot for adjusted age, information must be entered into the "Gestational Age Adjust" pop-up. The information is also used to determine system generated risks related to prematurity. This pop-up would only be completed for infants and children up to two years of age.

1. **Click the "Gestational Age Adjust" button.**
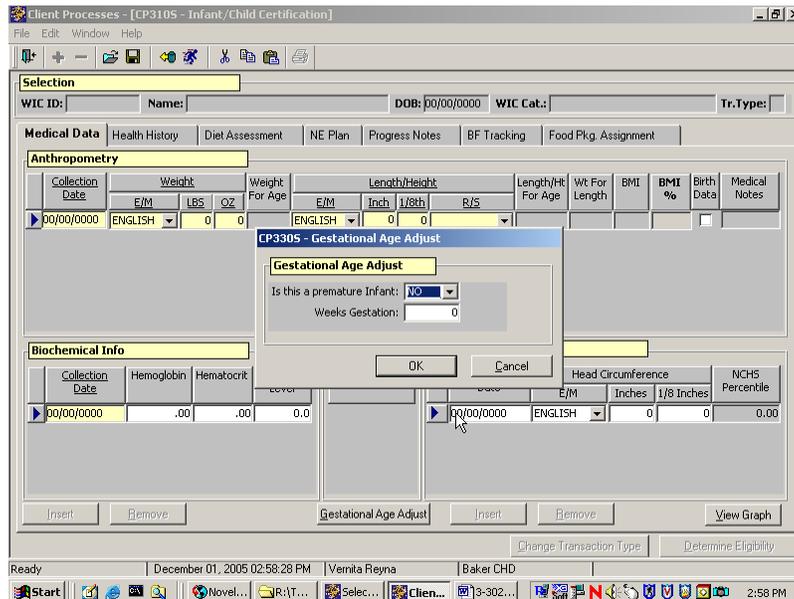
Figure 2: "Gestational Age Adjust" Pop-Up

2. **Select yes or no from the drop down list in the "Is this a premature infant" field.**

   • This field defaults to no.
   • When yes is selected, the "**Weeks Gestation**" field becomes mandatory.

3. **Enter the weeks gestation at birth.**

4. **Click "OK" to save the information and close the pop-up.**

   Click "Cancel" to close the pop-up without saving the information.

5. **Click the "View Graph" button**.

   • To enlarge the graph viewing area click the "Maximize" button.
   • To return the graph viewing area to the original size click the "Minimize" button.

6. **Select the appropriate graph from the "Select Graph" drop down list.**

   • Age adjusted graphs, Length for Age and Weight for Age, will only be available for premature infants whose weeks gestation were entered in the "Gestational Age Adjust" pop-up.

8. **Click the "Print Graph" button to print a specific graph.**

9.   **Click the "Print All Graphs" button to print all the graphs.**

10.   **Click the "Close" button to return to the "Medical Data" screen.**

✂ *Tips and Shortcuts:*

•   You must save the data entered before you can access the "Gestational Age Adjust" pop-up.
•   When placeholder values (9s) are entered for weight or length/height, TWIST is unable to calculate weight for age, length/height for age, weight for height, and BMI.
•   When anthropometric and hematological values meet a risk criteria definition, TWIST will generate the appropriate risk.
•   If a value is entered that is not within "normal" parameters a warning message will be displayed stating the value is not within the established range. This message is intended to prevent incorrect values being entered. You are not required to change the value. Click "OK" to close the message pop-up.
•   Use the notes field to record refusal for collecting anthropometric or hematological data.
•   Age adjusted graphs are available for premature infants up until 2 years of age.

↪ *Practice Activity:*

Use the information from your ☛ Activity Sheet for this practice.

1.   Select "Certification" from the menu bar.
2.   Select 'Infant/Child' and then "Medical Data" from the drop down menus.
3.   Retrieve the client for which you wish to enter medical data.
4.   Enter the date in the "Collection Date" field for "Anthropometry."
5.   Select English or Metric from the "E/M" drop down list for weight.
6.   Enter the client's weight.
7.   Select English or Metric from the "E/M" drop down list for length/height.
8.   Enter the client's length/height.
9.   Click the "Birth Data" box if the data is birth data.
10.   Enter the date in the "Collection Date" field for "Biochemical Info."
11.   Enter the hemoglobin or hematocrit value.
12.   Enter the blood lead level if available.
13.   Enter the date in the "Collection Date" field for "Head Circumference" if available.
14.   Select English or Metric from the "E/M" drop down list for "Head Circumference."
15.   Save.
16.   Click the "Gestational Age Adjust" button if the infant is preterm.

17.   Enter the information into the "Gestational Age Adjust" pop-up.
18.   Save.
19.   View and print graphs.
20.   Exit back to the "Client Processes" window.

✓ Skill Check:

Use the information from your ☞ Activity Sheet.

Continue with the client's new enrollment by entering the anthropometric and biochemical information.

Print the appropriate graphs when they are complete and turn them in to your instructor.

✍ Notes: