Section 5.3: Nutrition Risk Assessment

1/2025

Section 5.3.2 Hematologic Assessment

References: 7 CFR 246.7 (e)(1)(i)(A) and 246.7 (e)(1)(i)(B)

Policy: Local Agency staff must obtain and record accurate hematologic data reflective of the participant's category at certification, re-certification, and mid-certification.

Purpose: To ensure that accurate applicant/participant hematologic data is included in the health status assessment so that correct risks are identified, risk codes assigned, and relevant education provided.

It is important to assess iron status as part of a nutritional assessment because individuals eligible to participate in WIC have been shown to be at risk, and the consequences of iron deficiency anemia on development are potentially serious and long-term in nature. WIC has been shown to positively impact iron status through nutrition education, supplemental food, and referrals to health care providers.

Procedures

Local agency staff must obtain hematologic data either by:

- Measuring hemoglobin or hematocrit using approved equipment and following the procedures described by the manufacturer, or
- Obtaining hematologic data from a medical provider through referral. See Section 5.3.2.2: Using Referral Hematological Data.

All WIC staff who will be conducting hemoglobin testing must complete training on the equipment they will be using prior to doing tests in clinic (Section 4.5: Staff Training).

- Review hematological procedures as part of the ongoing monitoring and supervision of CPA staff (Section 4.6: CPA Performance and Evaluation).

Local agencies must use the following schedules

Blood Work Schedule for Women

Hematologic data must be entered for all women certified in WIC.

- Bloodwork must have been done at a time that reflects their current status (i.e., blood work measured during pregnancy if certifying a pregnant woman, or following delivery if certifying a postpartum woman).

- **For women certified for a year:** if blood values obtained at their certification indicated low hemoglobin, blood work must be repeated during the year and recorded in the participant's record.

Blood Work Schedule for Infants & Children

Infants

- To meet the scheduling requirement, blood work must be done at or after nine months of age, generally at the infant's mid-certification appointment.
- Infants certified on or after nine months old always need hemoglobin tested at the first certification.

Children

- **For children certified between 12 and 15 months:**
  - Blood work must be done *at 12 month certifications*, ***unless:***
    - Blood work was done on or after nine months of age
    - AND the hemoglobin value was normal.
  - Blood work must be done again at 15-18 months for all children.
- **For children certified between 15 and 24 months:**
  - Blood work must be done *at the certification/re-certification/mid-certification*, regardless if the previous hemoglobin value was normal or not.
  - Blood work must be done *at mid-certification* (18-21 months), *regardless* of the previous hemoglobin status (i.e., even if it was normal).
- **Children 24 months and older must have blood work done *at the certification/re-certification/mid-certification in the following circumstances:***
  - If the most recent blood work indicated low hemoglobin.
  - If the most recent blood work was approximately 12 months prior to the current certification/mid-certification appointment.
  - If a child aged 20 to 26 months old did not have blood work done between 13 and 24 months, the hemoglobin must be measured.

Guidance

- If the hematologic value at the child's previous certification was near the cut-off point, and the child has risk factors for low hemoglobin (such as late weaning, excessive juice intake and/or excessive milk intake), it is **best practice to repeat blood work** at the next certification/ recertification/mid-certification.

- **For children over two years of age and the most recent blood work was done more than 10 months ago, it would be best practice to do blood work.**
- **The blood work schedule outlined above takes priority over Information System requirements. The Information System does not accept blood work done 90 days prior. However, if the test was done within the required timeframes, and the value indicated a normal blood work measure, staff may enter the value in a note rather than the blood work tab.**
- Guidance from the Department of Justice indicates that it would be discriminatory to require HIV-infected applicants to have blood work required for WIC certification done elsewhere if it is the policy of the WIC clinic to perform these tests on site. However, if it is determined, on a case-by-case basis, that the health and safety of others is severely at risk, providing the service by other means may be justified. Applicants cannot be required to obtain such data at their own expense. With rare exception, WIC clinics should be prepared to obtain WIC blood collections from all applicants, following recommended health and safety protocols.

Machines for hemoglobin testing

- Hemoglobin measuring equipment for obtaining capillary blood samples is used in Minnesota WIC. Equipment manufacturers have created training materials specific to their equipment (available both online and in print).
- Local Agencies must assure that equipment is maintained and cleaned according to manufacturers' instructions.
- Before changing to a new type of hemoglobin measuring equipment, LAs must discuss with their State WIC Consultant to assure it meets WIC requirements.

Lancets should be

- A single use retractable skin puncture device that punctures the skin by either a blade or needle.
- Labeled with length of blade/needle and gauge. Shorter and narrower blades or needles are thought to be less painful. This must be balanced with a need for a puncture deep enough to assure adequate blood for the sample.
- For children: the blade or needle should be about 1.5mm.
- For women: the blade or needle should be less than 2.4 mm.

Collection site

(Collection of Capillary Blood Specimens, Blood Specimens-Specimen Collection): Local Agencies are responsible for training and oversight of hematological testing (See Introduction to Hematological Assessment for more information about technique.)

- The finger or toe may be used for infants nine months of age or older.
- For children over one year and adults, the best site for collecting a capillary sample is the middle or ring finger.
  - The finger used should not have a ring.
  - For children under eight years, the puncture depth should be less than 1.5mm thus the lancet depth should be about 1.5 mm (WHO Guidelines on drawing blood).

  Precaution:

  - When conducting a hemoglobin measurement on young children, be cautious about bandages due to choking risk.

Low Hemoglobin

- **Hemoglobin measures below 10 should be re-tested.**
  - The second sample should be from a different site instead of taking a second sample from the first puncture site.
  - A referral to a health care provider is required when the hemoglobin value meets the high risk criteria (see Exhibit 6-A: High Risk and Medical Referral Criteria)

5.3.2.1 Exceptions to Required Hematological Measurements

Reference: Policy Memorandum 92-10: Bloodwork Protocols

WIC clinics should be prepared to obtain and record hematologic data from all applicants per hemoglobin schedule (Section 5.3.2: Hematologic Assessment) unless the following exceptions occur:

1. Refusal based on religious beliefs
2. If blood drawing could cause harm to the applicant because of medical conditions documented by a physician (e.g., hemophilia, fragile bones, certain skin diseases, etc.)

If it is determined that the health and safety of others (WIC clinic personnel) are at risk, defer the measurement and obtain referral data. These situations should be handled on a case-by-case basis with the assistance of the WIC Coordinator or Public Health Supervisor. These situations would be extremely rare. Document the plan to obtain referral data (see Implementation of WIC ARPA Waivers for deferral procedures).

Local Agencies should monitor records to verify that staff are documenting deferrals in Notes as required.

Procedures

- CPA will discuss the importance of anemia screening with the family. When either of the two exceptions apply and blood work is not done in clinic, the agency will make every reasonable effort to obtain the hematological data from the Health Care Provider.
- If referral data is not available, certify the applicant based on other identified risk criteria, and refer to a laboratory that can collect blood from such persons.
  - Applicants cannot be required to obtain referral data at their own expense.
  - If an applicant refuses blood work due to religion or medical condition, the reason blood work was not collected ***must be documented*** in the Notes section of the Information System.

Guidance

Train staff on the purpose and importance of hemoglobin screening. Hemoglobin Screening - Talking Points provides staff talking points, tips for preparing families for the hemoglobin screening, and ideas for reducing resistance to the hemoglobin screening.

5.3.2.2 Using Referral Hematological Data

References: 7 CFR 246.7 (e)(1)(i)(A) and 246.7 (e)(1)(i)(B)

Policy: Referral hematologic data must meet all the requirements for hematologic data collected in the clinic.

Purpose: To ensure an accurate assessment of the participant's hematological status using referral data, hematological data must reflect the participant's current category, and have been done within the scheduling requirements to be valid.

Procedures

Hematologic data collected by a medical provider other than WIC staff, may be used for certification/recertification/mid-certification provided the following conditions are met. Use of referral data does not pre-empt the requirement that the participant be physically present at the certification (see Section 5.2.5: Physical Presence).

For referral data to be used, the following conditions must be met:

- The data is provided by a health care provider.
  - The referral data should be provided on letterhead from the source or another form that specifies the medical clinic/provider, and includes:
  - Participant's name
  - Date of collection

- The referral data may be obtained from the participant's electronic medical record (EMR). The participant must show the WIC staff the value in the EMR.
- The CPA may obtain this information by phone from the medical clinic or health care provider.
- The participant was in the same categorical status (i.e., pregnant or postpartum) at the time of data collection as at the certification at which the data is used.
- If unable to enter the actual date of the **hematological data** in the Information System, and blood work was done within the timeframes appropriate for WIC Category, the value should be entered in a note. If the blood work value indicates anemia, the date of measurement must be within 30 days (Infants) or 60 days (other Categories).
- Self-reported data may not be used.
- **For hematological data, the blood work schedule outlined in Section 5.3.2 takes priority over Information System requirements. The Information System does not accept blood work done 90 days prior. However, if the test was done within the required time frames, and the value indicated a normal blood work measure, staff may enter the value in a note rather than the blood work tab.**

5.3.2.3 Preventing Blood Borne Pathogen Transmission

All Local Agencies employing individuals who may be exposed to blood borne pathogens and other infections agents **must have a written Exposure Control Plan.** Refer to the Occupational Safety and Health Standards: Bloodborne Pathogens.

The Exposure Control Plan establishes guidelines, precautions, laboratory rules and standard operating procedures that will limit occupational exposure to blood borne pathogens and other infectious agents.

- All employees must be trained in all aspects of the agency Exposure Control Plan.

Precautions described in the Exposure Control Plan which are intended to prevent transmission of blood borne pathogens are referred to as "Universal Precautions". All employees must practice "Universal Precautions" at all times when working with blood and body fluids. All individuals/patients are considered potentially infectious for human immunodeficiency virus (HIV), hepatitis B virus (HBV), and other blood borne pathogens.

Reference – Complete Listing of Hyperlinks

Section 4.5: Staff Training
(https://www.health.state.mn.us/docs/people/wic/localagency/program/mom/chsctns/ch4/sctn4_5.pdf)

Section 4.6: CPA Performance and Evaluation
(https://www.health.state.mn.us/docs/people/wic/localagency/program/mom/chsctns/ch4/sctn4_6.pdf)

Collection of Capillary Blood Specimens (https://clsi.org/standards/products/general-laboratory/documents/gp42/)

Blood Specimens-Specimen Collection (https://www.cdc.gov/dpdx/diagnosticprocedures/blood/specimencoll.html)

Introduction to Hematological Assessment (https://www.health.state.mn.us/docs/people/wic/localagency/training/nutrition/nst/blood.pdf)

WHO guidelines on drawing blood: best practices in phlebotomy (https://www.who.int/publications/i/item/9789241599221)

Exhibit 6-A: High Risk and Medical Referral Criteria (https://www.health.state.mn.us/docs/people/wic/localagency/program/mom/exhbts/ex6/6a.pdf)

Policy Memorandum 92-10: Bloodwork Protocols (https://www.fns.usda.gov/wic/bloodwork-protocols)

Implementation of WIC ARPA Waivers (https://www.health.state.mn.us/docs/people/wic/localagency/arpaguide.pdf)

Hemoglobin Screening - Talking Points (https://www.health.state.mn.us/docs/people/wic/localagency/hemoglobintp.pdf)

Section 5.2.5: Physical Presence (https:/www.health.state.mn.us/docs/people/wic/localagency/program/mom/chsctns/ch5/sctn5_2_5.pdf)

Occupational Safety and Health Standards: Bloodborne Pathogens (https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030)