



## Policy 626

# Hemoglobin and Hematocrit Screening in WIC

October 23, 2023

## POLICY

A hematological test for anemia will be performed or obtained following the screening guidelines for the participant category. Appropriate procedures and equipment will be used when performing hemoglobin or hematocrit tests in WIC clinics.

## PURPOSE

To ensure that a blood test (hemoglobin or hematocrit) is included in the assessment, in order to determine appropriate nutrition risk.

To provide nutrition education and appropriate referrals.

To protect the safety of applicants and personnel performing the tests and to ensure accurate test results.

## RELEVANT REGULATIONS

§246.7 ¶(e)(1)(i)(A) and (B)—Required nutritional risk data

§246.7 ¶(e)(1)(ii)(B)—Hematological test for anemia

42 CFR Part 493 and OAR 333-024-0005 thru 0055 – CLIA Requirements for a Certificate of Waiver

ORS 438.10 License Content (1)

Final WIC Policy Memorandum #2001-2 WIC Blood test Requirements

## OREGON WIC PPM REFERENCES

- ◆ [440—Staff Training Requirements](#)
- ◆ [625—Risk Assessment](#)
- ◆ [627—Procedures for Ordering HemoCue Supplies](#)
- ◆ [640 – Documentation Requirements for Certification](#)
- ◆ [661—CPA: Appropriate Counseling for Risk Levels](#)
- ◆ [675—Risk Criteria Codes and Descriptions](#)
- ◆ Oregon WIC Training: Nutrition Risk Module

## APPENDICES

626.8 Appendix A Standing Orders: Hemoglobin Screening in WIC

626.10 Appendix B Sample Maintenance, Cleaning and Temperature Log

## DEFINITIONS

**Applicant:** An individual who comes to the WIC clinic requesting WIC services

**CLIA:** Clinical Laboratory Improvement Amendments. Congress passed the Clinical Laboratory Improvement Amendments (CLIA) in 1988 establishing quality standards for all laboratory testing to ensure the accuracy, reliability, and timeliness of patient test results regardless of where the test was performed.

**CLIA-waived:** Some laboratory tests may be CLIA waived because they are simple laboratory procedures or pose no reasonable risk of harm to the patient if the test is performed incorrectly.

**Standing Orders:** Oregon Revised Statutes, ORS 438.430 – Laboratories must have an authorized provider ordering all tests. For WIC to comply with this requirement, written physician's orders, or standing orders, have been established. The Standing Orders: Hemoglobin Screening in WIC (Appendix A), stipulates who can perform the test, the protocol and the plan of care to assure all participants who meet the criteria for the order receive the same treatment.

## PROCEDURE

### Screening Guidelines for Biochemical Assessment

- 1.0 Obtain hemoglobin or hematocrit blood test data at certification or follow up appointments according to the guidelines appropriate for the participant category.
  - 1.1. **Infants:** Test at age 9 to 12 months. Blood test data taken at 6 to 8 months of age may be used in special circumstances on a case-by-case basis when it may be very difficult to obtain a blood test at 9 to 12 months of age. This is not to be routine practice.
  - 1.2. **Children age 1 to 2 years:** Test at age 15 to 18 months, ideally 6 months after the infant screen. At least one blood test must be performed between 12 and 24 months of age  
**Children age 2 to 5 years:** Test once every 12 months if previous results are within normal range. If result is below approved hematological standards, retest in 3 months. If result continues to be below standards and if not already seeing health care provider for low hemoglobin/hematocrit, refer for follow-up and further testing in that certification period. A child screened at 18 months whose results were within the normal range would not be required to be retested until 30 months of age. A child whose blood test at 18 months was below the normal range would be required to be retested at 21 months.
  - 1.3. **Pregnant Women:** Test at the time of the initial certification appointment for current pregnancy, or at a minimum within 90 days of enrollment.
  - 1.4. **Postpartum Women:** After delivery, test at the first certification appointment or earlier in the postpartum period. If result is below approved hematological standards, retest in 3 months. If result continues to be below standards and if not already seeing health care provider for low hemoglobin/hematocrit, refer to health care provider for follow-up and further testing in that certification period. No additional blood test is required by WIC.
  - 1.5. **Breastfeeding women 6-12 months postpartum:** No additional blood test is required at the mid-certification appointment for a breastfeeding woman

between 6-12 months postpartum if a test was performed after the termination of their pregnancy.

### **Blood collecting exceptions**

2.0 Do not do a blood test in the following situations:

- Participants whose religious beliefs will not allow them to have blood drawn.
- Participants with a medical condition such as, hemophilia, fragile bones (Osteogenesis imperfecta), or a serious skin disease, where the blood collection procedure could cause harm to the participant.

2.1 When one of these situations arises, document the situation in the Medical Notes on the Medical tab in the data system.

### **Interpreting results**

3.0 See [◆675—Risk Criteria Codes and Descriptions](#) for hemoglobin and hematocrit criteria, and adjusted values to use for altitude and smoking.

- 3.1. When a blood test value is more than one point below normal, then this very low blood test falls in the high risk range. Whenever a blood test value is more than one point below normal, perform a second test using a different finger with a new lancet during this same appointment to recheck the value to confirm it is in the high risk range. Document the results in the data system as follows: Document the higher of the two values on the Blood Test tab. If the higher value falls in the medium risk range or normal range, no additional documentation is needed for the blood test value.
- 3.2. If the second test is still more than one point below normal, in addition to documenting the higher of the two values, enter a note on the Blood Test tab stating that the blood test was re-checked and note the other blood test value.
- 3.3. See “Oregon WIC Training: Nutrition Risk Module” for information about iron deficiency anemia.

### **Documentation**

4.0 Record all results in the data system according to [◆640— Documentation Requirements for Certification.](#)

- 4.1. If there was difficulty when taking the blood test, enter the reason in the Note section on the Blood Tests tab for the potential inaccuracy.
- 4.2. If the blood test value meets the specific high risk criteria in Policy [◆661 Competent Professional Authority: Appropriate Counseling for Risk Levels](#), change the participant risk level from medium to high.

### **Actions based on test results**

5.0 Actions taken depend upon the hemoglobin values:

- A. If hemoglobin values are in the high-risk range, provide nutrition counseling on food sources of iron and ways to increase iron absorption, refer participant to the primary care provider, and schedule a follow-up with the Registered Dietitian Nutritionist (RDN)/WIC nutritionist for a recheck, assessment and nutrition counseling within 1-2 months.
- B. If hemoglobin values fall within the medium risk range, provide nutrition counseling to the participant or parent/caregiver on food sources of iron and ways to increase iron absorption.
  - If value is low due to another type of anemia, for example sickle cell anemia, document details in progress notes and refer to RDN/WIC nutritionist for appropriate nutrition counseling. Schedule for follow-up recheck in 3 months.
- C. If hemoglobin values are within the normal range, follow schedule above for next required testing based on the participant's age/category.

### Tests performed outside of WIC

- 6.0 If the participant, parent or caregiver has a documented result of a hemoglobin or hematocrit performed by a medical provider within the biochemical screening guidelines for the participant's category (see 1.0), enter value in the WIC data system, change date to the date the test was performed, and identify in the Medical Notes on the Medical tab the source of the blood test. It is not necessary to repeat the hematological test. If the value from the medical provider is outside of the normal range, ask if the participant is receiving follow-up care from the provider and provide nutrition counseling on food sources of iron and ways to increase iron absorption, as well as, the other actions listed in 5.0 for blood test values in the high-risk and medium risk range.

### Standing orders

- 7.0 All WIC staff employed by a contracted local WIC agency in Oregon shall follow the Standing Orders: Hemoglobin Screening in WIC in [Appendix A](#).

### Unable to complete blood test during visit

- 8.0 Measurement of hemoglobin or hematocrit status is part of a full assessment to determine program eligibility. This information is critical for assignment of risk and provision of nutrition education. During the certification, the process of obtaining blood tests should be described as a routine program service as outlined in the participant rights and responsibilities.

An applicant or parent/caregiver has the right to refuse to participate in any of the health procedures, such as blood tests. If the individual opts out of a blood test, review the importance of this data with them and identify a plan for obtaining the information at a later date at the WIC clinic or from their health care provider according to [◆625 Risk Assessment](#). The form, [Request to Collect Hemoglobin Blood Test Values](#), is designed to assist local agencies in obtaining the test result from the health care provider.

The reason for refusal and plan for obtaining the blood value must be documented in the medical tab notes. See [◆640 – Documentation Requirements for Certification](#),

Appendix B. Continue to follow-up with participants at future visits until the blood test result is obtained.

## **CLIA Certificate**

- 9.0 A current CLIA Certificate must be appropriately posted in each WIC clinic (ORS 438.10 License Content (1).) This informs the public the laboratory testing meets federal standards to ensure accuracy, reliability and timeliness of test results. CLIA requirements are based on the complexity of the test and the type of laboratory where the testing is performed. The hemoglobin test is confirmed “CLIA-waived” and will require the appropriate CLIA certificate of waiver is posted in each WIC clinic for the public to see
- 9.1. Post a copy of the certificate in the WIC lab room where hemoglobin testing is performed at each clinic site. If hemoglobin testing is performed in each certifier office, then just one copy of the certificate needs to be posted by the front desk in a location all can see.
- 9.2. Obtain a current CLIA Certificate from county or agency lab director. If agency does not have a lab director or “full” lab, obtain a Certificate of Waiver using application at the Clinical Laboratory Regulation website, then post copies of the form, keeping original in your main clinic site.
- 9.2.1. For a CLIA Certificate of Waiver, go to the Clinical Laboratory Regulation website: [www.healthoregon.org/ll](http://www.healthoregon.org/ll). Under “Certificate of Waiver”, fill out CLIA CMS 116 application form and fax to the CMS CLIA State Agency (SA) located in the state lab at 503-693-5602 or scan and email to [LC.info@odhsoha.oregon.gov](mailto:LC.info@odhsoha.oregon.gov) The CMS CLIA SA will send the application to a federal office for processing. Once approved, a “fee coupon” (i.e. invoice for the fee) will be issued by CMS (Centers for Medicare & Medicaid Services) following processing of your application. The current fee is \$180 every two years. CMS will send renewal fee coupon notices starting a year before expiration.

## **Equipment Requirements**

- 10.0 Equipment used to measure hemoglobin or hematocrit values must be CLIA-waived.

## **Allowable equipment – hemoglobin tests**

- 11.0 When performing **hemoglobin** tests, use the following equipment:
- Hemoglobinometer or photometer
  - Reagent cuvettes or microcuvettes

## **Maintenance of hematologic equipment and documentation requirements**

- 12.0 Follow the manufacturer’s guidelines for routine maintenance of hematologic equipment and proper storage of microcuvettes.
- 12.1. Routine maintenance and cleaning of the blood testing equipment based on industry standards must be followed and documented to ensure accuracy in measurements and risk evaluation.

- 12.2. Supplies of reagent cuvettes and microcuvettes must be monitored closely due to expiration dates. Rotate stock to ensure that oldest supplies are used first. See [◆627—Procedures for Ordering HemoCue Supplies](#) for more information on managing supply stock.
- 12.3. Microcuvettes must be handled properly to ensure the quality and accuracy of the blood test.
  - 12.3.1. Microcuvettes must be used by expiration date. Discard microcuvettes that exceed expiration dates.
  - 12.3.2. Maintain microcuvettes within the temperature range specified on the package insert. Record the room temperature each day the microcuvettes are used.
  - 12.3.3. Only remove microcuvettes from vial just prior to use. Immediately reclose vial securing cap tightly on the container.
- 12.4. Documentation of equipment cleaning and the room temperature where microcuvettes are stored must be kept on file for six months. See [Appendix B](#) for a sample cleaning and temperature log. Local programs may develop their own log to document routine cleaning and room temperature where microcuvettes are stored.

### **Appropriate blood collecting**

- 13.0 Refer to the “Oregon Online Hematology Course”, including supplementary video, for appropriate blood collecting procedures and equipment use. Staff must complete this module prior to performing blood tests ([◆440—Staff Training Requirements](#).)

### **Cleansing hands**

- 14.0 Prior to performing a finger stick, clean hands with soap and water, antimicrobial gel or antibacterial hand wipes.

### **Allowable equipment for finger or toe sticks**

- 15.0 Use the following equipment when performing finger or toe sticks:
  - Disposable gloves on both hands;
  - Alcohol (70% isopropyl) or alcohol prep pads;
  - Gauze squares or cotton balls;
  - Single use, spring-loaded and retractable sterile lancets that are the appropriate size/depth for the fingers of both women and children;
  - Capillary tubes or microcuvettes stored in a closed vial (check equipment manufacturer’s instructions);
  - Adhesive bandages (when needed);
  - Puncture-resistant disposal container designed for contaminated materials (“sharps” container).

### Appropriate puncture sites

16.0 The best locations for collecting capillary samples are the side of the 3rd and 4th finger pad of the non-dominant hand for adults and children. Puncturing the fingers of infants younger than 1 year of age is not recommended. Puncturing the edges of the heel or big toe may be more suitable for this WIC category.

### Disposal of blood collecting supplies

17.0 After the blood test, throw away any paper wrappers, alcohol prep pads, gauze, tissues, gloves and any other supplies which are not contaminated with blood in a wastebasket.

17.1. Dispose of lancets and cuvettes in “sharps” container.

17.2. Dispose of supplies contaminated with blood in biohazard bag or “sharps” container.

### Local procedure

18.0 Programs with different procedures for screening hemoglobin or hematocrit status must submit their local policy and procedure to the state agency for review and approval. Examples:

- Not using state provided hematology equipment
- Use of non-invasive screening equipment in addition to the state provided hematology equipment. At a minimum, include in the non-invasive screening policy and procedure which participants are eligible and will be offered the non-invasive screening option; what procedures will be used to assure a good reading; if unable to get a reading using the non-invasive option, what steps will be taken to obtain a blood test.
- Use of a non-clinic/health department laboratory

18.1. Follow your agency’s “Exposure Control Plan” in the event staff are exposed to blood or bodily fluids while performing a finger stick.

**If you need this in large print or an alternate format, please call 971-673-0040.**

**This institution is an equal opportunity provider.**

### POLICY HISTORY

Date	* Revised, Reviewed, Released
10/5/2018	Released
1/4/2019	Revised
8/13/2019	Updated standing orders for FNS

6/9/2020	Major revision
8/3/2023	Revised

The date located at the top of the policy is the date of the most recent release. Policies are to be implemented on release date and will become compliance findings 6 months from the release date.

*\*Released: Significant changes made to policy. Release notes can be found in the corresponding document on the [Policy and Procedure Manual page](#).*

*Reviewed: The writer looked at this policy to make sure it was still accurate. Formatting changes may have occurred.*

*Revised: Minor edits or formatting has occurred without need for release. USDA has accepted a policy and watermark is reviewed.*

*Date of Origin: Date policy was initially released*



## APPENDIX A

### Standing Orders: Hemoglobin Screening in WIC

**Oregon Health Authority  
Public Health Division  
Nutrition & Health Screening Program (WIC)  
Standing Order: Hemoglobin Screening in WIC  
Issue Date: October 23, 2023**

**Standing order:** All WIC staff employed by a contracted local WIC agency in Oregon and who have successfully completed the required WIC Hematology Course may order and perform a hemoglobin screening test for anemia according to the criteria below. All hemoglobin test results shall be recorded in the WIC data system.

#### Regulations:

- Federal Regulations 7CFR 246.7 ¶ (e)(1)(ii)(B)
- Oregon Revised Statutes 438.430
- Oregon WIC Policy and Procedure Manual
  - Policy 626 Hemoglobin and Hematocrit Screening in WIC  
<https://www.oregon.gov/oha/PH/HEALTHYPEOPLEFAMILIES/WIC/Documents/ppm/626.pdf>
  - Policy 675 Risk Criteria Codes and Descriptions  
<https://www.oregon.gov/oha/PH/HEALTHYPEOPLEFAMILIES/WIC/Documents/ppm/675.pdf>

**Protocol:** The following screening guidelines for biochemical assessment comprise the criteria used to determine the situation or condition for which the standing order may be carried out:

- a. All infants 9–12 months old must have one hemoglobin screening test for anemia performed between 9 and 12 months of age.
- b. All children 12–24 months must have one hemoglobin screening test for anemia performed, preferably 6 months after the infant test.
- c. A hemoglobin screening test for anemia should be performed on all children 25–60 months old at least once every 12 months.
- d. For pregnant women, a hemoglobin screening test for anemia must be performed at the time of the initial certification appointment, or at a minimum within 90 days of enrollment.
- e. For postpartum women, a hemoglobin screening test for anemia must be performed at their first postpartum week appointment (usually at 6 weeks postpartum.)

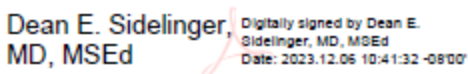
Table 1: Hemoglobin values – Normal and abnormal ranges<sup>a</sup>

Category	Hemoglobin value (g/dL)		
	High risk	Medium risk	Normal
Infants 9–12 months	Below 10.0	10.0–10.9	11.0 and higher
Children 12–24 months	Below 10.0	10.0–10.9	11.0 and higher
Children 2–5 years	Below 10.1	10.1–11.0	11.1 and higher
Pregnant women 0–13 weeks gestation	Below 10.0	10.0–10.9	11.0 and higher
Pregnant women 14–26 weeks gestation	Below 9.5	9.5–10.4	10.5 and higher
Pregnant women 27–40 weeks gestation	Below 10.0	10.0–10.9	11.0 and higher
Postpartum women	Below 11.0	11.0–11.9	12.0 and higher

<sup>a</sup> Adjust for altitude and smoking per Policy [675 Risk Criteria Codes and Descriptions](#) and use medium risk  $\leq 1$  point below and high risk is  $> 1$  point below normal value.

**Plan of care:**

- 1) **Test results outside of normal parameters:**
  - A. If hemoglobin value is in the high-risk range, provide nutrition counseling to the participant or parent/caregiver on food sources of iron and ways to increase iron absorption, refer participant to their primary care provider and schedule a follow-up with the WIC nutritionist for hemoglobin retest, assessment and nutrition counseling within 2 months.
  - B. If hemoglobin value is in the medium-risk range, provide nutrition counseling to the participant or parent/caregiver on food sources of iron and ways to increase iron absorption. Schedule for follow-up and hemoglobin retest in 3 months.
  - C. If hemoglobin value is normal, follow schedule above for next required testing in WIC based on the participant’s age/category.
  
- 2) **Tests performed outside of WIC:** If the participant, parent or caregiver has a documented result of a hemoglobin or hematocrit performed by a medical provider according to the biochemical screening guidelines for the participant’s category, WIC staff may enter that value in the WIC data system and do not need to repeat the hematological test. If that value is outside of the normal range, assess that the participant is receiving follow-up care from the provider and provide nutrition counseling to the participant or parent/caregiver on food sources of iron and ways to increase iron absorption.
  
- 3) **Review of this standing order:** This standing order will be reviewed by the State Health Officer or their designee every 3 years.

Signature:  Digitally signed by Dean E. Sidelinger, MD, MEd  
Date: 2023.12.06 10:41:32 -0800

Date: October 23, 2023

Dean Sidelinger, MD, MEd, FAAP  
OHA State Health Officer

