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The South Carolina Department of Health and Environmental Control, as the state's public health agency and in accordance with state law, is the appropriate authority to provide follow-up and support services for all children identified as having an elevated blood lead level. In addition to conducting routine screenings of at-risk children, DHEC health departments offer a range follow-up services to those children identified as having an elevated blood lead level. The referring provider should confirm the child's blood lead level (using a venous sample) prior to requesting assistance from the DHEC health department. These services are available to all children under six years of age, regardless of Medicaid or WIC status and regardless of whether the child was identified as having an elevated level by a private provider or through a screening at a health department or elsewhere. Services are provided based upon the child's blood lead level, the individual family circumstances, and in accordance with current CDC guidelines and under the authority of one of the CLPPP Medical Consultants. These services may include but are not limited to nutritional counseling, developmental assessment such as a Denver II, environmental investigation of the child's primary residence as well as any appropriate supplemental addresses, and follow-up blood tests.

The material given below contains the DHEC policies for lead screening, follow-up, and case closure. This information is available in the Health Services Policy Manual and is on the Internet at <http://dhecnet/hs/policy/childh.htm> . Even though these are DHEC policies, many of the procedures will also work in a private clinic or other type of provider setting.

SUBJECT: LEAD SCREENING FOR CHILDREN

POLICY STATEMENT: All children, up to 72 months of age, seen for Early and Periodic Screening, Diagnosis, and Testing (EPSDT) services, will receive a blood lead screening test at:

1. 12 and 24 months of age;
2. 3, 4, and 5 (<72 months) years of age if not previously screened.

Education, counseling, and referral will be offered as indicated by the assessment.

Children, less than 72 months of age, seen for Child Health services other than EPSDT, may receive a lead screening, if the public health professional has assessed risks indicative of possible lead exposure. Education, counseling, and referral will be offered as indicated by the assessment.

LAWS South Carolina 2002 Code of Laws

Title 44 Health

Chapter 53 Poisons, Drugs and other Controlled Substances

Article 13 Lead Poisoning Prevention and Control Act

Sections 1310-1390

Title 20 Domestic Relations

Chapter 7 Children's Code

Subarticle 7 Legal Capacity of Minors

Section 290 Certain Health Services may be rendered to minor of any age without consent of parent or guardian

STANDARDS

1. All children, up to 72 months of age, seen for EPSDT services will receive blood lead screening at:
 - a. 12 and 24 months of age.
 - b. 3, 4, and 5 (<72 months) years of age if not previously screened.
 - c. Refer to *Medicaid Provider's Manual* for additional information.
2. If a copy of the blood lead screening result done elsewhere is in the child's record and was done in the appropriate time period, repeating the blood lead screening is not necessary.
3. Children <72 months of age, seen for Child Health services other than EPSDT, may receive a blood lead screening, if the public health professional has assessed risks indicative of possible or known lead exposure, or another health problem for which the blood lead level (BLL) may provide helpful information in assessing patient's health status.
4. The parent/caretaker of a child seen for WIC will be asked if the child has recently had a blood lead screening test. If the child has not had a blood lead screening test during the time frames noted in Standard #1, the WIC nutrition educator will advise the parent of the importance of lead screening and ask the parent to check with their child's private health care provider to assure that a lead screening test has been performed.

If the child does not have a private health care provider and is eligible for EPSDT services, the WIC nutrition educator will refer the family to the local health department EPSDT clinic if one is available. If the health department does not offer EPSDT services, the nutrition educator will refer the family to Family Support Services for assistance in linking the child with a private health care provider.

5. When possible, visits for children seen for both WIC and EPSDT will be coordinated, so a fingerstick to obtain a capillary specimen for hemoglobin and a screening lead test will be performed only once.

6. Blood lead samples will be obtained, following the guidelines in the district lab manual and submitted within 24 hours of collection to the DHEC Bureau of Laboratories. The specimen collection procedure in the district lab manual should be consistent with DHEC's *Bureau of Laboratories' Service Guide*.
7. Children and their parent/caretaker will receive counseling about lead poisoning prevention.
8. See the policy, *Elevated Blood Lead Level Follow-Up for Children*, for information on providing follow-up to children with elevated screening and/or diagnostic blood lead levels.
9. Verbal orders from private health care providers and physician lead-consultants must be signed according to the Verbal Order policy in the *DHEC Nursing Professional Practice Manual*.
10. Public Health Nurse will adequately demonstrate skills noted in the *Orientation for Nurses Working in Children's Services* and the *Competency Guide for Nurses Working in Children's Services*.
11. Laboratory Technologist or Licensed Practical Nurse will adequately demonstrate the skills necessary to perform accurate specimen collection and testing. Training and skills check off are noted in the staff member's orientation record.
12. The Lead Analysis Laboratory form (DHEC 1311) will be completed as outlined in the *DHEC Bureau of Laboratories' Services Guide*.
13. Laboratory reports will be filed in the client's health record.
14. Documentation will be completed as outlined in the *DHEC Comprehensive Health Record Manual*.

PROCEDURES

Lead Screening and General Guidelines for Lead Testing

Lead poisoning can impair a child in very obvious or subtle ways. These impairments may not be evident until a later time. Early identification of lead exposure and associated problems and associated management can minimize or prevent impairments.

A. Clinic Services:

1. The Public Health Nurse will determine if client falls into one of the age groups for whom blood lead screening will be completed during the EPSDT visit.
2. While taking the client history, the Public Health Nurse will evaluate factors that may indicate the child's risk of lead exposure. Detailed information on factors that may expose children to lead hazards can be

found in the following publications from the Centers for Disease Control and Prevention (CDC):

- a. *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention.*
 - b. *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials.*
3. For children in need of a blood lead test, complete the Lead Analysis Laboratory form (DHEC 1311) as outlined in the DHEC Bureau of Laboratories' *Services Guide*.

Additional points of concern include:

- a. Client information on the lab slip may be handwritten or a preprinted label may be used.
 - b. A physical address for the client including a zip code must be included on the lab slip.
 - c. Make certain the client name on the lab slip and the specimen match.
4. Obtain a capillary blood specimen for blood lead screening, following the procedure outlined in the district lab manual. The specimen collection procedure in the district lab manual must be consistent with DHEC's Bureau of Laboratories' *Services Guide*.
5. Follow the *Services Guide's* procedures for storing and shipping capillary blood specimens for blood lead screening to the state laboratory.
- a. All blood lead samples should be submitted, within 24 hours of collection, to the Bureau of Laboratories.
 - b. If using 1 x 3 inch preprinted labels, peel off the backing, place the tube in the middle of the label, then bring the ends together forming a "flag" of the label.
 - c. Some cautions about labeling the tube include:
 - (1) Wrap the label around the specimen container so it is not wrapped about the cap of the tube. It is difficult for the lab technician to open the container when the label is stuck to the cap.
 - (2) Attaching only one end of the label to the specimen tube frequently results in labels that come off the tube or are torn from the tube in transit, meaning the specimen cannot be used.
 - (3) Leaving part of the backing on the label often results in the backing coming off during transit, causing the label to stick to other specimens and forms, making it difficult to separate specimens and forms upon arrival at the lab.

6. Document test on the laboratory log.
7. Follow manufacturer's recommendation to ensure specimen-collection supplies remain stable. Do not use expired specimen-collection supplies.
8. Clean lab specimen collection area daily, and as necessary to minimize the spread of infection, following DHEC *Exposure Control Plan*. The plan can be found at <http://dhecnet/hs/infection/>.
9. Counsel parents/caretakers/clients about:
 - a. Common sources of lead hazards in a child's environment
 - b. Anticipatory guidance to limit exposure to lead including the importance of:
 - (1) Good nutrition in preventing lead poisoning.
 - (2) Frequent, thorough hand washing.
 - (3) Running cold water for 30 seconds every morning, before using water for cooking or drinking. Use of cold water for cooking or drinking.
 - (4) Minimizing exposure to items that may be contaminated by lead.
 - c. Any concerns identified during the visit.
 - d. Provide lead information brochures, as appropriate, to reinforce counseling.
 - e. Detailed information on counseling topics from the CDC can be found in:
 - (1) *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention.*
 - (2) *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials.*
 - f. Importance of maintaining a current address with the health department in case the lead screening results are elevated and follow-up is needed.
10. Document testing, findings, counseling, and plan of care on the Clinical Encounter form (DHEC 3211). Use the Continuation/Coordination Sheet (DHEC 1619) for additional documentation as needed.
11. Use the Request For & Follow-Up of Health Services form (DHEC 1610), in addition to any oral referrals, for assessment and treatment, follow-up, and resource access.
12. Lab reports on blood lead samples reported as quantities not sufficient (QNS) should be repeated at the client's next clinic visit, unless there are special circumstances requiring that the blood lead test be repeated as soon as possible, such as a sibling with an elevated BLL.

B. Parent Requests:

If a parent/guardian requests a blood lead test for a child (or a private health care provider refers a child to the health department for a blood lead test), and the child is not eligible for EPSDT services:

1. Assess the child's risk of lead exposure using the personal risk questionnaire (DHEC 3511).
2. Determine if age < 72 months and never before screened.
3. Obtain zip code of residence.
4. Inquire about potential and known exposures to lead.
5. Proceed with lead testing if the child is determined to be at high risk for lead poisoning. Children who are not at high risk for lead poisoning should be referred to their private health care provider for testing.
6. Inform the family that the costs of the blood lead test will be covered either by:
 - a. The parent/guardian or
 - b. The child's health insurance, if blood lead tests are covered under the child's health insurance policy.

The county lead nurse may screen calls from the public concerning testing family members for lead. He/she should inquire about potential sources of lead exposures. If the caller seems to be at risk based on his responses, staff may suggest he contact his private health care provider about a blood lead test.

Callers may be directed to call the following numbers for additional information:

1. CLPPP toll free phone number 1-866-466-5323 (1-866-4NO-LEAD).
2. DHEC EQC Adult Blood Lead Epidemiology and Surveillance (ABLES) 1-888-849-7241.
3. National Lead Hotline toll-free number at 1-800-424-LEAD (1-800-424-5323). A recording will ask them to leave their name and mailing address. They will receive EPA brochures that address many of the questions the public may have about lead.

C. Child Care Facility Screening:

1. The S.C. Department of Social Services (DSS) requires that all licensed childcare facilities receive an environmental investigation by the health department. Part of that inspection includes an evaluation of the facility for lead based paint or other lead hazards.
2. When lead hazards are identified in facilities that have applied for a license, the childcare operator will not receive a license from DSS to operate until the lead hazards in that facility are corrected.
3. When abnormal levels of lead are identified in existing facilities:
 - a. The childcare facility will notify parents and guardians of the possibility that their child may have been exposed to lead at the facility and advise the parents/caregivers to have their children screened for lead poisoning by their primary care provider.
 - b. The property owner is instructed to correct all lead hazards.

- c. Children found to have elevated lead levels through this testing should be followed as indicated in the case follow-up section of the policy, *Elevated Blood Lead Level Follow-Up*.

D. Environmental Lead Investigations and Lead Removal, Remediation, and Abatement:

The health department investigates only the homes of children with an elevated blood lead level. See the *Elevated Blood Lead Level Follow-Up for Children* policy for additional information on environmental lead investigations.

Calls from the public can be directed to:

*The Childhood Lead Poisoning Prevention Program (CLPPP) at 1-866-466-5323 (1-866-4NO-LEAD).

*The local Environmental Health Specialist (sanitarian), who has completed EPA lead risk assessment training and can provide counseling on lead hazards.

Other options are commercial do-it-yourself home test kits or local commercial environmental laboratories listed in the telephone directory. A list of Environmental Protection Agency (EPA) certified risk assessors, contractors, etc. is available by calling 1-800-424-5323 (1-800-424-LEAD).

E. Testing Drinking Water for Lead:

DHEC does not routinely test drinking water for lead. Residents on public drinking water systems may request their water be tested by their water system provider or an independent certified lab (listed in telephone directory).

Water customers can reduce lead exposure by taking some simple precautions:

1. Let water that has been standing in pipes for several hours run 30 seconds before drinking or cooking with it.
2. Do not use water from the hot water tap for cooking, drinking, or mixing baby formula.
3. Ensure electrical grounding wires are not connected to plumbing.
4. Drinking water and testing fact sheets are available from the Environmental Quality Control section of the Educational Materials Library.
5. The EPA's Safe Drinking Water Hotline is 1-800-426-4791.

RESPONSIBILITIES/ACTION: Public Health Nurses, Physician lead-consultants, other Public Health Staff as assigned.

REFERENCES:

American Academy of Pediatrics. 1997. Guidelines for Health Supervision III (3rd ed.). Elk Grove Village, IL: American Academy of Pediatrics

Publications Department.

American Academy of Pediatrics Policy Statement. 1998. Screening for Elevated Blood Lead Levels (RE9815). *Pediatrics*. 101(6): 1072-1078.

American Academy of Pediatrics Policy Statement. 1995. Treatment Guidelines for Lead Exposure in Children (RE9529). *Pediatrics*. 96(1): 155-160.

Centers for Disease Control and Prevention. 2002. *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention*. Atlanta, GA: CDC.

Centers for Disease Control and Prevention. 1997. *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*. Atlanta, GA: CDC.

Green, M., Palfrey, J.S., eds. 2000. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents* (2nd ed.). Arlington, VA: National Center for Education in Maternal and Child Health.

Office of Pollution Prevention and Toxics. 2000. *Lead Poisoning and Your Children* (EPA 747-K-00-003). Washington, DC: United States Environmental Protection Agency.

South Carolina Department of Health and Environmental Control: Bureau of Laboratories. 2001. *Services Guide* (8th ed.). Columbia, SC: SCDHEC.

Rehnquist, J. Inspector General. 2001. *Enrollment and Certification Process in the Clinical Laboratory Improvement Amendments Program* (OEI-05-00-00251). Arlington, VA: Department of Health and Human Services.

U. S. Preventive Health Services Task Force. *Screening for Elevated Lead Levels in Childhood and Pregnancy. Guide to Clinical Preventive Services* (2nd ed., ch. 23). Arlington, VA: Department of Health and Human Services.

Date of Approval: June 28, 2004

SUBJECT: ELEVATED BLOOD LEAD LEVEL FOLLOW-UP FOR CHILDREN

POLICY STATEMENT: All children, younger than 72 months of age, seen for Early and Periodic Screening, Diagnosis, and Testing (EPSDT) services, will receive follow-up for elevated blood lead screening test results, per the Centers for Disease Control and Prevention's (CDC) nationally published guidelines.

Children, younger than 72 months of age, who have an elevated diagnostic blood lead level and are seen by their private health care provider, will receive follow-up services, unless the private health care provider chooses to provide the follow-up.

Education, counseling, and referral will be offered as indicated by the assessment.

LAWS South Carolina 2002 Code of Laws

Title 44 Health

Chapter 53 Poisons, Drugs and other Controlled Substances

Article 13 Lead Poisoning Prevention and Control Act

Sections 1310-1390

Title 20 Domestic Relations

Chapter 7 Children's Code

Subarticle 7 Legal Capacity of Minors

Section 290 Certain Health Services may be rendered to minor of any age without consent of parent or guardian

STANDARDS

15. Children and their parent/caretaker will receive counseling about lead poisoning prevention, the lead screening results and management options if the blood lead level (BLL) is elevated on the screening test. Clear communication and involvement of the child's family in the development and implementation of a treatment plan is imperative.
16. Children with an elevated diagnostic BLL will receive a referral for evaluation and treatment, when indicated. See the Lead Case Follow-Up Procedures section of this policy for the guidelines.
17. Verbal orders from private health care providers and physician lead-consultants must be signed according to the Verbal Order policy in the *DHEC Nursing Professional Practice Manual*.
18. Each district will develop county lead teams that provide services at the local level, consisting of the designated lead nurse, Environmental Health Specialist (sanitarian), nutritionist, social worker, health educator, and other staff as deemed appropriate. The lead team must communicate clearly and regularly with each other, particularly with the lead nurse.
19. Families may be referred for public health services, such as nursing, nutrition, and social work, through FSS.

20. Public Health Districts must notify the Central Office Childhood Lead Poisoning Prevention Program (CLPPP) Director and Health Education Consultant as soon as possible when the designated lead nurse changes.
21. Public Health Nurse will adequately demonstrate skills noted in the Orientation for Nurses Working in Children's Services and the Competency Guide for Nurses Working in Children's Services.
22. Laboratory Technologist or Licensed Practical Nurse will adequately demonstrate the skills necessary to perform accurate specimen collection and testing. Training and skills check off are noted in the staff member's orientation record.
23. Each district site must have at least one staff member skilled in obtaining a venipuncture (VP) blood sample from small children during regular business hours.
24. The Lead Analysis Laboratory form (DHEC 1311) will be completed as outlined in the DHEC *Bureau of Laboratories' Services Guide*.
25. Laboratory reports, including BLL and environmental samples, will be filed in the client's health record.
26. Documentation will be completed as outlined in the DHEC Comprehensive Health Record Manual.

PROCEDURES

A. General Guidelines for Diagnostic Blood Lead Testing:

1. For children in need of a diagnostic blood lead test, complete the Lead Analysis Laboratory form (DHEC 1311) as outlined in the DHEC Bureau of Laboratories' *Services Guide*.
2. Obtain a venous blood specimen for blood lead screening, following the procedure outlined in the district lab manual. The specimen collection procedure in the district lab manual must be consistent with the DHEC Bureau of Laboratories' *Services Guide*. Follow the *Services Guide's* procedures for storing and shipping venous blood specimens for blood lead screening to the state laboratory.
3. All blood lead samples should be submitted, within 24 hours of collection, to the Bureau of Laboratories.
4. Document test on the laboratory log.
5. Follow manufacturer's recommendation to ensure specimen-collection supplies remain stable. Do not use expired specimen-collection supplies.

6. Clean lab specimen collection area daily, and as necessary to minimize the spread of infection, following the DHEC *Exposure Control Plan*. The plan can be found at <http://dhecnet/hs/infection/>.
7. Counsel parents/caretakers/clients about:
 - a. Common sources of lead hazards in a child's environment
 - b. Anticipatory guidance to limit exposure to lead including the importance of:
 - (5) Good nutrition in preventing lead poisoning.
 - (6) Frequent, thorough hand washing.
 - (7) Running cold water for 30 seconds every morning, before using water for cooking or drinking. Use of cold water for cooking or drinking.
 - (8) Minimizing exposure to items that may be contaminated by lead.
 - c. Any concerns identified during the visit.
 - d. Provide lead information brochures, as appropriate, to reinforce counseling.
 - e. Detailed information on counseling topics from the CDC can be found in:
 - (1) *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention.*
 - (2) *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*
 - f. Importance of maintaining a current address with the Health Department in case the lead screening results are elevated and follow-up is needed.
8. Document testing, findings, counseling, and plan of care on the Clinical Encounter form (DHEC 3211). Use the Continuation/Coordination Sheet (DHEC 1619) for additional documentation as needed.
9. Use the Request For & Follow-Up of Health Services form (DHEC 1610), in addition to any oral referrals, for assessment and treatment, follow-up, and resource access.

B. Confirmation Testing for Elevated Lead Screening Results:

1. All children, < 72 months of age, with screening BLL of ≥ 10 $\mu\text{g}/\text{dL}$ will receive diagnostic testing by VP.

The higher the screening BLL, the more urgent the need for a diagnostic blood lead test. For lower screening BLL with a longer time frame in which to perform a diagnostic blood level test, the child should be tested as soon as the family can be contacted, even though more leeway is allowed for making contact than is allowed at higher screening test levels.

See Table A for CDC's recommended schedule for obtaining a

confirmatory (diagnostic) blood lead level test.

Table A: Recommended Schedule for diagnostic testing, using a VP blood sample, for a child with an elevated BLL on a blood lead screening test.

If result of blood lead screening (fingerstick) test ($\mu\text{g}/\text{dL}$) is:	Perform diagnostic blood lead level test on venous blood within:
10-19	3 months
20-44	1 month - 1 week
45-59	48 hours
60-69	24 hours
≥ 70	Immediately as an emergency lab test

2. Refer all children with venous results $\geq 10 \mu\text{g}/\text{dL}$ to the lead nurse, a nutritionist, and a social worker, if resources are available.
3. Private health care providers may refer children with a confirmed (VP) elevated BLL to the health department for follow-up. A written referral with the documented lab results must precede the provision of follow-up.
4. A private health care provider or physician lead-consultant's follow-up schedule supersedes the recommended schedule for diagnostic testing.

C. Lead Case Follow-Up

1. A Lead Case is defined, for DHEC administrative purposes, as:
 - a. A child less than six years of age (< 72 months) who
 - b. Has had a venous BLL $\geq 10 \mu\text{g}/\text{dL}$ and
 - c. Is currently receiving lead follow-up services through DHEC.
2. Once a child, younger than 72 months of age, has had a diagnostic (VP) BLL $\geq 10 \mu\text{g}/\text{dL}$, all subsequent blood samples must be collected by VP.
3. Consultation for clinical medical management with a physician lead-consultant or the private health care provider must be sought for children with a diagnostic BLL $\geq 15 \mu\text{g}/\text{dL}$. Private health care providers may request that the physician lead-consultant provide clinical medical management.

4. See Table B for CDC's recommendations for follow-up VP blood lead testing for a child diagnosed with lead poisoning by a diagnostic BLL ≥ 10 $\mu\text{g/dL}$.
5. See Table C for an overview of CDC's recommended follow-up guidelines based on the diagnostic BLL test results.
6. **A private health care provider or physician lead-consultant's follow-up schedule supersedes the recommended schedule for follow-up testing in Table B and Table C.**

Table B

Schedule for follow-up testing of a child diagnosed with lead poisoning.

Initial Diagnostic Venous blood lead level ($\mu\text{g/dL}$)	Early follow-up (first 2-4 tests after identification)	Late follow-up (after BLL begins to decline)
10-14	3 months	6-9 months
15-19	1-3 months	3-6 months
20-24	1-3 months	1-3 months
25-44	2 weeks-1 month	1 month
≥ 45	As soon as possible	Chelation with subsequent follow-up

Table C: Recommended Action Based Upon Diagnostic BLL

A diagnostic BLL is the first venous BLL obtained within 6 months of an elevated screening BLL.

BLL ($\mu\text{g/dL}$)	Action
<10	Reassess or rescreen in 1 year if < 72 months of age. No additional action necessary unless exposure sources change.
10-14	Provide family lead counseling. Provide follow-up testing. Refer for Nursing, Nutrition, and Social Work services.
15-19	Provide family lead counseling. Provide follow-up testing. Provide clinical medical management. Refer for Nursing, Nutrition, and Social Work services. If elevated BLLs persist (2 or more venous BLLs of 15-19 $\mu\text{g/dL}$ at least 3 months apart) or worsen, proceed according to actions for BLLs ranging between 20-44 $\mu\text{g/dL}$, including a referral to Environmental Health.
20-44	Refer for Nursing, Nutrition, and Social Work services. Provide clinical medical management. Provide environmental investigation. Provide lead-hazard control.
45-69	Within 48 hours, initiate Nursing, Nutrition, and Social Work services. Within 48 hours, initiate clinical medical management, environmental investigation, and lead hazard control.
	Obtain physician's orders for hospitalization and treatment upon

≥ 70	notification of BLL. Hospitalize child and begin medical treatment immediately. Initiate Nursing, Nutrition, and Social Work services immediately. Initiate clinical medical management, environmental investigation, and lead-hazard control immediately.
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7. When necessary, chelation is provided under the orders of a private health care provider or physician lead-consultant in an acute care setting.

 8. Environmental investigations must be done within specified guidelines:
 - i. An environmental investigation of the child's home and/or areas in which the child routinely spends significant amounts of time will be completed when a child has:
 - a. A confirmed BLL $\geq 20 \mu\text{g/dL}$.
 - b. Persistent lead poisoning: Two venipuncture BLL between 15 and 19 $\mu\text{g/dL}$ at least three months apart.
 - ii. If a child who has a currently open case moves to a new address, another environmental investigation should be offered to the family as a courtesy, when resources are available.
 - iii. Once an environmental investigation has been completed, the following information must be reported to the central office staff:
 - a. Date the environmental investigation (risk assessment) was completed.
 - b. Source(s) of lead identified:
 - i. Lead paint only
 - ii. Both lead paint and non-paint hazard(s) identified.
 - iii. Non-paint lead hazard(s) identified. List sources.
 - iv. No hazard identified.
 - c. Plans to investigate any supplemental addresses.
 - d. Reason a requested investigation was canceled, if applicable.
- (5) Date the remediation recommended by the Environmental Health Specialist was completed and the date property met clearance standards. If the child is relocated, remediation might not be completed.
 - (6) Date of chelation (beginning and ending), if applicable. The lead nurse is responsible for providing the chelation dates to the Environmental Health Specialist.
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9. Nutrition services will be provided as follows:
 - a. A referral will be made to a nutritionist for a child with a confirmed BLL $\geq 15 \mu\text{g/dL}$.
 - b. The family will be offered WIC services if the family is financially eligible, the child is <5 years old, and the child is not enrolled in WIC.
 - c. If a nutritionist is not available to see the child, other assigned nutrition staff will provide and document appropriate nutrition

education.

10. Social work services will be provided as follows:

- a. A referral will be made to a social worker for a child with a BLL ≥ 15 $\mu\text{g/dL}$.
- b. The family will be offered assistance in order to follow through with recommendations to reduce child's BLL.
- c. The family will be offered assistance to facilitate linking the child with needed services.

11. Nursing Services will be offered as follows:

- a. The lead nurse functions as the team leader for the county lead team. The lead nurse is responsible for communicating with the child's family or caregiver and other lead team members, scheduling follow-up visits, making appropriate referrals for services such as environmental health or FSS, is the point of contact for the child's primary care provider, and communicates regularly with the child's private health care provider.
- b. The lead nurse will provide intensive counseling about lead hazards in the environment, individualizing counseling to focus on lead hazards known to be in the child's environment. Detailed information on factors that may expose children to lead hazards can be found in the following publications from CDC:
 - (1) Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention.
 - (2) Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials.
- c. Arrangements will be made to screen other appropriate family/household members. Appropriate individuals include any other children < 72 months of age who have not had a blood lead screening in the last 6 months, who also reside or spend a considerable amount of time in the home. A physician or APRN's order is required to test children ≥ 72 months of age.
- d. The lead nurse should suggest that any pregnant women living in the household discuss the need for a lead test with their health care provider.
- e. Developmental and behavioral screening, using a standardized test (or tests):
 - (1) Will be incorporated into the management plan for any child whose BLL ≥ 20 $\mu\text{g/dL}$ and who is receiving lead case follow-up through the health department.
 - (2) At a minimum, will be provided at the time of well child exams by the primary care provider or by a public health nurse if the child has no primary care provider.
 - (3) Developmental screening may be provided more frequently, if indicated.

- (4) Any child with findings that indicate possible developmental or behavioral problems will be referred for evaluation and treatment.
- f. Upon receipt of a referral of a child with an open lead case who is moving into the area of the lead nurse's responsibility, the lead nurse will initiate contact with the family and resume follow up of the child. The lead nurse will also notify the referring county or state verifying contact with the family and a brief description of the plan of care for the child (if DHEC or a private provider will be providing follow-up separately or together).
12. Document testing, findings, counseling and plan of care on the Clinical Encounter form (DHEC 3211). Use the Continuation/Coordination Sheet (DHEC 1619) for additional documentation as needed. In the assessment section of the DHEC 3211, indicate the individual risk assessment for lead poisoning. If a blood lead is drawn, document this in the plan section or under "lab tests ordered". Any education provided should be documented in the education section.
13. Documentation in the child's medical record will include, but not be limited to:
- The child's medical home for both well child and sick care.
 - Current documentation identifying the child as a lead case, the beginning and ending dates of chelation, if it has been done, and the child's BLL.
 - Counseling provided to the child and caregivers that is specific to lead and lead hazards. Detailed information about lead counseling can be found in the CDC publications noted in Procedure item 7e.
 - An update of the child's housing information obtained at each clinic visit.
 - Notification of the lead nurse in the appropriate county when a child moves to another county. Documentation showing that the appropriate records have been sent.
 - Verification by the lead nurse that a referral and records of a child with an open lead case have been received and contact has been made to develop a plan of care with the family.
 - If the child is lost to follow-up, documentation shows the attempts (phone calls, letters, home visits) that were made to locate the child.
 - All environmental investigation activities including lab results of environmental and clearance testing, and the final report and summary.
14. Refer to policy on Follow-Up for guidance about missed appointments. Sample letters are available from the CLPPP upon request.
15. Follow-Up for children whose blood is analyzed at a private laboratory:
- The lead data coordinator will send a letter to the primary care provider of record outlining appropriate follow-up testing and offering health department services. A copy of the letter is available upon request from the CLPPP.
 - A copy of the letter to the primary care provider of record will be sent to the district Child Health Program Manager or the Public Health Nurse designated to function in lieu of a Child Health Program Manager for informational purposes. The Child Health Program Manager will forward a copy of the letter to the county lead nurse. The county lead nurse or the lead nurse's designee will contact the primary care provider of record, notify the physician of

the child's testing results, and offer follow-up services if desired by the provider. If the provider does not desire follow-up services, the DHEC contact person will document that the provider was contacted and declined DHEC follow-up.

16. Follow-up for children with a history of elevated BLL transferring from another county, state, or country:
 - a. Obtain old records, if possible, and continue follow-up.
 - b. If unable to obtain old records, provide a diagnostic blood lead test using venipuncture collection. Continue follow-up if appropriate, based on BLL findings.
17. Follow-up for children with a history of elevated BLL transferring to another state:
 - a. If address to which child is moving is known, obtain parent/guardian's permission to send medical records to the state CLPPP Director, if possible.
 - b. Send BLL findings and health records as indicated so appropriate follow-up and treatment can be continued.

RESPONSIBILITIES/ACTION: Public Health Nurses, Physician lead-consultants, other Public Health Staff as assigned.

REFERENCES:

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Rehnquist, J. Inspector General. 2001. *Enrollment and Certification Process in the Clinical Laboratory Improvement Amendments Program* (OEI-05-00-00251). Arlington, VA: Department of Health and Human Services.

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SUBJECT: CLOSURE TO CHILDHOOD LEAD POISONING PREVENTION PROGRAM (CLPPP) FOLLOW-UP

Policy Statement: Active lead cases will be closed to follow-up testing by DHEC upon meeting the criteria outlined by the CLPPP in this policy.

Laws South Carolina 2002 Code of Laws

Title 44 Health

Chapter 53 Poisons, Drugs and other Controlled Substances

Article 13 Lead Poisoning Prevention and Control Act

Sections 1310-1390

Title 20 Domestic Relations

Chapter 7 Children's Code

Subarticle 7 Legal Capacity of Minors

Section 290 Certain Health Services may be rendered to minor of any age without consent of parent or guardian

Standards:

1. The standards for closure to CLPPP follow-up testing for a child with a history of elevated blood lead levels are outlined in the table on the following page.
2. When a child's case is closed to follow-up, continued developmental

monitoring by the child's private health care provider should be recommended.

3. Use the Request For & Follow-Up of Health Services form (DHEC 1610), in addition to any oral referrals, for assessment and treatment, follow-up, and resource access.
4. Verbal orders from private health care providers and physician lead-consultants must be signed according to the Verbal Order policy in the *DHEC Nursing Professional Practice Manual*.
5. Document findings, counseling, and plan of care on the Clinical Encounter form (DHEC 3211). Use the Continuation/Coordination Sheet (DHEC 1619) for additional documentation as needed.

Guidelines for Closure to Childhood Lead Poisoning Prevention Follow-Up Testing

Diagnostic BLL ≥20 µg/dL	Test at 1-2 month intervals until these four conditions are met*:	<ol style="list-style-type: none"> 1. BLL has remained <15 µg/dL for at least 6 months 2. Lead hazards have been abated or remediated and clearance has been met. 3. The family has received extensive education on sources of lead hazards and how to avoid exposure. 4. No new exposures
< 36 months of age	Test every 3 months once 1-4 met	Continue until physician lead-consultant determines follow-up testing is no longer necessary.
≥ 36 months of age	Discontinue testing when 1-4 met	Close to follow-up testing unless physician lead-consultant directs otherwise.
BLL from 15-19 µg/dL	Test at 2-3 month intervals per physician order until these three conditions are met*:	<ol style="list-style-type: none"> 1. BLL has remained <10 µg/dL for at least 6 months. 2. Family has received extensive education on sources of lead hazards and how to avoid exposure. 3. There are no new exposures.
< 36 months of age	Test every 3 months once 1-3 are met.	Continue until physician lead-consultant determines follow-up testing is no longer necessary.
≥ 36 months of age	Discontinue testing when 1-3 met.	Close to follow-up testing unless physician lead-consultant directs otherwise.
BLL from 10-14 µg/dL	Test at 3 month intervals until these three	<ol style="list-style-type: none"> 1. BLL has remained <10µg/dL for at least 6 months. 2. Family has received extensive education on sources of lead hazards

	conditions are met:	and how to avoid exposure.
< 36 months of age	Test every 3 months once 1-3 met.	3. There are no new exposures. Continue until physician lead-consultant determines follow-up testing is no longer necessary.
≥ 36 months of age	Discontinue testing when 1-3 met.	Close to follow-up testing unless physician lead-consultant directs otherwise.
≥ 6 years (72 months) of age	Discontinue testing at age 6 years.	1. Close to follow-up testing unless physician lead-consultant directs otherwise OR district resources allow for continued follow-up. 2. FSS may help link the family with a private health care provider if BLL persists ≥ 15 µg/dL.

RESPONSIBILITIES: Public Health Nurses, physician lead-consultants, other Public Health Staff as assigned.

REFERENCES:

American Academy of Pediatrics Policy Statement. 1995. Treatment Guidelines for Lead Exposure in Children (RE9529). *Pediatrics*. 96(1): 155-160.

Centers for Disease Control and Prevention. 2002. Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta, GA: CDC.

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Health Education

As in all preventable health problems, health education plays a major role in combating childhood lead poisoning. With the recent distinct shift of emphasis from secondary prevention to primary prevention in all childhood lead poisoning prevention programs, the importance of health education has assumed even greater proportions than before.

The goals of lead education are; to increase awareness of the impact that lead ingestion can have on child development, present and future health of the child, and