

# COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES

## PUBLIC HEALTH

### Childhood Lead Poisoning Prevention Program (CLPPP)

#### Matrix: Management Guidelines for Childhood Lead Exposure by Blood Lead Level (BLL)

- Screening Criteria:**
- Screen children at 12 and 24 mos. of age who are receiving services from publicly supported programs for low-income children, such as Medi-Cal, CHDP, Women, Infants And Children (WIC), and Healthy Families <sup>(2)</sup>.
  - Screen children at 12 and 24 mos. of age, who are not in a supported programs but found to be at-risk because a parent/guardian answers “yes or “don’t know” to at least one of the two-risk assessment questions <sup>(2)</sup>.
  - Screen children between 24 and 72 months who were not previously tested or who missed the 24 month test <sup>(2)</sup> or any time thought indicated by provider <sup>(2)</sup>.
- Reporting Guidelines:**
- The analyzing lab<sup>(6)</sup> shall report to the Branch within three (3) working days of analysis all blood lead levels  $\geq 10\mu\text{g/dL}$ . If the blood lead level is  $<10\mu\text{g/dL}$ , it shall be submitted within 30 calendar days (fax, mail, or electronically report)<sup>(6)</sup>.
- Sampling Methods:**
- A screening BLL may be capillary (fingerstick) <sup>(1,3)</sup> or venous sampling.
  - A BLL used to confirm a case must be a venous (diagnostic) sampling.

- Case Definition:**
- Two BLLs between 15-19  $\mu\text{g/dL}$  drawn at least 30 days and no more than 600 days apart. The first specimen may be a capillary specimen (A)<sup>(9)</sup> or
  - One venous BLL  $\geq 20 \mu\text{g/dL}$  (B) <sup>(10)</sup>
- Closure Criteria:** Two consecutive blood lead levels below 15  $\mu\text{g/dL}$  measured 6 months apart. <sup>(10)</sup>
- Note:** When the source of lead is known, please consult with the assigned CLPPP-PHN prior to closing a case.

Initial Test Results by Blood Lead Level (BLL)	Primary Care Providers Action	CLPPP-PHN Case Management Action	Child Health & Disability Prevention Program (CHDP) Action	California Children's Services (CCS) Action
<b>0 to 9 <math>\mu\text{g/dL}</math></b>	<p>Give anticipatory guidance about lead hazards and lead poisoning. Re-screen at appropriate age, normally at ages 1 yr. and 2 yrs., unless circumstances change (confirmatory BLL is not required). Reinforce preventive measures, e.g. hand washing.</p> <p>Evaluate nutrition and risk of lead exposure. Take a environmental history.</p> <p>PM 160 Documentation: For additional <u>follow-up screening</u> use code 3 or 5 in column “C” and enter BLL results in “ comments/problems” section<sup>(6)</sup>.</p>	When test results are known, informational letter (IL) may be sent by CLPPP to health care provider to retest in 12 months based on risk status.	Maintain a provider reference manual that provides basic CHDP Provider policy requirements, health assessment guidelines, procedure test, & provider responsibilities.	No Action.
<b>10 to 14 <math>\mu\text{g/dL}</math></b>	<p>Give anticipatory guidance about lead hazards and lead poisoning. Perform a confirmatory test in 3 months<sup>(10)</sup>. Take an environmental history. Conduct a physical exam.</p> <p>Screen and assess nutritional status. Provide nutritional education on USDA Food Pyramid. For children with iron-deficiency include foods high in vitamin C, calcium, and iron &amp; limit high fat intake. Refer to WIC.</p> <p>Provide lead awareness education which includes: source and hazard, effects of exposure, &amp; how to minimize lead exposures and hazards.</p> <p>PM 160 (09/01) Documentation: For <u>additional follow-up screening</u> use code 3 or 5 in column “C” and enter BLL results in “comments/problems” section<sup>(6)</sup>.</p>	When test results are known, informational letter may be sent by CLPPP to the health care provider to retest in 3 months.	<p>Maintain a provider reference manual that provides basic CHDP Provider policy requirements, health assessment guidelines, procedure test, &amp; provider responsibilities.</p> <p>Conduct periodic audits to ensure compliance.</p>	No Action
<b>15 to 19 <math>\mu\text{g/dL}</math></b>	<p>Perform a confirmatory (venous) test within 1-2 months. If the retest result (venous) is below (<math>&lt;</math>) <math>15\mu\text{g/dL}</math>, retest in 3 months. If the confirmatory BLL is <math>\geq 15\mu\text{g/dL}</math>, provide medical case management services described below <sup>(2)(10)</sup>.</p> <p><b>Medical Case Management:</b></p> <p>A. Retest every 4 to 6 weeks. Refer to local health dept. for environmental investigation (EI).</p> <p>B. Screen and assess nutritional status. Provide nutritional education on USDA Food Pyramid. For children with iron-deficiency include foods high in vitamin C, calcium, and iron &amp; limit high fat intake. Refer to WIC. Initial lab work includes: hemoglobin and hematocrit.</p> <p>C. Conduct growth and developmental screening. Make referrals for early intervention programs. Track developmental status.</p> <p>D. Provide lead awareness education which includes: source and hazard, effects of exposure, &amp; how to minimize lead exposures and hazards.</p> <p>PM 160 (09/01) Documentation: For additional follow-up screening use code 3 or 5 in column “C” and enter BLL results in “comments/problems” section <sup>(6)</sup>.</p>	<p>Case Management coordination is facilitated by the CLPPP-PHN who will refer the case to EHS and CHS for case management.</p> <p>Community Health Services (CHS) district Public Health Nurse (DPHN) will <sup>(11)</sup></p> <ul style="list-style-type: none"> <li>- Initiate a home visit/interview within 14 calendar days of the report. (Priority 6)</li> <li>- Obtain a signed consent form.</li> <li>- Maintain a medical record.</li> <li>- Provide lead awareness education.</li> <li>- Complete &amp; fax pgs. 1-10 of the initial LPFF including Appendix C to REHS within 30 calendar days of initial DPHN home visit.</li> <li>- Conduct case finding &amp; nutritional counseling.</li> <li>- Complete the PHN Assessment form</li> <li>- Complete CDC US Growth Chart.</li> <li>- Track &amp; monitor BLL until closure.</li> <li>- Provide updates to CLPPP- PHN every 3 months.</li> <li>- Route the completed LPFFs to the CLPPP-PHN within 30 calendar days of the PHN closure date.</li> </ul>	<p>Maintain a provider reference manual that provides basic health assessment guidelines, provider responsibilities, referrals for services, and instructions on Medi-Cal reimbursement.</p> <p>Ensure that the CHDP Health Provider refers the child to local CLPPP for coordination of care, environmental investigation and lead hazard control.</p> <p>Conduct periodic program audits to ensure compliance.</p>	No Action

Initial BLL	Primary Care Provider Action	CLPPP-PHN Case Management Action	CHDP Action	CCS Action
20 to 44 µg/dL	<p>If initial BLL is a capillary sampling, perform a confirmatory (venous) test, based on the initial BLL below :</p> <p>-- 20-24 µg/dL, retest in 1-3 months <sup>(9)</sup></p> <p>-- 25-44 µg/dL, retest in 1 week - 1 month <sup>(2)</sup></p> <p><b>When BLL(s) meet case definition (A), or (B) provide medical case management described below.</b></p> <p><b>Medical Case Management:</b></p> <p>A. Retest at least every 4-6 weeks until BLL meet closure criteria. Refer to Environmental Health (EH) to conduct an environmental investigation (EI).</p> <p>B. Screen and assess nutritional status. Provide nutritional education on USDA Food Pyramid. For children with iron-deficiency include foods high in vitamin C, calcium, and iron &amp; limit high fat intake. Refer to WIC. Lab work includes: hemoglobin and hematocrit.</p> <p>C. Conduct growth and developmental screening. Make referrals for early intervention programs. Track developmental status.</p> <p>D. Provide lead awareness education which includes: source and hazard, effects of exposure, &amp; how to minimize lead exposures and hazards.</p> <p>PM 160 (09/01) Billing Instructions: For additional follow-up screening use code 3 or 5 in column "C". The BLL is entered in the "comment/problem" section <sup>(8)</sup>.</p>	<p>Case Management (CM) coordination is provided by the CLPPP-PHN who will: <sup>(10)</sup></p> <ul style="list-style-type: none"> <li>Coordinate care between the primary provider and the caregiver. Track until closure.</li> <li>Initiate a home visit/interview as follows: <ul style="list-style-type: none"> <li>20-29 µg/dL <u>within one week</u> of report. (Priority #5).</li> <li>30-44 µg/dL <u>within 72 hours</u> of report. (Priority #4).</li> </ul> </li> <li>Make a referral to EH to conduct an EI <u>within ten (10) days</u> of the referral <sup>(10)</sup>.</li> <li>Assist <i>eligible</i> patients in completing a CCS eligibility form (DHS 4480).</li> <li>Complete pages 1-10 of lead follow-up forms including Appendix C.</li> <li>Provide lead awareness education.</li> <li>Conduct nutritional assessment &amp; counseling if needed.</li> <li>Refer to other health care services.</li> <li>Mail a copy of Appendix C to the primary care provider [for all defined cases]. Discuss results with the patient/family.</li> <li>Complete CDC US Growth Chart and PHN Assessment form.</li> </ul>	<p>Maintain a provider reference manual that provides basic health assessment guidelines, laboratory reporting &amp; provider responsibilities, referrals for services, and instructions on Medi-Cal reimbursement.</p> <p>Ensure that the CHDP provider (1) conducts a health assessment (2) knows how to initiate a <b>rapid CCS Program Referral</b> for authorization of health services &amp; lead case management and (3) contacts the local CLPPP for coordination of care, environmental investigation, and lead hazard control. Conduct periodic audits to ensure compliance.</p>	<p>When eligible, process CCS eligibility application (DHS #4480)</p> <p>Screen for medical and financial eligibility.</p> <p>Contact parent/caregiver and (1) discuss the role of the CCS case manager and (2) inform the parent that the Program PHN will monitor nursing &amp; medical case management interventions and services until closure.</p>
≥ 45µg/dL	<p>Perform a confirmatory (venous) test, based in the initial BLL below :</p> <ul style="list-style-type: none"> <li>Within 48 hours if BLL is 45-59 µg/dL.</li> <li>Within 24 hours if BLL is 60-69 µg/dL.</li> <li>Immediately if BLL is ≥70µg/dL (medical emergency)</li> </ul> <p>If the confirmatory BLL is ≥45µg/dL: <sup>(2)</sup></p> <ul style="list-style-type: none"> <li>Complete a referral to a CCS approved Special Care Center <sup>(4)</sup> immediately for medical evaluation and medical management (may include chelation).</li> <li>Assist caregiver in completing a "Application to Determine Eligibility" (DHS 4480). Complete a CCS Program Referral (CC100) to CCS or CHDP billing form, PM160 or PM16. Mail both forms to CCS at the same time <sup>(5)</sup>.</li> <li>Collaborate with the CCS Special Care Center (Paneled Provider)<sup>(4) (7)</sup> in coordinating medical management and follow-up. Make a referral for EI investigation.</li> </ul> <p><b>Medical Case Management:</b></p> <p>A. Schedule and retest within 1-3 weeks (post chelation) until BLL is &lt;45µg/dL. Then, retest every 4-6 weeks according to BLL. If level remains ≥45µg/dL, further chelation therapy &amp; environmental health (EH) investigation may be indicated. Refer to WIC. <sup>(9)</sup></p> <p>B. Conduct growth and developmental screening. Track developmental status. Make referrals for early intervention programs. Conduct a nutritional screening &amp; assessment. Provide nutritional education on USDA Food Pyramid. For children with iron-deficiency include foods high in vitamin C, calcium, and iron &amp; limit high fat intake. Lab work includes: hemoglobin, hematocrit, and renal function test (if EDTA is used). Monitor caregiver's compliance.</p> <p>C. Provide lead awareness education which includes: source and hazard, effects of exposure, &amp; how to minimize lead exposures and hazards.</p> <p>PM 160 (09/01) Billing Instructions: For additional follow-up screening use code 3 or 5 in column "C". The BLL is entered in the "comment/problem" section <sup>(8)</sup>.</p>	<p>CM coordination is provided by the Program PHN who will: <sup>(10)</sup></p> <ul style="list-style-type: none"> <li>Define the case and discuss the medical care with the primary care provider.</li> <li>Assist the provider and caregiver in completing the eligibility (DHS form #4480) and authorization process (CC100).</li> <li>Initiate a home visit/interview as follows: <ul style="list-style-type: none"> <li>45 - 59 µg/dL, <u>within 48 hours</u> of report. (Priority 3)</li> <li>60 - 69 µg/dL, <u>w/i 24 hours</u> of report (Priority #2)</li> <li>≥70 µg/dL, <u>on day of report</u>. (Priority #1)</li> </ul> </li> <li>Make a referral (same day of report) to EH to conduct an environmental investigation based on BLLs below <sup>(10)</sup>: <ul style="list-style-type: none"> <li>45-69 µg/dL, <u>within 48 hrs.</u> of referral.</li> <li>≥70 µg/dL, <u>within 24 hours</u> of referral.</li> </ul> </li> <li>Complete pages 1-10 of lead follow-up forms including Appendix C.</li> <li>Provide lead awareness education.</li> <li>Conduct case finding.</li> <li>Monitor medical case management &amp; caregiver compliance until case closed.</li> <li>Mail a copy of Appendix C to the primary care provider [for all defined cases]. Discuss results with the patient/family.</li> <li>Complete CDC US Growth Chart and PHN Assessment form.</li> </ul>	<p>Maintain a reference manual that provides basic health assessment guidelines, laboratory reporting &amp; provider responsibilities, referrals for services, and instructions on Medi-Cal reimbursement.</p> <p>Ensure that the CHDP provider (1) conducts a health assessment (2) knows how to initiate a <b>rapid CCS Program Referral</b> for authorization of health services &amp; lead case management and (3) contacts the local CLPPP for coordination of care, environmental investigation, and lead hazard control.</p> <p>Conduct periodic audits to ensure compliance.</p>	<p>Process and approve p.r.n. the CCS Special Care Center Program Referral(CC100) for a confirmatory BLL and medical case management.</p> <p>Screen for medical and financial eligibility.</p> <p>Contact caregiver and discuss the role of the CCS case manager. Inform parent that the (1) Program PHN &amp; CCS case manager will monitor nursing &amp; medical case management services until closure and (2) Update Program</p> <p>PHN p.r.n.</p>

References:

- Providers interested in providing capillary screening method can contact CLPPP at (323) 869-7171.
- CHDP Provider Information Notice No.03-16 and CLPP Providers Information No. 2003-A, July 18, 2003.
- CLPPP, 5555 Ferguson Dr. Ste. 210-02, Commerce, CA 90022 (323) 869-7195.
- To obtain a list of expert resources on chelation, call CLPPP at (323) 869-7195: CLPPP, 5555 Ferguson Dr., Ste. 210-02 Commerce, CA. 90022.
- To obtain CC-100 or a DHS 4480 forms, call CCS at 1-800-288-4584; 9320 Telstar Avenue, El Monte, California 91731.

- The analyzing lab must be a laboratory qualified as *proficient* in blood lead analysis. Check the website at [www.dhs.ca.gov/ehlb/BioChem](http://www.dhs.ca.gov/ehlb/BioChem)
- To become a CCS paneled provider, verify a provider's status, or obtain names of CCS approved providers and centers call CCS at 1-800-288-4584.
- CHDP Provider Information Notice: #2:02, February 6, 2002.
- CDC & Prevention: *Managing Elevated BLL Among Young Children. Medical Assessment and Interventions*, March 2002.
- State of California, Department of Health Services. *CLPPP PHN Case Management Guidance Manual*, September 2002.
- Los Angeles County DHS. *Public Health Nursing Practice Manual, Section C: Lead Poisoning*. 2003.