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MEMO

To: Health Care Providers

From: Andrew E. Smith, SM, ScD
State Toxicologist & Director, Environmental and Occupational Health Programs

Date: March 5, 2015

Re: Notification of Changes to Pediatric Blood Lead Testing Recommendations

Changes to Pediatric Blood Lead Testing Recommendations

The Maine Center for Disease Control and Prevention (CDC) has updated its pediatric blood lead testing guidelines and services.

Effective March 2015, for children less than 6 years old, providers should:

- confirm all capillary blood lead levels ≥ 5 $\mu\text{g}/\text{dL}$ with venous samples; and,
- follow up on all venous blood lead levels ≥ 5 $\mu\text{g}/\text{dL}$.

These changes align Maine CDC's recommendations with the updated national reference value for pediatric blood lead of 5 $\mu\text{g}/\text{dL}$. See the attached "Recommended Confirmation and Follow-up Schedule for Pediatric Blood Lead Levels ≥ 5 $\mu\text{g}/\text{dL}$ " for Maine CDC's complete recommendations.

Providers are reminded that Maine law requires children who are covered by MaineCare be tested for lead at ages 1 and 2 years. All other children less than 6 years old should be tested unless an annual risk assessment for lead exposure is negative. Please see the attached "Pediatric Blood Lead Screening Guidelines" for the annual risk assessment questions and more information.

U.S. Reference Value for Pediatric Blood Lead Lowered to 5 $\mu\text{g}/\text{dL}$

In 2012, acknowledging that there is no safe blood lead level, the U.S. CDC discarded the term "blood lead level of concern." Also in 2012, the U.S. CDC identified a new reference value to be used to identify children with an elevated blood lead level. The U.S. CDC's actions were based on the scientific evidence that even low blood lead levels are associated with IQ deficits, attention-related behaviors, and poor academic achievement. The new reference value is the 97.5th percentile of the blood lead distribution in children 1-5 years of age in the U.S., which is currently 5 $\mu\text{g}/\text{dL}$. The reference value is to be updated every four years. More information about the reference value may be found on the CDC's website: cdc.gov/nceh/lead/acclpp/blood_lead_levels.htm.

Maine CDC Services for Children with Venous Blood Lead Levels ≥ 5 $\mu\text{g}/\text{dL}$

Maine CDC initiates a tiered response on all venous blood lead levels ≥ 5 $\mu\text{g}/\text{dL}$, as shown on the attached Confirmation and Follow-up Schedule. For children with venous blood lead levels 5-14 $\mu\text{g}/\text{dL}$, Maine CDC provides free home lead dust testing, along with resources to show families how to do a home lead dust test. If testing

identifies high levels of lead dust in the home, Maine CDC provides additional services that may include a comprehensive, professional environmental lead investigation to identify the sources of lead. If high lead dust levels are identified in a rental property, an environmental lead investigation is required.

In-Office Capillary Blood Lead Testing Available

Providers in Maine now have two options for blood lead screening tests: 1) continue to submit blood lead samples to the State Health and Environmental Testing Laboratory; 2) perform capillary blood lead analysis using a CLIA-waived in-office blood lead testing device, and directly report all test results to the Maine CDC Childhood Lead Poisoning Prevention Program. Providers must have approval before they can begin in-office testing. Please see our website (URL below) for a complete explanation of the approval criteria and application instructions.

Providers Have an Important Role in Lead Poisoning Prevention

The Maine CDC is asking for your continued cooperation to:

1. inform parents that there is no safe blood lead level for children;
2. educate families about lead poisoning risks in the home;
3. encourage families to complete lead dust testing offered by the Maine CDC;
4. test children for lead at ages 1 and 2 years, following the Pediatric Blood Lead Screening Guidelines; and,
5. conduct confirmatory and follow-up testing on all blood lead levels ≥ 5 $\mu\text{g}/\text{dL}$.

With your help we hope the number of Maine children with lead poisoning will continue to decline. Thank you for your support.

For More Information

Visit our website for additional information for providers, including how to apply for in-office capillary testing: maine.gov/dhhs/mecdc/environmental-health/eohp/lead/providers.shtml

Or contact: Eric Frohberg, Manager, Maine CDC Childhood Lead Poisoning Prevention Program
Phone: 207-287-8141; Email: eric.frohberg@maine.gov

Recommended Confirmation and Follow-up Schedule For Pediatric Blood Lead Levels $\geq 5 \mu\text{g/dL}$

NEW! The Maine CDC Childhood Lead Poisoning Prevention Program initiates a response when a venous blood lead test result is $\geq 5 \mu\text{g/dL}$.

Capillary Lead Test Confirmation Schedule

Confirm all capillary blood lead levels $\geq 5 \mu\text{g/dL}$ with venous samples, according to the following schedule.

Capillary Blood Lead Level	Confirm with Venous Test Within*
5-9 $\mu\text{g/dL}$	3 months
10-44 $\mu\text{g/dL}$	1 month
45-59 $\mu\text{g/dL}$	48 hours
60-69 $\mu\text{g/dL}$	24 hours
70+ $\mu\text{g/dL}$	Immediately as an emergency test

*The higher the capillary test result, the more urgent the need for a confirmatory venous test. A venous test must be done prior to initiation of Maine CDC services.

Lead Poisoning Prevention Tips for Families

- Keep children away from peeling or chipping paint.
- Wash children's hands before eating and going to bed.
- Clean floors, windowsills, and tabletops with wet mops or rags once a week.
- Wash toys once a week and keep toys away from areas with chipping paint.
- Feed your child at a table or in a highchair.
- Avoid sanding and scraping paint in old homes.
- Call Maine CDC or visit website for more information.

Venous Lead Test Follow-up Schedule

For all venous blood lead levels $\geq 5 \mu\text{g/dL}$, conduct follow-up venous blood lead tests, according to the following schedule.

Venous Blood Lead Level	Follow-up Venous Test Schedule	Long-Term Follow-Up**	Maine CDC Response
5-9 $\mu\text{g/dL}$	3 months	When <5 resume screening schedule	Offer by mail: <ul style="list-style-type: none"> • Free home lead dust test
10-14 $\mu\text{g/dL}$	Within 3 months	6-9 months	Offer: <ul style="list-style-type: none"> • Free home lead dust test or environmental investigation • Home visit from public health nurse
15-19 $\mu\text{g/dL}$	Within 2 months	3-6 months	<ul style="list-style-type: none"> • Environmental investigation • Case management by phone
20-44 $\mu\text{g/dL}$	Within 1 month	1-3 months	<ul style="list-style-type: none"> • Offer home visit from public health nurse
$\geq 45 \mu\text{g/dL}$	<ul style="list-style-type: none"> • Repeat venous blood test immediately. • Chelation therapy as indicated • Consider consult with New England Pediatric Environmental Health Specialty Unit: 617-355-8177 	Based on chelation protocol	<ul style="list-style-type: none"> • Environmental investigation • Case management by phone • Offer home visit from public health nurse

**Long-term follow-up should only begin after blood lead begins to decline and child is living in a lead-safe environment.

For additional guidance on the management of children at risk of lead exposure, see the 2012 Advisory Committee on Childhood Lead Poisoning Prevention statement: "Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention" (cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf).

Pediatric Blood Lead Screening Guidelines

Efforts to identify potential lead hazards and prevent lead exposure should begin early in a child’s life. Dust from deteriorating, damaged, or exposed lead paint in older homes is the most common source of pediatric lead poisoning. Providers and families may request free lead dust testing for lead hazards before a child becomes poisoned: 287-4311, maine.gov/healthyhomes.

Recommended Blood Lead Screening Schedule

Follow the Maine CDC Recommended Confirmation and Follow-up Testing Schedule if blood lead level is $\geq 5 \mu\text{g}/\text{dL}$.

Age	Children Covered by MaineCare	Children <u>NOT</u> Covered by MaineCare
1 year (9-17 months)*	Blood lead test mandatory**	Blood lead test unless annual risk assessment questionnaire is negative.
2 years (18-36 months)	Blood lead test mandatory**	Blood lead test unless annual risk assessment questionnaire is negative.
3-5 years (36-72 months)	<ol style="list-style-type: none"> If not previously tested: Conduct blood lead test If previously tested: Blood lead test yearly unless annual risk assessment questionnaire is negative. 	Yearly blood lead test unless annual risk assessment questionnaire is negative.

*Test children as they become mobile. **Maine and federal laws require tests at 1 and 2 years for children covered by MaineCare.

Annual Risk Assessment Questionnaire

- Does your child spend more than 10 hours per week in any house built before 1950?
- Does your child spend more than 10 hours per week in any house built before 1978 that was renovated or remodeled within the last 6 months?
- Does your child spend time with an adult whose job exposes him/her to lead? (Examples: construction, painting, metalwork)
- Does your child have a sibling or playmate that has been diagnosed with lead poisoning?

NEW!

The pediatric blood lead reference level is **5 $\mu\text{g}/\text{dL}$** .

In all cases, if a blood lead test result is $\geq 5 \mu\text{g}/\text{dL}$, follow up according to Maine CDC’s “Recommended Confirmation and Follow-up Schedule.”

Additional Recommendations

At-Risk Populations

Consider a blood lead test between 9 and 72 months for children in the following at-risk groups.

- Families that qualify for programs such as WIC, Head Start, SNAP
- Recent immigrants or international adoptees
- Children whose parents immigrated to the U.S.

Clinical Conditions

Consider a blood lead test, regardless of age, if children have any of the following conditions.

- Unusual oral behavior, pica, developmental delays, behavioral problems, ADHD
- Unexplained illness: severe anemia, lethargy, abdominal pain
- Ingestion of paint chip or object that might contain lead

Recommended Testing Schedule for Recently Arrived Refugee Children

- Perform a blood lead test for children 6 months to 16 years upon entry to the U.S.
- Within 3-6 months of initial test, conduct follow-up test for children 6 months to 6 years, regardless of initial test result.
- Consult U.S. CDC guidelines: cdc.gov/nceh/lead/publications/refugeetoolkit/pdfs/cdcrecommendations.pdf