

# Clinical Case Management from a Nursing Perspective



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# Rule of Thumb

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**Wherever you work, clinical case management is an important role for ALL CLINICIANS.**

**Case management starts with:**

- Medical provider
- Nurse care coordinator
- Medical home



**NORTH CAROLINA DIVISION OF PUBLIC HEALTH  
FOLLOW-UP SCHEDULE FOR DIAGNOSTIC / CONFIRMED BLOOD LEAD LEVELS  
FOR CHILDREN UNDER THE AGE OF SIX**

Blood Lead Level	Response
<p align="center"><b>Clinical and environmental follow-up is based on the <i>truncated</i> test result.</b>                      Example: Actual result= 4.79; Actions based on truncated value= 4</p>	
<p><b>All diagnostic (i.e., confirmation) tests should be performed <u>as soon as possible</u> within specified time periods.</b></p> <ul style="list-style-type: none"> <li>➢ Diagnostic tests should be venous; however, capillary tests are accepted if a venous cannot be obtained.</li> <li>➢ Follow-up testing can be capillary.</li> <li>➢ CDC protocol for capillary sampling of blood lead should be followed. (See Resources)</li> <li>➢ If diagnostic test result falls into a lower category - follow response for the lower risk category.</li> <li>➢ If diagnostic or follow-up test result falls into a <b>higher category</b> – conduct <u>another</u> diagnostic test to confirm the higher risk category. Follow guidelines for higher risk category, after confirmation.</li> <li>➢ Point of care (POC) lead analyzers (i.e., LeadCare) should <b>NOT</b> be used for diagnostic tests.</li> <li>➢ <b>Diagnostic tests must be sent to an outside reference laboratory.</b></li> </ul>	
<b>&lt;5 µg/dL</b>	<ul style="list-style-type: none"> <li>• Report blood lead test result to parents and document notification</li> <li>• Educate family about lead sources and prevention of lead exposure</li> </ul> <p align="center">Retest at age 2, earlier if risk of exposure increases</p>
<b>5-9 µg/dL</b>  (Perform diagnostic test within 3 months)	<p><b>Take same actions as above -AND- if diagnostic test result is 5-9 µg/dL:</b></p> <ul style="list-style-type: none"> <li>• Provide clinical management</li> <li>• Conduct nutritional assessment and refer child to the WIC Program</li> <li>• Take environmental history to identify lead sources (DHHS 3651 Form)</li> <li>• Refer to local health department to offer an environmental investigation</li> <li>• Test other children under the age of six in same household</li> </ul> <p><u>Follow-up testing:</u> Every 3 months until 2 consecutive tests are &lt;5 µg/dL (based on the <i>truncated</i> test result)</p>
<b>10-44 µg/dL</b>  (Perform diagnostic test within 1 month at 10-19 µg/dL; within 1 week at 20-44 µg/dL)	<p><b>Take same actions as above -AND- if diagnostic test result is 10-44 µg/dL:</b></p> <ul style="list-style-type: none"> <li>• Refer to local health department for <u>required</u> environmental investigation and remediation enforcement if hazards are identified</li> <li>• Refer child to CDSA* Early Intervention or CC4C** as appropriate</li> <li>• Refer to Social Services as needed for housing or additional assistance</li> </ul> <p><u>Follow-up testing:</u></p> <ul style="list-style-type: none"> <li>• 10-24 µg/dL: every 1-3 months until 2 consecutive tests are &lt;5 µg/dL</li> <li>• 25-44 µg/dL: every 2 weeks to 1 month until 2 consecutive tests are &lt;5 µg/dL (based on the <i>truncated</i> test result)</li> </ul>
<b>45-69 µg/dL</b>  (Perform diagnostic test within 48 hours at 45-59 µg/dL; 24 hours at 60-69 µg/dL)	<p><b>Take same actions as above -AND- if diagnostic test result is 45-69 µg/dL:</b></p> <ul style="list-style-type: none"> <li>• Consult with Carolinas Poison Center (1-800-222-1222) for advice on chelation and/or hospitalization</li> <li>• Consider an abdominal x-ray check for an ingested object</li> <li>• Alert NC CLPPP by calling 919-707-5950</li> </ul> <p><u>Follow-up testing:</u> 45-69 µg/dL: every 2 weeks to 1 month until 2 consecutive tests are &lt;5 µg/dL (based on the <i>truncated</i> test result)</p>
<b>≥70 µg/dL</b>  (Perform emergency diagnostic test immediately)	<p><b>Take same actions as above -AND- if diagnostic test result is ≥70 µg/dL:</b></p> <ul style="list-style-type: none"> <li>• Hospitalize child and begin medical treatment <u>immediately</u></li> </ul> <p><u>Follow-up testing:</u> Same as 45-69 µg/dL category</p>

\*Children's Developmental Service Agency

\*\*Care Coordination for Children

Updated 6/20/2018

# Don't Reinvent the Wheel!

## NC Follow Up Schedule for Diagnostic and Confirmed Blood Lead Levels

# Step by Step Case Management

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- Report results to parents
- Environmental exposure history  
*(form 3651)*
- Identify patient's medical home
  - *Assist in finding one, if needed*
- Assessments:
  - *Nutritional*
  - *Developmental*
  - *Medical*



# Step by Step - continued

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## ➤ Parent Education

- Lead exposure: sources and risks
- Nutrition counseling
- Importance of follow-up testing



## ➤ Know your community contacts for referrals and resources

- WIC program
- Local health department (*EH specialists, nurses*)
- Early Intervention Services (*CC4C, CDSA, public schools, preschools*)
- County Social Services
- Other partners (*Legal Aid of NC*)

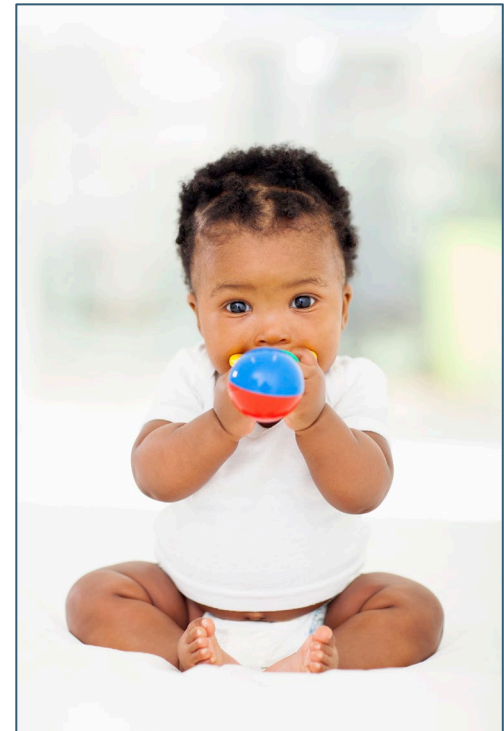
# Final Steps and Tips

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- Test other children under 6 in the home or child care setting
- Arrange for follow up testing to reduce BLL below 5  $\mu\text{g}/\text{dL}$  (*including needed interventions*)

## Other Considerations

- Public health: Consider and discuss ways you can support the medical home.
- **Think of ways to convince providers that testing is important.**



# Case study: “Ahana”

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## Background Information



- 13-month-old girl
- Capillary 31.7  $\mu\text{g}/\text{dL}$ ; Venus 5 days later 28  $\mu\text{g}/\text{dL}$
- Family emigrated from India
- Challenges discovering source of lead exposure
  - Environmental history*
  - Multiple home visits/phone calls*
- Multiple agency input helped!! (*Referrals*)
- 2 years of persistence: Latest BLL = 5  $\mu\text{g}/\text{dL}$

**Even though it took time to assist the family, following the Follow-up Chart for Diagnostic/Confirmed BLLs worked!**