

Michigan Department of Community Health Childhood Lead Poisoning Prevention Program

Recommended Chelation Therapy Guidelines for Children with BLLs \geq 45 $\mu\text{g}/\text{dL}$

This document is intended to serve as a guide for providers to determine if chelation therapy is appropriate for children with elevated blood lead levels. It also provides specific information necessary to protect the health of children who have had or are scheduled to begin chelation therapy.

1. Refer to local hospital for a stat venous test to confirm blood lead level and abdominal x-ray to determine presence of radio-opaque particles. If the primary care provider is not the referring individual, inform the primary care provider that referral was made.
2. If particles are found, decontaminate the gastrointestinal tract before initiating chelation therapy, unless venous blood lead level is \geq 70 $\mu\text{g}/\text{dL}$.
3. Chelation therapy should **only** be initiated based on a **venous blood** lead level of 45 $\mu\text{g}/\text{dL}$ or greater. Criteria for chelation therapy may change for children under a year of age.
4. Consultation with a pediatric consultant well versed in chelation therapy is highly recommended before initiating chelation therapy.
5. If oral chelation therapy is recommended, the child should be removed from the environment in which the child has been exposed to lead. Any child who has undergone chelation therapy should not return to the implicated environment until the hazards have been addressed and clearance-sampling results indicate the lead hazard no longer exist.
6. Providers should coordinate care/case management with the local public health agency for all children who will receive chelation therapy.
7. If using oral chelators, refer to package insert before beginning therapy.

Additional Resources/References

Pediatric Consultants:

Dr. Kanta Bhambhani, MD
Children's Hospital Of Michigan
kbhambha@med.wayne.edu
(313) 745-5515

Jeri Kessenich, MD
Spectrum Health – Grand Rapids
jeri.kessenich@devoschildrens.org
(616) 391-3670

1. Chisolm, JJ. Safety and efficacy of Meso-2, 3-dimercaptosuccinic Acid (DMSA) in children with elevated blood lead concentrations. *Clinical Toxicology* 2000; 38(4): 365-375.
2. Committee on Environmental Health, 2005. Lead Exposure in Children: Prevention, Detection, and Management. *Pediatrics* 116: 1036-1046.
3. Preventing lead poisoning in young children: a statement by the Centers for Disease Control – October 1991. 4th rev. Atlanta: Centers for Disease Control, 1991.
4. Rogan, WJ, Dietrick, KN, Ware, JH, Dockery, DW, et al. The effect of chelation therapy with succimer on neuropsychological development of children exposed to lead. *N Engl J Med* 2001; 344:1421-1426.