Illinois Department of PUBLIC HEALTH

CHOICE OF MEDICAL MANAGEMENT BASED ON

SYMPTOMS AND BLOOD LEAD CONCENTRATION

Guidelines for the Detection and Management of Lead Poisoning for Physicians and Health Care Providers

Illinois Lead Program • 866-909-3572

ASYMPTOMATIC CHILDREN
BEFORE TREATMENT, MEASURE VENOUS BLOOD LEAD

Clinical Presentation	Treatment	Comments
BLL 1 - 4 µg/dL	• As recommended by guidelines	• Ensure that all blood lead test results are reported to Illinois Department of Public Health
BLL 5 - 9 µg/dL	• Consider repeat BLL sooner than annually based on risks	• Consider repeating the blood lead test especially for a child aged <2 years (blood lead is likely to be on the rise in this age group), or if testing was done in winter or spring (when blood lead results are generally lower)
BLL 10 - 14 µg/dL	• Medical evaluation • Monitor BLLs every three to six months or more often, as indicated • Screen for iron deficiency	• Provide education regarding nutrition and cleanliness and information for source identification and avoidance • Refer to public health department for environmental investigation and public health nurse visit as required by law • All Illinois children aged 36 months and younger with confirmed blood lead levels ≥10 µg/dL are to receive a home inspection
BLL 15 - 19 µg/dL	Above actions, plus: • Monitor BLLs every one to three months or more often, as indicated	All above actions
BLL 20 - 44 µg/dL	Above actions, plus: • Monitor BLLs monthly until stable and falling, and lead hazards have been identified and remediated, then can lengthen testing intervals	All above actions, plus: • Refer to latest CDC and American Academy of Pediatrics recommendations related to chelation management
BLL 45 - 69 µg/dL	Above actions, plus: • Succimer (oral, 350 mg/m^2/dose) or $CaNa_2EDTA$ (IV, 1000 mg/m^2/day x 5 days, in divided doses) • Abdominal radiograph to check for lead chips, evacuate bowel as needed • Hospitalize, as necessary, to ensure lead-safe environment and medical management	All above actions, plus: • Hospitalize if acute symptoms are present and monitor BLLs • Additional treatment may be needed depending on blood lead level rebound
BLL ≥70 µg/dL	Above actions, plus: • Hospitalize and monitor BLLs • Begin management with BAL (IM, BAL 450 mg/m^2/day, Q4 hours, x up to three days; four hours after first BAL dose initiate $CaNa_2EDTA$ (this transiently increases blood lead levels, while BAL does not) • Ensure adequate hydration • Monitor urine for heme	All above actions, plus: • Do not start iron therapy if on $CaNa_2EDTA$ • Additional treatment may be needed depending on blood lead level rebound
SYMPTOMATIC CHILDREN	Above actions with these modifications: • Use BAL, as above x three days and $CaNa_2EDTA$ 1500 mg/m^2/day x five days • Interrupt therapy for two days and repeat treatment, as necessary	All above actions, plus: • Additional treatment may be needed depending on blood lead level rebound

NOTE: For more comprehensive treatment guidelines, refer to the *Preventing and Screening for Childhood Lead Poisoning – A Reference Guide for Physicians and Health Care Providers*.

Some local health departments may conduct nurse home visits and/or refer and conduct home inspections at lower levels.

State of Illinois
Illinois Department of Public Health

Printed by Authority of the State of Illinois
PO #5510463 8M 11/09

IOCI 0193-10

Illinois Lead Program Assessment and Screening Algorithm

Child presents for a Well Child Visit between the ages of 12 and 84 months

Is the child currently enrolled in Medicaid, All Kids, or Head Start?

(All children enrolled in Illinois Department of Healthcare and Family Services' Medical Programs are expected to receive a blood lead test no matter where they live.)

YES

ACTION	WHEN
Perform blood lead test (venous or capillary).	• Ages 12 and 24 months or • Between 24 months and 72 months if no record of previous test exists

NO

Does the child live in a high risk ZIP code area?

(See reverse of Lead Risk Assessment Questionnaire for listing of high risk ZIP codes.
Note: All Chicago ZIP codes are high risk.)

YES

ACTION	WHEN
Perform capillary or venous screening for BLL beginning at 9-12 months. After two sequential BLLs are <10 µg/dL (most recent at ≥age 2 years), further BLL tests not indicated unless exposures increase.	• Ages 12 and 24 months or • Upon Well Child Visit as indicated • The city of Chicago requires blood test to be performed at 6, 12, 18, 24 and 36 months or 9, 15, 24 and 36 months.

NO

Does the child live in a low risk ZIP code area?

YES

ACTION	WHEN
Complete the Risk Assessment Questionnaire (If there is a "yes" or "don't know" answer, test immediately.)	• Annually at Well Child Visits • Particularly at ages 1 and 2 years, and to evaluate changes in lead exposures for older children

Is parent/guardian requesting child be tested for lead

YES

ACTION	WHEN
Perform blood lead test (venous or capillary).	• Immediately

NO

Has child had one previous BLL <10 µg/dL?

YES

ACTION	WHEN
• Reassess risks • Obtain BLL if risks increase	• Annually at Well Child Visits

Has child had two prior sequential BLLs <10 µg/dL with no change in status of housing or potential exposure since last screening and one test at age ≥2 years?

YES

ACTION	WHEN
• No further action	

Has child had previous BLL ≥ 10 µg/dL?

YES

ACTION	WHEN
• Assess and obtain BLLs	• As advised for the specific level

<10 µg/dL
Reapply risk assessment instrument or obtain blood lead annually at Well Child Visits.

10-19 µg/dL
Follow up with venous test within three months (or sooner if there is concern for increasing BLL or the child is younger than 1 year old.)

20-44 µg/dL
Follow up with venous test within one week to one month.

45-59 µg/dL
Follow up with venous test within 48 hours

60-69 µg/dL
Follow up with venous test within 24 hours.

≥70 µg/dL
Do venous testing immediately.

Recommendations for subsequent assessment, screening, and/or treatment are based on the follow-up blood test.