

MANAGEMENT OF LEAD POISONING

TREATMENT IN ADULTS

INITIAL MEASURES

- Identify source & remove from exposure

DECONTAMINATION

In acute cases GI decontamination done if lead visualized on radiograph

- Whole Bowel Irrigation(WBI)
- Endoscopic removal if WBI fails

Follow with abdominal radiograph to assess clearing of lead

ANTIDOTES

INDICATIONS OF CHELATION

- Severe symptomatic intoxication
- Patient with end organ damage
- Elevated Blood Lead Level ($>70\mu\text{g}/\text{dl}$) in the absence of symptoms

CHELATORS TO BE USED

- BAL (especially with BLL exceeding $100\mu\text{g}/\text{dL}$)
- EDTA
- Succimer
- Penicillamine

Treatment of iron, [calcium](#), and [zinc deficiencies](#), which are associated with increased lead absorption, is another part of treatment for lead poisoning.

TREATMENT IN PAEDIATRICS

INITIAL MEASURES

-Separation from source is the first priority

DECONTAMINATION

In acute cases GI decontamination done if lead visualized on radiograph

- Whole Bowel Irrigation

- Endoscopic removal if WBI fails

Follow with abdominal radiograph to assess clearing of lead

TREATMENT PLAN

CLASS ONE (BLL >9µG/dL)

- Educate parents

- Rescreen in 3 months, report to health department

CLASS TWO (BLL 10-19µg/dL)

- Educate parents

- Test for & correct for Iron deficiency

- Rescreen in 3 months, if levels persist then treat as for Class 3

CLASS THREE (BLL 20-44µG/DI)

- Retest within 1month

- Consider chelation therapy

CLASS FOUR (BLL 45-69µg/DI)

- Retest within 48hours

- Begin environmental assessment & medical treatment with chelation in 48hours

CLASS FIVE (BLL >70µ/DI)

- Medical Emergency

- Hospitalize immediately & treat with chelation

CHELATORS TO BE USED

- With levels between 45-70, usually oral chelation with Succimer can be done
- With levels exceeding 70 μ g/dL or encephalopathy
 - Start with BAL, given intramuscularly every 4 hours
 - When urinary output is adequate after hydration, CaEDTA is added
 - Therapy continued for 5 days