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 (>70µg/dl) in the absence of symptoms

CHELATORS TO BE USED
- BAL (especially with BLL exceeding 100µg/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/Dl)

- Retest within 1 month
- Consider chelation therapy

CLASS FOUR (BLL 45-69µg/Dl)

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

CLASS FIVE (BLL >70µ/Dl)

- 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 70µg/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