AACPP Lead Monitoring Protocol  
Updated 10/23/15 AS

Purpose:
1. To monitor AACPP population with lead exposure and lead poisoning
2. Provide continuity of care for quality assurance

Monitors:
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2. Gloria Hutzell, CRNP
3. Care Coordination: Sarai Aldana (Spanish), Allison McKeown, Kathy Misterkiewcz

Goal:
1. Provide a list and tracking data on all AACPP children with lead exposure and lead poisoning
2. Provide a central monitoring system consisting of an MD, NP, Care Coordinator, who will work closely with Healthy Homes program

Procedure:
1. Screening lead levels will be ordered by providers on all children at 12 months of age and screen again at 2 years of age (Recommendation is that all children should have at least 2 lead levels by the time that they are 6 years old.)
2. Venous Lead levels will be ordered by providers for any age child up to 10 years who has come from outside the US or has a history of PICA
3. The clinician who ordered the lead level:
   a. Reviews the level returned from the lab
   b. Enters information on the flow sheet
   c. Enters prescription into MediTouch appropriately per protocol, including prescribing multivitamin with iron ± oral iron TX if anemic.
   d. Sends a task (template under Tasks / Message templates) attached to that child’s chart directly to the Care Coordinator for any lead level >3 to add to AACPP tracking, contact family, perform education, and refer to Early Intervention and Healthy Homes
4. All patients with elevated lead will receive
   a. One Multivitamin with iron daily
   b. Review of Educational Topics with parents by AACPP staff.
   c. Additional iron if anemic and prescribed by clinician
5. The Care Coordinator
   a. Uses a data tracking spreadsheet to list all patients and data to track lead levels.
   b. Adds results to flow sheet if not previously done by clinician.
   c. Notifies parents to get repeat levels according to protocol and standing orders below and documents the interaction by clicking “EDIT” with in the task and free texting the encounter.
   d. Assures the patient is taking a multivitamin plus iron every day
   e. Sends our lead letter and DOH brochures to parents
   f. Schedules appropriate lead follow up appointment per protocol
   g. Makes appropriate referral to Healthy Homes, Department of Health, and Early Intervention
   h. Assures that families receive appropriate education.
6. Educational topics
   a. Sources of lead, proper cleaning, and hand washing
   b. Review dietary intake and sources of iron and calcium.
   c. Start a MV with iron. (Iron alone may be added by clinician if patient is also anemic)
   d. Review cleaning practices to remove and contain lead
   e. Ask about remodeling and construction projects in the home.
   f. Review and ask about exposure to common sources of lead—ask specifically about use of pottery for food or drink, use of plastic and dollar jewelry and other environmental sources
   g. Review hand washing and hygiene to reduce ingestion of lead dust.
   h. Send info packet

7. Important telephone numbers:
   a. Healthy Homes Evaluation........ 800-374-7114
   b. Department of Health............. 717-547-3394
   c. Early Intervention.................. 800-692-7288

8. Recommended Treatment

   Chemet (succimer) comes as 100 mg capsules. Dose if > 1 yo is 10 mg/kg q8h for 5 days then q12h for 14 more days

   a. 0-4 mcg/dl
      ▪ No specific recommendations

   b. 5-9 mcg/dl
      ▪ Repeat lead level in June to August (when highest) or 1 month if less than 2 years old or every 3 months until <5 mcg/dl.
      ▪ Refer to Healthy homes if lead level persistently in this range or child less is than 2.

   c. 10-14 mcg/dl
      ▪ Check lead levels in household members – children and pregnant or lactating women
      ▪ Repeat level monthly until <9 mcg/dl then every 3 months until < 5 mcg/dl
      ▪ Refer to Healthy homes

   d. 15-19 mcg/dl
      ▪ Check lead levels in household members
      ▪ Order Ferritin, TIBC, unless HGB >12 on previous CBC
      ▪ Repeat level monthly until <9 mcg/dl then every 3 months until < 5 mcg/dl
      ▪ Refer to Healthy Homes

   e. 20-44 mcg/dl – HOSPITALIZE if under 2 years old for immediate repeat lead and environmental action
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- If under 2 years old and lead is >25 mcg/dl, Clinician will refer for immediate hospitalization if under 2 years old and ask for:
  - Immediate draw of venous blood lead level STAT
  - STAT Abdomen x-ray for lead particles – if present perform gastric lavage and enema
  - Consider succimer chelation if child is < 2 years old – begin in hospital and be sure that family has the medication before discharge to home

- If > 2 years old,
  - repeat venous lead level immediately
  - STAT Abdomen x-ray for lead particles – if present perform gastric lavage, or induce vomiting, and enema
  - Chelate with succimer if repeat lead is ≥ 35 mcg/dl (begin in hospital unless source of lead can be immediately eliminated)

- Request Full Home evaluation from Healthy Homes IMMEDIATELY
- Check lead levels on household members
- Order Ferritin, TIBC, unless HGB >12 on previous CBC
- Schedule follow up appointment with in 24 hours if not hospitalized or with on 1 week post discharge
- Refer to Early Intervention
- Lead free environment must be achieved within 2 weeks.
- Recheck lead levels every 2 to 4 weeks until <15 mcg/dl for 6 months, lead hazards have been removed and there are no new exposures.
- Then child can drop to surveillance recommended for levels 15-19

f. 45-69 mcg/dl – HOSPITALIZE IMMEDIATELY
- Clinician will refer for immediate hospitalization and ask for:
  - Immediate draw of VENOUS blood lead level STAT
  - STAT Abdomen x-ray for lead particles – if present perform gastric lavage, or induce vomiting and enema
  - If still elevated, initiate 1 week of succimer chelation in hospital and be sure that family has the medication before discharge to home
  - Request social service to obtain certification that the child is placed in a lead free environment until the home can be cleaned up
  - Refer to Healthy Homes - Home visit must be done IMMEDIATELY
  - Keep hospitalized until child can be discharged to a lead free environment
  - Check lead levels in other household members
  - Order Ferritin, TIBC, unless HGB >12 on previous CBC
  - Refer to Early Intervention
  - Schedule post discharge visit within 1 week
  - Repeat lead level on chelation day 19
  - Repeat lead level in 1-3 weeks post treatment for rebound effect
  - Recheck lead levels every 2 to 4 weeks until <15 mcg/dl for 6 months, lead hazards have been removed and there are no new exposures.
  - Then child can drop to surveillance recommended for levels 15-19

- >70 mcg/dl - HOSPITALIZE - MEDICAL EMERGENCY
  - Same as 45-69 PLUS EDTA chelation
h. >100 mcg/dl - HOSPITALIZE - MEDICAL EMERGENCY
   ▪ same as above PLUS consider adding BAL chelation.