Syracuse Lead Poisoning Prevention Resource Center expands service area

The services provided by Lead Poisoning Prevention Resource Centers in New York State since 1994 will continue with the support of a new grant from the New York State Department of Health.

The geographical regions formerly served by Resource Centers in Syracuse and Albany are now combined (see map) into a single service area directed by Dr. Howard L. Weinberger at University Hospital in Syracuse. For children in the eastern part of the region requiring intensive medical management, Dr. Tyrone Bristol, Albany Medical Center, will provide expertise as the Resource Center’s Assistant Medical Director.

The scope of activities for the resource center includes:

- Providing recommendations to health care providers for the medical management and treatment of children and pregnant women with elevated blood lead levels
- Increasing screening activities and testing rates for all children at ages 1 and 2 years as defined by the New York State guidelines
- Working with obstetrical providers to increase screening and testing of pregnant women, emphasizing anticipatory guidance to prevent lead exposure
- Identifying and addressing the special risk factors for lead exposure of new Americans
- Enhancing primary prevention activities at the local, county and state levels

The Central/Eastern New York Resource Center’s staff is available to provide educational programs throughout the region including video conferencing. Healthcare professionals are encouraged to call with any questions and concerns surrounding the medical management and prevention of childhood lead poisoning.

Contact Information:
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Blood Lead Testing and Risk Assessment Screening
Challenges in the Medical Office

In New York State, the Health Department regulations for addressing lead exposure in children require health care providers to:

- Assess children < 6 years of age at each well child visit for risk of exposure to lead hazards using a questionnaire developed by the health department. If a child is found to be at risk, a blood lead test should be obtained.
- At ages 1 year and 2 years of age (regardless of risk for lead exposure), a blood lead test is to be obtained.

Fitting these evaluations into a visit filled with other anticipatory guidance issues can be daunting. A small focus group of pediatricians in Syracuse met with the Resource Center staff in 2007 to discuss the barriers. The reasons for missing the risk assessments and/or testing tend to fall into two categories: 1) the provider forgets to include the assessment or blood test in the visit’s “to-do” list and 2) the family fails to follow-up with a visit to the lab for the blood test.

Some strategies to make sure the risk assessment is completed:

- Include the questions on a form with other evaluations the caregiver completes at the beginning of the visit. The answers can be reviewed quickly to see if a blood test is warranted.
- Affix a reminder sticker with the questions listed to the visit sheet for all well visits through age six yrs- this could include bolded reminders to order the blood test for everyone at 1 yr and 2 years. A lab slip could be pre-populated with the test information and ready to hand to the caregiver.

Barriers to blood testing vary and include the following:

- The test is ordered but the parent/caregiver doesn’t take the child to the lab.
  - Proposed solution: a system in the medical office for tracking test results could include reminder phone calls to patients whose test results aren’t received in a given time period
- Child is not tested because the parent/caregiver does not understand why the test is ordered.
  - Proposed solution: a verbal explanation of the lead test and its importance can be reinforced with a brochure handed to the caregiver with the lab slip. Brochures are available from the New York State Health Department as well as posters to hang in the waiting room.
- Parent/caregiver finds it too difficult to take the child to a remote lab for the blood draw particularly if the family relies on public transportation.
  - Proposed solution: Office based lead testing equipment is now available enabling the blood test to be drawn at the well visit and analyzed immediately. The testing equipment has been CLIA waived and requires only a small finger stick sample; if indicated, a venous sample can be ordered before the child leaves the office. All screening test results must be reported to the NYS Health Department.

Why we still advocate “Universal Testing”

Routine testing of all 1 and 2 year olds remains a priority in New York State; the most recent testing statistics report that only 66% of children received even a single blood test by 24 months of age. (A Report of Lead Exposure Status among New York Children, 2002-2003)*. Testing every child at these two vulnerable age points will make it possible to do more targeted screening in the future.

Recent Journal Articles:

- Interpreting and Managing Blood Lead Levels < 10 µg/dl in Children and Reducing Childhood Exposures to Lead: MMWR Recomm Rep. 2007 Nov 2; 56 (RR-8): 1-16. This document summarizes the findings of a review of clinical interpretation and management of blood lead levels < 10µ/dl by the CDC’s advisory council for childhood lead poisoning prevention. Recognizing that 10 µ/dl does not define a threshold for harmful effects of lead, the article provides information to clinicians to understand blood lead levels in this range and strategies to reduce childhood exposure.

- Just Another Bellyache? Finding the Cause of stomachache, malaise, and weight loss in a 3-year-old child. Contemporary Pediatrics. 2007 Jun 1;24(6). The authors outline a common clinical scenario and include lead exposure in the differential diagnosis. Treatment for a child with neurologic symptoms of lead poisoning is well described.

- Getting the Lead Out: Contemporary Pediatrics. 2007, Nov1; 24(11). This is a brief summary of the current state of childhood lead poisoning by one of the most experienced experts, John Rosen, MD at Montefiore Medical Center in New York City.

- Lead Exposure, IQ, and Behavior in Urban 5-to 7-Year-Olds: Does Lead Affect Behavior Only by Lowering IQ? Pediatrics. 2007 Mar;119(3): 650-658. The effect of lead exposure on children’s behavior independent of IQ scores is evaluated in this journal article. A group of children were followed for 5 years with identified elevated blood lead levels at age 2 years. Behavioral and intelligence testing along with regular blood lead testing was used to differentiate the direct effect of lead on behavior and the indirect effect through IQ. The study also examined the strength of the association for peak and concurrent blood lead concentration. The study concludes that concurrent blood lead concentration was associated with externalizing and school problems scales at 7 years of age and the effect was not entirely mediated through the effect of lead on IQ.

- Effect of Succimer chelation therapy on postural balance and gait outcomes in children with early exposure to environmental lead: NeuroToxicology. 2007 May; 28(3):686-695. A group of subjects with early chronic exposure to lead were enrolled in a randomized, double-blind, placebo-controlled clinical trial of Succimer. This sub-study evaluated the effect of Succimer treatment on gross motor performance such as postural balance or sway during static standing. The results from locomotion tests demonstrated significant improvements in some areas in the Succimer treated group. Further study is needed to determine if these effects will persist and how Succimer therapy modifies the lead associated cerebellar deficits.