



DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO:

BUMEDINST 6200.14B
BUMED M3/5
31 Jul 2009

BUMED INSTRUCTION 6200.14B

From: Chief, Bureau of Medicine and Surgery

To: Ships and Stations Having Medical Department Personnel

Subj: PEDIATRIC LEAD POISONING PREVENTION (PLPP) PROGRAM

- Ref:
- (a) U.S. Department of Health and Human Services, Healthy People 2010. Understanding and Improving Health, Nov 2000 at: <http://www.healthypeople.gov>
 - (b) U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC). Preventing Lead Poisoning in Young Children, Aug 2005 at: <http://www.cdc.gov/nceh/Lead/publications/PrevLeadPoisoning.pdf>
 - (c) U.S. Department of Health and Human Services, CDC, Preventing Lead Poisoning in Young Children, Oct 1991
 - (d) Public Law 102-550, Lead Based Paint Hazard Reduction Act of 1992, Title 10
 - (e) ASD (HA) and ASD (P&L) memo, Modification of Pediatric Blood Lead Screening Program of 26 Jun 1995 (NOTAL)
 - (f) U.S. Department of Health and Human Services, CDC, Screening Young Children for Lead Poisoning; Guidance for State and Local Public Health Officials, Atlanta, 1997
 - (g) Department of Defense (DoD), Lead-Based Paint Guidelines for Disposal of DoD Residential Real Property, December 1999 at: <http://www.epa.gov/fedfac/pdf/fieldguide6-10665.pdf>

Encl: (1) Medical Screening Program

1. Purpose. To update the Navy PLPP Program to reflect current consensus guidelines. The changes respond to the low number of elevated pediatric lead cases now being detected nationwide in both civilian and military populations.

2. Cancellation. BUMEDINST 6200.14A.

3. Background

a. Children get lead poisoning primarily through ingestion of lead. Lead from deteriorating lead based paint (LBP), house dust and soil constitute the greatest threat. Other sources such as family hobbies, drinking water contaminated by lead pipes or solder, airborne lead, consumer products and parental occupational contamination may also be significant contributors to pediatric lead poisoning. In 1978, LBP was removed from consumer use; however, many houses, especially those built before 1950, still contain LBP. Industrial paints may contain higher levels of lead than paints designated for consumer use. Ingesting even small amounts of the metal increases a child's risk for developing permanent learning disabilities; attentiveness and behavioral problems; and reduced concentration.

b. The elimination of pediatric lead poisoning was designated by the U.S. Surgeon General as one of the objectives of Healthy People 2010 (reference (a)). The CDC has also advanced this national health goal by publishing pediatric blood lead screening guidelines (reference (b)).

c. In 1991, the CDC issued a call for lead screening of all children 6 months to 6 years of age (reference (c)). Within a year, Congress passed the Residential Lead-Based Paint Hazard Reduction Act as part of Title 10, the Housing and Community Development Act, that focused on the reduction of lead hazards in the community (reference (d)).

d. By 1994, the Navy had a two-sided approach in effect whereby children received universal lead screening based on BUMEDINST 6200.14, PLPP, and representative samples of the Navy's 100,000 housing units were inspected for lead contamination.

e. The program was so successful that by 1995 DoD issued a memorandum modifying the PLPP (reference (e)). As an interim measure, until BUMEDINST 6200.14 could be rewritten, each medical treatment facility (MTF) was given the authority to suspend universal screening if 98 percent or greater of the children screened (aged 6 years or under) had non-elevated blood lead levels (BLLs) (<10 micrograms/dL). This was to be based on the number of children tested being of sufficient size to be representative of the community served.

f. Data derived from pediatric lead screening programs nationwide have further demonstrated a very low overall prevalence of lead poisoning. In 1997, reference (f) proposed elective substitution of the mandatory universal blood lead screening with targeted screening for certain low risk populations that met set criteria. Communities identified by exceptionally low risk could adopt alternative methods rather than targeted screening.

g. While the Navy criteria for suspending universal screening was more conservative in terms of BLLs than the CDC 1997 guideline, it did not incorporate the age of housing into the decision matrix as did the CDC.

h. Per reference (g), DoD has set policy to ensure, through direct Navy management or Public-Private Venture (PPV) oversight, that Family Housing occupants are protected by minimizing LBP, dust and soil risks, in compliance with reference (d). Painted surfaces shall be maintained in good condition following current Lead Management Plans.

4. Implementation

a. Each MTF serving children 6 years old or younger shall continue to operate a formal pediatric lead screening program. As with many environmental exposure monitoring programs, a team approach is necessary for program success. The PLPP team is responsible to the commanding officer of the MTF. The team may be comprised of a physician (one or more of preventive medicine/public health, occupational medicine, pediatrics, obstetrics, or family practice), an industrial hygienist, an environmental health officer, a laboratory officer, the cognizant housing/maintenance managers, a TRICARE coordinator, and a community health nurse. It may be adjusted as required to fit the demands and capabilities of a particular site.

b. Reference (e) allows the Navy to suspend universal lead screening for MTFs that treat low risk communities, if certain criteria are met. As elevated BLLs have become infrequent at all reporting locations, MTFs may use targeted screening unless there is reason to do universal screening (to be determined by the local activity or by the Navy and Marine Corps Public Health Center (NMCPHC)). Thus, the default is changed from universal to targeted screening.

c. The Navy PLPP is based on recommendations for medical screening and preventive measures set out by the CDC in reference (f). Details of the PLPP medical screening are stated in enclosure (1).

d. Discovery of sources of lead exposure shall initiate interventions designed to prevent the effects associated with long-term exposure, per reference (g). The PLPP team will re-assess the existing level of pediatric lead screening in light of the new information. Follow-up of elevated BLLs, including all treatment, will be done by the local MTF, not by NMCPHC. NMCPHC remains available for expertise on determining sources, appropriate preventive measures for further exposures, and risk communication.

e. The above modification of mandatory blood lead screening must not be interpreted, and will not be used, to preclude, proscribe, or substitute for any other diagnostic or therapeutic decision of a health care provider concerning childhood lead poisoning. This policy pertains only to the assessment of risk for exposure to environmental lead and to the routine screening of children for possible lead poisoning by blood lead determination. It will not be used to limit or constrain clinical decisions in the care rendered to patients.

5. Responsibilities in the PLPP Program

a. DoD is required to comply with all Federal, State, interstate, local, and foreign country requirements for certification, licensing, and record-keeping, including payment of reasonable service charges, with respect to LBP, LBP activities, and LBP hazards, per reference (d).

b. Commander Navy Installations Command (CNIC). CNIC shall:

- (1) Provide Program Management guidance.
- (2) Manage Navy owned/controlled/leased housing with approved Management Plans.
- (3) Manage pre-conveyance treatment or abatement actions.
- (4) Provide PPV LBP management oversight as stipulated in each PPV agreement between the partner and the Navy.
- (5) Cooperate with Preventive Medicine and local health department personnel in investigating elevated lead levels in children living in Navy owned/controlled/ leased housing.

c. NMCPHC shall:

(1) Provide an annual Pediatric Lead Screening Report based on laboratory testing for lead to the Bureau of Medicine and Surgery (BUMED) Pediatric Specialty Leader and to the Navy Medicine Regions.

(2) Maintain the annual Pediatric Blood Lead screening reports.

d. Navy Medicine Regions shall distribute the annual Pediatric Blood Lead screening reports to their MTFs.

e. MTFs shall:

(1) Ensure all children are screened for lead poisoning using the Lead Exposure Risk Assessment Questionnaire NAVMED 6200/2 following the schedule shown in enclosure (1).

(2) Provide BLLs as part of screening following enclosure (1).

(3) Ensure each or all laboratories supporting the PLPP participates in a blood lead proficiency testing program.

(4) Provide education and outreach programs.

(5) Comply with other reporting requirements in paragraph 6 of this instruction.

f. Preventive Medicine Departments (at local MTF level) shall:

(1) Provide information (following Privacy Act constraints) on the results of blood lead tests to the cognizant facility or manager(s) of Government owned housing to support the evaluation of housing units.

(2) Assure that investigation of elevated pediatric lead levels and any required housing remediation is completed.

6. Reports

a. Elevated lead in pediatric residents of housing or day care units shall be reported by preventive medicine departments to local military and civilian health care providers.

b. Reports required by Federal, State, or local agencies shall be filed by the cognizant naval hospital or facility, depending on the type of reports and the procedures dictated by Federal, State, and local regulations or standards.

c. MTF health care providers shall immediately inform preventive medicine departments of elevated BLLs.

7. Form. NAVMED 6200/2 (11-2008) Lead Exposure Risk Assessment Questionnaire is available at: <http://navymedicine.med.navy.mil/default.cfm?selmod=706435D4-8C78-A781-8663C37197B239CD&seltab=directives&type=ALLBMDF>.

A handwritten signature in black ink that reads "A. M. Robinson, Jr." The signature is written in a cursive style with a large, looped initial 'R'.

A. M. ROBINSON, JR.

Distribution is electronic only via the navy medicine Web site at:
<http://navymedicine.med.navy.mil/default.cfm?seltab=directives>

MEDICAL SCREENING PROGRAM

1. Introduction. Screening is to be provided by all MTFs serving children. Targeted screening is acceptable unless the facility or NMCPHC determines universal screening shall be done. Whether targeted or universal screening is used depends on lead levels in the community served by the local MTF; localized areas (e.g., certain zip codes or housing tracts) may be identified as requiring universal testing. Risk assessment is based on the Lead Exposure Risk Assessment Questionnaire NAVMED 6200/2. A child with at least one "yes" answer is considered high risk for lead exposure. A child with all "no" answers is considered low risk. When "don't know" answers cannot be resolved, classification into a risk group will be left to the physician's judgment. The completed NAVMED 6200/2 will be placed in the child's health care record. Electronic or paper copies of any "high risk" documents shall be forwarded to the cognizant preventive medicine department for appropriate action.

2. Targeted Screening Program Requirements

a. Targeted screening consists of administering the Lead Exposure Risk Assessment Questionnaire, NAVMED 6200/2 at the 6 month well-baby visit (or at the child's next visit if the child is older than 6 months). The questionnaire captures the minimum information required. Additional questions can be added to address local situations. High risk children will be identified based on the questionnaire responses, historical information regarding the child or the child's environment, or clinical suspicion. Only children at high risk will be routinely offered blood lead testing.

b. Once identified, a "high risk" child will be offered BLL testing as follows (Attachment A to enclosure (1) provides a flowchart):

(1) A child at high risk for exposure to lead sources as determined by the questionnaire must have an initial blood lead test at 12 months of age. If the initial BLL is less than 10 micrograms per deciliter (ug/dL), the child must be re-evaluated by additional questionnaires every 12 months until 6 years of age.

(2) If the BLL is elevated, actions and retesting must follow the schedule in Table 1 of this enclosure. Once two subsequent consecutive measurements are less than 10 ug/dL, testing frequency can be decreased to once annually. If any blood lead test result is elevated, actions and retesting must follow the schedule shown in Table 1.

3. Universal Screening Program Requirements

a. The universal screening program consists of the Lead Exposure Risk Assessment Questionnaire (NAVMED 6200/2) and at least one BLL test. BLL analysis will be performed using CDC certified labs. A listing of currently certified laboratories is maintained on the following NMCPHC Web site: <http://www-nmcphc.med.navy.mil>. If elevated BLLs are found using capillary blood, confirmatory venous blood specimens must be sent for analysis.

b. Screening Schedule. The following provides a minimum screening schedule for children aged 6 to 72 months (Attachment B to enclosure (1)). The schedule is not rigid. Rather, it is a guide for pediatric health care providers and screening programs to use in conjunction with other pertinent information in determining when an individual child must be tested.

(1) Children 6 to 72 months of age. A questionnaire, NAVMED 6200/2 shall be offered at 6 months (or at the child's next visit if the child is older than 6 months). The document must be reviewed at each of the subsequent well baby or well child health visits.

(a) Low risk. A child at low risk for exposure to lead sources by questionnaire shall have an initial blood lead test at 12 months of age. If the BLL is less than 10 ug/dL, the child must be retested only if indicated clinically or when risk status changes based on a positive response on subsequent questionnaires. If a blood lead test result is elevated, actions and retesting must follow the schedule in Table 1.

(b) High risk. A child at high risk for exposure to lead sources by responses on the questionnaire must have an initial blood lead test at 6 months of age. If the initial BLL is less than 10 ug/dL, the child must be re-screened (both questionnaire and BLL) every 6 months. If the BLL is elevated, actions and retesting must follow the schedule in Table 1. Once two subsequent consecutive measurements are less than 10 ug/dL, testing frequency can be decreased to once annually until 6 years of age. If any blood lead test result is elevated, actions and retesting must follow the schedule set out in Table 1.

(2) Children >72 months. Screenings beyond 72 months may be performed if indicated (for example, a developmentally delayed child with pica). These children must otherwise receive follow-up as described in Table 1.

4. Evaluation and Management

a. A multi-tiered approach and case management must be instituted based on CDC guidelines. Table 1 contains guidelines for medical management based on elevated venous BLLs following current CDC guidelines.

b. Preventive Medicine Departments (with medical consultation from the health care providers and technical support from the Industrial Hygiene Department) will obtain a history to assess for possible sources of lead exposure (glazed pottery, hobbies, occupations, etc.). They will also perform appropriate environmental sampling, forward the samples to the appropriate laboratory, and counsel the parents on the results of the evaluation, including environmental sampling test results.

c. Once a case is identified, the Preventive Medicine Department shall ensure the appropriate agency is notified for environmental risk assessment as discussed below. Additional cases may also be identified for environmental risk assessment based on a health care provider's clinical judgment.

(1) Requests for environmental risk assessment shall be made to facilities and housing commands if the child lives in military housing or attends a military day care facility.

(2) Families who rent or own their homes shall be counseled on local non-military remediation resources and made aware of the local public health department requirements. Preventive Medicine Department shall report elevated BLLs of children residing in these facilities to the local public health department.

d. When an environmental assessment of a child who lives in a military housing unit reveals the source of lead poisoning was largely a factor of the dwelling, the family shall be moved to an alternate unit at Navy expense until abatement is completed.

5. Counseling

a. Counseling or information handouts shall be provided by health care providers to parents in the following circumstances:

(1) All children enrolled in a universal screening program.

(2) All children identified as "high risk" by positive response to the NAVMED 6200/2 Lead Exposure Risk Assessment Questionnaire.

(3) By the preventive medicine department as part of the environmental evaluation when requested by the child's health care provider.

(4) The Environmental Protection Agency (EPA) has developed several pamphlets that are available on their Web site at: <http://www.epa.gov/lead>. Currently, a relatively concise EPA pamphlet entitled "Protect Your Family from Lead in Your Home" is available at: <http://www.epa.gov/lead/pubs/leadpdf.pdf> and a more thorough reference is available at: <http://www.epa.gov/lead/pubs/leadrev.pdf>.

b. The facilities and housing command will provide appropriate information to the occupants of the unit tested, as well as occupants of units expected to have similar LBP hazards.

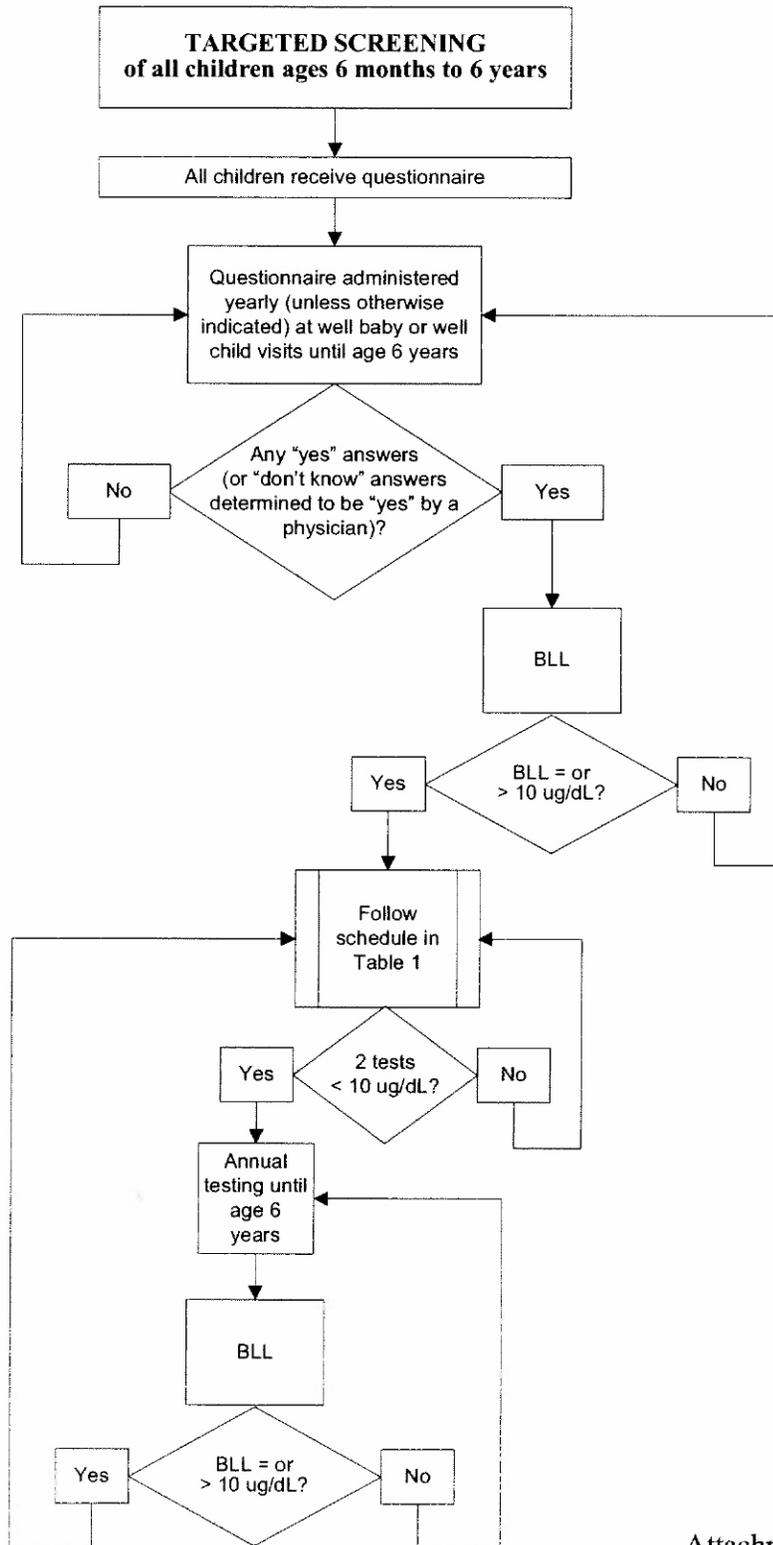
6. Further Information. The 1997 CDC guidelines and subsequent updates contain further detailed information on targeted screening and treatment of lead poisoning in children. They can be accessed on the CDC Web site at: <http://www.cdc.gov/nceh/lead/guide/guide97.htm>.

Table 1
Summary of CDC Recommendations for
Children with Confirmed Elevated Venous Blood Levels¹

Blood Lead Level in micrograms/deciliter (ug/dL)				
10-14	15-19	20-44	45-69	>70
Lead education - Dietary	Lead education - Dietary	Lead education - Dietary	Lead education - Dietary	Hospitalize and commence chelation therapy
Repeat BLL test in 3 months, decrease to every 6-9 months when BLLs decline below 10ug/dL	Repeat BLL test in 1-3 months, decrease to every 3-6 months when BLLs decline below 15ug/dL	Repeat BLL test in 2-3 weeks, decrease to every 1-3 months when BLLs decline below 20ug/dL	Follow-up blood lead monitoring per chelation protocol	Proceed according to actions for 45-69ug/dL
	Proceed according to actions for 20-44ug/dL if: - A follow-up BLL is in this range at least 3 months after initial venous test or - BLLs increase	Complete history and physical exam Lab work: - Hemoglobin or hematocrit - Iron status - Environmental investigation - Lead hazard reduction - Neurodevelopmental monitoring - Abdominal x-ray (if particulate lead ingestion is suspected) with bowel decontamination if indicated	Complete history and physical exam Lab work: - Hemoglobin or hematocrit - Iron status - FEP or ZPP - Environmental investigation - Lead hazard reduction - Neurodevelopmental monitoring - Abdominal x-ray with bowel decontamination if indicated Chelation therapy	

¹ Adapted from tables 3.1 and 3.3, Centers for Disease Control (CDC), Managing Elevated Blood Lead Levels Among Young Children: Recommendations for the Advisory Committee on Childhood Lead Poisoning Prevention, March 2002. (See Web site at: http://www.cdc.gov/nceh/lead/publications/pub_Reas.htm).

TARGETED SCREENING



UNIVERSAL SCREENING

