Clandestine Methamphetamine Labs Frequently Asked Questions
FAQ #2 – Medical Evaluation of Children Removed from Clandestine Labs

When should someone removed from a clandestine laboratory be medically evaluated?
All symptomatic persons should be evaluated by medical personnel immediately upon decontamination. Asymptomatic adults may not require additional medical intervention. It is recommended that all children removed from clandestine labs be evaluated by a practitioner qualified to perform a complete pediatric evaluation within 24 hours of removal from the lab.

What signs and symptoms would a child likely display after being exposed to the environment in a clandestine laboratory?
There is no single, well-defined expected presentation for a child with a history of potential chemical exposure in a methamphetamine laboratory. Recent exposure to methamphetamine itself will likely cause a picture of sympathetic excess (tachycardia, hypertension, hyperthermia, etc.). A child with a more distant serious exposure to methamphetamine may present with CNS depression, neurological deficit or coma due to catecholamine depletion. It is important, however, not to focus only on the toxicity of the finished drug product. In point of fact, there are an untold number of potentially harmful chemicals with which a child could come in contact in a clandestine laboratory. The two most common complaints in adults following exposure to a clandestine laboratory are irritant (eye, skin or mucus membrane) and respiratory difficulties. Evidence of irritation such as caustic burns, redness, swelling, etc. may or may not be apparent. Respiratory compromise, ranging from wheezing due to irritation to pneumonitis from aspiration of hydrocarbon solvents to respiratory arrest from inhalation of gases such as phosphine or cyanide, is possible in a clandestine laboratory. Finally, the child should be evaluated for signs or symptoms of abuse, neglect and nutritional deficit and, if present, further evaluation as deemed necessary should be completed.

Does an asymptomatic child removed from a clandestine laboratory require urgent evaluation in a hospital emergency department (ED)?
Prehospital care providers (EMT's or paramedics) should evaluate all children removed from a clandestine laboratory immediately to determine if they are truly asymptomatic. A truly asymptomatic child will likely not require immediate evaluation in the ED, but should see a primary care physician within 24 hours of removal from the laboratory for a complete assessment of health and developmental status. All symptomatic children and children not evaluated on scene by emergency medical personnel who are removed from a clandestine laboratory should be evaluated in the closest appropriate hospital ED.

What clinical laboratory assessments should be performed on an asymptomatic child removed from a clandestine lab?
All symptomatic children should be managed supportively as there is no specific antidote for an unknown chemical exposure. Usual clinical laboratory assessments should be made in order to manage such a child. For example, arterial blood gases in a child with notable respiratory compromise. With appropriate clinical and historic situations, additional analyses such as carboxyhemoglobin or whole blood lead may be indicated.

What clinical laboratory assessments should be performed on an asymptomatic child removed from a clandestine lab?
It is important to understand that it seems highly unlikely a truly asymptomatic child will become ill at a later time as a result of a toxic exposure in a clandestine laboratory. However, since there are no closely controlled studies proving this each child must be closely examined for the presence of symptoms. There are two levels of clinical laboratory assessment in an asymptomatic child removed from a clandestine laboratory. These are: 1, acute exposure assessment and 2. general assessment of health and developmental status, primarily secondary to the high probability of neglect. With respect to the acute exposure issue, some jurisdictions request a urine drug screen be performed on children removed from clandestine laboratories in order to assist in prosecution of the case. The topic of urine drug screens is addressed in greater detail in the next question. Current clinical laboratory test recommendations for the general assessment of health and developmental status include a CBC and a chemistry panel, which has electrolytes, liver function tests, kidney function tests and total protein and albumin.

When is it appropriate to order a urine drug screen on a child removed from a clandestine lab?
The window of collection for the urine sample for a drug screen should be as short as possible after exposure – at worst no more than 24 hours from removal from the lab environment. Cases exist in which children in clandestine labs have been exposed either deliberately or inadvertently to drugs and medications other than methamphetamine. Some of these other substances may be detectable with broad screening techniques such as thin layer chromatography (TLC). A urine drug screen detects classes of commonly used drugs. However, many harmful chemicals with which a child may come in contact in a clandestine lab will not be detected by such a screening tool. Clinically, in cases of unresolving tachycardia or signs of sympathetic excess of unclear etiology, a drug screen might be useful. In completely asymptomatic children, a urine drug screen may be beneficial for prosecutorial efforts. Given the fact that some studies have shown greater that 50% of these children test positive for methamphetamine, the current recommendation is for urine drug screening to be performed. False positive results for amphetamines on screening tests are common and any positive screening result should be confirmed prior to legal action being initiated. Medical care should not be delayed while waiting for confirmation of screening results as confirmatory testing may take several days.

Who should I contact if I have any questions about this FAQ sheet?

Robert B. Palmer, PhD, DABAT, Clinical Toxicologist
Rocky Mountain Poison & Drug Center
Ph: (800) 222-1222 (in Colorado), Rob.Palmer@RMPDC.org

Kathryn Wells, MD,
Medical Director ,Denver Family Crisis Center
(720) 944-3747 kathryn.wells@dhha.org