



Missouri Guidelines
for Managing Children Found
at Methamphetamine Laboratory Sites

Recommended Guidelines
November 2006

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The *Missouri Guidelines for Managing Children Found at Methamphetamine Laboratory Sites* are intended as recommendations for an ideal response. The authors recognize that, in reality, the actual response may be influenced by many external factors. The resource and training levels available for the management of children found at a methamphetamine laboratory site vary greatly in communities across the state. For this reason, it is stressed that the guidelines are *recommendations and not mandates*.

Introduction

In recent years methamphetamine production and abuse have been increasing significantly across the United States. In 2004, Missouri reported the highest number of methamphetamine laboratory incidents in the country. Further, there were hundreds of Missouri children affected by methamphetamine laboratories in the same year. In addition to the physical and the physiological dangers of the drug itself, the invisible toxic vapors and the waste by-products from manufacturing represent health hazards for people in the households and the surrounding community. A recent study of a methamphetamine laboratory found detectable airborne concentrations of hydrochloric acid, iodine, and methamphetamine within a structure for at least 24 hours. A child who lives in a household involved in methamphetamine production is especially vulnerable. Children residing in a methamphetamine laboratory environment often display signs of developmental delay, cognitive deficits and behavioral problems. These children are also at increased risk of physical, emotional, and sexual abuse.



Multidisciplinary Teams

The *Missouri Guidelines for Managing Children Found at Methamphetamine Laboratory Sites* urges communities to build collaborative, effective multidisciplinary teams to provide coordinated services and support for child victims. These local teams include first responders, child protective services (Children's Division), law enforcement (federal, state, and local), juvenile officers, medical and mental health professionals, prosecutors, child advocates, community coalitions and other community leaders, as well as the general public. The purpose of the multidisciplinary team is to coordinate management and ensure the immediate physical and emotional needs of the child are met. Through cooperation, the multidisciplinary group can service gaps or breakdowns in communication between agencies or individuals and it can also serve as a forum to resolve difficult cases. Coordinated multidisciplinary investigations enhance information gathering, evidence integrity, interventions, and comprehensive treatment services for children and their families.

Communities Are Urged To:

1. **Develop a multidisciplinary team** at the local level (circuit, county or municipal).
2. **Hold regular meetings** of the team to discuss procedures and coordination.
3. **Hold a preliminary conference** prior to the raid for cases with advance notice, in order to effectively deal with children affected by methamphetamine. At that time roles and responsibilities would be reiterated.
 - 3.1. If circumstances allow, a preliminary conference of team members should be held, in person or by conference call, to coordinate a planned response. Participation in the preliminary conference should be determined locally.
 - 3.1.1. If it is believed children are present, Children's Division should be alerted to be on site or on call. History with agencies may be helpful in determining if relative resources for placement are appropriate.
 - 3.1.2. Foster care placement providers may be located and alerted.

Recommended Actions at the Laboratory Site

4. **Determine if children are present.**
(law enforcement or other first responder)
 - 4.1. If a child is present at a methamphetamine laboratory scene, the immediate safety of the child should be assessed and the **child should be removed to an appropriate safe zone.**
 - 4.2. Contact should then be initiated with Children's Division (if not already present), and **protective custody should be assumed** by either law enforcement, a juvenile officer, or a physician (the only three professions who can take protective custody in Missouri).
 - 4.3. If a child resides at the home, but is not present at the scene, the appropriate member of the team should **locate the child and determine the need for medical assessment and placement into protective custody.** A child shall not be placed in the care of any individual unless the appropriate criminal background and child abuse/neglect checks are completed prior to placement (this is a statutory requirement).

5. **Conduct a field medical assessment** of the child (use available qualified medical personnel such as EMS or fire department personnel) to assess medical stability (for example: vital signs, physical injuries) and behavior and determine the need for immediate medical attention, assessing whether the child would be considered high or low risk as defined in the medical guidelines.
 - 5.1. If a child is in need of immediate medical attention, the child should be transported to the nearest appropriate medical facility for medical care with appropriate follow-up as determined by the medical guidelines.

- 5.2. If a child is not in immediate medical need, the child should be transported to a safe place, such as a Child Advocacy Center (as determined by local resources), and provided with appropriate follow-up as determined by the medical guidelines.
- 5.3. The appropriate member of the team should collect medical information on the child from the child's caretaker prior to departure from the scene. A suggested form for collecting this information is contained in Appendix A.

6. The need for field decontamination prior to transport **should be determined.** In most cases, children will not need to be decontaminated at the site.

- 6.1. If a child is in apparent need of immediate medical attention, the child should be transported immediately to the nearest appropriate medical facility. The decision to perform field decontamination should be made by qualified emergency response personnel or the law enforcement certified site safety officer, with consideration of the health status of the child and the medical necessity for the decontamination.
 - 6.1.1. A child that exhibits symptoms of acute chemical toxicity should be decontaminated as medically appropriate to prevent further exposure prior to transport. Medical personnel at the receiving facility should be informed of the situation as soon as practical and the types of chemicals the child may have been exposed to at the scene. A suggested form for collecting this information is contained in Appendix B.
- 6.2. If a child is not in need of immediate medical attention, the child should be inspected for obvious signs of chemical contamination, such as visible residue/liquid/stains or detectable chemical odors.
 - 6.2.1. If there are obvious signs of chemical contamination, consideration may be given to appropriate field decontamination prior to transport, if deemed necessary to the continued well-being of the child.

- 6.2.2. If there is no sign of chemical contamination, field decontamination is not required. It should be noted that it is not likely the child presents a danger to other individuals; however, if there are exposure or cross-contamination concerns, this may be addressed by washing exposed skin on the child with soap and water and covering the child's clothing with a disposable suit and shoe coverings, or simply by providing a barrier, such as a blanket, between the child and vehicle seat. After transporting to an appropriate facility, the child may then be bathed and provided with clean clothing as soon as it is feasible. For additional information on decontamination, please refer to the medical guidelines and Appendix C.

Evidence Collection and Investigations

7. At the initiation of the investigation, appropriate members of the team should consult with one another to **coordinate investigations** to ensure that evidence is gathered to substantiate both the Children's Division investigation and law enforcement's criminal investigation. Officers will file both the drug and criminal child endangerment charges together.
8. **Children's Division employees** are, by statute, **not allowed to collect evidence or photograph people**. Therefore, all evidence for use in the child abuse/neglect case must be collected by law enforcement officials.
9. **Collect evidence with prosecution of child endangerment in mind**, recognizing that additional evidence, such as the child's clothes, may be helpful for juvenile court.
10. **Law enforcement should collect and should submit for testing any evidence pertaining to crimes against children.**
11. **Evidence collection** for child endangerment should go hand-in-hand **with laboratory evidence collection.**

12. **Evidence** of child endangerment should be **maintained by law enforcement officers** using the appropriate departmental evidence procedures.

13. **Suggested child endangerment evidence includes:**

- 13.1. Clothing, toys, etc. that may contain non-visible evidence should be collected for exposure testing.
- 13.2. Proximity of hazards (drug and non-drug) to play and sleep areas should be documented.
- 13.3. Sanitary condition of the home should be documented.
- 13.4. Measurements of the child's height and reach will also help show the accessibility of the dangers to the child.
- 13.5. Indications of neglect.
- 13.6. Photographs of any child present shall be taken, specifically with an eye toward documenting any injuries and the child's general hygiene.
- 13.7. Kitchen condition and food supply should be noted, including food quantity and quality.
- 13.8. Sleeping arrangements should be documented.
- 13.9. Access to pornography should be documented.
- 13.10. The presence and accessibility of weapons should be documented.
- 13.11. Evidence of occupation of the residence by the child should be documented. For example: toys, food items, clothing, pictures, etc.

- 13.12. Photographs OR videotape of the living conditions should be taken, showing the hazards present (drugs, chemicals, etc.), along with accessibility of these hazards by children.
- 13.13. Officers should note the criminal history, sex offender status, probation and/or parole, etc. of guardians and of others present in any reports to the juvenile court. A suggested format for collecting this information is included in Appendix C.

14. In the event that there is evidence of a child living in the home, but he or she is not present at the time of the warrant execution, law enforcement should make every effort to **collect and document relevant evidence just as if the child were present**. Law enforcement should notify the Children's Division of their observations and the Children's Division should follow up with the child.

15. Interview with parent/legal guardian

- 15.1. Any interviews of children, witnesses, or family members that may need to be conducted jointly should be coordinated to ensure the integrity of the investigations and to preserve evidence for court purposes. Interviews of children should be conducted by team members that have received specialized training in this discipline. The multi-disciplinary team should agree on a case by case basis who should interview children, witnesses or family members.
- 15.2. During an interview of a parent or guardian, law enforcement questions should seek to elicit evidence as to whether or not the parent/guardian knew what they were doing was dangerous and could cause harm to the child.
 - 15.2.1. Examples of this could be filter masks, gloves, or other protective paraphernalia utilized by the parent/guardian for protection of themselves. These items should also be collected as evidence.

Protective Custody Proceedings

16. Law enforcement officials or physicians that place a child into protective custody **must submit a CS 33 – Authorization to Provide Alternative Care form** (Children’s Division) to the Children’s Division immediately, as well as provide a written statement to the juvenile officer no later than **twelve (12) hours** from the time the child was taken into protective custody.
17. The Children’s Division reports and any additional law enforcement **reports should be submitted promptly** in order to comply with the statutory requirement that a protective custody hearing must be held within 72 hours.
18. Team members assigned to the case should keep in mind the **dual nature of the investigation** as it relates to the **juvenile court and the adult court**.
19. The law enforcement officer or any appropriate team member **may be expected to testify** at the protective custody proceeding.
20. Protective custody **hearings must occur within 72 hours** of the child being removed from the home.
21. Once a child is taken into protective custody, **a guardian ad litem must be appointed and a court appointed special advocate (CASA) volunteer may be appointed**.

Prosecutor Response

22. **Prosecutors review evidence** collected during the multidisciplinary investigation to determine if child endangerment charges or any other crimes against the child should be filed. Numerous state and federal statutes provide guidance for the care, treatment, protection, and placement of the drug-endangered child. Local team members should become familiar with the laws and seek the advice of local prosecutors.
23. **Review evidence collected by both law enforcement and medical services.**
24. **Reference appropriate laws.**
25. **Determine appropriate actions** to take that are in the best interest of the child.
26. **Complaints should be filed as soon as possible** to allow officers to obtain subpoenas for medical screening results.
27. **Federal prosecution options are available** if state statutes are not sufficient.
28. **Keep juvenile office and/or Children's Division office informed** of status of criminal proceedings for use in juvenile proceedings.

Recommended Medical Management of High Risk Drug Endangered Children

A child should be considered at high risk of drug endangerment when removed from a methamphetamine laboratory where drug manufacturing is in progress or there is evidence of recent manufacturing, chemicals, and apparatus found in an area where children reside.

Decontamination

29. If the child is **visibly contaminated** (clearly apparent evidence of chemicals on child and items), remove the child's clothes immediately and decontaminate as appropriate for specific chemicals in use at that site. Skin decontamination for gases and vapors is generally not necessary unless exposure causes signs or symptoms.
30. **Decontamination should be performed by the agency responsible** for this task at the scene according to existing decontamination guidelines.
31. **Attention should be given to gender sensitivity and related issues.** Consider appropriate protection from cold weather, especially when decontaminating infants and small children. Do not wash infants or young children with cold water; when washed with warm water, promptly dress the child after washing.
32. If the child is not visibly contaminated, **have the child change into clean clothes and leave contaminated clothing** at the site.
33. **Prescription medications, hearing aids, eyeglasses, or durable medical equipment attached to the child who was evacuated should be placed in a plastic bag or other container until it can be properly decontaminated.**
34. The child should be **bathed at the earliest possible opportunity while protecting their privacy and health.**

35. **No possessions other than those listed previously should be brought with the child** at the time of the evacuation from the site.
36. After decontamination, change the child's clothes; this should be done as soon as is feasible. **Use clean clothes from outside the home, paper scrubs, or a clean blanket from outside the home.**

Medical Evaluation

37. **All children in a high-risk situation should be evaluated in the emergency department.** Initial evaluation by EMS should take place on the scene to identify immediate threats to life. If there are *any* questions regarding the presence of such threats, immediately transport the child to the emergency department via EMS. The child should also be transported immediately in the case of explosion, obvious chemical exposure, or if the child appears sick.

Emergency Department (ED) Evaluation

38. Even if an on-scene examination takes place, **the child should be taken to the appropriate emergency department for evaluation within 2-4 hours.** The medical examination in the emergency department should focus on signs of acute toxicity during a reasonable observation period and rule out delayed toxicity from exposure to chemicals from the methamphetamine manufacturing process. Medical evaluation in the emergency department is not intended to be a comprehensive physical or neuro-developmental examination. The emergency department physician should be informed of what chemicals were at the scene and the method of cooking used (if known). It is recommended that the emergency department evaluation include following:
- 38.1. Measurement of vital signs, including heart rate, blood pressure, respiratory rate, oxygen saturation and temperature;

- 38.2. Physical examination with specific attention paid to the CNS, cardio-pulmonary, and gastrointestinal systems and skin examinations;
- 38.3. Observation for development of delayed toxicity for at least 6 hours and up to 24 hours if indicated (e.g. phosphine gas exposure);
- 38.4. Blood tests including CBC; comprehensive metabolic panel, including liver function tests and BUN/creatinin; and urine analysis.

39. Collect urine (10-15 ml) for methamphetamine toxicology screen as soon as possible, unless collected previously for that purpose. Ensure collection within 12 hours. Urine sample that cannot be tested immediately should be frozen as soon as possible for later testing. Medical professionals may be asked to provide this sample to law enforcement for future testing. Submit to a medical testing laboratory which screens and reports for the level of detection of the test. The Missouri Highway Patrol labs can provide testing at the lower level of quantitation needed for incidental drug exposure. The drug-testing laboratory should verify initial positive screen for methamphetamine.

- 39.1. A general urine drug screen may be considered for a symptomatic child. Standard forensic sample handling, including chain of custody procedures, should be followed or, usual medical protocols for urine toxicology screens may be followed.

40. Conduct a heavy metal screen if the production method was not the ephedrine reduction, the “cold” manufacturing method, or if the method used is unknown.

41. Psychological: A forensic interview should be conducted by an emergency department physician/child psychologist/psychiatrist/physician trained in forensic interview techniques, with the use of standardized questions and observations appropriate to the age and intellect of the child in question. These **interviews should consider emotional well-being and suicide risk.**

42. **If no acute health problem** is identified after at least 6 hours of observation, release child to the Children's Division for the placement.
43. **Conduct a full medical examination** within 72 hours after the emergency department evaluation of ALL children at high-risk, including laboratory work and neuro-developmental evaluation.
44. The first choice should be to **arrange follow-up with the child's own pediatrician**, possibly in referral to neuron-developmental and dental specialist. If the child's pediatrician is not available, a clinic or hospital practice should evaluate the child within 72 hours for follow-up examination and laboratory testing.
45. **Laboratory testing**, unless done during the emergency department evaluation, should include CBC; Comprehensive Metabolic Panel, including liver function tests and BUN/creatinin; and urine analysis. The Chest Radiograph and Pulmonary Function Tests should be conducted as appropriate for age and if medically indicated. Consider testing for hepatitis B and C and HIV if indicated.

Follow-up Medical Evaluation

Follow-up medical **evaluations should be conducted after 30 days, 6 months and 1 year** for diagnosed health problems and to identify remote effects of toxic exposures. Medical professionals should also consider providing ongoing EPSDT exams as appropriate for the child's age.

Recommended Medical Management of Low Risk Drug Endangered Children

A child should be considered at low risk of drug endangerment when there was no manufacturing in progress, no evidence of a recent manufacture, or any chemicals, manufacturing apparatus, or evidence of contamination found in the area where the child was residing. Unless visibly contaminated, the child does not need decontamination at the scene.

Medical Evaluation

46. Unless there are concerns regarding the child's acute health, no immediate medical evaluation in the emergency department is required. The child should be examined at the medical facility within 72 hours.
47. **Conduct examination within 72 hours** of ALL children in a low-risk situation for full medical evaluation, including laboratory work and neuro-developmental evaluation.
48. The first choice should be to **arrange a follow-up with the child's own pediatrician**, possibly in referral to a neuro-developmental and dental specialist. If the child's pediatrician is not available, a clinic or hospital practice should evaluate the child within 72 hours for follow-up examination and laboratory testing to assess for chronic toxicity.
49. **Laboratory testing**, unless done during the Emergency Department evaluation, should include CBC; Comprehensive Metabolic Panel, including liver function tests and BUN/creatinin; and urinalysis. The Chest Radiograph and Pulmonary Function Tests should be conducted as appropriate for age and if medically indicated. Tests for hepatitis B and C and HIV should be conducted if the risk factors for infection are identified during the evaluation.
50. **Psychological: Forensic interview** conducted by physician/child psychologist/psychiatrist/physician trained in forensic interview techniques, with the use of standardized questions and observations appropriate to the age and intellect of the child in question. These interviews **should consider emotional well-being and suicide risk**.

Appendix A. Health History

To be obtained at the scene—if possible

Child's name: _____ Case #: _____

Date of Birth: _____ Age: _____

Who is your child's usual doctor? _____

Has your child's doctor ever had any concerns about their growth or development?

Yes No

If yes, what are/were they? _____

Is your child allergic to any medications? Yes No

If yes, which ones? _____

Does your child routinely take any medications? Yes No

If yes, what are/were they? _____

Is your child taking any over-the-counter medications? Yes No

If yes, what are/were they? _____

Has your child taken an antibiotic within the past month? Yes No

If yes, what are/were they? _____

Does your child have all of their immunizations up to date? Yes No

Has your child ever been diagnosed with a chronic health problem? Yes No

If yes, what problem do they have? _____

Has your child been admitted to the hospital since birth? Yes No

If yes, why were they hospitalized and how old were they at that time? _____

Has your child ever had any surgeries (even outpatient)? Yes No

If yes, what surgery did they have and at what age? _____

Has your child ever had an accident that resulted in serious injury? Yes No

If yes, what was the nature of the injury and what treatment was needed? _____

adapted from the Oklahoma District Attorney's Task Force on Crimes Against Children Recommended Guidelines for Investigation of Children Found in a Suspected/Working Clandestine Drug Lab Health History form

Drug Endangered Children Medical Care Protocol: Exposure Record

Instructions:

This form is used to document the potential chemical and drug exposure of children found in a methamphetamine laboratory.

Fill out this form at the scene and provide to the juvenile officer, Children's Division, or the caregiver (for children not taken into protective custody), for taking it with the child to the physician conducting the initial medical assessment.

For each chemical or substance found at the scene, check the appropriate box to represent the type of exposure.

This form should become part of the child's medical record and Children's Division DCFS case record.

For immediate medical assistance, please contact the Missouri Regional Poison Center at SSM Cardinal Glenn Medical Center.

In St. Louis: 314-772-5200

Outside of St. Louis: 1-800-222-1222

Appendix B. Medical Care Protocol: Exposure Record

To be completed by law enforcement or other first responders at the scene and sent with the child to the physician conducting the initial medical assessment.

Child's name: _____ Case #: _____

Date of Birth: _____ Age: _____

Exposure Type (check all that apply)

	In Container at Site	Spilled or Open Container at Site	Contact with Child	Identified through Environmental Monitoring
Volatile Organic Compounds	Gasoline <input type="checkbox"/>	Gasoline <input type="checkbox"/>	Gasoline <input type="checkbox"/>	Gasoline <input type="checkbox"/>
	Ether <input type="checkbox"/>	Ether <input type="checkbox"/>	Ether <input type="checkbox"/>	Ether <input type="checkbox"/>
	Methanol <input type="checkbox"/>	Methanol <input type="checkbox"/>	Methanol <input type="checkbox"/>	Methanol <input type="checkbox"/>
	Acetone <input type="checkbox"/>	Acetone <input type="checkbox"/>	Acetone <input type="checkbox"/>	Acetone <input type="checkbox"/>
	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>

Notes & additional details:

Exposure Type (check all that apply)

	In Container at Site	Spilled or Open Container at Site	Contact with Child	Identified through Environmental Monitoring
Pulmonary Irritants	Anhydrous Ammonia <input type="checkbox"/>			
	HCl Gas <input type="checkbox"/>			
	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>

Notes & additional details:

Exposure Type (check all that apply)

	In Container at Site		Spilled or Open Container at Site		Contact with Child		Identified through Environmental Monitoring	
Skin Irritants	Muratic Acid (HCl)	<input type="checkbox"/>	Muratic Acid (HCl)	<input type="checkbox"/>	Muratic Acid (HCl)	<input type="checkbox"/>	Muratic Acid (HCl)	<input type="checkbox"/>
	Sulphuric Acid	<input type="checkbox"/>	Sulphuric Acid	<input type="checkbox"/>	Sulphuric Acid	<input type="checkbox"/>	Sulphuric Acid	<input type="checkbox"/>
	Sodium Hydroxide	<input type="checkbox"/>	Sodium Hydroxide	<input type="checkbox"/>	Sodium Hydroxide	<input type="checkbox"/>	Sodium Hydroxide	<input type="checkbox"/>
	Other:	<input type="checkbox"/>	Other:	<input type="checkbox"/>	Other:	<input type="checkbox"/>	Other:	<input type="checkbox"/>

Notes & additional details:

Exposure Type (check all that apply)

	In Container at Site	Spilled or Open Container at Site	Contact with Child	Identified through Environmental Monitoring
Other Hazards	Methamphetamine <input type="checkbox"/>	Methamphetamine <input type="checkbox"/>	Methamphetamine <input type="checkbox"/>	Methamphetamine <input type="checkbox"/>
	Other Drugs <input type="checkbox"/>			
	Needles <input type="checkbox"/>	Needles <input type="checkbox"/>	Needles <input type="checkbox"/>	Needles <input type="checkbox"/>
	Other Drug Paraphernalia <input type="checkbox"/>			
	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>

Notes & additional details:

Appendix C. Final Protocol for Child Decontamination as authored by the Scientific and Medical Research Working Group (SMRWG) of the National Alliance for Drug Endangered Children April 2006

Introduction:

Chemical residuals present on persons and items associated with clandestine methamphetamine laboratories continue to be a major concern for many jurisdictions. This is especially true regarding the potential chemical residuals present on children associated with these laboratories. The need to provide further clarification was determined based on feedback from a number of presentations and conferences that have been held regarding clandestine methamphetamine laboratories, as well as emails received by members of the Scientific and Medical Research Working Group (SMRWG) of the National Alliance for Drug Endangered Children. To provide general guidelines that may be utilized by jurisdictions with different capabilities and needs, the SMRWG has devised the following protocols designed for the treatment of children removed from or associated with clandestine methamphetamine laboratories. These protocols may not apply to children present where methamphetamine or other drugs were only used and not manufactured, nor do they apply to other kinds of hazardous materials incidents and/or personnel associated with laboratory investigations. Guidelines for the care of children present where methamphetamine was smoked but not manufactured will be presented in a future guideline.

What is Known:

- Based on sampling conducted by National Jewish Medical and Research Center and others at actual clandestine laboratories and controlled methamphetamine cooks, we know that a wide variety of solvents, acids, bases, iodine, phosphorous, phosphine, anhydrous ammonia, methamphetamine and other compounds may be present at a clandestine methamphetamine laboratory. (1-11)
- The compounds that will be present will depend upon the method of manufacture utilized, the temperatures at which the cook is conducted, and the idiosyncrasies of the individual conducting the cook. The compounds and amounts will also depend upon the incidence of accidents, fires and spills, and will likely be higher during active cooks.(1)

- Individuals and items associated with the clandestine manufacture of methamphetamine or the area in which the “cook” was conducted may have residual surface levels of at least some of these compounds present (i.e. on clothes and skin). The magnitude of these residual levels will depend upon their proximity to the cook area, the type of cook, the temperature of the cook, the amount of the cook, ventilation systems utilized, etc. (1,2,3,4)
- Generally speaking, residual chemical levels will be highest on the individual conducting the methamphetamine manufacturing process and lowest on an individual that was not present during the cook and just entered the structure for a short period of time. Demonstrated methamphetamine levels range from no methamphetamine detected to as high as 580 ug/wipe on a cook’s hands. Exterior levels of methamphetamine found on the protective equipment of individuals after a single cook are generally less than 50 ug/wipe (approximately 100 cm²). Expected levels of residual chemicals, other than methamphetamine, are not known at this time.(1,4)
- After a staged clandestine methamphetamine manufacturing process, residual levels of methamphetamine were present on most surfaces near the area in which the cook was conducted, and most individuals entering this area did pick up some methamphetamine on their outer clothes and skin. After a single cook, the residual level found on clothing will depend on many factors but generally is found to be less than 20 ug/wipe. Multiple cooks may result in higher contamination levels. In addition, high activity levels (cleaning, crawling on the floor, etc) or direct contact with the chemicals may also result in higher residual levels on clothing, skin, etc.(1,4)
- At this time, there is no known existing methodology by which to reliably determine the residual levels of these chemicals on a real-time basis. Photo ionization devices, organic vapor meters, explosion meters, ion mobility spectrometers, and immunochemistry devices all appear to have limitations that make them unreliable for determining relevant residual chemical levels on individuals or surfaces.
- It is expected, based on research conducted on pesticides, that transfer rates of chemicals from the surface of an individual or item associated with a methamphetamine laboratory to the surface of a person not associated with a laboratory may be as low as 10%. It has been demonstrated in the field that simply handling individuals associated with a methamphetamine laboratory may result in the transfer of very low but detectable amounts of methamphetamine. We predict, however, that even if some methamphetamine is transferred, only a small proportion will be absorbed into the body of another person coming into contact with the child.

- The effectiveness of wipes to decontaminate large surfaces or semi-porous items has not been documented. In addition, wipes are totally ineffective in removing chemical residuals from porous surfaces. Research suggests that wipes are more likely to spread chemical residuals than to remove these residuals from skin. Warm soap and water has been found to be much more effective in removing methamphetamine contamination and is the preferred method of chemical removal.

What is Not Known:

- The expected amounts of residual chemicals, other than methamphetamine, that are transferred to individuals entering a methamphetamine laboratory are unknown. Many of the chemicals associated with the manufacture of methamphetamine are not easy to detect on surfaces and sampling has not been conducted at this time.
- Although the use of soap and water has been shown to significantly reduce chemical residuals on the smooth protective clothing of emergency personnel, no studies have documented the efficacy of washing individuals or clothes with soap and water for chemical residual removal. (4) It is assumed, however, that washing with warm water and soap does effectively remove at least methamphetamine residuals from clothes, surfaces, or items as long as they can be totally immersed in the water.
- The no-effect or no observable effect exposure level for methamphetamine is not known at this time. This is especially true for infants and children.
- It is not known at this time if methamphetamine can be absorbed through the skin. If it is absorbed, it is assumed to be a minor route of entry and unlikely to pose a greater threat than oral ingestion, injection, or inhalation. Small amounts of skin contact are unlikely to result in acute reactions to most adult workers coming into contact with children from clandestine methamphetamine laboratories.

Recommendations:

1. We believe, as stated in the National Protocol for Medical Evaluation of Children Found in Drug Labs, that **any child who is in medical distress or has been involved in an explosion or other event that has resulted in significant chemical exposure, burns, etc.** should be transported to the emergency department as quickly as possible. We believe that basic life support must take precedence over decontamination. Although decontamination should be conducted as soon as is possible, it must not delay the transportation of a critically injured child.
2. **In those cases where significant chemical exposure has occurred and there is evidence of an exposure such as a chemical smell on the person, wet clothes, clothes covered with visible chemical, etc.,** the children involved should have the chemical residuals removed at the scene by removing their clothes and providing a warm shower with soap in a non-threatening situation. In this case, showering at the scene is preferred if it can be done without trauma to the child. If shower capability is not available at the scene, then the child should be dressed in other clothing and transported to an area where chemical residual removal can be accomplished without trauma to the child. Any clothing worn by the child should be removed at the scene for disposition by law enforcement personnel.
3. **In situations where an asymptomatic child has been removed from a clandestine methamphetamine laboratory and there is no sign of obvious chemical contamination on the child (odor, visible chemical, etc.),** significant danger to individuals coming in contact with the child is not likely. However, the committee believes that it is in the public health interest to minimize chemical exposures, no matter how minimal, to chemicals for which there is incomplete toxicity information. The committee also believes that the presence of a significant chemical residual is possible since current real-time detection methodology is not available. Therefore, the committee suggests that communities develop a protocol, based on the capabilities of the community, to provide these children with adequate chemical residual removal. We suggest that this protocol involve the following:

- a. Although full and immediate decontamination is not necessary, the clothes that the child is wearing should be removed as soon as is reasonably safe and a shower provided when conditions enable a safe and relatively trauma-free shower. It is unlikely that significant amounts of methamphetamine or other chemicals will be transferred from clothing but we believe that a cloth draped over vehicle seats will provide further protection if desired.
- b. Showering the child with warm water in an expedient manner in an area where privacy is provided also protects the child from unreasonable trauma. This may be conducted at the scene, if adequate facilities are present, at a hospital, at a fire station, or any other location that is identified by local protocol.
- c. After the child has showered or if the clothes are removed at the scene, a responsible agency (denoted by the protocol) should retain all of the clothes for washing, disposal or retention for evidence. Although further testing may show that washing the clothes in hot water may be adequate, at this time we suggest that the clothes be discarded by the responsible agency.
- d. Before, during, and after decontamination, care should be taken to make sure that children are kept warm during transfers to prevent hypothermia.

4. In the instance where a clandestine methamphetamine laboratory has been identified and the children that are normally associated with that laboratory are in a school, day care center, foster home, etc. at the time of the investigation, the children should be visited by the appropriate agency personnel (law enforcement, child protective services, school nurse, etc.) and the following appropriate determination made:

- a. **Children that appear to be ill or chemically contaminated should be immediately transported to a medical facility for full decontamination and/or treatment.** We believe that basic life support must take precedence over decontamination. Although decontamination should be conducted as soon as is possible, it must not delay the transportation of a critically

injured child. This scenario is unlikely in a school or day care situation since a chemically contaminated child will usually be identified by school staff members prior to agency personnel arrival.

- b. **In situations where an asymptomatic child has been located at a school, day care center, etc. and there is no sign of obvious chemical contamination on the child (odor, visible chemical, etc),** the child is not likely to present a significant danger to other children or facility personnel coming into contact with the child. However, the committee believes that it is in the public health interest to minimize chemical exposures, no matter how minimal, to chemicals for which there is incomplete toxicity information. We therefore suggest the following:
- i. Although full and immediate decontamination is not necessary, the clothes that the child is wearing should be removed as soon as is reasonably safe and a shower provided when conditions enable a safe and relatively trauma-free shower. It is unlikely that significant amounts of methamphetamine or other chemicals will be transferred from clothing but we believe that a cloth draped over vehicle seats during transport will provide further protection if desired.
 - ii. Showering of the child with warm water in an expedient manner that also protects the child against unreasonable trauma in an area where privacy is provided. This may be conducted at the school or day care center, if adequate facilities are present, at a hospital, at a fire station, or any other location that is identified by local protocol.
 - iii. After the child has showered or if the clothes are removed at the school or day care center, a responsible agency (denoted by the protocol) should retain all of the clothes for washing, disposal or retention for evidence. Although further testing may show that washing the clothes in hot water may be adequate, at this time we suggest that the clothes be discarded by the responsible agency.
 - iv. Unless there is evidence that the involved children have significant chemical contamination (chemical odors, illness, etc.) we do not believe that other children present at the school or day care center need be involved with the cleaning process or subjected to any other cleaning activities. The

extraordinary cleaning of school property associated with methamphetamine-associated children is also unnecessary under these conditions.

5. It is recommended that baby wipes not be used as a substitute for a warm shower since there is little added efficacy that has been demonstrated. In fact, wipes have been found to spread contamination rather than remove it.
6. Children should be provided a medical and developmental assessment prior to or after showering. This assessment should be in accordance with the protocols presented in the National Protocol for Medical Evaluation of Children Found in Drug Labs, available at no charge from the National Alliance for Drug Endangered Children (www.nationaldec.org).

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Appendix D: LAW ENFORCEMENT DRUG EXPOSED CHILDREN INFORMATION

Address of methamphetamine drug lab: _____

Number of children present at lab: _____

Names, if not present:

_____ Contact # or person _____

Total number of children: _____

Child present at lab? Yes No

Name: _____ Date of birth: _____ / _____ / _____

Social Security number: _____ Hair: _____ Eyes: _____

Height: _____ Weight: _____ Demeanor: _____

Photos taken? Yes No

Hygiene: _____

Did child have access to drug lab or associated chemicals? Yes No

Is the child taking any medications (over the counter)? Yes No

Does the child have any allergies? Yes No

Medical evaluation completed? Yes No

Date of evaluation: ____/____/____

Time of evaluation: _____

Location of evaluation: _____

Evaluation completed by: _____

Transported by: _____

Parent or guardian at lab? Yes No

Name: _____ Date of birth: ____/____/____

Address: _____ Phone number: _____

Place of employment: _____

Address where child was located: _____

Address where child lives: _____

Notes: _____

Person submitting: _____ Agency: _____

Time arrived: _____ Time prepared: _____

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Steering Committee Agencies

- Governor of the State of Missouri
- Office of the Attorney General
- Missouri Office of State Courts Administrator
- Missouri Department of Natural Resources
- Missouri Division of Fire Safety
- Division of Alcohol and Drug Abuse,
Missouri Department of Mental Health
- Missouri Court Appointed Special Advocate
(CASA) Association
- Missouri Department of Health
and Senior Services
- Cape Girardeau County Sheriff's Office
- Missouri KidsFirst
- Missouri State Highway Patrol
- Missouri School Boards' Association
- 19th Judicial Circuit
- 24th Judicial Circuit
- 37th Judicial Circuit
- United States Attorneys Office,
Western District of Missouri
- United States Attorneys Office,
Eastern District of Missouri

Workgroup Member Agencies

- 19th Judicial Circuit
- 23rd Judicial Circuit
- 24th Judicial Circuit
- 35th Judicial Circuit
- 37th Judicial Circuit
- Boone County Fire Protection District
- Children's Center of Southwest Missouri
- Community Partnership of the Ozarks
- Franklin County Sheriff's Department
- Howell County Sheriff's Department
- Mid-America Regional Council
- Missouri Attorney General's Office
- Missouri Court Appointed Special Advocate
(CASA) Association
- Missouri Department of Health
and Senior Services
- Missouri Department of Mental Health
- Missouri Department of Natural Resources
- Missouri Department of Social Services
- Missouri KidsFirst
- Missouri Office of Prosecution Services
- Missouri School Boards' Association
- Missouri State Highway Patrol
- Small Smiles
- South Central Drug Force
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