GUIDELINES FOR IDENTIFYING SUBSTANCE-EXPOSED NEWBORNS

A Publication Of:
The Governor's Action Plan on Child Protective Services Reform
Substance-Exposed Newborn Committee

TABLE OF CONTENTS

LETTER FROM THE CHAIR	1
COMMITTEE LIST	3
INTRODUCTION	4
GUIDELINES	5
REFERRAL LIST	10
WEBSITES	12
REFERENCE ARTICLES	13

LETTER FROM THE CHAIR

January 2005

TO: Chairman, Obstetrics Department
Chairman, Pediatric Department
Chairman, Neonatology Departments

RE: Statewide Initiative to Identify Substance-Exposed Newborns

There is growing concern for the care and safety of substance-exposed newborns in Arizona and nationwide. The care and safety of this vulnerable population has a profound effect on the medical community and the child welfare system.

Under the direction of Governor Janet Napolitano, Arizona physicians with expertise in prenatal substance abuse, Child Protective Services (CPS), Arizona Department of Health Services (ADHS), Indian Health Services (IHS), and hospital social services have come together to develop a consistent approach to identifying substance-exposed newborns.

Based on extensive medical literature review, review of other state guidelines, and input from Arizona hospital newborn programs, this committee drafted *Guidelines for Identifying Substance-Exposed Newborns.*

As a health care provider, you have an important role in identifying substance-exposed newborns. These Guidelines have been developed to assist health care professionals:

- To improve your ability to effectively identify substance-exposed newborns;
- To standardize guidelines for maternal and neonatal screening in Arizona; and
- To improve the health and well-being for women and their at-risk newborns.

These *Guidelines* support the state law requirement that a health care professional, **who reasonably believes that a newborn infant may be affected by the presence of alcohol or a drug, to immediately report this information,** or cause a report to be made, to Child Protective Services. For reporting purposes, "newborn infant" means a newborn infant who is under thirty days of age (A.R.S. § 13-3620).

These *Guidelines* have been reviewed and commented upon by the following organizations: American Academy of Pediatrics-Arizona Chapter (AzAAP), Arizona Medical Association (ArMA) – Maternal Child Health Committee, Arizona Perinatal Trust, and the American College of Obstetricians and Gynecologists – Arizona Chapter.

Including these *Guidelines* in your policies and procedures for nursing staff, social services, and medical staff will provide a consistent approach and avoid potential bias in the identification of these newborns.

The attached documents will be maintained and updated on the Arizona Department of Health Services website: www.azdhs.gov

Any questions related to these *Guidelines* may be directed to Susan M. Stephens-Groff, MD, Medical Director, Comprehensive Medical & Dental Program, via email address: susanstephens@azdes.gov

Sincerely,

Linda Johnson, MSW, LCSW
Manager, Policy and Program Development
Division of Children, Youth, and Families
Substance-Exposed Newborns Committee Chair

COMMITTEE LIST

Michelle Bez, DO
Phoenix Children's Hospital, Neonatologist

Joanne Butler, MSW, LMSW
Navajo Nation Division of Social Services

Carla Conradt, MSW
ADES Division of Children Youth and Families / Child Protective Services Hotline, Program Manager

Nelda Dugi-Huskie, MSW, LMSW
Navajo Nation Division of Social Services

Juan Espitia, MSW, LCSW
Yuma Regional Hospital, Care Coordination/ Social Worker

Mary Ferrero, RN
ADES Division of Children, Youth and Families / Children's Medical and Dental Program, Medical Services Manager

Carlos Flores, MD
Arizona Perinatal Trust, Neonatologist

Patty Graham, MD
Maricopa Medical Center, OB/GYN Specialist in Perinatal Substance Abuse

Nancy Hansen,
ADES Division of Children Youth and Families, Arizona Families F.I.R.S.T., Program Specialist

Linda Johnson, MSW, LCSW
ADES Division of Children, Youth, and Families, Manager, Policy and Program Development

Patti Mooers, MSW, ACSW, LCSW
Arizona Perinatal Social Workers Association; Maricopa Medical Center, NICU Social Worker

Carol Renslow,
ADES Division of Children, Youth and Families / Children's Medical and Dental Program, Provider Services Manager

Marilyn Riebel, MSW, LCSW
Sierra Vista Regional Health Center, Social Worker

Kelli Sieczkowski, MSW, LCSW
Flagstaff Medical Center, Social Work Manager

Peggy Stemmler, MD
American Academy of Pediatrics, Arizona Chapter President

Susan Stephens-Groff, MD
ADES Division of Children Youth and Families / Children's Medical and Dental Program, Medical Director

Kathy Stribrny, RN
Arizona Health Care Cost Containment System, EPSDT Coordinator

Christine Tien, MPH
Arizona Department of Health Services / Office of Women and Children's Health, High Risk Perinatal Program Unit Manager

Alan Tupponce, MD
Phoenix Indian Medical Center

Glen Waterkotte, MD
Banner Desert Samaritan Hospital, Neonatologist

Mary Wodecki, MSW
ADES Division of Children, Youth and Families, Child Protective Services Specialist III, Investigator – District 2

INTRODUCTION

Prenatal substance abuse of drugs or alcohol is a complex public health problem often resulting in multiple consequences for a woman and her newborn. Drug use during pregnancy may result in adverse effects on the health and well-being of the newborn in addition to the woman's health. Early intervention services for the newborn and mother are critical in minimizing the acute and long-term effects of prenatal substance exposure. Thus, even if the newborn exhibits no clinically significant difficulties in the neonatal period, identification of the substance-exposed newborn may improve the infant's long-term outcome.

In addition to the direct toxic effects of the drugs to the newborn, continued substance abuse by the mother increases the risk for child abuse and neglect. Indeed, reports of child abuse and neglect have increased dramatically over the past decade and are correlated with an increase in drug use among primary caregivers.

Prenatal substance abuse is a condition that crosses all social, racial and ethnic groups. The National Pregnancy and Health Survey estimated in 1995 that 5 percent of four million women who gave birth in 1992 used illicit drugs during their pregnancies. According to the Arizona Department of Health Services, in 2002, there were 87,379 births in Arizona. When national statistics regarding the prevalence of prenatal substance abuse are applied, more than 4,500 Arizona newborns are affected by prenatal drug exposure annually.

A recent Centers for Disease Control and Prevention (CDC) survey found that 500,000 pregnant women reported alcohol use, with approximately 80,000 reporting binge drinking. Every year in the United States, approximately 40,000 newborns will experience some degree of learning or behavioral dysfunction or physical effect as a result of in-utero exposure to alcohol. Approximately 5,000 newborns will be identified with Fetal Alcohol Syndrome.

In addition to individual negative outcomes, societal impact related to prenatal substance abuse profoundly affects many facets of our communities. Successful identification and intervention may result in substantial cost savings in health care, foster care, special education and incarceration.

As a health care provider, you have an important role in identifying substance-exposed newborns. These guidelines have been developed to assist health care professionals:

- To improve your ability to effectively identify substance-exposed newborns;
- To standardize guidelines for maternal and neonatal screening in Arizona; and
- To improve the health and well-being for women and their at-risk newborns.

Arizona Revised Statutes § 13-3620 requires a health care professional, who reasonably believes that a newborn infant may be affected by the presence of alcohol or a drug, to immediately report this information, or cause a report to be made, to Child Protective Services. For reporting purposes, "newborn infant" means a newborn infant who is under thirty days of age.

GUIDELINES

Maternal Screening Criteria

Prenatal screening begins initially with the maternal interview. The following screening criteria may identify substance use/abuse, which can impact the health of the mother and the newborn.

- History of previous or current substance use by mother and/or significant others living in the home, or history of a previous delivery of a substance-exposed newborn.
- Non-compliance with prenatal care (late entry to care, multiple missed appointments, or no prenatal care).
- Evidence of unexplained poor weight gain during the pregnancy.
- Medical non-compliance.
- Medical symptoms of withdrawal in the mother.
- Signs of substance use/abuse.
- Maternal medical history of Hepatitis B or C, HIV infection, or 2 or more sexually transmitted diseases.
- Previous or current history of placental abruption or unexplained vaginal bleeding.
- Cardiovascular accident of the mother.
- Pre-term labor may be seen in association with substance use or abuse as reported in the literature. It may be considered prudent to screen, if any of the above factors exist in association with pre-term labor.

If positive for one or more of the above screening criteria, recommend:

- ***Testing of the mother*; and***
- ***A referral for further assessment, including possible treatment services.***

***Toxicology Consideration**

Maternal urine toxicology will generally identify only common drugs of abuse (eg. cocaine, marijuana, opiates, barbiturates, benzodiazopines, amphetamines, and PCP) that have been used within the last 24 to 48 hours and will be negative if drugs were used earlier in the pregnancy. Alcohol use is best identified by blood or saliva testing and some drugs such as volatile inhalants can only be identified by special testing. You may wish to consult with a toxicologist to determine the best way to screen for drugs that are not included in routine urine drug screening.

Neonatal Screening Criteria

Identification of substance-exposed newborns is determined primarily by clinical indicators in the prenatal period including maternal and newborn presentation, history of substance use/ abuse, medical history, and/or toxicology results. Newborn toxicology screening should be performed if the results will influence management of medical care for the mother and newborn, including treatment options, and/or to confirm the maternal pattern of drug use.

Newborn toxicology screening:

- Confirms presence of substance of use and abuse.
- Determines use of multiple substances, which were not identified during the maternal interview.
- Identifies the newborn that is at risk for withdrawal.
- Identifies substances or drugs that may be contraindicated in breastfeeding.
- Identifies newborns that may need protective services, and/or developmental follow-up.
- Identifies the mother who may need treatment services.

The recommended screening criteria for the newborn includes:

- Signs of neonatal abstinence syndrome which may include marked irritability, high-pitched cry, feeding disorders, excessive sucking, vomiting, diarrhea, rhinorrhea, or diaphoresis.
- Unexplained apnea in the newborn.
- Microcephaly (when accompanied by additional symptoms).
- Birth weight <5th percentile for gestational age (unexplained intrauterine growth restriction, or newborns who are small for gestational age).
- Cerebral vascular accident in the newborn (not otherwise considered at-risk).
- Other vascular accident in the newborn.
- Necrotizing enterocolitis (NEC) in the full-term newborn (or newborn not otherwise considered at-risk for NEC).
- Positive maternal drug screen.

If positive for one or more of the above screening criteria, recommend:

- ***Testing of the newborn* and a social service referral to identify potential accompanying diagnoses; and***
- ***Consider testing of the mother.***

***Toxicology Consideration**

Newborn urine toxicology: The first urine contains the highest concentration of drug or metabolites. If this urine sample is missed, a confirmatory test is less likely, even in the presence of intrauterine drug exposure. A negative urine toxicology result is common even in the presence of substance use or abuse.

Limitations of newborn urine testing include:

- The first urine sample may be easy to miss.
- Bag urine collections for newborns are difficult to collect.
- Positive drug threshold values have not been scientifically determined.
- The threshold values for the newborn have been arbitrary set at the adult reference range.
- False negative urine toxicology may be the result of using a higher adult reference range in the newborn population.

Meconium Testing: Meconium testing is the most reliable and comprehensive toxicology screen in the newborn. Meconium formation starts between 16 to 20 weeks gestation, and continues until birth. Newborn meconium testing will identify most substance used by the mother after 20 weeks, such as: cocaine, marijuana, opiates, barbiturates, benzodiazopines, amphetamines, and PCP. Best results are obtained by collecting multiple meconium specimens. In addition, meconium is easier to collect.

Fatty acid ethyl esters (FAEEs) have been identified as an important biomarker of alcohol consumption. They are formed by esterification of ethanol with free fatty acids. High levels of FAEEs in meconium are a “direct biomarker reflective of true fetal exposure to ethanol in-utero”. Supplemental meconium testing can identify FAEEs, by gas chromatography/mass spectrometry (GC/MS) analysis and provides a 99% level of sensitivity in identifying FAEEs. If the level is in the 3rd or 4th quartile, this is indicative of heavy alcohol exposure, which would identify the infant at higher risk for effects from alcohol exposure.

Further recommendations if above screening criteria are positive:

- Consider maternal and newborn testing for identification of related infections (Syphilis, Hepatitis B or C, HIV).
- If maternal or newborn toxicology is positive for opiates, watch for onset of abstinence syndrome in the newborn.
- Counsel mother that breastfeeding is contraindicated in the presence of a positive history of cocaine, heroin, methamphetamine, PCP, or marijuana use.
- If the medical provider reasonably believes that a newborn infant may be affected by the presence of alcohol or a drug, (per A.R.S. § 13-3620) immediately report this information, or cause a report to be made, to Child Protective Services (CPS) at 1-888-767-2445 (1-888-SOS-CHILD).
- Consider consultation with CPS prior to the newborn's discharge.
- Consider Home Health nursing visit(s).
- The Primary Care Provider should notify CPS if there is poor follow-up with recommended medical care, or if the newborn's medical needs are being neglected.

Ethical Considerations

The subject of testing for drugs of abuse, particularly testing for those that are illegal, presents ethical dilemmas for health professionals. On the one hand, the screening for the detection of substances of abuse holds the promise of benefit to the mother with addiction problems that may be remedied by treatment. On the other, the detection of illegal substances may lead to the discovery of information that may require reporting to authorities. Reporting of detected illegal substances in the mother may lead to criminal prosecution and incarceration as a form of punishment. Similarly, detection in the infant may lead to mandated reporting to child protection service agencies and lead to custodial litigation, prosecution, or other disruptions to the mother and infant relationship.

Punitive approaches and incarceration have not been demonstrated to be beneficial in improving health for mothers and infants. Foster placement of children and mandated entry to complex child welfare systems with limited resources and capabilities may also lead to sub-optimal outcomes for both mother and infant. This may be especially true in our own State of Arizona, where many of our child protective organizations and agencies are undergoing dynamic change and development to improve the delivery of services for children. Hence, as is the case with all decisions in medicine, practitioners are often faced with dichotomous choices, each carrying broad implications that must be carefully weighed before potentially causing harm to mothers and infants under their care.

Health professionals, when entering into a relationship with a patient, are bound by duty to act in their best interest. Hence, the decision to obtain information through the use of body fluids or tissues should be carefully weighed with an anticipated expectation of benefit for infant and mother. As with any other medical intervention, drug, or treatment, the provider should weigh the anticipated benefits carefully against the potential risks. For a health professional to do otherwise is unethical.

Another dilemma involves the patient's right to privacy. Recent Supreme Court actions suggest that collection of health information without the express consent of the patient, such as that obtained during urine drug screening for other than directly medical indications, represents unreasonable search and seizure. Thus, health professions organizations, including the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the Department of Health and Human Services generally recommend that drug screening for substances of abuse be obtained on mother and infant only with the consent of the mother, unless the medical situation demands otherwise.

These considerations demand care and thoughtfulness in the decision by health professionals or institutions to implement procedures that involve the use of drug screening.

In an effort to maintain the interests of the pregnant woman and the newborn foremost in the delivery of their care, the following guiding principles are suggested:

- Health professionals should be knowledgeable about state and local laws regarding mandatory reporting of illegal drug detection in pregnant women and infants.
- Health professionals should be knowledgeable regarding the resources and facilities available for treatment and management of substance abuse in their communities.
- Health providers should remain cognizant of the duty they assume when engaged in the delivery of care to their patients. This duty requires their actions to be performed in the best interest of the patient.
- Medical decision-making requires an assessment of risk and benefit to mother and newborn. The potential risk and adverse consequences of screening and identification of substance–exposed newborns should be weighed against the potential benefits in a manner no different than as applied to other medical interventions.
- Health providers should be aware of the legal implications of their actions in the context of recent court decisions that uphold the rights of mothers against unlawful search and seizure.
- In keeping with recommendations by health professions organizations, health providers should obtain informed consent from patients (or the mother of an infant) before chemical drug screening procedures except where this is not possible for medical reasons.

Disclaimer

These guidelines are not an exclusive course of management. Variations that incorporate individual circumstances or institutional preferences may be appropriate.

REFERRAL LIST

Regional Behavioral Health Authorities

Maricopa County
ValueOptions
Four Gateway Plaza
444 N. 44th Street, Suite 400
Phoenix, Arizona 85008
Customer Service Number: **1-800-564-5465**

Pima, Graham, Greenlee, Santa Cruz & Cochise counties
Community Partnership of Southern Arizona (CPSA)
4575 East Broadway Blvd.
Tucson, Arizona 85711
Customer Service Number: **1-800-771-9889**

Mohave, Coconino, Apache, Navajo & Yavapai counties
Northern Arizona Regional Behavioral Health Authority (NARBHA)
1300 S Yale Street
Flagstaff, Arizona 86001
Customer Service Number: **1-800-640-2123**

Pinal & Gila counties
Cenpatico Behavioral Health of AZ
1501 W. Fountainhead Corporate Park #295
Tempe, AZ 85282
Customer Service Number: **1-866-495-6738**

Yuma & La Paz counties
Cenpatico Behavioral Health of AZ
1501 W. Fountainhead Corporate Park #295
Tempe, AZ 85282
Customer Service Number: **1- 866-495-6738**

Community Information and Referral

Yuma, La Paz, Cochise, Maricopa, Mohave, Coconino, Apache, Navajo, Yavapai, Pinal and Gila counties
1-800-352-3792 or (602) 263-8856

Information and Referral

Pima, Graham, Greenlee, Cochise & Santa Cruz counties
1-800-362-3474 or (520)-881-1794

Specialty Programs for Mothers and Infants

Maricopa County
ValueOptions
Native American Connections
609 N 2nd Avenue, #120
Phoenix AZ
(602) 424-2060

Elba House (owned and operated by Ebony House)
6222 S. 13th Street
Phoenix AZ
(602) 276-4288

New Arizona Family, Inc.
3301 E. Pinchot
Phoenix AZ
(602) 553-7300

Casa de Amigas (no children)
1648 W Colter #8
Phoenix AZ
(602) 265-9987

Center for Hope (owned and operated by Community Bridges)
554 S. Bellview
Mesa, AZ 85204
(480) 831-7566

Pima, Graham, Greenlee, Santa Cruz & Cochise counties
Community Partnership of Southern Arizona (CPSA)

CODAC Behavioral Health Services
333 W Ft. Lowell #219
Tucson, AZ 85705
(520) 327-4505
Fax: (520) 792-0033

Las Amigas
502 Silverbell Road
Tucson, AZ 85745
(520) 882-5898

The Haven
1107 E. Adelaide
Tucson, AZ 85719
(520) 623-4590)

Amity Foundation
Robin Rettmer
Director of Family Services
(520) 749-5980
Fax: (520) 749-5569

WEBSITES

American Academy of Pediatrics
www.aap.org

American College of Nurse Midwives (ACNM)
www.acnm.org

American College of Obstetrics and Gynecologists (ACOG)
www.acog.org

American Society of Addiction Medicine
www.asam.org

Arizona Department of Economic Security
www.azdes.gov

Arizona Department of Health Services
www.azdhs.gov

Association of Women's Health Obstetric and Neonatal Nurses (AWHONN)
www.awhonn.org

National Clearinghouse for Alcohol and Drug Information
www.health.org

National Institute for Drug Abuse
www.nida.nih.gov

National Organization on Fetal Alcohol Syndrome (NOFAS)
www.nofas.org

Pacific Southwest Technology Transfer Center
www.psattc.org

Physician Leadership on National Drug Policy
www.plndp.org

Substance Abuse Mental Health Services Administration (SAMHSA)
www.samhsa.gov

REFERENCE ARTICLES

Chasnoff IJ, et.al.: Prenatal substance exposure: Maternal screening and neonatal identification and management. *NeoReviews* 2003; 4(9) 228-234.

Graham K, Koren G, Klein J, Scheiderman J, Greenwald M. et.al.: Determination of gestational cocaine exposure by hair analysis. *JAMA* 1989;262:3328-3330.

Gillogley KM, Evans AT, Hansen RL, Samuels SJ, Batra KK, et.al.: The perinatal impact of cocaine, amphetamine, and opiate use detected by universal intrapartum screening. *Am J Obstet Gynecol* 1990;163:1535-1542.

Callahan CM, Grant TM, Phipps P, Clark G, Novack AH, Streissguth AP, Raisys VA, et.al.: Measurement of gestational cocaine exposure: Sensitivity of infants' hair, meconium, and urine. *J Pediatr* 1992;120:763-768.

Hansen RL, Evans AT, Gillogley KM, Hughes CS, Krener PG, et.al.: Perinatal Toxicology Screening. *Journal of Perinatology* 1992; XII:220-224.

Ostrea EM, Welch RA, et.al.: Detection of prenatal drug exposure in the pregnant woman and her newborn infant. *Clinics in Perinatology* September 1991;18:629-645.

Osterloh JD, Lee L, et.al.: Urine drug screening in mothers and newborns. *AJDC* July 1989;143:791-793.

Maynard EC, Amoruso LP, Oh W, et.al.: Meconium for drug testing. *AJDC* June 1991;145:650-652.

Woolf AD, Shannon MW, et.al.: Clinical toxicology for the pediatrician. *Pediatric Clinics of North America* April 1995;42:317-333.

Chasnoff IJ, Landress HJ, Barrett ME, et.al.: The prevalence of illicit-drug or alcohol use during pregnancy and discrepancies in mandatory reporting in Pinellas County, Florida.

Howard CR, Lawerence RA: Breast-feeding and drug exposure.
Obstetric and Gynecology Clinics of North America 1998; 25(1), 195-217.

Kandall, SR: Treatment strategies for drug-exposed neonates. *Clinics in Perinatology* 1999; 231-243.

American Academy of Pediatrics, Committee on Drugs. The transfer of drugs and other chemicals in human milk. *Pediatrics* 2001; 108(3):776-789.

American Academy of Pediatrics, Committee on Drugs. Neonatal drug withdrawal. *Pediatrics* June 1998; 101(6):1079-1088.

American Academy of Pediatrics, Committee on Fetus and Newborn. Hospital stay for healthy term newborns. *Pediatrics* Oct 1995; 96(4):788-790.

American Academy of Pediatrics, Committee on Fetus and Newborn. Hospital discharge for the high-risk neonate--proposed guidelines. *Pediatrics* Aug 1998; 102(2):411-417.

Perinatal substance use: A guide for hospitals and health care providers. *Virginia Department of Health Services, Division of Women and Infant's Health* 2003.

Hale's Medications and Mother's Milk 2004; 119, 198-199, 405.

Madden JD, Payne TF, Miller S: Maternal and fetal effect on the newborn. *Pediatrics* 1986; 77:209-211.

Oro AS, Dixon SD: Perinatal cocaine and methamphetamine exposure: Maternal and neonatal correlates. *J Pediatr* 1987; 111:571-578.

Bauer CR, Shankaran S, Bada HS, et al: Maternal Lifestyles Study (MLS): Effects of substance abuse exposure during pregnancy on acute maternal outcomes. *Pediatr Res* 1996; 39:257A.

Kwong TC, Ryan RM: Detection of intrauterine illicit drug exposure by newborn drug testing. *Clinical Chemistry* 1997; 43:235-242.

Drugs and pregnancy. *American Council for Drug Education's Facts for Parents* 1999.

Drinking and your pregnancy. *National Institute on Alcohol Abuse and Alcoholism* 1996; 96:4101.

American Academy of Pediatrics, Committee on Substance Abuse. Drug-exposed infants. *Pediatrics* 1993; 96:364.

American College of Obstetricians and Gynecologists. Substance abuse in pregnancy. *Technical Bulletin* #195: July 1995.

Mitchell JL: Pregnant, substance-using women, treatment improvement protocol. *U.S. Department of Health and Human Services* 1993; DHHS Publication No. (SMA) 95-3056.

Millard D: Toxicology testing in neonates: Is it ethical, and what does it mean? *Clinics in Perinatology* 1996; 23:491.

Arizona Department of Economic Security
Administration for Children, Youth and Families
1789 West Jefferson, Third Floor SE
Phoenix, Arizona 85007
(602) 542-3598
www.azdes.gov

Every child, adult and family in Arizona will be safe and economically secure.