

# 2014 UAB Perinatal Conference

## Effects of Narcotics and Other Drugs of Abuse on the Fetus and Newborn

August 1, 2014

Birmingham, AL

Neonatal withdrawal syndrome, generically termed neonatal abstinence syndrome (NAS), is a complex disorder. It is defined as a constellation of behavioral and physiological signs and symptoms that are remarkably similar despite marked differences in the properties of the causative agent. Two major types of neonatal abstinence syndrome are recognized: neonatal abstinence syndrome due to prenatal or maternal use of substances that result in withdrawal symptoms in the newborn and postnatal neonatal abstinence syndrome secondary to discontinuation of medications such as fentanyl or morphine used for pain therapy in the newborn.

Postnatal neonatal abstinence syndrome results when an abrupt discontinuation of opioid analgesia occurs, usually after prolonged drug exposure. Fentanyl is the most commonly used analgesic drug in the neonatal intensive care unit (NICU). It is a potent, rapid-acting, synthetic opioid with a relative lack of hemodynamic side effects. Clinical studies have found that continuous infusions of fentanyl and morphine produce a high rate of opioid withdrawal when administered to critically ill infants. Tolerance and physical dependence are thought to develop more rapidly with shorter acting drugs and after continuous infusions rather than with intermittent administration. Tolerance and withdrawal symptoms may occur after 5 or more days of continuous infusion of fentanyl. This occurs more often with fentanyl than morphine.

Maternal substance abuse, the cause of prenatal neonatal abstinence syndrome, is a leading preventable cause of mental, physical, and psychological problems in infants and children. Substance use by pregnant women has both medical and developmental consequences for the newborn, in addition to the legal, health, and economic consequences for the mother.

Drug abuse in pregnancy and neonatal psychomotor behavior consistent with withdrawal from opiate and poly drug withdrawal is currently a significant clinical and social problem. Approximately 3% of the 4.1 million women of child-bearing age who abuse drugs are believed to continue drug use during pregnancy. From 2000-2009, the annual rate of NAS diagnosis among newborns in the United States increased almost three-fold.

## AGENDA

### **The symptoms of neonatal abstinence syndrome depend on:**

- The type of drug the mother used
- How the mother's body breaks down the drug
- How much of the drug she was taking
- How long she used the drug

### **Whether the baby was born full-term or early (premature), symptoms depend on the drug involved. They can begin within 1 - 3 days after birth, or they may take 5 - 10 days to appear. They may include:**

- Blochy skin coloring (mottling)
- Diarrhea
- Excessive crying or high-pitched crying
- Excessive sucking
- Fever
- Hyperactive reflexes
- Increased muscle tone
- Irritability
- Poor feeding
- Rapid breathing
- Seizures
- Sleep problems
- Slow weight gain
- Stuffy nose, sneezing
- Sweating
- Trembling (tremors)
- Vomiting

07:30a – 08:00a	Registration and Continental Breakfast
08:00a – 08:05a	Welcome Joseph Philips, MD; Monica Collins, RN, MaEd
08:05a – 09:05a	Origin and History of Drugs of Abuse Joseph Philips, MD
09:05a – 10:05a	Methadone/Buprenorphine Maintenance Programs Peter S. Lane, DO
10:05a – 10:15a	Break
10:15a – 11:00a	Aletheia House Mother's Hope: Treatment for Pregnant and Postpartum Mothers Sissy Hembree
11:00a – 12:00p	Fetal Alcohol Spectrum Disorder Yasmin Senturias, MD
12:00p – 01:00p	Lunch (provided)
01:00p – 02:00p	Effects of Cocaine on the Fetus, Infant, Child, and Adult Joseph Schumacher, PhD
02:00p – 03:00p	Effects of Other Drugs of Abuse on the Fetus, Newborn, Child, and Adult Joseph Philips, MD
03:00p – 03:15p	Break
03:15p – 04:15p	Management of Narcotic Abstinence Syndrome Elaine St. John, MD
04:15p – 05:30p	Jefferson County Family Drug Treatment Court Honorable Alan Summers
5:30p	Evaluation and Adjournment

*The meeting room is usually cold when first entering. It is difficult to maintain a constant temperature that meets the need of each individual participant. For your comfort, we suggest that a jacket, sweater, or sweatshirt be worn.*

## OBJECTIVES

**Upon completion of this live activity, participants will be able to:**

- Identify the origin and types of drugs of abuse
- Recognize Fetal Alcohol Spectrum Disorder
- Discuss Methadone/buprenorphine maintenance programs
- Discuss Neonatal Abstinence Syndrome diagnosis and management
- Discuss the effects of Cocaine on the fetus, newborn, child and adult
- Recognize the effects of other drugs of abuse on the fetus, newborn, child, and adult
- Identify community resources for rehabilitation of parents abusing substances
- Consider the role of Social Services and DHR in drug-exposed infants
- Discuss substance abuse and Alabama state law

## SPEAKERS

Joseph B. Philips, III, MD  
Professor of Pediatrics  
UAB Division of Neonatology

Sissy Hembree  
Director of Development and Communications, Aletheia House  
Birmingham, AL

Peter S. Lane, DO  
Assistant Professor of Psychiatry  
UAB Department of Psychiatry and Behavioral Neurobiology

## ACCREDITATION

Children's of Alabama designates this live activity for a maximum of 8.0 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Children's of Alabama is accredited by the Medical Association of the State of Alabama to provide continuing medical education for physicians.



Application to the Alabama Board of Nursing has been approved for 9.6 Continuing Education Hours. To receive the Nursing Contact Hours, go to the Alabama Board of Nursing website: [www.abn.alabama.gov](http://www.abn.alabama.gov)

- Click on Continuing Education (on the gray bar in purple letters)
- Click on Access Individual CE Record
- When the Individual CE Record page opens, follow the directions on the screen.

All participants will receive a Certificate of Attendance showing the total number of Contact Hours received.

## COORDINATORS

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Associate Professor of Pediatrics  
UAB Division of Neonatology

Honorable Alan Summers  
Jefferson County Family Drug Treatment Court  
Birmingham, AL

## DIRECTIONS & PARKING

### LOCATION

The Conference will be held in the Children's Harbor Building at the Children's of Alabama Hospital. The Bradley Lecture Center is located on the 4<sup>th</sup> floor (1616 6<sup>th</sup> Avenue South—across from Burger King).

### PARKING

Parking will be available in the 5<sup>th</sup> Avenue Parking Deck. Take a ticket upon entering the deck. Parking on the 2<sup>nd</sup> Floor of the deck is for Patients/Visitors Only. **Bring your ticket with you to the conference. The ticket must be validated or there will be a \$25 charge to exit the deck.** Take the elevator in the center of the deck to the 2<sup>nd</sup> Floor. Follow the blue river to the Bradley Center. Take those elevators to the 4<sup>th</sup> Floor.

### DIRECTIONS to the 5<sup>th</sup> Avenue Parking Deck (1600 5<sup>th</sup> Avenue South).

If you are not familiar with the Birmingham area, the streets run north and south, while avenues run east west. For example, the back of parking deck faces 5<sup>th</sup> Avenue South, and is located between 16<sup>th</sup> and 17<sup>th</sup> Street South.

#### From the West on I-20/I-59

Take I-65 South, bearing to the right at the major junction before reaching Birmingham. Exit I-65 at the 4<sup>th</sup> Ave South Exit. You will be traveling East on 4<sup>th</sup> Avenue South. Turn right onto 16<sup>th</sup> Street South. The parking deck entrance will be on your left at the corner of 5<sup>th</sup> Avenue and 16<sup>th</sup> Street South.

#### From the North on I-65

Exit I-65 at the 4<sup>th</sup> Avenue South. You will be traveling East on 4<sup>th</sup> Avenue South. Turn right onto 16<sup>th</sup> Street South. The parking deck entrance will be on your left at the corner of 5<sup>th</sup> Avenue and 16<sup>th</sup> Street South.

#### From the East on I-20/I-59

Take I-20/I-59 West into Birmingham. After the 22<sup>nd</sup> Street North Exit in Downtown Birmingham, get into the far left-hand lane. Bear left onto I-65 South Exit. Exit I-65 at the 4<sup>th</sup> Avenue Exit. You will be traveling East on 4<sup>th</sup> Avenue South. Turn right onto 16<sup>th</sup> Street South. The parking deck entrance will be on your left at the corner of 5<sup>th</sup> Avenue and 16<sup>th</sup> Street South.

#### From the South on I-65

Take the University Boulevard/8th Avenue South Exit. You will be going East on University Boulevard. Turn left onto 11<sup>th</sup> Street South. Turn right onto 5<sup>th</sup> Avenue South. Building is first left after McDonald's.

#### From the East on U.S. 280

Take Highway 280 to Highway 31 North to Birmingham (also called the Elton B. Stephens "Red Mountain" Expressway). Exit at 3<sup>rd</sup>/4<sup>th</sup> Avenue South exit. Take a left onto 3<sup>rd</sup> Avenue South. You will be traveling west on 3<sup>rd</sup> Avenue South. Turn left onto 16<sup>th</sup> Street South.

**Enter the deck on either the 16<sup>th</sup> or 17<sup>th</sup> Street entrance**

Department of Pediatrics  
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176F Suite 9380  
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## Registration Form

### August 1, 2014

PLEASE REGISTER IN ADVANCE BY COMPLETING THIS ENROLLMENT FORM.  
MAIL REGISTRATION FORM AND FEE TO ADDRESS BELOW OR FAX IT TO (205) 934-3100.  
*REGISTER EARLY, SEATING IS LIMITED*

*Please type or print legibly*

Name: \_\_\_\_\_ Degree (MD, RN, RT, etc.) \_\_\_\_\_  
Hospital/Practice \_\_\_\_\_ Email address: \_\_\_\_\_  
Mailing Address \_\_\_\_\_ City \_\_\_\_\_ State/Zip \_\_\_\_\_  
Office # \_\_\_\_\_ Home/Cell #: \_\_\_\_\_ Fax # \_\_\_\_\_

**(Confirmation will be sent via e-mail or Fax ONLY)**

**Course fee:**

- **\$75 (includes handouts, breakfast, lunch and breaks)**

For more information contact Cassandra at UAB Neonatology,  
(205) 934-4680 or [chudson@peds.uab.edu](mailto:chudson@peds.uab.edu)

Make check payable to **UAB Neonatology** and  
mail to:

**ATTN: Perinatal Conference**  
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