

Pediatric Report

by Shannon Lewis, Medical Services Administrator



Peds PLACE

Peds PLACE is held every Thursday from 12:10-1:10pm. It takes place during lunch time so that private practice doctors can see the last patient of the morning and then sit down, eat lunch, listen to a great discussion about an interesting topic, ask questions, provide comments, and receive free CME! Most of the discussions are led by our faculty, but some are led by doctors from all over the country and the world. So you have the ability to ask your questions to the best expert in the state or nation. Not a bad deal! This summer we have had an average of 13-16 sites connect per session, to Peds PLACE using Jabber or interactive video.

Here is a list of some of the summer topics:

- Snake Bites
- 2013 AAP Acute Bilateral Sinusitis
- Supporting the Transition from Pediatric to Adult Healthcare
- Common Pediatric Urologic Problems
- Respiratory Care of Patients with Neuromuscular Disease
- Dietary Supplements and the Adolescent Athlete: Safety and Efficacy

To join the discussion live and via interactive video, just dial 070231 from your interactive remote to connect. If you have any problems connecting, please call 501-686-8666. If you are interested in finding out more about how your pediatric office can connect to Peds PLACE or you are interested in presenting, please contact Shannon Lewis RN, lewisshannond@uams.edu or 501-526-7819.

Coming soon: Fall presentations from Seattle Children's Hospital and Harvard University. }

Telenursery

ANGELS has the ability to connect with 25 nurseries on a weekly basis. Facilitating possible transports and back transports, these sites talk live with Dr. Whit Hall, neonatologist. Questions are answered, consults are done, follow up on your transported patients is given, discussions about best practice, and promotion of regionalization. These sites also have the ability to connect their post-partum mother with her neonate that may have been transported to Arkansas Children's Hospital (ACH). For any problems with connectivity call 501-686-8666. For questions or interest in being a part of Telenursery, please contact Shannon Lewis RN, lewisshannond@uams.edu or 501-526-7819.

Getting to Know Dr. Gloria Richard-Davis



Prior to that, I spent 12 years practicing and teaching residents/medical students at Ochsner Clinic and Tulane University School of Medicine in New Orleans.

Where did you practice before joining UAMS? I was most recently with Meharry Medical College in Nashville, Tennessee where I served as Professor and Chair of the Obstetrics and Gynecology Department, Associate Director for Women Health Research, and adjunct faculty at Vanderbilt School of Medicine. Prior to that, I spent 12 years practicing and teaching residents/medical students at Ochsner Clinic and Tulane University School of Medicine in New Orleans.

What services do you offer? I specialize in infertility and reproductive endocrinology. Conditions and diseases most commonly treated are reproductive age problems including infertility and other gynecology problems often associated with infertility or abnormal uterine bleeding, such as polycystic ovary syndrome, uterine fibroids, endometriosis, abnormal uterine bleeding, and recurrent pregnancy loss. We offer treatment for all problems related to fertility and benign gynecological diseases including but not limited to ovulation induction, insemination (artificial and therapeutic), tubal ligation reversal, myomectomy, minimally invasive gynecologic surgery (laparoscopy and hysteroscopy), and robotic surgery. For routine preventive health screens, we offer general gynecological annual exam / Pap smear and preventive health screen. Additional services includes peri-menopause and menopause evaluation and treatment, hormone management, and evaluation and treatment of female sexual dysfunction.

Do you offer telemedicine consults? We are working on offering this option in the near future. CDH health will allow me to offer consults to women all over the state in the comfort of their own communities. They may only have to come in for some treatments, as indicated.

What do you love most about your job? Helping to educate and empower women about their health and healthcare decisions. As doctors, we can only do so much when the patient is in the office. The rest is up to them to follow up and carry out when they leave the office. That affects 90% of our results in health care. Women make 90% of decisions about health care for their families, so it is critical that they are educated about health and lifestyle.

How can appointments be made with you? Appointments can be made through the ANGELS Call Center at (866) 273-3835 or 501-526-7425.

What are your favorite things to do in your personal time? We have twin 14 year old daughters and spending family time with them is on the top of my list. I like golfing, walking, running, and being outdoors. So, I am trying to get my husband and daughters to play golf as a family.

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the ANGELS REPORT

SUMMER 2013

ANTENATAL & NEONATAL GUIDELINES, EDUCATION AND LEARNING SYSTEM



Shaken Baby Syndrome Abusive Head Trauma

by Dr. Pamela D. Tabor D.N.P.



Scope of the Problem

Abusive head trauma (AHT) is a clinical manifestation which may include subdural hemorrhage, cerebral ischemia and retinal hemorrhages. The intracranial injuries occur because of acceleration - deceleration forces associated with vigorous shaking. Additionally, some children may have impact injuries such as skull fractures. Other signs of physical abuse such as bruises, old and new fractures (especially of ribs and long bones), torn frenulum, and abdominal injuries may also be present.

Shaken Baby Syndrome is the name used by lay person's to refer to AHT, which is the term preferred by the American Association of Pediatrics (AAP). The AAP estimates that 30 out of every 100,000 children under the age of 1 are injured by AHT and at least 80 deaths occur annually. These numbers reflect only the most serious cases since more minor cases, such as those effecting

cognition, may not be apparent until the child enters school and even then the deficit may not be correlated to AHT. Diagnosis is also difficult since AHT is identified by a constellation of signs, symptoms, clinical and x-ray studies; and in fatal cases autopsy. According to *White Paper: Shaken Baby Syndrome/Abusive Head Trauma Prevention* (2010) approximately 25% of infants admitted for AHT died during the initial hospitalization. Of infants who survived AHT, 55% developed long lasting neurological deficits, 65% had visual impairments, and 85% required lifelong multidisciplinary care. Sadly, only 7% of infants admitted for AHT were considered "normal" after diagnosis. 80% of infant homicides reveal abuse with AHT being cited as the leading cause of death.

The physical dynamics resulting in AHT are brutal. As the infant's brain goes through coup/counter-coup the shearing of brain tissue and ruptured neurons causes areas of deficit to occur. As the occipital lobe of the brain impacts the skull posteriorly the result can be visual impairment or blindness. As the frontal lobe of the brain impacts the anterior portion of the skull it can cause loss of memory and emotion, as well as learning and behavioral disorders. As the middle brain impacts the skull laterally the infant may lose the ability to speak and hear; may become paralyzed and die.

Risk Factors

Frustration with inconsolable crying of an infant is the number one trigger for the shaking and abusing of infants. AHT is slightly higher in males and peak hospitalizations occur at three-four months of life, which correlates with increased infant crying during the two-four month period of life. Beyond the peak period of crying and age of the infant there are additional parental and infant risk factors associated with AHT which are listed in Chart 1.

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Mechanism of Injury

The mechanism of injury associated with AHT occurs because of the infant's physical characteristics including:

- A proportionately larger and heavier head;
- Weak neck muscles;
- Brain movement during shaking is in the opposite direction of the skull, creating torque which shears brain tissue, ruptures neurons and blood vessels and causes a subdural hematoma; and
- The vitreous humor shakes causing ophthalmic and retinal bleeding.

Telemedicine/Outreach Update

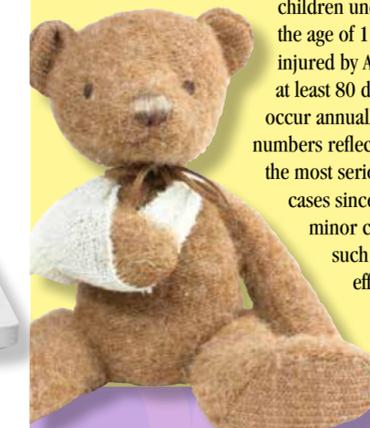
by Rosalyn Perkins, MNsc, APRN Telemedicine Clinical Services Director CDH ANGELS Program/OBGYN Department



As healthcare reform swiftly approaches, we all have to think of doing things differently. The challenge is for every provider to become intimately familiar with exchange-based market systems, single-payer health care, public option, balancing provider supply and demand, and bundled payments. Let's all be aware and continue to provide the best care for Arkansans under any circumstance.

El Dorado, Arkansas will initiate a High-Risk Obstetric (HROB) ultrasound and consult telemedicine clinic at the South Arkansas Medical Center as early as September. UAMS South has relocated from El Dorado to Magnolia. We are happy to announce that HROB ultrasounds and consults will continue to be accessible in that area and will re-open their clinic mid-September.

SHARE, State Health Alliance for Records Exchange, has allowed us to share patient information and other clinical information with our partners across Arkansas more efficiently and securely than ever before. We ask that Arkansas providers please consider implementing SHARE into your day-to-day business operations if you have not already.



Education

by Barbara Smith, RN, BSN, CPC, Director, Guidelines, ANGELS and Erin E. Bush, RN, BSN, MAIOC, Director of Continuing Education



Barbara Smith, BSN, RN at the ANGELS booth at the Lactation Symposium.



Welcome and opening remarks by Stephanie Williams, RNP Deputy Director for Public Health Programs, Arkansas Department of Health.

Teleconference (ONE Team)	Dial-In Number	Date/Time		Continuing Education Event
ONE Team Nursing Teleconference	068773	1st Friday	12 pm-1:00 pm	ONE Team – Obstetrical Nursing
	068773	2nd Friday	12 pm-1:00 pm	ONE Team – Neonatal Nursing
	068773	3rd Friday	12 pm-1:00 pm	ONE Team – Advanced Practice Nursing in Primary Care & Women's Health; RNs welcome!
	068773	4th Friday	12 pm-1:00 pm	ONE Team – Pediatric Nursing – In collaboration with Arkansas Children's Hospital

	Dial-In Number	Date/Time		Continuing Education Event
OB-Gyn Grand Rounds	Call 501-686-8666 to register	Wednesday Weekly	8-9:00 am	OB/GYN Grand Rounds
HROB Teleconference	Call 501-526-7178 to register	Thursday Weekly	7-8:00 am	High Risk Obstetrics Teleconference
FAIM	Call 501-686-8666 to register	4th Friday	7:30-8:30 am	FAIM (Fetal Anomalies Interdisciplinary Management - in collaboration with Arkansas Children's Hospital)
PedsPLACE	070231	Thursday Weekly	12:10-1:10 pm	In collaboration with Arkansas Children's Hospital

ANGELS Now Offers the Module “OB for the Critical Access Hospital”

Educational development of healthcare professionals is a key piece of the ANGELS program. When one rural, critical access hospital decided to reach out to UAMS for educational assistance, the “OB for the Critical Access Hospital” module was born. In certain areas of the state, the majority of the population drive up to an hour away to deliver their child in a facility with a full Labor and Delivery/Mother Baby service. Sometimes, that drive is not feasible due to an urgent delivery or lack of transportation. In those cases, residents rely on the smaller, critical access hospital.

In a smaller facility, a full-time OB nurse is a luxury. The staff of these facilities do not see the volume of patient deliveries that larger hospitals see and therefore the training opportunities and real-life practice lag behind the need. To meet the training needs of these nurses in Critical Access hospitals, ten hours of continuing education for nurses were packaged. The modules include a basic fetal monitoring course, post-partum assessment, NRP basics, HIV vertical transmission, and OB emergencies. This group of courses represent a strong foundation of OB knowledge.

Log on today to learnondemand.org to take these modules and earn continuing education credits.

The ANGELS Education team has been busy this year! In addition to our weekly teleconferences, we have assisted or co-sponsored several educational events. On August 9, ANGELS partnered with the Arkansas Breastfeeding Coalition to provide a Lactation Symposium at the Jack Stephen's Spine Institute at UAMS. There were over 200 healthcare providers in attendance in person or by interactive video. Participants attended using over 30 sites throughout Arkansas. The conference received very positive reviews from the attendees. ANGELS and the Arkansas Breastfeeding Coalition plan to offer this symposium yearly.

Dr. Lowery presented at the Teaching with Technology Conference on July 19 on “Teaching to the Next Level: Going beyond Traditional Education.” He discussed the innovative technologies that ANGELS and the UAMS Department of OB/GYN are using to teach student healthcare providers as well as seasoned healthcare professionals. Simulation, interactive modules, and interactive video are a few of the ways that ANGELS is reaching students and providers to ensure they have the most current evidence to support their practice.

If you have any questions about our educational programs please call us at 1-855-234-3348 or e-mail us at CDHeducation@uams.edu.

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Chart 1

Parental Factors	Infant Factors
History of ADHD	Twins
Unwanted pregnancy	Special needs
Previously identified as neglectful or abusive; or with a child in protective custody	Prematurity
Teenager	
Drug / alcohol abuse	
Maternal depression	
Non-biological father living in the home	

Common explanations provided by the caregiver include

- Inconsistent and implausible history
- Infant spontaneously stopped breathing
- The infant went to sleep and cannot be aroused (if there are markings on the face it may be explained as an attempt to arouse the infant)
- Dropped by a sibling
- Rolled from an elevated surface

Signs and Symptoms of AHT

Early signs and symptoms of AHT may include:

- Decreased muscle tone
- Extreme irritability
- Lethargy / drowsiness
- Decreased appetite, poor feeding, or vomiting for no apparent reasons
- Lack of smiling or vocalization
- Hypothermia
- Failure to thrive

Severe signs and symptoms of AHT include:

- Inability of eyes to focus or track movement
- Unequal size of pupils
- Rigidity or posturing
- Head or forehead appears larger than usual
- Bulging fontanels
- Seizures
- Dyspnea
- Bradycardia
- Coma
- Death

Interventions

Carter's Law (Arkansas Act 1208 of 2013) requires educational materials to be developed by the Department of Health related to Shaken Baby Syndrome and distributed to child birth educators, pediatrician offices, obstetrical offices, hospitals and free-standing birthing centers, and to daycare facilities. In turn, these entities will distribute the information to expectant women and parents of newborns.

The *Period of PURPLE Crying*® program is the National Center on Shaken Baby Syndrome's evidence-based guidelines. The program has a 10 page brochure and a 27 minute DVD about the characteristics of infant crying, soothing and coping to be distributed to parents. The acronym “PURPLE” is used to describe infant crying during the first few months of life:

P	Peak of crying
U	Unexpected
R	Resists soothing
P	Pain-like face
L	Long-lasting
E	Evening

Peak period of crying is usually at about two-four months of age after which it begins to taper. The crying is unexpected and resists soothing measures such as rocking, feeding and changing. The infant makes a face as though there is pain; however, the infant is not in physical distress. The crying can last from 30 minutes to five hours and generally occurs in the evening. The educational material not only explains the pattern of infant crying but also provides suggestions for caregiver on how to cope with prolonged crying.

Arkansas Children's Hospital and University of Arkansas for Medical Sciences is distributing the *Period of PURPLE*® DVD and other material to expectant and new parents. These materials can be obtained for as low as \$2.00 per patient. Conversely the average hospitalization cost for the initial occurrence of AHT is \$150,000. In cases where there is life long impairment (85% of survivors) the costs can be as high as three million dollars.

Education on AHT is available from the Antenatal and Neonatal Guidelines, Education and Learning System (ANGELS) Program. Dr. Marie Esquivel gave the presentation *It's A Crying Shame: When Frustration Leads to Despair and More* on March 1, 2013. Dr. Pamela Tabor, DNP, presented *Shaken Baby Syndrome/Abusive Head Trauma* on May 3, 2013 (both CEUs are available at <http://video.uams.edu/onlineCE/login.aspx> or email staffonlineeducation@uams.edu). Additionally nurses can receive basic and intermediate shaken baby syndrome training at www.dontshake.org. Parents can find information at www.PURPLEcrying.info.

In summary, it is important to understand and convey that periods of excessive crying are normal for infants. Shaken Baby Syndrome is abusive head trauma; and educating parents of newborns about crying and coping mechanisms are important and evidence-based strategies preventing abusive head trauma.

References

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- Arkansas Act 1208 *Carter's Law* (2013). Retrieved 5-20-13 from <http://www.arkleg.state.ar.us/SearchCenter/Pages/historicalbil.aspx>
- Barr, Ronald (2012). Lynn Harris Lecture Series at Arkansas Children's Hospital.
- The National Center on Shaken Baby Syndrome Website. www.dontshake.org
- Reece, R.M., Dias, M.S., Barr, M., Russell, B.S., Barr, R.G. and Runyan, D.K. (2010). *White Paper: Shaken Baby Syndrome/Abusive Head Trauma Prevention*.

New Moms

Anyone who takes care of an infant or small child parents, older siblings, babysitters, child care professionals should be reminded to never shake a child. Local community organizations can help parents improve their parenting and coping skills, and local departments of human services often can provide referral information for further assistance. A local Parents Anonymous®, Inc. program or hotline can also provide support.

If your patience is being strained from caring for an infant who cries continually, try these tips for soothing babies:

- Give the baby a pacifier after checking to make sure that he or she is not hungry or wet.
- Run a vacuum cleaner within hearing range of the infant.
- Take the baby for a walk in a stroller or a car ride.
- Put the baby in a safe carrier on top of a clothes dryer while it is operating (do not leave the baby unattended).
- Simply hug and cuddle the child gently. Young infants can be held in a sling or front carrier that keeps the infant close to the body.

If these suggestions do not work, and you do not think the baby is ill, place the baby on his or her side in a safe place, such as a crib. Take a short break, and, if possible, call someone to take care of the baby for a while (Showers, 1997).

Parents Anonymous®, Inc.
675 West Foothill Blvd., Suite 220
Claremont, CA 91711-3475
(909) 621-6184
<http://www.parentsanonymous.org/>

Showers, J. (1997). *Crying: What should I do?* Groveport, OH: Shaken Baby Syndrome Prevention Plus.



The Call Center Update

Tammy Bowen, RN, Nurse Project Manager



The ANGELS Call Center continues to look for opportunities to participate in research designed to optimize obstetrical services in Arkansas!

The call center, in conjunction with our maternal/fetal medicine faculty, is working with AT&T to provide close monitoring of postpartum patients experiencing hypertensive problems in the first few critical days after delivery. We are hoping to also do research with this project on the safety and efficiency of home-monitoring models as opposed to clinic monitoring for this patient population.

We are also pleased to report that we have been working hard to improve the patient care experience in obstetrical and gynecological services with a new patient appointment and scheduling system. Although this remains a work in progress with the new system having been implemented in August of 2013, we are optimistic that patients will find it easier to make appointments and reach nursing staff when needed for triage purposes in the very near future. Along those lines, we are also working towards a better referral experience for providers wishing to have their patients seen at UAMS. During this time, we welcome any suggestions or recommendations on how to make those improvements!



By Shannon Barringer, M.S., C.G.C.
Program Manager, Arkansas Reproductive Genetics Program / ANGELS

The Arkansas Fetal Diagnosis and Management (AFDM) program is pleased to announce that Dr. Sara Peebles has taken on a leadership role in our service. Dr. Peebles is a Board-Certified Neonatologist with UAMS and Arkansas Children's Hospital. One of her strong areas of interest centers on providing family-centered palliative care for babies that will not likely survive particular birth defects or genetic conditions. Dr. Peebles provides many of our prenatal consults to AFDM enrolled families, discussing expectations and goals for the care of babies after birth.

This summer, 78 babies/families were enrolled in AFDM after receiving prenatal diagnoses of birth defects and genetic conditions. They have received the additional multidisciplinary team management that AFDM is designed to deliver. There have been 57 deliveries of our babies over the summer, most at UAMS, with immediate transport to ACH for pediatric subspecialty support/care.



Dr. Sara Peebles