



UAMS APPLYING **POWER** TO REDUCE MATERNAL MORTALITY

The doctors in the full-screen video at the front of the classroom struggle to stop the bleeding. An attempted Cesarean section resulted in a hemorrhage and now the mother and infant's lives lie in the balance. Vial after vial of blood fills; the doctors apply their latest techniques — but to no avail. Mother and child do not survive.

"The saddest part is that, while this may be a depiction of a 1900s hospital in a television drama, many of these same issues persist to this day," Associate Professor



William "Sam" Greenfield, M.D., told the audience gathered for the lecture. "We are still fighting maternal hemorrhage in this country, and our success at fighting

it remains unsatisfying."

Despite improvements in many areas of health in the United States, maternal mortality rates not only remain stubbornly high,

they are on the rise. The United States has the highest maternal mortality rates among the world's developed countries.

Of the estimated 38,000 births in Arkansas each year, there are about 17 maternal deaths annually.

"Taken at face value, those numbers may seem low," said Greenfield, who is also director of the Division of General Obstetrics and Gynecology at UAMS.

"But each death represents a devastating hole in the life of a family and — often — a child that will grow up without a mother. These deaths have an emotional, intellectual and financial impact on children, and our state loses the benefit of each woman's individual contribution."

Also hiding behind that number are the "near misses" of women who had serious complications but ultimately survived.

Tackling the Problem with **POWER**

Some studies indicate the rise in maternal mortality can be attributed to better reporting. However, other studies show that medical conditions like hypertension, diabetes and chronic heart disease are becoming more common and are putting these patients at higher risk for pregnancy complications. The Centers for Disease Control and Prevention lists cardiovascular disease and other medical non-cardiovascular disease as the leading causes of pregnancy-related deaths.

UAMS and the Arkansas Department of Health are combatting severe maternal



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POWER training participants in Stuttgart prepare the maternal simulation model for delivery.

morbidity and mortality through the **Arkansas Perinatal Outcomes Workgroup Education and Research (POWER)** program. POWER is focused on implementing postpartum hemorrhage and maternal hypertensive emergencies safety bundles in 38 hospitals across the state.

Participants are provided with sample protocols that can be amended for each hospital's individual needs and given in-person, team-oriented training. These "safety bundles" are standardized, evidence-informed processes intended to improve consistency in maternal outcomes across the state. Trainings include simulations and drills.

"The sample protocols and exercises are intended to help people think ahead," said **Curtis L.**



Lowery Jr., M.D., professor and chairman of the Department of Obstetrics and Gynecology and medical director of the Center for

Distance Health. "Where would we get extra blood if we needed it? Who would take which role during a crisis? Even before a crisis develops, what things should we be looking for as red flags? We're pursuing all of these angles with the goal of saving the mother's life."

Envisioning a Better Future

The POWER safety bundles are just the beginning. Efforts are ongoing to establish a statewide system that would establish levels of care for maternal health. The goal is help emergency services quickly transport patients to the closest hospital that can provide the level of care the patient needs.

The **Antenatal and Neonatal Guidelines, Education and Learning System (ANGELS)**, which is part of the Center for Distance Health, is also working on providing a live, two-way video consultation service for maternal crisis at hospitals across the state. Similar programs hosted at UAMS for stroke and hand trauma have had a big impact, and Lowery and his colleagues see just as much potential with maternal health.

UAMS and the Department of Health are also working to establish a Maternal Mortality Review Board to help prevent maternal death through data collection, data analysis and implementation of recommendations.

"Reducing maternal mortality has proven difficult, but we by no means think it's impossible," Lowery said. "We're making strides through POWER, and we intend to use all these other means to address this issue with the tools at our disposal."



Dear Colleagues,

Having been a "country doc" in Arkadelphia for most of my career, I understand both the privilege and pressures of

providing care to a rural population. After coming to UAMS, I was able to engage our sister institution, the Winthrop Rockefeller Institute on top of Petit Jean Mountain, to look at issues related to rural health in Arkansas. Out of this discussion was born the "Rural Health Summit."

Despite being 40 percent rural, Arkansas did not have a task force addressing rural health issues. Approximately 60 health care providers, professionals and students came together in 2017 and 2018 for a multiday meeting to address diversified issues like improved recognition and incorporation of community health workers into the care fabric of the state. Other topics have included non-emergent patient transport, provider recruitment and retention for smaller communities, and early exposure of rural K-12 students to all of the affiliated health care professions, including ancillary.

We plan to meet again in spring 2019. If you have an item to bring before this group or would consider attending to help us in this important work, feel free to contact me by email — mtjansen@uams.edu.

Sincerely,

Mark T. Jansen, M.D.
Medical Director
UAMS Physician Relations & Strategic Development

UAMS Psychiatry referrals

INPATIENT

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- Women's inpatient psychiatry (accepting pregnant patients)

OUTPATIENT

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- Outpatient neuropsychology evaluations: 501-526-8364

For more information, visit
Psychiatry.UAMS.edu.

HOW TO CONNECT

Find **POWER** at ANGLES.UAMS.edu > Provider Education, Programs and Services > Perinatal Outcomes Workgroup Education and Research (POWER)

Visit ANGELS.UAMS.edu or call 501-526-7425 or 866-273-3835 to connect with ANGELS, a consultative service for a wide range of topics on maternal health for physicians, including family practitioners, obstetricians, neonatologists and pediatricians in Arkansas.

News to Know: Updates from UAMS

UAMS, Arkansas Children's Announce Updated Research, Medical Agreements

UAMS and Arkansas Children's have signed updated research collaborative and affiliation agreements that continue the strategic partnership of the state's only medical university and the state's only children's health system.

UAMS Chancellor **Cam Patterson, M.D., MBA**, and Arkansas Children's President & CEO **Marcy Doderer, FACHE**, called the agreements "a vital step and the next milestone" in the more than 40-year relationship of the two institutions. The two describe the agreements as enhanced strategic partnerships between UAMS and Arkansas Children's.

UAMS Awarded Telemedicine Grant for Traumatic Brain Injury Survivors

A new telemedicine program at UAMS to provide care and services to traumatic brain injury (TBI) survivors has received funding through a \$450,000 federal grant.

The U.S. Department of Health and Human Services Administration for Community Living awarded the three-year grant for The Traumatic Brain Injury State Partnership Program State Funding Opportunity.

The Arkansas Department of Health is contributing \$75,000 annually toward the program.

Many TBI survivors living in Arkansas are undocumented. Fifty-three percent of survivors are older than 40 and many live in rural areas, which are underserved by providers. The new TBI program hopes to connect them with the follow-up care they need.

Department of Orthopaedic Surgery Launches 24/7 Sports Injury Hotline

The UAMS Department of Orthopaedic Surgery has launched a Sports Injury Hotline that connects doctors and patients

directly to a doctor 24/7. The hotline can be used for any sports-related injury.

The Sports Injury Hotline number is 501-779-8909.

Emmanouil Giorgakis, M.D., Joins UAMS as Kidney, Liver, Pancreas Transplant Surgeon



Emmanouil Giorgakis, M.D., M.Sc., has joined UAMS as a liver, kidney and pancreas transplant

surgeon.

Giorgakis also performs hepatobiliary and pancreatic surgery. UAMS is the only center in Arkansas that offers adult liver or kidney transplantation.

Giorgakis received fellowship training in liver transplantation at King's College Hospital in London and completed a multi-organ abdominal transplantation surgery fellowship at the Mayo Clinic in Phoenix, Arizona.

To make a referral, call 501-686-6644.

Overley, M.D. Joins Orthopaedic Surgery

Sam Overley, M.D., has joined the departments of Orthopaedic Surgery and Neurosurgery.



Overley completed his residency in orthopaedic surgery at the

Mount Sinai Icahn School of Medicine and continued his training with a spine surgery fellowship at the Cleveland Clinic.

To make a referral, call 501-526-1046.

Dehmel, M.D., Joins Gastroenterology

Stephan Dehmel, M.D., has joined the Department of Internal Medicine as a gastroenterologist.

Dehmel comes to UAMS with 20 years of experience as a physician and educator in the

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Physician Relations

Physician Relations & Strategic Development

Mark T. Jansen, M.D.
mtjansen@uams.edu

Michael Manley, RN, MNSc
mmanley@uams.edu

Director

Melanie Meyer, M.Ed.
melanie@uams.edu

Manager

Carla Alexander, M.Ed.
carla@uams.edu

Byron Jarrett & Brian Mann
physicianrelations@uams.edu

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Editor

Amy Widner

Designer

Norma Edwards

Vice Chancellor for Communications & Marketing

Leslie Taylor



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Quiz of the Month

QUESTION

In the treatment of essential hypertension, lifestyle modifications are recommended as nonpharmacologic interventions. Of the lifestyle modifications below, which one is associated with the most substantial drop (mmHg) in blood pressure?

- A: Weight loss of 1 kg or more
- B: Exercising 90 to 150 minutes/week
- C: Healthy diet
- D: Reduced intake of dietary sodium

A: C — Adhering to a DASH diet resulted in an 11 mmHg drop in blood pressure, surpassing the other listed options.

ANSWER

News to Know: Updates from UAMS

(Continued from page 3)



United Kingdom and Germany. His special interests are in conditions of the luminal GI tract and endoscopy.

He completed a residency in internal medicine and a fellowship in hepato-gastroenterology at City Hospital Karlsruhe in Germany.
To make a referral, call 501-526-1000.

Verma, M.D., Joins Medical Oncology Clinic

Rashmi Verma, M.D., a fellowship-trained medical oncologist who specializes in cancers of the reproductive organs, urinary system and gastrointestinal system, has joined the



Medical Oncology Clinic in the UAMS Winthrop P. Rockefeller Cancer Institute.

Verma served her residency in internal medicine at the University of South Dakota and Sioux Falls VA Health Care System and at the University of Medicine and Dentistry of New

Jersey in Camden, New Jersey. Verma completed a fellowship in hematology and oncology at Texas Tech University in Lubbock, Texas.

To make a referral, call 501-296-1200.

UAMS Receives CDC Grant

The Department of Family and Preventive Medicine has received \$3.29 million from the Centers for Disease Control and Prevention for a five-year project to reduce obesity, increase physical activity and improve nutrition in Arkansas, especially in the Delta.

Alysia Dubriske, director of Community Health and Education at UAMS, is leading the State Physical Activity and Nutrition (SPAN) project.

UAMS staff will be working in partnership with local leadership, local physicians and stakeholders across the state.

Ambulance Telemedicine Stroke Care Target of Pilot

To provide faster stroke care, an emergency medical services stroke telemedicine pilot study has been established by UAMS' AR SAVES program, the Arkansas Department of Health and ProMed Ambulance Service in El Dorado.

For a list of new physicians, visit

UAMShealth.com/MD

As part of the pilot study, telemedicine equipment has been installed in a ProMed Advanced Life Support Ambulance to provide live, mobile video consults with a stroke neurologist. The pilot program will study the effectiveness of using telemedicine in ambulances for stroke care.

Westfall, M.D., Appointed College of Medicine Dean

Christopher T. Westfall, M.D., F.A.C.S., a professor of ophthalmology and longtime clinical and academic leader at UAMS, has been appointed dean of the College of Medicine. Westfall continues



as director of the UAMS Harvey & Bernice Jones Eye Institute and as holder of the Pat Walker Endowed Chair in Ophthalmology.

UAMS PHYSICIAN RECRUITMENT & PROVIDER PLACEMENT PROGRAM

The UAMS Physician Recruitment & Provider Placement Program has a team of placement specialists dedicated to serving the recruitment needs of our partner communities, UAMS Regional Campuses and UAMS faculty. Physician/provider opportunities are available in all specialties throughout Arkansas.

FEATURED JOBS

Family Medicine Faculty Opportunity: UAMS Northeast Regional Campus and the main UAMS campus in Little Rock have immediate openings for board-certified/board-eligible family medicine physicians.

Hospitalist Opportunities: Whether you are looking for an academic or private practice opportunity, we can connect you to one of the many hospitalist openings throughout Arkansas.

Rural Medicine Opportunities: Interested in practicing rural health? Opportunities are available throughout Arkansas, including: Arkadelphia, Dumas, Eureka Springs, Fordyce, Harrison, Huntsville, Jasper, Lake Village, Lincoln and Lonoke, to name a few.

Recruitment services contact:

Carla Alexander: 501-686-7934 or carla@uams.edu

For a complete listing of job descriptions and opportunities, visit: MedJobArkansas.com

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Fused MRI/Ultrasound Provides Higher Accuracy in Prostate Cancer Diagnosis



The Department of Urology now has the MRI/ultrasound fusion-guided prostate biopsy technology Artemis by Eigen.

“The patient first undergoes an MRI, and then as we investigate areas that look suspicious for cancer with the ultrasound, the machine fuses the MRI in real time with the ultrasound image. This enables us to perform what we call a more precise ‘targeted biopsy,’” said **Mohamed H. Kamel, M.D.**, associate professor in the Department of Urology.

In addition, the model acquired by UAMS includes a robotic arm that enables accurate and precise targeting of the suspicious area.

Benefits include:

- Accuracy in diagnosis of clinically significant prostate cancer.
- Avoiding missing the diagnosis of aggressive prostate cancer.
- Reducing the need for repeat traditional ultrasound-guided prostate biopsies.

Kamel said the technology helps physicians navigate the sometimes difficult decisions around elevated prostate-specific antigen (PSA) in patients who are at low risk for prostate cancer.

Elevated PSA has a troubled history as an indicator for prostate cancer. Critics argue it causes false positives, resulting in painful unnecessary procedures and anxiety for patients. PSA also does not tell patients and physicians how fast the prostate cancer will grow, which is a key factor in determining how best to treat it.



The device is inserted into the Eustachian tube.

A 2015 study published in the Journal of the American Medical Association found that targeted prostate biopsy identifies more high-

risk prostate cancers and fewer low-risk prostate cancers than traditional biopsy.

“Targeted prostate biopsies are excellent for easing the minds of patients with elevated PSA, but who don’t have a cancer diagnosis through traditional means. A negative result with Artemis means the patient likely does not have a clinically significant cancer,” Kamel said.

To make a referral, call 501-526-1000. ■

PHYSICIAN PROFILE

LARRY O’MALLEY, M.D.

Assistant Professor

Department of Orthopaedic Surgery



What do you like most about your specialty?

My goal is to get people back to their daily activities as quickly as possible using minimally invasive techniques. The newest technologies in arthroscopy make that possible.

What makes you unique among your peers?

After my residency training, I attended a sports medicine fellowship in Jackson, Mississippi, with Mississippi Sports Medicine. I chose this fellowship for the sheer volume of cases they do each year. I was able to hone my skills by completing 1,200+ cases in one year, an average of 600 more than other sports medicine fellowships. Because of that training, I am able to perform the latest hip arthroscopy procedures offered by few in the state.

Why did you come to UAMS?

UAMS Orthopaedics is unique in that we are completely sub-specialty based, meaning that a patient will see a surgeon who specializes in and has trained in that specific injury. This difference assures patients are going to get the best care.

What are your clinical specialties?

My specialty of orthopaedic sports medicine includes: shoulder, elbow, hip and knee arthroscopy as well as shoulder replacements. A patient who has torn their rotator cuff, ACL, MCL, and other ligament tears would be a possible candidate for arthroscopic surgery.

How can doctors make referrals to you?

I know from personal experience that it is always nice to have a person to speak with directly when making referrals or scheduling patients. I always encourage other doctors to call my nurse directly at 501-406-9226. We have recently launched a **Sports Injury Hotline** that connects doctors and patients directly to a doctor 24/7. This hotline can be used for any sports-related injury to, hopefully, keep them from having to visit an ER. The Sports Injury Hotline number is 501-779-8909.

MEDICAL CASE STUDY

Dorsal Root Ganglion Stimulation in the Treatment of Pelvic Pain and Persistent Genital Arousal Disorder

INITIAL CONTACT

A 51-year-old female presented at the UAMS Pain Clinic and reported experiencing debilitating chronic pelvic pain with associated persistent genital arousal disorder (PGAD) for the past 15 years.

PGAD is the occurrence of undesired vasocongestion and sensitivity of the genital organs, triggered by sexual or nonsexual stimuli, that often can persist for extended periods and is unrelieved by orgasm, resulting in distress for the individual.

The patient came to the Pain Clinic for treatment of her pudendal neuralgia with dorsal root ganglion (DRG) stimulation.

ASSESSMENT

On examination, the patient exhibited pelvic floor tenderness, decreased endurance and increased tension of the pelvic muscles, along with poor quality of pelvic muscle contraction.

The patient had a history of interstitial cystitis, recurrent urinary tract infections and Ehlers-Danlos syndrome. Before arriving at the Pain Clinic, she was treated with hydrodistention, pelvic floor physical therapy with muscle stimulation, vaginal trigger point injections and amitriptyline. Her Visual Analogue Scale (VAS) pain was 8/10. She wanted to achieve a goal of 4/10 or less. She described the pain as an aching sensation.

The patient reported her PGAD as a swelling sensation on the left side and starting in the morning. She experienced frequent incapacitating spasm-like episodes that could last up to three hours at a time, restricting her to her home in fear of sudden flairs.

PROCEDURES

The treatment team included **Johnathan H. Goree, M.D.**, and

Christopher Paul, M.D., assistant professors with the UAMS Department of Anesthesiology, and **Lauren Byers, APRN**, at the UAMS Pain Clinic. A series of pudendal nerve blocks with Depo-Medrol provided temporary pain relief and a maximum of four days of relief for the patient's PGAD symptoms.

Next, the patient underwent a dorsal root ganglion stimulation trial.

The patient was given trial placements of percutaneous spinal column leads at left L1 and left S2 with fluoroscopic localization. The trial lasted 10 days.

After the trial ended, the patient described her PGAD symptoms as completely resolved and her pelvic pain reduced by at least 50 percent.

The patient returned for a permanent implant four weeks later. At her one-month postoperative follow-up, the patient reported a greater than 70 percent improvement to her pain and complete resolution of her PGAD symptoms. She met her pain goal.

DISCUSSION

While some evidence relates the possible cause of PGAD to pelvic pain, Tarlov cysts or psychiatric disorders, little is known of the exact etiology. Therefore, treatment varies widely and there are limited



Anteroposterior view of the implanted L1 dorsal root ganglion stimulator lead. The L1 nerve root provides a large contribution to the iliohypogastric, ilioinguinal and genitofemoral nerves. These nerves provide innervation to the exterior pelvic structures.

documented successful cases.

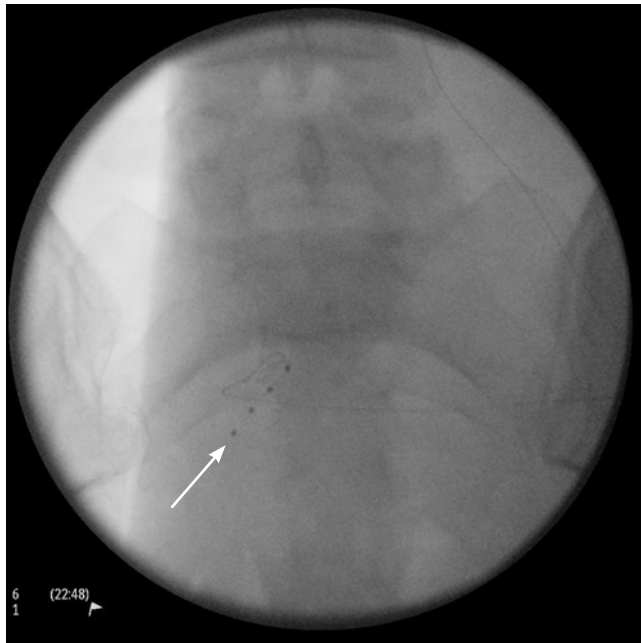
In this case, dorsal root ganglion stimulation dramatically improved the patient's PGAD symptoms, as well as the chronic pelvic pain for which she initially sought treatment.

While it is not uncommon to experience associated PGAD with this type of chronic pain syndrome, little is known about the successful treatment of this pain-related dysfunction. Although neuromodulation is a noteworthy and reliable treatment in a multitude of chronic pain syndromes, unraveling and exploring this nature of treatment in PGAD is warranted. This case report suggests investigating further the role of neuromodulation in non-pain conditions such as PGAD.

To make a referral to the Pain Clinic, call 501-686-8818. For more information, visit Pain.uams.edu. ■



Lateral view during implantation of the S2 dorsal root ganglion stimulator lead. The S2 nerve root provides a large contribution to the pudendal nerve in the sacral plexus. This nerve provides innervation to the interior pelvic structures.



Final anteroposterior view of the S2 dorsal root ganglion stimulator lead.

Johnathan H. Goree, M.D.



Assistant Professor
Department of Anesthesiology
UAMS College of Medicine

Education

Medical degree, Cornell University, New York

Residency

Anesthesiology, Cornell University

Fellowship

Pain medicine, Emory University, Atlanta, Georgia

Christopher Paul, M.D.



Assistant Professor
Department of Anesthesiology
UAMS College of Medicine

Education

Medical degree, UAMS

Residency

Anesthesiology, Saint Louis University

Fellowship

Pain medicine, University of Alabama at Birmingham

Lauren Byers, APRN



UAMS Pain Clinic

Undergraduate

UAMS College of Nursing

Graduate School

UAMS College of Nursing

EpicCare Link

EpicCare Link is a secure, web-based portal for referring physicians to track patient progress and treatment while at UAMS and provides secure messaging for you to offer electronic consults. First Access allows users to add patients to their accounts.

It is free of charge, easy to sign up for and convenient to use.

How to register:

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JANUARY 1 — CANCELED NEW YEAR'S DAY

**JANUARY 8
Pharmacy Update:
Point-of-Care Testing in
Arkansas**
Megan Smith, Pharm.D.,
BCACP
Department of Pharmacy

**JANUARY 15
Erectile Dysfunction**
Bruno Machado, M.D.
Department of Urology

**JANUARY 22
POLST: Understanding
Physician Orders for Life-
Sustaining Treatment in
Arkansas**
Masil George, M.D.
*Director, Geriatric Palliative
Care Program, UAMS*

**JANUARY 29
Professional Development:
Risk and Compliance
Management**
Melony Hilton
SVMIC

**FEBRUARY 5
Reflux and Aging Voice**
Ozlem Tulunay-Ugur, M.D.
*Department of
Otolaryngology*

**FEBRUARY 12
Influenza**
Keyur Vyas, M.D.
*Department of Infectious
Disease*

**FEBRUARY 19
Cerebral Aneurysms**
T. Whit Morris III, M.D.
*Department of
Neurosurgery*

**FEBRUARY 26
Professional Development:
Managing Your Finances
and Student Loan Debt**
Janice Nottenkamper, B.A.
*UAMS Student Financial
Services*

**MARCH 5
Epileptic Neurosurgical
Options**
Viktoras Palys, M.D.
*Department of
Neurosurgery*

**MARCH 12
Pelvic Mass Workup
— What to do Before
Referring**
John Savage, M.D.
*Department of
Gynecological Oncology*

**MARCH 19
Sickle Cell Update**
Collin Montgomery, APRN
Sickle Cell

**MARCH 26
Medical Ethics:
End-of-life Concerns**
D. Micah Hester, Ph.D.
*Department of Medical
Humanities and Bioethics*