At a recent half-day clinic, Keith Wolter, M.D., Ph.D., saw patient referrals from neurosurgery, orthopaedics, gynecology oncology, urology and surgical breast oncology.

That’s a fairly typical clinic for Wolter, who joined UAMS in 2013 to share the workload with James Yuen, M.D., chief of the Division of Plastic and Reconstructive Surgery.

“You name it, every surgical specialty, we cover them,” said Yuen, who joined the division in 1993 and became its chief in 1996. “Without plastic and reconstructive surgery, these services could not offer such comprehensive treatment.”

In their busy, dynamic field, Yuen and Wolter operate alongside UAMS’ general and subspecialty surgeons. Few surgeons have so much interaction with so many disciplines.

“We’re always generating new ideas and borrowing and sharing ideas and techniques with other specialists,” Yuen said. “That’s one of the fun things I like about my profession, and I think it improves patient care.”

Yuen, who is American Board certified and recertified twice in both Surgery and Plastic and Reconstructive Surgery, earned his medical degree from the Medical College of Virginia in Richmond. He completed a plastic surgery residency at Duke University in Durham, N.C., which included a six-month fellowship rotation in hand surgery at Christine M. Kleinert Institute of Hand and Microsurgery in Louisville, Ky.

Wolter is board eligible with the American Board of Plastic and Reconstructive Surgery, having passed his written boards and pending his oral boards. He earned his medical degree and a Doctor of Philosophy in cellular and molecular biology from the University of Michigan in Ann Arbor. He completed his residency in plastic and reconstructive surgery at the University of Michigan and a fellowship in breast and microsurgical reconstruction at the University of Utah in Salt Lake City.

Yuen serves the UAMS Plastic Surgery Clinic at the Jackson T. Stephens Spine & Neurosciences Institute and also sees patients at the Central Arkansas Veterans Healthcare Administration. Wolter works with burn surgeons at Arkansas Children’s Hospital and is on call for hand traumas.

Yuen and UAMS’ V. Suzanne Klimberg, M.D., director of the Winthrop P. Rockefeller Cancer Institute Breast Cancer Program, were among the pioneering surgeons to offer skin sparing and nipple saving surgery following mastectomy. Yuen and colleagues at UAMS were among the first plastic surgeons to use skin sparing and nipple saving surgery following mastectomy.

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(L-R) Plastic surgeons James C. Yuen, M.D., and Keith Wolter, M.D., Ph.D.

(contin’d on page 5)
UAMS Adds Liver Disease Specialist

Mauricio Garcia, M.D., recently joined UAMS’ gastroenterology team as a liver disease specialist, and he is now seeing patients. Garcia, who works with UAMS’ liver transplant program, sees patients with cirrhosis, hepatitis, and hepatobiliary malignancies. Prior to joining UAMS, he completed fellowships in advanced transplant hepatology and transplant/hepatology at the University of Nebraska Medical Center. He also completed a fellowship in gastroenterology at the National Institute of Medical Sciences and Nutrition, National Autonomous University of Mexico. He also received his medical degree and completed his residency at the National Autonomous University of Mexico. UAMS gastroenterology specialists seeing clinic outpatients also include Jonathan Dranoff, M.D., chief of the division, Farshad Aduli, M.D., Andres Duarte-Rojo, M.D., Julia Liu, M.D., Cyrus Tamboli, M.D., and Sherrie Harrell, A.P.N.

To make a referral, call 501-686-8000 or 866-826-7362.

Spinal Surgeons Join UAMS Neurosurgery Team

Spine specialists Noojan Kazemi, M.D., F.R.A.C.S. and Monir Tabbosha, M.D., M.Surg., have joined UAMS and are seeing patients in the Neurosurgery Clinic.

Noojan Kazemi, M.D.

Kazemi brings new minimally invasive surgical approaches for the spine that are being used for the first time in Arkansas. He completed a neurosurgery spine deformity fellowship at the University of Washington Harborview Medical Center in Seattle and a minimally invasive spine/neuro-oncology fellowship at the Swedish Neuroscience Institute in Seattle. He completed neurosurgery training at the Royal North Shore Hospital in Sydney, Australia. Kazemi also completed a neurosurgery research fellowship at the Mayo Clinic in the United States. Prior to commencing neurosurgery training, he completed a general surgery residency through the Royal Australasian College of Surgeons in Australia. He earned his medical degree from the Mayo Clinic and the University of Sydney, Australia.

To make a referral, call 501-221-1311.

PHYSICIAN PROFILE

ALEXANDRA M. RIVERA VEGA, M.D.
PHYSICAL MEDICINE & REHABILITATION
SPORTS MEDICINE

WHAT INSPIRED YOU TO BECOME A DOCTOR?
I have always been fascinated by science and the way the human body works. Coming from a family of teachers and after experiencing several medical conditions in my family, I realized that the medical field would give me the opportunity to treat and educate my patients.

WHAT DO YOU LIKE MOST ABOUT YOUR SPECIALTY?
I enjoy working as a team with the patient, caregiver, and the physical and occupational therapists. My team works with athletes, athletic trainers, coaches, and sometimes parents. We optimize the patient’s quality of life, and our goals include maximizing function, restoring physical performance, and adapting to disabilities and functional impairments related to pain and neurological/musculoskeletal disorders.

WHAT MAKES YOU UNIQUE AMONG YOUR PEERS?
I think that my Physical Medicine and Rehabilitation (PM&R) training at the VA complements my Sports Medicine preparation. I have worked with a wide range of patients, from those who wanted to be more active, to Olympic athletes. My training in multiple disciplines (family medicine, orthopaedics, PT, exercise physiology, sports nutrition, sports psychology, dental) within the PM&R and sports medicine field was unique and taught me the importance of working as a team.

WHY DID YOU COME TO UAMS?
I wanted to be in an academic setting, and I share the same vision for sports medicine development and goals for the PM&R Department set by Dr. Kevin Means (Chair). I also knew that I would have exceptional colleagues and would love working in Little Rock.

WHAT ARE YOUR CLINICAL SPECIALTIES?
My specialty is in PM&R with a subspecialty in Sports Medicine. I have a special interest in the treatment and prevention of musculoskeletal injuries in athletes as well as in the general population.

To make a referral, call 501-221-1311.
The 62-year-old female patient presented to UAMS for follow-up care after resection of a metastatic melanoma lesion from her right arm at an outside hospital.

She was seen by Kent Westbrook, M.D., a surgical oncologist in the UAMS Winthrop P. Rockefeller Cancer Institute. The patient said she was having headaches and speech difficulties that had begun about two months prior, and she was more recently experiencing left arm weakness.

Dr. Westbrook ordered brain imaging that revealed a lesion deep in the basal ganglia, and she was referred to the UAMS Neurosurgery Clinic.

The 2.5 cm tumor was pressed against and had displaced the motor tract and corticospinal tract tissue on the left side. Additional scans, including diffusion tensor imaging, were made under the direction of Yilu Zhang, M.D., a neuroradiologist. The diffusion tensor imaging enabled us to map the brain's white matter tracts and to use tractography, a form of 3-D modeling of neural tracts.

TREATMENT OPTIONS
The patient and I discussed her options. Gamma Knife radiosurgery was rejected because the patient's tumor was near the 2.8 cm limit for radiosurgery, and there was considerable edema in surrounding tissue, further reducing chances for a good outcome with the Gamma Knife.

Resection with conventional surgical techniques was an option but would have required cutting through a significant amount of brain tissue, increasing the risk of brain damage, including paralysis.

The patient was also an ideal candidate for an exciting new minimally invasive neurosurgical instrument and technique that is available only at UAMS in Arkansas – the NICO BrainPath. This technique utilizes a parafascicular approach to subcortical lesions, aimed at maximal preservation of white matter tract anatomy. The tip of the BrainPath's obturator gently displaces brain tissues, separating the white matter rather than incising it, which minimizes tissue damage as the device is advanced through the brain. The device's cylindrical sheath remains in the brain after the obturator is removed, providing a protective portal to the surgical site.

PROCEDURE
Even with the BrainPath, the surgical risk of right-side paralysis and speech and language deficits remained high, given the proximity of the tumor to critical motor and connecting tracts. The tumor had displaced the arcuate fasciculus (fibers connecting speech processing and motor speech areas) on the patient’s dominant side for speech and language, so that it and the motor tract partially enveloped the tumor.

While the tumor’s position presented a challenge, the sophisticated brain mapping technology at UAMS enabled an excellent surgical approach. Using tractography and our image guidance system, I selected an approach through the frontal lobe (superior frontal sulcus) and a trajectory that would avoid critical white matter structures.

Once the planning was completed, the surgery proceeded quickly, beginning with a 2 x 2 cm craniotomy. The BrainPath tubular device, equipped with an image guidance probe, was advanced toward the tumor while I observed its progress on a monitor. The tip of the device divided the brain’s fiber tracts along the way and took about 30 seconds to reach the tumor.

By J.D. Day, M.D.

With the obturator removed and the tube in position, I used an exoscope for illumination and magnification as I resected the tumor with the NICO Myriad device, which is designed for resecting tumors deep in the brain. The resection continued until a clean cavity was seen. The margins of the cavity were also confirmed using the image guidance system. The cavity was inspected for hemostasis using a combination of bipolar cautery and FloSeal (hemostatic agent).

As the BrainPath device was slowly withdrawn, the walls of the cavity were coated with a thin layer of Tisseel, a fibrin sealant to help maintain hemostasis. The surrounding brain tissue appeared to return to its normal position when the BrainPath was removed. The dura was closed over a thin layer of compressed Gelfoam to prevent adhesions, and the bone flap was secured back in place using mini plates and screws. The galea and scalp were closed, and the wound was cleansed, dried and dressed.

The operation took 1 hour 15 minutes, or
half as long as the conventional technique for a similar procedure.

OUTCOME
The reduced operating time and trauma to the brain translate to less time in recovery. The patient had no new deficits after surgery, and she was discharged home two days later. Most patients go home on the second or third day following surgery with the BrainPath, compared to three to five days when done conventionally. The patient was neurologically improved within the first 24 hours following surgery. She only had pain associated with the incision and relief of her preoperative headache. Her arm strength was essentially back to normal, as was her speech, by the day of discharge.

The patient’s long-term prognosis will depend on her response to treatment for her metastatic melanoma.

“The BrainPath tubular device, equipped with an image guidance probe, was advanced toward the tumor while I observed its progress on a monitor.”
Plastic Surgery (cont’d from cover)

acelluler dermal matrix for breast reconstruction after total-skin-sparing mastectomy, which in many patients allows the preservation of the nipple, minimal incisional scar, and a natural breast fold.

At UAMS, Yuen and Wolter coordinate with UAMS’ breast surgery team and often conduct reconstructions in concert with their mastectomies. Wolter sees patients in the UAMS Women’s Oncology Clinic.

“That’s really the best of multidisciplinary care,” Yuen said.

Breast reconstruction following mastectomy takes up the largest portion of Yuen’s and Wolter’s practice, but their cases run the gamut. Working with dermatologic surgeons who remove skin cancers, they may step in to perform local flaps to cover defects, especially on the face. They help general surgeons with traumatic wounds and they work with physiatrists and their paraplegic and quadriplegic patients coping with pressure sores.

“We see patients with chronic wounds that they may have had for over a year, and as a plastic surgeon I know I can get that to heal in most cases,” Yuen said. “In many cases, we’re not only reconstructing a patient’s physical defect, but also restoring their emotional and psychological well-being.”

Barbera Honnebier, M.D., Ph.D., a third member of Yuen’s team, is based at Arkansas Children’s Hospital. She performs surgery on cleft lip and palate and craniofacial deformities, and is the director of the craniofacial program there.

Yuen said his goal is to add another surgeon in his division within one year and to establish a residency program in plastic and reconstructive surgery.

To make a referral, call 501-686-8711.

Londoner Named as UAMS Myeloma Institute Director

UAMS recently named world-renowned multiple myeloma researcher and clinician Gareth Morgan, M.D., Ph.D., as director of its Myeloma Institute for Research and Therapy (MIRT).

Morgan joins UAMS this month from the Myeloma UK Research Centre at the Institute of Cancer Research in London. Morgan succeeds Bart Barlogie, M.D., Ph.D., the institute’s founder who is stepping down as director but who will remain to focus on clinical care and research.

Morgan has been a director of Myeloma UK, a respected patient organization, as well as a member of the Scientific Board of the International Myeloma Foundation, Scientific Secretary for the UK Myeloma Forum and founding director of the European Myeloma Network.

“With support from UAMS, I will build on the excellent work done to date as well as its reputation as world leader in myeloma treatment to develop innovative approaches for all myeloma patients and to characterize and cure high-risk myeloma,” Morgan said.

Founded in 1989, the UAMS myeloma program has seen more than 11,000 patients from every state in the United States and more than 50 foreign countries and has performed more than 9,000 peripheral blood stem cell transplants. Under Barlogie’s direction, MIRT has changed the course of the disease and its effects through new diagnostic procedures and novel therapeutic interventions.

The expected five-year survival rate for a newly diagnosed myeloma patient treated at the UAMS Myeloma Institute is 74 percent, versus 43 percent for a comparable patient population in the NCI cancer statistics (SEER) data base.

The major challenge for MIRT now is improving clinical outcomes for patients with genomically defined high-risk myeloma, whose median survival rate is three years.

501-686-7105 or 1-888-myeloma (693-5662).

ConsulT
Quiz of the Month

Question:
A 21-year-old female presents with AST of 60 units. Her only medication is birth control pills. She has hepatomegaly and ascites. Hematocrit is normal. What is your next step?

Answer:
Ultrasound of the hepatic veins for the diagnosis of hepatic vein thrombosis.

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501-686-7105 or 1-888-myeloma (693-5662).
CME CONFERENCES

18th Annual Family Medicine Update
Oct. 3-4, 2014
Stephens Spine Institute, UAMS Campus, cme.uams.edu or 501-526-5439

15th Annual Geriatrics and Long-Term Care Conference
Sept. 11-14, 2014
Reynolds Institute on Aging, UAMS Campus medicine.uams.edu/cme or 501-661-7962

5th Annual Tobacco and Lung Cancer Symposium
Nov. 7, 2014
Crowne Plaza Hotel, Little Rock

Traumatic Brain Injury: Principles of Management
Noojan Kazemi, M.D.
UAMS NE – Jonesboro
July 15, 2014 • Noon – 1 p.m.

ADHD Management in Children and Adolescents
Deepmala, M.D.
Department of Psychiatry
UAMS NE – Jonesboro
Sept. 16, 2014 • Noon – 1 p.m.

For more CME information, visit medicine.uams.edu/cme or call 501-661-7962.

Spine Surgeons (cont'd from p. 2)
Tabbosa completed his neurosurgery residency at UAMS. He completed a complex spine/neurooncology fellowship at the University of Virginia in Charlottesville, and a minimally invasive spine fellowship at Wayne State University in Detroit. He also completed neurological surgery training as a resident and chief resident at Ain Shams University in Cairo, Egypt. In addition to his U.S. training, Tabbosa has...