Physician assistants (PAs) practice medicine as part of a physician-led team. PAs working in neurosurgery are versatile and highly skilled providers of medical care. They lighten the demanding schedules of neurosurgeons and help to coordinate the many clinical, logistical and educational elements of neurosurgical treatment. PAs in neurosurgery generally combine surgical, hospital and office responsibilities. In these diverse settings, PAs address both the needs of employers and patients.

PAs are health care professionals licensed to practice medicine with physician supervision. As part of their comprehensive responsibilities, PAs practicing in neurosurgery conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive health care, assist in surgery and write prescriptions. Within the physician-PA relationship, PAs exercise autonomy in medical decision making and provide a broad range of diagnostic and therapeutic services. All states, the District of Columbia and the majority of US territories authorize PAs to practice. In those jurisdictions and in federal agencies, physicians may delegate to PAs duties that are within the physician’s scope of practice, the PA’s training and experience and that are allowed by law. A PA’s practice may also include education, research and administrative services.
The PAs manage many details of the patients’ pre- and postsurgical care and, by doing so, ensure personalized clinical attention,

PAs are educated in a medical model designed to complement physician training. The average PA program is about 27 months and is characterized by a rigorous, competency-based curriculum with both didactic and clinical components. Accredited programs are offered at medical schools, colleges and universities, teaching hospitals and through the U.S. Armed Forces. After graduating, PAs take a national certification examination administered by the independent National Commission on Certification of Physician Assistants. To maintain their national certification, PAs must complete 100 hours of continuing medical education every two years and take a recertification exam every six years.

**PAs in Action**

AAPA had an opportunity to speak with a number of PAs who are leaders in their specialty groups. The following portraits of team practice are taken from these interviews and illustrate the many advantages of the neurosurgeon-PA team.

**PAs at University Medical Center**

PAs employed by a university medical center department of neurological surgery are key members of the medical team. They act as vital links between surgeons and patients, and provide treatment and coordination of care for inpatients and outpatients. Working in close coordination with the neurosurgeons, eight PAs see and treat patients with a variety of conditions, including primary and metastatic tumors of the brain and spine, radiculopathies, traumatic brain and spine injuries, cerebral aneurysms, hydrocephalus and chronic pain.

The PAs manage many details of the patients’ pre- and postsurgical care and, by doing so, ensure personalized clinical attention, continuity of care and shortened hospital stays. The PAs’ work allows the surgeons more time to concentrate on surgery, research and management of difficult cases.

One PA has been with this practice for 10 years. On a typical morning, he rounds on inpatients and coordinates their discharges from the hospital. Next, he returns to the office and conducts initial consultations with new patients; he takes detailed medical histories and presents his findings to the surgeon. The team then confers and delineates treatment plans.

The PA educates pre-surgical patients about their procedures and their postoperative care. The practice has found that having the PA available enhances the patients’ comfort, improves their preparation for surgery and reduces calls to the practice. The PA will see the same patients post-surgically in the office, where he explains follow-up procedures, removes staples and sutures and is available to take patient calls.

This PA provides a range of care for his patients. He helps them with pain management and makes adjustments as needed for patients who are using intrathecal pumps. He also performs nuclear medicine studies to ensure intrathecal pumps, ventriculoperitoneal shunts and Ommaya reservoirs are functioning correctly. Additionally, the PA completes diagnostic and therapeutic lumbar punctures.

Research is an important facet of life in a university setting, and the PA plays a part in this endeavor. He acts as a research assistant for his supervising physician, who is a brain tumor specialist. The PA compiles, analyzes and makes suggestions about data the physician might use for studies.

**A Long-term Neurosurgical Team**

The partnership of a neurosurgeon and a PA, who have 15 years of neurosurgical experience together, helps a busy Texas brain and spine center thrive. This PA describes his role in the office as “making the neurosurgeon’s job easier” and “creating an environment for the patient that helps him or her to feel that, as a team, my doctor and I are focused on his or her problems.” His diverse roles and responsibilities...
include office practice, surgery, call and administration.

In the office, the PA sees each new patient, performs a detailed history and physical (with a focus on the neurosurgical complaints), reviews any studies and presents the patient to the neurosurgeon. During consultation with the supervising physician, the PA shares his perspective on the treatment plan and offers suggestions for possible treatment or additional testing.

If a patient presents to the clinic without any tests (such as an MRI), the PA performs the history and physical, orders any necessary tests and schedules the patient to see the physician when the results are ready. This system allows the supervising physician to meet the patient, answer questions and focus on designing the course of treatment with test results in hand. The PA is also responsible for taking patient calls and handling administrative paperwork related to patient issues, such as disability forms and drug refills. The PA’s administrative duties are important time-savers for his supervising physician.

The PA’s surgical responsibilities are representative of many neurosurgical PAs. A typical day begins with rounds, starting in the intensive care unit (ICU). Next, he visits with the first surgical patient, reviewing the surgical plan and addressing any questions from the patient, family or staff.

The PA is responsible for ensuring that the studies are in the operating room (OR) and the history and physical are in the chart before the patient goes to the surgical suite. The PA’s key role as a first assistant reflects the neurosurgeon’s trust in him that is based on years of shared surgical experience. The PA’s highly developed technical abilities and knowledge of anatomy make him an effective first assistant. In most cases, the PA identifies the surgical site and makes the initial incision as the neurosurgeon reviews the studies and preps for the procedure.

During the procedure, the PA helps by being a closely attuned “right hand” to the surgeon, and he adroitly handles a wide range of surgical tasks. The PA closes most of the surgical wounds from deep to superficial, helps with postoperative orders and checks on patients after their arrival in the recovery room.

In this practice, the PA takes first call, which means that all calls and pages are routed to him first. The PA is the first responder to the emergency room (ER) and sees all consults in the hospital. The neurosurgeon sees all admissions/consults within 24 hours and is then able to see these patients with all the information required to make a surgical decision.

The PA’s supervising physician has delegated to him inpatient procedures — including lumbar punctures, ICP monitor placement, external ventricular drains and central lines — and the follow-up on the data obtained from these procedures. Their team relationship is exemplary; their mutual respect fosters a collegial and effective work environment that promotes sharing ideas about patient care and professional issues.

Medicare pays the PA’s employer for medical and surgical services provided by PAs in all settings at 85 percent of the physician’s fee schedule. These settings include hospitals (inpatient, outpatient, OR and ER), nursing facilities, offices, clinics, the patient’s home and first assisting at surgery. In certain settings, services that PAs provide may be billed at 100 percent under the supervising physician’s provider number by meeting the “incident to” or shared visit billing requirements.

All 50 states and the District of Columbia cover medical services provided by PAs under their Medicaid fee-for-service or Medicaid managed care programs. The rate of reimbursement is either the same as or slightly lower than that paid to physicians.

For more information about third-party coverage, visit AAPA’s Reimbursement page at www.aapa.org.

**Third-party Coverage for Services Provided by PAs**

Nearly all private payers cover medical and surgical services provided by PAs. However, private health insurance companies do not necessarily follow Medicare’s coverage policy rules. Because of the potential variation among insurance companies, practices should verify each company’s specific payment and coverage policies for PAs. AAPA has information about private payer policies available at www.aapa.org.
PAs enhance quality patient care by fostering a team environment that supports neurosurgical patients with their unique problems and comorbidities. And, PAs contribute to surgeons’ quality of life and profession by sharing patient care, thereby freeing physicians’ time constraints. Everyone in the circle of care — providers, patients and family — benefits from the physician-PA team approach, which creates additional avenues of information, treatment and support for all.

Additional information about PAs working in neurosurgery is available from the Association of Neurosurgical Physician Assistants (ANSPA) at www.anspa.org and from the American Academy of Physician Assistants at www.aapa.org.

REFERENCES