



## PAs in Surgery

PAs are medically and surgically trained and able to practice in all phases of perioperative care. They provide pre- and postoperative care in hospitals and private practices, develop treatment plans, first and second assist at surgery, conduct rounds, write orders, prescribe medication, and support ongoing patient management.

### EDUCATION AND CERTIFICATION

Master's degree programs provide PA students with a rigorous generalist medical education. Programs average 27 months<sup>1</sup> and employ curriculum modeled on medical school. In the classroom, PA students complete more than 75 hours in pharmacology, 175 hours in behavioral sciences, more than 400 hours in basic sciences, and nearly 580 hours of clinical medicine. Rotations in family medicine, internal medicine, general surgery, obstetrics and gynecology, emergency medicine, pediatrics, and psychiatry follow. Students may elect rotations in surgical specialties. Students complete at least 2,000 hours of supervised clinical practice by the time they graduate.<sup>2,3</sup>

After graduation, PAs must pass a national certifying exam and obtain a state license in order to practice. To maintain certification, PAs must complete 100 hours of continuing medical education (CME) every two years and pass a national recertification exam every 10 years.<sup>4</sup>

#### PA education by the numbers

**27 months**  
**75 hours of pharmacology**  
**175 hours in behavioral sciences**  
**400+ basic sciences**  
**580 hours clinical medicine**  
**2,000+ hours of clinical practice**

While PAs are not required to attend postgraduate residencies before they can practice, there are more than two dozen postgraduate programs in various surgical specialties available to PAs who want additional structured education in surgery.

### PA WORKFORCE

PAs specializing in surgery make up approximately one-fourth of the PA workforce in the United States. Orthopaedics is by far the largest surgical specialty for PAs. Of more than 140,000 certified PAs, 11.5 percent (16,000 PAs) are in orthopaedics. General surgery and neurosurgery tie for the next largest category, each with 2.7 percent or 3,800 PAs. Cardiovascular/cardiothoracic surgery follows closely with 2.3 percent, or 3,200 PAs.<sup>5</sup>

PAs practice in inpatient and outpatient settings. They are employed by private practices, hospitals, and health systems. Hospitals without residents hire PAs to act as house officers. Teaching hospitals hire them to work with residents and attending physicians. In academic institutions, PAs provide continuity of care on the surgical service and help to cover night and weekend call.

### PA SCOPE OF PRACTICE IN SURGICAL CARE

PAs are an integral part of the surgical team. In hospitals and academic medical centers, PAs conduct

rounds, write orders, take call for inpatient consults and the emergency department, manage care for postsurgical patients, cover intensive care and step-down units, help formulate and implement therapeutic treatment plans, provide patient education, admit patients, perform discharge duties, and serve as a resource for hospital staff. In the outpatient office setting, they provide initial consults; perform preoperative examinations and postoperative wound checks; remove sutures, staples, and drains; perform other routine office procedures; and educate patients about their care.

PAs perform a wide range of medical services and procedures, including joint and trigger point injections, wound debridement and closure, tendon repair, and closed fracture management in orthopaedics. PAs assist with craniotomies and spinal procedures in neurosurgery; perform thoracenteses, chest tube insertions and placement of catheters, arterial lines and intra-aortic balloon pumps in cardiothoracic surgery, and assist in a wide range of surgeries.

### ***Community-based orthopaedics for Veterans***

In 2013 the Veterans Administration Medical Center in Houston increased the number of PAs in community-based outpatient clinics (CBOCs) to improve access to orthopaedic care, a high-volume specialty in the VA system. Adding a PA to each of four CBOCs increased orthopaedic encounters by 383 percent at those locations during the study period, while orthopaedic visits at the main VA medical center also increased, by 11 percent. During the study months, five PAs managed 28 percent of all orthopaedic encounters in the Houston VA system. Only 3.2 percent of clinic visits required referral to the medical center.<sup>6</sup>

### ***Improving access to head and neck cancer surgery***

Delay in head and neck cancer diagnosis and treatment is associated with poorer overall survival and outcomes. The busy head and neck surgical oncology service at Dartmouth-Hitchcock Medical Center incorporated PAs and NPs to improve patient access times. With PAs and NPs seeing postoperative patients, established patients for routine surveillance, and urgent visits, surgeons saw 36 percent more new patients. Wait time for new-patient appointments decreased by 51 percent (from 56 to 27 days). Overbooked hours dropped by half, while physician productivity and patient satisfaction scores remained stable.<sup>7</sup>

### ***Cardiovascular services value PAs***

A 30-year retrospective study of PAs on the cardiovascular surgical service of Emory University Medical Center found the number of PAs increased tenfold and PA placement expanded from one to five hospitals in the system. The PA role at Emory, which changed little from 1973-2003, included histories and physical exams, conduit harvesting, insertion of invasive catheters and chest tubes, surgical first assisting, closure of the chest, and nighttime in-house call.<sup>8</sup> A study of 956 cardiac surgeries performed at Enloe Medical Center, a small community hospital in Chico, California, found no differences in safety and efficacy between cases assisted by physician surgeons and those assisted by PAs.<sup>9</sup>

### ***Other surgical studies***

As knowledge and technology have evolved, so has the PA role, evidenced by PAs participating in robotic assisted minimally invasive esophagectomy (RAMIE) at the University of Pittsburgh,<sup>10</sup> performing lung assessments and procurements (197 cases between 2008 and 2012) for the

transplant team at Columbia University Hospital,<sup>11</sup> and contributing to the creation of Geisinger's pay-for-performance program for acute episodic cardiac surgical care.<sup>12</sup>

### **THIRD PARTY REIMBURSEMENT**

Medical and surgical services delivered by PAs are covered by Medicare, Medicaid, TRICARE, and nearly all commercial payers. Medicare covers services provided by PAs in all practice settings (including inpatient, outpatient, operating rooms and emergency departments, nursing facilities, private offices, clinics, patients' homes, and ambulatory surgicenters) at 85 percent of the physician fee. All 50 states and the District of Columbia cover medical services provided by PAs under Medicaid. Because of variation in claims submission, it is important to verify each payer's specific coverage policies for PAs. For more information about third party coverage, visit <https://www.aapa.org/reimbursement>.

### **PA VALUE**

When effectively utilized, PAs increase patient volume, generate revenue, and increase productivity. PA contributions open access to more patients while maintaining high-quality care and improving patient satisfaction.<sup>13-15</sup>

When the PA and surgeons in West Virginia University's orthopaedics department shifted from a shared clinic model to parallel clinics, new patient volume increased by 41 percent and return patient volume increased by 16 percent. The PA's patient volume increased by 700 percent, payments increased by 600 percent, and relative value units (RVUs) increased by 500 percent. Physician operating projections were 33 percent higher than projections under the shared clinic model.<sup>16</sup>

Two breast reconstruction surgeons affiliated with Ohio State University compared productivity during a one-year period before they employed PAs to a one-year period after adding PAs to their practices. After adding PAs, RVUs increased from 1,057 to 1,323 per surgeon per month. Clinic encounter times were much shorter for surgeons when patients were first seen by a PA, resulting in nine additional patients seen per day. Charges and payments also increased.<sup>17</sup>

Hospital studies frequently attribute cost-reduction, quality, and patient satisfaction outcomes to PAs. Staten Island University Hospital postsurgical PA home visits reduced readmissions by 41 percent and saved an estimated \$39 for every dollar spent.<sup>18</sup> Baylor Scott & White Health credits the addition of two PAs to the orthopaedics department with increasing the case mix index for inpatient orthopaedics, from 2.15 to 2.40 and shortening average length of stay from almost four days to 2.5 days.<sup>19</sup>

#### ***Value cannot be measured by reimbursement alone***

When a PA bills using his or her own National Provider Identifier (NPI), the care provided and resulting revenue is easily tracked and attributed to the PA. But with some private insurers that require PAs to bill under a physician's name and NPI, global payments, and Medicare's "incident-to" and shared visit billing options, often the PA contribution is not captured in billing records. As the United States transitions to value-based payment, care must be accurately attributed to the healthcare professional who provided it. Otherwise, data integrity is compromised and provider performance impossible to measure.<sup>20,21</sup> AAPA is committed to ensuring that PAs are enrolled, recognized, and trackable in the claims process by all payers and insurers.

## CONCLUSION

PAs on a surgical team increase productivity and patient access. PAs can and should carry their own patient schedules, see new patients, and perform procedures. They assist in surgery and provide some of the work included in the global payment, freeing surgeons to generate additional income. PAs coordinate care, enhance communication with referring practices, and improve outcomes. Many studies attest to the high quality of care PAs provide, favorably comparing it to physician care. With a PA on staff, access to the care team improves, wait times decrease, and patient satisfaction rises.

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## REFERENCES

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