

## Chapter 5

# THE ARMY ORTHOPEDIC PHYSICIAN ASSISTANT

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Orthopedic Physician Assistants are critically important providers within the musculoskeletal care team, both in garrison and downrange, ensuring the readiness of our fighting force and assisting with combat casualty care. Over 80% of combat wounds involve the extremities, and musculoskeletal injuries are by far the most common disabling conditions limiting readiness of our troops at home. Orthopedic Physician Assistants are at the tip of the spear in Army Medicine. Highly trained and highly sought after, they serve alongside surgeons in the clinic and operating room to treat injury and return Service Members to duty. With a broad range of skills ranging from fracture care to surgical first-assist, Army Orthopedic Physician Assistants have an exciting and rewarding career in the Army and in civilian practice.

—Colonel Benjamin Kyle Potter  
*Orthopedic Surgery Consultant to the Surgeon General*

## Introduction

The development of the orthopedic physician assistant (PA) profession in Army medicine began in response to Medical Corps personnel shortages in both the US Army Forces Command (FORSCOM) and Medical Command (MEDCOM) in the late 1980s. The Office of the Surgeon General approved the orthopedic PA program in 1989 and extended it to an 18-month doctoral program in 2007.<sup>1</sup> In FORSCOM, orthopedic PAs were specifically utilized to extend orthopedic surgeons' capabilities in combat support hospitals and forward surgical teams, increasing access to orthopedic care on the battlefield. In MEDCOM, orthopedic PAs improved access to orthopedic care in the garrison environment by increasing staffing at orthopedic surgery clinics in medical treatment facilities (MTFs), including community

hospitals. This increased staffing has been imperative for ensuring continued access to care for the deployed force and maintaining medical readiness.<sup>2</sup>

To fill the capability gap caused by personnel shortages, and to produce a cadre of competent PAs with consistent skills, capable of providing advanced care at all levels of Army medicine and covering multiple subspecialties within orthopedic surgery, formal academic education was required. Because orthopedic PAs would need to fill multiple roles in varied environments, on-the-job training would not provide the breadth of knowledge required to operate in the full spectrum of FORSCOM and MEDCOM missions.

## **Mission**

The mission of the Army orthopedic PA is to extend orthopedic surgical care on the battlefield and to enhance the capabilities of Army orthopedic surgeons by serving in MTFs and combat support hospitals. The orthopedic PA provides perioperative orthopedic management, surgical first-assist, and minor procedures for surgical and nonsurgical patients. Orthopedic PAs also conduct performance improvement projects and research approved by an institutional review board (IRB) in order to enhance evidence-based practice and improve care in the military health system. In 2016 orthopedic PAs began contributing to the joint Special Forces mission in the United Arab Emirates, with a dedicated position performing extensive medical planning and treatment for a wide variety of patient complaints at several separate Role 1 treatment facilities. Since 2018, orthopedic PAs have been substituting for the 61M orthopedic surgeon on expeditionary resuscitative surgical teams, sometimes as team leaders.

## **Duties and Responsibilities**

The orthopedic PA profession in FORSCOM and MEDCOM continues to expand and adapt to the Army's requirements. Today, the orthopedic PA plays four vital roles<sup>3</sup>:

1. **Surgeon extenders.** Orthopedic PAs effectively extend the capacity of orthopedic surgeons in all subspecialties and at all levels of military medicine from damage-control orthopedic care

on the battlefield to augmentation of subspecialties at academic MTFs.

2. **Clinical scientists.** Orthopedic PAs advance scientific and medical knowledge by performing as clinical scientists, conducting relevant and valid research that generates evidence-based practices. This ensures that Army medical centers provide consistent and effective health care to service members and their families.
3. **Educators and mentors.** As educators and mentors, orthopedic PAs optimize the education of future clinicians in Army Medical Center of Excellence (MEDCoE) graduate programs. They also act as subject matter experts who direct continued medical education and facilitate comprehensive career-long education for medical professionals at military installations.
4. **Professional service and scholarship.** Orthopedic PAs lead the PA profession at the national level and are recognized experts in PA graduate allied health education. They hold leadership positions and participate in organizational work groups in the American Academy of Physician Assistants, National Commission for the Certification of Physician Assistants (NCCPA), Accreditation Review Commission on Education for the Physician Assistant, and Physician Assistants in Orthopaedic Surgery. They also serve as peer reviewers for numerous national and international journals, including the *Journal of the American Academy of Physician Assistants*, *Journal of Bone and Joint Surgery*, and the *Journal of Orthopaedics for Physician Assistants*.

## **Education and Training**

The US Army orthopedic PA residency and doctoral program was created as a benchmark for postgraduate education, through the pursuit of academic and clinical excellence, of PAs working in orthopedics.<sup>3</sup> The program is an intense 18-month curriculum that includes completion of 36 courses (59 credit hours representing over 700 hours of classroom instruction) and 10 clinical rotations (29 credit hours representing more than 5,000 clinical training hours). Training is completed in the setting of an academic medical center at one of

four graduate medical education (GME) residency programs. The curriculum is modeled after the Accreditation Council for Graduate Medical Education orthopedic surgery residency programs.<sup>3</sup>

Orthopedic PA residents are taught alongside junior orthopedic surgery residents, with a guided educational model, and given comparable responsibilities. This comprehensive model includes both didactic and clinical instruction, on-call responsibilities, management of both inpatient and outpatient orthopedic conditions, and formal education on conducting clinical research. Daily responsibilities include inpatient rounds; outpatient evaluation of urgent, semi-urgent, and routine patients in the cast room, clinic, and emergency department; preoperative evaluation and management; and first-assist in surgical cases of all levels of complexity.

The program is separated into individual rotations by subspecialty and evaluated with formal oral and written requirements. Testing consists of multiple-choice tests administered at periodic intervals as well as oral boards. Orthopedic PA residents complete clinical rotations in general orthopedics and the subspecialties of trauma, sports medicine, hand and wrist, pediatrics, oncology, joint reconstruction, foot and ankle, and spine.

The capstone requirement for the residency is a presentation of an IRB-approved research project to a board panel that includes faculty of the residency program and university. The orthopedic PA residents are required to submit a manuscript to a journal and produce a poster for display. Upon completion, residents are awarded a doctor of science (DSc) degree and an Army additional skill identifier as an orthopedic PA (M1). Graduates incur an active duty service obligation of 3.5 years (3 years for the first 12 months of training, 6 months for the last 6 months of training).

## **Duty Descriptions**

The positions for the specialized PAs (orthopedics, emergency medicine, and general surgery) are outlined in Chapter 4 (Academic Leadership Roles, Professional Education, and Additional Training Opportunities for PAs) to avoid duplicated descriptions for research directors, deputy program directors, program (site) managers, and specialized Interservice Physician Assistant Program instructors. The positions covered in this chapter are orthopedic PA positions. All orthopedic PAs must maintain

National Commission on Certification of Physician Assistants (NCCPA), Basic Life Support (BLS), Pediatric Advanced Life Support (PALS), Advanced Life Support (ALS), and Advanced Trauma Life Support (ATLS) certifications as required by the credentialing and privileging facility.

### ***Orthopedic Physician Assistant (General)***

Primarily, orthopedic PAs practice under the supervision of orthopedic surgeons and assist in providing specialized care to patients with orthopedic injuries and conditions. Specifically, orthopedic PAs are responsible for physical examinations, ordering and reviewing diagnostic tests, diagnosis, and developing preliminary goal-oriented treatment plans for musculoskeletal disorders and injuries.

Orthopedic PAs also provide first-assist in surgery and manage patients perioperatively. As part of this management, orthopedic PAs perform orthopedic procedures (Figure 5-1) including administration of local and regional anesthetics, therapeutic and diagnostic joint injection, musculoskeletal ultrasound, fracture fluoroscopy, fracture reduction and management, wound closure/suturing, graft preparation, complex wound debridement, perioperative wound care, skeletal traction, hardware removal, and primary management of nonoperative orthopedic conditions.

### ***Orthopedic Physician Assistant in an Expeditionary Resuscitative Surgical Team or Combat Support Hospital***

An orthopedic PA in one of these deployed positions:

- is responsible for the rapid and thorough triage, evaluation, stabilization, and management of urgent medical, surgical, or traumatically injured orthopedic patients;
- performs invasive and noninvasive diagnostic and therapeutic procedures including life-saving procedures within individual credential guidelines and privileges delineated by the hospital;
- orders appropriate available laboratory, radiographic, and other diagnostic tests;
- interprets the total medical and surgical evidence, incorporating information into an accurate diagnosis or appraisal, and initiates proper treatment;



**Figure 5-1.** Major Timothy Pekari instructs Interservice Physician Assistant Program student officer candidates Lauren Bentley and Sherrie Jansky on ultrasound guided evaluation of the biceps tendon at Evans Army Community Hospital, Fort Carson, Colorado, in April, 2020. Photograph courtesy of Major Pekari.

- develops a patient care plan for each case appropriate to the medical assets and facilities available in the area of operations;
- facilitates patient access to continuing medical care by appropriate referrals to other health care providers and specialists, and determines necessary evacuation to higher roles of care, operating within the policies and regulations of the hospital;
- enhances medical capabilities for forward emergency and resuscitative care and expands capabilities at the tactical level by providing orthopedic stabilization at or near the point of injury; and
- augments emergency medical and orthopedic expertise in the structure of the operating forces, advising the appropriate authority on the management of orthopedic trauma patients within the area of operations.

### **Chief, Orthopedic Surgery Cast Clinic**

The orthopedic PA assigned as chief of an orthopedic surgery cast clinic manages the daily operations for the clinic in support of the orthopedic surgical service, in a 0.75 FTE position. The orthopedic PA serving as a chief of the cast clinic:

- supervises other orthopedic PAs, the cast clinic noncommissioned officer in charge, and Army and civilian orthopedic technicians;
- ensures all faculty members are compliant with FTE and RVU productivity requirements based on duty description and additional duties;
- coordinates logistics and supplies; maintains appropriate stock level of medical and office supplies for orthopedic services;
- maintains accountability and responsibility of equipment in the clinic; and
- precepts and supervises rotational academic program students with orthopedic requirements.

### **Duty Locations**

- Continental United States (CONUS): Fort Bragg, NC; Fort Campbell, KY; Fort Carson, CO; Fort Hood, TX; Fort Polk, LA; and Fort Stewart, GA.
- Outside CONUS: Germany, Korea, and Hawaii.
- Residency training sites: Brooke Army Medical Center, JBSA-Fort Sam Houston, TX (orthopedic PA program director, program manager, program faculty); William Beaumont Army Medical Center, Fort Bliss, TX; Madigan Army Medical Center, Joint Base Lewis-McChord, WA.

### **Prerequisites**

- Extensive experience (including deployments) in battalion and brigade PA positions.
- Completion of long-term health education and training (LTHET) is preferred.
- Rank of major preferred.
- Intermediate Level Education (ILE) graduate preferred (or enrollment in ILE distance learning).

## **Skills and Attributes**

- Must be an excellent role model with the desire to mentor and teach others.
- Strong leadership, administrative, and academic skills.
- Excellent oral and written communication skills.
- Solid work ethic.
- Strong organizational and time management skills.

## **Lessons Learned**

- Orthopedic PAs should maintain their basic clinical skill sets and knowledge in primary care medicine, not only to prepare for recertification examinations, but also for routine patient management in garrison and deployments.
- Orthopedic PAs add value as clinicians and leaders in expeditionary resuscitative surgical teams.
- The vast knowledge and expertise of orthopedic PAs in medical treatment and medical planning contribute to joint Special Forces missions and Role 1 treatment facilities.

## **Tips for Success**

- Have an excellent working relationship with the orthopedic surgeon during residency and beyond.
- Build networks early and get to know specialty staff members in physical therapy, occupational therapy, and internal medicine.
- Develop good working relationships with other members of the health care team, working as a seamless unit to best meet each individual patient's needs.
- Manage and complete documentation thoroughly. Meet with staff who can help you build templates and streamline coding for orthopedic treatment and procedures.
- Share experiences and knowledge by publishing articles.
- Individuals interested in becoming an orthopedic PA should start by shadowing one in clinic for at least a week to experience the full spectrum of assigned tasks.
- Read the annual LTHET military personnel message, which details requirements for shadowing hours and Graduate Record



Examination (GRE) scores needed to apply for the orthopedic PA doctoral program.

- Start learning about the IRB and how to conduct research at the local level by reaching out to clinicians and other researchers.
- Attend a class such as the SP Corps Mary Lipscomb Hamrick Research course before attending LTHET to learn research skills.

## **Conclusion**

In FORSCOM, orthopedic PAs extend surgeons' capabilities in forward environments, increasing access to orthopedic care on the battlefield. In MTFs, orthopedic PAs improve access to specialty care in the garrison environment by increasing staffing in orthopedic clinics and operating rooms. Across the force, orthopedic PAs contribute to the education of general practice providers by precepting students, giving formal board review lectures, and providing patient-centered feedback. Orthopedic PAs mentor future leaders in a variety of dynamic environments, including operational medicine, clinical research, and hospital-based medicine. The orthopedic PA degree program exceeds the civilian standard of on-the-job training and certificate programs, enabling students to participate in damage-control orthopedics and contribute to evidence-based medicine. Military orthopedic PAs also serve in a number of national professional organizations, extending their sphere of influence beyond the uniform. Future orthopedic PAs will serve in a wide variety of leadership positions and further prove the value of specialty-trained PAs to supplement surgeons in far-forward units.

## **References**

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2. Chief, Army Medical Specialist Corps. *Request Approval to Improve the Postgraduate Physician Assistant Residency Training Program*. Memorandum to Commander, US Army Medical Department Center and School, October 17, 2006.

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