Chapter 33

THE ARMY GENERAL SURGERY/INTENSIVIST PHYSICIAN ASSISTANT

Seth Holland, PA-C, DScPAS-GS, MPAS, and Jonathan Saxe, PA-C, DScPAS-GS, MPAS, PA-C

“General Surgery/Intensivist Physician Assistants (GSPAs) are truly a remarkable, up and coming career field in the US Army as well as the Department of Defense. Our civilian counterparts have had Surgical Physician Assistants (PAs) since the inception of the PA career in the late 1970s. However, the Surgical PA’s potential has not been fully realized until recently. The creation of the 18-month US Army General Surgery/Intensivist PA program culminating in a Doctorate of Clinical Science is an absolute maturation point. This is certainly an exciting time in Army Surgical Care. I am excited to be a part of such an evolutionary time as I help to cultivate and mold the role of the Army GSPA.”

—Colonel Tommy Brown
General Surgery Consultant to The Surgeon General, 2013–2015
(email communication, March 2014)

Mission

The mission of an Army general surgery/intensivist physician assistant (GSPA) is to be a force multiplier by extending surgical care and critical care forward on the battlefield, and enhancing the capabilities of Army general surgeons by serving on a forward surgical team, on a critical care transport/emergency resuscitation team, or in a combat support hospital. With the goals of increasing productivity, access to care, and continuity of care within the sphere of surgical practice throughout the Army, these physician assistants (PAs) provide perioperative, postoperative, surgical first assist, critical care, and bedside procedures to surgical patients within military medical treatment facilities. GSPAs
also conduct performance improvement projects approved by the institutional review board (IRB) in surgery or critical care fields. The goal of these projects is to improve care and help reduce costs on and off the battlefield.¹

**History**

In the 1960s, surgical assistants were being developed on an apprenticeship basis, although there was no formal training process. During that decade, in response to the shortage of medical providers, the PA training model was developed by Dr Eugene Stead Jr, Dr Richard Smith, Dr Hu C Myers, and Dr Henry K Silver from the World War II physician medical model.² The military first started training specialty PAs in the 1980s. The first military PA specialty was orthopedics, followed by emergency medicine in the 1990s.

In 1995, the idea first surfaced for developing a surgically trained PA who would serve as an extension of a surgeon on a forward surgical team. A surgical PA program was developed that included clinical rotations at the University of Maryland Shock Trauma Center; Brooke Army Medical Center in Fort Sam Houston, Texas; and the University of Texas Health Science in San Antonio.² Once trained, these PAs would be able to first assist, perform triage, and provide surgical critical care, thus allowing surgeons to focus on performing operations.

In 2001, a pilot program was conducted to train a surgical Army PA. The selected trainee began a 12-month rotation through surgical services at Fort Hood, Texas. The program was a success, but further development of the program was deferred after September 11th terrorist attacks (email communication with Major [retired] Don Adams, January 2014).

According to the first GSPA program directors, Lieutenant Colonel David Freel and Lieutenant Colonel Patrick Sherman, the idea of the GSPA was revived in 2005. Over the next year, a curriculum was developed and a training site established at Brooke Army Medical Center, Fort Sam Houston (email communication with Lieutenant Colonel Freel, December 2013). The first class to attend the 18-month training program began in July 2009. Since then five iterations of classes have gone through the program. In December 2014, the Doctor of Science (DSc) in Physician Assistant Studies–General Surgery was awarded through Baylor University in Waco, Texas.
Training

The 18-month GSPA doctoral program conducts general surgery clinical rotations and surgical subspecialties (trauma/critical care, burn surgery, oncological surgery, pediatric surgery, neurosurgery, vascular surgery, plastic surgery, interventional radiology, and intensive care unit procedures) monthly clinical rotations.

The following procedures are taught during the 18-month program: (1) emergency and critical care ultrasound; (2) endoscopy (bronchoscopy, colonoscopy, esophagogastroduodenoscopy); (3) placement of central lines; (4) peripheral inserted central catheter; (5) pericardiocentesis; (6) thoracostomy tube placement; and (7) lumbar puncture. Also taught is basic surgical first assist techniques for trauma, open surgical cases, and laparoscopic surgical cases. Other critical care and trauma procedures taught are airway management (intubation, cricothyroidotomy, tracheostomy); orthopedic external fixators; continuous renal replacement therapy; burn and wound care; minor procedures; thoracotomy; and ventilator management. The GSPA resident also learns the fundamentals of laparoscopic training and attends training in the following certifications: (1) Advance Burn Life Support (ABLS); (2) Fundamentals of Critical Care Support; (3) Emergency War Surgery; and (4) Advanced Trauma Life Support (ATLS).

Knowledge testing consists of 16 multiple-choice tests administered at periodic intervals, an oral examination, and the American Board of Surgery In-Training Examination (ABSITE). The GSPA resident must also conduct and defend an IRB-approved research project.

Certifications

After graduation, GSPAs have the opportunity to obtain on their own the following additional certifications:

- Registered Diagnostic Medical Sonographer (RDMS); see http://www.ardms.org
- Certified Wound Care Specialist (CWS); see http://www.abwmcertified.org
- Certified Nutritional Support Clinician (CNSC); see http://www.nutritioncare.org
• Registered Diagnostic Cardiac Sonographer (RDCS); see http://www.ardms.org

Duty Descriptions

**General Surgery/Intensivist Physician Assistant at a US Military Treatment Facility**

Responsible for providing surgical care, under the supervision of a general surgeon, for patients enrolled in a military medical treatment facility. GSPAs conduct the following care: preoperative; postoperative; surgical first assist; inpatient treatment; intensive care; minor clinic procedures; bedside procedures (ultrasound, central lines); endoscopy (colonoscopy, esophagogastroduodenoscopy [EGD]); and wound care. These GSPAs also perform on-call duties as first call with surgeon backup, and ensure continuity of care for all patients.

Additionally, these GSPAs participate in morbidity and mortality conferences, cancer care conferences, and wound care conferences. They also conduct IRB-approved research and performance improvement projects and train consulting physicians, PAs, nurses, and medics in surgical disease processes, pathology, and treatments.3(pp7–9)

**Surgical/Critical Care Physician Assistant**

This position includes the White House surgical PA and PAs assigned to a forward deployed surgical or resuscitative element, combat support hospital, critical care transport team, or a disaster response team within the United States. These PAs are responsible for ensuring that all assigned surgical patients receive appropriate triage, preoperative evaluation, resuscitation, and stabilization. They also provide the following care: postoperative care; surgical first assist; inpatient care; intensive care; minor procedures; ultrasound (for ultrasound-guided critical care procedures); endoscopy (bronchoscopy/EGD/colonoscopy); and wound care. They assist with placement of external fixators (pelvic and extremity), ensure continuity of care, and perform critical care transportation as required. Additionally, they perform or assist in IRB-approved research and performance improvement projects and educate and train consulting physicians, physician assistants, nurses, and medics in surgical disease processes, pathology, and treatments.
They provide feedback to Role 1 providers and medics on outcomes and possible areas for improvements.\textsuperscript{3}(pp7–9)

\textit{Trauma/Burn/Critical Care Physician Assistant}

Responsible for ensuring that all trauma and burn patients at the facility receive appropriate triage, preoperative evaluation, resuscitation, and stabilization. These PAs also provide the following care: postoperative care; trauma/burn surgical first assist; trauma/burn inpatient care, trauma/surgical/burn intensive care; minor procedures; ultrasound (critical care, ultrasound-guided procedures); bedside fluoroscopy procedures: endoscopy (bronchoscopy/EGD/colonoscopy); burn care and wound care; and assistance with placement of external fixators (pelvic and extremity). They ensure continuity of care and perform trauma/burn critical care transportation as required. They also consult with physicians, physician assistants, nurses, and medics about burn disease processes, pathology, and treatments. They provide feedback to Role 1 providers and medics on outcomes and possible areas for improvements.\textsuperscript{3}(pp7–9)

\textit{General Surgery/Intensivist Interservice Physician Assistant Program Instructor}

Responsible for providing instruction to Department of Defense PA students in the Interservice Physician Assistant Program, located at Fort Sam Houston, Texas, on surgical/trauma/burn pathology and disease processes with coursework on anatomy and physiology, differential diagnosis, appropriate laboratory workup, and radiological workup for different types of surgical pathology. The instructors teach basic suturing techniques, wound care, bedside procedures, and trauma procedures, including classroom and laboratory instruction for the Advanced Trauma Management lab. They also perform or assist in IRB-approved research and performance improvement projects. In addition to working with the PA students, these instructors train consulting physicians, physician assistants, nurses, and medics in trauma, surgical, and burn disease processes, pathology, and treatments.\textsuperscript{3}(pp7–9)
General Surgery/Intensivist Physician Assistant Research Director

Responsible for coordinating with the Army Medical Specialist Corps (SP) research working group and the GSPA program director for tracking and assisting with ongoing research. The research director ensures that all IRB-approved research projects for GSPAs are tracked and reported to the GSPA program director. He or she also maintains a list of pre-proposal research ideas and serves as the main point of contact for all GSPA research.3

General Surgery/Intensivist Residence Assistant Program Director

Assists the general surgery/intensivist program director in teaching Army GSPA residents about surgical/trauma/burn pathology and disease processes, providing instruction on anatomy and physiology, differential diagnosis, appropriate laboratory workup, and radiological workup for different types of surgical pathology. These PAs provide instruction on basic suturing techniques, wound care, bedside procedures, and trauma procedures and assist with hands-on training in emergency and critical care ultrasound, endoscopy, minor procedures, and trauma procedures. They also assist with all administrative functions such as coordinating rotations, filling out grades, and enrollments. They teach in the 2-week US Army Physician Assistant–Baylor Doctorate of Science research course. They also perform or assist in IRB-approved research and performance improvement projects, and train consulting providers, PAs, nurses, and medics in trauma, surgical, and burn disease processes, pathology, and treatments. PAs in this position must have a DSc; maintain National Commission on Certification of Physician Assistants (NCCPA) certification; have taken the Basic Life Support (BLS), Advanced Burn Life Support (ABLS), Advanced Cardiac Life Support (ACLS), and Advanced Trauma Life Support (ATLS) courses; and be working toward certification in RDMS, CWS, and CNSC. They are also required to serve as a provider to the general surgery clinic (0.60 full time equivalent).3

General Surgery/Intensivist Program Director

Has overall responsibility for the GSPA resident program. These PAs develop and set the testing, rotation, and hands-on training schedules. They are responsible for all administrative functions such as enrollments, filling out grades, and monthly counseling. They
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provide instruction to Army GSPA residents in surgical/trauma/burn pathology and disease processes, including anatomy and physiology, differential diagnosis, appropriate laboratory workup, and radiological workup for different types of surgical pathology. They also serve as the primary instruction provider on suturing techniques, wound care, bedside procedures, and trauma procedures; conduct hands-on training on topics such as ultrasound, endoscopy, minor procedures, and trauma procedures; and conduct training in the 2-week SP research course. They may also serve as the research director if no other research director is available. They perform or assist in IRB-approved research and performance improvement projects and train consulting physicians, PAs, nurses, and medics in trauma, surgical, and burn disease processes, pathology, and treatments. Additionally, these PAs work closely with the PA graduate medical education director to identify applicants, update program requirements, and ensure that GSPA residents adhere to the commensurate level of a doctoral program.

PAs in this position must have a DSc; maintain NCCPA certification; have completed the BLS, ABLS, ACLS, and ATLS courses; and should have or be working toward certifications in RDMS, CWS, and CNSC. They are required to serve as provider to the general surgery clinic (0.50 full time equivalent) and as a member of the Allied Health Community under the San Antonio Uniformed Services Health Education Consortium.

Duty Locations

- GSPA:
  - Fort Belvoir Community Hospital, Ft Belvoir, VA
  - Womack Army Medical Center, Ft Bragg, NC
  - Evans Army Community Hospital, Ft Carson, CO
  - Blanchfield Army Community Hospital, Ft Campbell, KY
  - Carl R. Darnall Army Medical Center, Ft Hood, TX
  - Madigan Army Medical Center, Ft Lewis, WA
  - Tripler Army Medical Center, Honolulu, HI
- Interservice Physician Assistant Program instructor: Army Medical Department Center and School, Ft Sam Houston, TX
- GSPA program director: San Antonio Military Medical Center, Ft Sam Houston, TX
- Trauma/critical care PA: San Antonio Military Medical Center, Ft Sam Houston, TX

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• Burn/critical care PA: Institute of Surgical Research Burn Center, San Antonio Military Medical Center, Ft Sam Houston, TX

Requirements

• Extensive experience (with deployments) in battalion and brigade PA positions.
• Apply and be accepted to long-term health education and training.
• Rank of captain to major (lieutenant promotable and lieutenant colonel may be considered).
• Captains must have completed the Captains Career Course and majors and higher must have completed intermediate-level education prior to start of program.  

Desired Skills and Attributes

• Must be an excellent role model with the desire to mentor others.
• Solid leadership, administrative, and academic skills.
• Must have an interest in people.
• Must be able to encourage and assist others.
• Good oration and written communication skills.
• Strong work ethic.
• Strong organizational and time management skills.
• Committed to working within a team environment.

References

