SOF Surgical support by non-surgeons

Presenters:
CPT Alex Merkle, PA-C
CPT Josh Randles, PA-C

Disclosures:
The view(s) expressed herein are those of the author(s) and do not reflect the official policy or position of Brooke Army Medical Center, the U.S. Army Medical Department, the U.S. Army Office of the Surgeon General, the Department of the Army, the Department of the Air Force, or the Department of Defense or the U.S. Government.

Financial disclosures: none

Caveat: The perspectives are Army centric

SOF Truths
• Humans are more important than Hardware.
• Quality is better than Quantity.
• Special Operations Forces cannot be mass produced.
• Competent Special Operations Forces cannot be created after emergencies occur.
• Most Special Operations require non-SOF assistance

https://www.socom.mil/about/sof-truths
Agenda

- Identify current shortfalls in surgical support
- Consider future conditions if no change to trajectory
- Identify historical and current solutions in place elsewhere
- Discuss possible alternative surgical personnel for SOF

Framework

Personnel

Doctrine/Organization

Training/Sustainment

Legal Authority
Role 2 Surgical Assets

<table>
<thead>
<tr>
<th>Branch</th>
<th>Name</th>
<th>Size</th>
<th>Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td>SRT</td>
<td>6-5</td>
<td>PA, surg, EM, CRNA, comms</td>
</tr>
<tr>
<td>Army</td>
<td>GHOST</td>
<td>5-10</td>
<td>3-4 PA, surg, 1-2x CRNA, EM, EMRN, ST, 1-2x RN medics</td>
</tr>
<tr>
<td></td>
<td>FRST</td>
<td>10</td>
<td>Surg, ortho, EM, CRNA, EMRN, EM, LPN, medics, MDC</td>
</tr>
<tr>
<td></td>
<td>BRT</td>
<td>8</td>
<td>Surg, PA, EM, CSU, CRNA, EMRN, EM, ST</td>
</tr>
<tr>
<td></td>
<td>SORT</td>
<td>8</td>
<td>PA, CRNA, 4x SOC, med, LPN, MD</td>
</tr>
<tr>
<td></td>
<td>SORT</td>
<td>8</td>
<td>PA, CRNA, 4x SOC, med, LPN, MD</td>
</tr>
<tr>
<td></td>
<td>SO2T</td>
<td>6</td>
<td>Surg, EM, CRNA, EMRN, ST</td>
</tr>
<tr>
<td></td>
<td>T22ET</td>
<td>5</td>
<td>Surg, EM, x2 CRNA, ST</td>
</tr>
<tr>
<td>Navy</td>
<td>GUT</td>
<td>6</td>
<td>Surg, ortho, EM, CRNA, EMRN, ST, MDC</td>
</tr>
<tr>
<td></td>
<td>GST</td>
<td>7</td>
<td>Surg, EM, CRNA, EMRN, EM RN, EM RN, x2 ST, medics</td>
</tr>
<tr>
<td>Air Force</td>
<td>SO2T</td>
<td>6</td>
<td>Surg, EM, CRNA, EMRN, ST</td>
</tr>
<tr>
<td></td>
<td>T22ET</td>
<td>5</td>
<td>Surg, EM, x2 CRNA, ST</td>
</tr>
</tbody>
</table>

There is no doctrine on the GHOST model. It is based on the medical PFT model and modified for the individuals with the mission. The 102nd PFT deployed with traditional, doctrine-based surgical instrument sets (MTOE 77-006), which were found to be bulky, inefficient, and non-nutritive. Surgical Instrument Sets for Special Operations Expeditionary Surgical Teams. JSOM Fall 2017, Vol 17, Ed 3, pg 40-45.

Damage Control Resuscitation

Role of Surgical Assets

Table 1: Wartime Medical Specialties Included in Personnel Management Plan

<table>
<thead>
<tr>
<th>Category</th>
<th>Specialty</th>
<th>Requirements</th>
<th>End Strength</th>
<th>% Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trauma Surgery</td>
<td>General Surgeons</td>
<td>1,440</td>
<td>647</td>
<td>45%</td>
</tr>
<tr>
<td>Trauma Surgery</td>
<td>Orthopedic Surgeons</td>
<td>103</td>
<td>45</td>
<td>44%</td>
</tr>
<tr>
<td>Critical Care</td>
<td>ICU/PICU/CCU</td>
<td>511</td>
<td>115</td>
<td>54%</td>
</tr>
<tr>
<td>Critical Care</td>
<td>Critical Care Nurse</td>
<td>2,534</td>
<td>1,900</td>
<td>75%</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>Anesthesiologist</td>
<td>842</td>
<td>678</td>
<td>79%</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>Nurse Anesthetist</td>
<td>3,900</td>
<td>1,102</td>
<td>28%</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>Emergency Medicine Physician</td>
<td>1,003</td>
<td>677</td>
<td>67%</td>
</tr>
</tbody>
</table>

NDAA 2017


Early Specialization in Surgery: The New Frontier

Walter F. Longo, MD, Rajan Sundaram, MD, Andrew Duffly, MD, John Beachy, MD, Robert Udelman, MD
Department of Surgery, New York University School of Medicine, New York, Connecticut
Initial Training Timeline

- Undergraduate – 4 years
- Medical school – 4 years
- Residency – 5-6 years
- Trauma Focused – 1-2 years
- Total time = 14-16 years

Sustainment Training

**Saving the Military Surgeon: Maintaining Critical Clinical Skills in a Changing Military and Medical Environment**


§ 54.1-2400.01:1. Definition of Surgery:

- "...means the structural alteration of the human body by the incision or cutting into of tissue for the purpose of diagnostic or therapeutic treatment of conditions or disease processes by any instrument causing localized alteration or transposition of live human tissue, but does not include the following: procedures for the removal of superficial foreign bodies from the human body, punctures, injections, dry needling, acupuncture, or removal of dead tissue."
§ 54.1-2400.01:1 ... who may perform surgery

- No person shall perform surgery unless he is (i) licensed by the Board of Medicine as a doctor of medicine, osteopathy, or podiatry; (ii) licensed by the Board of Dentistry as a doctor of dentistry; (iii) jointly licensed by the Boards of Medicine and Nursing as a nurse practitioner; (iv) a physician assistant acting under the supervision of a doctor of medicine, osteopathy, or podiatry; (v) a licensed midwife in the performance of episiotomies during childbirth; or (vi) acting pursuant to the orders and under the appropriate supervision of a licensed doctor of medicine, osteopathy, podiatry, or dentistry.

Legal Authority

- Deployment practice misnomers

- Laws limit...
  - Who can train → sustain

No Future Change

**Personnel:** Issue #1 = Surgeon shortage
Cannot successfully rely on "surgeon only" future staffing model
High op tempo & deployment schedule impacts surgeon practice & satisfaction
Administrative and leadership demands take away from patient care
Strong disparity in civilian vs military pay ($400+ vs $140k)

**Doctrine:** Issue #1 = small surgical teams for low intensity conflict
Worldwide solutions

- Non-physician surgical treatment
  - African Nations
  - Cambodia
- Surgical PAs
  - Ireland
  - Germany
  - India

World War II
Korean War

[Images of military personnel and maps]

[Image of medical personnel with text: Ferrell, R., Gernasy, V. H., Scheele, R. J.]

[Text: PHYSICIAN'S ASSISTANTS
CLASS OF 1967]
Worldwide solutions

- Non-physician surgical treatment
- African Nations
- Cambodia
- Surgical PAs
- Ireland
- Germany
- India

World War II
Korean War
Surgery isn't just about the knife
"Surgical training isn't just perfecting procedural skills, but rather, understanding the physiologic derangements associated with trauma to fully grasp when surgical interventions are and aren't necessary - then becoming masters at the procedures."
COL James Pairmore

Enlisted

Non-Surgeon Physician

Publicly available photo from:
"As of right now the DSc Surgical PAs have the skills set to be part of the solution to meet the evolving requirements for care on the future battlefield"
COL Jason Seery MD, AMCT3 Task Force Chairman

"When a dying patient is bleeding out on the table in front of you, it requires two surgeons and four hands to potentially save their life. I think a surgically trained PA is an appropriate substitute for second surgeon"
COL Shawn Nessen DO, US Army OTSG Trauma Consultant
Collaborative solutions

SOF Medic  TS/CC PA  Surgeon

Role 1  Role 2  Role 3

Thank you

Josh Randles
Joshua.d.randles.mil@mail.mil
Alex Merkle
Alexander.b.merkle.mil@mail.mil
Bibliography

