

Beyond TCCC: A DCoT Consensus on Knowledge and Surgical Skills Required of Role 1 Providers During Large Scale Combat Operations

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Disclosure

The views expressed herein are those of the author(s) and do not necessarily reflect the official policy or position of Brooke Army Medical Center, the Defense Health Agency, the Department of War, nor any agencies under the U.S. Government

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The Problem: LSCO Will Break the Golden Hour Model



The 2009 Golden Hour Policy

- Rapid evacuation to MTFs with surgical capability
- Dramatically reduced morbidity and mortality in COIN operations
- Required: air superiority and freedom of movement
- Role 1: initial stabilization only, no surgical capability

Near-Peer / LSCO Threat

- Contested multidomain environments
- No guaranteed air superiority or medevac routes
- Role 1 may manage high-acuity casualties for extended periods
- Projected Telemedicine Gap
- Current training & credentialing vary widely across services

Methods: DCoT Working Group Survey



01

Working Group Formation

- Role 1 Procedures Working Group established within CoSCCC (2023)
- Equal representation: prehospital, Role I & Role II SMEs

02

Procedure List Development

- Reviewed: historical combat injury data, JTS clinical practice guidelines
- Projected LSCO Role 1 requirements
- Generated preliminary list of key surgical procedures

03

Cross-Sectional Survey

- 40-question survey
- Administered to DCoT sub-committees at in-person administration meetings: Jan & Mar 2024
- Agreement on 31 surgical procedures on 5-point Likert scale

Results: Demographics & Survey Foundation



105

Respondents
70% response rate

89%

Combat Deployed

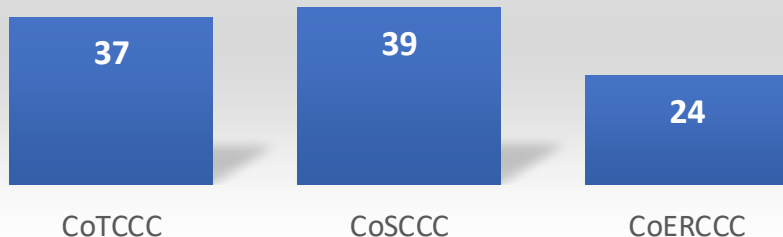
56%

SOF Experience

73%

Active Duty

Defense Committee Respondents(%)



Reliability Validation

- 10 TCCC Tier 4 skills included as anchors
- All 10 received median score of 5
- Confirms foundational skills consensus
- Validates survey reliability among DCoT SMEs

Results: 16 Expanded Procedures - (Median ≥ 4)



Hemorrhage / Access / Pain

- Figure of eight suture
- Exposed extremity vessel ligation, clamping
- Procedural analgesia and sedation
- Landmark guided central venous access: femoral / IJ

Limb / Sight Compromise

- Completion amputation: mangled limb
- Fasciotomy: lower extremity
- Lateral canthotomy & cantholysis

Burn & Wound

- Basic wound / burns cleaning and debridement
- Incision and drainage (subcutaneous / perirectal abscess)
- Escharotomy

Ultrasound-Based Skills

- eFAST Exam
- US based shock assessment
- POCUS to evaluate injured service members
- US-guided peripheral IV access
- US-guided central venous access: femoral / IJ
- US-guided regional anesthesia

Results: 5 Procedures Excluded - (Median ≤ 3)



Procedure	Reason for Exclusion
Saphenous vein cutdown	Technical complexity / limited Role 1 applicability
US-guided pericardiocentesis	Overlap with other drainage procedures; training burden
US-guided suprapubic catheter placement	Increased risk for complications due to low procedure training volumes
Suprapubic catheter placement without ultrasound capability	Safety concerns without imaging guidance
Fracture reduction with POCUS	Minimal role in procedure per specialists

Implications: Doctrine, Training & Sustainment



Training Doctrine

- Current TCCC curricula insufficient for LSCO
- Include 16 identified procedures in revised doctrine
- Cross-service standardization required

Procedural Courses

- Standardized hands-on surgical skills courses
- Cadaveric and simulation-based training platforms
- Joint-service course development

Skill Sustainment

- Ongoing clinical exposure in MTF settings
- Simulation labs for low-frequency / high-acuity skills
- Annual competency verification

CPG Development

- Data-driven foundation for JTS CPG revision
- Role 1-specific procedure guidance
- Equipping standards aligned to skill set



Conclusions

- 1 Near-peer conflict places unprecedented demands on Role 1 providers
- 2 TCCC remains the foundational standard - but it is not sufficient for LSCO
- 3 **16 advanced surgical procedures were identified by DCoT SMEs as critical for Role 1 providers in LSCO environment**
- 4 Skills span hemorrhage control, limb/sight compromise, burn/wound management, and US based skills
- 5 Revised training doctrine, standardized courses, and ongoing sustainment are essential
- 6 These findings provide a data-driven foundation for cross-service CPG development

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Questions?

