JOINT TRAUMA SYSTEM CLINICAL PRACTICE GUIDELINE (JTS CPG)

JTS CPG Development Process

This CPG describes the current processes and procedures for CPG development, periodic review/update, verification, and publication.

CONTRIBUTORS

Lt Col (Ret) Katherine S. Robbel, USAF, NC
MSG (Ret) Harold Montgomery, SO-ATP, USA
Cynthia R Kurkowski, B.J.
CAPT Matthew D. Tadlock, MC, USN
Lt Col Remealle A. How, USAF, MC
CDR J. Michael Van Gent, MC, USN
COL Jennifer Gurney, MC, USA

Previous Contributors: COL Kirby Gross, MC, USA; CAPT Zsolt Stockinger, MC, USN; CDR Shane Jensen, MC, USN; CAPT Brendon Drew, MC, USN; COL Cord Cunningham MC, USA; COL Brian Sonka, MC, USA; CMSgt (Ret) Tom Rich, USAF, NRP; Mary Ann Spott, PhD, MPA, MSIS, MBA, RHIA; Dallas R Burelison, MBA; Col Stacy Shackelford, USAF, MC; Dominick Sestito IV, USN (Ret), MBA, PMP

First Publication Date: 30 Apr 2009 | Publication Date: 04 Oct 2024 | Supersedes: 27 Sep 2022

TABLE OF CONTENTS

SUMMARY OF CHANGES

1. Streamlined and added links to the Author Guidance CPG
2. Submit CPG topic ideas, corrections, and questions to: dha.jbsa.healthcare-ops.list.jts-cpg@health.mil

INTRODUCTION

The JTS CPGs were developed out of necessity to reduce variability in care, improve quality, measure outcomes, and weigh the benefits against the risks and costs of specific interventions. These CPGs provide recommendations to deployed clinicians about the care of trauma patients with specific conditions and are not a substitute for clinical judgment. The CPGs were developed through evidence-based research, systematic review of the literature, PI indicators and input from Subject Matter Experts (SMEs).

BACKGROUND

CPGs are "statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options."[1] To date, over 80 CPGs have been instituted to inform the standard of care for the US military in the deployed setting and are reflective of the current "state of the art" at the time of release.

CPGs are developed based on the best available evidence and SME consensus, providing clinicians with recommendations to improve the quality of care, standardization of care and serve as an educational resource while deployed. A systematic and operationally responsive approach to development, verification and implementation of CPGs is taken to ensure rapid field dissemination and provide quality indicators to measure effectiveness. Department of Defense (DoD) trauma cases worldwide are reviewed for CPG compliance by JTS in accordance with PI metrics specified at the end of each CPG.

JTS guidelines may be updated frequently based on operational need and clinical observations and have all been written by SME volunteers. CPGs undergo revisions when the clinical or operational need arises. The JTS CPGs currently do not meet the National Academies of Sciences Engineering and Medicine standards for CPG development[1] to facilitate expediency, responsiveness to the military operational environment and rapid performance improvement. In some cases, there may be little published literature (military or civilian) to guide battlefield or operational medicine, requiring heavy reliance on SME opinion or unpublished analysis of military data. JTS CPGs are timely and reflect evolving threats, technologies, and current realities on the battlefield. The JTS recommends every deploying clinician in their respective Combatant Command (CCMD) who will be providing care for casualties becomes familiar with the CPGs posted on the JTS website.

Strong evidence demonstrates CPG compliance is associated with a reduction in mortality.[2-4] The Donabedian Model for quality improvement in health care states that, besides patient characteristics, institutional structures and clinical practices determine patient outcome.[5] Evidence-based CPGs are developed to avoid unnecessary variation and promote consistency in healthcare practice throughout the continuum of care to achieve optimal outcomes. JTS CPGs complement the deployed PI process. Since the early days of the U.S. Central Command (USCENTCOM) trauma system, the guidelines have been developed and implemented by clinical SMEs in response to needs identified in the CCMD Area of Operations (AOR). More recently, as the trauma system has matured, the process for identifying, developing, vetting, approving, and implementing CPGs has also matured.

To the greatest extent possible, JTS CPGs are evidence-based. The evidence is derived from the published literature, to include analysis of combat casualty data. When evidence is lacking or unclear, yet a CPG is needed, guidelines are developed based on the best available evidence and SME consensus. In order to ensure CPGs include the latest techniques and innovations, monitoring of all CPGs is essential. To ensure monitoring, each individual CPG will include a system-level PI monitoring plan. Monitoring specifics (e.g., timing, frequency, performance measures) are written in the PI monitoring plan for each CPG. This system-wide monitoring will be conducted by the JTS PI Branch. The PI plan will state the intent and minimum performance measures that will be utilized for monitoring. Trauma directors or their equivalents at the deployed military treatment facility level are expected to implement local PI processes to ensure appropriate adherence to the CPGs; the PI monitoring plan will help guide these efforts. Routine updates to CPGs occur every five years or as the operational need arises or as new evidence surfaces. SMEs include, but are not limited to, military and DoD civilian experts, deployed clinicians, Service specialty consultants, trauma medical directors, trauma program managers, JTS Branch Chiefs, and trauma PI nurse analysts.

Although the JTS CPGs were originally developed for USCENTCOM, they are no longer specific to any particular CCMD or contingency. JTS CPGs are patient-centric guidelines with the intent of keeping the medicine joint and agnostic of Service or location. Because CCMDs greatly differ in climate, terrain, and resources, the JTS CPGs are not representative of a specific CCMD or contingency. Services, unit organizations, and trauma directors may tailor to unit missions, deployed settings, and unique situations.

CPG DEVELOPMENT – NEW CPG

TOPIC IDENTIFICATION

Any DoD Service Member can propose a topic for CPG development or revision to the JTS CPG Manager. At a minimum, a new CPG topic must include:

- A description of the proposed guideline and perceived gap in care.
- Identification of end-users of the guideline.
- Identification of changes in performance to be driven by the guideline.
- The JTS CPG manager will take CPG proposal and:
- Cross reference proposals with existing CPGs.
- Identify way ahead course of actions (COAs)
- Present COAs to JTS clinical leadership (DCoT Chief, DCoT Committee Chairs, PI Chief, and JTS Chief) for decision.

TOPIC SELECTION

The JTS CPG Branch/DCoT/JTS Chief will determine the need for the proposed CPG topic based on:

- Relevance to the deployed combat casualty environment
- Potential for reduction of clinically significant variations
- Incidence, prevalence, or trend identified by DoD Trauma Registry data
- Evolution of best practices
- Findings and implementation of lessons learned
- Requests from theater/CCMD/Service
- Target audience of CPG (prehospital, en route care, role 2/3)

Submit CPG topic recommendations to: dha.jbsa.healthcare-ops.list.jts-cpg@health.mil

KEY CPG DEVELOPMENT STEPS

Once the proposed CPG topic is approved, DCoT Committee Chair with CPG Manager will initiate the CPG process:

1. Identify lead author/working group/SMEs
2. Crosswalk with other existing projects/proposals
3. Provide literature review/data retrieval support as needed

CPG CONTENT REQUIREMENTS

At a minimum the CPG must contain the following:

1. Summary of changes if CPG update
2. Infographic (provided by Infographic team)
3. Background
4. Evaluation
5. Treatment
6. Performance improvement monitoring (provided by PI team)

7. References
8. DOTMLPF-P considerations (if appropriate)
9. Supplemental H&P (if appropriate)
10. Appendix (as needed)
11. Credential information for authors/working group/SMEs (rank, branch of service, title (MD/DO/RN, etc.)

REVIEW & UPDATE OF EXISTING JTS CPGS

Existing CPGs will be **revised at least every five years (routine updates)**, or sooner in response to clinical or operational needs. A rapid update may occur at any time if new research or technology emerges - or if operational considerations dictate a necessity to alter combat casualty care.

The JTS CPG Branch/DCoT will review each CPG to determine the need for significant revision.

- If an update is needed, the JTS CPG Branch/DCoT will initiate the update by inviting the current CPG's lead author(s) to lead the revision process.
- If the lead author has separated from the military or declines, a new lead author will be identified, and the revision process will follow that of a new CPG.
- If no update is required as determined by the JTS CPG Branch/DCoT, the CPG is submitted to the JTS Chief for re-approval.

The JTS CPG Branch/DCoT will approve all proposals for rapid/routine updates, clinical enhancements, specific population, and operational considerations to an individual CPG. This approval will create an abbreviated review process for rapid update and will not affect the publication date of the CPG. The lead author, and the editorial working group at its discretion, will review these updates for inclusion into the CPG. These updated CPGs will be forwarded to the DCoT Chair(s) for approval before sending to the JTS Chief for final approval.

Upon approval, the CPGs will undergo PAO/OPSEC review prior to posting on the JTS CPG webpage and Deployed Medicine.

RESPONSIBILITIES

Title	Responsibility
DCoT Chief	Publish relevant, evidence-based CPGs with best practices.
PI Chief	Monitor global implementation and adherence to CPGs.
JTET Chief	Develop education and training content specific to CPGs.
JTS Data Deputy	Ensure that DODTR metrics get updated in accordance with CPG (i.e. new therapeutics)
JTS Chief	Ensures compliance with overall process, provide input/edits to each CPG; ensure relevance to combat casualty care, guarantor of CPG content (or delegates guarantor to the senior author)
CCMD / Theater Command Surgeon / CCMD Trauma Medical Director	Implement and monitor employment of CPGs in AOR.
Theater Trauma Director and AOR Trauma Medical Director	▪ Ensure training, mission-based compliance. ▪ Ensure PI monitoring. ▪ Ensure reporting at the local level.

Title	Responsibility
CPG Manager	▪ Responsible for overseeing the CPG development process from concept to publication ▪ Liaison to lead author ▪ Liaison to PI for metrics ▪ Liaison to Data Science and Registry Branches ▪ Liaison to infographic team/clinical forms working group ▪ Liaison to MEDLOG ▪ Liaison to DCoT ▪ Oversees socialization of CPGs.
Technical Writer	▪ Edits, proofs, and formats CPGs. ▪ Routes for approval to JTS Chief/Deputy Chief and DHA PAO. ▪ Publishes CPG on the JTS website. ▪ Uploads CPG to CPG app in JTS Manager.

Refer to JTS CPG Author Guidance for further information

PEER REVIEW & APPROVAL

1. Draft is received from lead author.
2. CPG manager will send draft to JTS CPG branch members for review and adjudication, PI Chief for review and approval/update of PI metrics, JTS Infographic team for development of infographic.
3. DCoT CPG manager will consolidate comments for adjudication by the lead author.
4. After the comments are adjudicated, the CPG editorial board meets to review as an SME group.
5. CPG sent to DCoT Chief for review after all edits have been adjudicated.
6. The CPG Manager/ technical writer will route the final draft to the JTS Chief for review and approval.
7. Upon JTS Chief approval, the technical writer will forward the CPG to DHA for Public Affairs Office/Operations Security (PAO/OPSEC) review and approval. The approved CPG will then be published on the JTS CPG web-based platforms.
   - https://jts.health.mil/index.cfm/PI_CPGs/cpgs
   - www.deployedmedicine.com

***NOTE**: Approval authority for implementation of the CPG in any CCMD rests with each CCMD.*

PUBLICATION & DISSEMINATION

CPGs will be published on the JTS website and Deployed Medicine website. The CPG will be socialized through infographics, social media campaigns and though the weekly Combat Casualty Care Conference. See Appendix A for a list of dissemination activities.

REFERENCES

1. IOM (Institute of Medicine). Clinical practice guidelines we can trust. Washington, DC: The National Academies Press, 2011.
2. Shafi S, Barnes SA, Rayan N, et al. Compliance with recommended care at trauma centers: association with patient outcomes. J Am Coll Surg. 2014;219(2):189-98.
3. Eastridge BJ, Costanzo G, Jenkins D, et al. Impact of joint theater trauma system initiatives on battlefield injury outcomes. Am J Surg, 2009;198(6): 852-7.
4. Bailey JA, Morrison JJ, Rasmussen TE. Military trauma system in Afghanistan: lessons for civil systems? Curr Opin Crit Care, 2014;19(6):569-577.
5. Donabedian, A. The quality of care. How can it be assessed? JAMA. 1988;260:1743–1748.

APPENDIX A: CPG DISSEMINATION