JOINT TRAUMA SYSTEM CLINICAL PRACTICE GUIDELINE (JTS CPG)

JTS CPG Development Process (CPG ID: 54)

This document provides an overview of the processes for developing, reviewing, updating, approving, adopting, and monitoring JTS CPGs.

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INTRODUCTION

The Joint Trauma System (JTS) Clinical Practice Guidelines (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 in no way a substitute for clinical judgment. The CPGs were developed through evidence-based research, systematic review of the literature, Performance Improvement (PI) indicators and input from Subject Matter Experts (SMEs). To date, 44 CPGs have been instituted as proposed standards 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 undergo revisions when the clinical or operational need arises, historically every one to two years. The JTS recommends that every deploying clinician in their respective Combatant Command (COCOM) who will be providing care for casualties becomes familiar with the CPGs posted on the JTS website. Department of Defense trauma cases worldwide will be reviewed for compliance at JTS with PI indicators specified in each CPG.

This CPG describes the current process, used for CPG development and implementation.

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] CPGs are developed on the best available data and SME consensus, providing clinicians with recommendations to improve the quality of care, appropriateness of care and serve as an educational resource while deployed. A systematic and operationally responsive approach to development and implementation is taken to ensure rapid field dissemination and provide quality indicators to measure effectiveness.

The JTS CPGs currently do not meet all of the National Academies of Sciences Engineering and Medicine (NASEM's) standards for CPGs.[1] The reason for this are multifactorial, but relate mostly to the expediency required for their development and promulgation. The NASEM estimates that development of a single guideline costs $200,000 in 2003, with up to $200,000 for dissemination.[1] The U.S. Department of Health and Human Services (USDHHS) Agency for Healthcare Research and Quality (AHRQ) requires that guidelines be updated at least every five years (*https://www.hhs.gov/*). JTS guidelines on the other hand, are updated much more frequently (Appendix A) and have all been developed at no cost.

In addition, there is often 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 therefore more timely and better reflect evolving threats, technologies and current realities on the battlefield.

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 were developed to avoid unnecessary variation and promote consistency in healthcare practice throughout the continuum to achieve optimal outcomes. JTS CPGs complement the deployed Performance Improvement (PI) process. Since the early days of the United States Central Command (CENTCOM) trauma system, the guidelines have been developed and implemented by clinical SMEs in response to needs identified in the Combatant Command (COCOM) 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 evidenced-based. The evidence is derived from the published literature or internal JTS analysis of combat casualty data. When evidence is lacking or unclear, but a CPG is needed, guidelines are developed based on the best available evidence and SME consensus. 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 that will be a written part of the CPG. This system-wide monitoring will be conducted by the JTS PI division. 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 (MTF) level are expected to implement local PI processes to ensure compliance with the CPG; 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 Department of Defense (DoD) civilian experts, deployed clinicians, service trauma/surgical consultants, JTS/Joint Theater Trauma System (JTTS) Director, JTS Branch Chiefs, and JTS PI Nurse Coordinator(s).

Although the JTS CPGs were originally developed for the CENTCOM AOR, they are no longer specific to any particular COCOM or contingency. Individual COCOMs are welcome to utilize or to modify the JTS CPGs into COCOM-specific CPGs, which can be posted on the JTS CPG website if requested

NEW CPG DEVELOPMENT

TOPIC IDENTIFICATION

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

1. A description of the proposed guideline and perceived gap in care.
2. Identification of end-users of the guideline.
3. Identification of changes in performance to be driven by the guideline.

TOPIC SELECTION

The **JTS clinical leadership** will evaluate the proposed CPG for:

1. Incidence or prevalence of the disease or condition addressed by the guideline.
2. Potential for reduction of clinically significant variations in the prevention, diagnosis, treatment, or clinical management of the disease or condition.
3. Relevance to the deployed environment.

The **JTS clinical leadership** will approve the CPG topic and identify a lead author if not already determined.

EDITORIAL WORKING GROUP

The **lead author** will:

1. Develop a working group comprised of SMEs. A working group ideally will include 10 experts and other key clinical leaders, representing all three U.S. military service medical departments. Input from civilian and foreign military SMEs is permissible, but should not substitute for U.S. tri-service input.
2. Identify and disclose any areas of potential conflict of interest.
3. Define responsibilities of participants and project timelines for each phase of guideline development.
4. Distribute the CPG proposal to the working group to create the draft CPG.
5. Review available evidence and producing a working draft of the new CPG.

6. Collate and reconcile SME input.

7. Will serve as the point person to the JTS PI Division Chief upon completion of a first draft.

REVIEW & APPROVAL

The **JTS PI Division Chief** will review the first draft and may distribute the document for an additional review by a second level of experts which may include:

- Former JTS directors who are on active duty or are still associated with the DoD in an official capacity.
- Trauma chiefs/directors at deployed, continental U.S. or overseas facilities.
- Service trauma consultants or specialty leaders.
- The Chairman, Committee on Tactical Combat Casualty Care.

The **JTS Director** has final clinical approval. The decision is based upon the best existing clinical evidence and/or experience.

Upon JTS Director approval, the CPG must undergo Operations Security/Public Affairs Office (OPSEC/PAO) review. The approved CPG will then be published on JTS CPG webpage: https://jts.amedd.army.mil/index.cfm/PI_CPGs/cpgs

Approval authority for implementation of the CPG in any COCOM rests with each COCOM. See *COCOM Adoption of JTS CPGs* below

REVIEW & UPDATE OF EXISTING JTS CPGS

1. At minimum, existing CPGs will be revised every five years, or sooner in response to clinical or operational needs.

2. The JTS PI Division Chief will review each CPG to determine the need for significant revision.

   - If an update is needed, the PI Division Chief will initiate the update by inviting the current CPG's lead author(s) to head the revision process.
   - If declined, a new lead author will be identified and the revision process will follow that of a new CPG.
   - IF no update is required, the CPG is submitted to the JTS Director for re-approval.

3. Once approval has been granted, the CPGs will undergo OPSEC/PAO review prior to posting on the JTS CPG webpage.

COCOM ADOPTION OF JTS CPGS

Because COCOMs are greatly different in climate, terrain, and resources, the JTS CPGs are not representative of a specific COCOM or contingency. The JTS recommends that each COCOM Surgeon evaluate and determine the appropriateness of the JTS CPGs to their AOR. Each COCOM Surgeon may choose to:

1. Reject the CPG in its entirety.
2. Endorse the CPG in its entirety.
3. Modify the CPG.

- If the COCOM Surgeon requests, the JTS PI Division Chief will work in concert with the COCOM Surgeon to create a COCOM-specific CPG.
- If requested by the COCOM Surgeon, the COCOM-specific CPG may be placed on the public JTS CPG webpage.

MONITORING JTS CPGS

JTS CPG adherence is monitored by the JTS PI Director. System level monitoring of the CPGs is conducted by the JTS PI division. Monitoring specifics (e.g., timing, frequency, performance measures) are written in the PI Monitoring Plan contained in and individualized to each CPG.

PERFORMANCE IMPROVEMENT (PI) MONITORING

INTENT (EXPECTED OUTCOMES)

- Existing JTS CPGs will be updated at least every five years.
- Existing CPGs will be reviewed for need for revision annually.

PERFORMANCE ADHERENCE MEASURES

All JTS CPGs are to be reviewed no later than 60 days after the anniversary of the last annual review date.

RESPONSIBILITIES

It is the responsibility of the Chief of the JTS PI Division to ensure system-level compliance with this CPG. It is the trauma team leader's responsibility to ensure familiarity, appropriate compliance and PI monitoring at the local level with this CPG.

REFERENCES

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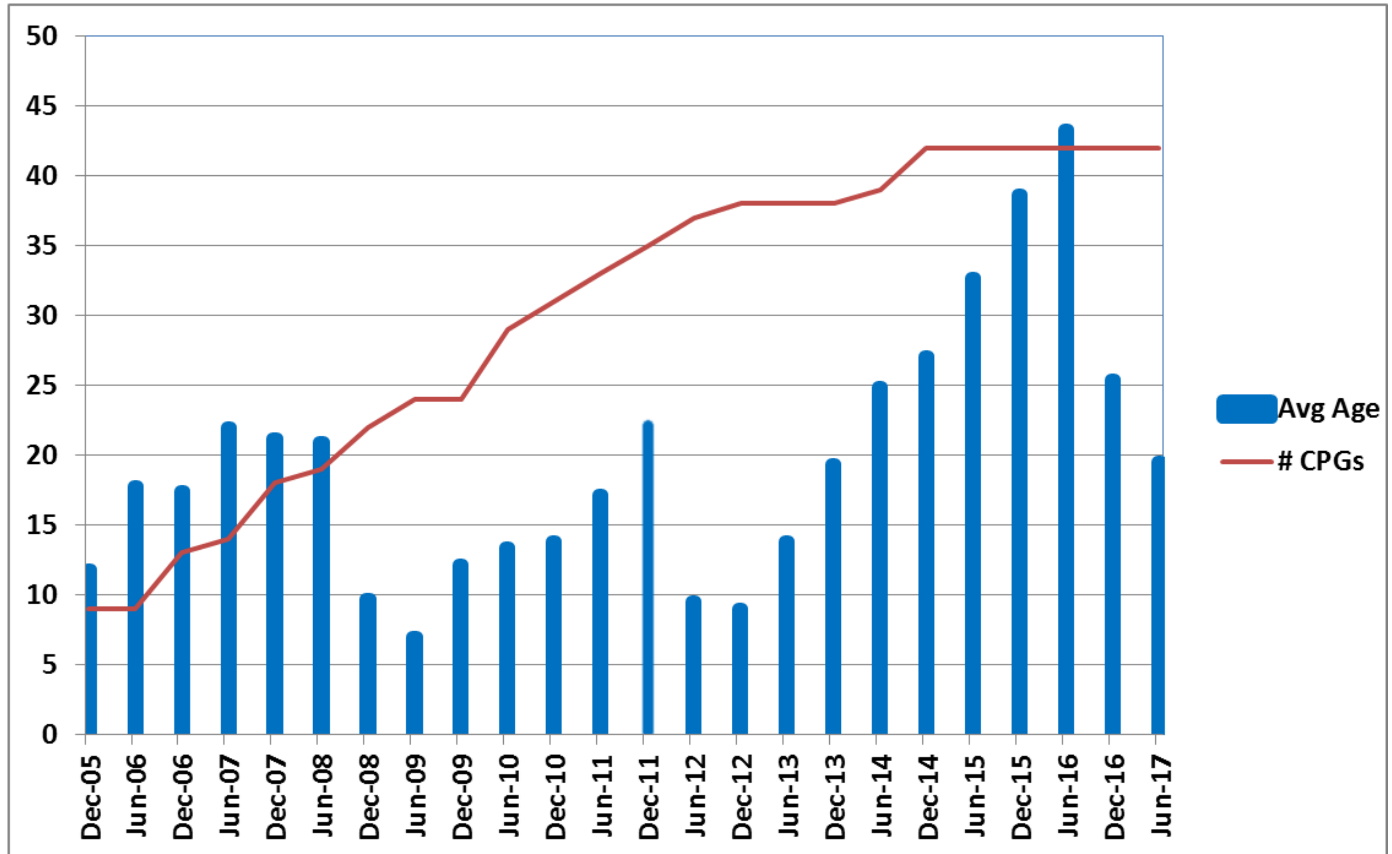
2. Shafi S, Barnes SA, Rayan N, et al. Compliance with recommended care at trauma centers: association with patient outcomes. J Am Coll Surg. 2014;219(2):189-98.
3. Eastridge BJ, Costanzo G, Jenkins D, et al. Impact of joint theater trauma system initiatives on battlefield injury outcomes. Am J Surg 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: CLINICAL PRACTICE GUIDELINE SHELFLIFE

Number of CPGs has surpassed this number since the publication of this chart.



APPENDIX B: CLINICAL PRACTICE GUIDELINE PROCESS