JOINT TRAUMA SYSTEM CLINICAL PRACTICE GUIDELINE (JTS CPG)

Documentation in Prolonged Field Care (CPG ID:72)

This CPG is meant to provide medical professionals who treat severely injured or sick patients in austere environments with recommendations for documentation that will allow them and subsequent providers along the evacuation chain to optimally manage complex, often unstable casualties.

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INTRODUCTION

This Role 1, prolonged field care (PFC) Clinical Practice Guideline (CPG) is intended to be used after Tactical Combat Casualty Care (TCCC) guidelines when evacuation to higher level of care is not immediately possible. A provider of PFC must first and foremost be an expert in TCCC. This CPG is meant to provide medical professionals who treat severely injured or sick patients in austere environments with recommendations for documentation that will allow them and subsequent providers along the evacuation chain to optimally manage complex, often unstable casualties. Recommendations follow a "minimum," "better," "best" format that pro-vides alternate methods when optimal hospital options are unavailable.

BACKGROUND

PFC frequently involves the care of complicated, critically injured or sick casualties who are normally managed in medical treatment facilities. For patients that survive the initial trauma or sickness, the biggest risk of death is from circulatory shock and its complications. All severely injured and sick patients must be closely monitored for signs of shock and decompensation because the best treatment for shock is early recognition, treatment of the cause, and resuscitation. One method used by intensive care units to monitor critical patients is trending vital signs, physical exams, and fluid outputs recorded on a flowsheet that facilitates recognition of changes that could mark the early signs of decompensation.

In the PFC environment, one of the few techniques available to the medical provider that is identical to those used in hospitals is documentation of key clinical trends. It is critical that Medics are trained on the interpretation of clinical trends. It is also essential that Medics cross-train nonmedical teammates to take and record vital signs, outputs, key exam findings, and interventions to free the medic to do other tasks as well as to sleep if care of the casualty is especially prolonged.

Documentation that can help the medic and successive caregivers manage complicated patients includes:

- TCCC Card, DD1380
- PFC flowsheet
- Telemedicine guide
- Handoff report

Finally, completion of the PFC after-action report (AAR) will contribute greatly to performance improvement to develop training, tools, and techniques for improving the care of casualties in austere environments.

PATIENT DEMOGRAPHICS

While some casualties will be unable to provide name, identification number, date of birth (DOB), or other identifying information, every effort should be made to collect and document this information in order to facilitate the inclusion of prehospital documentation into the patient's medical record. This information not only helps the longitudinal care of casualties as they progress through the evacuation chain, it also provides the vital link to connect prehospital treatments delivered to survival and long-term outcomes in order to guide recommendations for improving trauma care.

NOTE: *Medical treatment facilities use pseudo names assigned when a patient's real name is unknown. In such cases, every effort should be made to continue the same pseudo name through transfers of care. Prehospital documentation submitted after patient transfer, to include AARs, should use the same name or pseudo name assigned at the first treating MTF.*

DOCUMENTATION OF PREHOSPITAL CARE

GOALS

- Transmit important medical information to the next level of care
- Permanently record information vital to service members injured in combat
- Contribute to performance improvement in prehospital care.

Minimum: TCCC Card DD1380

- The DD1380 is organized as a MIST (Mechanism, Injuries, Signs and Symptoms, Treatments) report (Appendix A).
- Note the time casualty is received and include time of injury (if known and different from when received) and time of all key interventions (e.g., tourniquet, blood transfusion, tranexamic acid [TXA] dosing).
- List injuries and annotate on the diagram. Tourniquets and tourniquet times are also annotated on the diagram.
- Vital signs, including mental status AVPU (alert or responsive to voice, pain, or unresponsive) and pain scale, should be recorded to the greatest extent possible—up to four sets of vital signs can be recorded on the TCCC card.
- Document treatments to include external hemorrhage control, airway, breathing, fluids, medications, and other interventions on the reverse side of the TCCC card.

Better: PFC Flowsheet

As a follow-on to the TCCC card, the PFC flowsheet is used to document trends over time and is the most useful tool to recognize important clinical changes in complex casualties such as decompensation, response to resuscitation, development of complications, effectiveness of medications, etc. The PFC flowsheet is one of the most effective ways to improve the level of care provided in PFC situations.

- When prehospital care transitions to PFC, documentation should transition from the TCCC card to the PFC flowsheet. There is no exact time for this transition to occur; however, once all of the available time blocks on the TCCC card are filled and evacuation to higher level of care is not imminent, then documentation can transition to the PFC flowsheet (Appendix B).
- The PFC flowsheet not only serves to document care and identify trends but also contains a checklist of interventions that may be needed through the included patient care and nursing care checklists. Such checklists can greatly aid task-saturated, fatigued Medics by providing a quick point of reference for important tasks that should be performed regularly to improve care and reduce the risk of complications to their patients.

- The PFC flowsheet also includes:

  - Vital signs

  - Fluid input and output

  - Medication times, route, dose

  - Physical exam findings

  - Problem list

  - Treatment plan

  - Telemedicine call script

Best: AAR

- An AAR should be completed after patient handoff. In addition to the TCCC card and PFC flowsheet, a structured AAR is used to collect lessons learned and improve care. In cases where documentation is not able to be completed before patient handoff or was lost after handoff, the AAR can also serve as a supplement to the medical record.

- TCCC and PFC AARs are available at https://jts.health.mil/index.cfm/PI_CPGs/cpgs

- TCCC or PFC AARs, along with any medical documentation not completed before patient handoff, should be completed within 24 hours of patient handoff and summited to the Joint Trauma System (JTS) prehospital organizational email box: usarmy.jbsa.medcom-aisr.list.jts-prehospital@mail.mil

- The unclassified medical AAR should be accomplished in addition to unit-required classified AARs.

TELEMEDICINE GUIDE

GOAL

Goal: Facilitate communication between prehospital provider and telemedicine consultant.

Rehearsal of telemedicine consultation between prehospital providers and remote physician consultants has shown that communication is optimized when the caller completes a telemedicine guide or script before calling the consultant and uses it during the consultation. In addition to transmit- ting medical information to the consultant, it is important for the caller to provide information about the care context and a summary of capabilities currently available. An image of the casualty and an image of the care environment are helpful for remote consultants to understand the operational constraints faced by the local caregiver. Capabilities that are important to convey to remote consultants may include the training level of the provider, available medications, medical supplies, monitoring, ultrasound, etc. Reading or sending a photograph of a written capabilities list will more quickly orient the consultant to the operational environment of the caller and reduce time spent asking the caller for items that are not available. If urgent teleconsultation is needed, do not delay calling to fill out a guide sheet or send e-mails. For additional details, see Teleconsultation in prolonged field care position paper.[1]

Minimum: Read from TCCC card.

Better: Use telemedicine report incorporated in the PFC flowsheet.

Best: Use the Virtual Critical Care Consultation guide (Appendix C) and send a picture of casualty, capabilities, and vital sign trends to the consultant via email or text using appropriate operational security and protections of patient privacy.

HANDOFF REPORT

GOAL

Goal: Ensure safe transition to the next level of care.

Adverse events may occur due to poor handover of a patient from one level of care to another. The PFC provider's job is not done until the receiving team understands the patient's condition and can begin to manage the patient appropriately.

Summarize in organized format:

1. Overall condition of the patient: stable or unstable; better, same, or worse.

2. Mechanism of injury or illness

3. Injury(ies), current physical exam

4. Vital signs to include trends and urine output

5. Treatments (procedures, dressings, airway management, fluids, blood products, medications)

Minimum: Written handoff report that follows the MIST format (e.g., TCCC Card).

Better: Add the PFC flowsheet.

Best: Add a dedicated handoff sheet (e.g., SBAR handoff report2, PFC handoff report3).

ELECTRONIC DOCUMENTATION

Electronic documentation is the standard in hospitals and advanced field medical facilities. Devices such as the Tempus Pro (Remote Diagnostic Technologies LTD, United Kingdom) and BATDOK (USAF, 711 Human Performance Wing, OH) are devices designed for the operational environment that can compile detailed patient records that support many of the recommendations in this CPG. These and other similar devices and applications may improve the accuracy of patient records, reduce the burden of data entry for the prehospital provider, and provide other features to improve patient care such as critical value alarms and telemedicine communication. Where such devices are fielded and supported with network connectivity, their use for austere PFC environments is encouraged.

JTS hosts a variety of fillable forms at https://jts.health.mil/index.cfm/documents/forms_after_action

REFERENCES

1. Vasios W, Pamplin JC, Powell D, et al. Teleconsultation in prolonged field care. J Spec Oper Med. 2017:17(3);141–144.

2. Air Force Instruction 48-307, Volume 1, En Route Care and Aeromedical evacuation Medical Operations, 9 Jan 2017. http://static.e-publishing.af.mil/production/1/af_sg/publication/afi48-307v1/afi48-307v1.pdf Accessed 28 Dec 2017.

3. Prolonged Care MTF Handover Sheet. https://prolongedfieldcare.org Accessed 28 Dec 2017.

APPENDIX A: TACTICAL COMBAT CASUALTY CARE CARD, DD 1380

TACTICAL COMBAT CASUALTY CARE (TCCC) CARD

BATTLE ROSTER #: _____

EVAC: ☐ Urgent ☐ Priority ☐ Routine

NAME (Last, First): _____ LAST 4: _____

GENDER: ☐ M ☐ F DATE (DD-MMM-YY): _____ TIME: _____

SERVICE: _____ UNIT: _____ ALLERGIES: _____

Mechanism of Injury: (X all that apply)
☐ Artillery ☐ Blunt ☐ Burn ☐ Fall ☐ Grenade ☐ GSW ☐ IED
☐ Landmine ☐ MVC ☐ RPG ☐ Other: _____

Injury: (Mark injuries with an **X**)

TQ: R Arm
TYPE: _____
TIME: _____

TQ: L Arm
TYPE: _____
TIME: _____

TQ: R Leg
TYPE: _____
TIME: _____

TQ: L Leg
TYPE: _____
TIME: _____

Signs & Symptoms: (Fill in the blank)

Time				
Pulse (Rate & Location)				
Blood Pressure	/	/	/	/
Respiratory Rate				
Pulse Ox % O2 Sat				
AVPU	▾	▾	▾	▾
Pain Scale (0-10)	▾	▾	▾	▾

DD Form 1380, JUN 2014   TCCC CARD

BATTLE ROSTER #: _____

EVAC: ☐ Urgent ☐ Priority ☐ Routine

Treatments: (X all that apply, and fill in the blank)   *Type*

C: TQ- ☐ Extremity ☐ Junctional ☐ Truncal

    Dressing- ☐ Hemostatic ☐ Pressure ☐ Other _____

A: ☐ Intact ☐ NPA ☐ CRIC ☐ ET-Tube ☐ SGA _____

B: ☐ O2 ☐ Needle-D ☐ Chest-Tube ☐ Chest-Seal _____

C:

	Name	Volume	Route	Time
Fluid			▾	
			▾	
Blood Product			▾	
			▾	

MEDS:

	Name	Dose	Route	Time
Analgesic (e.g., Ketamine, Fentanyl, Morphine)			▾	
			▾	
			▾	
Antibiotic (e.g., Moxifloxacin, Ertapenem)			▾	
			▾	
Other (e.g., TXA)			▾	
			▾	

OTHER: ☐ Combat-Pill-Pack ☐ Eye-Shield (☐ R ☐ L) ☐ Splint
☐ Hypothermia-Prevention Type: _____

NOTES:

FIRST RESPONDER
NAME (Last, First): _____ LAST 4: _____

DD Form 1380, JUN 2014 (Back)   TCCC CARD

APPENDIX B: PROLONGED FIELD CARE FLOWSHEET –PAGE 1 (Newest Version Available at Prolongedfieldcare.org)

				D	Checklist	✓
Day				D	Checklist	✓
Hour				H	Reassess Tx	
Minute				M	Expose	
					Detailed Exam	
	200			200	Send MIST Report	
	190			190	Monitors	
	180			180	2nd IV/IO	
	170			170	GCS/Neuro/MACE	
	160			160	Analgesia	
	150			150	Sedation	
BP	140			140	NG / OG	
Systolic ᵛ	130			130	Upgrade Airway	
Diastolic ^	120			120	Post Cric Checklist	
	110			110	Vent w/ PEEP	
Temp X	100			100	Hypothermia Tx	
	95			95	Recalc TBSA & Fluids	
SPO2 ◊	90			90	Ultrasound eFast	
	85			85	Fluid Challenge	
	80			80	1st TXA dose (<3hrs)	
Pulse ●	75			75	Blood Type Card	
	70			70	FWB Transfusion	
MAP Δ	65			65	Convert TQ <4hrs	
	60			60	Foley/Bladder Tap	
	55			55	Adjust Vent Settings	
	50			50	UA Dipstick	
	45			45	Clear C-Spine	
ETCO2 ·	40			40	Position Pad Patient	
	35			35	Peripheral Pulses	
	30			30	Compartment Syndrome	
	25			25	Escharotomy	
	20			20	Reduce / Splint Fx	
Respirations ○	15			15	DVT Prophylaxis	
	10			10	Antibiotic War Wound Tx	
	5			5	Tetanus	
	0			0	Teleconsult	
	No read			No read	Labs	
Output					X-Ray / Imaging	
Fluid Input					PreOp Eval	
Pain scale/RASS					Debridement	
AVPU/Neuro/MACE						
Eye response	4				Nursing Care Reminders	✓
Oral Response	5				Vitals q1h	
Motor Response	6				Flush Saline Locks	
GCS Total	15				Suction ET Tube	
Drug/Intervention:	Dose:				Reposition q2hrs (30° Each side)	
Drug/Intervention:	Dose:				Change Blood Tube q4hrs	
					Oral Care / Hygeine q4hrs	
Drug/Intervention:	Dose:				Foley Care q4hrs	
					Sponge Bath q8hrs	
Drug/Intervention:	Dose:				Change IV Bag q24hrs	
					Change Foley Cath q72hrs	
Drug/Intervention:	Dose:				Change IV Lines q72hrs	
					Change HME q72hrs	
Drug/Intervention:	Dose:					
Drug/Intervention:	Dose:					
Drug/Intervention:	Dose					

PROLONGED FIELD CARE FLOWSHEET PAGE 2

Name:	Date:	Time:	Blood type:	EVAC Category:

S:		MOI

A:

M:

	Injuries / illness / problems	Treatment plan
1		
2		
3		
4		
5		
6		

P:

L:

E:

Body diagram annotations:
Front: head $3\frac{1}{2}$; neck 1; arms 2, 2; torso 13, 13; forearms $1\frac{1}{2}$, $1\frac{1}{2}$; hands 1, 1; groin 1; thighs $4\frac{3}{4}$, $4\frac{3}{4}$; knees $3\frac{1}{2}$, $3\frac{1}{2}$; feet $1\frac{3}{4}$, $1\frac{3}{4}$
Back: head $3\frac{1}{2}$; arms 2, 2; torso 13; forearms $1\frac{1}{2}$, $1\frac{1}{2}$; hands 1, 1; buttocks $2\frac{1}{2}$, $2\frac{1}{2}$; thighs $4\frac{3}{4}$, $4\frac{3}{4}$; knees $3\frac{1}{2}$, $3\frac{1}{2}$; feet $1\frac{3}{4}$, $1\frac{3}{4}$

TQ 1 time on:	TQ 2 time on:	TQ 3 time on:	TQ 4 time on:	TXA Dose 1 on:
TQ 1 Converted:	TQ 2 Converted:	TQ 3 Converted:	TQ 4 Converted:	TXA Dose 2 on:

Notes:

Telemedicine Call Script

This is _____, an_____ (Job Position)
I have a patient with _____ who I think
has_____ and I need
_____ Chief
Complaint_____ Brief
History_____
Vitals HR_____ RR_____ BP_____ Temp_____
Pulse Ox_____ UOP _____ AVPU _____
Exam Findings
_____
_____

Recommendations
_____
_____
_____

Fluids/Meds_____
Interventions_____
Red Flags_____

APPENDIX C: VIRTUAL CRITICAL CARE CONSULTATION GUIDE

1. Before calling, E-mail image of the casualty (wounds, environment, etc.), "capabilities" (back of page), & vital signs trends to _____
2. If call not answered: a) call next number on PACE or call back in 5 – 10 min.
3. If unable to provide information due to operational security, state so.

P:
A:
C:
E:

This is _____ I am a (job/ position) _____

My best contact info is: _____

YOUR best contact info is (Consultant's number): _____Alternate e-mail: _____

*** *PAUSE POINT to CONFIRM CONTACT INFO***

I have a _____ year–old _____(sex) _____ (active duty/foreign national/OGA,etc.), who has the following:

Mechanism of Injury or known diagnosis(es)   that occurred in (location)

The injury/start of care occurred   *hours ago*. Anticipated *evacuation time* is (range)

Injuries/Problems/**S**ymptoms:

| |
| |

Treatments:

| |
| |

He/she is currently (circle) stable/ unstable, getting better/ getting worse/ getting worse rapidly

Known Medication Allergies/Past medical/Surgical history is:

| |

I need help with (*be specific if possible, i.e. "I need help reading this ECG," or "I need help stabilizing this patient," etc.*)

| |

Other Consultants have recommended:

*** *PAUSE POINT for Remote Consultant to ask clarification questions* ***

VITALS (*current* & *trend* as of): HR	BP	RR	SpO2	EtCO$_2$	Temp.........
UOP(ml/hr) over		(# hours) Mental Status (GCS/ AVPU)			
EXAM: Neuro		Ext/ MSK			
Heart		Pulses			
Lungs		Skin/ Wounds			
Abd					
LABS: ABG:	Lactate:	Other:			

*** *PAUSE POINT for Remote Consultant to ask clarification questions* **

VIRTUAL CRITICAL CARE CONSULTATION GUIDE PAGE 2

Plans/Recommendations		
PRIORITY	**SYSTEM/PROBLEM**	**RECOMMENDATION**
	Neuro or problem #1	
	CV or problem #2	
	Pulm or problem #3	
	GI or problem #4	
	Renal or problem #5	
	Endocrine or problem #6	
	MSK/ Wound or problem #7	
	Tubes, lines, drains or problem #8	
	Prophylaxis/prevention or prob#9	
	Other	

TO-DO/ FOLLOW-UP/TO-STOP	NOTES
1.	
2.	
3.	
4.	
5.	
6.	

*** PAUSE POINT, for Medic/Local Caregiver to ask clarification questions/READBACK***

Available "kit" (supplies, equipment, medications) !! IF POSSIBLE PHOTOGRAPH AND SEND VIA EMAIL BEFORE CALLING !!

IV access: IV   Central line   IO (location)   Other:_____

Monitor: Propaq   Tempus   Foley   Graduated urinal   PulseOx only   Exam Only
            Other:_____

Commo: Tempus i2i ID: _____THIAB:_____SAT#_____Local Cell#_____
            Web VTC Address_____
            Other (e.g. "FaceTime, VSee, Skype, etc.):_____

IV Fluids: Plasma-Lyte   LR   Normal Saline   3% saline   Other:_____

Colloids: Hetastarch   Albumin   Other:_____

Blood products: Whole blood   PRBC   Plasma   FDP   Platelets   Other:_____

Medications: Antibiotics: name/route/dose_____
            Morphine IV/ PO   Other opioid (name/ IV/ PO): _____
            Fentanyl IV/ PO (pop)   Ketamine
            Midazolam   Diazepam (IV/ PO)
            TXA   Other(s): _____

Airway supplies: ETT   Cric kit   LMA   Ventilator   BVM   O2   Suction

Misc: