## Prolonged Field Care – 10+ Critical Skills

TCCC – Tactical Casualty Combat Care remains the foundation of the Special Operations Combat Medic (SOCM) skillset. The following list expands upon those skills, augmenting the medical capabilities of the SOCM by adding basic nursing, critical care, diagnostic, and medical command skills. It is not meant to replace or duplicate TCCC.

1.	Monito	oring - Vital Signs Trending	2
2.	Resusc	itation	2/3
	a.	Fluid Resuscitation	
	b.	Whole Blood Transfusion	
	с.	Advanced IV/IO Access	
<i>3.</i>	Contro	l the Airway	3
	a.	Invasive Airway	
	b.	Post Intubation Care	
4.	Ventilate and Oxygenate		4
	a.	Non-Invasive Airway Adjuncts	
	b.	<u>Ventilation Management</u>	
<i>5.</i>	Advand	ced Medications	4/5
	a.	Sedation and Pain Management	
	b.	<u>Antibiotics</u>	
	С.	<u>Improvised Drips</u>	
<i>6.</i>	. Physical Exam and Diagnostics		5/6
	a.	<u>Secondary Survey</u>	
	b.	<u>Problem List Generation</u>	
	с.	Management Post-TCCC and Non-Emergent Conditions	
<b>7.</b>	Nursing	g and Hygiene Skills	6/7
	a.	<u>Hygiene</u>	
	b.	<u>Nutrition</u>	
		Wound Care	
8.	Surgico	al Interventions	7/8
	a.	Emergent Procedures	
	b.	Non-Emergent Procedures	
	с.	<u>Surgical Sterilization</u>	
<i>9</i> .	<u>Teleme</u>	edicine Consult	8
<b>10</b> .	<u>Packag</u>	ge and Prepare for Evacuation/Flight	9
11.	. Medical Logistics and Leadership		9/10
	a.	<u>Communication</u>	
	b.	Medical Command	
	C	Medical Plannina	

1 Monitoring Vital Signs Tronding
1. Monitoring - Vital Signs Trending
☐ Recognize Normal and Abnormal Vital Signs
☐ Recognize Normal and Abnormal Pediatric Vital Signs
☐ Blood Pressure Monitoring
☐ BP measurement with sphygmomanometer
☐ Improvised BP Estimation
☐ Pulse Monitoring
☐ Use of Pulse-Oximeter
☐ Temperature Monitoring (Oral, Rectal, Transdermal)
☐ Pain Scale Monitoring
☐ Alertness Scale Monitoring (AVPU, GCS)
☐ Measurement of Blood Glucose and trending as appropriate
☐ Placement of Foley Catheter for urine collection
☐ Measurement and Recording of total fluid intake/output
☐ Monitoring of Foley Catheter Output
☐ Monitoring of Chest Tube Output
☐ Monitoring of NG Tube Output
☐ Vital Signs Documentation — Temporal Charting for Trending
☐ Trending Vital Signs
☐ Recognize subtle shifts/trends in vital signs
☐ Analyze vital sign trends to predict decompensation/pathology
☐ Know how to place a patient on an automated vital signs monitor (Tempus vs ProPack or similar product)
☐ Perform EKG/rhythm analysis and recognize simple variants
☐ Recognize Normal Sinus Rhythm (NSR)
☐ Recognize Ventricular Tachycardia/Fibrillation
☐ Recognize STEMI and NSTEMI
2. Resuscitation
A. Fluid Resuscitation
☐ Understand the concepts of a colloid (Hextend) vs crystalloid (NS/LR) solutions
☐ Indication / Contraindication / Calculation Crystalloid
☐ Indication / Contraindication / Calculation Colloid
☐ Understand the principles of Permissive Hypotensive Resuscitation
☐ Burn Fluid Resuscitation
☐ Rate Calculation / Rule of Tens
☐ Urinary Output Adjustment

	Initiation and calculation of maintenance Fluids
	Demonstrate use of in-line fluid warmers
B. Who	le Blood Transfusion
	Understand the concepts of fresh whole blood transfusion (FWBT)
	Understand the concepts of blood products (PRC, platelets, FFP, FDP)
	Understand the concept of a Walking Blood Bank and the difference between an nergency and contingency walking blood bank
	Indications/Contraindications for use of blood products and FWBT
	Demonstrate the use of an Eldon card for field blood typing
	Understand and Manage blood transfusion reactions
c. IV / I	O and Alternative Fluid Admin Access
	Initiate a Saline Lock IV
	Initiate an Intravenous Infusion
	Manage a patient with an intravenous infusion
	Initiate an peripheral intraosseous device
	Initiate a sternal intraosseous device
	Alternative fluid delivery mechanisms
	□ Nasogastric
	☐ Per Rectum
	☐ Oral Rehydration Salts (Packaged or Improvised)
3. Contr	ol the Airway
A. Invas	ive Airway Interventions
	Indication/Contraindications invasive airway
	Perform Surgical and Emergency Cricothyrotomy
	Perform Endotracheal Intubation
	☐ Perform Video Assisted Laryngoscopy
	☐ Perform Bougie Assisted Intubation
	☐ Rapid Sequence Intubation (RSI) medications
	Perform Laryngeal Mask Airway (LMA) Intubation
B. Post-	Intubation Care
	Perform Post-Intubation Care-Checklist
	☐ Confirm placement of invasive device (capnography, tube fogging, etc)
	☐ Management and Securing of invasive airway device
	☐ Management of Airway Secretions - Perform Tracheal Suction
	☐ BVM with PEEP Valve, Raise Head of Bed to 30-45°

 $\hfill \Box$  Filter and Humidify Air

 $\hfill \square$  Replacement of broken/faulty invasive airway device

4. Ventilate and Oxygenate
A. Non-Invasive Airway Adjuncts
☐ Understand the physiology of the 'Pulmonary toilet'
☐ Patient Positioning and Lung Recruitment
☐ Administer Supplemental Oxygen
☐ Employ Positive End Expiratory Pressure (PEEP)
☐ Provide Bag Valve Mask ventilation
☐ Perform Nasopharyngeal Airway Placement
B. Ventilator Management
☐ Provide Ventilation using a BVM and PEEP Valve
☐ Set-up and Management of portable ventilator (SAVE, IMPACT, or similar)
☐ Understand the difference between oxygenation and ventilation
☐ Understand Acid-Base Disturbances as they relate to ventilation
$\hfill \square$ Adjust Tidal Volume, Respiratory Rate, Oxygen Concentration, and airway pressures to manage the ventilator patient
☐ Troubleshoot ventilator malfunction (DOPE algorithm or similar)

5. Advanced Medications
A. Sedation and Pain Management
☐ Understand the difference between pain control/analgesia and sedation
☐ Pain control with oral medications
☐ Pain control with IV / IO/ IM/ IN medications
☐ Sedation with IV /IO / IM/ IN medications
☐ Reversal of pain medication overdose
☐ Perform pain control with local anesthesia or nerve block
☐ Perform pain control for fractures with a hematoma block
☐ Understand the mechanism, physiology, and complications of common pain meds
☐ Opioids
☐ Benzodiazepines
☐ Sedative hypnotics/barbituates
☐ Ketamine
☐ Propofol
B. Antibiotics
☐ Understand the indications for Antibiotic Prophylaxis of traumatic wounds
☐ Provide appropriate Antibiotic Prophylaxis for traumatic wounds: (current rec)
☐ Penetrating Chest Wounds (Ancef 2g IV)
☐ Penetrating Abdominal Wounds (Ancef 2g IV PLUS Flagyl 500mg IV)
☐ Open Fractures/Extensive Soft Tissue Wounds (Ancef 2g IV)

	☐ Provide Recognition and treatment of common infections in non-ambulatory patients
	☐ Provide tetanus prophylaxis as appropriate
C.	Improvised Drips
	☐ Mathematics/Calculations for improvised IV drips
	☐ Establish IV Ketamine drip and titrate rate to pain control/sedation goal
	☐ Establish IV epinephrine drip

6. Physical Exam and Diagnosis
A. Secondary Survery – ICU Diagnostic Exam
☐ Perform an AMPLE (Allergies, Medication, PMHx, Last Meal, Event Details) history
☐ Perform Mental Status Exam (AVPU, GCS, or other)
☐ Perform Complete Secondary Survey
☐ Perform Bedside Ultrasound as indicated
□ eFAST Exam
☐ Evaluation for PTX or Hemothorax
☐ Evaluation of Volume Status (cardiac and IVC Ultrasound)
☐ Diagnosis of long bone fracture with Ultrasound
☐ Evaluation for foreign body
☐ Perform Point of Care Labs and interpret results
☐ i-STAT or EPOC
☐ Basic Glucometer
□ POC Lactate
☐ Urinalysis Test Strips
☐ Re-Triage multiple patients following initial resuscitation
B. Differential Diagnosis and Critical Care Planning
☐ Generate a Problem List (System or Priority Based)
☐ Generate a Differential Diagnosis for each problem
☐ Use physical exam and diagnostic tools to refine differential diagnosis
☐ Generate a Critical Care task list
☐ Create a schedule for recurring procedures/critical care tasks
☐ Generate a Diagnostic task list
☐ Recognize signs and symptoms of emerging/developing medical conditions
☐ recognize development of hypotension
☐ recognize development of circulatory shock
☐ recognize development of local infection
☐ recognize development of SEPSIS and Septic Shock
☐ recognize development of Intracranial Hypertension (ICH)

C. Management of post-TCCC and Non-Emergent Conditions
☐ Recognition of emergent versus non-emergent conditions in the traumatic patient
☐ Understand the pathophysiology of traumatic injuries and development of secondary injuries and complications
☐ Prolonged management of Extremity Injuries
☐ Dislocation Reduction and Stabilization
☐ Fracture Splinting, Reduction, and Traction
☐ Amputation Debridement and Packaging
☐ Prolonged management of Spinal Injuries
☐ Prolonged management of Traumatic Wounds
☐ Prolonged management of Crush Injury/Compartment Syndrome
☐ Prolonged management of Closed Head Injury
☐ Prolonged management of Blunt Chest Injury
☐ Prolonged management of Blunt Abdominal Injury

7. Nursing and Hygiene Skills
A. Nursing Procedures
Perform Urinary Catheterization (Foley Catheterization)
☐ Perform Urinary Catheter Care (irrigation, replacement)
☐ Perform Nasogastric (NG) tube placement
☐ Perform Nasogastric (NG) tube Care (irrigation, suction, feeding)
☐ Manage IV and IO lines and tubes
☐ Flush Saline Locks regularly
☐ Calculate Maintenance Fluids Rates
☐ Calculate Drip Rates using standard IV tubing
☐ Calculate Drip Rates using 'Dial-a-flow' IV tubing
☐ Adjust drip rates to patients' response to therapy
☐ Management of Advanced Airway Adjuncts
☐ Suction using manual or machine suction
☐ Perform Pulmonary Nursing Care/Pulmonary Toilet
☐ Evaluate and Repair/Replace Defective Airway Device
☐ Management of chest tube and chest tube collection drain (suction, irrigation)
B. Preventative Care and Nutrition
☐ Prevention of Deep Venous Thrombosis (tissue massage/limb mobilization)
☐ Prevention of Pressure Ulcer/Bedsore (rotating patient positioning)
☐ Prevention of Hypothermia using HPMK or similar
☐ Prevention of Hyperthermia using passive and active cooling techniques

☐ Basic Hygiene/Prevention of Infection
☐ Removal of soiled clothing
☐ Perform regular patient bathing/washing
☐ Basic Oral Care (brushing teeth/gums)
☐ Develop a Dietary Plan and Provide Basic Nutrition
C. Wound Care
☐ Wound Cleaning and Irrigation
☐ Wound Debridement and Basic Reduction
☐ Perform a Sterile Dressing/Packing Change
☐ Long Term Management of Burn Wounds
☐ Application of burn specific dressing (Sulfamylon, Mepilex, Silverion)
☐ Prevention of evaporative heat and fluid loss
☐ Prevention of infection +/- antimicrobial burn ointment
☐ Amputation and Stump Management/Care
☐ Long Term Management of Abdominal Evisceration Wounds

8. Surgical Interventions
A. Emergency Procedures (some overlap with TCCC)
☐ Understand the Physiology of Blunt Chest and Abdominal Trauma
☐ Understand the Physiology of Penetrating Chest and Abdominal Trauma
☐ Place Occlusive Chest Dressing
☐ Perform Emergent Needle Thoracentesis for tension PTX
☐ Perform Emergent Needle Thoracentesis for tension Hemothorax
☐ Perform Tube Thoracostomy (Chest Tube)
☐ Secure Chest Tube
☐ Establish Chest Tube Collection Device
☐ Apply manual, automated, or water seal suction
☐ Understand the Physiology of Crush Injury
☐ Recognize Compartment Syndrome
☐ Perform Emergent Fasciotomy (encourage telemed guidance)
☐ Understand the Physiology of Circumferential Burns
☐ Perform Escharotomy (encourage telemed guidance)
☐ Lateral Canthotomy
☐ Reduction and Closure of Abdominal Evisceration (Bogata or Similar)
B. Non-Emergent Procedures
☐ Tourniquet Conversion to Pressure Dressing

☐ Vessel Ligation
☐ Loop Stitch
☐ Figure 8 Stitch
☐ Cut-down stitch
☐ Fracture and Dislocation Reduction and Stabilization
☐ Shoulder Dislocation Reduction
☐ Elbow Dislocation Reduction
☐ Hip Dislocation Reduction
☐ Patellar Dislocation Reduction
☐ Ankle Dislocation Reduction
☐ Digital Dislocation Reduction
☐ Suprapubic Catheterization (encourage telemedicine guidance)
☐ Abscess Incision and Drainage
☐ Understand the physiology of basic wound repair
☐ Wound cleaning and irrigation
☐ Wound Debridement
☐ Primary Closure via Sutures / Staples
☐ Secondary Closure and Wound Packing
☐ Identification and Removal of foreign body
☐ Management of traumatic amputations
C. Surgical Sterile Technique
☐ Establishing a sterile field
☐ Perform surgical hand and arm scrub
☐ Putting on a sterile gown and gloves
☐ Aseptic Surgical Technique
☐ Field Sterilization of Tools
☐ Chemical Sterilization
☐ Physical Sterilization (Heat/Pressure, etc)
9. Telemedicine Consult
☐ Plan Tele-Medicine Contacts and Mechanism prior to deployment
☐ Recognize the need for medical consultation
☐ Prepare 'Call Sheet' to present patient to the consultant
☐ Present the patient to the consultant in a clear and concise manner
☐ Include key vitals, physical exam findings
☐ Include pictures, laboratory data, and videos
☐ Present the consultant with a clear and concise clinical question

☐ Perform telemedicine using a variety of media:
☐ Email (w/wo pictures, videos)
☐ Cell Phone/Sat Phone
☐ Real-Time Video Conference
☐ Secure Communications
☐ Perform telemedicine assisted/guided surgical procedure

10. Package and Prepare for Evacuation/Flight
☐ Prepare the ambulatory patient for evacuation
☐ Prepare the litter bound patient for evacuation on standard litter
☐ Prepare the litter bound patient for evacuation on improvised litter
☐ Secure interventions to patient to prevent disruption during evacuation/flight
☐ Secure large medical devices (ventilators, monitors) to litter for transport
☐ Package the patient to prevent hypothermia using HPMK/blanket and beanie cap
☐ Protect patients' eyes (sunglasses) and ears (earplugs) during flight
☐ Prepare interventions for unpressurized flight (replace air filled balloons with water, etc)
☐ Prepare to provide en-route care in CASEVAC vehicle
<ul> <li>Prepare emergency and pain medications for administration prior to evacuation/flight</li> </ul>
☐ Package the patient for ease of access for managing interventions
☐ Package the patient for ease of access for vitals monitoring
☐ Prepare handoff documentation (TCCC/PFC Card) for receiving team
☐ Perform a clear and concise patient handoff to the receiving team

11. Medical Logistics and Leadership
A. Medical Communication
☐ Effectively communicate the patient's medical condition and treatment plan to the team leadership in simple and easy to understand terms
☐ Effectively communicate the patient's medical triage category (urgent, urgent surgical, priority, routine), stability, and conditional requirements to the Team Leader/Sergeant
$\hfill\Box$ Communicate to the patient (if awake) their medical condition and treatment plan in simple and easy to understand terms
☐ Send Situation Reports (SITREPs) to higher medical and unit command
☐ Communicate with higher command to arrange MEDEVAC/CASEVAC and request additional resources/supplies
☐ Assist command in Initiating ISOS patient causality report

B. Medical Command
☐ Understand the need to utilize non-medical team members to assist with medical tasks and medical logistics in a PFC scenario and communicate this need to the team leadership
☐ Develop a patient treatment plan checklist for use by the team
☐ Develop a nursing care checklist for use by the team
☐ Assign secondary/nursing assistant tasks to non-medical team members
☐ Checking and Assessing Vitals
☐ Nursing Care Tasks
☐ Airway maintenance and care (who is squeezing the BVM)
☐ Recorder
☐ Supply/logistics (acquiring medical supplies, preparing CASEVAC, etc)
☐ Communication (SITREPs, MIST reports, 9-line, Telemedicine, etc)
☐ Develop a work-rest cycle to ensure adequate crew rest including the medic
☐ Create a set of 'wake-up criteria' (normally in the form of abnormal vitals signs, medication changes, etc) for team members to call the medic
☐ Cross-train non-medical team members in basic medical skills to serve as shift leaders (basic vitals taking, recording, nursing care, etc)
☐ Performing interval 'rounding' with the team to keep all team members informed of the patient's condition and updated treatment plan
C. Medical Planning
☐ Medical Supply Planning:
☐ Anticipate long-term medical supply requirements and deficiencies
☐ Request re-supply through local resources or higher command
☐ Understand the location and capabilities Host Nation Civilian Medical Facilities
☐ Understand the location and capabilities of friendly Host Nation Military Medical Units
☐ Request use of Host Nation Medical Resources as appropriate
☐ Patient movement/transport
☐ Plan safe, low-risk, and efficient routes for medical transport
☐ Determine best vehicle of transport for the desired movement
☐ If moving across borders or landing aircraft on contingency plans, determine the need for country clearance and contact embassy for clearance as appropriate
$\hfill\Box$ Discus the need for security during all phases of patient care and transport and work with the team leader/sergeant to develop contingency plans

<sup>\*</sup>Note: This list is formatted around the '10 Essential PFC Capabilities.' It was cross-referenced with a variety of SOF resources to ensure both accuracy and completeness.