

## APPENDIX C

**NURSING GUIDELINES FOR PATIENT CARE****Section I. NURSING POLICIES AND PROCEDURES****C-1. General Policies**

The goal of the nursing staff is to provide safe nursing care in a limited resource environment.

*a.* Patients requiring x-rays will usually have them taken by the collocated medical company x-ray personnel within the FST's shelter. However, nursing personnel may transport patients to and from the medical company's x-ray area, when required.

*b.* Laboratory procedures deemed essential for far forward surgery will be performed by the FST's nursing personnel. Assistance of the area support squad's laboratory specialist will be required for selected laboratory tests and for quality control.

*c.* The nature of the FST's operations requires maximum emphasis on cross-training for team members. The senior critical care nurse provides overall supervision of the nursing care provided by the team and ensures training of team members on mission-essential tasks of the unit.

*d.* Responsibility for patient accountability remains with the medical company. However, the FST's operations officer ensures that all patients received and treated at the surgical facility are properly logged in and out on the FST patient's registry (Daily Disposition Log). Minimum documentation should include patient identification, diagnosis and treatment, and disposition (date and time).

**C-2. Nursing Supervision**

*a.* Nursing practice incorporates the activities of data collecting and assessing, implementing a plan of care, and evaluating patient care outcomes. Military nursing personnel must continually adjust priorities to meet the dynamic requirements of patient care, ancillary support, administrative tasks, and staff management.

*b.* The clinical, cognitive, and managerial skills of the nurse are of paramount importance to effectively function under the vigorous demands of a wartime scenario. This environment includes limited staffing, constrained facilities, equipment of limited capability, and a large percentage of patients suffering from acute traumatic injuries. In addition, the influx of casualties and the mission of the FST necessitate a shortened length of stay within its recovery area. Under normal circumstances, patients will be recovered from anesthesia and prepared for aeromedical evacuation within 6 hours, during the window of opportunity and prior to the occurrence of posttraumatic complications. If evacuation is delayed, it may be necessary to place patient overflow into the medical company's holding squad area with continued supervision by the FST's nursing staff and assistance by holding squad personnel.

*c.* In primary nursing assessments, admission procedures include a patient-specific systems review based on the diagnosis. Emphasis is placed on the traumatized system(s) with minimal review of noninvolved areas such as—

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- Assessment of dressings, tubes, IVs, and other support equipment.
- Administrative paperwork.

d. Although assessment, evaluation, and documentation are continuous processes, patients of the FST's postoperative area require additional assessment and evaluation every hour, as a minimum, or as indicated by the patient's condition and/or anticipated disposition. Tables C-1 and C-2 depict the forms that comprise both the standard patient chart and the patient postoperative management packet.

*Table C-1. Standard Patient Chart*

FORM NUMBER	FORM TITLE
DA 4256	DOCTORS ORDERS
DD 1380	US FIELD MEDICAL CARD
SF 509	MEDICAL RECORD—PROGRESS NOTES
SF 531	MEDICAL RECORD—ANATOMICAL FIGURE
SF 539	MEDICAL RECORD—ABBREVIATED MEDICAL RECORD
SF 558	EMERGENCY CARE AND TREATMENT

*Table C-2. Patient Postoperative Management Pack*

FORM NUMBER	FORM TITLE
DA 3894	HOSPITAL REPORT OF DEATH
DA 5179	MEDICAL RECORD—PREOPERATIVE/POSTOPERATIVE NURSING DOCUMENT
DD 602	PATIENT EVACUATION TAG
DD 1924	SURGICAL CHECKLIST
SF 517	CLINICAL RECORD—ANESTHESIA
SF 518	MEDICAL RECORD—BLOOD OR BLOOD COMPONENT TRANSFUSION
SF 519-B	RADIOLOGIC CONSULTATION REQUEST/REPORT
SF 549	HEMATOLOGY
SF 550	URINALYSIS

Note: Refer to AR 40-66 and FM 8-10-6 for preparation of forms.

**C-3. Nursing Care of the Patient in Surgery**

a. Circulator duties are performed under the supervision of the OR nurse (AOC 66E) as outlined. They include responsibilities for readiness of all equipment and supplies, safe patient care during

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surgery, and continued patient care until postanesthesia recovery personnel assume responsibility for the patient.

(1) Both OR tables should be fully prepared for surgical procedures. The two OR tables may be employed simultaneously to provide surge capability and to avoid surgical backlogs.

(2) Basic sterile/aseptic techniques, as outlined in FM 8-73 and FM 8-74, should be followed at all times. Unit clinical standing operating procedures (CSOPs) should clearly delineate all responsibilities of the circulator and scrub nurse.

(3) Dependent upon patient flow and work-rest cycles, one circulator, which may be either a member of the professional nursing staff or an OR NCO, circulates for both OR tables.

(4) The collection and disposal of all body fluids is accomplished in accordance with infection control protocols and local preventive medicine (PVNTMED) guidelines. If a body part is to accompany a patient, it is placed in an appropriate container and labeled with the patient's name, social security number (SSN), and unit.

(5) The patient identification process is completed and the medical record annotated—minimal information should include name, grade, SSN, and unit.

(6) All clothing and personal gear should be removed from the patient, labeled and secured.

(7) All sponges, needles, and instruments with each surgical operation **MUST** be accounted for (refer to FM 8-74).

(8) Additional circulator duties include—

- Assisting in the preparation of IV medications and blood.
- Assisting with and directing the placement of splints and casts.
- Assisting the anesthetist with monitoring the patient's vital signs and status.
- Assisting with cardiopulmonary resuscitation as required.

*b.* Scrub duties are performed under the supervision of the OR nurse and the OR NCO and include—

- Following sterile technique and draping procedures, taking steps to correct breaks in sterile technique whenever possible.
- Completing surgical hand and arm scrub prior to gowning and gloving.
- Assisting surgeons with their personal gowning, gloving, and draping procedure.

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- Preparing (in advance) sutures, blades, instruments, and drapes needed for anticipated procedures.
- Assisting surgeons throughout a surgical procedure, anticipating all instrument and supply needs.
- Assisting surgeons with sterile dressings; remaining sterile until instructed to “break scrub” by the anesthetist.
- Ensuring that all medical records accompany the patient into postanesthesia recovery area.

### C-4. Indirect Patient Care

Indirect patient care time is increased for an FST facility compared to hospital facilities because of the limited resource environment; that is, facility design, location of oxygen, water, sanitation, removal of waste, and location of support services. Indirect care tasks include, but are not limited to—

- Obtaining and preparing medications.
- Collecting equipment for procedures.
- Emptying bedpans, urinals, and drainage bottles.
- Disposing of contaminated wastes.
- Resupplying the FST patient care areas.
- Transporting patients (litters).
- Obtaining and disposing of water.

### C-5. Intravenous Standards

- a.* Intravenous-push medications are to be given by a member of the professional nursing staff or physician.
- b.* Intermittent medications administered through saline locks are to be given by the professional nursing staff and PNs because of the requirement to flush the tubing before and after giving the medication.
- c.* Paraprofessionals may administer blood products and IV piggyback medications if these items have been verified by a professional nursing staff member.
- d.* All IV additives are to be accomplished by a professional nursing staff member.

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**C-6. Heparin Locks**

Heparin locks are used in those patients who require IV access only for the administration of parenteral medications; they are also used to avoid multiple venous punctures.

**C-7. Medications**

Under the supervision of a professional nursing staff member, paraprofessional nursing personnel may administer intramuscular, subcutaneous, IV drip, oral, sublingual, topical, inhaled, and rectal medications.

**C-8. Vital Signs**

Unless otherwise indicated, vital signs are taken and recorded every hour for all FST patients.

**C-9. Intake and Output**

*a.* Fluid intake and output is measured and recorded every hour at a minimum. A DD Form 792 is used as a work sheet with a summary of total intake and output documented on SF 539 prior to medical evacuation.

*b.* Intake and output measurements are done routinely on all FST patients.

**C-10. Foley Catheters**

*a.* Since Foley catheters are to be changed every 7 days (to include catheter, tubing, and bag), this procedure is not generally done by the FST.

*b.* Urine specimens are obtained on patients at the time they are catheterized.

*c.* Catheter care is provided daily, or as needed, on all patients with Foley catheters.

**C-11. Hyperthermia/Hypothermia**

*a.* Management of hyperthermia is accomplished using tepid water sponges and/or anti-pyretics.

*b.* Postoperative hypothermia is managed by using blood and fluid warmers, area space heaters, or total body rewarming.

**C-12. Patient Hygiene**

*a.* Patients entering the FST's facilities are to receive sufficient cleaning to permit a basic assessment.

*b.* Postoperative patients are evacuated as rapidly as possible. Few patients are expected to remain beyond 6 hours. Only that hygiene required to prevent skin breakdown, to ensure infection control, and to satisfy patient comfort is performed.

**C-13. Dressings**

*a.* Because of short stays in the FST area, it is not anticipated that dressings will be changed on burns, or on IV or chest tube emplacements.

*b.* Tracheostomy dressings will be changed when needed or every 12 hours as a minimum.

*c.* On all surgical patients, a "no peek" dressing policy will apply. This means that dressings will not normally be changed until the patients return to the OR for reevaluation or delayed primary closure at an Echelon III MTF. Dressings are reinforced by the nursing staff as needed.

**C-14. Nasogastric Tubes**

*a.* Unless otherwise indicated by patient condition, nasogastric (NG) tubes are irrigated once every 12-hour shift, or as often as required to ensure proper and continuous function. Unless otherwise ordered, NG tubes are placed to low suction or to dependent drainage during the postoperative phase.

*b.* Nasogastric tubes are essential in the management of many patients during aeromedical evacuation. The NG tubes are to be left open to air and may be placed to straight drainage. They must not be clamped during aeromedical evacuation.

*c.* All patients diagnosed as having an ileus are required to have a functioning NG tube in place before and during aeromedical evacuation.

*d.* Patients with stomach, intestinal, or colonic wounds should have a functioning NG tube in place before and during aeromedical evacuation.

**C-15. Oxygen Administration**

*a.* Oxygen is administered to all patients who exhibit signs and symptoms of moderate to severe respiratory distress, hypoxia, and moderate-to-severe cardiovascular compromise; for example, shock, Classes III and IV hemorrhages, or penetrating chest wounds.

*b.* The primary oxygen delivery device in the FST is the bedside oxygen concentrator. The rate of oxygen administration is 4-5 liters per minute, depending on the delivery system. A limited number of “D” cylinders are provided as emergency backup in the event of power failure or to provide higher oxygen flow rates and concentration as required.

*c.* Head injuries are to receive hyperventilation with at least 40 percent oxygen to decrease the risk and extent of cerebral edema.

### **C-16. Disposable Linen**

*a.* Due to the limited weight and cube of the FST and the shortened length of stay, all patient care linen is disposable.

*b.* Refer to Table C-3 for disposable linen stockage and requirements.

*Table C-3. Disposable Linen Stockage Level*

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I.	ASSUMPTIONS:
	A. INITIAL STOCKAGE LEVEL WILL BE ENOUGH TO SUPPORT THE FST FOR 72 HOURS.
	B. DISPOSABLE SHEETS AND TOWELS WILL BE USED.
	C. DISPOSABLE SURGICAL MASKS, DRAPES, CAPS, AND GOWNS WILL BE USED.
	D. REUSABLE WOOL BLANKETS AND ALUMINIZED BLANKETS WILL BE USED.
II.	PATIENT REQUIREMENTS:
	A. 6 DISPOSABLE WASHCLOTHS.
	B. 2 DISPOSABLE SHEETS.
	C. 7 PROTECTIVE BED LINEN PADS.
	D. *EVACUATION SET (2 WOOL BLANKETS, ALUMINIZED BLANKET, AND 3 LITTER STRAPS).

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\* Equipment listed in the set are direct exchange items and must be recovered for the losing facility in accordance with command SOP. However, there is no direct exchange of equipment when evacuation is by United States Air Force (USAF) assets.

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### **C-17. Bedpan and Urinal Wash Point Procedures**

*a.* Patients are to have their human waste receptacles (urinal or bedpan) disinfected after each use. Since the supporting medical company will also have the potential requirement for urinal/bedpan disinfection, one designated area for sanitizing receptacles can be used by both the holding squad of the medical company and the FST. The area should be clearly marked “for use in cleaning bedpans and urinals only” and should be placed in accordance with guidelines in FM 21-10, FM 21-10-1, and FM 8-10-1.

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*b.* Alternative procedures using impermeable disposable bags may be used to collect and dispose of urine and feces in accordance with PVNTMED guidance or as established by the supported medical company.

### C-18. Sterile Instrument and Supply Procedures

*a.* Forward surgical team personnel steam sterilize and plastic wrap surgical instruments and sets prior to deployment, or when they are stored for any length of time at the completion of a mission. Steam sterilization support is received from fixed MTFs or corps-level hospitals. All equipment and supplies should be stored presterilized (autoclaved) with appropriate SOPs for stock rotation.

*b.* Lack of quartermaster laundry support in the FST area dictates the exclusive use of disposable cloth products. These include bed linens and surgical drapes, gowns, and sponges.

*c.* Under FST operational conditions, low-temperature sterilization allows for maximum high-level disinfection and sterilization for the greatest number of instruments. A detailed unit SOP should be developed to allow cross-training of nonoperating room personnel on the low-temperature sterilization system.

*d.* The following procedures may be used in the preparation for low-temperature sterilization:

- Establish a specific area for soiled instruments. Discard disposable blades, needles, and syringes in a sharps disposal container. The container should be marked, “SHARP ITEMS FOR DISPOSAL.”
- Wash instruments, glassware, and rubber and thermoplastic goods in the appropriate solution by hand. Rinse well in potable water.
- Place instruments in a chemical sterilant in accordance with manufacturer’s instructions.
- Rinse instruments in sterile water and dry.
- Repackage instruments as outlined in FM 8-73.

### C-19. Clinical Laboratory Procedures

*a.* Clinical laboratory capabilities at the level at which the FST operates are limited only to those procedures determined to be essential for far forward surgery. These include—

- Blood holding capability: 50 units of Group O PRBC.
- Electrolyte level (sodium [Na]; potassium [K]; chloride [Cl]; and carbon dioxide [CO<sub>2</sub>]), using hand-held determinator.

centrifuge.

- Hematocrit determination using microhematocrit capillary tubes and battery powered

- Urinalysis using dipsticks.

- Blood gas analysis using sensor-based module.

*b.* Nursing personnel perform near-patient testing (NPT) and operator maintenance on laboratory equipment in accordance with appropriate technical manuals (TMs) and/or manufacturer's instructions. Quality control is done by personnel operating the equipment assisted by laboratory personnel of the supported medical company.

#### NOTE

Near-patient testing is the performance of laboratory tests, procedures, or measures at the extra laboratory site in immediate proximity to a patient to assess severity of injury, influence care, diagnose disease, or monitor pharmaceutical treatment. Testing in an NPT mode may be performed by either laboratory personnel or other appropriately trained health care providers.

*c.* Emergency transfusion of Type O low titer blood is used at this echelon of care. Subsequent requirements for type-specific blood requires coordination with the supporting medical company's area support squad for blood typing. Crossmatching is not available at this level.

*d.* On rapid deployment missions, the basic load of PRBCs should be ensured for both the FST and the supporting medical company. The subsequent resupply mechanism is coordinated in advance with the DMSO or supporting MEDLOG battalion.

## Section II. POSTOPERATIVE RECOVERY OPERATIONS

### C-20. Postoperative Recovery Techniques and Procedures

*a.* The scope of postoperative recovery activities encompasses those nursing practices, techniques, and procedures implemented to provide for the care of a patient after surgery.

*b.* Postoperative care of the critically ill patient is inclusive of the execution of the physician's orders. It involves the recovery of patients from anesthesia and continues through the time that they are medically evacuated. This care is supervised by the medical-surgical nurse and entails the following procedures:

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(1) Recovery area personnel monitor the OR area to determine the estimated time of case completion. They set up the recovery area to include all equipment required for immediate intensive care procedures.

(2) An initial evaluation of the postoperative patient is completed prior to movement from the OR table to the anesthesia recovery area which includes, at minimum:

- Assisted ventilation intact with endotracheal and tracheostomy tubes secured.
- Circulatory status assessed.
- Drainage devices and IV catheters in place and secured.
- Splints intact.
- Safety straps in place.

(3) Upon taking charge of the patient from the OR, his personal effects bag is secured from the circulator and an inventory of the contents is performed as soon as possible (if not already completed).

(4) Once in the recovery area, the nursing evaluation can proceed in a deliberate manner to ensure review and management of the primary system of involvement, as well as detection and appropriate treatment of less severe injuries. The medical record and the anesthetist report is reviewed to determine the—

- Diagnosis, location, and nature of injuries.
- Surgical procedure and application of any drainage devices.
- Anesthesia, analgesia, and/or reversal agent used and time of last dose.
- Special requirements.

(5) Initial vital signs are taken immediately upon arrival of patient in the recovery area and as indicated by condition or change in condition. The patient's temperature is measured via the rectal route. The axillary route is used if the rectal route is not available.

(6) The pulse oximeter is set up and operated. The patient is placed on a cardiac monitor if an irregular pulse or a pulse greater than 100 beats per minute is noted. The following common electrocardiogram abnormalities are recognized and reported to the recovery team leader:

- Premature ventricular depolarization.
- Ventricular fibrillation.

- Tachycardia.
- Asystole.
- Atrial fibrillation.

(7) Additional assessment parameters include—

- Inspecting the injury/operative site and noting any bleeding or abnormal drainage.
- Evaluating distal circulation of injured extremities.
- Performing neurological assessment, to include level of consciousness, gross motor strength, gross sensation, and emotional status.
- Checking all skin surfaces for abnormal conditions.
- Monitoring patient's intake and output according to CSOP.

(8) Guided by the principles of combat surgery, recovery area nursing personnel perform nursing care and treatment procedures under the supervision of a professional nursing staff member and in accordance with established CSOPs. These procedures include, but are not limited to, the following:

- Performing airway management and extubation per CSOP.
- Performing continued fluid therapy and blood replacement via autotransfuser (type specific or uncrossmatched blood per surgeon's order or CSOP).
- Instituting postoperative rewarming as indicated.
- Administering medication per surgeon's order or CSOP; for example, analgesia, reversal agent, or antibiotics.
- Ensuring proper identification of patient before administering medications.
- Performing nursing measures to control pain and anxiety.
- Providing proper positioning and maintenance of cervical spine immobilization.
- Securing and positioning splints and casts.
- Performing special skin care and minor wound care, as required.
- Providing a safe environment for patients by ensuring that all equipment is grounded and that no drugs, sharp objects, or weapons are left within their reach.

- Communicating fire evacuation plan and emergency procedures in the event of hostilities.
- Providing patient instructions, as required.

(9) Controlled substances are managed in accordance with Chapter 8 of AR 40-2. Narcotics and other controlled substances are stored in a locked box that is under the surveillance of the recovery team. Accountability for controlled substances is maintained and the use, destruction, or additions are recorded on DA Form 3949-1.

### C-21. Standing Operating Procedures and Orders

Tables C-4 and C-5 provide a sample outline of CSOPs and standing orders. These samples, though not all-inclusive, are a guide for developing the postoperative recovery area SOPs and physicians' standing orders.

*Table C-4. Example SOP for Postoperative Recovery*

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**POSTOPERATIVE RECOVERY STANDING OPERATING PROCEDURE**

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- A. PURPOSE: TO DELINEATE CARE OF THE POSTOPERATIVE PATIENT AND THE PREPARATION OF THE PATIENT FOR MEDICAL EVACUATION.
- B. PROCEDURE:
1. ENVIRONMENTAL STANDARDS:
    - A. PULSE OXIMETER.
    - B. OXYGEN CONCENTRATOR, 3 TO 5 LITERS PER MINUTE.
    - C. OXYGEN DELIVERY SYSTEM (OXYGEN MASK, HUMIDIFIERS, AND VENTILATOR WITH DISPOSABLE PATIENT CIRCUIT AND IN-LINE HUMIDIFICATION EXCHANGE DEVICE).
    - D. CONTINUOUS AND INTERMITTENT SUCTION DEVICES.
    - E. AMBU BAG WITH MASK AND TRACHEAL ADAPTER.
    - F. DRESSINGS.
    - G. INTRAVENOUS FLUIDS.
    - H. PLEURAL DRAINAGE WITH AUTOTRANSFUSION DEVICE AND REPLACEMENT BAGS.
  2. PATIENT CARE STANDARDS:
    - A. PRIOR TO TRANSFER FROM OR TABLE, THE RECOVERY AREA LEADER IDENTIFIES PATIENT INJURIES, VITAL SIGNS, SURGICAL PROCEDURE, ANESTHESIA, REVERSAL AGENTS, AND NARCOTICS USED WITH LAST DOSE.
    - B. RECOVERY AREA PERSONNEL PERFORM AND ACCOMPANY THE TRANSFER OF PATIENT FROM THE OR TABLE TO THE RECOVERY AREA.
    - C. UPON ARRIVAL OF PATIENT, COMPLETE A NURSING ASSESSMENT TO INCLUDE PATIENT AIRWAY PATENCY. PLACE THE PATIENT ON OXYGEN VIA MASK AT 5 LITERS PER MINUTE UNLESS INTUBATED.
      - (1) IF PATIENT IS INTUBATED, ENSURE THE ENDOTRACHEAL TUBE IS SECURED.
      - (2) PLACE THE PATIENT ON THE VENTILATOR PER STANDING PHYSICIAN'S ORDERS OR ANESTHETIST DIRECTION. INITIAL OXYGEN SUPPLEMENTATION SHOULD BE 5 LITERS PER MINUTE FROM THE OXYGEN CONCENTRATOR IN-LINE TO THE VENTILATOR. SUBSEQUENT ADJUSTMENTS ARE MADE BASED ON ARTERIAL BLOOD GAS MEASUREMENTS, PULSE OXIMETER, AND PATIENT CONDITION.

Table C-4. Example SOP for Postoperative Recovery (Continued)

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**POSTOPERATIVE RECOVERY STANDING OPERATING PROCEDURE (CONTINUED)**


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D. ASSESS FOR ADEQUATE FLUID RESUSCITATION AND SHOCK. SIGNS AND SYMPTOMS OF SHOCK INCLUDE TACHYPNEA, HYPOTENSION, LOW URINE OUTPUT, PALENESS, DIAPHORESIS, AND DELAYED CAPILLARY REFILL (>3 SECONDS).

(1) INTERVENE PER STANDING ORDERS.

(2) CONTROL BLEEDING. NOTE AMOUNT. USE PRESSURE DRESSINGS AS NEEDED. NOTIFY SURGEON IF BLEEDING PERSISTS OR CHEST TUBE OUTPUT IS GREATER THAN 150 cc PER 30 MINUTES.

(3) ENSURE ADEQUATE FLUID RESUSCITATION.

(A) BLOOD REPLACEMENT FOR THE PATIENT IN PROFOUND HYPOVOLEMIC SHOCK CAN BE DONE WITH UNCROSSMATCHED TYPE O NEGATIVE BLOOD.

(B) CRYSTALLOID REPLACEMENT WITH LACTATED RINGER'S SOLUTION IS USUALLY DONE WITH 3 cc OF CRYSTALLOID FOR EACH 1 cc OF ESTIMATED BLOOD LOSS.

(C) PERSISTENT HYPOTENSION OR URINE OUTPUT LESS THAN 30 cc PER HOUR IS REPORTED TO THE ANESTHETIST FOR POTENTIAL USE OF COLLOID.

(D) MONITOR PATIENT'S RESPONSE TO FLUID RESUSCITATION TO INCLUDE PULSE, BLOOD PRESSURE, URINE OUTPUT, LEVEL OF CONSCIOUSNESS, CAPILLARY REFILL, AND PULSE OXIMETRY.

(4) EVALUATE DISTAL CIRCULATION AND INJURED EXTREMITIES, AND ENSURE FRACTURES ARE STABILIZED WITH APPROPRIATE SPLINTS OR CASTS.

(A) ELEVATE INJURED EXTREMITIES UNLESS CONTRAINDICATED.

(B) ASSESS PULSES AND CAPILLARY REFILL. ENSURE CIRCULATION IS NOT IMPAIRED BY DRESSINGS, SPLINTS, CASTS, OR IMPROPER POSITIONING.

(5) PERFORM GROSS MOTOR AND NEUROLOGICAL ASSESSMENT FOR LEVEL OF CONSCIOUSNESS, GROSS MOTOR STRENGTH, MOVEMENT, AND SENSATION. DOCUMENT DEFICIENCIES, MONITOR IMPROVEMENT OR DETERIORATION OF STATUS, AND NOTIFY SURGEON AS REQUIRED.

(6) MONITOR FOR CARDIAC ABNORMALITIES AS A RESULT OF CHEST INJURIES, ELECTROLYTE DISTURBANCES, AND SHOCK.

(A) RECOGNIZE PREMATURE VENTRICULAR CONTRACTIONS (PVCs), ASYSTOLE, VENTRICULAR FIBRILLATION, AND ATRIAL FIBRILLATION.

(B) NOTIFY SURGEON AND ANESTHETIST, AND INITIATE ADVANCED CARDIAC LIFE SUPPORT PROTOCOLS, AS INDICATED.

(7) PROVIDE CONTINUED AIRWAY MANAGEMENT, SUPPORTIVE CARE, AND MONITOR VITAL SIGNS EVERY 5 TO 10 MINUTES UNTIL THE PATIENT IS STABLE.

(8) PREPARE PATIENT FOR AND RELEASE TO MEDICAL EVACUATION CHANNELS.

(A) ASCERTAIN MEDICAL EVACUATION TRAVEL TIME OF PATIENT TO THE NEXT ECHELON MTF.

(B) ENSURE THAT PATIENT WILL RECEIVE REQUIRED CARE DURING TRANSIT TO DESTINATION MTF.

(C) ENSURE ADEQUATE AIRWAY. SECURE ENDOTRACHEAL OR TRACHEOSTOMY TUBE IF INTUBATED. REQUEST AMBU BAG, OXYGEN SUPPORT, AND OTHER EQUIPMENT AS REQUIRED.

(D) SECURE IV LINES. ENSURE LARGE BORE IV SITES AND TUBINGS ARE IN PLACE AND SECURE. PROVIDE IV FLUIDS IF THE NEED FOR BAG REPLACEMENT DURING FLIGHT IS ANTICIPATED.

(E) SECURE FOLEY CATHETER AND OTHER DRAINAGE TUBES. DO NOT CLAMP FOLEY OR NG TUBES. THE FOLEY IS CONNECTED TO THE DRAINAGE BAG. THE NG TUBE IS PLACED TO STRAIGHT DRAINAGE BAG.

(F) DISCONTINUE CHEST SUCTION AND ENSURE HEIMLICH VALVE IS FUNCTIONING ON ALL CHEST TUBES.

(G) WRAP PATIENT SECURELY IN APPROPRIATE BLANKETS AND SECURE LITTER WITH A MINIMUM OF 3 LITTER STRAPS. ENSURE THAT NO BLANKETS OR SUPPLIES ARE LEFT LOOSE ON THE LITTER BEFORE TRANSPORT OF PATIENT.

(H) COMPLETE THE PATIENT RECORD AND SEND ALL MEDICAL RECORDS WITH THE PATIENT. TOTAL AND RECORD FLUID INTAKE AND OUTPUT PRIOR TO RELEASE FOR MEDICAL EVACUATION.

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*Table C-4. Example SOP for Postoperative Recovery (Continued)*

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**POSTOPERATIVE RECOVERY STANDING OPERATING PROCEDURE (CONTINUED)**

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CONCISELY RECORD THE PATIENT'S CONDITION IMMEDIATELY PRIOR TO DEPARTURE. PROVIDE THE FLIGHT MEDIC/NURSE WITH A BRIEF REPORT ON THE PATIENT'S STATUS AND IN-FLIGHT NEEDS. ENSURE THAT ALL SUPPLIES REQUIRED DURING TRANSPORT AND PERSONAL EFFECTS ARE WITH THE PATIENT.

**NOTE**

WEAPONS AND PERSONAL EFFECTS OF PATIENTS ARE NOT TRANSPORTED BY MEDICAL EVACUATION PLATFORMS. THE SUPPORTED MEDICAL COMPANY ENSURES THAT SUCH ITEMS ARE RETURNED TO THE SOLDIER'S UNIT.

(I) RELEASE PATIENT TO MEDICAL EVACUATING ELEMENT PER STANDING (OR SURGEON'S) ORDER.

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*Table C-5. Example Standing Order*

COPY NO. 1 OF 3 COPIES  
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250900Z SEP 1994

STANDING ORDER NO. 3: FOR THE EXECUTION OF CLINICAL PROCEDURES

EXECUTING PERSONNEL: POSTOPERATIVE RECOVERY

IMPLEMENT THE FOLLOWING STANDING ORDERS FOR RECOVERING POSTOPERATIVE PATIENTS:

1. VITAL SIGNS: TAKE EVERY (q.) 5 TO 10 MINUTES UNTIL STABLE, THEN TAKE q. 30 MINUTES DEPENDING ON PATIENT'S STATUS.
2. OXYGEN: ADMINISTER 2 TO 5 LITERS PER MINUTE VIA MASK.
3. INTRAVENOUS INFUSION: ADMINISTER RINGER'S LACTATE 150 cc PER HOUR—BOLUS 500 TO 1,000 cc— THEN INCREASE FLUID RATE TO 200 cc TO ACHIEVE A BLOOD PRESSURE OF EQUAL TO OR GREATER THAN ( $\geq$ ) 100 MILLIMETERS OF MERCURY (mm Hg) AND/OR URINE OUTPUT OF  $>30$  cc PER HOUR.

**CAUTION**

NOTIFY SURGEON FOR PERSISTENT URINE OUTPUT OF  $<30$  cc PER HOUR AND/OR WHEN THERE IS EVIDENCE OF REBLEEDING.

4. CHEST TUBE:
    - CONNECT CHEST TUBE TO PLEURAL DRAINAGE AT 20 CENTIMETERS SUCTION.
    - AUTOTRANSFUSE CHEST DRAINAGE q. 15 TO 20 MINUTES AND AS CIRCUMSTANCES REQUIRE (p.r.n.) FOR VOLUME OVER 200 cc.
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Table C-5. Example Standing Order (Continued)

**CAUTION**

NOTIFY SURGEON FOR CHEST DRAINAGE OF &gt; 150 cc PER 30 MINUTES.

5. VENTILATOR: INITIATE THE FOLLOWING SETTINGS FOR VENTILATOR ASSISTANCE:
  - SYNCHRONIZED INTERMITTENT MANDATORY VENTILATION (SIMV), 12/MINUTE; TIDAL VOLUME (TV), 12 cc/KILOGRAM.
  - OXYGEN FLOW TO MAINTAIN OXYGEN SATURATION >90 PERCENT POSITIVE END-EXPIRATORY PRESSURE (PEEP) 5 CENTIMETERS.
  - PEAK FLOW 45 LITERS PER MINUTE AND ADJUST AS NEEDED.
6. EXTUBATION CRITERIA:
  - PATIENT'S SPONTANEOUS RESPIRATION IS 14 TO 20 INHALATIONS PER MINUTE.
  - PATIENT IS ABLE TO COUGH AND BREATHE.
  - PULSE OXIMETER SETTING MUST BE NO LESS THAN 92 PERCENT.
  - PATIENT AROUSES SPONTANEOUSLY AND CAN LIFT HEAD OFF BED.

**CAUTION**

DO NOT EXTUBATE PATIENT WITH INHALATION INJURY, SURGICAL SPINE INJURY OR REQUIREMENT FOR CONTINUED ASSISTED VENTILATION.

7. NASOGASTRIC SUCTION: REGULATE NG TUBE TO LOW SUCTION OR STRAIGHT DRAINAGE.
8. ANALGESIA: ADMINISTER MORPHINE SULFATE 2 TO 10 MILLIGRAMS IV q. 2 HOURS p.r.n.
9. ANTIBIOTICS (CHECK ONE):
  - \_\_\_ CEFAZOLIN SODIUM, 1 GRAM IV q. 8 HOURS.
  - \_\_\_ CEFOXITIN SODIUM, 1 TO 2 GRAMS IV q. 6 TO 8 HOURS.
  - \_\_\_ GENTAMICIN SULFATE, \_\_\_ MILLIGRAMS q. \_\_\_ HOURS.
10. PATIENT RELEASE.
  - A. RELEASE FOR MEDICAL EVACUATION WHEN PATIENT AROUSES SPONTANEOUSLY, CAN LIFT HEAD OFF BED, WHEN BLOOD PRESSURE IS EQUAL TO OR GREATER THAN 100 mm Hg (SYSTOLIC) AND STABLE, AND WHEN THERE IS NO EVIDENCE OF REBLEEDING.
  - B. DISCONTINUE CHEST SUCTION AND PLACE HEIMLICH VALVES ON ALL CHEST TUBES.
  - C. DISCONTINUE NG TUBE SUCTION AND ENSURE THAT TUBE IS OPEN TO AIR OR TO STRAIGHT DRAINAGE.

(SIGNATURE) \_\_\_\_\_  
 TEAM COMMANDER  
 LTC, MC

**C-22. Procedures for Medical Evacuation of Patients**

*a.* The FST recovery area has the responsibility of preparing patients for release to the medical evacuation chain. The evacuation of a patient is initiated by the surgeon in accordance with established unit

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SOP. The recovery area coordinates with the supporting medical company for the movement of the patient and ensures that the—

- Medical evacuation request includes requirement for surgical equipment and/or providers.
- Patient is sufficiently stabilized for the anticipated mode and duration of travel.
- Patient's airway and breathing is adequate for movement.
- Patient's IV lines, drainage devices, and tubes are fully secured and patent.
- Heimlich valves on chest tubes are functioning.
- Foley catheters are placed to straight drainage and that the NG tubes are open to air and straight drainage.
- Patient is securely covered in a woolen/aluminum blanket for air transport, cold environment, and/or postoperative hypothermia.
- Three litter straps are in place and that the patient is secured to litter in the proper position according to condition/injuries.
- Personal effects and all medical records accompany the patient.

*b.* Patients stabilized at the FST will be routinely evacuated by Army medical evacuation platforms to the supporting Echelon III (corps or joint task force) hospital. The Echelon III MTF then assumes responsibility for the patient as the originating MTF for Tactical Aeromedical Evacuation System (TAES) requirements and completes the necessary documents. However, in joint or split-based operations where a brigade is deployed separate of a contiguous corps, and the USAF is required to evacuate from the BSA, then the supporting medical company will assume the TAES administrative requirement.

### NOTE

Due to other patients awaiting medical evacuation at the medical company, the brigade surgeon or designee determines the evacuation precedence for all patients. This is done in consultation with the FST's chief surgeon and/or senior nurse.

*c.* Personal effects (money, documents, pictures, jewelry, and the like) will be documented by the supporting medical company and accompany patients when they are evacuated from the FST.