SURGICAL EMERGENCY MEDICAL RESPONSE

PURPOSE

The Surgical Emergency Response Team (SERT) is a resource that can be called upon by on scene personnel when they encounter a patient who requires life or limb saving procedures which exceed the capabilities of the EMS personnel on scene service or who cannot be extricated and transported in a reasonable amount of time from the scene to definitive treatment.

GUIDING PRINCIPLES

In general, a SERT is utilized in a situation where a life-saving procedure, such as an amputation, is required due to the inability to extricate a patient. Life before limb concept is utilized as a life-saving measure, not as a time saving measure.

SERT should be assembled and ready to respond within thirty (30) minutes of a request with standard life-saving equipment.

POLICY

The Incident Commander, in consultation with the treatment/rescue sector on scene will be the responsible person to activate the Surgical Emergency Response Team (SERT) by calling the Phoenix or Mesa Fire Regional Dispatch Center and asking the surgical team to be mobilized). The Phoenix and Mesa Fire Regional Dispatch Centers have a contact list of qualified SERT members capable of deployment upon request of the Incident Commander.

First on scene unit ALS/BLS, which determines an advance medical need can start the SERT process. While not required, if the first on-scene units are not comfortable making the decision, the agency Medical Directors (or on-line Medical Control) should be in the decision-making process.

A second Command Officer will be added to all incidents where the SERT is requested. This should be the next closest Command Officer as assigned by the dispatching Alarm Room.

The Phoenix or Mesa Fire Regional Dispatch Tactical Radio Operator (TRO) will then contact the assigned Trauma center via the predetermined facility activation process and ask for the team to prepare to be transported to the scene. See appendix attached.

The TRO will then send the closest available Battalion Chief to the trauma center closest to the incident to pick up the team and transport them to the scene of the incident.

The Battalion Chief will be responsible for escorting the team to the scene and assuring scene and surgical team safety. The Battalion Chief will provide a safety brief to the surgical team enroute to the scene. The BC will get the on scene Medical Lead in direct contact via phone or radio with the onboard

SERT physician to be inform of patient condition, the plan in progress and what they will need from the SERT on arrival.

The Battalion Chief will announce to the Incident Commander the arrival of the SERT and then introduce the SERT to the treatment/rescue sector on scene who will in turn direct them to the patient and provide a debrief on the scenario.

On arrival the SERT will establish Medical Direction and will work under the Incident Command as patient treatment, extrication, and transport is in process. Chain of Command will be followed by all members at incident. The surgeon or EMS physician from the SERT will then assume control of patient care at the scene and during patient transportation to the hospital.

The Fire Department personnel will assist the SERT with procedures and interventions that are in their standard EMS protocol. The SERT will be responsible for performing any procedures out of scope of practice or protocol for the EMS agency on scene. Fire Department personnel and SERT members will work together to provide life and limb saving procedures. Medical Direction (SERT) and Fire Department will have joint responsibility for patient care, transport, and transfer. The appropriate dispatch center will determine the closest most appropriate SERT to deploy and shall dispatch a Battalion Chief to that location. After the patient is stabilized at the scene, hospital destination will be determined by the treating physician.

GUIDELINES

The SERT shall be compromised of a Trauma Surgeon or EMS Physician, with the addition of a trauma nurse being at the discretion of the responding physician.

It is the responsibility of all responding hospital personnel to have appropriate personal protective equipment (PPE). This may include steel toe shoes/boots, helmet, eye protection, dust masks, work gloves and sturdy clothing, such as long sleeves and BDU style pants. Scrubs should not be worn once on the scene of the incident. The Fire Department may provide specialized PPE if possible as indicated by the factors of the incident.

Each Trauma hospital is responsible to outfit the kits as outlined below and ensure the kits are stocked and up to date.

Trauma surgeons, EMS Physicians (and nurses if part of the deployment team) and hospitals agree to participate in a yearly, at minimum or as necessary, technical rescue drills. They also agree that the surgeons, physicians, and nurses will commit to 24 hour/365 day availability based on a predetermined call schedule.

These operations often also require a dedicated Battalion Chief. If the decision is made to bring in a helicopter or ground-based hospital team, another Battalion Chief will need to be dedicated to the function of safe transport of the team to the scene. Battalion Chief Vehicles can only provide transportation for two SERT personnel.

If field amputation is required, it is preferred for this skill to be performed by a physician when possible. Physicians who may perform this include a trauma surgeon or EMS physician trained in field amputation and the provision of critical care medicine in austere environments.

It is absolutely essential that any hospital-based resources be provided a safe operation. Very few of the responding hospital personnel have experience working or responding to a field call. The personnel and their supplies must be guided/protected/shielded to allow them to do the specific functions they need to do while being protected from scene hazards. That should all be prepared before they arrive, to include any need for a safe landing area; rapid transport to the patient; any necessary equipment for a safe platform to work on; lighting, ventilation, and physical access to the patient; a patient as prepared as possible including monitor, oxygen, tourniquet, IV or IO access, backboard and stretcher, clean plastic bag(s) for an amputated extremity and ice to put around it if needed, and a staged transport unit. This will allow the team to immediately assess the patient, provide anesthesia/analgesia as indicated, and perform any necessary intervention.

The standard life-saving equipment referenced below shall be predetermined, preassembled, readily available, clearly labeled, and stored in a predetermined location. Based upon the magnitude and nature of the incident, the standard life-saving equipment may require augmentation.

In some instances, an extricated patient may require rapid transport to a trauma center followed by delayed transport of the cooled body part when it is eventually freed. The treating physician in collaboration with on scene personnel will determine if body part is salvageable.

The charting paramedic will be responsible for documentation related to patient care at the scene. This will include all relevant pre-hospital care (IV placement, medication(s) administered, intubations, etc.) and surgical care in the field, including, but not limited to, arrival of surgical team, description of the surgical procedure(s) performed to free the patient, tourniquet application, etc.). Most of these incidents will require a debriefing session for scene personnel.

The SERT will need to communicate as early as possible with the closest most appropriate trauma center, to allow the hospital to be prepared for the incoming patient. Appropriate documentation of patient care will be completed by the treating SERT physician any time they provide care outside of the hospital during these scenarios. Any required hospital documentation will primarily be the responsibility of the treating SERT physician.

SERT should consider and plan for extended operations when deployed to this type of call. Additional SERT resources should be placed on alert in the event operations extend beyond a reasonable work cycle as determined by the conditions specific to the incident (Phoenix Regional Standard Operating Procedure, 202.08, Rehabilitation Sector).

At a minimum, the items below are required. This list should assist the hospital staff in assembling and accounting for this unusual incident. This list would also allow staff to record what was returned to the hospital. It is the responsibility of the hospitals to restock any items, including medications, from the SERT cache used during the incident.

Note: Equipment and medications included in the list below represent best known recommendations. The equipment and medications lists are subject to change as needed to address the needs of the patient.

SURGICAL EMERGENCY MEDICAL RESPONSE

EQUIPMENT	**TYPE**	
TOURNIQUET X4 JUNCTIONAL TOURNIQUET X1	(2-CAT OR SOFT-T, 2-SWAT-T)	
HEMOSTATIC GAUZE	QUIK-CLOT Z-FOLD/COMBAT GAUZE HEMOSTATIC DRESSING	
TRAUMA PADS	4 PKGS TRAUMA PADS	
SCALPELS	DISPOSABLE, 2 #10 BLADE 2 #22 BLADE ON HANDLES	
HEMOSTATS	SIX (6) 5 INCH CURVED WITH FINER TIP TWO (2) 7 INCH KELLY CLAMPS	
SAW (2)	GIGLI SAW WITH 2 HANDLES SIMILAR TO FEMA CACHE	
SCISSORS	ONE (1) 5 INCH MAYO, PLASTIC HANDLED BANDAGE/ORTHO SCISSORS	
CLAMPS	TWO (2) UMBILICAL CORD CLAMPS (HIGHER # RECOMMENDED – GET INPUT FROM TRAUMA TEAM)	
SYRINGES	SIX (6) 10 ML SYRINGES SIX (6) 3 ML SYRINGES	
NEEDLES	SIX (6) 18 G NEEDLES, 1.5 INCH SIX (6) 25 G NEEDLES, 1.5 INCH	
SURGICAL CLIP	ETHICON AUTO CLIP APPLIER, LARGE	
KERLEX	FOUR ROLLS KERLEX	
TAPE	TWO (2) ROLLS 4” SILK TAPE, TWO (2) ROLLS 1” SILK TAPE	
GAUZE	SIX CONTAINERS OF 4X4 GAUZE SPONGES	
TOWELS	STERILE TOWEL PACK	
SHEETS	STERILE ¾ SHEETS, TWO (2)	
SUTURES	APPROPRIATE FOR AMUPUTATION	
STERILE TAPE	STERILE ¼” UMBILICAL TAPES	
BOWEL BAG	ONE (1) BOWEL BAG	
ACE WRAPS	ACE WRAPS: TWO (2) 4”, TWO (2) 6”	
COBAND	COBAND 4 INCH WIDTH X2	
BLOOD TUBING	TWO (2) SETS BLOOD ADMINISTRATION TUBING	
IV STARTER KITS	FOUR IV STARTER KITS, IVF TUBING X2, 500 ML NSS X2	
SKIN PREP	FOUR (4) CHLOR-PREP SKIN PREP STICKS	
SPECIMEN BAGS	FOUR (4) PLASTIC SPECIMEN BAGS (AMPUTATION COLLECTION BAG)	
GOWNS	TWO (2) SURGICAL GOWNS	
STERILE GLOVES	STERILE GLOVES: THREE (3) EACH, SIZE 7, 7 ½ , 8	
MASKS AND HAT	MASKS, HATS	
GLOVES	SEVERAL PAIR UNSTERILE NITRILE GLOVES	
FOLEY	FOLEY KIT	
CHEST TUBES X2	20 OR 24F WITH TROCARS WITH HEIMLICK VALVES X2 AND FOLEY BAG X2	
CRIC KIT	CRIC KIT WITH #6 ETT WIRE REINFORCED	
STERILE SALINE	TWO 500ML BOTTLES STERILE SALINE/IRRIGATION	
ISTAT & CARTRIDGES	**OPTIONAL**	
PELVIC BINDER		
CLAMPS		
USAR MODEL EQUIPMENT	JUMPSUIT, HELMET, STEEL TOE SHOES.	
SUGGESTED MEDICATION	**AMOUNT**	
FENTANYL	EIGHT (8) 100 MICROGRAM VIALS	
VERSED	THREE (3) 10 MG VIALS	
KETAMINE	FOUR (4) 100MG VIALS	
ROCEPHIN	TWO (2) 1 GRAM VIALS	
CLINDAMYCIN	900 MG IV	
SODIUM BICARBONATE	OPTIONAL	
LIDOCAINE	1% WITH EPINEPHRINE FOUR (4) 30 ML BOTTLES, PLASTIC	
RAPID SEQUENCE INTUBATION DRUGS	DETERMINED BY SERT ETOMIDATE, ROCURONIUM, SUCCINYLCHOLINE, VECURONIUM	