



FIELD AMPUTATION GUIDELINE-

Transport Considerations/Understanding

Patients entrapped by an immovable object may require a field amputation procedure to mobilize them and bring them to a trauma center for ongoing resuscitation. If the object can be moved and pt mobilized without an amputation, this will be performed. This will only be considered for extremity entrapments. Typical scenarios in which this may occur would be machinery limb entanglement (e.g., agricultural, construction, or industrial), motor vehicle collisions, confined space rescues, structural collapses, rock fall.

Indications:

1. Need for rapid/emergent removal of the patient from their environment due to life threatening factors that are either situational or patient centered/medical in nature AND entrapment of a limb that would be amenable to field amputation otherwise preventing the emergent removal of the patient from their environment.
2. There is adequate space on the affected extremity proximal to the object to allow placement of a tourniquet.
3. All attempts at extraction prior to amputation have been considered and attempted.
4. Flight For Life Medical Director has been consulted and agrees with plan to activate the field amputation protocol.

Contraindications:

1. Entrapment of a limb at a proximal location so as to not allow proper placement of a tourniquet to control bleeding.
2. Environmental or situational consideration as to make the procedure unsafe for the provider.

Procedure:

1. Search and rescue gets activated.

2. Patient found with limb entrapped and unable to be extricated despite all resources.
3. Flight For Life activated. Nurse/Paramedic team dispatched to scene to assist with initial resuscitation.
4. Medical direction on call notified.
5. Medical director calls St. Anthony's Level 1 Trauma Center to discuss with on-call orthopedic surgeon.
6. Back up surgeon activated. Pilot and helicopter meet medical director and surgeon at hospital to rendezvous with patient and nurse/paramedic team.
7. Field Amputation Box retrieved from the Flight For Life office at St. Anthony Hospital (see box contents below).
8. Field amputation performed by activated surgeon and medical director.
9. Patient is brought back to St. Anthony's for definitive care by nurse/paramedic team.

Assessment and Management:

1. Surgical amputation will only be performed by the orthopedic surgeon, general surgeon, or Flight For Life medical director. This procedure will not be performed by a nurse or paramedic.
2. Flight For Life team nurse/paramedic will manage airway, sedation, pain control, tourniquet and blood transfusion per their guidelines.
3. Most patients will need to be intubated prior to the surgical procedure.
4. Trapped limb will be left at the scene until it can be recovered at a later date.
5. Accessory crew (surgeon and medical director) will be left with search and rescue team, who will coordinate their return to St. Anthony's Hospital.

Documentation Requirements:

1. Tourniquet time.
2. Amputation time.
3. Surgical staff performing procedure.

Field Amputation Box Contents-

1. Personal protective equipment
 - a. Mask (with face shield)
 - b. Surgical gown
 - c. Sterile gloves (multiple sizes)
2. Draping material
 - a. Thyroid drape (large)

- b. Towels (4-pack)
- 3. Dressing supplies
 - a. ABD pads
 - b. 4x4 gauze pads
 - c. Hemostatic gauze
 - d. Gauze rolls
 - e. Large ace bandages
- 4. Preparation materials
 - a. Tourniquets
 - b. Chloroprep (x2)
- 5. Surgical equipment
 - a. Mayo scissors (1 straight, 1 curved)
 - b. Kelly clamps (4)
 - c. Hemostats (1 large, 1 small)
 - d. Needle holder
 - e. Gigli saw (handle and blades)
 - f. Scalpels (1 ea #10, #20)
 - g. Electric cautery

Required but carried on all missions and thus not in the field amputation box-

- 1. Drugs
 - a. RSI
 - i. Induction agent (Etomidate, Ketamine)
 - ii. Paralytic agent (Rocuronium)
 - b. Analgesics
 - c. Sedatives
- 2. Blood products