11.04 SPECIAL CIRCUMSTANCES: FIELD AMPUTATION PUBLIC COMMENT JULY 2024

BLS – FAQ Link

Request Amputation Team (minimum 3-person procedure, see Base Hospital Contact Criteria).
Consider the following indications in a patient with an entrapped limb:

- Scene safety posing an immediate risk to patient's life.
- Patient decompensation with death likely to occur before extrication.
- Minimal attachment or severe mutilation of non-survivable limb.
- Deceased body is blocking access to a potentially live patient.

Clear access to chest, head and as far distally on entrapped extremity as possible.
Assess circulation, airway, breathing, and responsiveness
As indicated: **Oxygen, Spinal Motion Restriction,** or position of comfort, splint suspected fractures/instability.

DRAFT VERSION

ALS

If crush injury, refer to
Protocol 11.02
Special Circumstances: Crush Syndrome

Bandage wounds/control bleeding as indicated. Refer to
Protocol 4.05 Extremity Bleeding Control

Normal Saline
IV/IO TKO
If SBP <90, administer 500mL fluid bolus
Reassess and repeat if indicated.

Pain?

Yes

Fentanyl
50 mcg IV/IO slow IV push (over 1 minute).

May be repeated every 5 minutes if SBP > 90mmHg. Maximum dose of 200 mcg total.

--or--

100 mcg IN or IM (IN preferred).

May be repeated every 10 minutes if SBP > 90mmHg. Maximum dose of 200 mcg total.

Management of Entrapped Limb

- Expose extremity as much as possible. Assist amputation team during procedure, as needed.
- Transport amputated limb with patient to hospital following procedure.
  - Wash amputated limb with Normal Saline to remove contaminants.
  - Wrap amputated limb in moistened gauze.
  - Place wrapped amputated limb in a dry plastic bag.
  - Place bag with amputated limb in a separate bag filled with ice.
  - Do not place amputated limb directly onto ice.

Comments

- Do not delay life-saving patient care to perform interventions.
- Rapid transport of the post-amputation patient to a trauma center is critical.
- Paramedic may assist with field amputation. Performing amputation/ procedural sedation is not in the current paramedic scope of practice and sedation medications may only be administered by physicians or nurses in the field.

- Attempt to obtain a full set of vitals and place patient on monitor as able.
- Maintain visualization and verbal communication with patient for close monitoring.

Base Hospital Contact Criteria

Team activation: Requested by scene commander; dispatched by request through Department of Emergency Communications to Base Hospital Physician. Base Physician contacts Trauma Center Medical Director for approval, then the team on-call as designated by participating physician group and provided to Base Hospital.

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BLS Treatment

- If crush injury, refer to **Protocol 11.02 Crush Syndrome**.
- Request Amputation Team (minimum 3-person procedure, see Base Hospital Contact Criteria). consider the following indications in a patient with an entrapped limb:
  - Scene safety posing an immediate risk to patient's life.
  - Patient decompensation with death likely to occur before extrication.
  - Minimal attachment or severe mutilation of non-survivable limb.
  - Deceased body is blocking access to a potentially live patient.
- Clear access to chest, head and as far distally on entrapped extremity as possible.
- ~~Position of comfort.~~
- ~~NPO~~
- Assess circulation, airway, breathing, and responsiveness.
- As indicated: **Oxygen**, Spinal Motion Restriction, position of comfort, splint suspected fractures/instability~~as indicated.~~
- ~~Provide **Spinal Motion Restriction** as indicated or position of comfort as indicated.~~
- ~~Appropriately splint suspected fractures/instability as indicated.~~
- Bandage wounds/control bleeding as indicated, refer to Protocol 4.05 Extremity Bleeding Control

ALS Treatment

- IV or IO of **Normal Saline** TKO.
- If SBP <90, administer **Normal Saline** fluid bolus
- For pain: may administer ~~**Morphine.**~~ **Fentanyl.**
- Attempt to obtain a full set of vitals and place patient on monitor as able.
- Maintain visualization and verbal communication with patient for close monitoring.

~~**Treat for Crush Injury, as indicated.**~~

- Expose extremity as much as possible. Assist amputation team during procedure, as needed.
- Transport amputated limb with patient to hospital following procedure.
  - Wash amputated limb with Normal Saline to remove contaminants.
  - Wrap amputated limb in moistened gauze.
  - Place wrapped amputated limb in a dry plastic bag.
  - Place bag with amputated limb in a separate bag filled with ice.
  - Do not place amputated limb directly onto ice.

Comments

- ~~Be conservative and apply spinal motion restriction precautions if a suspicion of cervical spine injury exists and time permits.~~ Do not delay life-saving patient care to perform interventions.

- Rapid transport of the post-amputation patient to a trauma center is critical.

Paramedic may assist with field amputation. Performing amputation/procedural sedation is not in the current paramedic scope of practice and sedation medications may only be administered by physicians or nurses in the field.

Amputation Team Guidelines (Physicians ONLY)

- Patient consent.
- Document scene
- Assign additional roles prior to amputation:
  - Movement of patient to a designated pit stop following amputation.
  - Hemorrhage control and dressing of stump.
  - Ambulance and transport EMS crew.
  - Primary survey and resuscitation.
- Prep extremity.
- Establish IV access, 2 IVs if possible.
- Establish proximal and distal control, if possible.
- Maintain clean, if not sterile, technique.
- Sedation: Preferred medication is **Midazolam.**
- Anesthesia: Preferred medications are **Ketamine** for prolonged procedure. ~~and **Methohexital** for short procedure.~~
- Provide pain control: Preferred medication is **Fentanyl.**
- Perform amputation using scalpel, cable saw and extremity tourniquet, as available.
- Reassess patient and initiate resuscitation efforts.
- Accompany patient during transport to hospital.

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- Equipment list for amputation: (should be kept in a "go bag" accessible for rapid transport with team) EQUIPMENT NEEDS: O.R. amputation pack with:
  - Cable saw
  - Scalpel with # 10 blade
  - Scalpel with # 15 blade
  - Pneumatic tourniquet(s)
  - Non-pneumatic tourniquet(s)
  - Gauze
  - Kerlex
  - Betadine and betadine applicators
  - Needle driver
  - Tissue forceps, long and short
  - 4-0 Ethilon suture material on a curved needle
  - Bone wax
  - Coagulation dressing material
  - **Fentanyl** 500 micrograms
  - **Midazolam** 20 milligrams
  - **Ketamine** 500 milligrams
  - ~~**Methohexital** 300 milligrams~~
  - Syringes assorted sizes
  - Needles assorted sizes

Training requirements of Amputation Team:

- All personnel: Current licensure and credentialing at hospital of origin.
- Operator: A designated Emergency Medicine Physician with field amputation training. If available and by request, a General Surgeon or Orthopedist (with O.R. privileges). ~~If a surgeon is not available, a designated Emergency Physician with field amputation training.~~
- Assistant Operator: Anesthesiologist or Emergency Physician (with sedation privileges).
- Second Assistant: Operating Room technician, Emergency Department nurse, ~~or~~ Emergency Department technician, or paramedic on scene.
- Documentation of field amputation on prehospital Patient Care Record.
- Sentinel Event: 100% review by Trauma System Audit Committee and Hospital Process Improvement Committee.

Base Hospital Contact Criteria

- Team activation: Requested by scene commander; dispatched by request through Department of Emergency Communications to Base Hospital Physician. Base Physician contacts Trauma Center Medical Director for approval, then the team on-call as designated by participating physician group and provided to Base Hospital.