Solano Emergency Medical Services Cooperative

Board of Directors Meeting

Meeting Date: 4/12/2018

I. REPORTS

a. SEMSC Medical Director's Report (verbal update, no action)

Copies of policies enacted since the last Board Meeting are attached for reference, as requested by the SEMSC Board.

Solano EMS policies and protocols are available on the internet at http://www.co.solano.ca.us/depts/ems/

Policy/Protocol Updates

ALS Protocols

B-1 Behavioral Emergencies
C-1 Shock
C-5 Wide Complex Tachycardia
C-6 Bradycardia
C-8 Narrow Complex Tachycardia
C-10 Chest Pain ACS
C-14 STEMI
E-4 Burns
M-1 Abdominal Pain
M-5 Allergic Reaction/Anaphylaxis
P-7 Pediatric Allergic Reaction/Anaphylaxis General Trauma
T-5 Abdominal Trauma
T-6 and T-6-A and B Extremity Trauma
S-12 IN Medication Administration

BLS Protocols

m-5 Allergic Reaction/Anaphylaxis
n-1 ALOC (BLS n-2 merged into new BLS n-1)

Effective May 1 ,2018

Review May 1, 2020

Behavioral
B-1 Behavioral Emergencies in Adults

PRIORITIES
SCENE SAFETY: Above all protect yourself and others.
Airway/Breathing/Circulation
Identify and correct treatable causes for behavior
Document all physical/psychological findings
Early transport
Early notification of receiving hospital

One rescuer must assume control of the scene to minimize confusion on direction of patient care.
If the patient refuses care and transport, obtain a 5150 hold from law enforcement if possible.

VERBAL INTERVENTION

Always attempt verbal intervention first to de-escalate the situation.
Speak in a calm, reassuring, but firm voice when approaching and caring for the patient.

Verbal Intervention Failed and Restraints Required?

NO

Physical Exam including mental status and Glasgow Coma Scale

Pulse Oximetry

Cardiac Monitor

Blood Glucose Check

Consider IV/IO NS TKO

Treat any reversible causes of ALOC per appropriate protocol

Continued Agitation/ Violent Behavior?

Yes

Yes

Physical Restraint

Obtain appropriate assistance (law enforcement, other rescuers, etc.) of at least four people to restrain the patient.

Restrain the patient and document, per Policy 6143, Patient Restraint.

For continued agitation or violent behavior consider:
Midazolam 2mg IV/IO
OR
Midazolam 2mg – 4mg IM/IN

May repeat once for a max dose of 4mg IV/IO of 8mg IM/IN for further continued agitation or violent behavior.

Midazolam may be given prior to physical restraint if the patient is too severely agitated or violent that physical restraint cannot be preformed safely.

Contact Base Physician for Additional Medication Orders

Transport

DISRUPTED COMMUNICATIONS
In the event of a "disrupted communications" situation, Solano County Paramedics may utilize all portions of this treatment protocol without Base Hospital Contact as needed to stabilize an immediate patient.

Effective May 1 ,2018

Review May 1, 2020

Cardiac Emergencies
C-5 Wide Complex Tachycardia

Stabilize Airway
Oxygen – Titrate SpO2 >95%
Be prepared to support ventilations with proper airway adjuncts
Cardiac Monitor
Consider 12 Lead EKG after initial patient treatment
Establish IV/IO TKO
RAPID TRANSPORT when appropriate

Stable: Normal skin signs, vital signs, mentation,and has pulses
Unstable: Hemodynamically unstable (SBP <90) AND, diaphoresis, CP, cap refill >2 sec, cyanosis, ALOC, SOB

Degree of Distress

Stable

Lidocaine 100mg IV/IO
OR
Amiodarone 150mg IV/IO
over 10 minutes

Transport

Unstable

Consider
Midazolam 2mg IV/IO/IM/IN

May repeat once for a total of 4mg IV/IO/IM/IN
For sedation

Use caution in patients over 60
Be prepared to manage patient's airway after administration

Consider
Morphine 2mg SLOW IV/IO/IM
q 5 minutes max dose of 8mg
OR
Fentanyl 25mcg SLOW IV/IO/IN/IM
q 5 minutes max dose 100mcg

For pain/sedation

Synchronized Cardioversion
100J
200J
300J
360J
Or Bi-phasic equivalent

If V Tach with pulses reoccurs
Synchronized Cardioversion
At lowest energy level that was previously successful

Lidocaine 50mg IV/IO q 5 – 10 minutes to a max dose of 200mg
OR
Amiodarone 150mg IV/IO

Contact Base Physician for additional orders

Priorities
ABC's
Determine degree of physiologic distress and type of dysrhythmia
Initiate treatment in the field
Reassess rhythm and vital signs frequently
Early transport
EARLY CONTACT OF RECEIVING HOSPITAL

TREAT VENTRICULAR TACHYCARDIA WITHOUT PULSES UNDER CARDIAC PROTOCOL C-3

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Effective May 1, 2018

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Cardiac Emergencies
C-6 Bradycardia

Asymptomatic: HR <60 BPM with no other symptoms
Symptomatic: HR <60 AND diaphoresis, CP, cap refill >2 sec, cyanosis, ALOC, SOB
Critical: HR <60 AND SBP <90 AND diaphoresis, CP, cap refill >2 sec, cyanosis, ALOC, SOB

Patient Symptomatic?

YES

Patient Critical?

YES

Atropine 0.5mg IV/IO
Consider repeating
Atropine 0.5mg-1mg IV/IO
every 3-5 minutes, max of 3mg

Use caution in patients with suspected cardiac ischemia

External Cardiac Pacing

Set pace rate at 80 BPM
Start at 50mA and quickly increase in 10mA increments until capture is achieved

CONSIDER
MIDAZOLAM 2mg IV/IO/IM/IN
May repeat once for a total of 4mg IV/IO/IM/IN for sedation.

MORPHINE 2mg IV/IO/IM q 5 minutes
max dose of 8mg
OR
FENTANYL 25mcg Slow IV/IO/IM/IN
q 5 minutes to max 100mcg

For pain relief

Proceed immediately to external cardiac pacing as first line therapy for patients who are rapidly deteriorating or have had a heart transplant. Transplanted hearts will not respond to Atropine.

NO

Ensure Airway

Oxygen – Titrate to SpO2 >95%

Position of Comfort
If decreased LOC, position patient left lateral decubitus

Cardiac Monitor

IV/IO Access TKO
Titrate to SBP >90

Atropine 0.5mg IV/IO

Consider repeating
Atropine 0.5mg-1mg IV/IO
every 3-5 minutes, max of 3mg

Use caution in patients with suspected cardiac ischemia

NO

Ensure Airway

Oxygen – Titrate to SpO2 >95%

Position of Comfort

Cardiac Monitor

Consider IV/IO Access TKO

Transport

Priorities
ABC's
Determine degree of physiologic distress
Initiate treatment in the field
Reassess rhythm and vital signs frequently
Early Transport
EARLY CONTACT OF RECEIVING HOSPITAL

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Cardiac Emergencies
C-8 Narrow Complex Tachycardia

Stabilize Airway
Oxygen – Titrate SpO2 to >95%
Be prepared to support ventilations with appropriate airway adjuncts
Cardiac Monitor

Stable: Normal mentation and skin signs or systolic blood pressure >90mm/Hg
Unstable: Hemodynamically unstable (SBP <90) AND decreased sensorium, diaphoresis, CP, cap refill >2 sec, cyanosis, ALOC, SOB
Critical: Patient unstable and rapidly decompensating

SVT?

NO → Reassess as needed

YES
Degree of Distress?

Stable

Valsalva Maneuvers

Adenosine 6mg rapid IV push
Immediately followed by
NS 20mL rapid IV bolus

If no effect

Adenosine 12mg rapid IV push
Immediately followed by
NS 20mL rapid IV bolus

If still no effect

Adenosine 12mg rapid IV push
Immediately followed by
NS 20mL rapid IV bolus

Monitor closely for signs of decompensation. If any signs occur, proceed with **synchronized cardioversion**.

Unstable

Prepare for possible synchronized cardioversion

If IV access obtained prior to cardioversion

Adenosine 6mg rapid IV push
Immediately followed by
NS 20mL rapid IV bolus

If no effect

Consider
Midazolam 2mg IV/IO/IM/IN
May repeat x1 to max dose of 4mg IV/IO/IM/IN
For sedation

Morphine 2mg SLOW IV/IO/IM q 5 minutes
max dose of 8mg
OR
Fentanyl 25mcg SLOW IV/IO/IM/IN q 5 minutes
max dose of 100mcg
For pain

Critical

Synchronized Cardioversion
50J
100J
200J
Or Bi-phasic equivalent

Obtain 12 Lead EKG

IV NS TKO

At Antecubital site
Use T-connector with IV drip tubing

Contact Base Physician for additional orders → Transport

Priorities
ABC's
Determine degree of physiologic distress: Stable, Unstable, or Critical
Identify cardiac rhythm
Initiate IV/IO access
Initiate treatment in the field
Reassess rhythm and vital signs frequently
EARLY CONTACT OF RECEIVING HOSPITAL

DISRUPTED COMMUNICATIONS
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Cardiac Emergencies
C-10 Chest Pain likely Acute Coronary Syndrome (ACS) (Cardiac in Nature)

Priorities
Airway/Breathing/Circulation
Determine degree of physiologic distress
Obtain PQRST and attempt to ascertain cardiac origin
Reassess vital signs frequently
Early contact of receiving hospital

Oxygen – Titrate to SpO2 >95%

Cardiac Monitor – 12 Lead EKG

12 Lead EKG indicates Acute MI

Yes → Refer to Protocol C-14 ACS Chest Pain with STEMI

No

IV/IO NS TKO

Aspirin 324 mg PO
If no contraindications

Nitroglycerin (NTG) 0.4 mg SL spray or tablet
If no pain relief and SBP >100, repeat q 5 minutes

If SBP drops below 100 at anytime, DO NOT give NTG.

Caution
Do not give NTG to patients that have taken PDE-5 inhibitors (Avanafil, Sildenafil, Tadalafil, Vardenafil, or equivalent) within the last 48 hours.

Morphine Sulfate 2 mg SLOW IV/IO/IM q 5 minutes
max dose of 8mg
to relieve chest pain

OR

Fentanyl 25 mcg SLOW IV/IO/IM/IN q 5 minutes to max dose of 100 mcg
to relieve chest pain

Maintain SBP >100.
Recheck vital signs and document before each dose of Morphine or Fentanyl.
If SBP drops below 100 at anytime, DO NOT give Morphine or Fentanyl.

Contact Base for additional medication orders

Transport

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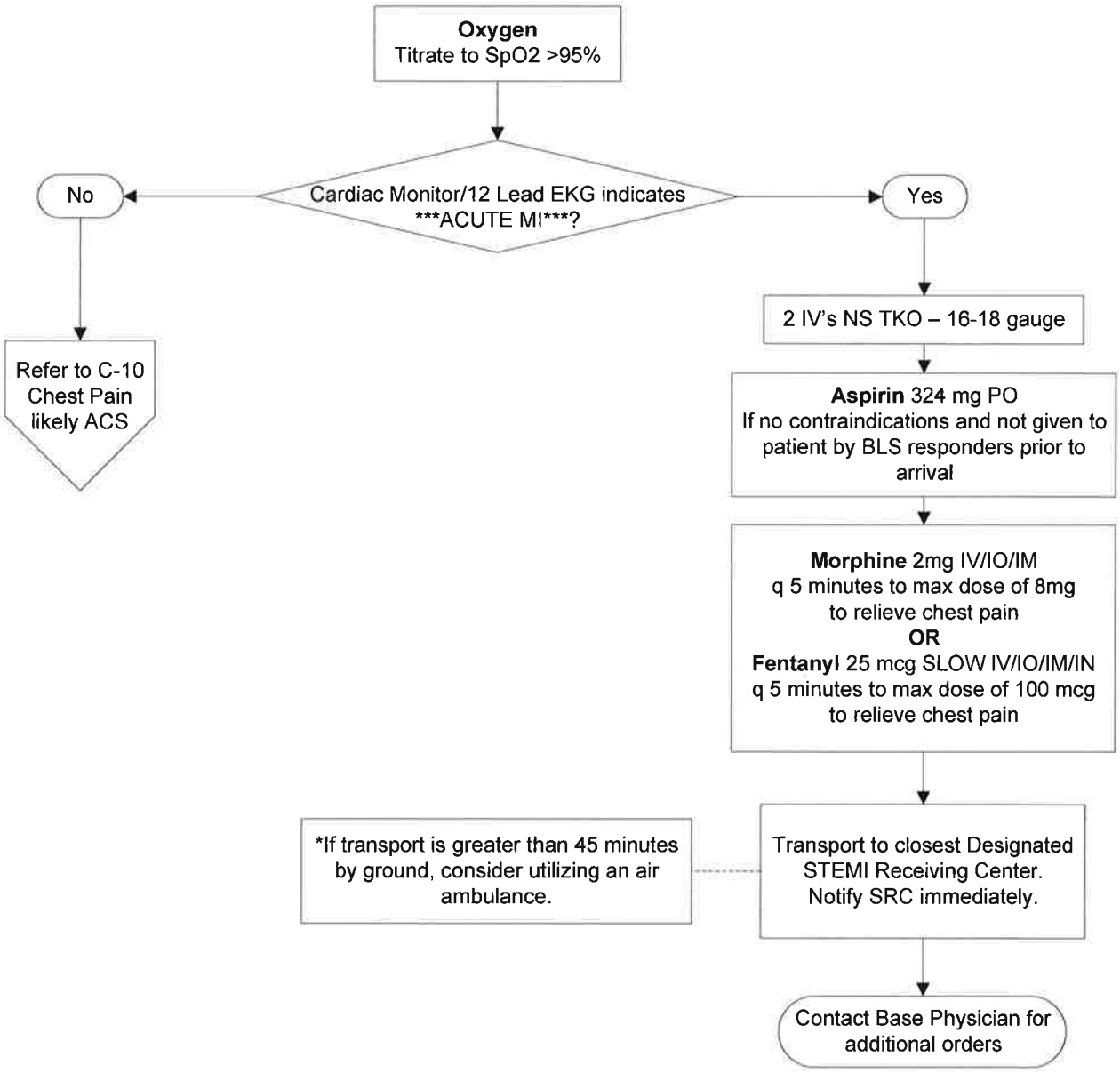
Cardiac Emergencies
C-14 Acute Coronary Syndrome (ACS) Chest Pain with ST Segment Elevation Myocardial Infarction (STEMI)



SOLANO EMS DESIGNATED STEMI RECEIVING CENTERS:

- NorthBay Medical Center, Fairfield
- Kaiser Permanente Hospital, Vallejo
- John Muir Medical Center, Concord
- UC Davis Medical Center, Sacramento

Based upon the individual patient's location and possible transport times the paramedic should choose the closest Solano County Designated STEMI Receiving Center and mode of transport. (Air transport may be appropriate for certain locations.)

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Review May 1, 2020

Environmental Emergencies
E-4 Burns

Priorities
ABC's
Assume airway/respiratory involvement in chemical burns and fires in closed spaces
Move patient to a safe area
Stop the burning process
Search for associated injuries
Early Transport
EARLY CONTACT OF RECEIVING HOSPITAL
TRANSPORT TO LOCAL EMERGENCY FACILITY

Stabilize airway

Oxygen – Titrate to SpO2 >95%
Be prepared to support ventilations with appropriate adjuncts

Cardiac Monitor

IV/IO Access

Preferably on an unburned extremity

NS fluid challenge
500mL for <20% TBSA burned
1000mL for >20% TBSA burned

Repeat vital signs and continue NS boluses until SBP is >100

If pt has hx of heart failure or other signs of volume overload start NS fluid challenge at 250mL for <20% TBSA burned and 500mL for >20% TBSA burned.

Treatment Guidelines

1. Stop the burning process. Use cool dressings only long enough to stop the burning proces.
2. Remove contact with burning agent unless it is an adherent substance (example: tar). DO NOT remove adherent materials.
3. Remove restrictive clothing and jewelry.
4. Brush off chemical powders and flush copiously with cool water
5. Cover the burned area with clean dressings or sheets.
6. DO NOT break blisters.

For pain relief in the absence of hypotension or altered level of consciousness

Morphine 4mg SLOW IV/IO/IM
q 5 minutes to max dose of 16mg

OR

Fentanyl 50mcg SLOW IV/IO/IM/IN
q 5 minutes to max dose of 200mcg

Titrate Morphine and Fentanyl to pain relief and SBP >100

Contact Base Physician for additional orders

Transport

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Medical Emergencies
M-1 Abdominal Pain

Priorities
Airway/Breathing/Circulation
Identify signs of shock
Treat cardiac dysrhythmias according to the appropriate protocol
Keep patient NPO
Early Transport
Early contact of receiving hospital

Stabilize Airway

Oxygen – Titrate to SpO2 >95%

Cardiac Monitor

Consider IV/IO TKO for severe pain

Hypotension or Tachycardia Present?

NO

CONSIDER

Morphine 2mg SLOW IV/IO/IM q 5 minutes max dose of 8mg

OR

Fentanyl 25mcg SLOW IV/IO/IM/IN q 5 minutes to a max dose of 100mcg

Titrate Morphine or Fentanyl to pain and SBP >100

Contact Base Physician for Additional Medication Orders

Yes

IV/IO Access – Large bore and wide open

Recheck vital signs every NS 250mL until SBP >100 or until clinical condition improves

Consider second IV if appropriate

Transport

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Effective May 1, 2018

Review May 1, 2020

Medical Emergencies
M-5 Allergic Reaction/Anaphylaxis

Priorities
Airway – stabilize using the appropriate adjuncts
Be prepared for advanced airway interventions
Remove antigen source if possible
Identify level of severity of the reaction
Early transport

Levels of severity
Allergic Reaction: Acute onset cutaneous reactions, e.g. hives, pruritus, flushing, rash, or angioedema NOT involving the airway
Anaphylaxis: One or more of the following symptoms: stridor, wheezing, hoarseness, edema involving the airway, hypotension
Anaphylaxis In Extremis: SBP <90, airway compromise, ALOC

Oxygen – With appropriate adjuncts
Cardiac Monitor
SpO2 – Titrate to SpO2 >95%
Advanced Airway Interventions if necessary

Level of Distress?

Allergic Reaction

IV/IO NS TKO
Titrate for SBP >90

Diphenhydramine
50mg IV/IO/IM/PO

Hx of previous anaphylaxis?

- Yes → **Epinephrine 1:1,000**
  0.3mg IM
- No

Transport

Anaphylaxis

Epinephrine 1:1,000
0.3mg IM

IV/IO NS TKO
Titrate for SBP >90

Diphenhydramine
50mg IV/IO/IM/PO

Albuterol 5mg in 6mL NS
may repeat x1
for wheezing/bronchospasm

If pt is on a beta blocker and there is inadequate response to epinephrine:
Glucagon 1mg SLOW IV/IO/IM

Transport

Anaphylaxis In Extremis

Epinephrine 1:1,000
0.3mg IM

IV/IO NS 500mL bolus
Titrate for SBP >90

Diphenhydramine
50mg IV/IO/IM/PO

Albuterol 5mg in 6mL NS
may repeat x1
for wheezing/bronchospasm

If stridor or SBP <90 persists
Epinephrine 1:10,000 0.1mg SLOW IV/IO
over 2-3 minutes q 3 minutes
max dose of 0.5mg
D/C if pt experiences CP or cardiac dysrthmias

If hypotension persists
Epinephrine Drip
1mg Epinephrine 1:1,000 in 1,000mL NS
Titrate to SBP >90

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Effective May 1, 2018

Review May 1, 2020

Trauma Emergencies
General Treatment

Priorities
ABC's
Spinal Motion Restriction as determined by Policy 6611; may require careful advanced airway management
Minimize scene time
SEE TRAUMA TRIAGE ALGORITHM FOR TRAUMA CENTER DESTINATION
EARLY CONTACT OF RECEIVING HOSPITAL

Initial Care

Stabilize Airway – Airway management with the simplest effective method

Spinal Motion Restriction as determined by Policy 6611; may require careful advanced airway management

Oxygen – If indicated

Multi-systems Trauma Patient (significant Mechanism of Injury with chief complaint)

Cardiac Monitor

IV/IO Access
Two large bore (14g – 18g)

Use boluses of NS 500mL to maintain SBP >90mmHg

Pulse Oximeter
If appropriate

Treat specific injuries using the appropriate protocol

Consider

Morphine 4mg SLOW IV/IO/IM q 5 minutes max dose of 16mg

OR

Fentanyl 50mcg SLOW IV/IO/IN/IM q 5 minutes max dose of 200mcg

Titrate Morphine and Fentanyl to pain and maintain SBP >100

Trauma Patient (Isolated extremity trauma)

Cardiac Monitor
If indicated

IV/IO Access
Smaller bore (18g – 22g)

Pulse Oximeter
If appropriate

Treat specific injuries using the appropriate protocol

Consider

Morphine 4mg SLOW IV/IO/IM q 5 minutes Max dose of 16mg

OR

Fentanyl 50mcg SLOW IV/IO/IN/IM q 5 minutes max dose of 200mcg

Titrate Morphine and Fentanyl to pain and maintain SBP >100

Contact Base Physician for additional orders

Transport

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Trauma Emergencies
T-5 and T-6 Specific Treatments

T-5 ABDOMINAL TRAUMA

IMPALED OBJECT
- Attempt to stabilize the object
- If object interferes with CPR, consult Base Hospital

EVISCERATING TRAUMA
- Cover eviscerated organs with sterile, saline-soaked gauze
- DO NOT replace organs in the abdominal cavity

GENITAL INJURY
- Cover genitals with sterile, saline-soaked gauze
- Treat amputated parts per extremity amputations
- Apply direct pressure as needed to control active bleeding

T-6 Extremity Trauma/Amputation

Return extremity to anatomic position, if possible and resistance/pain allows.

If extremity is dislocated, splint in position found.

Control bleeding with direct pressure.

If bleeding cannot be controlled by direct pressure, use Protocol T-6-A: Use of Tourniquet for Hemorrhage Control.

Cover open fractures with sterile, saline-soaked gauze

If partial amputation, splint in anatomic position and elevate

COMPLETE AMPUTATION
- Place amputated part in a dry, sterile, sealed container or bag. Place container/ bag in a second container on ice if available.
- DO NOT place part directly on ice or in water.
- Elevate the involved extremity and attempt to achieve homeostasis.

For Isolated Extremity Injury (including hip and shoulder)

Morphine Sulfate 4mg SLOW IV/IO/IM q 5 minutes
max dose 16mg

OR

Fentanyl 50mcg SLOW IV/IO/IN/IM q 5 minutes
max dose of 200mcg

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Trauma Emergencies
T-6-A and T-6-B Specific Treatments

T-6-A Use of Tourniquet for Hemorrhage Control

Controlling severe bleeding can be challenging (especially in extremities). Use of a tourniquet can assist in the safe and effective care of patients with uncontrollable bleeding in the extremities when the appropriate precautions are taken.

The use for tourniquets is approved for both BLS and ALS providers.

Indications

- Amputations
- Uncontrollable bleeding
- Difficult or dangerous situation of care givers
- Mass Casualty Incidents
- Significant extremity hemorrhage in the face of any or all of the following:
  - Need for airway management
  - Need for breathing support
  - Circulatory shock
  - Significant bleeding from multiple locations
  - Need for other emergent interventions

Application of Tourniquet
(See attached for photos and instructions)

1. Place around limb, at least 2 inches proximal to injury (NOT over a joint)
   - Be sure pockets are empty if applying to lower extremities
2. Pass the band through the outside slit
3. Pull band tight
4. Twist the windlass rod until bleeding stops
5. Lock the rod with the clip
6. Secure the rod with the strap
7. Place identifier on the patient indicating time tourniquet was applied
8. A second tourniquet may be applied if bleeding continues

NOTE: The preferred tourniquet to be used is the Combat Application Tourniquet (CAT). If a tourniquet has been applied prior to arrival of EMS personnel, maintain it and do not remove it. Do not place dressing or cover over tourniquet.

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Effective May 1, 2018

Review May 1, 2020

Trauma Emergencies
T-6-A and T-6-B Specific Treatments

T-6-B Use of Hemostatic Agents

For treating uncontrolled bleeding, severe arterial bleeding, and/or bleeding where a tourniquet is not indicated (e.g. head, trunk, neck, etc.), the use of a hemostatic agent is indicated.

The use of a hemostatic agent is optional and may be utilized by **ALS AND BLS** personnel.

Any agency electing to use a hemostatic agent must submit training outlines to the EMS Agency for approval.

The training shall consist of:

A training class that is not less than one (1) hour in length and shall include the following topics and skills:

- Review of basic methods of bleeding control to include but not limited to diect pressure, pressure bandages, tourniquets, and hemostatic dressings.
- Review treatment of open chest wall injuries.
- Types of hemostatic dressings.
- Importance of maintaining normal body temperature.

At the completion of training, a competency-based written and skills examination for controlling bleeding and the use of hemostatic dressings shall be completed.

The approve agents in Solano County are Celox Hemostatic Gauze, Combat Gauze, and HemCon ChitoFlex PRO Dressing.

Indications

Bleeding that is not controllable with the use of a tourniquet or by other means.

Application

- Open package and remove Hemostatic Gauze. Keep the empty package.
- Pack the hemostatic agent into the wound and use it to apply direct pressure over bleeding source. More than one hemostatic agent may be required.
- Continue to apply pressure for 3 minutes or until bleeding stops.
- Wrap and tie bandage to maintain pressure.

Product Removal

- Gently remove gauze from the wound.
- Thoroughly irrigate the wound.

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Effective May 1, 2018

Review May 1, 2020

Pediatric Emergencies
P-7 Allergic Reaction/Anaphylaxis

Priorities
Airway – stabilize using the appropriate adjuncts
Be prepared for advanced airway interventions
Remove antigen source if possible
Identify level of severity of the reaction
Early transport

Levels of severity
Allergic Reaction: Acute onset cutaneous reactions, e.g. hives, pruritus, flushing, rash, or angioedema NOT involving the airway
Anaphylaxis: One or more of the following symptoms: stridor, wheezing, hoarseness, edema involving the airway, hypotension, tachycardia
Anaphylaxis In Extremis: age appropriate hypotension (reference Pediatric Basic Principles Attachment A), airway compromise, ALOC (agitation, restlessness, somnolence), severe respiratory distress

Oxygen – Titrate to SpO2 >97%
Cardiac Monitor
Advanced Airway Interventions if necessary

Level of Distress?

Allergic Reaction

IV/IO NS TKO

Diphenhydramine
1mg/kg IV/IO/IM/PO
max dose 50mg

Hx of previous anaphylaxis?

- Yes → **Epinephrine 1:1,000**
  0.01mg/kg IM
  max dose of 0.3mg
- No → Transport

Anaphylaxis

Epinephrine 1:1,000
0.01mg/kg IM
max dose of 0.3mg

IV/IO NS TKO
Bolus at 20mL/kg if necessary

Diphenhydramine
1mg/kg IV/IO/IM/PO
max dose 50mg

Albuterol 5mg in 6mL NS
may repeat x1
for wheezing/bronchospasm

Anaphylaxis In Extremis

Epinephrine 1:1,000
0.01mg/kg IM
max dose of 0.3mg

IV/IO NS 20mL/kg bolus
may repeat if necessary

Diphenhydramine
1mg/kg IV/IO/IM/PO
max dose 50mg

If no response to prior Epinephrine:
Epinephrine 1:10,000 0.01mg/kg SLOW IV/IO
over 2-3 minutes
max single dose of 0.1mg
D/C if pt experiences CP or cardiac dysrthmias

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Effective May 1, 2018

Review May 1, 2020

Special Procedures
S-12 Intranasal Medication Administration

In the absence of an established IV, use of the intranasal (IN) route is a rapid alternative to administer certain approved medications. The IN route can also reduce the risk of needle sticks while still delivering effective medication levels.

The nasal cavity has a rich vasculature to provide a direct route for some medications to be absorbed across the mucous membrane. Due to this, the effectiveness of the medication is relatively comparable to IV administration.

BLS Approved Medications for IN Route
Effective July 1, 2017
Naloxone (Narcan)

ALS Approved Medications for IN Route
Fentanyl (Sublimaze)
Naloxone (Narcan)
Midazolam (Versed)

Refer to the specific protocols for medications dosages.

Indications

The IN route may be used as an optional medication administration route for patients without IV/IO access who require urgent medication administration. An atomization device must be used to accomplish this.

Contraindications

- Epistaxis
- Nasal Trauma
- Nasal Septal Abnormalities
- Nasal Congestion or Discharge

Precautions

- Nasal administration may not work for every patient.
- Nasal administration is less likely to be effective if the patient has been abusing inhaled vasoconstrictors; such as, but not limited to, decongestants or cocaine.

Procedure

1. Determine appropriate medication dose, per protocol draw medication into a syringe using the appropriate size needle.
2. Purge air from syringe.
3. Detach needle and place the atomization device on the end of the syringe.
4. Depress the syringe to eliminate the dead space within the device. Refer to manufacturer's recommendation on the dead space of the device.
5. Gently insert the atomization device into the nare. Stop once resistance is felt.
6. Administer the medication when the patient fully exhales but before inhalation. **Administer ½ the dose in each nare.** Do not exceed 1mL per nare.
7. Assess the patient for effectiveness of the medication and document the findings. Consider repeating the dose, per protocol, if the medication is not effective and if protocol allows.

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Effective May 1, 2018 Review May 1, 2020

Medical Emergencies
m-5 Allergic Reaction/Anaphylaxis

Priorities
ABCs
Respiratory Assessment
Identify source of allergen
Identify level of severity
Ensure ALS Response

- Law Enforcement personnel must complete the initial training requirements of Solano County EMS Policy 4701 prior to administering an epinephrine auto injector. **Law Enforcement personnel are ONLY authorized to use the epinephrine auto injector portion of this protocol.**
- EMTs must complete the initial training requirements of Solano County EMS Policy 4701 prior to administering an epinephrine auto injector.

Levels of severity
Allergic Reaction: Acute onset cutaneous reactions, e.g. hives, pruritus, flushing, rash, or angioedema NOT involving the airway
Anaphylaxis: One or more of the following symptoms: stridor, wheezing, hoarseness, edema involving the airway, hypotension

EMT: Vital signs and pulse oximetry
EMT: Oxygen – high flow
EMT: BVM if respiration are inadequate. Track with respirations
EMT: OPA/NPA to secure airway if necessary
EMT (if authorized): Perilaryngeal airway if paitent is unresponsive or not breathing
EMT and Law Enforcement: If no pulse, start CPR
EMT and Law Enforcement: Assist patient with adminstion of an epinephrine auto injector if the patient has one

Level of severity?

Allergic Reaction

Remove source of allergen if already not done

Monitor and reassess as needed

If patient is hypotensive, elevate patient's feet and treat for shock per Protocol c-1

Anaphylaxis

Remove source of allergen if already not done

EMT and Law Enforcement
Epinephrine Auto Injector
Adult: 0.3mg IM
Pediatric: 0.15mg IM
(if available)

Notify transporting ALS unit of administration

Monitor for improvement
EMT: Continue airway management

If patient is hypotensive, elevate patient's feet and treat for shock per Protocol c-1

Effective May 1, 2018

Review May 1, 2020

Neurological Emergencies
n-1 Altered Level of Consciousness (ALOC)

Priorities
- Ensure ALS response
- Determine cause of ALOC with a through assessment
- Obtain a complete patient history
- EMTs: ABCs

- Law Enforcement personnel must complete the initial training requirements of Solano County EMS Policy 4700 prior to administering naloxone. **Law Enforcement personnel are ONLY authorized to use the Suspected Opioid Overdose portion of this protocol.**
- EMTs must complete the initial training requirements of Solano County EMS Policy 4700 and/or 4702 prior to administering naloxone or performing finger stick blood glucose testing.
- IN medications will be administered according to Solano County EMS Protocol S-12.

EMT: Vital signs and pulse oximetry
EMT: Oxygen – high flow
EMT: BVM if respirations are shallow or less then 8 p/min
EMT: OPA/NPA to secure airway if necessary
EMT: **Do not use a perilaryngeal airway for suspected opioid overdose or if an advanced airway has been placed**
EMT and Law Enforcement: If no pulse, start CPR

Cause of ALOC?

Suspected Opioid Overdose

Law Enforcement:
Naloxone 2mg – 4mg IN*
(If available)

EMT: **Naloxone** 2mg – 4mg IN/IM*
(If available)

If paitent is unconcious and has shallow respirations or respirations less than 8 p/min

After naloxone administration
- Monitor and reassess for improvement in respirations and level of consciousness.
- Patient may experience vomiting. Pleace patient on left side to avoid inhalation.
- Be cautious of sudden agitation, combativeness, or opioid withdrawal.
- EMTs: If breathing or consciousness do not improve, continue assisting breathing via BVM
- Report naloxone administration to transporting ALS unit.

*If using a prepackaged Naloxone kit, administer per manufacture's instructions

Other type of ALOC

For suspected stroke refer to Protocol n-4

For seizures refer to Protocol n-3

For syncope/ near syncope refer to Protocol n-5

Suspected Diabetic Emergency

Check Blood Glucose (BG)
(If glucometer is available)

BG ≤ 60mg/dl
OR
Hx and assessment fits hypoglycemia?

No

Yes

Oral Glucose
1 prepackaged dose

Only administer if the patient is conscious and is able to swallow.

Monitor and reassess

Report BG reading to transporting ALS unit

Solano Emergency Medical Services Cooperative

Board of Directors Meeting

Meeting Date: 4/12/2018

I. REPORTS

b. EMS Administrator's Report (verbal update, no action)

a. General Update

b. System Performance
- Response time Percentages (EOA Provider)
- Response time Percentages (PPP Providers)

c. System Updates
- Trauma -Designated Facility Changes
- ALS Master Services Agreement Request for Proposals Planning Update
  The current Master Services Agreement for ALS Ambulance services will expire in May 2020. A proposal to engage the services of a consultant to assist with development of this process is agendized for this meeting

d. Announcements
- National EMS Week
- 2018 Emergency Medical Response Summit

Solano Emergency Medical Services Cooperative

Board of Directors Meeting

Meeting Date: 4/12/2018

I. REPORTS

c. Medic Ambulance Operator Report (verbal update, no action)

a. Community Paramedicine Data

Solano Emergency Medical Services Cooperative

Board of Directors Meeting

Meeting Date: 4/12/2018

II. REGULAR CALENDAR

a. Selection of Vice Chair for 2018

BACKGROUND:
In accordance with the SEMSC Bylaws, the SEMSC Board shall be comprised of seven members: the Solano County Administrator; one City Manager selected by the Solano County City Managers; one Fire Chief selected by the Solano-Napa Counties Fire Chiefs organization; two Medical Professional Representatives selected by the Solano County hospitals with emergency rooms; one Physicians' Forum Representative selected by the Physicians' Forum; and one Healthcare Consumer Representative selected by the other six members of the Board. Each Board Member appointment is for a term of four years, with the exception of the Chair, which is a permanent appointment. The Bylaws provide for the annual election of the Vice Chair.

As indicated above, the Board must elect a Vice Chair annually. Pursuant to Article V, Section C, of the Solano Emergency Medical Services Cooperative (SEMSC) Bylaws, "The Board, at its regular January meeting, shall elect the Vice Chair, who shall hold office for a term of one (1) year unless the Vice Chair resigns. Should the Vice Chair resign, the Board shall elect a new Vice Chair who shall hold office for the remainder of the term." Richard Watson was elected by the Board to fill the Vice Chair vacancy in 2014, and was reappointed in 2015, 2016 and 2017.

This issue was scheduled for the January 2018 SEMSC Board meeting but was tabled and rescheduled for the April meeting due to Mr. Watson's absence in the last meeting.

LEGAL REVIEW SUFFICIENCY: This item has been reviewed as to form by County Counsel.

BOARD ACTION:

Motion:

By: _____ 2nd: _____

AYES: NAYS:

ABSENT ABSTAIN

Solano Emergency Medical Services Cooperative

Board of Directors Meeting

Meeting Date: 4/12/2018

II. REGULAR CALENDAR

b. Authorize Staff to Engage Services of a Consultant to Perform a Combined EMS System Review and Stakeholder Engagement Process Identifying the EMS System Design Attributes and Recommendations for Incorporation into the New Solano County EMS Request for Proposal (RFP) in an Amount not to Exceed $50,000; Authorize the SEMSC Board Chair to Execute an Agreement with the Consultant

BACKGROUND:

The Exclusive Operating Area Agreement (EOA) will terminate on May 1, 2020; The planning and development for the Request for Proposals (RFP) process should begin at least one year prior to the expiration of the EOA in order to give the Board sufficient time to draft an RFP, solicit bids and award the contract. The projected timeline would likely begin in early 2019 and conclude in early 2020.

- RFP Posting – January 2019
- Letters of Intent due – Jan/Feb 2019
- Bidders Conference – February 2019
- Bid Submissions due – May 2019
- Evaluation Period end – July 2019
- Bidder Interviews – July 2019
- Award Announced – August 2019
- Implementation – May 2020

EMS staff recommends hiring a consultant that will convene stakeholder meetings, review key aspects of the existing EMS system, gather data, clarify definitions, and provide subject matter expertise in preparation for the RFP process.

LEGAL REVIEW SUFFICIENCY: This item has been reviewed as to form by County Counsel.

BOARD ACTION:

Motion:

By: _____ 2nd: _____

AYES: NAYS:

ABSENT ABSTAIN