



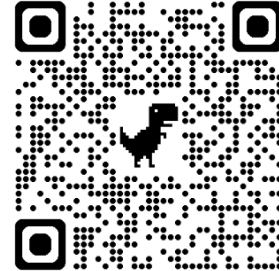
Memo

Date: Thursday April 24th, 2025

To: Alameda County EMS System

From: Zita Konik, Alameda County EMS Medical Director

Subject: Public Comment Open – 2026 Field Manual



The public comment period for the 2026 Field Manual changes will be open from Thursday, April 24, 2025, through Friday, May 16, 2025. Below is a consolidated list of the proposed changes, followed by the corresponding protocol drafts. Please review and submit all feedback using the [Public Comment Form](#), by the end of the day on **Friday, May 16, 2025**. If input leads to significant revisions, a second, abbreviated public comment period will be held later in May.

ACUTE CORONARY SYNDROME (ACS)

Formerly 'Chest Pain - Suspected Cardiac'

- Replaced the title 'Chest Pain - Suspected Cardiac' with 'Acute Coronary Syndrome (ACS)'
- Created an 'Indications' section at the top describing ACS symptoms above and beyond Chest Pain
- Emphasizes performing a 12-lead immediately when ACS is suspected
- Created a flow chart of when patients present with or without Chest Pain
- Removed Base Contact for giving nitro with unstable vitals. Nitro cannot be when contraindications are present regardless of Base Contact
- Included a reference to the new ACS STEMI protocol in the flowchart

ACUTE CORONARY SYNDROME (ACS) - STEMI

New Protocol

- Defines STEMI through paramedic or monitor interpretation
- Emphasis on reducing scene times, goal of less than 15 minutes
- Immediate transport after first STEMI positive 12-lead, and not repeating 12-leads on scene
- Early ASA admin if not already administered via ACS protocol
- ECG transmission to the receiving center followed by STEM Alert notification via phone/radio as early as possible

BURN PATIENT CARE

- In addition to Rule of 9s, there's also Rule of 1s to help determine total body surface area
- Updated pediatric fluid resuscitation guidance
- Cool running water indicated for burns involving less than 10% total body surface area

BURN PATIENT CRITERIA

- Added 'Inhalation Injury' to the burn patient criteria list
- Replaced 'landline' with 'phone or radio'
- St. Francis no longer accepts pediatric patients

ECG - 12 LEAD

- Reduced from 2 pages to 1 page
- Removed STEMI Center list
- Removed language about the approved 12-Lead ECG program
- Updated acute coronary syndrome clinical indications list
- Defines STEMI through paramedic or monitor interpretation
- Additional imaging and guidance for lead placement, e.g., 4 lead on the limbs
- Added special considerations

EXTREMITY INJURY

- Amputation section, replaced 'dry' sterile dressing with 'moist' sterile dressing

OB/GYN EMERGENCIES

- Expanded from 1 to 2 pages
- Expanded pre-eclampsia section
- Shoulder dystocia added

PAIN MANAGEMENT (ADULT)

- Ketamine will be optional for 2026 and removed by 2027
- IV Acetaminophen will be optional for 2026 and required for 2027

POISONING | OVERDOSE | INGESTION

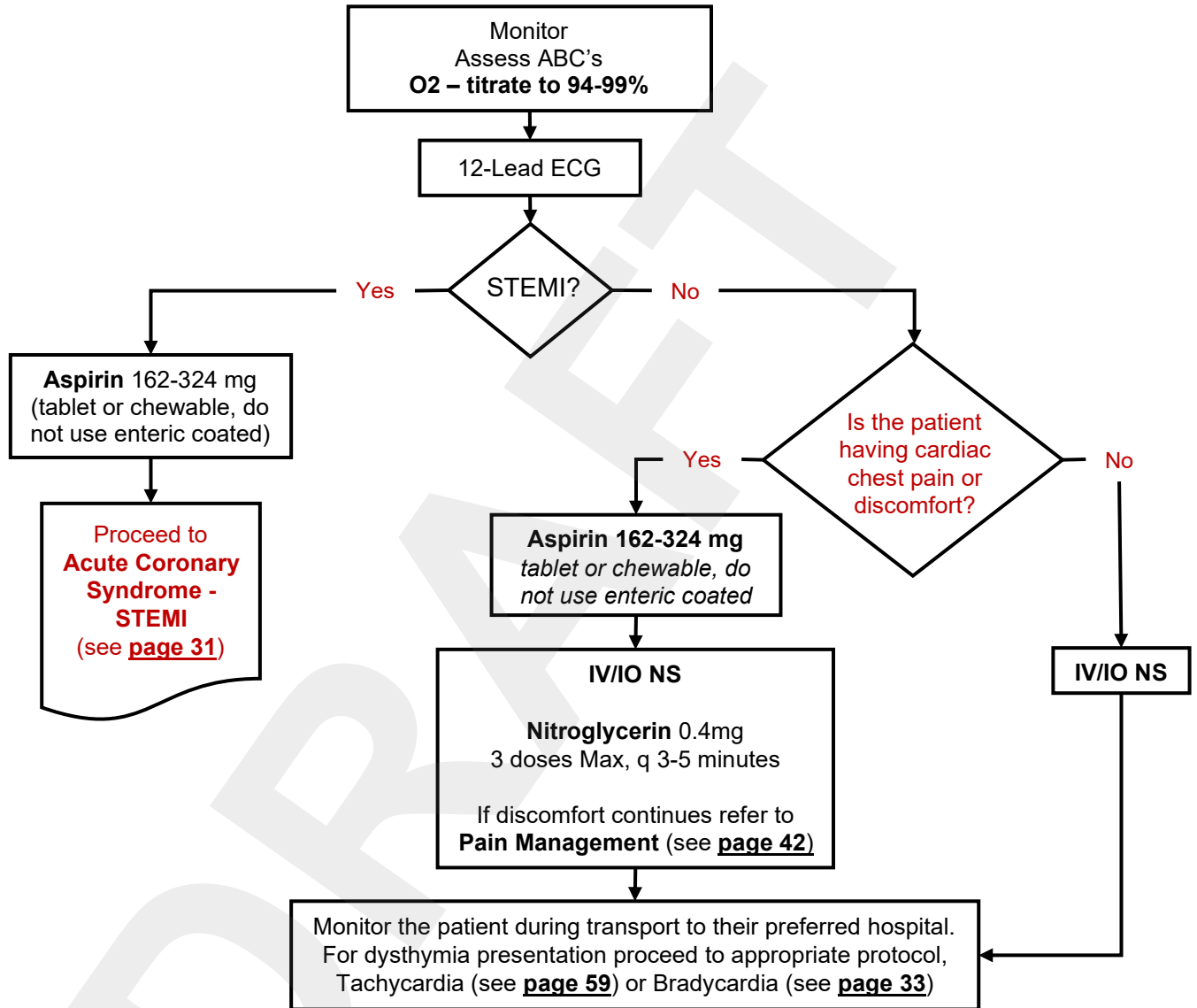
- Removed Base Contact requirement for organophosphate poisoning, or calcium channel or beta blocker OD
- Steps for decontamination
- Includes guidance to treating various overdoses/ingestion, including a reference to a separate protocol when appropriate
- Addition of Glucagon for Beta Blocker overdose
- Addition of Calcium Chloride for Calcium Channel Blocker overdose

SMOKE INHALATION / CO MONITORING

- Replaced 'victim' with 'patient'
- Added more references to other protocols
- Endotracheal Intubation is preferred when advanced airway management is indicated
- Included additional indication of Sodium Thiosulfate to be 'Cardiac Arrest without full body burns incompatible with life'

ACUTE CORONARY SYNDROME (ACS)

- **Routine Medical Care**
- **Indications:** anxiety, chest discomfort, diaphoresis, discomfort or tightness radiating to the jaw, fatigue, shoulder or arms, dizziness, dyspnea, epigastric discomfort, general weakness, nausea or vomiting, palpitations, return of spontaneous circulation (ROSC), syncope, or near syncope
- Perform a 12-Lead ECG, as soon as possible. See ECG - 12 Lead **page 120**. Keep the 12-lead ECG continuously attached to the patient throughout care, as the monitor will perform serial ECGs if cardiac changes are detected, following the initial 12-lead recorded by that device.



Aspirin Considerations:

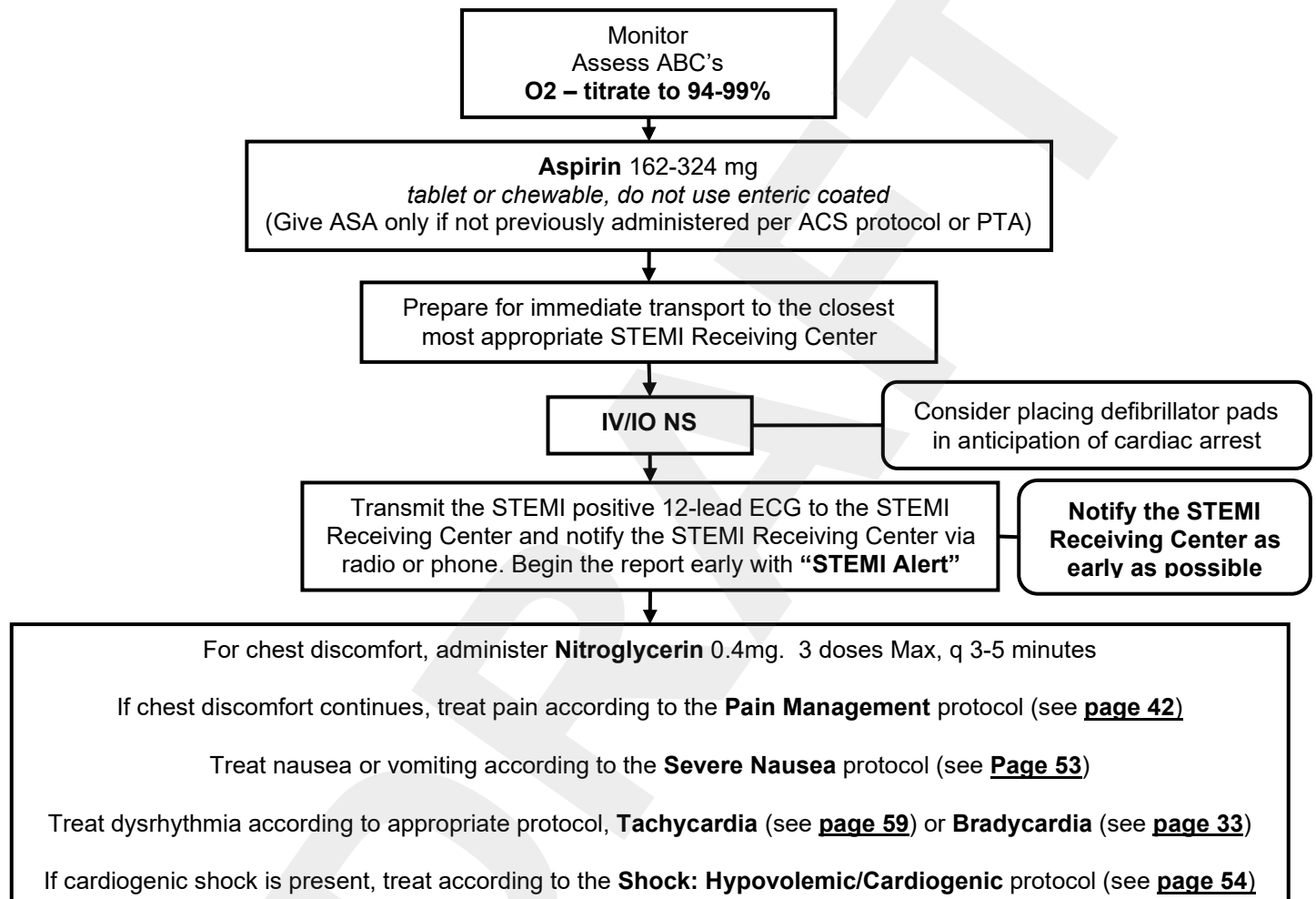
- **Contraindications:**
 - Allergy to Aspirin
- **Notes:** Ensure the patient is alert enough to chew the tablets safely. If the patient took Aspirin immediately prior to EMS arrival, verify the patient took between 162-324mg; if not, administer additional aspirin. It is ok to administer aspirin to patients who take blood thinners or anticoagulants regularly.

Nitroglycerin Considerations:

- **Contraindications:**
 - Allergy to Nitroglycerin
 - Systolic Blood Pressure (SBP) <90mmHg
 - >30mmHg drop in SBP after one dose
 - Erectile dysfunction (ED) medication within the last 24 hours (Viagra/Levitra) or 36 hours (Cialis)

ACUTE CORONARY SYNDROME - STEMI

- **Routine Medical Care**
- **Indications:** A 12-lead ECG reflecting ST segment elevation in two or more contiguous leads indicates an ST elevation myocardial infarction (STEMI). This may be identified by the paramedic or the ECG monitor. When the monitor detects an acute STEMI, the 12-lead ECG interpretation language will be displayed as follows:
 - Stryker/Lifepak: ***** MEETS ST ELEVATION MI CRITERIA *****
 - Zoll: ***** STEMI *****
- **Do not delay transport** to obtain additional 12-lead ECGs after the initial STEMI-positive interpretation. Regardless of which ECG monitor first identified the STEMI, prepare the patient for immediate transport.
- **Do not delay transport** to obtain a right-sided 12-lead ECG after a STEMI has been identified.
- **Do not delay transport** to obtain the initial or second IV on scene. Establish all IVs en route.
- If the monitor interpretation identifies STEMI as outlined above, do not override the monitor's interpretation.
- **Limit on scene time to <15 minutes and initiate rapid transport for 'STEMI Alerts' to a designated STEMI Center**

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 - Allergy to Aspirin
- **Notes:** Ensure the patient is alert enough to chew the tablets safely. If the patient took Aspirin immediately prior to EMS arrival, verify the patient took between 162-324mg; if not, administer additional aspirin. It is ok to administer aspirin to patients who take blood thinners or anticoagulants regularly.

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BURN PATIENT CARE

Routine Medical Care

- Rescuer safety
- Assume airway/respiratory involvement
- Stop the burning process - **DO NOT USE COLD PACKS**
- Assess for associated trauma

A. BASIC MANAGEMENT

1. Rule out airway damage

- 1.1 Assess for **thermal airway** injury and **smoke inhalation**
- 1.2 High flow oxygen is critical
- 1.3 Be prepared for intubation

2. Assess and expose

- 2.1 Assess ABCs
- 2.2 Perform a mini neurological exam - level of consciousness
- 2.3 Expose and examine the patient for other areas of burn
- 2.4 Remove jewelry, but do not remove stuck clothing

3. Start IVs

- 3.1 Two large bore IVs (for major burns)

4. Give IV fluids

- 4.1 Any patient regardless of age with suspected 2nd and 3rd degree burns over 20% TBSA, should be given IV with Normal Saline at the below rate. Boluses are discouraged except in cases of shock.

➔ **Adult:** 500 cc/hour (80 drops/min)

➔ **Pediatric:**

- ≤ 5 years old: 125 cc/hour (20 drops/min)
- 6-12 years old: 250 cc/hour (40 drops/min)
- ≥ 13 years old: 500 cc/hour (80 drops/min)

5. Document severity and treat the pain

- 5.1 Estimate the severity of the burns using the “Rule of 9s” and “Rule of 1s”
- 5.2 **Treat pain.** Pain management should be considered mandatory for moderate to severe burns. See Pain Management Policies – Adult ([page 41](#)) and Pediatric ([page 66](#))

6. Protect against hypothermia and infection - dress burns

- 6.1 Keep patient warm to prevent hypothermia (use sheets or blankets)
- 6.2 Burns involving less than 10% TBSA (Total Body Surface Area):
 - ➔ Pour cool running water on the affected area for 20 minutes
 - Use available tap water (e.g., garden hose) for cooling, sterile water is not necessary. Do not delay transport to complete the full 20 minutes.
 - ➔ Apply a dry sterile dressing
- 6.3 Burns involving greater than or equal to 10% TBSA:
 - ➔ Apply a dry sterile dressing

BURN PATIENT CARE

7. Elevate burned body parts - 30°

8. Address psychological needs

- 8.1 Be honest and compassionate
- 8.2 Consider anxiolytics – **Contact Base Physician for midazolam**

9. Maintain body temperature and observe for hypothermia

B. ELECTRICAL BURNS

1. Turn off the power source if patient is still attached
2. See first responder defibrillation protocol if patient is unconscious and pulseless

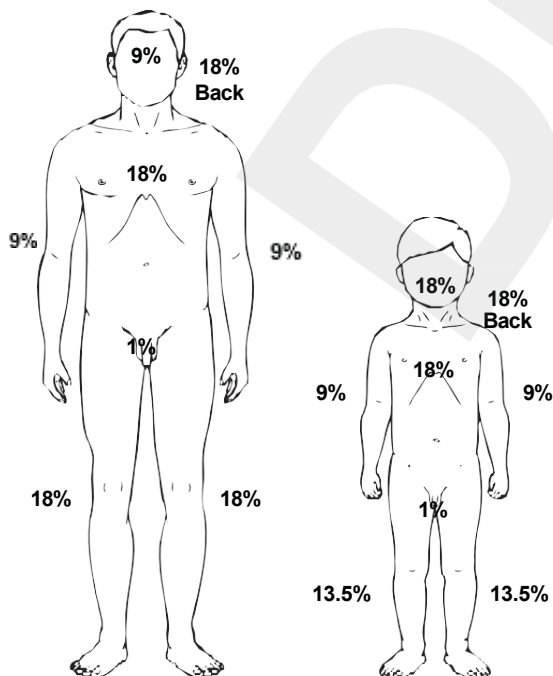
C. TAR BURNS

1. Do not attempt to remove the tar
2. Cool with water
3. **Maintain body temperature and observe for hypothermia**

D. CHEMICAL BURNS

1. Remove clothing
2. **Liquid chemicals:**
→ Flush **immediately** with copious amounts of tepid water for 15 - 20 minutes
3. **Dry chemicals:**
→ Brush off as much as possible, then flush with copious amount of tepid water for 10 - 15 minutes
4. Identify chemical
5. Assess for associated respiratory burns

Rule of 9s



Rule of 1s

Patient's palm and fingers are 1% TBSA



BURN PATIENT CRITERIA

1. **INTRODUCTION** -The intent of this policy is to transport patients with critical burns, who have a manageable airway, directly to a facility that is staffed and equipped to care for the medical needs of the patient, bypassing other receiving facilities. Minor to moderate burn patients will be transported to the closest, most appropriate receiving hospital.
2. **BURN PATIENT CRITERIA** (from the American Burn Association – Burn Unit Referral Criteria)
 - 2.1 Partial thickness burns greater than 10% total body surface area
 - 2.2 Moderate to severe burns that involve the face, hands, feet, genitalia, perineum, or major joints
 - 2.3 Full thickness burns in any age group
 - 2.4 Electrical burns, including lightning injury
 - 2.5 Chemical burns
 - 2.6 Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery, or affect mortality
 - 2.7 **Inhalation injury**
3. **DESTINATION**
 - 3.1 **Adult and Pediatric patients** who meet burn patient criteria 2.1-2.6 may be transported directly to an out-of-county burn center (see #5 below).
 - 3.2 Exceptions:
 - 3.2.1 **Potentially unmanageable airway** - (e.g. - soot in the mouth and/or nose, inhalation injury, etc.) transport to the closest trauma center.
 - 3.2.2 **Unmanageable Airway** - The patient requires intubation, and the paramedic is unable to intubate, and an adequate airway cannot be maintained with B.V.M. device, transport to closest basic E.D.
 - 3.2.3 **Patient meets Critical Trauma Patient Criteria** – “Mental Status & Vital Signs” - transport to the closest most appropriate designated trauma center
4. **OUT-OF-COUNTY TRANSPORT**
 - 4.1 Transporting medic **must** first contact out-of-county hospital to confirm bed availability. This can be done through the appropriate dispatch center or via **phone or radio** from the field
 - 4.2 Contact the Base Physician if medical consultation is needed
 - 4.3 Consider EMS Aircraft transport for land transport times greater than 45 minutes
 - 4.4 Give a brief report to the receiving facility including ETA

Out-of-County Burn Centers:

FACILITY	TRAUMA	HELIPAD	LOCATION	PHONE #
Santa Clara Valley Medical Center	YES	YES	751 S. Bascom Ave., San Jose	(408) 885-6666
UC Davis Medical Center	YES	YES	2315 Stockton Blvd., Sacramento	(916) 734-3636
St. Francis Memorial Hospital (Adult Patients Only; ≥15yrs)	NO	NO	900 Hyde Street, San Francisco	(415) 353-6373

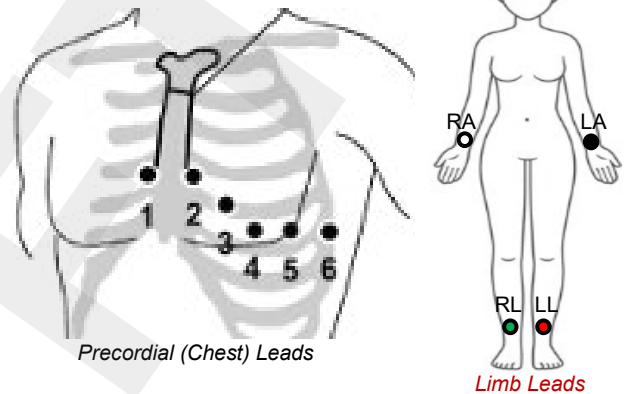
ECG – 12 Lead

1. **INDICATIONS:** Patients should receive a 12-lead electrocardiogram (ECG) when they present with one or more of the following acute coronary syndrome (ACS) signs or symptoms:

- ▶ Anxiety
- ▶ Chest discomfort
- ▶ Diaphoresis
- ▶ Discomfort or tightness radiating to the jaw, shoulder or arms
- ▶ Dizziness
- ▶ Dyspnea
- ▶ Epigastric discomfort
- ▶ Fatigue
- ▶ General weakness
- ▶ Nausea or vomiting
- ▶ Palpitations
- ▶ Return of spontaneous circulation (ROSC) following a cardiac arrest
- ▶ Syncope, near syncope

2. **PROCEDURE:** Place limb lead electrodes on the wrists and ankles, rather than the torso, whenever possible. When applying the limb leads avoid positioning the electrodes over bony areas. Attach the six precordial (chest) leads directly to the chest wall as described:

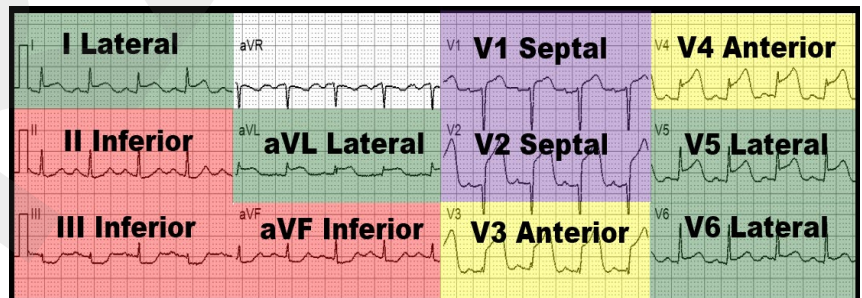
- ▶ V1 4th intercostal space to the right of the sternum
- ▶ V2 4th intercostal space to the left of the sternum
- ▶ V3 Directly between leads V2 & V4
- ▶ V4 5th intercostal space at the midclavicular line
- ▶ V5 Level with V4 at the left anterior axillary line
- ▶ V6 Level with V5 at the left midaxillary line



3. **INTERPRETATION:** ST segment elevation in two or more contiguous leads meets the criteria for a ST elevation myocardial infarction (STEMI). This may be identified by the paramedic or the ECG monitor. When the monitor detects an acute STEMI, the 12-lead ECG interpretation language will be displayed as follows:

- ▶ Stryker/Lifepak Monitor: ***** MEETS ST ELEVATION MI CRITERIA *****
- ▶ Zoll Monitor: ***** STEMI *****

4. **ECG TRANSMISSION:** The first positive STEMI 12-lead should be immediately transmitted to the STEMI Receiving Center, followed by an early pre-arrival notification. Attach all 12-lead ECG tracings to the electronic health record (EHR).



Contiguous leads in a 12-lead ECG represent the same heart region, as indicated above by the assigned color association.

5. **SPECIAL CONSIDERATIONS:**

- ▶ STEMI can evolve during prehospital care. The 12-lead ECG should not be detached after a 12-lead is negative for STEMI. The monitor will perform serial ECGs if it detects cardiac changes, following the initial 12-lead recorded by that device.
- ▶ For patients with breast tissue, do not place precordial (chest) leads directly over the breast, as the tissue may reduce electrical signal detection, potentially leading to ECG misinterpretation. Ensure electrodes are positioned directly on the chest wall for accurate readings.
- ▶ **Do not perform a Right-Sided 12-lead** after a STEMI has been identified, as the patient's treatment plan will remain unchanged regardless of the findings.

EXTREMITY INJURY

1. ASSESSMENT:

- 1.1. Routine Medical Care
- 1.2. Document mechanism of injury
- 1.3. Document past medical history including history of previous injuries
- 1.4. Check for deformity, open wounds, swelling, shortening, and/or rotation
- 1.5. Document range of motion, pulses, sensation, and color of the extremity
- 1.6. Assess severity of pain (1-10 scale)
- 1.7. Assess for other associated injuries

2. GENERAL CARE: (all patients)

- 2.1. Control any external bleeding with direct pressure
- 2.2. Elevate and apply cold packs
- 2.3. Splint injured extremity. Hand injuries should be positioned in the "safe position"
- 2.4. Cover open wounds with sterile dressings
- 2.5. Provide Pain control – see "Pain Management" [page 43](#) (Adult) or [page 74](#) (Pediatric)
- 2.6. Remove rings or other possibly constricting items



Safe Position

3. FRACTURE/DISLOCATION:

- 3.1. If the extremity is pulseless, attempt to place it in normal anatomic position by gentle in-line traction
- 3.2. If repositioning does not restore circulation, do not manipulate further, transport immediately.
- 3.3. Start IV NS in uninjured extremity

4. AMPUTATION:

- 4.1. Place amputated part in **moist**, sterile dressing, place in sealed plastic bag, and place on top of ice or cold packs (do not place part directly in ice - prevent frostbite)
- 4.2. Start IV of NS in uninjured extremity
- 4.3. If hypotensive (SBP < 90 or signs of poor perfusion), give fluid challenge (500 mL NS, reassess and repeat if indicated)

5. HIGH-PRESSURE INJECTION INJURY:

- 5.1. Compressed air injuries, although they may initially look innocuous require immediate transport, especially if paint, paint thinner or grease is involved. These wounds must be debrided in the operating room as soon as possible to prevent further damage and/or amputation

6. SNAKE BITE:

- 6.1. Gently wash the area with cool, wet cloth
- 6.2. Avoid constricting bands
- 6.3. Do not elevate

OB/GYN EMERGENCIES

• Routine Medical Care

- Level of distress:
- Estimate blood loss (if any)
- Is the patient in shock? If yes, Go to the Shock: Hypovolemia/Cardiogenic protocol page 154
- Consider immediate transport or prepare for delivery
- Determine stage (trimester) of pregnancy
- Any patient that is ≥ 20 weeks pregnant who has sign(s)/symptom(s) that may be pregnancy related (e.g. ABD pain), should be preferentially triaged to a receiving facility with a Labor and Delivery department.

1. VAGINAL BLEEDING (Abnormal bleeding between menses, during pregnancy, postpartum or post operative)

- 1.1 If postpartum, gently massage the fundus to decrease bleeding
- 1.2 Monitor vital signs frequently

2. SPONTANEOUS ABORTION

- 2.1 If fetus is > 20 weeks or 500 grams, see neonatal resuscitation protocol ([page 73](#)). If non-viable, save and transport any tissue or fetal remains
- 2.2 Have patient place a sanitary napkin or bulky dressing material over vaginal opening - **Do not pack the vagina with anything**

3. SEVERE PRE-ECLAMPSIA / ECLAMPSIA

3.1 Inclusion Criteria:

- 3.1.2 More than 20- weeks' gestation, presenting with hypertension and evidence of end organ dysfunction including renal insufficiency, liver involvement, neurological, or hematological involvement

3.2 May occur up to 6 weeks postpartum but is rare after 48 hours post-delivery

3.3. Often the presenting symptom of postpartum pre-eclampsia is headache or SOB

3.4. Severe Features of pre-eclampsia include:

- 3.4.1. Severe hypertension (SBP greater than 160, DBP greater than 110)
- 3.4.2. Headache
- 3.4.3. Confusion/altered mental status
- 3.4.4. Vision changes including blurred vision, spots/floaters, loss of vision (these symptoms are often a precursor to seizure)
- 3.4.5. Right upper quadrant or epigastric pain

3.5. Shortness of breath/pulmonary edema

3.6. Ecchymosis suggestive of low platelets (bruising, petechiae)

3.7. Vaginal bleeding suggestive of placental abruption

3.8. Focal neurologic deficits suggesting hemorrhagic or thromboembolic stroke

3.9. Observe for seizures, hypertension or coma, if seizing, go to the appropriate seizure protocol

4. BREECH DELIVERY

- 4.1 Allow delivery to proceed passively until the baby's waist appears. Gently rotate the baby to a face down position and continue with the delivery
- 4.2 If the head does not readily deliver insert a gloved hand into the vagina to relieve pressure on the cord and create an air passage for the infant. Transport. Monitor vital signs and infant condition frequently

5. PROLAPSED CORD

- 5.1 Place the mother supine position with head lower than hips
- 5.2 Insert a gloved hand into the vagina and gently push the presenting part (e.g.: the neonate's head or shoulder off the cord. **DO NOT TUG ON THE CORD**

OB/GYN EMERGENCIES

5.3 Place fingers on each side of the neonate's nose and mouth, split fingers into a "V" to create an opening. **Do not** attempt to re-position the cord. **Do not** remove your hand. Cover the exposed cord with saline soaked gauze

6. LIMB PRESENTATION

6.1 Defined as the presentation of a single limb - arm or leg

6.2 It is unlikely that the baby will deliver and immediate transport should be initiated

6.3 Place the mother supine position with head lower than hips

7. SHOULDER DYSTOCIA

7.1 Hyperflex mother's hips by firmly pressing knees to hips (McRoberts Maneuver).

7.2 Second provider applies suprapubic (not fundal) pressure with fist directed downwards to dislodge anterior shoulder

7.3 Third provider provides gentle downward traction on fetal head. **Do NOT** pull fetal head.

7.3.1 If unsuccessful, initiate immediate transport and communicate issue of concern over ring down "shoulder dystocia".

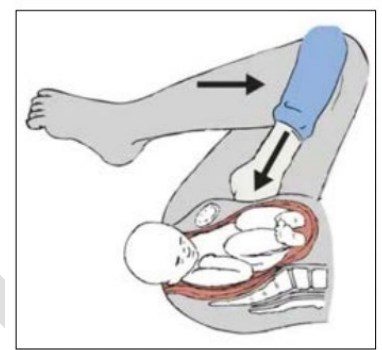


Figure 3. The McRoberts Maneuver: Hyperflexion of Hips & SUPRAPUBIC Pressure
(Adapted from: teachmeobgyn.com)

PAIN MANAGEMENT

- **Routine Medical Care**
- Pain management should be initiated as early as possible and before transport in the stable patient. Consider pain management prior to the manipulation of suspected fractures
- Document the level of pain prior to and after any interventions

BLS Interventions:
Positioning, Cold Pack(s),
Splinting, and/or Coaching



Minor-Moderate Pain:

Ketorolac - 15 mg IM/IV/IO x 1 - (No repeat dose)
and/or

Acetaminophen – 1gm IV slowly over 10 min – (No repeat dose)

Ketorolac is the preferred first-line medication for minor-moderate pain and for patients with suspected kidney stones or chronic pain conditions.



Moderate-Severe Pain:

Fentanyl

IV/IO: 1 mcg/kg (50-100 mcg) Slow push. Repeat q 5min PRN to a max. cumulative dosage of 200 mcg

IM/IN: 1 mcg/kg (50-100 mcg) Repeat q 10min PRN to a max. cumulative dosage of 200 mcg

Base contact required if contraindications are present or >200 mcg is needed

OR

Ketamine

IV/IO: 0.3 mg/kg in 100ml of NS/D5W Slow IV Infusion over 10 minutes. (max. dose is 30 mg, no repeat)

IM/IN 0.3 mg/kg (max. dose is 30 mg, no repeat)

Ketorolac Considerations:

- **Contraindications:**
 - Patients who meet Trauma Criteria, NSAID Allergy (e.g. Ibuprofen, Naproxen, Aspirin), Pregnancy, History of: GI Bleed, Ulcers, Renal disease, or Current anticoagulant use
- **Note:**
 - Standard doses of Fentanyl OR Ketamine may be administered if Ketorolac is ineffective

Acetaminophen Considerations:

Contraindications:

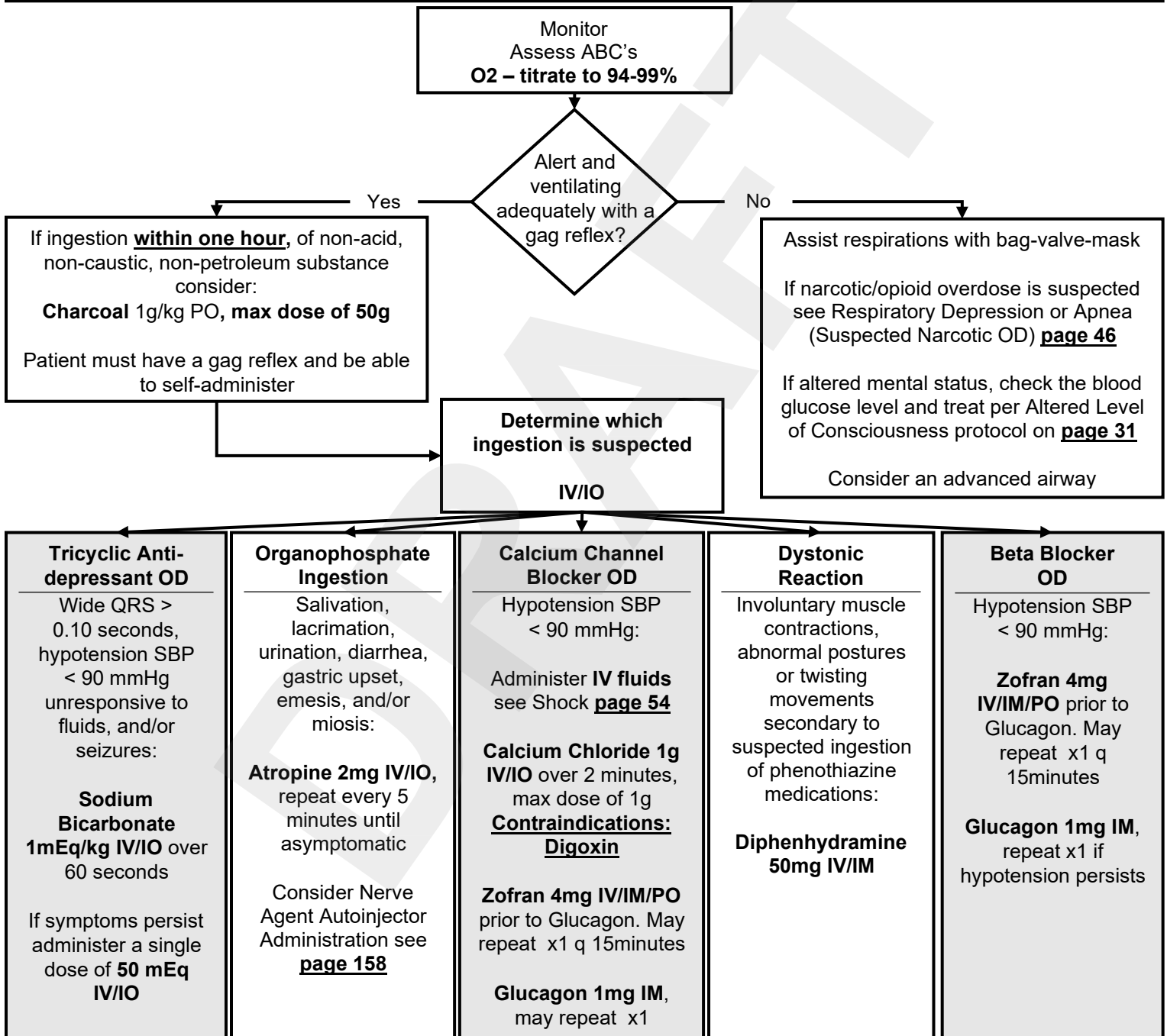
Allergy to Acetaminophen (Tylenol), ingested >4gms acetaminophen in past 24 hours

Fentanyl & Ketamine Considerations:

- **DO NOT CO-ADMINISTER FENTANYL AND KETAMINE**
- **Patient Monitoring**
 - Continuous monitoring of the patient's LOC and respiratory status via direct observation/ ETCO₂/SpO₂, etc is required.
- **Contraindications:**
 - Decreased respiratory rate, Altered mental status/LOC, or Suspected Traumatic Brain Injury
- **Notes:**
 - Consider lower doses of Fentanyl for older adults
 - Have Naloxone readily available when administering Fentanyl
 - Ketorolac may be administered if Fentanyl or Ketamine is ineffective

POISONING | INGESTION | OVERDOSE

- **Routine Medical Care**
- **Protect Yourself** - See "Hazardous Materials Incidents - EMS Response" [page 153](#)
- **Identify substance** - Bring any containers, labels or a sample (if safe) into the hospital with the patient. Determine type, amount and time of the exposure.
- For treatment options for specific exposures, contacting Poison Control (**1-800-222-1222**) in conjunction with consulting Base Physician for assistance with identification and management of unknown toxins/medications
- Remove the patient from the hazardous environment (including removing pill bottles, pill packs, toxic substances)
 - ➔ Remove contaminated clothing. Decontaminate to remove continued absorption, ingestion, inhalation or injection. See "Decontamination Incident" [page 150](#). Brush off powders, wash off liquids with copious amounts water
- Evaluate intention of ingestion, consider law enforcement, see "Psychiatric Evaluation - 5150 Transports" [page 129](#)



SMOKE INHALATION / CO MONITORING

- **Routine Medical Care**
- **Symptoms of Carbon Monoxide (CO) poisoning:**
 - Initial symptoms are similar to the flu with no fever and can include dizziness, severe headaches, nausea, sleepiness, fatigue/weakness and disorientation/confusion
- **Note:** Carbon Monoxide is a colorless, odorless and tasteless poisonous gas that can be fatal when inhaled. CO inhibits the blood's capacity to carry oxygen. CO can be produced when burning any fuel. CO is a by- product of incomplete combustion. Suspect CO in the presence of any fire. **SpCO = carboxyhemoglobin**

1. Pulse oximetry values may be unreliable in **smoke inhalation** (SI) patients
2. Cyanide and/or the combination of cyanide and carbon monoxide may be responsible for the majority of SI deaths
3. SI should be particularly suspected in patients rescued from closed-space structure fires
4. Sodium thiosulfate should not be given prophylactically
5. Remove **patient** from the source of exposure
 - 5.1. Completely remove **patient's** clothing prior to transport
 - 5.2. Perform Spinal Motion Restriction (SMR) if indicated **by mechanism**
 - 5.3. Evaluate patient for facial burns, hoarseness, black sputum, and soot in the nose or mouth
 - 5.4. Monitor SpCO (if available)
 - 5.5. Assess and treat for traumatic and/or thermal injuries - **see "Trauma Patient Care" (see [page 25](#)) and/or "Burn Patient Care" (see [page 7](#)).**
6. Administer 100% oxygen via NRB
 - 6.1. Control airway early. Use BVM with airway adjuncts
 - 6.2. Perform endotracheal intubation / **SGA placement if indicated**
 - 6.2.1. **Endotracheal intubation is preferred**
 - 6.3. If bronchospasm present, go to **"Respiratory Distress" (see [page 47](#)).**
7. Provide cardiopulmonary support (go to appropriate "Cardiac Arrest" policy, if indicated)
8. Start IVs. Consider IV fluids if hypotensive or meeting **"Burn Patient Criteria" (see "Burn Patient Care" see [page 7](#)).**
9. **ONLY** if the patient exhibits serious signs and symptoms of SI with concern for **Cyanide Poisoning** (especially burning of nitrogen-containing polymers) – see "Cyanide Poisoning" (see [page 149](#)).
 - 9.1. Administer sodium thiosulfate or hydroxocobalamin (Cyanokit)
 - 9.1.1. Sodium thiosulfate IV slowly over 10 minutes

Adult: 12.5 g/50 ml | **Pediatric:** use an LBRT to determine pediatric medication dosages, to for patients with any of the following signs of cyanide poisoning:

 - Unconsciousness, non-responsiveness
 - Hypotension
 - Severely altered level of consciousness with soot in the mouth or nose
 - **Cardiac arrest without full body burns incompatible with life**
 - 9.1.2. Hydroxocobalamin - Optional (Additional Training Required) Adults: 5g over 15 minutes
10. Treatment of cyanide poisoning must include immediate attention to airway patency, adequacy of oxygenation and hydration, cardiovascular support, and management of any seizure activity
11. If seizures are present, go to **Seizure** policy (see [page 51](#)).
12. If cardiac arrhythmia present, go to appropriate arrhythmia policy – **Bradycardia (see [page 33](#)), Cardiac Arrest (see [page 34](#)), or Tachycardia (see [page 59](#))**
13. Ensure rapid transport

SMOKE INHALATION / CO MONITORING

