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EMERGENCY MEDICAL SERVICES - STAFF DIRECTORY

EMS Office	**618-2050 (main number)** **618-2099 (fax #)**	
On-call EMS Staff	(925) 422-7595 – ACRECC	
EMS Website- http://ems.acgov.org | **EMS Email-** alcoems@acgov.org		
EMS DIRECTOR		
Lauri McFadden	618-2055	lauri.mcfadden@acgov.org
DEPUTY EMS DIRECTOR		
William McClurg	618-2030	william.mcclurg@acgov.org
MEDICAL DIRECTOR		
Zita Konik, MD, FAEMS	618-2086	zita.konik@acgov.org
EMS COORDINATORS		
Naila Francies Clinical Quality Improvment | Data | EHR	208-9061	naila.francies@acgov.org
Cynthia Frankel EMS for Children | ReddiNet | AED/PAD Prog. | EMS System Plan	618-2031	cynthia.frankel@acgov.org
Kreig Harmon Clinical Quality Improvement | Field Protocols & App | CCT-P	667-7984	kreig.harmon@acgov.org
Mike Jacobs Specialty Systems of Care - Cardiac Arrest Care | STEMI | Stroke | Trauma	618-2047	michael.jacobs@acgov.org
Elsie Kusel Specialty Programs	481-4197	elsie.kusel@acgov.org
Jim Morrissey - Supervisor MHOAC | Emergency Preparedness and Response	618-2036	jim.morrissey@acgov.org
Ryan Preston CA OES Region II Regional Disaster Medical Health Specialist (RDMHS)	618-2033	ryan.preston@acgov.org
Scott Salter Professional Standards	618-2022	scott.salter@acgov.org
Leslie Simmons Receiving Facility Liaison | Ambulance Ordinance | Compliance	667-7412	leslie.simmons@acgov.org
Carolina Snypes Special Project | Procurement Management | BLS Clinical Quality Improvement	618-2011	carolinae.snypes@acgov.org
Andrew Sulyma Dispatch Liaison | Fire Department Liaison | CA OES Region II Regional Disaster Medical Health Specialist (RDMHS)	667-7533	andrew.sulyma@acgov.org
Gerald Takahashi Educational Programs	667-7588	gerald.takahashi@acgov.org
Yolanda Takahashi CATT Project Manager | 911 EOA Transport Provider Liaison | Unusual Occurences | Compliance	618-2003	yolanda.takahashi@acgov.org
CERTIFICATIONS		
Sonya Lee	618-2034	sonya.lee@acgov.org

ASSAULT | ABUSE | HUMAN TRAFFICKING | DOMESTIC VIOLENCE

- **Routine Medical Care**
- Level of distress - Is patient a trauma victim? If yes, see trauma protocol
- Provide emotional support to the victim and the family
- Contact appropriate law enforcement agencies

1. **CHILD ABUSE / ELDER ABUSE / DOMESTIC VIOLENCE:** In any situation where EMS personnel knows or reasonably suspects a person suffering from any wound or other physical injury inflicted upon the person where the injury is the result of **assaultive or abusive conduct**:
   - 1.1 Immediately notify the appropriate law enforcement agency
   - 1.2 Reasonable effort will be made to transport the patient to a receiving hospital for evaluation. Immediately inform hospital staff of your findings.
   - 1.3 Document all pertinent observations on the electronic health record
   - 1.4 Immediately (or as soon as practical) contact the appropriate agency by telephone and give a verbal report
   - 1.5 A written report for child/elder abuse must be filed within 36 hours

► TO REPORT CHILD ABUSE:

➔ Immediate verbal report to: Alameda County Children and Family Services at: **510-259-1800** - 24 hour number, follow the appropriate prompts. Make sure to note the name and title of the individual that you gave your report to.

➔ Complete the written report found at: **http://tinyurl.com/SCAreportform** and fax to **510-780-8620** within 36 hours of the incident

➔ ALL responding agencies at a scene must complete their own report - no single agency can report in behalf of another agency.

► TO REPORT ELDER OR DEPENDENT ADULT ABUSE:

➔ By staff at a licensed health care facility contact:

Ombudsman - 800-231-4024

➔ At home, or by a visitor or another resident at a licensed health care facility contact:

Alameda County Adult Protective Services - **866-225-5277** - 24 hour number

After 5 pm M-F and weekends, an operator answers this line and can page a social worker (if needed.) If the patient was assaulted or has suffered serious neglect contact local law enforcement.

➔ A written report can be completed online by going to: **https://reporttoaps.org/** and then clicking on "Alameda County Intake Form" and completing

► TO REPORT DOMESTIC VIOLENCE:

Domestic violence is defined as the willful intimidation, physical assault, battery, sexual assault, and/or other abusive behavior as part of a systematic pattern of power and control perpetrated by one intimate partner against another.

2. **SEXUAL ASSAULT:** This involves any form of non-consensual conduct/contact with another person, or the inability of the victim to give consent due to age, cognitive disability, or voluntary/involuntary incapacitation by substances. Substances are involved in the majority of sexual assaults, keep a high-index of suspicion on these patients. When EMS responds to a victim of sexual assault:

2.1 Use best judgement when assigning the primary-care provider noting the gender could be triggering to the victim

2.2 Explain in advance each treatment/procedure and offer the patient simple choices (e.g. to sit up or recline on the gurney) empowering them to feel in control.

2.3 Mirror the patient's language (e.g., do not say "rape" or "sexual assault" if the patient has not used those words

2.4 Keep the assessment brief and injury-focused:

- ► Do not interview the patient about the assault
- ► In the absence of hemorrhage, there is rarely a need to visualize genitalia
- ► Assess the patient for strangulation injuries, as this is a common with sexual assault

2.5 Preserve the physical evidence:

- ► Transport the patient "as found." Discourage showering, removing/changing clothes, brushing teeth, using mouthwash, smoking, eating or drinking. Do not allow the patient to wash or clean their hands.
- ► If clothes have been removed, place clothing in a paper bag. Do not use plastic bags; they collect moisture, which degrades important organic material. If it is necessary to cut off the patient's clothes, cut around soiled, torn, or damaged areas by 6 inches.
- ► Do not clean, irrigate, or apply ointment to wounds. If necessary, apply a dry sterile gauze to wounds.
- ► If the patient needs to urinate, or vomit, the preserve in a clean container (e.g. urinal, emesis basin). This evidence especially important with drug-facilitated sexual assaults.
- ► Chain of custody must be maintained for each item to be valuable in the forensic process. This is best accomplished by having the patient keep all evidence collected at scene in their possession or law enforcement maintaining possession..

2.6 Transport the patient to a facility capable of performing the sexual assault forensic exam regardless of the hospital's diversion status. This exam can be performed up to 21 days post assault.

- ► **Adult patients:** Highland (ACMC) Hospital or Washington Hospital
- ► **Pediatric patients:** Children's Hospital (≤13 y.o.)

3. **SUSPECTED HUMAN TRAFFICKING:** Human trafficking involves labor or services, using force, fraud or coercion for the purposes of subjection to involuntary servitude. It can be commercial sex acts using force, fraud or coercion or any commercial sex act, if the person is under 18 years of age, regardless of coercion

3.1 Warning signs of human trafficking include:

- ► Individuals, who are segregated from contact with responders, are physically or emotionally bullied by others, or who don't have control of their own ID/documents.
- ► Locations with unsuitable living conditions or unreasonable security measures
- ► Incidents where responders are approached and asked for protection/asylum from other individuals at a scene

3.2 Reporting requirements:

- ► EMS personnel are encouraged to report to local law enforcement suspected human trafficking cases.

►For suspected human trafficking offer the patient the 24/7 Human Trafficking Resource Center hotline number **888-373-7888** if doing so does not compromise patient safety.

4. **DOMESTIC VIOLENCE (DV) LETHALITY SCREEN**

4.1 Determine level of distress – is patient injured or complaining of any medical complaints?

►Assess and treat as appropriate

►If patient c/o or presents with medical complaints, assess for signs & symptoms of possible strangulation

►Attempt private audience with patient (maintaining regard for safety)

►If patient is NOT transported - and if safe, appropriate and feasible - perform a DV Lethality Screen

➔If patient screens HIGH RISK, refer patient to the Family Violence Law Center (FVLC) by calling the **FVLC 24/7 hotline # 800-947-8301**

➔Briefly describe the DV circumstances to the FVLC advocate without providing any patient identifying information

➔If patient consents to speaking with FVLC advocate, hand patient the phone

➔If patient does not consent to speaking with FVLC advocate, give patient discreet FVLC resource information and advise that he/she can call 24/7

➔Repeat basic safety planning tips that the FVLC advocate provides

►If patient is transported, be sure to inform receiving facility of lethality risk (determined by tool) and DV advocacy steps taken

4.2 **Questions used in the Domestic Violence Lethality Screen for First Responders**

➔A "yes" response to any of Questions 1–3 automatically triggers the protocol referral

1. Has he/she ever used a weapon against you or threatened you with a weapon?
2. Has he/she threatened to kill you or your children?
3. Do you think he/she might try to kill you?

➔Negative responses to Questions 1–3, but positive responses to at least four of Questions 4–11, trigger the protocol referral

4. Does he/she have a gun or can he get one easily?
5. Has he/she ever tried to choke you?
6. Is he/she violently or constantly jealous or does he/she control most of your daily activities?
7. Have you left him/her or separated after living together or being married?
8. Is he/she unemployed?
9. Has he/she tried to kill himself?
10. Do you have a child that he/she knows is not his/hers?
11. Does he/she follow or spy on you or leave threatening messages?

If patient consents, any first responder may trigger the protocol referral to FVLC if not already triggered above, as a result of the victim's response to the below question, or whenever the first responder believes the victim is in a potentially lethal situation

➔Is there anything else that worries you about your safety? (If "yes") What worries you?

SCOPE OF PRACTICE - LOCAL OPTIONAL

1. **Approved for use in Alameda County** – all items require additional training
   - 1.1 **BLS PERSONNEL:**
     - 1.1.1 Aspirin
     - 1.1.2 Blood Glucose Testing
     - 1.1.3 Epinephrine
     - 1.1.4 Narcan
2. **Local Optional Scope of Practice** – requires authorization from State EMS Authority and additional training
   - 2.1 **ALS PERSONNEL:**
     - 2.1.1 Buprenorphine (optional)
     - 2.1.2 Hydroxocobalamin (optional)
     - 2.1.3 Ketamine (Ketalar)
     - 2.1.4 Ketorolac (Toradol)
     - 2.1.5 Olanzapine (Zyprexa)
     - 2.1.6 Sodium Thiosulfate
     - 2.1.7 Tranexamic Acid
3. Field personnel will not perform any skill that is not a part of his/her scope of practice or has not been authorized by the Alameda County Health Officer and/or EMS Medical Director
4. During an inter-facility transfer or during a mutual aid response into another jurisdiction, a paramedic may utilize the scope of practice for which he/she is trained and accredited
5. Paramedics will not draw blood unless approved in advance by the EMS Medical Director
6. Field personnel are prohibited from carrying any medical equipment or medications that have not been authorized for prehospital use by the Alameda County EMS Medical Director

TRAUMA PATIENT CRITERIA

1. **INTRODUCTION:** The goal of the Alameda County trauma system is to transport confirmed patients meeting the various criteria below to a designated trauma center in a timely manner, bypassing non-trauma centers

2. **RED CRITERIA TRAUMA PATIENTS (High Risk for Serious Injury):**

2.1 A patient is identified as at high risk for serious injury when any of the following injury patterns or mental status/vitals signs listed below are present. These patients should be transported to a designated Trauma Center rapidly.

Injury Patterns	Mental Status & Vitals Signs
• Penetrating injuries to head, neck, torso,and proximal extremities • Skull deformity, suspected skull fracture • Suspected spinal injury with new motor or sensory loss • Chest wall instability, deformity, or suspected flail chest • Suspected pelvic fracture • Suspected fracture of two or more proximal long bones • Crushed, degloved, mangled, or pulseless extremity • Amputation proximal to wrist or ankle • Active bleeding requiring a tourniquet or wound packing with continuous pressure	**All Patients** • Total Glasgow Coma Scale ≤ 13 ***or***; Motor GCS < 6 (Unable to follow commands) • RR < 10 or > 29 breaths/min • Respiratory distress or need for respiratory support • Room-air pulse oximetry < 90% **Age 0–9 years** • SBP < 70mm Hg + (2 x age in years) **Age 10–64 years** • SBP < 90 mmHg or • HR > SBP **Age ≥ 65 years** • SBP < 110 mmHg or • HR > SBP

3. **YELLOW CRITERIA TRAUMA PATIENTS (Moderate Risk for Serious Injury):**

3.1 In addition to above criteria, the following mechanisms of injury and EMS provider judgment of risk factors can be utilized to preferentially triage a patient to a trauma center. In general, these patients are transported code 2, however, differing field circumstances and/or patient condition may require a code 3 transport

Mechanism of Injury	EMS Judgment
• High-Risk Auto Crash – Partial or complete ejection – Significant intrusion (including roof) • >12 inches occupant site OR • >18 inches any site OR • Need for extrication for entrapped patient – Death in passenger compartment – Child (age 0–9 years) unrestrained or in unsecured child safety seat – Vehicle telemetry data consistent with severe injury • Rider separated from transport vehicle with significant impact (eg, motorcycle, ATV, horse, etc.) • Pedestrian/bicycle rider thrown, run over, or with significant impact • Fall from height > 10 feet (all ages)	**Consider risk factors, including:** • Low-level falls in young children (age ≤ 5 years) or older adult (age ≥ 65 years) with significant head impact • Anticoagulant use • Suspicion of child abuse • Special, high-resource healthcare needs • Pregnancy > 20 weeks • Burns in conjunction with trauma • Children should be triaged preferentially to pediatric capable centers • EMS Provider judgment - If concerned, take to a trauma center

4. **TRANSPORT:** Patients that meet Red or Yellow trauma criteria in the prior sections will be transported to **the closest, most appropriate, designated Trauma Center. Exception:** The patient is identified as meeting Red or Yellow trauma criteria, but presents with one of the following:

PATIENT PRESENTATION	ACTION
UNMANAGEABLE AIRWAY: ***The patient requires advanced airway management, and the paramedic is unable to manage the patient's airway through basic or advanced interventions.***	**Closest Basic E.D.**
ADULT TRAUMA ARREST - BLUNT or PENETRATING:	**Determination of Death in the Field** (page 86) **Note:** Coroner's personnel must transport all dead bodies. If ordered to move a body by law enforcement, note the time, name, and badge number of the officer, and comply with the request. Ensure that the police officer on scene has contacted the Coroner's Bureau for permission to move the body
PEDIATRIC TRAUMA ARREST BLUNT or PENETRATING:	➔ ETA to the Pediatric Trauma Center ≤ 20 minutes: Pediatric Trauma Center ➔ ETA to the Pediatric Trauma Center ≥ 20 minutes: Closest Adult Trauma Center

5. **TRAUMA BASE CONTACT:** Varying field circumstances make rigid application of any set of rules impractical. These criteria should serve as guidelines. Clinical circumstances may dictate that transport be undertaken immediately with Trauma Base contact made en route

5.1 **Designated trauma base hospital** - Highland Hospital is the Base Station for all trauma patients requiring base contact

5.2 **Contact the trauma Base Physician if:**

- ► The patient meets the criteria listed in the "Yellow Criteria" but the provider is requesting transport to a basic ED
- ► The patient requires medical treatment not covered in the "Trauma Patient Care" protocol (see **page 25**)
- ► The patient would benefit from consultation with the Base Physician

6. OUT-OF-COUNTY TRANSPORT

6.1 Patients who meet "Trauma Patient Criteria" may be transported directly to an out of county Trauma Center if it is the closest, most appropriate destination for the patient

6.2 Prior to transporting to an out-of-county Trauma Center, the transporting provider must:

- ► Contact the out-of-county Trauma Center by landline to determine if they can accept the patient
- ► Give a brief report including E.T.A. (See Reporting Format Protocol)
- ► Contact the Alameda County Base Hospital if medical consultation is required (see #5 above)

6.3 **Out-of-County Trauma Centers:**

TRAUMA CENTER	PEDIATRIC CAPABLE	LOCATION	PHONE #
STANFORD UNIVERSITY MEDICAL CENTER	X	PALO ALTO	(650) 723-7337
SAN FRANCISCO GENERAL HOSPITAL		SAN FRANCISCO	(415) 206-8111
REGIONAL MEDICAL CENTER		SAN JOSE	(408) 729-2841
SANTA CLARA VALLEY MEDICAL CENTER	X	SAN JOSE	(408) 885-6912
JOHN MUIR MEDICAL CENTER		WALNUT CREEK	(925) 947-4444
SAN JOAQUIN GENERAL		FRENCH CAMP	(209) 982-1975

MEDICATIONS – AUTHORIZED | STANDARD INITIAL DOSE

Adenosine	1st dose: 6 mg; 2nd dose: 12 mg (rapid ***IV/IO*** push)
Albuterol	5 mg in 6 ml normal saline
Amiodarone	**Wide complex Tachycardia:** 150 mg ***IV/IO*** over 10 mins **VF/VT:** 1st dose: 300 mg ***IV/IO***; 2nd dose: 150 mg ***IV/IO*** Follow each dose with 20mL NS flush. (two doses only)
Aspirin	162 mg chewable or 324 mg (5gr.) tablet – not enteric coated)
Atropine sulfate	**Bradycardia:** 1 mg ***IV/IO*** - (max total 3 mg)
Buprenophrine	16mg Sublingual (SL)
Calcium chloride 10%	1 gm over 2 minutes ***IV/IO***
Charcoal	1 gm/kg (Max 50 gms) ***PO***
Dextrose 10%	10 gms ***IV/IO***
Diphenhydramine (Benadryl)	**Allergic Reaction:** 1 mg/kg ***IV/IO/IM*** up to 50 mg
Epinephrine 1mg/mL	**Anaphylaxis:** 0.3 mg-0.5 mg ***IM*** **Bronchospasm:** 0.01 mg/kg ***IM*** (max dose 0.5mg)
Epinephrine 0.1mg/mL	**Anaphylactic shock:** 1mL (0.1mg) ***IV/IO*** slowly **Cardiac arrest:** 10mL (1 mg) ***IV/IO*** **Cardiogenic/Distributive Shock:** Diluted to 0.01mg/ml (10mcg/ml), 0.5ml (5mcg) ***slow IV/IO***
Fentanyl	**Pain Management:** 25-100 mcg ***IV/IO/IM/IN*** (max. single dose 100 mcg)
Glucagon	1 mg ***IM***
Oral Glucose	30 gms ***PO***
Ipratropium (Atrovent)	500 mcg (2.5 ml unit dose) ***Via nebulizer***
Lidocaine 2%	40 mg ***IO*** (2 mL) slowly (1 ml over 30 seconds)
Ketamine (Ketalar)	0.3 mg/kg ***IV/IO/IM/IN -*** IV/IO dose to be mixed in 100ml NS/D5W and infused over 10 min
Ketorolac (Toradol)	15 mg ***IM/IV/IO***
Midazolam (Versed)	**Sedation:** ***IV (slowly) / IN (briskly):*** 1-2 mg, ***IM:*** 2-4 mg (if no IV) **Seizure:** ***IM/IN:*** 10 mg, ***IV/IO:*** 0.1 mg/kg - max dose 10 mg
Naloxone (Narcan)	Initial dose: Titrated up to 2 mg ***IV/IM/IN*** BLS Providers may only use IN Route. Max. initial dose is 2 mg
Nitroglycerine spray	0.4 mg metered spray or tablet
Normal saline	250 - 500 ml ***IV/IO*** fluid bolus
Olanzapine (Zyprexa)	10 mg **PO** orally dissolving tablet
Ondansetron (Zofran)	4 mg ***IV*** †Slowly over 30 seconds or 4 mg ***IM/PO (oral dissolving tablets)*** (†rapid IV administration <30 seconds can cause syncope)
Oxygen (titrate to 94%-99% SpO2)	2 - 6 L/nasal cannula | 15 L/non-rebreather mask
Sodium bicarbonate	1 mEq/kg ***IV/IO***
Sodium thiosulfate	12.5 grams ***IV/IO*** over 10 minutes

SUSPECTED OPIOID WITHDRAWAL

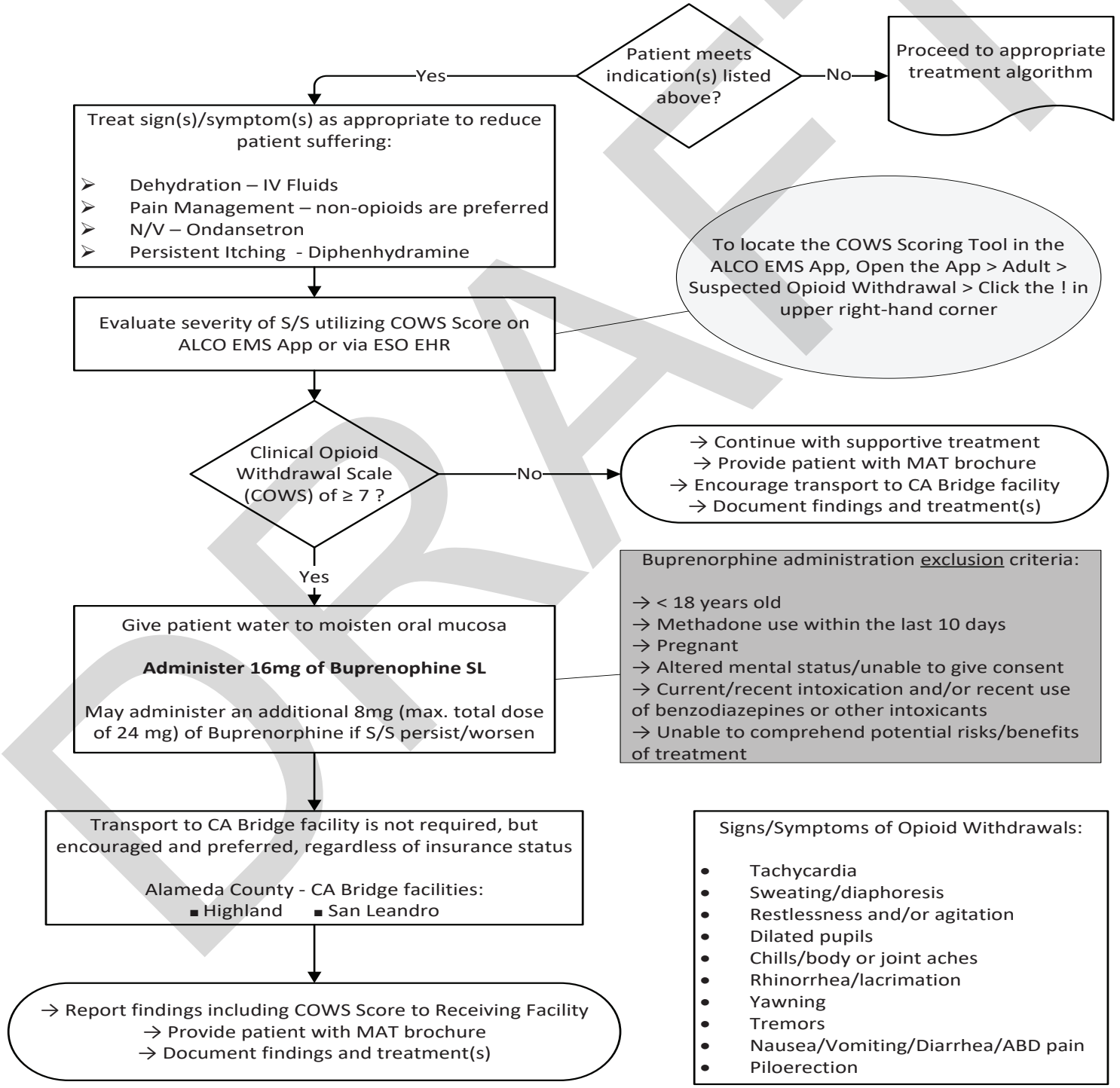
- **Routine Medical Care**
- **Indications:**

➔ **Post Naloxone Administration**

➔ **Patient stated complaint of opioid withdrawals or seeking assistance for Opioid Use Disorder (OUD)**

➔ **Patient presenting with signs/symptoms consistent with any positive score on the Clinical Opiate Withdrawal Scale (COWS)**

- **Goals:**
  - ➔ Reduce patient suffering and;
  - ➔ Patient entry into a CA Bridge Program (www.cabridge.org) for treating Opioid Use Disorder



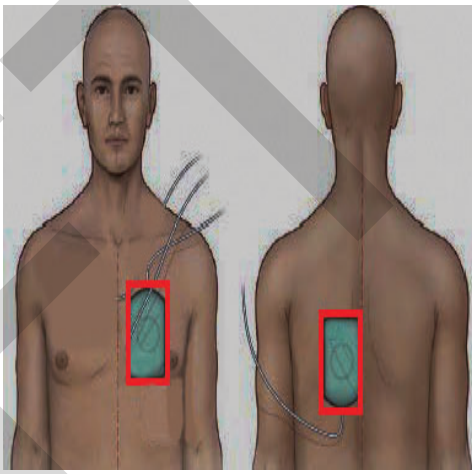
VENTRICULAR FIBRILLATION | PULSELESS VT

- **Routine Medical Care**
- **Note: Use of a mechanical CPR device is required whenever available and appropriate**

***Manual chest compressions**
Place defibrillator pads in the anterior / posterior configuration
Apply mechanical CPR (mCPR) device if available

BLS Airway (OPA)
BVM ventilation at rate of 10-12 with 10-15 lpm O2
ITD (Placed closest to patient - see page 130)
ETCO2 Monitoring

Do not delay defibrillation for completion of these interventions.



Shockable rhythm?

No

Yes

- ✓ ****Defibrillate (see note)**
- ✓ Resume CPR immediately
- ✓ Consider advanced airway
- ✓ IV/IO NS
- ✓ 2 minutes or 5 cycles of CPR
- ✓ Check Rhythm

Shockable rhythm?

No

Yes

Go to Policy:
- ✓ **Asystole/PEA page 37**
- ✓ **Return of Spontaneous Circulation page 48**

- ✓ **CPR** while defibrillator charging
- ✓ ****Defibrillate (see note)**
- ✓ **Resume CPR**
- ✓ *****Epinephrine 0.1mg/mL** 1 mg IV/IO
- ✓ 2 minutes or 5 cycles of CPR
- ✓ Check Rhythm

Shockable Rhythm?

No

Yes

- ✓ **CPR** while defibrillator charging
- ✓ ****Defibrillate (see note)**
- ✓ **Resume CPR**
- ✓ **Amiodarone** 300 mg IV/IO

Proceed to VF/VT – Refractory on **Page 60**

VF/Pulseless VT notes:

***Chest compressions:**
CPR/mCPR must be minimally interrupted (<10 secs) and should not be paused for airway placement. mCPR does not need to be paused for defibrillation(s). Manual chest compressors must be rotated at every rhythm check.

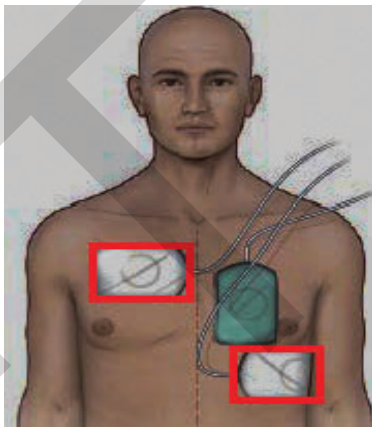
****Defibrillation:**
Refer to manufacturer's documentation for energy dose recommendations

*****Epinephrine**
May be repeated q10mins to a max of 3 doses

VENTRICULAR FIBRILLATION | PULSELESS VT - REFRACTORY

- **Routine Medical Care**
- Note: Use of a mechanical CPR device is required whenever available and appropriate
- **Indications: VF/Pulseless VT is considered refractory if 3 defibrillations have been delivered and additional defibrilation(s) are required at any point in a resuscitation.**

If patient meets the above indications, prepare a second defibrillator and place the second defibrillator's pads in the anterior/lateral position as pictured



Shockable rhythm?

No → Go to Policy:
- ✓ **Asystole/PEA page 37**
- ✓ **Return of Spontaneous Circulation page 48**

Yes

- ✓ **CPR** while defibrillators are charging
- ✓ **Double-sequential Defibrillation (see note)**
- ✓ **Resume CPR**
- ✓ **Prepare for patient transport to STEMI Center**
- ✓ Notify receiving STEMI center of pt inbound with refractory VF/VT as early as possible
- ✓ ***Epinephrine 0.1mg/mL** 1mg IV/IO
- ✓ 2 minutes or 5 cycles of CPR
- ✓ Check Rhythm

Shockable rhythm?

No → Go to Policy:
- ✓ **Asystole/PEA page 37**
- ✓ **Return of Spontaneous Circulation page 48**

Yes

- ✓ **CPR** while defibrillators are charging
- ✓ **Double-sequential Defibrillation (see note)**
- ✓ **Resume CPR**
- ✓ **Amiodarone** 150mg IV/IO 3-5 minutes after 1st dose
- ✓ 2 minutes or 5 cycles of CPR
- ✓ Check Rhythm

Shockable rhythm?

No → Go to Policy:
- ✓ **Asystole/PEA page 37**
- ✓ **Return of Spontaneous Circulation page 48**

Yes

- ✓ **CPR** while defibrillators are charging
- ✓ **Double-sequential Defibrillation (see note)**
- ✓ **Resume CPR**
- ✓ ***Epinephrine 0.1mg/mL** 1mg IV/IO
- ✓ 2 minutes or 5 cycles of CPR
- ✓ Check Rhythm

Continue **Double-sequential Defibrillation (see note)** as appropriate every 2 minutes or 5 cycles of CPR or move to appropriate protocol

Double-sequential defibrillation steps:

1. Charge both defibrillators to recommended energy level
2. Deliver shock using defibrillator placed in A/P position first
3. Deliver shock with A/L placed defibrillator **1 second** after the first defibrillation

DO NOT DELIVER SHOCKS SIMULTANEOUSLY

VF/Pulseless VT notes:

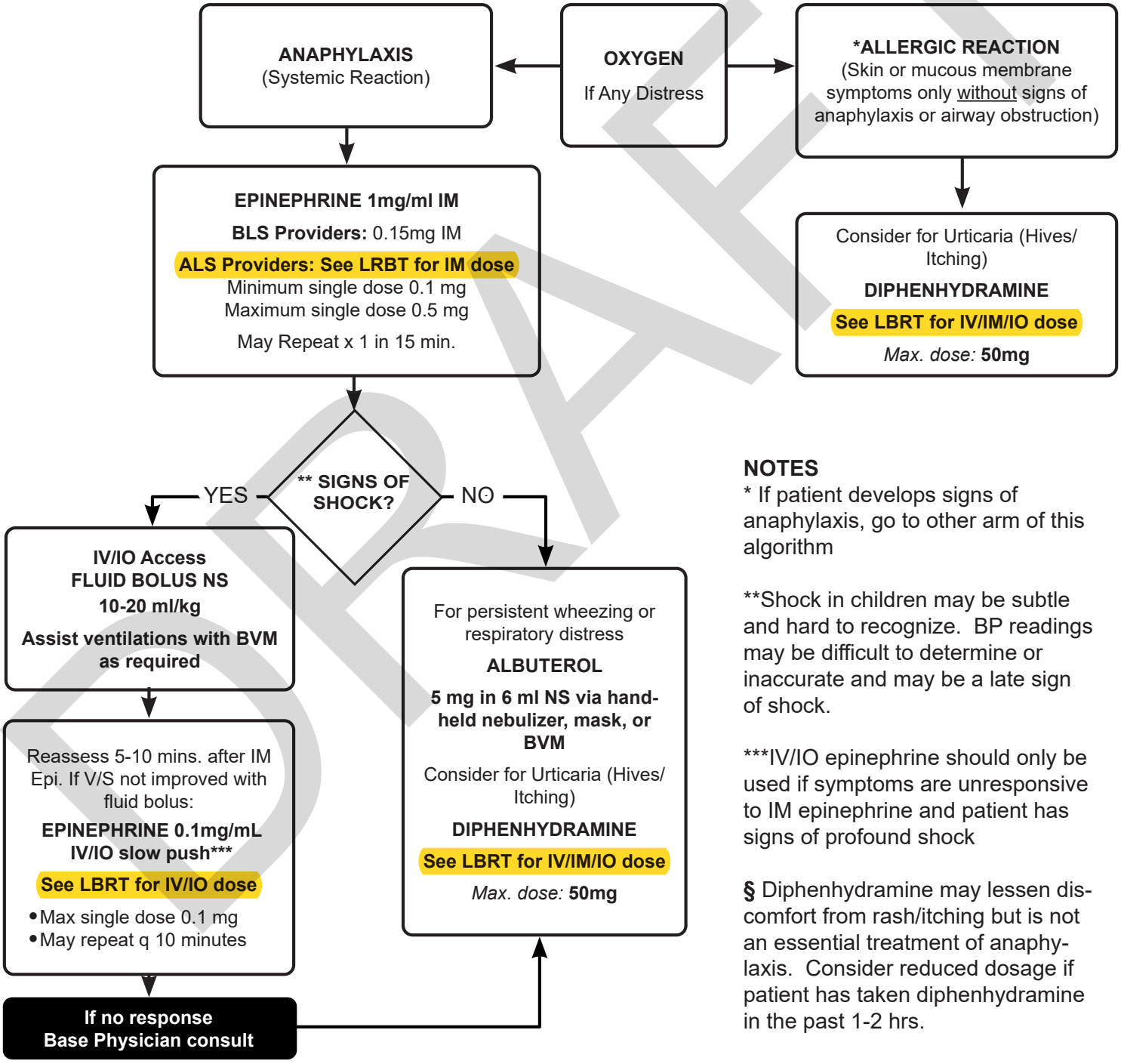
***Chest compressions:**
CPR/mCPR must be minimally interrupted (<10 secs) and should not be paused for airway placement. mCPR does not need to be paused for defibrillation(s). Manual chest compressors must be rotated at every rhythm check.

****Defibrillation:**
Refer to manufacturer's documentation for energy dose recommendations

*****Epinephrine**
May be repeated q10mins to a max of 3 doses

ANAPHYLAXIS / ALLERGIC REACTION

- **Epinephrine IM** is the cornerstone of treatment of anaphylaxis and should be given as early as possible. It is best absorbed from an injection in the lateral thigh
- If the patient is in severe distress, **administer Epinephrine IM** and consider immediate transport
- **SIGNS OF ANAPHYLAXIS (Systemic Reaction)** – wheezing, repetitive cough, tightness in chest, stridor, difficulty swallowing or tightness in throat, change in voice, dizziness or feeling faint, abdominal complaints (pain, repeated vomiting, diarrhea or incontinence), anxiety, lethargy
- **SIGNS OF ANAPHYLACTIC SHOCK** – pallor, hypotension, cool, clammy mottled skin, altered sensorium
- **FACIAL/ORAL SWELLING (Angioedema)** can accompany anaphylaxis, but is not always present
- **Use a length-based resuscitation tape (LBRT) to determine pediatric medication dosages and fluid bolus**



NOTES

* If patient develops signs of anaphylaxis, go to other arm of this algorithm

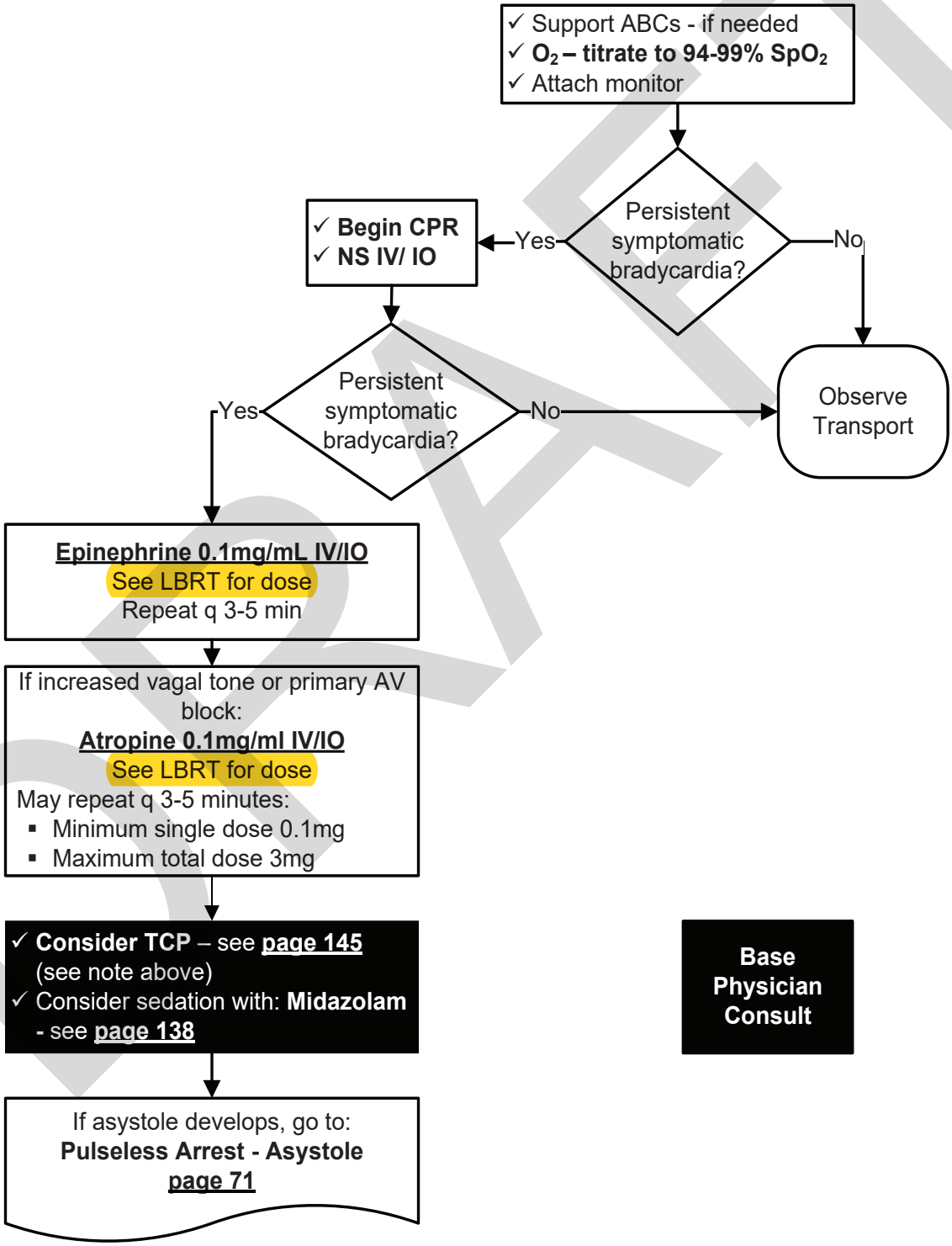
**Shock in children may be subtle and hard to recognize. BP readings may be difficult to determine or inaccurate and may be a late sign of shock.

***IV/IO epinephrine should only be used if symptoms are unresponsive to IM epinephrine and patient has signs of profound shock

§ Diphenhydramine may lessen discomfort from rash/itching but is not an essential treatment of anaphylaxis. Consider reduced dosage if patient has taken diphenhydramine in the past 1-2 hrs.

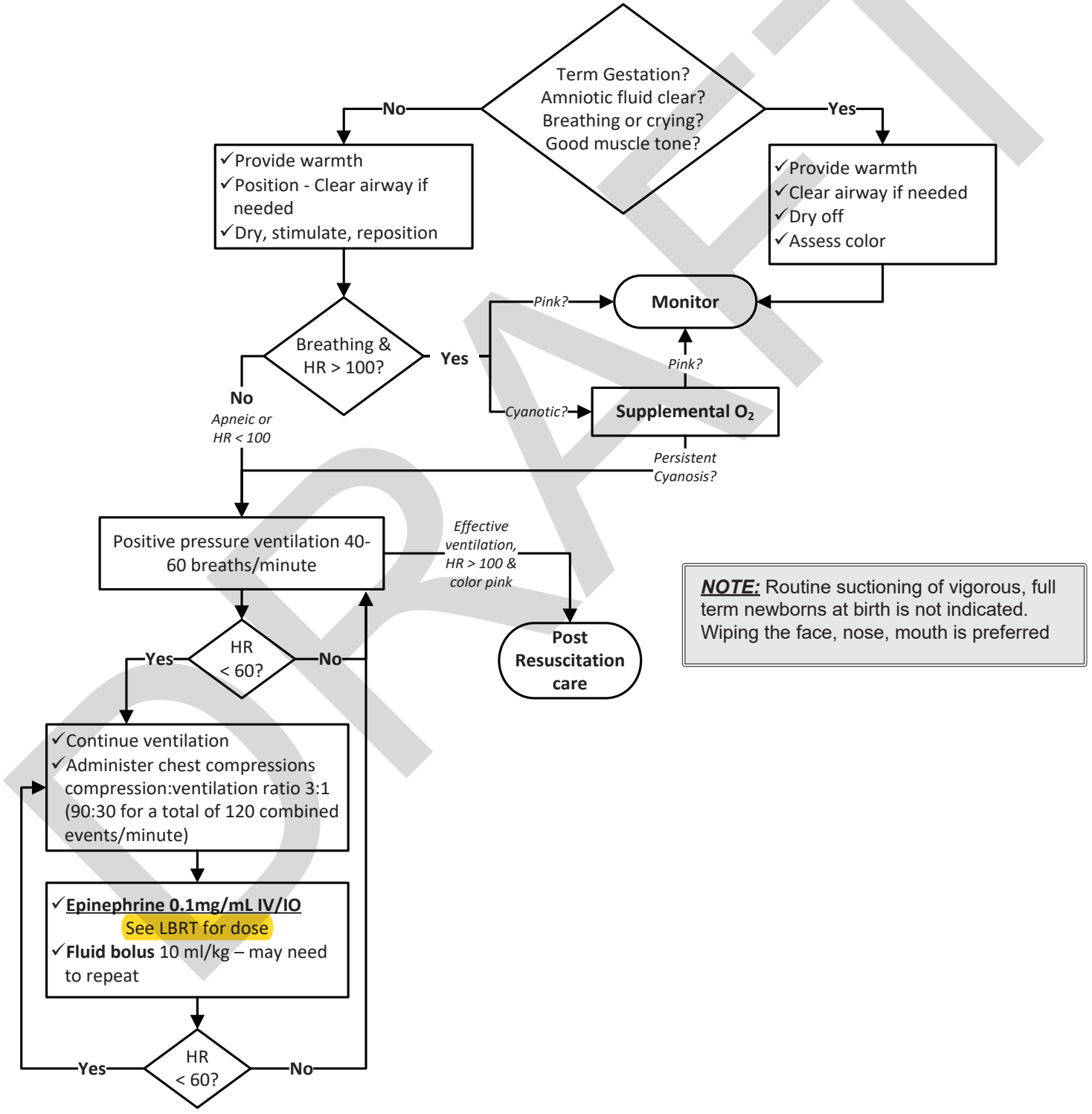
BRADYCARDIA

- **Pediatric Routine Medical Care**
- **Consider and treat other possible causes:**
  - ➔ Hypoxemia ➔ Hypothermia ➔ Head Injury
  - ➔ Heart Block ➔ Toxins/ drugs ➔ Beta Blockers or calcium channel blockers
- **Note:** TCP reserved for children with profound symptomatic bradycardia refractory to BLS and ALS. Use pediatric electrodes if child weighs < 15 kg
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



NEONATAL RESUSCITATION

- **Pediatric Routine Medical Care**
- Resuscitation should be initiated on **all** premature infants who meet the following criteria:
  Weight: > 500 gms or 1 pound and **Gestational Age:** ≥ 20-24 weeks
- If naloxone considered for persistent respiratory depression, HR and color must first be restored
- Avoid naloxone for neonates whose mothers are suspected of long-term exposure to opiods
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate.
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



NOTE: Routine suctioning of vigorous, full term newborns at birth is not indicated. Wiping the face, nose, mouth is preferred

PAIN MANAGEMENT

- **Pediatric Routine Medical Care.** If oxygen is adminstered, titrate to 94-99% SpO2
- 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
- **The preferred route of administration is intranasal (IN)**
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)

BLS Interventions:
Positioning
Cold Pack(s)
Splinting
Coaching

↓

ALS Intervention:

Fentanyl IN/IM/IV/IO
See LBRT for dose

May repeat dose on LBRT q 5 min, to a max. of 3 total doses via all routes

↓

Base Physician consult if patient requires > 200 mcg or if contraindication(s) are present

↓

Monitor/Reassess

Fentanyl Considerations:

Contraindications:

- Age-adjusted hypotension
- Decreased respiratory rate
- Altered mental status
- Suspected Traumatic Brain Injury

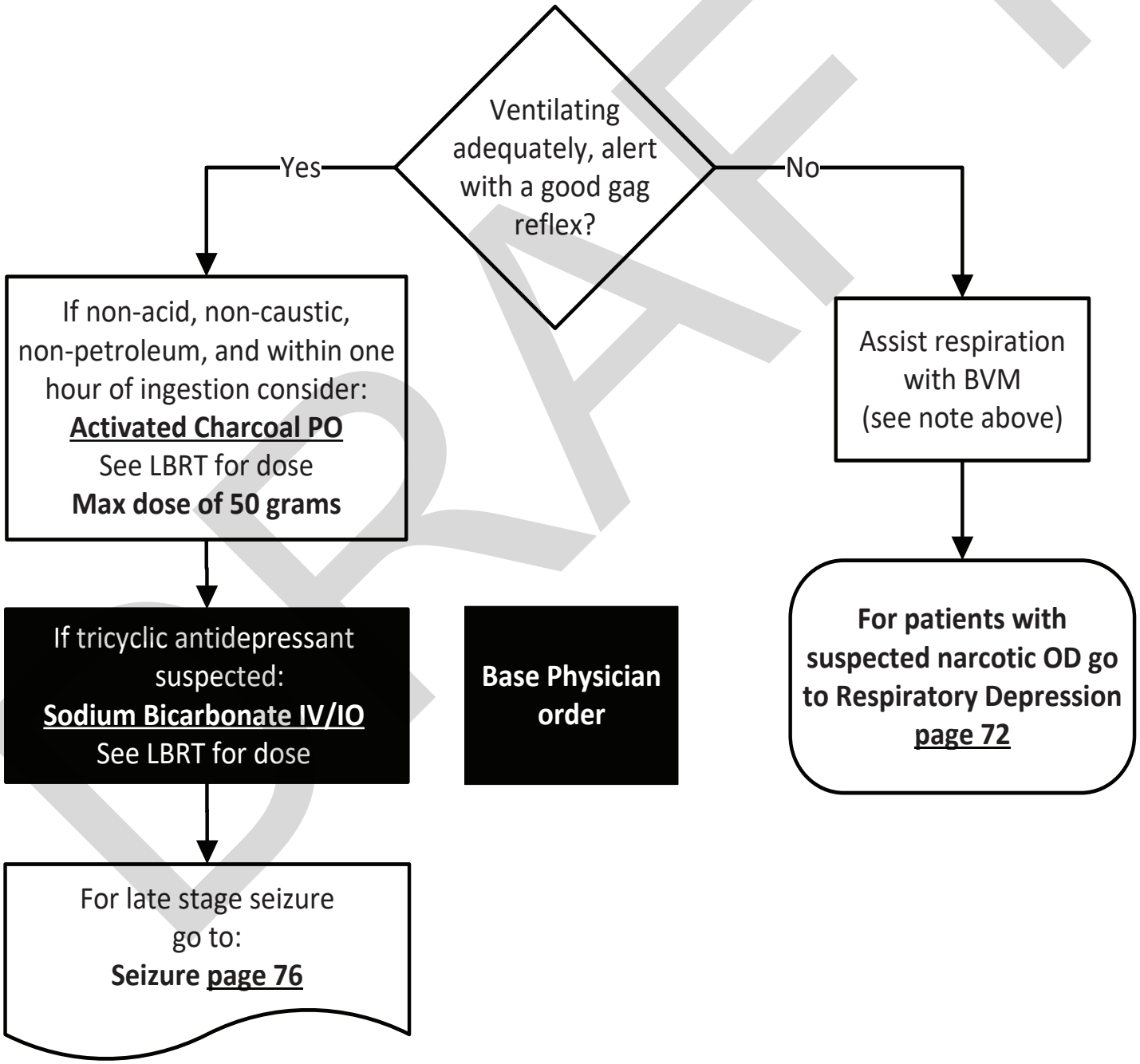
Notes:

- Capnography monitoring is recommended
- Burn patients may require higher doses
- Have Naloxone readily available

Pediatric Fentanyl Dose Chart (2 mcg/kg)		
50 mcg/mL		
WEIGHT	**DOSE**	**VOLUME**
5 kg	10 mcg	0.2 mL
10 kg	20 mcg	0.4 mL
20 kg	40 mcg	0.8 mL
30 kg	60 mcg	1.2 mL
40 kg	80 mcg	1.6 mL
> 50 kg	100 mcg	2 mL

POISONING | INGESTION | OVERDOSE

- **Pediatric Routine Medical Care**
- **Protect Yourself!** - See **page 157** "Hazardous Materials Incidents - EMS Response"
- **Identify substance** – **contact the Base Physician** regarding other treatment options. Bring any containers, labels or a sample (if safe) into the hospital with the patient
- Determine type, amount, and time of the exposure
- **Base Physician consult** for treatment options if suspecting: organophosphate poisoning, or calcium channel or beta blocker OD. Consider contacting Poison Control for other substances **800-222-1222**
- Remove contaminated clothing. Brush powders off, wash off liquids with large amount of water
- Withhold charcoal if rapidly decreasing level of consciousness a possibility (e.g., tricyclic OD)
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate.
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)

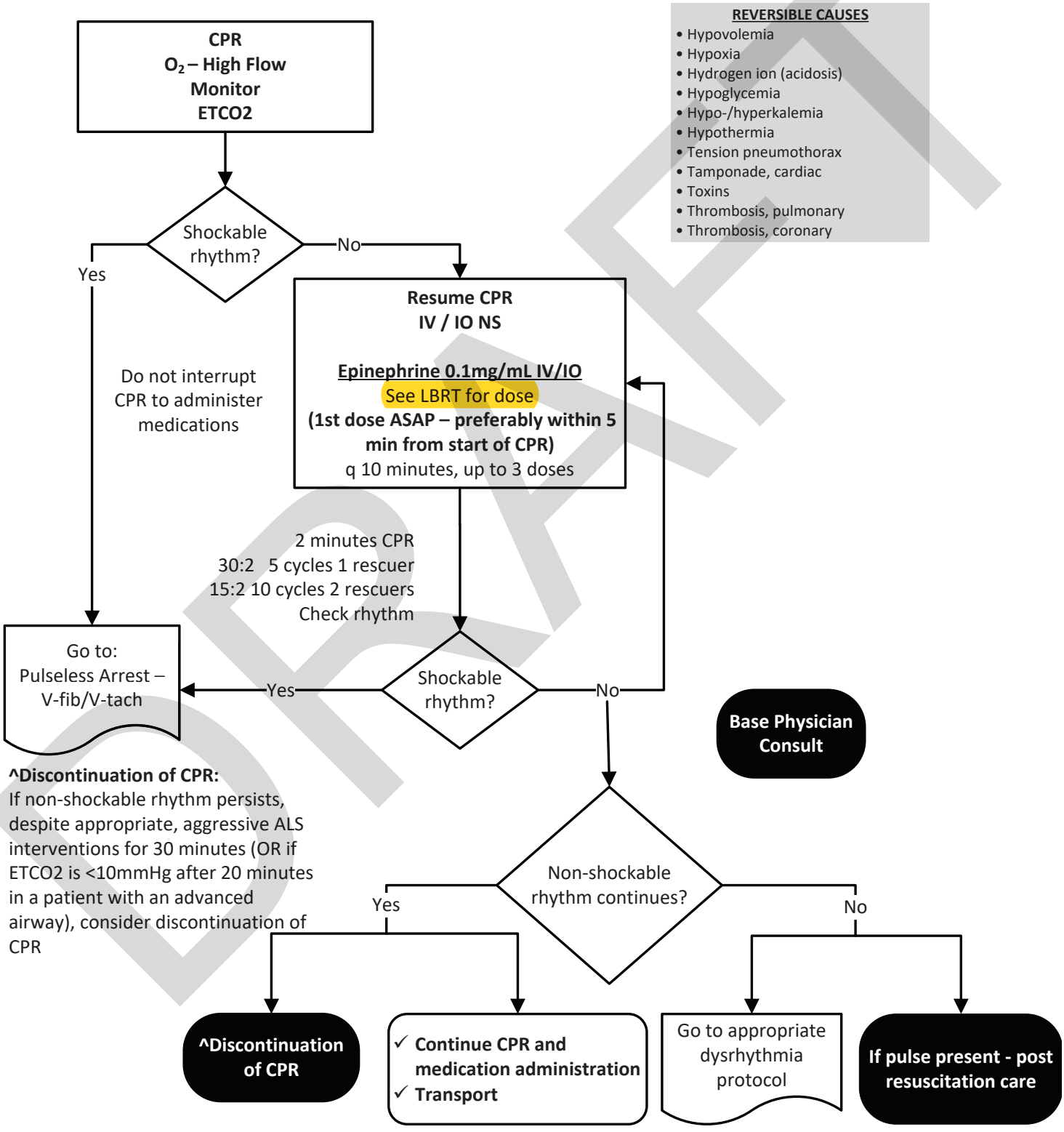


PEDIATRIC DRUG CHART - (DRUGS NOT ON THE LBRT)

Weight kg	Grey 3 – 5 6 - 11	Pink 6 – 7 13.2 – 15.4	Red 8 – 9 17.6 – 19.8	Purple 10 – 11 22 – 24.2	Yellow 12 – 14 26.4 – 30.8	White 15 – 18 33 – 39.6	Blue 19 – 22 41.8 – 48.4	Orange 24 – 28 52.8 – 61.6	Green 30 – 36 66 – 79.2
ALBUTEROL	5 mg in 6 ml NS								
AMIODARONE DRIP 5 mg/kg Mix in 100mL D5W Give over 20-60 min.	25mg	30 - 35mg	40 - 45mg	50 - 55mg	60 - 70mg	75 - 90mg	95 - 110mg	120-140mg	150-180mg
DEXTROSE 10%	Refer to Pediatric ALOC Policy on **page 64**								
DIPHENHYDRAMINE (Benadryl) 1 mg/kg IM	3 - [illegible]	[illegible]mg	8 - 9mg	10 - 11mg	12 - 14mg	15 - 18mg	19 - 22mg	24 - 28mg	30 - 36mg
Allergic Reaction: 1mg/kg IM	3 - [illegible]	[illegible]mg	8 - 9mg	10 - 11mg	12 - 14mg	15 - 18mg	19 - 22mg	24 - 28mg	30 - 36mg
EPINEPHRINE – Not cardiac arrest **1 mg/mL** - 0.01 mg/kg IM min. dose: 0.1mg# / max. dose: 0.3mg^	0.1mg#	0.[illegible]	[illegible]mg	0.1-0.11mg	0.12-0.14mg	0.15-0.18mg	0.19-0.22mg	0.24-0.28mg	0.3mg^
0.1 mg/mL - 0.01 mg/kg IV/IO max. dose: 0.1mg+	0.03-0.05mg	0.06-0.07mg	0.08-[illegible]mg	[illegible]mg	0.1mg+	0.1mg+	0.1mg+	0.1mg+	0.1mg+
FENTANYL 2mcg/kg IV/IO/IM/IN	6-10mcg	12-14mcg	16-18mcg	2[illegible]mcg	2[illegible]mcg	30-36mcg	38-44mcg	48-56mcg	60-72mcg
ORAL GLUCOSE	1[illegible]ml								
IPRATROPIUM (Atrovent)	500 mcg (2.5 [illegible]								
Lidocaine 2%	0.5mg/kg (max dose 20 mg) slowly (1 ml over 30 seconds)								
MIDAZOLAM (Versed) Seizures: 0.2mg/kg IN/IM	For specific dosing, please refer to pediatric seizure [illegible] **page** [illegible]								
Sedation: 0.05mg/kg IV/IN	0.15-0.25mg	0.3-0.35mg	0.4-0.45mg	0.5-0.55mg	0.6-0.7mg	0.75-0.9mg	0.9[illegible]mg	1.2-1.4mg	1.5-1.8mg
0.1mg/kg IM	0.3-0.5mg	0.6-0.7mg	0.8-0.9mg	1-1.1mg	1.2-1.4mg	1.5-1.8mg	1.9-2.[illegible]mg	2.4-2.8mg	3-3.6mg
MORPHINE SULFATE 0.05mg/kg IV	0.15-0.25mg	0.3-0.35mg	0.4-0.45mg	0.5-0.55mg	0.6-0.7mg	0.75-0.9mg	0.95-1.1mg	1.2-1.4mg	1.5-1.8mg
0.1mg/kg IM	0.3-0.5mg	0.6-0.7mg	0.8-0.9mg	1-1.1mg	1.2-1.4mg	1.5-1.8mg	1.9-2.2mg	2.4-2.8mg	3-3.6mg
PRALIDOXIME CHLORIDE (2-PAM)	For use only by paramedics as members of medical haz/mat teams								
Hot zone: 20 mg/kg IM	60-100mg	120-140mg	160-180mg	200-220mg	240-280mg	300-360mg	380-440mg	480-560mg	600-720mg
Warm Zone: 20-40 mg/kg IV/IM	120-200mg	240-280mg	320-360mg	400-440mg	480-520mg	600-720mg	760-880mg	960-1000mg	1000mg
SODIUM THIOSULFATE 0 .4gm/kg IV slowly over 10 mins. Max dose: 12.5gm	1.2 – 2gm	2.4 – 2.8gm	3.2 – 3.6gm	4 – 4.4gm	4.8 – 5.6gm	6 – 7.2gm	7.6 – 8.8gm	9.6-11.2gm	12 – 12.5gm

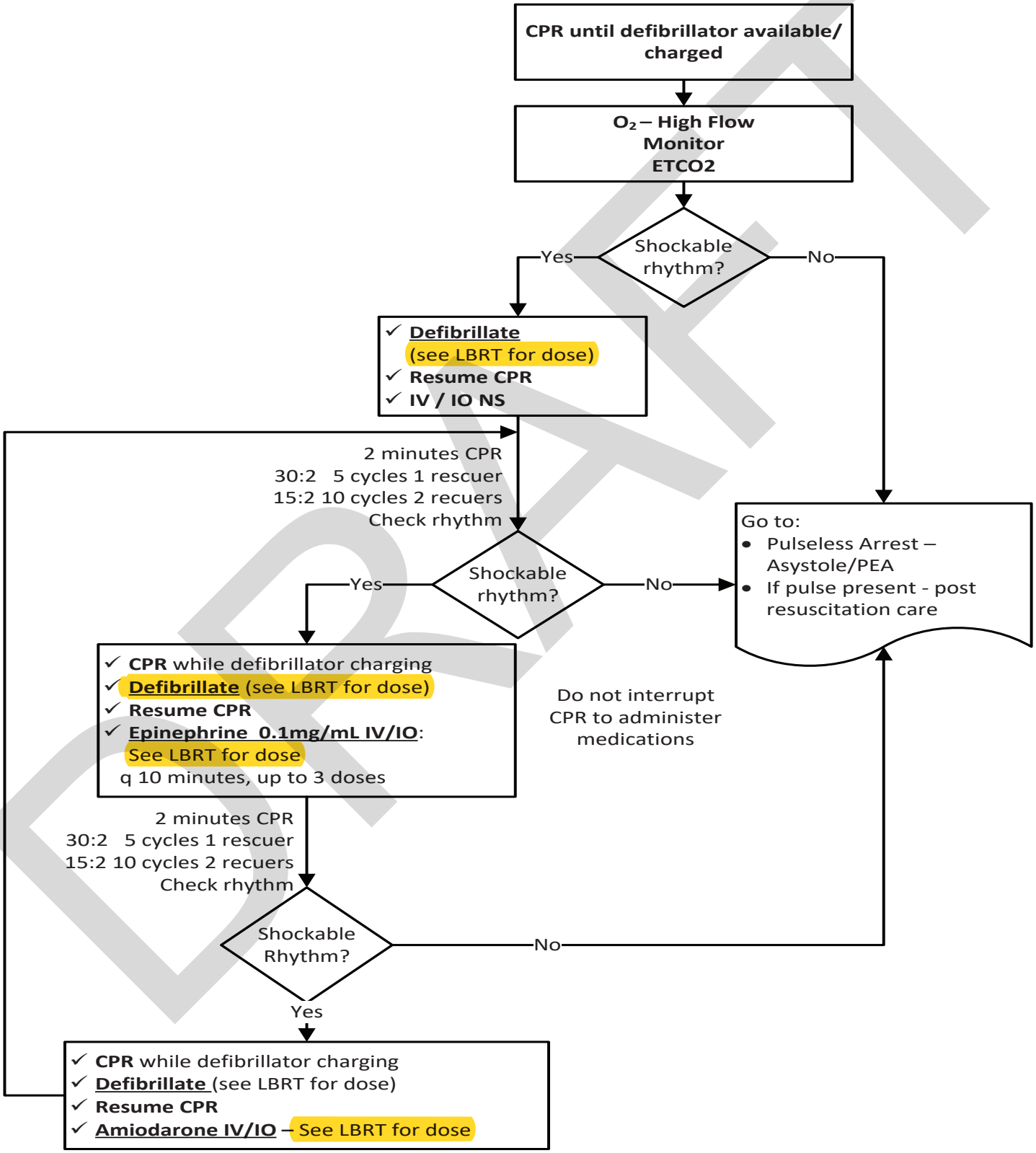
PULSELESS ARREST: ASYSTOLE, PEA

- **Pediatric Routine Medical Care**
- In PEA, identify other causes and treat (See CPR **page 9**)
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate.
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



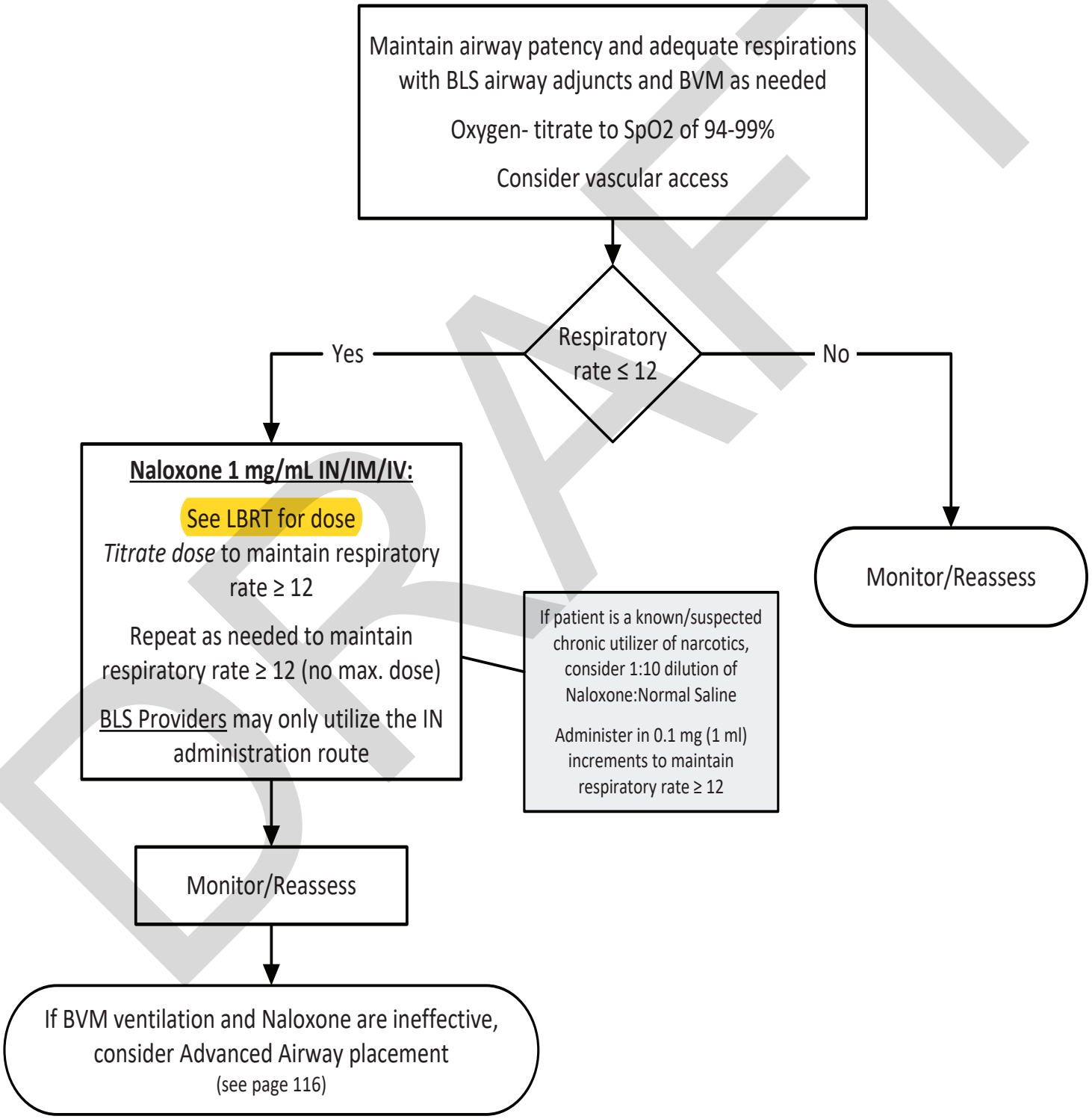
PULSELESS ARREST: VF/ VT

- **Pediatric Routine Medical Care**
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



RESPIRATORY DEPRESSION OR APNEA (SUSPECTED NARCOTIC OD)

- **Routine Medical Care**
- **Naloxone can cause acute withdrawal symptoms (agitation,vomiting, etc.) in patients who are chronic utilizers of narcotics**
- Naloxone can cause cardiovascular side effects (chest pain, pulmonary edema) or seizures in a small number of patients (1-2%)
- Patients who are maintaining adequate respirations with decreased level of consciousness do not generally require Naloxone for management
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



RESPIRATORY DISTRESS (WHEEZING) – LOWER AIRWAY

- **Pediatric Routine Medical Care**
- Position of comfort
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate
- **Use an LBRT to determine pediatric medication doses** - (Shown underlined on the algorithm)

O_2 – titrate to 94-99% SpO_2
via blowby or non-rebreather mask

Moderate to Severe Distress
Any of the following:
- Cyanosis
- Accessory muscle use
- Inability to speak > 2 syllables
- Severe wheezing/SOB

Assist respirations
(see note)

Albuterol
5 mg in 6 ml NS
and
Ipratropium
500 mcg (2.5 ml)
by nebulizer or via BVM

If response inadequate:
Epinephrine 1mg/mL
See LBRT for dose
Maximum single dose: 0.3 mg
May repeat x1 in 20 mins.

If respiratory distress continues
Albuterol (only)
5 mg in 6 ml NS
by nebulizer or via BVM
May repeat x1 if respiratory distress continues

Mild Respiratory Distress
- Mild wheezing/SOB
- Cough

Albuterol
5 mg in 6 ml NS
via hand-held nebulizer, mask or BVM
May repeat x1

Maintain airway
and **oxygen**

If decreased LOC or apnea
Consider:
BVM Ventilation
(see note)

ROUTINE MEDICAL CARE - PEDIATRIC

The defined age of a pediatric patient is **14 years old or less**, and unless specified otherwise, pediatric protocols should be used to treat these patients. Note: An infant is considered to be < 1 year old. A child is considered to be ≥ 1 year old. Specified ages for transport or treatment other than 14 years old include:

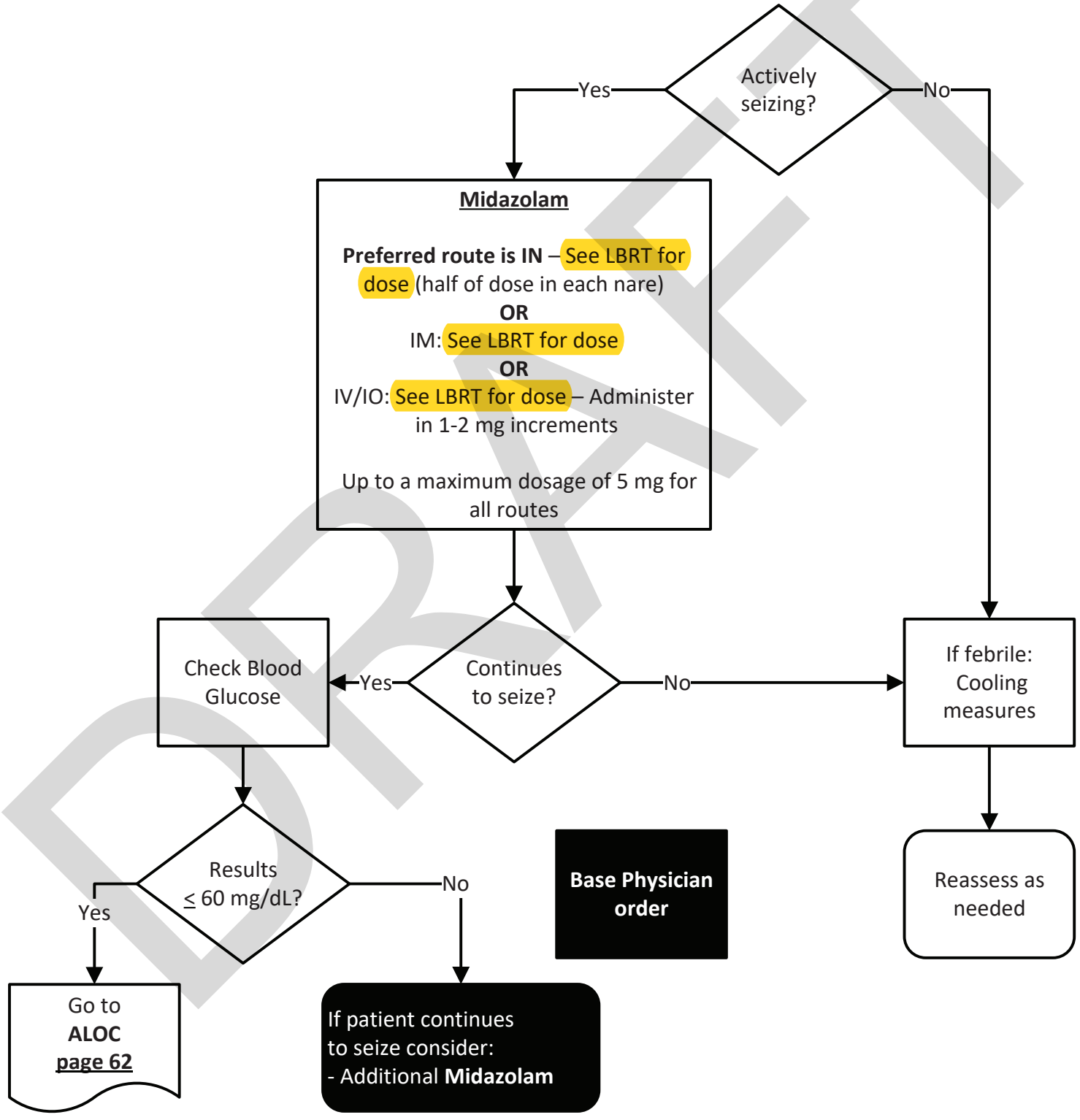
TRANSPORT	TREATMENT
5150 Psych Evaluation (page 133): ➔ Children (≤ 11 y.o.) – Children's Hospital ➔ Adolescents (≥ 12 y.o. & ≤ 17 y.o.) – Willow Rock **Trauma Destination (page 26):** ➔ ≤ 14 y.o. – Children's Hospital ➔ ≥ 15 y.o. – Closest Adult Trauma Center **Sexual Assault (page 3):** ➔ Children (≤ 13 y.o.) – Children's Hospital ➔ All Others (≥ 14 y.o.) – Highland or Washington	**Advanced Airway Management (page 114):** ➔ <40kg- authorized airway is OPA/NPA, BVM, or SGA **CPAP (page 122):** ➔ < 8 y.o. – Absolute Contraindication **IO Access (page 130 or page 131):** **Refusal of Care (page 117):** ➔ ≤ 17 y.o. may not refuse transport or treatment unless legally emancipated

An approved Alameda County-specific, pediatric **LBRT** shall be used to determine appropriate medication dosages, fluid volumes, defibrillation settings and equipment sizes. The tape is designed to estimate a child's weight based on length (head to heel).

PRIMARY SURVEY	SPECIAL CONSIDERATIONS
Establish level of responsiveness	▶ AVPU: **A**lert, **V**erbal, **P**ainful, **U**nresponsive
Evaluate airway and protective airway reflexes	▶ Identify signs of airway obstruction and respiratory distress, including: ➔ cyanosis ➔ intercostal retractions ➔ choking ➔ stridor ➔ absent breath sounds ➔ grunting ➔ drooling ➔ apnea or bradypnea ➔ nasal flaring ➔ tachypnea
Secure airway	▶ Open airway using jaw-thrust and chin-lift (and/or head tilt if no suspected spinal trauma). Suction as needed. Consider placement of an oral or nasal airway adjunct if the child is unconscious ▶ If cervical spine trauma is suspected, see page 139
Consider Spinal Motion Restriction (SMR)	▶ Use chest rise as an indicator of ventilation ▶ Use pulse oximetry
Assess need for ventilatory assistance	▶ CPR as needed (see CPR page 9) ▶ Assess perfusion using the following indicators: ➔ heart rate ➔ mental status ➔ skin signs ➔ quality of pulse ➔ capillary refill ➔ blood pressure
Evaluate and support circulation. Stop Hemorrhage	▶ Perform a head-to-toe assessment, including temperature ▶ Obtain a patient history ▶ Do environmental assessment, consider possibility of intentional injury
Continue with secondary survey	▶ Perform a head-to-toe assessment, including temperature ▶ Obtain a patient history ▶ Do environmental assessment, consider possibility of intentional injury
Determine appropriate treatment protocols	▶ Provide family psychosocial support ▶ An approved Alameda County-specific, pediatric **LBRT** shall be used to determine appropriate medication dosages, fluid volumes, defibrillation settings and equipment sizes. ▶ When starting an IV/IO/saline lock, use chlorhexidine as a skin prep ▶ Label insertion site with "PREHOSPITAL IV – DATE and TIME" ▶ Pediatric patients are subject to rapid changes in body temperature. Steps should be taken to prevent loss of or increase in body temperature ▶ Compared to the adult patient, a small amount of fluid, lost from or administered to, a pediatric patient can result in shock or pulmonary edema ▶ Scene time for treatment of pediatric patients should be kept at a minimum. Most treatment should be done en route

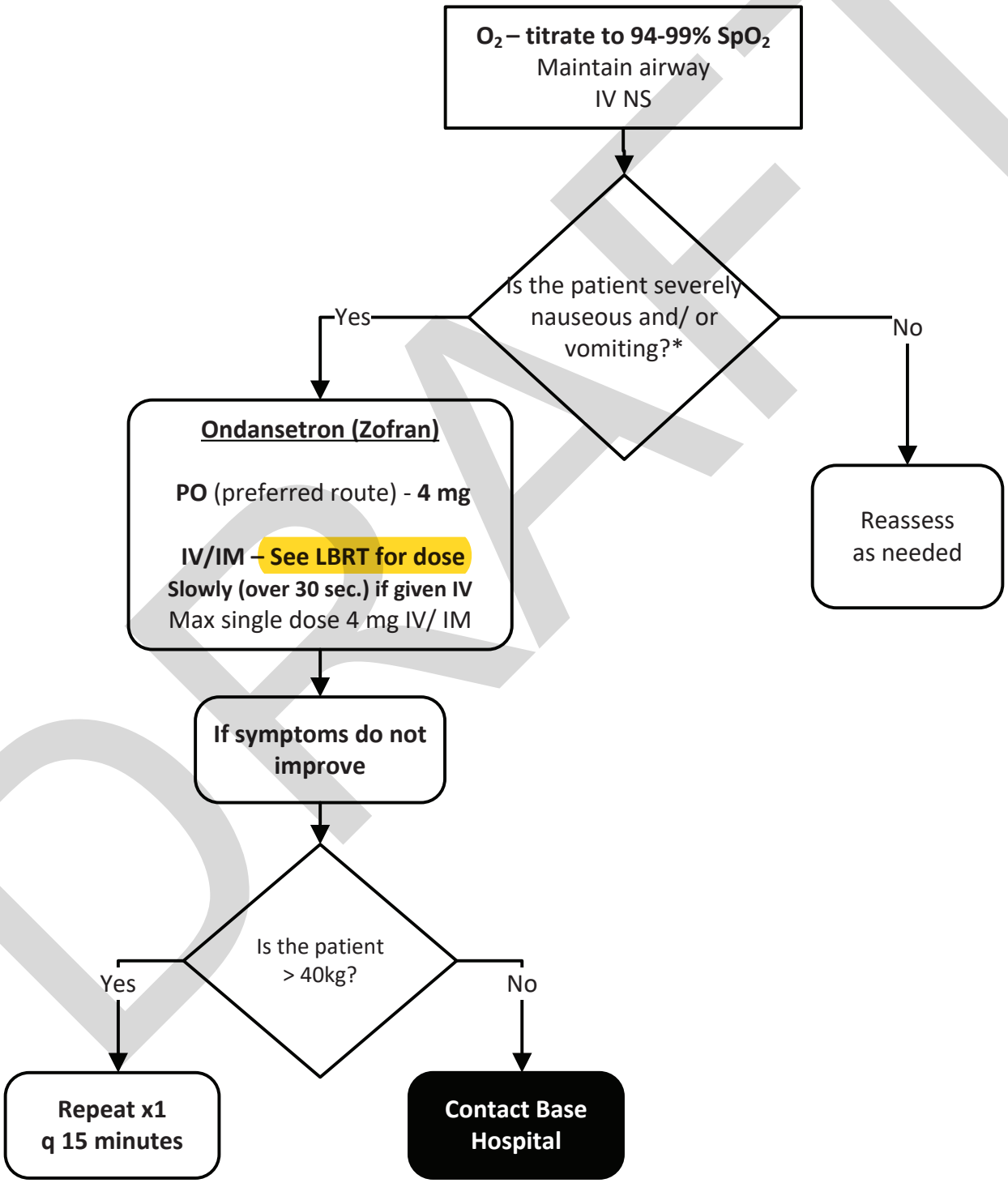
SEIZURE

- **Pediatric Routine Medical Care**
- Midazolam should not be given unless the patient is actively seizing - 3 or more seizures in ≤ 5 minutes or any seizure lasting > 5 minutes
- **Cooling Measures:** Loosen clothing and/or remove outer clothing/blankets
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



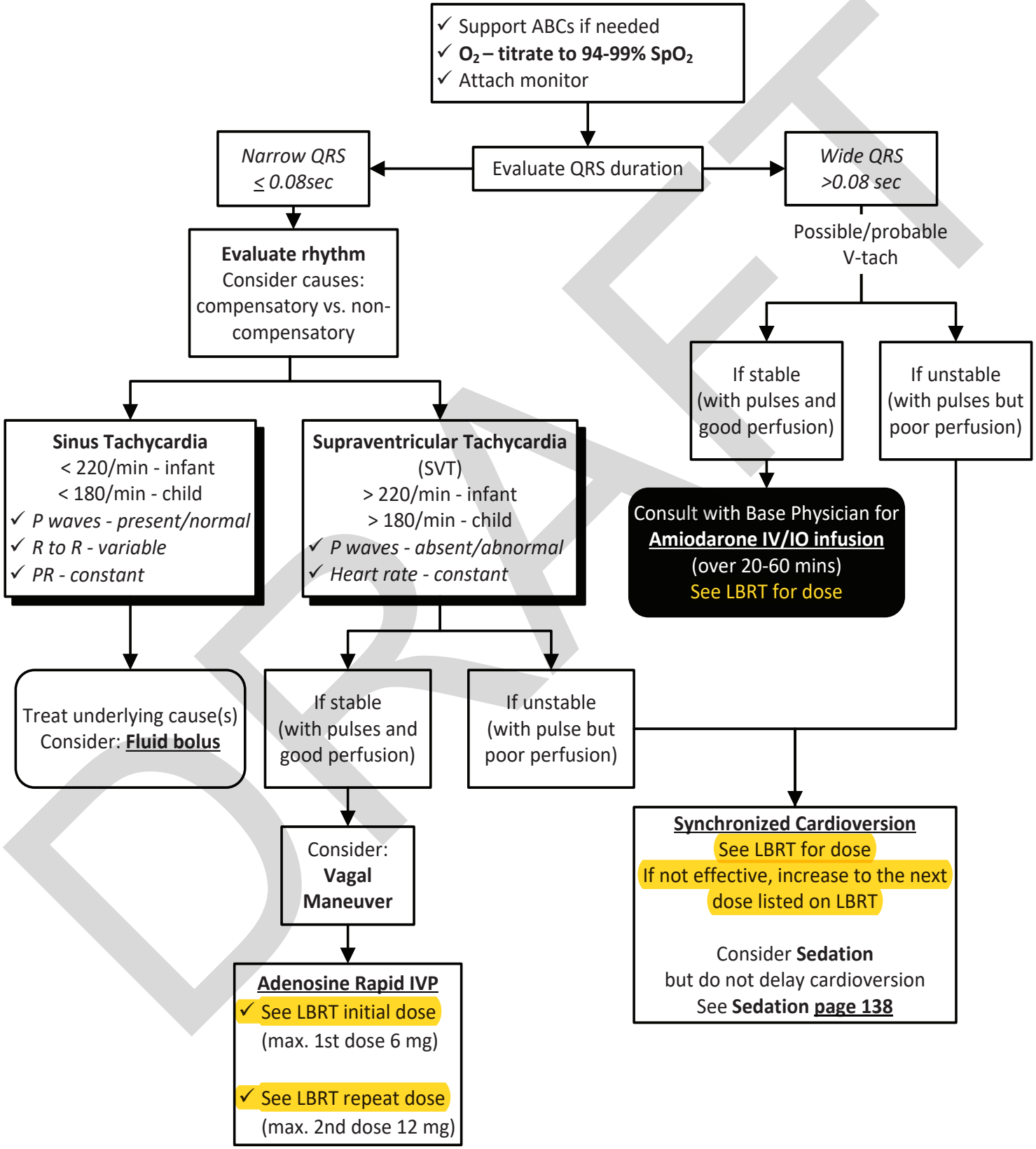
SEVERE NAUSEA

- **Routine Medical Care**
- **Indications:** Intractable vomiting or severe nausea in patients aged 4 years and older
- **Contraindications:** Hypersensitivity to 5-HT3 receptor antagonists (i.e. – dolasetron (Anzemet), granisetron (Kytril)
- **Note #1:** Consider other treatable causes
- **Note #2: Administering Zofran rapidly can cause syncope**
- **Note #3:** If patient has s/s of anaphylaxis/allergic reaction, follow Anaphylaxis/Allergic Reaction policy
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



TACHYCARDIA

- **Pediatric Routine Medical Care**
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)



ADVANCED AIRWAY MANAGEMENT

1. **INTRODUCTION:** The approved airway management procedure consists of endotracheal intubation (ETI) or insertion of a supraglottic airway (SGA) device.

   *****Nasotracheal intubation is NOT an approved skill in Alameda County*****

   1.1 Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary with all patients.

   1.2 For patients **≥ 40kg,** personnel are authorized to perform the skill of endotracheal intubation or placement of an SGA.

   1.3 For patients **< 40kg**, BVM ventilation is the preferred method of ventilatory management. If BVM ventilation is unsuccessful or impossible, a SGA device may be placed.

   1.4 **If advanced airway placement will interrupt chest compressions, providers may consider deferring insertion of the airway until the patient fails to responds to initial CPR and defibrillation or demonstrates ROSC (2015 AHA Guidelines)**

   1.5 Personnel must confirm tube placement (ETI or SGA) with capnography / capnometry, auscultation and physical assessment (auscultation, observation of chest rise, visualization of the tube passing through the cords, etc.). See Section #4.

2. **INDICATIONS:**

   2.1 Non-traumatic cardiac and/or respiratory arrest.

   2.2 Traumatic cardiac and/or respiratory arrest or severe ventilatory compromise where the airway cannot be adequately maintained by BLS techniques.

3. **APPROVED ADVANCED AIRWAY MANAGEMENT PROCEDURE:**

   3.1 **Endotracheal intubation**

   3.1.1 **Definition:** An intubation attempt is defined as the insertion of the laryngoscope blade into the patient's mouth.

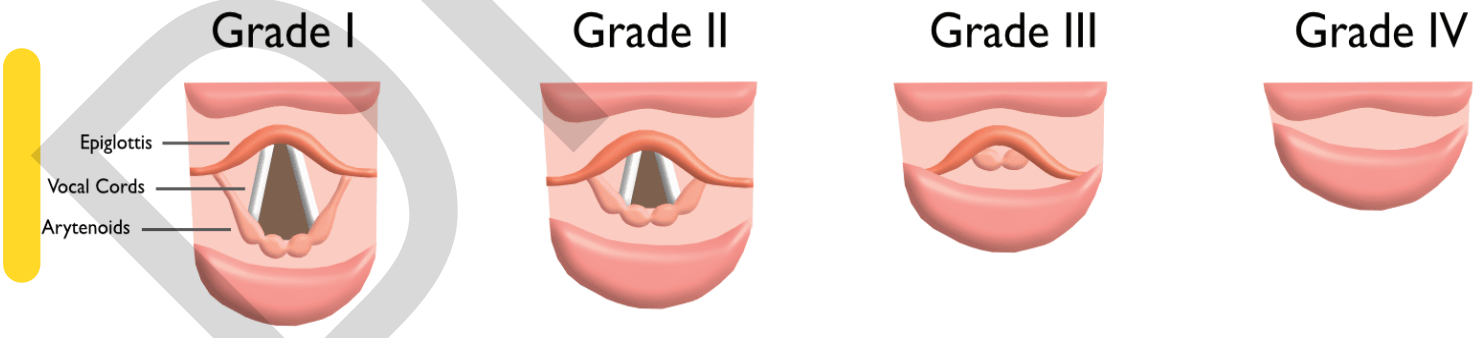
   3.1.2 All ETI attempts should be performed with two providers.

   3.1.3 All ETI attempts must utilize a gum elastic bougie device.

   3.1.4 The maximum ETT size that can be utilized for ETI is 7.0mm.

   3.1.5 Make no more than 2 total intubation attempts per patient. Each attempt should not last longer than 30 seconds. Ventilate with 100% oxygen for one minute prior to each attempt.

   3.1.6 If patient has a Cormack-Lehane* grade of 3 or 4 (epiglottis is not or is barely visible), consider primary use of a supraglottic airway.



   3.2 **Supraglottic Airway Device (i-gel®)**

   3.2.1 **Definition:** A supraglottic airway attempt is defined as the insertion of the supraglottic airway device into the patient's mouth.

   3.2.2 For patients **≥ 40kg,** a supraglottic airway (i-gel®) device may be placed as a primary airway (if Cormack-Lehane grade is 3 or 4) or after unsuccessful attempt(s) at endotracheal intubation.