



# Medical Directive

<b>Directive Number</b>	<b><u>15-07</u></b>
<b>Publish Date</b>	<b><u>26 August 2015</u></b>
<b>Effective Date</b>	<b><u>31 August 2015</u></b>
<b>Subject</b>	<b><u>Removal of Lidocaine Premixed Bags</u></b>
<b>Update to Clinical Operating Guidelines v 02.04.15</b>	

<b>Credentialed System Responder</b>	<b>Information</b>
<b>Credentialed EMT</b>	<b>Information</b>
<b>Credentialed EMT-Intermediate</b>	<b>Information</b>
<b>Credentialed EMT-Paramedic</b>	<b>Action</b>
<b>Credentialed EMD</b>	<b>Information</b>

Our System continues to be directly affected by National Medication Shortages. In view of the continuing national shortages of Premixed Lidocaine Bags, increased costs of purchasing them off contract and, the determination that most of the current lidocaine premixed bags on transport units are expiring on 8/31/15; the OMD is taking the following action:

1. We are removing use of Lidocaine premixed bags 250 mL and 500 mL from the COGs.
2. Adult Protocols CA-03, CA-06 and C-05 will be modified to allow additional bolus doses of prefilled Lidocaine at 1.5 mg/kg with OLMC. Refer to specific Protocol for details.

These changes become effective on August 31, 2015 at 0700 hours.

Thanks for all you do. As always, please let us know if you have any questions.

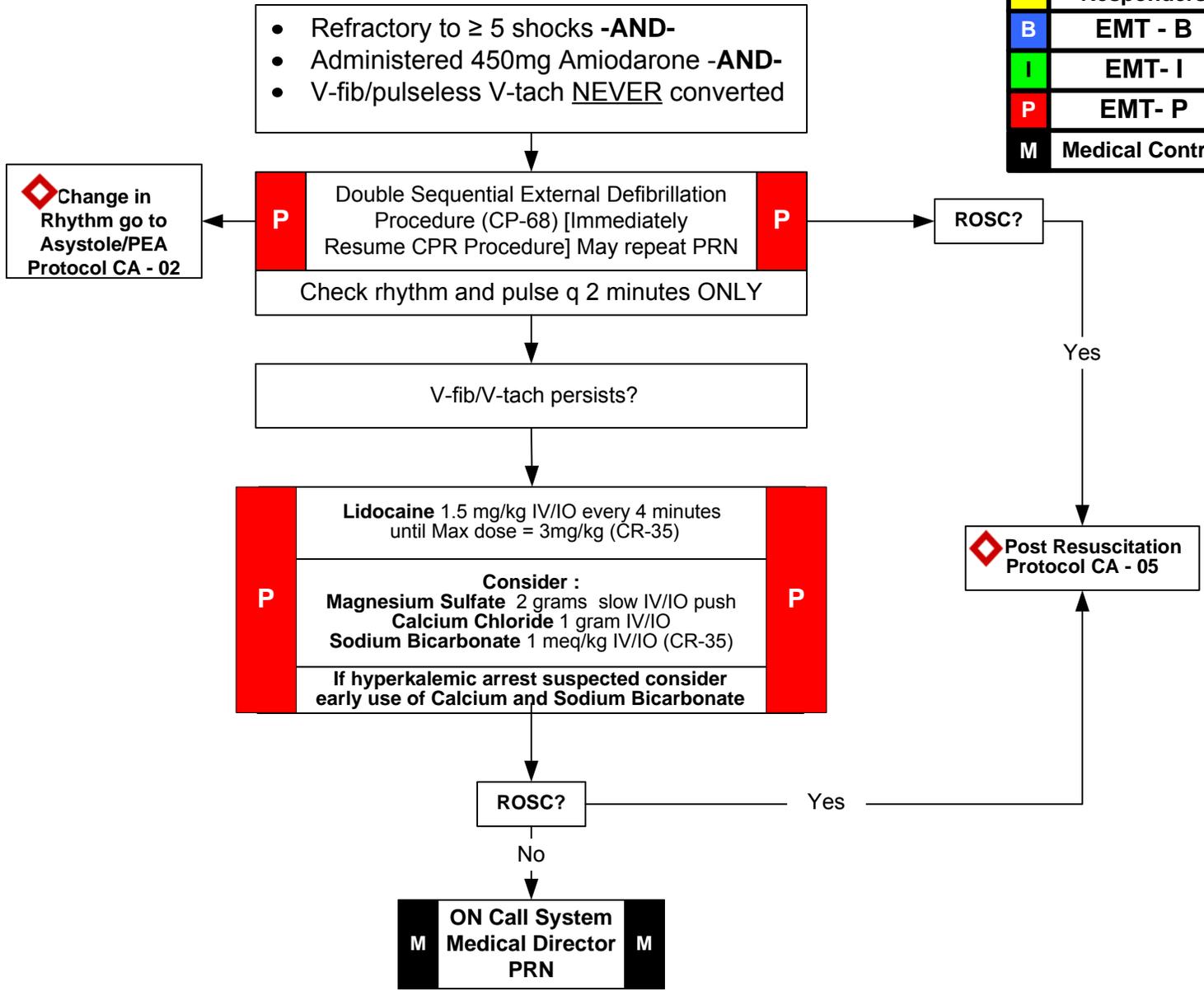
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# Persistent Ventricular Fibrillation & Pulseless Ventricular Tachycardia

Legend		
S	System Responders	S
B	EMT - B	B
I	EMT - I	I
P	EMT - P	P
M	Medical Control	M



**Pearls:**

- Continuous ETCO2 should be initiated as soon as practicable.
- Calcium and sodium bicarbonate should be given early if hyperkalemia is suspected (renal failure, dialysis)
- Tx priorities: uninterrupted compressions, defibrillation, then IV/IO and airway control.
- Polymorphic VT (Torsades) may benefit from Magnesium Sulfate. Slow push is over 5 minutes
- Effective CPR and prompt defibrillation are the keys to successful resuscitation.
- Prior to double sequential external shocks providers should verify that defibrillation pads are well-adhered to the patient and that they do not touch.
- Prolonged cardiac arrests may lead to tired providers and decreased compression quality. Ensure compressor rotation, summon additional resources as needed, and ensure provider rest and rehab during and post-event.
- Continue to use **primary monitor** for all event recording and data capture.
- Primary monitor **ONLY** is uploaded into e-pcr.
- Once criteria for DSED are met subsequent shocks should be delivered as DSED
- **If Lidocaine converts: contact OLMC for additional bolus doses of 1.5 mg/kg IV.**

# Ventricular Fibrillation & Pulseless Ventricular Tachycardia

<b>History:</b> <ul style="list-style-type: none"> <li>Estimated Down Time</li> <li>Past Medical History</li> <li>Medications</li> <li>Events leading to arrest</li> <li>Renal Failure / Dialysis</li> <li>DNR</li> </ul>	<b>Signs and Symptoms:</b> <ul style="list-style-type: none"> <li>Unresponsive, Apneic, Pulseless</li> <li>Ventricular fibrillation or ventricular tachycardia on ECG</li> </ul>	<b>Differential:</b> <ul style="list-style-type: none"> <li>Asystole</li> <li>Artifact / Device Failure</li> <li>Cardiac</li> <li>Endocrine / Medicine</li> <li>Drugs</li> <li>Pulmonary</li> </ul>
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## Cardiac Arrest Protocol CA - 01

**Defibrillation Procedure q2 minutes:**  
AED or Max. Energy Setting for manual device.  
Immediately Resume CPR Procedure CP-19

Check rhythm and pulse q 2 minutes ONLY

**Epinephrine 1:10,000 1mg IV/IO**  
Repeat q 4 minutes

**Amiodarone 300mg IV/IO push**  
Repeat in 4 min at 150 mg IV/IO push x 1

Refractory to ≥ 5 shocks, Administered 450mg Amiodarone, and V-fib/tach **NEVER** converted?

**Lidocaine 1.5 mg/kg IV/IO every 4 minutes**  
until Max dose = 3mg/kg (CR-35)

**Consider :**  
Magnesium Sulfate 2 grams slow IV/IO push  
Calcium Chloride 1 gram IV/IO  
Sodium Bicarbonate 1 meq/kg IV/IO (CR-35)

**If hyperkalemic arrest suspected consider early use of Calcium and Sodium Bicarbonate**

ROSC?

**ON Call System Medical Director**

**AT ANY TIME**  
Change in Rhythm go to Appropriate Protocol. (If Persistent V-Fib/Tach **reoccurs** return to Protocol CA - 06)

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**Persistent V-Fib/Tach Protocol CA - 06**

**Post Resuscitation Protocol CA - 05**

**Pearls:**

- ECAs, EMT-Basics and EMT-Intermediates may only use automated defibrillation (AED).
- Reassess and document ETT/BIAD placement after every move and at transfer of patient care.
- Continuous ET/CO2 should be initiated as soon as practicable.
- Calcium and sodium bicarbonate should be given early if hyperkalemia is suspected (renal failure, dialysis)
- Tx priorities: uninterrupted compressions, defibrillation, then IV/IO and airway control.
- Polymorphic VT (Torsades) may benefit from magnesium sulfate.
- Effective CPR and prompt defibrillation are the keys to successful resuscitation.
- Magnesium Sulfate slow push is over 5 minutes
- If Lidocaine converts: contact OLMC for additional bolus doses of 1.5 mg/kg IV.**

# Wide Complex Tachycardia With A Pulse

### History:

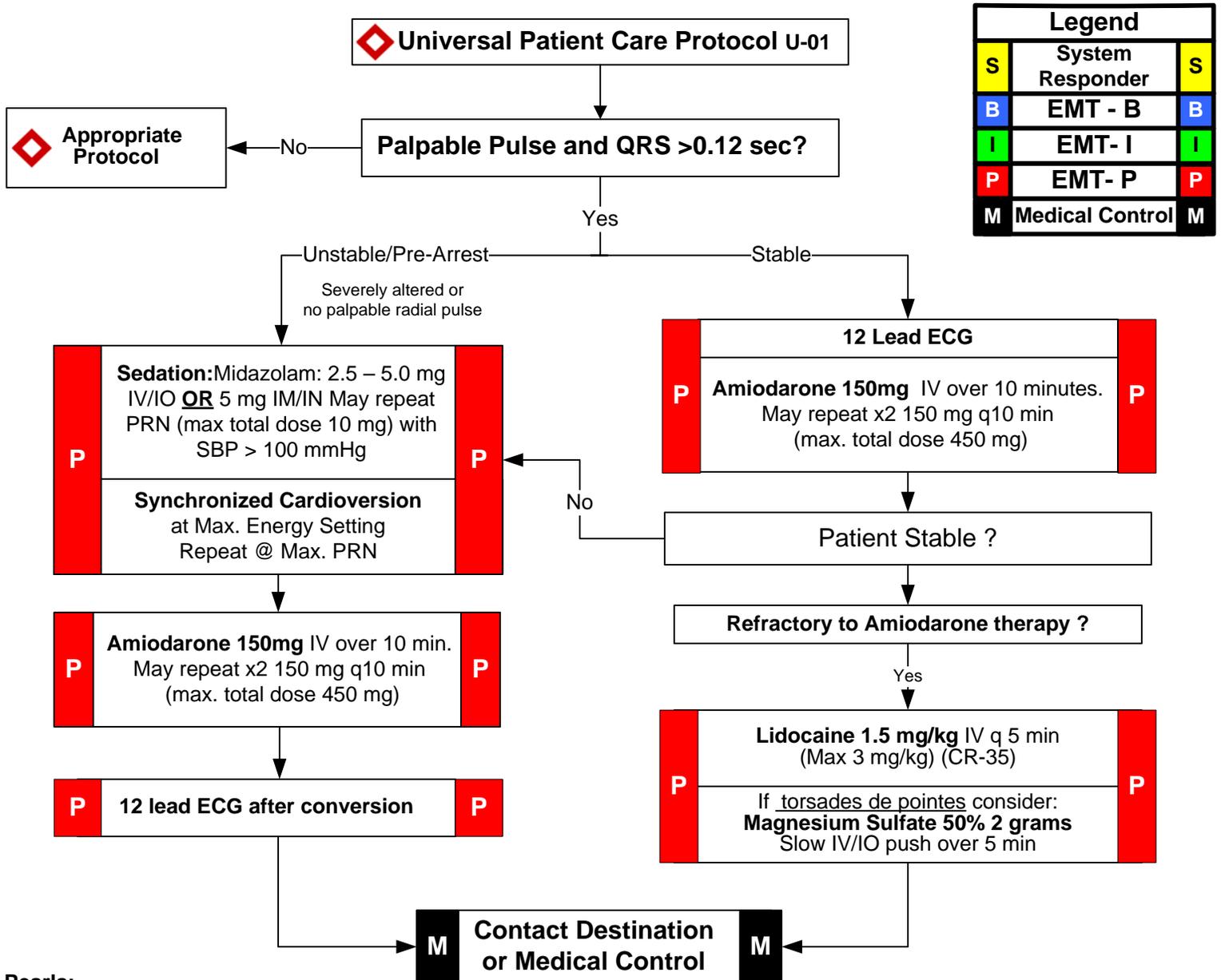
- Past medical history / medications, diet, drugs
- Syncope / Near syncope
- Palpitations
- Pacemaker
- Allergies: Lidocaine / Novocaine
- CAD, CHF, Cardiomyopathy

### Signs and Symptoms:

- Ventricular Tachycardia on ECG (Runs or Sustained)
- Conscious, rapid pulse
- Chest Pain, Shortness of Breath
- Dizziness
- Rate usually 150-180 bpm for sustained V-Tach

### Differential:

- Artifact / Device Failure
- Cardiac
- Endocrine/Electrolyte
- Hyperkalemia
- Drugs/Toxic exposure
- Pulmonary disease



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### Pearls:

- For witnessed / monitored ventricular tachycardia, try having patient cough
- Slow wide complex consider Hyperkalemia
- **If Lidocaine converts: contact OLMC for additional bolus doses of 1.5 mg/kg IV.**
- Maximum dose of antiarrhythmic should be given before changing antiarrhythmic.
- If hyperkalemia or tricyclic OD consider **Sodium Bicarbonate 1 mEq/kg** early in intervention.
- **Amiodarone: allow 10 minutes** after dose completed before next dose.