

POLICY: 554.05
TITLE: Ventricular Tachycardia with Pulses

EFFECTIVE: 9/16/2020
REVIEW: 9/2025
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

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VENTRICULAR TACHYCARDIA WITH PULSES

- I. AUTHORITY
Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9
- II. PURPOSE
To serve as a patient treatment standard for EMRs, EMTs, and Paramedics within their scope of practice.
- III. PROTOCOL
Regular or slightly irregular rhythm. Heart rate 100 to 200 (120 is common rate). A-V disassociation is present: P-waves may be seen unrelated to QRS complex. QRS complex distorted, wide (greater than 0.12 seconds) and bizarre. T-waves usually have opposite axis as QRS complex.

EMR STANDING ORDERS

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| Patient Assessment | Circulation, Airway and Breathing, assess vitals q 5 minutes |
| Oxygen Administration | Provide oxygen if appropriate and be prepared to support ventilations with a BVM |

EMT STANDING ORDERS

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| Note | Must perform items in EMR standing orders if applicable |
| Pulse Oximetry | Report initial reading to paramedic if applicable |
| Mentation | If Altered Level of Consciousness check blood glucose and refer to 554.31 Altered Level of Consciousness if BGL<60mg/dl |

PARAMEDIC STANDING ORDERS

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| Note | Must perform items in EMT standing orders if applicable |
| Cardiac Monitor | Identify heart rhythm and obtain 12-lead if time permits |
| IV/IO access | TKO. 250ml fluid challenge if systolic BP is <90mm/Hg. Repeat until BP improves |
| Amiodarone | If patient is stable, 150mg IV/IO infusion over 10 minutes. May repeat once if no change and patient remains stable |
| Lidocaine | If patient is stable 1.5mg/kg IV/IO. May repeat once at 0.75mg/kg IV/IO. Max total dose of 3mg/kg |

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| Synchronized Cardioversion | If patient is unstable (chest pain or ALOC or shortness of breath or systolic BP < 90), perform at escalating doses per manufacturer recommendation. Repeat attempt x2 at next energy dose. If conversion is successful, administer Amiodarone 150mg IV/IO infusion over 10 minutes or Lidocaine 0.5mg/kg IV/IO repeat Lidocaine every 10 minutes until Max total dose of 3 mg/kg is achieved. Record and document vital signs q 5 minutes. |
| Fentanyl | Consider for pain management. 50mcg IV/IO push if systolic BP>100 |

Clinical PEARLS

- Intravenous access is preferred over Intraosseous unless patient is unstable.
- Secure airway with simplest technique, i.e. BLS airway unless unable to manage.
- Obtain 12 lead post cardioversion and record findings in Patient Care Report.
- The use of capnography is recommended and should be considered during the use of analgesia.
- Never administer both Amiodarone and Lidocaine to the same patient.
- Reduce cardioversion dose by half for patient on Digitalis.
- If delays in synchronized cardioversion and patient is critical use unsynchronized shock.
- Avoid Lidocaine or Amiodarone post cardioversion if any AV Block or idioventricular dysrhythmias.
- Amiodarone is preferred in patients with known depressed ejection fraction (prior MI or CHF).