

SECTION: C-2

PROTOCOL TITLE: ADULT V-FIB/PULSELESS V-TACH

REVISED: 15 April 2006

GENERAL COMMENTS: Ever-changing Biphasic technology means that energy settings may change. Follow the current manufacturer's recommendations if they differ from those in this document.

Antiarrhythmic therapy should be continued to completion, unless a contraindication is noted, or rhythm changes to warrant a different therapy.

BLS SPECIFIC CARE: *See Adult Cardiac/Respiratory Arrest Protocol C-1*

ILS SPECIFIC CARE: *See Adult Cardiac/Respiratory Arrest Protocol C-1*

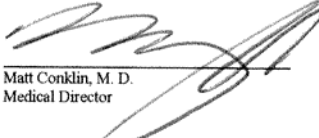
ALS SPECIFIC CARE: *See Adult Cardiac/Respiratory Arrest Protocol C-1*

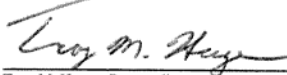
- Defibrillation settings:
 - SINGLE 200j shock immediately.
 - Subsequent defibrillation escalating at 300j ⇒ 360j. When previous AED defibrillation has occurred, the Paramedic may adjust defibrillation setting accordingly.
- Epinephrine
 - IV: 1 mg IVP every 3-5 minutes, or
 - ETT: 2-2.5 mg of 1:1,000 diluted to 8-10 cc every 3-5 minutes.

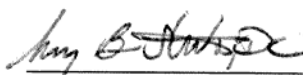
Anti-arrhythmic therapy:

- Lidocaine (Xylocaine)
 - IV: 1-1.5 mg/kg every 3-5 minutes to a max bolus of 3 mg/kg
 - ETT: 2-3 mg/kg (2 times IV dose) every 3-5 minutes to a max of 3 mg/kg or 300 mg in 30 minutes.
 - Maintenance Infusion: 2-4 mg/minute titrated for effect, to be initiated if V-fib/V-Tach resolves. Must rebolus with Lidocaine in 5-10 minutes after initiation of drip to reach therapeutic levels (unless max bolus dose has been reached).
 - Always give full initial dose, but reduce all subsequent doses by ½ for elderly (>70) or with impaired hepatic function.
- Magnesium Sulfate
 - IV: 1-2 g every 5 minutes, 1st line for Torsades or refractory V-Fib/Pulseless V-Tach. Take 2 g (4cc), dilute to a total of 20 cc to make 10% solution. Do not give faster than 1 g/minute.

ADULT V-FIB/PULSELESS V-TACH


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Protocol C-2

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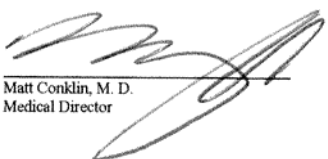
- Procainamide (Pronestyl)
 - Initial infusion IV: Mix 1 g in 50 cc (20 mg/cc) buretrol. Run 20-50 mg/min (60-150 gtts/min) until:
 - Max of 17 mg/kg
 - QRS widens by 50%
 - Hypotension develops (relative in arrest/post arrest scenarios)
 - Rhythm resolves
 - OPTIONAL BOLUS IN ARREST SITUATIONS: 100 mg IVP every 5 minutes.
 - Maintenance infusion: Mix 1 g/250 cc of NS. Run at 1-4 mg/minute (15-60 gtts/min).
 - Hold Procainamide for:
 - Torsades de Pointes
 - Uncorrected hypotension
 - Recent (24 hours) administration of IV Amiodarone or chronic oral Amiodarone administration.
 - Tricyclic antidepressant overdose
 - Myasthenia Gravis (relative)

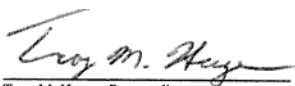
PHYSICIAN PEARLS:

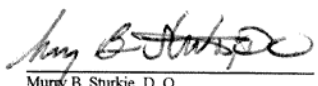
Consider hyperkalemia in cases of refractory V-Fib/V-Tach.

According to the AHA: “...for out-of-hospital cardiac arrest that is not witnessed by an EMS provider, rescuers may give a period of CPR (e.g. about 5 cycles or 2 minutes) before checking the rhythm and attempting defibrillation.” In addition, approx 5 cycles (2 to 3 minutes) of CPR, should be performed prior to the next rhythm check.

The AHA recommends a change to a 1 shock protocol. In its 2005 guidelines it states: “...frequent or long interruptions in precordial chest compressions for rhythm analysis or rescue breathing were associated with post resuscitation myocardial dysfunction and **reduced survival rates.**” The AHA further notes that: “...if 1 shock fails to eliminate VF, the incremental benefit of another shock is low, and **the resumption of CPR is likely to confer a greater value than another shock.**” Therefore when a shockable rhythm is found, **only one shock, instead of three stacked shocks, is recommended.**


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