Division: Emergency Medical Services Agency Effective Date: 08/01/2019

Protocol #643

VENTRICULAR TACHYCARDIA WITH PULSES	
ADULT	PEDIATRIC (≤34KG)
BLS	
Universal Protocol #601	Same as Adult
Pulse Oximetry	
 O₂ administration per Airway 	
Management Protocol #602	
ALS Standing Orders	
Stable	Stable
Lidocaine 1.5 mg/kg IV	 Lidocaine 1 mg/kg IV
 Repeat 0.75 mg/kg every 5-10 min (max 	 Repeat 0.5 mg/kg every 5-10 min
total dose 3 mg/kg)	(max total dose 3 mg/kg)
 Unstable Consider Midazolam up to 2 mg slow IV or 5 mg IN (split into two doses 2.5 mg each nostril) to pre-medicate Synchronized/Unsynchronized cardioversion sequences (see notes) Unresponsive to previous therapy Lidocaine 1.5 mg/kg IV May repeat 0.75 mg/kg every 5-10 min (max total dose 3 mg/kg) 	 Unstable Synchronized/Unsynchronized cardioversion sequences (see notes) Midazolam 0.1 mg/kg IV/IN not to exceed 2 mg to pre-medicate prior to cardioversion Unresponsive to previous therapy Lidocaine 1 mg/kg IV Repeat 0.5 mg/kg every 5-10 min (max total dose 3 mg/kg)
Base Hospital Orders Only	
Lidocaine post conversion or for potentially	Lidocaine post conversion
malignant PVCs	As needed
As needed	
Notes	

- Obtain a 12-lead ECG before and after conversion, if possible
- Vascular access may be omitted prior to cardioversion if in extremis
- QRS ≥ 0.12 seconds typical for VT in adults
- QRS ≥ 0.09 seconds typical for VT in pediatrics
- Malignant PVCs that may pose heightened risk of precipitating sustained dysrhythmias: short coupling interval <0.3 sec, multifocal, couplets, frequent occurrence
- Irregular Wide-complex tachycardia (Torsade's de Pointes) requires unsynchronized cardioversion
- Synchronized/Unsynchronized Sequences (if synchronized mode is unable to capture use unsynchronized cardioversion)
- Use manufacturer recommended energy settings if different from below

ADULT	PEDIATRIC
100 J	1 J/kg
120 J*	2 J/kg
150 J	2 J/kg
200 J	

(*start at 120J unsynchronized in adult patients with Torsade's de Pointes)