

# Wake County EMS System

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Clinical Checklist

## **Cardiac Arrest Checklist:**

- \_\_\_ Code Commander is identified
- \_\_\_ Monitor is visible and a dedicated provider is viewing the rhythm with all leads attached
- \_\_\_ Continuous compressions are on-going
- \_\_\_ O2 cylinder with oxygen in it is attached to BVM
- \_\_\_ Mask travels with bag, regardless of what airway is in place
- \_\_\_ EtCO2 waveform is present and value is being monitored
- \_\_\_ ITD is in place if appropriate
- \_\_\_ Access has been obtained (IV or IO)
- \_\_\_ Gastric distention is not a factor
- \_\_\_ Esophageal temperature probe is in place and temperature is visible
- \_\_\_ D50 and sodium bicarbonate have been considered and/or administered
- \_\_\_ Tension PTX has been considered
- \_\_\_ Family is receiving care and is at the patient's side



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## **Considerations for termination of resuscitation outside of procedure:**

- \_\_\_ Desires of family members
- \_\_\_ Initial rhythm and witnessed status  
Asystole ~1% survival, PEA ~10% survival, VF/VT ~40% survival
- \_\_\_ Current EtCO<sub>2</sub> level (<20 mmHg with good waveform – low survival)
- \_\_\_ Refer to Discontinuation Form for criteria

## **PEARLS/Considerations**

- \_\_\_ Unwitnessed arrest: 2 minutes of CPR prior to shock
- \_\_\_ Renal Failure consider Bicarb and Calcium early
- \_\_\_ Dig Toxic = NO Calcium
- \_\_\_ NO Calcium with Magnesium
- \_\_\_ Consider Procainamide for refractory v-fib
- \_\_\_ Consider H's & T's in PEA/Asystole arrest

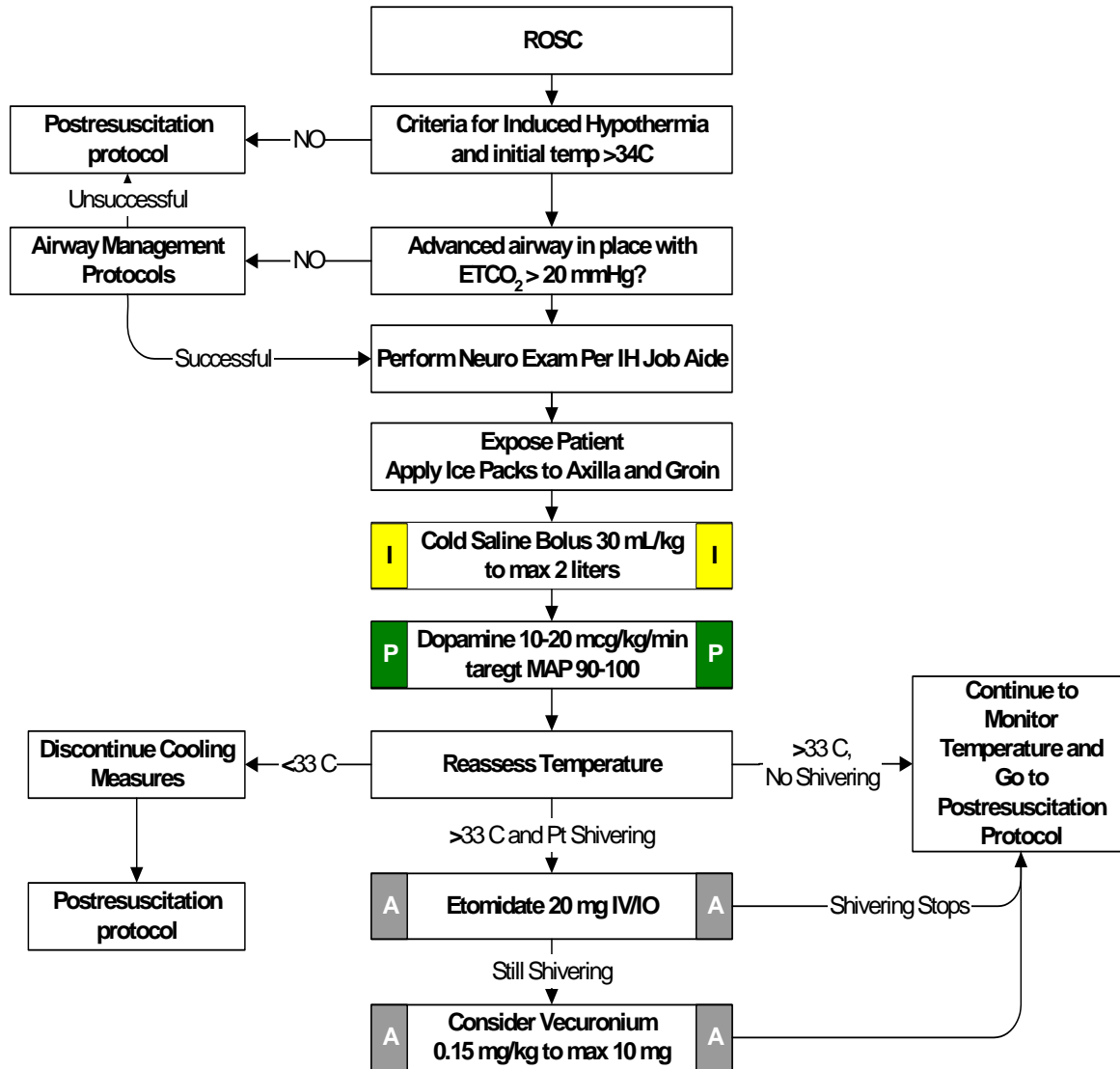


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## ICE Protocol



### Pearls:

- Criteria for Induced Hypothermia
- ROSC not related to blunt/penetrating trauma or hemorrhage
- Age 12 or older with adult body habitus
- Temperature after ROSC greater than 34 C degrees
- Advanced airway in place with no purposeful response to pain
- If no advanced airway can be obtained, cooling may only be initiated on order from online medical control
- Take care to protect patient modesty. Undergarments may remain in place during cooling
- Do not delay transport to cool
- Frequently monitor airway, especially after each patient move
- Patients may develop metabolic alkalosis with cooling. Do not hyperventilate



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## Induction of Hypothermia

<b>Etomidate</b>			
<b>For Etomidate 2mg/mL only</b>	<b>All Patients Eligible for Induction Receive 20 mg = (10 cc)</b>		
<b>Vecuronium</b>			
<b>For Vecuronium 1mg/ml only. 0.15mg/kg to max 10mg.</b>	<b>Weight</b>	<b>Dose (mg)</b>	<b>Volume (cc)</b>
	<b>30</b>	<b>3</b>	<b>3</b>
	<b>35</b>	<b>3.5</b>	<b>3.5</b>
	<b>40</b>	<b>4</b>	<b>4</b>
	<b>45</b>	<b>4.5</b>	<b>4.5</b>
	<b>50</b>	<b>5</b>	<b>5</b>
	<b>55</b>	<b>5.5</b>	<b>5.5</b>
	<b>60</b>	<b>6</b>	<b>6</b>
	<b>65</b>	<b>6.5</b>	<b>6.5</b>
	<b>70</b>	<b>7</b>	<b>7</b>
	<b>75</b>	<b>7.5</b>	<b>7.5</b>
	<b>80</b>	<b>8</b>	<b>8</b>
	<b>85</b>	<b>8.5</b>	<b>8.5</b>
	<b>90</b>	<b>9</b>	<b>9</b>
	<b>95</b>	<b>9.5</b>	<b>9.5</b>
	<b>100</b>	<b>10</b>	<b>10</b>



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## **Trauma 1 & Alert Criteria**

“Trauma 1 Due to \_\_\_\_\_”

- BP < 90, RR < 8
- GCS < 8
- Penetrating injury to head, neck or torso
- Paralysis
- Airway Compromise
- Respiratory Distress

## **OB Trauma 1**

22 weeks or greater with potential for injury, or meeting alert criteria, or restrained on a long spine board

## **Pediatric Trauma 1**

Less than 12 years of age with potential for injury or meeting adult trauma 1 or trauma alert criteria

## **Trauma Alert**

“Trauma Alert Due to \_\_\_\_\_”

- Altered Mental Status (GCS 9-12)
- Flail chest or multiple rib fractures
- Blunt chest trauma
- Abdominal pain after blunt trauma
- Pelvic pain/pelvic fractures
- 2 or more long bone fractures
- Pulse > 120 after traumatic injury with BP > 90
- Extremity injury with potential for loss of limb
- Significant vascular injuries
- Burns with potential airway compromise
- Age > 60 with significant mechanism of injury
- Pedestrian struck by car
- Ejection from vehicle
- MVC with speed > 40 mph
- Fall greater than 20 ft or more than 2x pt's height



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## GCS

### **Eyes Open**

- Spontaneous (4)
- To Voice (3)
- To pain (2)
- None (1)

### **Best Verbal**

- Oriented (5)
- Confused (4)
- Inappropriate (3)
- Garbled (2)
- None (1)

### **Best Motor**

- Obeys (6)
- Pain-Local (5)
- Pain withdrawal (4)
- Pain-Flexion (3)
- Pain-Extended (2)
- None (1)



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## **CHF Checklist**

- \_\_\_ CPAP
- \_\_\_ NTG & Vasotec for HTN
- \_\_\_ Dopamine & Fluids for hypotension
- \_\_\_ 12-Lead for suspected AMI

## **Asthma Checklist**

- \_\_\_ CO2 & O2 readings
- \_\_\_ Consider Magnesium
- \_\_\_ Epi IV for severe cases ONLY
- \_\_\_ CPAP with Albuterol



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## Determining Capacity

### \_\_\_ Legal Capacity

- Ensure at least 18 years of age
- If < 18 y.o. must be married or have a decree from courts
- Pt's with court decree of incapacity cannot refuse care

### \_\_\_ Mental Capacity

- Start with the presumption that all patients are mentally competent unless your assessment clearly indicates otherwise
- Ensure that patient is oriented to person, place, time and purpose
- Establish that patient is not a danger to himself or others
- Ensure that patient is capable of understanding the risks of refusing care or transportation and any proposed alternatives
- Check to be sure that patient is exhibiting no other signs or symptoms of potential mental incapacity, including drug or alcohol intoxication, unsteady gait, slurred speech, etc.
- Ask patient to echo back information you provide including:
  - The lack of a complete evaluation
  - The risks of undiagnosed illness

### \_\_\_ Medical or Situational Capacity

- Ensure that patient is suffering from no acute medical conditions that might impair his or her ability to make an informed decision to refuse care or transportation
- If possible, rule out conditions such as hypovolemia, hypoxia, head trauma, unequal pupils, metabolic emergencies (e.g., diabetic issues); hypothermia, hyperthermia, etc.
- Attempt to determine if patient lost consciousness for any period of time
- If any conditions above impair patient's decision making ability, patient *may* not have the capacity to refuse care and your documentation should clearly establish that the patient understood the risks, benefits and advice given to him





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## Cardizem (Diltiazem) Dosing

<b>First Dose</b>			
<b>Cardizem (25mg/5 ml ONLY) First Dose: 0.25 mg/kg. Give over 2 mins. Max 20 mg per dose</b>	<b>Weight (kg)</b>	<b>Dose (.25mg/kg)</b>	<b>Volume (cc)</b>
	20	5	1
	25	6.25	1.25
	30	7.5	1.5
	35	8.75	1.75
	40	10	2
	45	11.25	2.25
	50	12.5	2.5
	55	13.75	2.75
	60	15	3
	65	16.25	3.25
	70	17.5	3.5
	75	18.75	3.75
	80+	20	4
<b>MAX DOSE 20 mg</b>			



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## Cardizem (Diltiazem) Dosing cont.

Second Dose			
Cardizem (25mg/5 ml ONLY) Second Dose: 0.35 mg/kg. Give over 2 mins. Max 20 mg per dose	Weight (kg)	Dose (.35mg/kg)	Volume (cc)
	20	7	1.4
	25	8.75	1.75
	30	10.5	2.1
	35	12.25	2.45
	40	14	2.8
	45	15.75	3.15
	50	17.5	3.5
	55	19.25	3.85
	60+	20	4
	<b>Maximum Dose is 20 mg/dose, even at 0.35 mg/kg. For 60+ kg pt weight, use 20 mg.</b>		



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## Epinephrine

<b>Adult Bradycardia with Pulse</b>			
<b>Epi Infusion (60 gtt/mL set):</b> 1mg of 1:1000 in 250 NS Give 1 mcg/min to HR < 60	<b>Dose</b>	<b>Drips/Min Micro Drip</b>	<b>Appr Time</b>
	1 mcg/min	15	1 gtt/4 secs
	2 mcg/min	30	1 gtt/2 secs
	3 mcg/min	45	2 gtt/3 secs
	4 mcg/min	60	1 gtt/sec
<b>Adult Cardiac Arrest</b>			
<b>Epi Infusion (10 gtt/mL set):</b> Inject 12 mL of Epi 1:1000 in 250 mL NS	<b>Dose</b>	<b>Drips/Min Macro Drip</b>	<b>Appr Time</b>
	1 mg / 3 min	72 gtts	6 drops / 5sec
	1 mg / 5 min	44 gtts	2 drops / 3sec



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## Amiodarone

<b>Pediatric Pulseless Arrest</b>			
<b>Amiodarone 50mg/mL ONLY</b>	<b>Weight (kg)</b>	<b>Dose (5mg/kg)</b>	<b>Volume (cc)</b>
	5	25	0.5
	10	50	1
	15	75	1.5
	20	100	2
	25	125	2.5
	30	150	3
	35	175	3.5
	40	200	4
	45	225	4.5
	50	250	5
	55	275	5.5
	60 +	300	6



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## Dopamine Dosing Chart

Values below are drips/min on a 60 drip/mL (Micro Drip) set				
Weight (kg)	5 mcg/kg/min	10 mcg/kg/min	15 mcg/kg/min	20 mcg/kg/min
30	6	12	18	24
35	7	13	19	25
40	8	15	22	29
45	8	17	26	35
50	9	19	29	39
55	10	21	32	43
60	11	23	35	47
65	12	24	36	48
70	13	26	39	52
75	14	28	42	56
80	15	30	45	60
85	16	32	48	64
90	17	34	51	68
95	18	36	54	72
100	19	38	57	76
105	20	39	58	77
110	21	41	61	81



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## Dopamine Dosing Chart Cont.

<b>Approx. Timing on a 60 drip/mL (Micro Drip) set from calculations above</b>				
<b>Weight (kg)</b>	<b>5 mcg/kg/min</b>	<b>10 mcg/kg/min</b>	<b>15 mcg/kg/min</b>	<b>20 mcg/kg/min</b>
30	1 drip/10 secs	1 drip/5 secs	1 drip/ 3 secs	2 drips/5 secs
35	1 drip/10 secs	1 drip/5 secs	1 drip/ 3 secs	2 drips/5 secs
40	1 drip/8 secs	1 drip/4 secs	2 drips/ 3 secs	1 drip/2 secs
45	1 drip/8 secs	1 drip/4 secs	2 drips/3 secs	1 drip/2 secs
50	1 drip/6 secs	1 drip/ 3 secs	1 drip/2 secs	2 drips/3 secs
55	1 drip/6 secs	1 drip/ 3 secs	1 drip/2 secs	2 drips/3 secs
60	1 drip/6 secs	1 drip/3 secs	1 drip/2 secs	4 drips/5 secs
65	1 drip/5 secs	2 drips/5 secs	3 drips/5 secs	4 drips/5 secs
70	1 drip/5 secs	2 drips/5 secs	2 drips/3 secs	4 drips/5 secs
75	1 drip/4 secs	1 drip/2 secs	2 drips/3 secs	1 drip/ sec
80	1 drip/4 secs	1 drip/2 secs	3 drips/4secs	1 drip/sec
85	1 drip/4 secs	1 drip/2 secs	4 drips/5secs	1 drip/sec
90	1 drip/4 secs	1 drip/2 secs	4 drips/5secs	1 drip/sec
95	3 drips/10 secs	3 drips/5 secs	1 drip/sec	6 drips/5 secs
100	1 drip/3 secs	2 drips/3 secs	1 drip/sec	6 drips/5 secs
105	1 drip/3 secs	2 drips/3 secs	1 drip/sec	4 drips/3 secs
110	1 drip/3 secs	2 drips/3 secs	1 drip/sec	4 drips/3 secs



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## Pediatric Versed Dosing

Pediatric Seizure									
For Versed 1mg/ml only. 0.05 to 0.1 mg/kg IV or 0.2 mg/kg IM or IN to max 5 mg.	0.05 mg/kg (IV)			0.1 mg/kg (IV)			0.2 mg/kg (IM/IN)		
	Weight (kg)	Dose (mg)	Volume (cc)	Weight (kg)	Dose (mg)	Volume (cc)	Weight (kg)	Dose (mg)	Volume (cc)
	2	0.1	0.1	2	0.2	0.2	2	0.4	0.4
	4	0.2	0.2	4	0.4	0.4	4	0.8	0.8
	6	0.3	0.3	6	0.6	0.6	6	1.2	1.2
	8	0.4	0.4	8	0.8	0.8	8	1.6	1.6
	10	0.5	0.5	10	1	1	10	2	2
	12	0.6	0.6	12	1.2	1.2	12	2.4	2.4
	14	0.7	0.7	14	1.4	1.4	14	2.8	2.8
	16	0.8	0.8	16	1.6	1.6	16	3.2	3.2
	18	0.9	0.9	18	1.8	1.8	18	3.6	3.6
	20	1	1	20	2	2	20	4	4
	22	1.1	1.1	22	2.2	2.2	22	4.4	4.4
	24	1.2	1.2	24	2.4	2.4	24	4.8	4.8
	26	1.3	1.3	26	2.6	2.6	26	For IV or IN route: if patient weight is 21 kg or greater, then 5 mg (4 cc) is maximum dose	
	28	1.4	1.4	28	2.8	2.8	28		
	30	1.5	1.5	30	3	3	30		
	32	1.6	1.6	32	3.2	3.2	32		
	34	1.7	1.7	34	3.4	3.4	34		
	36	1.8	1.8	36	3.6	3.6	36		
38	1.9	1.9	38	3.8	3.8	38			
40	2	2	40	4	4	40			
42	2.1	2.1	42	4.2	4.2	42			
44	2.2	2.2	44	4.4	4.4	44			
46	2.3	2.3	46	4.6	4.6	46			
48	2.4	2.4	48	4.8	4.8	48			
50	2.5	2.5	50	5	5	50			

