



## **PROTOCOL 16**                      VENTRICULAR TACHYCARDIA WITH A PULSE; STABLE **(a)**

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1. Initiate Routine Medical Care.
2. AMIODARONE 150 mg/ 20 ml IV over 10 minutes **(c)**; May repeat every 10 minutes if VT persists.

**OR**

PROCAINAMIDE 20 mg/min IV **(c)**, to a maximum dose of 17 mg/kg. **(b)**

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### **MEDICAL CONTROL OPTIONS**

- LIDOCAINE 0.5 - 1.5 mg/kg IVP. **(c)**
- LIDOCAINE infusion at 3 - 4 mg/min. **(c)**
- PROCAINAMIDE 20 mg/min IVP up to a maximum of 17 mg/kg. **(b, c)**
- PROCAINAMIDE infusion 1 - 4 mg/min **(b, c)**
- AMIODARONE 150 mg/ 20 ml IV over 10 minutes. **(c)**
- AMIODARONE 1.0 mg/min infusion in D<sub>5</sub>W. **(c)**
- ADENOSINE 6 mg or 12 mg IVP; if ineffective, may immediately repeat at 12 mg bolus up to total dose of 30 mg; follow each dose with 20 ml saline bolus.

<b>N.B.</b> ANY WIDE COMPLEX TACHYCARDIA SHOULD BE TREATED AS VENTRICULAR TACHYCARDIA.
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### **FOOTNOTES**

- a. Stable indicates the absence of symptoms (chest pain or dyspnea), CHF, ischemia, infarction, hypotension (SBP < 90), or altered consciousness.
- b. Stop PROCAINAMIDE if hypotension occurs, or if the QRS widens more than 50%, or if VT resolves.
- c. It is recommended that not more than one antiarrhythmic agent be used on any patient.



## **PROTOCOL 17**      VENTRICULAR TACHYCARDIA WITH A PULSE; UNSTABLE **(a)**

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1. Initiate Routine Medical Care.
2. CARDIOVERT at 100 joules. **(b)** If not successful, CARDIOVERT at 200 joules. If not successful, CARDIOVERT at 300 joules. If not successful, CARDIOVERT at 360 joules.
3. If rhythm fails to covert to a supraventricular rhythm **AND** the patient remains in an unstable ventricular tachycardia, administer:

AMIODARONE 150mg / 20 ml IV over 10 minutes **(e)**; may be repeated every 10 minutes.

**OR**

LIDOCAINE 1.5 mg/kg IVP **(e)**; may be repeated in 5 - 10 minutes **ONCE**.

4. If patient converts to a supraventricular rhythm prior to any antiarrhythmic drug administration, administer:

AMIODARONE 150 mg/ 20ml IV over 10 minutes and then an infusion of 0.5 mg/min in D<sub>5</sub>W. **(e)**

**OR**

LIDOCAINE 1.0 mg/kg IV and then an infusion of 2 mg/min. **(e)**

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### **MEDICAL CONTROL OPTIONS**

- CARDIOVERT at 200 joules, 300 joules, 360 joules. **(c)**
- LIDOCAINE 0.5mg – 1.5 mg/kg IVP. **(e)**
- LIDOCAINE infusion at 2 - 4 mg/min. **(e)**
- AMIODARONE 150 mg IV over 10 minutes. **(e)**
- AMIODARONE infusion 1.0 mg/min in D<sub>5</sub>W. **(e)**
- MORPHINE SULFATE 2 - 5 mg IV bolus up to total dose of 15 mg.

***PROTOCOL 17 CONTINUED ON NEXT PAGE***



## **PROTOCOL 17 (MEDICAL CONTROL OPTIONS CONTINUED)**

- PROCAINAMIDE 20 mg/min IV until VT resolves or up to 17mg/kg. **(d, e)**
- PROCAINAMIDE 1 - 4 mg/min IV infusion. **(d, e)**
- MAGNESIUM SULFATE 1 - 2 grams IV over 5 minutes.
- DIAZEPAM 5 mg slow IVP
- MIDAZOLAM 2 - 5 mg slow IVP

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### **FOOTNOTES**

- a. Unstable denotes symptoms (chest pain, dyspnea) CHF, ischemia, infarction, hypotension (SBP<90), or altered mental status.
- b. If the patient is conscious, consider contacting Medical Control for sedation.
- c. If patient presents with hypotension, unconsciousness, pulmonary edema, or if SYNCHRONOUS CARDIOVERSION cannot be accomplished for technical reasons, use ASYNCHRONOUS CARDIOVERSION.
- d. Stop PROCAINAMIDE if hypotension occurs, or if the QRS widens more than 50% or if VT resolves.
- e. It is recommended that not more than one antiarrhythmic agent be used on any patient.



## **PROTOCOL 18      SUSPECTED MYOCARDIAL INFARCTION**

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1. Initiate Routine Medical Care.
2. EKG monitor, with 12 lead whenever possible.
3. If chest pain is present and the patient is stable **(a)** administer NITROGLYCERIN 0.4 mg SL or spray; May be repeated every 5 minutes as needed.
4. ASPIRIN 81 mg tablets (up to 4 tablets) if the patient hasn't taken any aspirin that day.
5. NITROGLYCERIN OINTMENT 2%: ½ to 2 inches.

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### **MEDICAL CONTROL OPTIONS**

- MORPHINE SULFATE 2 - 5 mg IVP. Can be repeated up to a maximum of 15 mg.
- ASPIRIN 81 mg (up to 4 tablets)
- NALOXONE 0.4 – 2.0 mg IVP

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### **FOOTNOTES**

- a. Stable is defined as normal vital signs without evidence of inadequate perfusion (i.e. pallor, cool damp skin, SBP 100 or less) altered mental status.

<b>N.B.</b> SEE <b>APPENDIX C</b> FOR CONSIDERATION OF THROMBOLYTIC THERAPY ELIGIBILITY
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## **PROTOCOL 19      BRADYARRHYTHMIAS**

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1.      Initiate Routine Medical Care.

FOR ANY PATIENT WITH A VENTRICULAR RATE LESS THAN 60 BPM **AND** IS HEMODYNAMICALLY UNSTABLE:

2.      ATROPINE 0.5 mg IVP. If inadequate response within 3 minutes, administer an additional dose at 0.5 mg IVP.
3.      If inadequate response to ATROPINE, consider TRANSCUTANEOUS PACING.

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### **MEDICAL CONTROL OPTIONS**

- ATROPINE 0.5 - 1.0 mg IVP every 3 minutes to a maximum of 0.04 mg/kg
- TRANSCUTANEOUS PACING; consider DIAZEPAM 2 - 10mg slow IVP or MORPHINE SULFATE 2 - 10 mg IV or MIDAZOLAM 2 - 5mg slow IVP for sedation.
- FLUID CHALLENGE of Normal Saline (300 – 500 ml rapid infusion)
- DOPAMINE HCL 400 mg in 250 ml of Normal Saline; initial rate of 5 - 10 mcg/kg/min titrated upwards q 5 minutes in increments of 5 mcg/kg/min until the desired therapeutic effect is achieved (maximum dose of 25 mcg/kg/min).
- EPINEPHRINE 1:10,000 1.0 mg/ 250 ml Normal Saline (4 mcg/ml); administer at a rate of 2 - 10 mcg/min, titrated to SBP 100.



## **PEDIATRIC PROTOCOL 19a BRADYARRHYTHMIAS**

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1. Initiate Routine Medical Care.

FOR ANY PATIENT WITH A VENTRICULAR RATE LESS THAN 60 BPM **AND** IS HEMODYNAMICALLY UNSTABLE:

2. Hyperventilate with 100% Oxygen with BVM.
3. EPINEPHRINE 1:10,000 0.01 mg/kg IV or IO; or 1:1,000 0.1mg/kg ET.
4. ATROPINE 0.02 mg/kg IV or IO, 0.04 mg/kg ET, may repeat twice.

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### **MEDICAL CONTROL OPTIONS**

- FLUID CHALLENGE of Normal Saline at 10 - 20 ml/kg.
- EPINEPHRINE 1:10,000 0.01 mg/kg IV or IO; or 1:1,000 0.1 mg/kg ET.
- TRANSCUTANEOUS PACING.
- MORPHINE SULFATE 0.1 mg/kg IV or IO.
- DIAZEPAM 0.1 mg/kg IV over 2 minutes.
- MIDAZOLAM:

6 mos to 5 years:	0.05 - 0.1 mg/kg slow IVP/IO
6 years to 12 years:	0.025 - 0.05 mg/kg slow IVP/IO
13 years to 15 years:	2 - 5 mg slow IVP/IO

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## **PROTOCOL 20** ACUTE PULMONARY EDEMA / CONGESTIVE HEART FAILURE (SYSTOLIC BP > 100)

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1. Initiate Routine Medical Care.
2. NITROGLYCERIN 0.4 mg SL or spray; may be repeated every 5 minutes if vitals are stable.
3. FUROSEMIDE 40 - 80 mg IVP.
4. NITROGLYCERIN OINMENT 2%: ½ - 2 inches.

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### **MEDICAL CONTROL OPTIONS**

- NITROGLYCERIN 0.4 mg SL or spray.
- FUROSEMIDE 40 - 80 mg IVP.
- MORPHINE SULFATE 2 - 5 mg IVP (may be repeated to a maximum of 15 mg).
- NITROGLYCERIN OINTMENT 2%: ½ - 2 inches.
- ALBUTEROL 2.5 mg/ 3 ml Normal Saline via nebulizer; may be repeated as directed.
- NALOXONE 0.4 - 2.0 mg IVP



## **PROTOCOL 21**                      **NON-TRAUMATIC SHOCK** **(CARDIOGENIC, SEPTIC)**

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1.     Initiate Routine Medical Care.
2.     Fluid challenge of 250ml Normal Saline; may be repeated as needed if SBP is 100 or less. Avoid in the presence of pulmonary edema.
3.     DOPAMINE 400 mg/ 250 ml Normal Saline, initiate drip at 5 - 10 mcg/kg/min. If there is insufficient improvement in status, the infusion rate may be titrated upward in increments of 5 mcg/kg/min until desired therapeutic effect is reached (maximum dose of 25 mcg/kg/min).



# **PEDIATRIC PROTOCOL 21a**

## **NON-TRAUMATIC SHOCK (CARDIOGENIC, SEPTIC)**

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1. Initiate Routine Medical Care.
2. Fluid Challenge of 20 ml/kg of Normal Saline.

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### **MEDICAL CONTROL OPTIONS**

- FLUID CHALLENGE of 20 ml/kg; may be repeated.
- EPINEPHRINE INFUSION starting at 0.1 - 1.0 mcg/kg/min.



## **PROTOCOL 22      SUPRAVENTRICULAR TACHYCARDIA**

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1.     Initiate Routine Medical Care.
2.     IF PATIENT IS **STABLE**:
  - d)     Perform a VAGAL MANEUVER if possible; may be repeated if necessary.
  - e)     ADENOSINE 6 mg IVP; if ineffective after 2 minutes, give ADENOSINE 12 mg IVP; may be repeated once if ineffective. Follow each dose with 20 ml Normal Saline bolus.
3.     **IF PATIENT IS UNSTABLE AND UNCONSCIOUS:**

Synchronized **CARDIOVERSION** starting at 100 Joules; if no change, 200 Joules; if no change 300 Joules; if no change 360 Joules.
4.     **IF PATIENT IS UNSTABLE AND CONSCIOUS:**

CONTACT MEDICAL CONTROL

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### **MEDICAL CONTROL OPTIONS**

- ADENOSINE 6 mg or 12 mg IVP; if ineffective, may immediately repeat at 12 mg bolus up to total dose of 30 mg; follow each dose with 20 ml saline bolus.
- **SYNCHRONIZED CARDIOVERSION** is performed using 100, 200, 300, or 360 Joules; may be repeated as necessary.
- **AMIODARONE** 150 mg/ 20 ml IV over 10 minutes.
- **AMIODARONE INFUSION** of 1.0 mg/min.
- **VERAPAMIL** 5 -10 mg IV is administered at a rate of 5 mg over 2 minutes.
- **MORPHINE SULFATE** 2 - 5 mg IVP; may be repeated to a maximum dose of 15 mg.
- **DIAZEPAM** 5 - 10 mg slow IVP (not to exceed 5 mg/min).
- **CALCIUM CHLORIDE** 250 - 1,000 mg slow IVP.

***PROTOCOL 22 CONTINUED ON NEXT PAGE***



**PROTOCOL 22 (MEDICAL CONTROL OPTIONS CONTINUED)**

- MIDAZOLAM 2 - 5 mg slow IVP.
- DILTIAZEM 15 - 25 mg IV over 2 minutes; may be repeated after 15 minutes.
- NALOXONE 0.4 - 2.0 mg IVP

**N.B.** ANY WIDE COMPLEX TACHYCARDIA SHOULD BE TREATED AS VENTRICULAR TACHYCARDIA.



## **PEDIATRIC PROTOCOL 22a SUPRAVENTRICULAR TACHYCARDIA**

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1. Initiate Routine Medical Care.
2. IF PATIENT IS **STABLE**:
  - a) Perform a VAGAL MANEUVER if possible; may be repeated if necessary.
  - b) ADENOSINE 0.1 mg/kg IVP; if ineffective after 2 minutes, give ADENOSINE 0.2 mg/kg IVP; may be repeated once if ineffective. Follow each dose with 20 ml Normal Saline bolus. (Maximum single dose is 12 mg)
3. IF PATIENT IS **UNSTABLE AND UNCONSCIOUS**:

Synchronized CARDIOVERSION starting at 0.5 Joules/kg; if no change, 1 Joule/kg; if no change, repeat at 1 Joule/kg.
4. IF PATIENT IS **UNSTABLE AND CONSCIOUS**:

CONTACT MEDICAL CONTROL

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### **MEDICAL CONTROL OPTIONS**

- ADENOSINE 0.1 - 0.2 mg/kg IVP. Follow each dose with 20 ml Normal Saline bolus. (Maximum single dose is 12 mg).
- SYNCHRONIZED CARDIOVERSION is performed at 0.5 – 1.0 Joule/kg.
- AMIODARONE 5 mg/kg IV over 20 - 60 minutes
- VERAPAMIL (ages 1 - 15 years) 0.1 - 0.3 mg/kg over 2 minutes; may repeat once in 30 minutes if no change (maximum dose 5 mg).
- MORPHINE SULFATE 0.1 mg/kg IV.
- DIAZEPAM 0.1 mg/kg IV over 2 minutes.

***PEDIATRIC PROTOCOL 22a CONTINUED ON NEXT PAGE***



**PEDIATRIC PROTOCOL 22a (MEDICAL CONTROL OPTIONS CONTINUED)**

- MIDAZOLAM:           6 mos to 5 years:           0.05 - 0.1 mg/kg slow IVP/IO  
                          6 years to 12 years:       0.025 - 0.05 mg/kg slow IVP/IO  
                          13 years to 15 years:       2 - 5 mg slow IVP/IO
- CALCIUM CHLORIDE 20 mg/kg IV/IO.
- NALOXONE 0.1mg/kg IVP.

**N.B.**           IN INFANTS WITH SVT ASSOCIATED SHOCK, ADENOSINE ADMINISTRATION MAY PRECEDE CARDIOVERSION IF VASCULAR ACCESS IS AVAILABLE, BUT CARDIOVERSION SHOULD NOT BE DELAYED WHILE INTRAVENOUS ACCESS IS ACHIEVED.

                  ANY WIDE COMPLEX TACHYCARDIA SHOULD BE TREATED AS VENTRICULAR TACHYCARDIA.



## **PROTOCOL 23      ANAPHYLACTIC REACTION**

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1. Initiate Routine Medical Care.

### **NOTE**

- IF ANY SIGNS OF RESPIRATORY DISTRESS OR SHOCK, COMPLETE **STEP A**.
  - IF ANY SIGNS OF RESPIRATORY DISTRESS OR SHOCK **AND** PATIENT IS TAKING BETA BLOCKERS, COMPLETE **STEP A AND STEP B**
    - A. Administer EPINEPHRINE 1:1,000 0.3 ml SQ.
    - B. Administer GLUCAGON 1.0 mg IM or IV.
2. DIPHENHYDRAMINE 50 mg IM or IV

### **MEDICAL CONTROL OPTIONS**

- EPINEPHRINE 1:10,000 1.0 mg in 250 ml Normal Saline, 1 - 2 ml/min titrated to desired effect.
- EPINEPHRINE 1:1,000 0.1 - 0.5 ml (0.1 - 0.5 mg) IM or SC; may be repeated every 5 minutes.
- EPINEPHRINE 1:10,000 1 – 5 ml (0.1 - 0.5 mg) IV.
- EPINEPHRINE 1:10,000 2 – 10 ml(0.2 - 1.0 mg) ET.
- DIPHENHYDRAMINE 25 – 50 mg IM or IV.
- ALBUTEROL 2.5 mg via nebulizer.
- GLUCAGON 1.0 mg IM or IV.
- METHYLPREDNISOLONE 125 mg/ 50 ml Normal Saline over 2 minutes.
- FLUID CHALLENGE of Normal Saline

<b>N.B.</b> EPINEPHRINE SHOULD BE USED WITH CAUTION IN PATIENTS WITH BETA BLOCKERS, CARDIAC DISEASE, HYPERTENSION, OR PREGNANCY.
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# PEDIATRIC PROTOCOL 23 ANAPHYLACTIC REACTION

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1. Initiate Routine Medical Care.

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## NOTE

- IF ANY SIGNS OF RESPIRATORY DISTRESS OR SHOCK, COMPLETE **STEP A**.
  - IF ANY SIGNS OF RESPIRATORY DISTRESS OR SHOCK **AND** PATIENT IS TAKING BETA BLOCKERS, COMPLETE **STEP A AND STEP B**
    - A. Administer EPINEPHRINE 1:1,000 0.01 ml/kg (0.01 mg/kg) SQ.
    - B. Administer GLUCAGON 0.1 mg/kg IM up to 1.0 mg.
2. DIPHENHYDRAMINE 1.0 mg/kg slow IVP or IM.

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## MEDICAL CONTROL OPTIONS

- EPINEPHRINE 1:10,000 0.01 ml/kg (0.01 mg/kg) IVP or IO; may be repeated every 5 minutes.
- EPINEPHRINE 1:1,000 0.1 ml/kg (0.1 mg/kg) ET.
- EPINEPHRINE 1:1,000 0.01 ml/kg (0.01 mg/kg) SC or IM.
- EPINEPHRINE INFUSION starting at 0.1 - 1.0 mcg/kg/min.
- DIPHENHYDRAMINE 1.0 mg/kg slow IVP or IM.
- ALBUTEROL 2.5 mg in 3 ml Normal Saline via nebulizer.
- FLUID CHALLENGE of 10-20ml/kg Normal Saline.
- METHYLPREDNISOLONE 2 mg/kg in 50 ml Normal Saline over 2 minutes.
- GLUCAGON 0.1 mg/kg IM up to 1.0 mg.

<b>N.B.</b> EPINEPHRINE SHOULD BE USED WITH CAUTION IN PATIENTS WITH BETA BLOCKERS, CARDIAC DISEASE, OR HYPERTENSION.
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## **PROTOCOL 24      ALTERED MENTAL STATUS**

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1.     Initiate Routine Medical Care.
2.     For documented or suspected hypoglycemia:
  - a)     Administer DEXTROSE 50% 50 ml IVP; if no response in 5 minutes, repeat the same dose.
  - b)     If an IV route is unobtainable, administer GLUCAGON 1.0 mg IM.
  - c)     Administer THIAMINE 100 mg IM or slow IVP.
3.     For suspected opiate overdose, administer NALOXONE 2 mg IV, IM, or 4 mg ET; may be repeated up to 8 mg.



## **PEDIATRIC PROTOCOL 24a      ALTERED MENTAL STATUS**

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1.     Initiate Routine Medical Care.
2.     For documented or suspected hypoglycemia:
  - a)     Administer DEXTROSE 25% 2 ml/kg IV or IO; if no response in 5 minutes, repeat the same dose.
  - b)     If an IV route is unobtainable, administer GLUCAGON 0.1 mg/kg IM to a maximum dose of 1.0 mg.
3.     For suspected opiate overdose, administer NALOXONE 0.1 mg/kg IV, IM, IO, or 0.2 mg/kg ET.



## **PROTOCOL 25      DRUG OVERDOSE OR TOXIC EXPOSURE**

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1.      Initiate Routine Medical Care.
2.      If there is a history of potential cyanide exposure **AND** findings are consistent with cyanide toxicity **AND** the facility provides the "CYANIDE ANTIDOTE KIT":
  - a)      Administer AMYL NITRITE perls for 15 seconds, every 30 seconds until SODIUM NITRITE is available.
  - b)      Administer SODIUM NITRITE 3%, 10 ml IV over 4 minutes
  - c)      Administer SODIUM THIOSULFATE 25%, 50 ml over 10 minutes.
3.      If there is a known history of a cholinergic poisoning, **AND** there are severe presenting signs and symptoms;

### **OR**

There has been a suspected cholinergic poisoning **AND** there are severe presenting signs and symptoms **AND** there is a communications failure:

- a.      Administer ATROPINE 2 mg IM, every 5 minutes until secretions dry, to a maximum of 6 mg.
4.      For toxic exposures of eye, administer TETRACAINE 2 drops in affected eye followed by irrigation of 1,000 ml Normal Saline; may use the Morgan Lens if available.

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### **MEDICAL CONTROL OPTIONS**

- ATROPINE 1 - 5 mg IV or 2 - 10 mg ET; may be repeated until signs of atropinization.
- ACTIVATED CHARCOAL 1.0 gm/kg PO.
- SODIUM BICARBONATE 1 - 2 mEq/kg slow IVP.
- SODIUM BICARBONATE 44 - 132 mEq in 250 ml Normal Saline, run at 1.0 ml/min.

***PROTOCOL 25 CONTINUED ON NEXT PAGE***



**PROTOCOL 25 (MEDICAL CONTROL OPTIONS CONTINUED)**

- CALCIUM CHLORIDE 250 - 1,000 mg IVP.
- TETRACAINE 2 drops in affected eye followed by irrigation of 1,000 ml Normal Saline; may use the Morgan Lens if available.
- GLUCAGON 1.0 mg IV or IM; may be repeated as indicated.
- CYANIDE ANTIDOTE KIT PROVIDED BY SOURCE FACILITY (See standing order #2).



## **PEDIATRIC PROTOCOL 25a DRUG OVERDOSE OR TOXIC EXPOSURE**

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1. Initiate Routine Medical Care.
2. If there is a known history of a cholinergic poisoning, **AND** there are severe presenting signs and symptoms;

### **OR**

There has been a suspected cholinergic poisoning **AND** there are severe presenting signs and symptoms **AND** there is a communications failure:

- a. Administer ATROPINE 2 mg IM, every 5 minutes until secretions dry, to a maximum of 6 mg.
3. For toxic exposures of eye, administer TETRACAINE 2 drops in affected eye followed by irrigation of 1,000 ml Normal Saline; may use the Morgan Lens if available.

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### **MEDICAL CONTROL OPTIONS**

- ATROPINE 0.02 - 0.05 mg/kg IV, IO, or 0.04 - 0.1 mg/kg ET; minimum dose of 0.1 mg; may be repeated until signs of atropinization.
- ACTIVATED CHARCOAL 1.0 gm/kg PO.
- SODIUM BICARBONATE 1.0 mEq/kg IV/IO.
- SODIUM BICARBONATE 1.0 – 2.0 mEq/kg in 250 ml Normal Saline, 1.0 ml/min IV/IO.
- CALCIUM CHLORIDE 20 mg/kg slow IVP or IO.
- TETRACAINE 2 drops in affected eye followed by irrigation of 1,000 ml Normal Saline.
- GLUCAGON 0.1 mg/kg IV, IM, or IO; up to 1.0 mg.; repeat as indicated.

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## **PROTOCOL 26      HYPERTENSIVE CRISIS**

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**INDICATIONS:** For patients presenting with diastolic BP of 130mm Hg or greater in both arms associated with such symptoms as nausea, vomiting, headache or visual symptoms in the absence of localizing neurological signs:

1. Initiate Routine Medical Care.
2. Begin transport and contact Medical Control if localizing neurological signs are present.

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### **MEDICAL CONTROL OPTIONS**

- LABETALOL 10 mg IV over 2 minutes; may be repeated at 10 - 20 mg after 10 minutes.
- FUROSEMIDE 40 – 100 mg IV.
- NITROGLYCERIN 0.4 mg SL or spray.



## PROTOCOL 27 STATUS EPILEPTICUS

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**INDICATIONS:** For patients in status epilepticus (two or more seizures without a lucid interval or a continuous seizure lasting more than 5 minutes). Consider toxemia of pregnancy protocol # 29.

1. Initiate Routine Medical Care.

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**NOTE**

- IF KNOWN HISTORY OF SEIZURE DISORDER, PROCEED TO **STEP A.**
  - IF HYPOGLYCEMIA IS SUSPECTED OR HISTORY IS UNKNOWN, PROCEED TO **STEP B.**
- A. Administer DIAZEPAM 5 - 10 mg slow IVP, may be repeated up to 20 mg, or LORAZEPAM 2 mg slow IVP (may be repeated once in 5 minutes). If IV route is not available, give rectal DIAZEPAM 5 - 10 mg with a syringe without the needle, may be repeated up to 20 mg; or MIDAZOLAM 0.2 mg/kg IM.
  - B. Administer DEXTROSE 50% 50 ml IVP, or GLUCAGON 1.0 mg IM if IV route is not available. Administer THIAMINE 100 mg IV or IM. If seizures continue, proceed to **STEP A.**

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**MEDICAL CONTROL OPTIONS**

- DIAZEPAM 5 - 10 mg slow IVP, may be repeated up to 20 mg. If IV route is not available, give rectal DIAZEPAM 5 - 10 mg with a syringe without the needle; may be repeated up to 20 mg.
- LORAZEPAM 2 mg IV or IM.
- MIDAZOLAM 0.2 mg/kg IM.

**N.B.**

DISCONTINUE THE ADMINISTRATION OF A BENZODIAZEPINE ONCE THE SEIZURE HAS STOPPED WHETHER OR NOT THE ENTIRE ORDERED DOSE HAS BEEN ADMINISTERED.



# PEDIATRIC PROTOCOL 27a STATUS EPILEPTICUS

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**INDICATIONS:** For patients in status epilepticus (two or more seizures without a lucid interval or a continuous seizure lasting more than 5 minutes):

1. Initiate Routine Medical Care.

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<b>NOTE</b>	<ul style="list-style-type: none"><li>• IF KNOWN HISTORY OF SEIZURE DISORDER, PROCEED TO <b>STEP A.</b></li><li>• IF HYPOGLYCEMIA IS SUSPECTED OR HISTORY IS UNKNOWN, PROCEED TO <b>STEP B.</b></li></ul>
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A. Administer DIAZEPAM 0.1 mg/kg slow IVP over 1 minute; may be repeated after 5 minutes or LORAZEPAM 0.05 mg/kg slow IVP (maximum single dose is 4 mg). If IV route is not available, give rectal DIAZEPAM 0.5 mg/kg with a syringe without the needle up to 10 mg, may be repeated after 10 minutes; or MIDAZOLAM 0.05 - 0.2 mg/kg IM (maximum single dose is 5 mg).

B. Administer DEXTROSE 25% 2 ml/kg IVP, or GLUCAGON 0.1 mg/kg IM if IV route is not available up to a maximum of 1.0 mg. If seizures continue, proceed to **STEP A.**

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## MEDICAL CONTROL OPTIONS

- DIAZEPAM 0.1 - 0.2 mg/kg slow IVP; may be repeated. May administer rectal DIAZEPAM 0.5 mg/kg with syringe without the needle up to 10 mg; may be repeated.
- LORAZEPAM 0.05 mg/kg IV or IM (maximum single dose is 4 mg).
- MIDAZOLAM 0.05 - 0.2 mg/kg IM (maximum single dose is 5 mg).

<b>N.B.</b>	DISCONTINUE THE ADMINISTRATION OF A BENZODIAZEPINE ONCE THE SEIZURE HAS STOPPED WHETHER OR NOT THE ENTIRE ORDERED DOSE HAS BEEN ADMINISTERED.
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## **PROTOCOL 28      POST PARTUM HEMORRHAGE**

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1.      Initiate Routine Medical Care.

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### **MEDICAL CONTROL OPTIONS**

- OXYTOCIN 20 units per 1000 ml Normal Saline IV titrated to control uterine bleeding (200 - 500 ml given rapidly) after delivery of the placenta.
- OXYTOCIN 10 units IM after delivery of the placenta.



## **PROTOCOL 29 TOXEMIA OF PREGNANCY**

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**INDICATIONS:** For patients presenting with:

PRE-ECLAMPSIA: Combination of hypertension (BP 140/90 or greater), pathologic edema, and history of proteinuria.

ECLAMPSIA: Superimposition of seizures on pre-eclampsia or aggravated hypertension.

1. Initiate Routine Medical Care.

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### **MEDICAL CONTROL OPTIONS**

- DIAZEPAM 5 - 10 mg slow IVP; may be repeated once. If IV route is not available, give rectal Diazepam 5 - 10 mg with syringe without the needle; may be repeated up to 20 mg.
- LORAZEPAM 2 mg slow IVP or IM.
- MAGNESIUM SULFATE 4 gm/ 250 ml of Normal Saline to run at 250 ml/hour.
- CALCIUM CHLORIDE 250 - 1000 mg IV.

**N.B.** DISCONTINUE THE ADMINISTRATION OF BENZODIAZEPINE ONCE THE SEIZURE HAS STOPPED WHETHER OR NOT THE ENTIRE DOSE HAS BEEN ADMINISTERED.

DISCONTINUE THE ADMINISTRATION OF MAGNESIUM SULFATE IF THE PATIENT BECOMES LETHARGIC OR HYPOTONIC.

TRANSPORT SHOULD BE DONE WITH A MINIMUM OF SIREN USE.



## **PROTOCOL 30      NEONATAL RESUSCITATION**

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1. For newborns requiring resuscitation whose amniotic fluid **does not** contain thick meconium, proceed to **STEP 3**.
2. When meconium is observed in amniotic fluid and the newborn demonstrates any of the following: absent or depressed respirations, heart rate under 100/minute, or poor muscle tone:
  - a) Clear the airway using endotracheal intubation and directly suction the endotracheal tube.
  - b) Repeat the procedure until the endotracheal tube is clear of thick meconium up to a maximum of three (3) times.

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<b>NOTE</b>	<b>DO NOT RE-INTUBATE ONCE THE AIRWAY HAS BEEN CLEARED OF THICK MECONIUM UNLESS THE NEWBORN STILL MEETS THE CRITERIA IN STEP 2.</b>
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3. Suction the airway followed by drying the baby and maintaining warmth.
  - a) If color is normal or only peripheral cyanosis, no advanced resuscitation is indicated; if central cyanosis is present, administer 100% OXYGEN and assist ventilation as indicated.
  - b) If respiratory rate is over 30/minute, no advanced resuscitation is indicated. If respiratory rate is under 30/minute, perform tactile stimulation and assist ventilation as indicated with BVM at a rate of 40-60/minute with 100% OXYGEN.
  - c) If pulse is over 100/minute no advanced resuscitation is indicated.
  - d) If pulse is 80-100/minute, ventilate with BVM at a rate of 40-60/minute with 100% OXYGEN.
  - e) If pulse is under 80/minute, ventilate with BVM at a rate of 40-60/minute with 100% OXYGEN and begin CHEST COMPRESSIONS.

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<b>NOTE</b>	<b>IF BVM IS NOT EFFECTIVE, PERFORM ORAL INTUBATION</b>
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***PROTOCOL 30 CONTINUED ON NEXT PAGE***



## **PROTOCOL 30: NEONATAL RESUSCITATION (CONTINUED)**

4. If pulse remains under 80/minute despite ventilation and compressions for 1 minute, obtain vascular access and administer EPINEPHRINE 1:10,000 0.01 mg/kg (0.01 ml/kg) IV, IO, or 0.1 mg/kg 1:1,000 ET; may be repeated every 3 minutes if pulse remains under 80/minute.

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### **MEDICAL CONTROL OPTIONS**

- NALOXONE 0.1 mg/kg IV, ET, or IO to a maximum of 2 mg; may be repeated.
- NORMAL SALINE 10 ml/kg IV or IO
- EPINEPHRINE 1:10,000 0.01 - 0.03 mg/kg (0.01ml - 0.03 ml/kg) IV, IO, or 0.1 mg/kg 1:1,000 ET; may be repeated every 5 minutes.
- DEXTROSE 10% 5 ml/kg IV or IO.
- Vascular access via IV or IO.



## **PROTOCOL 31      PAIN MANAGEMENT**

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**INDICATIONS:** To provide analgesia for pain due to:

- FRACTURES
- DISLOCATIONS
- BURNS
- SIGNIFICANT CRUSHING INJURIES TO LIMBS
- ABDOMINAL PAIN
- CANCER

**CONTRAINDICATIONS:**

- ALTERED MENTAL STATUS
- SERIOUS HEAD TRAUMA
- OVERDOSES
- HYPOTENSION

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### **MEDICAL CONTROL OPTIONS**

- MORPHINE SULFATE 2 - 5 mg IVP; can be repeated to maximum 20 mg.
- NALOXONE 2.0 mg IVP

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# **PEDIATRIC PROTOCOL 31a PAIN MANAGEMENT**

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**INDICATIONS:** To provide analgesia for pain due to:

- FRACTURES
- DISLOCATIONS
- BURNS
- SIGNIFICANT CRUSHING INJURIES TO LIMBS
- ABDOMINAL PAIN
- CANCER

**CONTRAINDICATIONS:**

- ALTERED MENTAL STATUS
- SERIOUS HEAD TRAUMA
- OVERDOSES
- HYPOTENSION

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**MEDICAL CONTROL OPTIONS**

- MORPHINE SULFATE 0.1 mg/kg IVP or SC (maximum dose 10 mg).
- NALOXONE 0.1 mg/kg IVP or IM.

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