



The Pre-Hospital Healthcare Team  
 for  
 Saginaw and Tuscola Counties

June 23, 2011

MEMORANDUM #2011-7

FROM: Office of the Medical Director  
 Saginaw Valley Medical Control Authority (SVMCA)  
 1000 Houghton Ave.  
 Saginaw, MI 48602

SUBJECT: PHARMACY RECERTIFICATION – JUNE 2011

The following is a summary of changes to the EMS Medications Boxes and IV Start Kits for June 24, 2011:

**MEDICATION BOXES**

**INTRANASAL ATOMIZERS**

Two atomizers will be added to the top tray of each box. These are to administer approved medications nasally. The SVMCA has adopted an **Intranasal Medication Administration Protocol** (attached) and all ALS providers shall be familiar with the use of an atomizer along with indications/contraindications.

Additionally, both the Midazolam (Versed) and Naloxone (Narcan) concentrations will be increased to 5mg/1ml and 2mg/2ml respectively so that they can be administered via the intranasal route.

**ACETAMINOPHEN (TYLENOL)**

Two unit dose cups of acetaminophen and a 5ml oral syringe has been added to the second tray where diphenhydramine previously was kept (diphenhydramine will now be with the Solu-Medrol). This addition complies with the new **Pediatric Fever Protocol** (attached) adopted by the MCA.

MEDICATION BOX INVENTORY - JUNE 2011 RECERTIFICATION					
TRAY 1			TRAY 3		
2	Clave Adapter		3	Atropine Sulfate	1 mg/10 ml pre-filled syringe
2	Atomizer		2	Lidocaine	100 mg/10 ml pre-filled syringe
3	IV Start Kit		2	Calcium Chloride 10%	1 Gram/10 ml pre-filled syringe
2	Saline Flush	10 ml pre-filled syringe	2	Syringe	1 ml
3	Safety IV Catheter	14 GA x 1.75" Insyte Autoguard	2	Syringe	3 ml Luer Lock
3	Safety IV Catheter	16 GA x 1.16" Insyte Autoguard	2	Syringe	10 ml Luer Lock
3	Safety IV Catheter	18 GA x 1.16" Insyte Autoguard	1	Syringe	20 ml Luer Lock
3	Safety IV Catheter	20 GA x 1.16" Insyte Autoguard	1	Syringe	30 or 35 ml Luer Lock
3	Safety IV Catheter	22 GA x 1" Insyte Autoguard	<b>MEDICATIONS - BOTTOM OF BOX</b>		
3	Safety IV Catheter	24 GA x 1" Insyte Autoguard	1	50% Dextrose	25 Grams/50 ml pre-filled syringe
<b>TRAY 2</b>			8	Epinephrine 1:10,000	1 mg/10 ml pre-filled syringe
3	Furosemide	40 mg/4 ml vial	2	Sodium Bicarbonate 8.4%	50 MEq/50 ml pre-filled syringe
2	Methylprednisolone	125 mg/2 ml vial	<b>IV SOLUTIONS - BOTTOM OF BOX</b>		
1	Glucagon injection	1 mg diluent/powder	1	Dextrose 5% in Water	250 ml
2	Naloxone	2 mg/2 ml pre-filled syringe	2	Normal Saline	500 ml
2	Diphenhydramine	50 mg/1 ml vial	1	Dextrose 5% in Water 50ml	50 ml 1 bag minimum. May be more.
2	Acetaminophen (Tylenol)	160 mg/5 ml unit-dose cup	<b>IV SETS - BOTTOM OF BOX</b>		
1	Oral Syringe	5 ml	3	Primary Macro Drip Tubing	Clave port
2	Ondansetron (Zofran)	4 mg/2 ml vial	2	Primary Micro Drip Tubing	Clave port
3	Safety Needle	19 GA x 1 1/2"	1	Primary Pump Tubing	Plum pump
3	Safety Needle	21 GA x 1 1/2"	<b>MISCELLANEOUS - BOTTOM OF BOX</b>		
3	Safety Needle	23 GA x 5/8"	1	Nitroglycerin	50 mg/250 ml pre-mixed container
2	Ipratropium (Atrovent)	0.5 mg/2.5 ml unit-dose vial	1	16# Paper Bag	
2	Albuterol (Proventil)	2.5 mg/3 ml unit-dose vial	1	Nebulizer	
2	Magnesium Sulfate	1 Gram/2 ml vial	1	4-way Stopcock Extension	
1	Epinephrine 1:1000	30 mg /30 ml vial	1	Illinois Iliac Needle	16 ga. (8881245164) Kendall-Monoject
1	Nitroglycerin	0.4 mg tab (#25) bottle	1	Illinois Iliac Needle	15 ga. (DIN1515X) Baxter
4	Aspirin	81 mg chew tab unit-dose packet	<b>RED BAG-CONTROLLED SUBSTANCES (SEALED WITH RED)</b>		
1	Red plastic reseal lock		1	Carpuect Injector	
2	Vasopressin	20 u/1 ml vial	4	Diazepam	10 mg/2 ml carpuect or vial
3	Amiodarone	150 mg/3 ml vial	2	Fentanyl	100 mcg/2 ml carpuect or vial
2	Dopamine	400 mg/5 ml vial	2	Morphine	10 mg/1ml carpuect, vial, or pre-filled syringe
5	Adenosine	6 mg/2 ml vial	2	Midazolam	5 mg/1 ml vial
1	Bacteriostatic NaCl	30 ml vial			



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Office of the Medical Director  
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(989) 583-7940  
Fax (989) 583-7941  
www.SaginawValleyEMS.org

**MINI-KITS (Formerly IV Start Kits)**

All old IV Kits have been replaced by a new Regional Mini-Kit.

Ondansetron (Zofran) 4mg/2ml vial has been added to the Mini-Kit along with a 3ml Luer-Lock syringe and 19 Ga. needle. The Plum IV pump tubing has been replaced by a standard macro drip set. Plum IV pump tubing will only be found in the Medication Box once recertification is complete.

ALS MINI-KIT - JUNE 2011 RECERTIFICATION			
2	Clave Adapter		
1	IV Start Kit		
2	Saline Flush Syr	10 ml	
2	Safety IV Catheter	18 GA x 1.16"	Insyte Autoguard
2	Safety IV Catheter	20 GA x 1.16"	Insyte Autoguard
2	Safety IV Catheter	22 GA x 1"	Insyte Autoguard
1	Syringe	3 ml	Luer Lock
1	Safety Needle	19 GA x 1 1/2"	
1	Ondansetron (Zofran)	4 mg/2 ml	vial
2	Ipratropium (Atrovent)	0.5 mg/2.5 ml	unit-dose vial
2	Albuterol (Proventil)	2.5 mg/3 ml	unit-dose vial
1	Nitroglycerin	0.4 mg tab (#25)	bottle
4	Aspirin	81 mg chew tab	unit-dose packet
1	50% Dextrose	25 Grams/50 ml	pre-filled syringe
1	Normal Saline	250 ml	
1	Primary Macro Drip Tubing		Clave port
1	Red plastic reseal lock		
1	16# Paper Bag		

**BLS KITS**

Beginning sometime around the first or second week of July, all BLS transporting and non-transporting agencies will carry a BLS Medication Kit. It will contain the following:

BLS KIT - JUNE 2011 RECERTIFICATION			
1	Epi-Pen	0.3 mg	Auto Injector
1	Epi-Pen Jr.	0.15 mg	Auto Injector
1	Nebulizer		
4	Aspirin	81 mg chew tab	unit-dose packet
2	Ipratropium (Atrovent)	0.5 mg/2.5 ml	unit-dose vial
2	Albuterol (Proventil)	2.5 mg/3 ml	unit-dose vial

These kits look similar to the ALS Mini-kit except that they are orange and will say "BLS" on the embroidery.

The medications and supplies in the BLS kit will be restocked by the responding ALS unit. If a BLS unit uses a medication other than an Epi-Pen on-scene prior to ALS arrival, the ALS unit should exchange (one-for-one) with the BLS unit. The BLS kits will not routinely be restocked at the hospital pharmacies. If an Epi-Pen is used on-scene, they should contact the hospital pharmacy for restocking.

Because EMTs are being allowed to administer certain medications, this does not mean that the patient should be transported BLS. These patients are still considered to need an ALS level of care and should always have a paramedic respond for an assessment and transport.



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**EMS MEDICATION REGIONALIZATION**

The SVMCA has been working with both Bay and Arenac MCAs to regionalize our medication exchange, boxes, and bags. Beginning in early July, both Bay Regional Medical Center and St. Mary's of Michigan – Standish will participate in the new "Greater Bay Area EMS Medication System".

This means that any participating EMS agency can exchange their Medication Box or Mini-kit with any of the seven participating Emergency Departments throughout Arenac, Bay, Saginaw, or Tuscola Counties. Having this interoperability will greatly enhance our readiness while ensuring that the hospital receiving the patient is also restocking the medications.

Notification will be sent to each EMS agency's management when Arenac and Bay Counties are on-line.

A handwritten signature in black ink, appearing to read 'E. Snidersich'.

Eric Snidersich, BS EMT-P  
EMS Manager, SVMCA

Attachments:    Intranasal Medication Protocol  
                      Pediatric Fever Protocol

*Michigan*  
**General Procedures**

INTRANASAL MEDICATION ADMINISTRATION (OPTIONAL)

Date: December 2010

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***Intranasal Medication Administration (Optional)***

- Medical Control Authorities choosing to adopt this supplement may do so by selecting this check box. Adopting this supplement changes or clarifies the referenced protocol or procedure in some way. This supplement supersedes, clarifies, or has authority over the referenced protocol.

**Purpose:** This optional procedure authorizes intranasal medication administration by paramedics using an FDA-approved atomizing device. This procedure authorizes the substitution of the intranasal route for other routes specified in individual protocols as approved for specific indications stated below by the local medical control authority.

**Indications:** In general, the intravenous route is preferred for medication administration. This procedure may be considered when IV access is unavailable and when a needleless delivery system is desired because of patient agitation, combativeness, or similar conditions that may pose a safety risk to personnel.

CHECK MCA APPROVED INDICATION

- Adult Seizures
- Pediatric Seizures
- Sedation
- Adult Pain Control
- Pediatric Pain Control
- Altered Mental Status with Suspected Opiate Overdose

**Contraindications:**

1. Nasal trauma
2. Epistaxis, nasal congestion, (significant) nasal discharge
3. Known cocaine use is a relative contraindication

**Pre-Medical Control**

**PARAMEDIC**

1. Select desired medication and determine dose (See Medication Table)
2. Draw up appropriate dose (volume) of medication plus an additional 0.1 ml to account for device dead space
3. Attach atomizing device to syringe
4. Use one hand to support back of patient's head as needed
5. Place tip of atomizing device snugly against nostril aiming slightly upward and outward
6. Rapidly administer one half of the dose of medication, briskly pushing plunger
7. Repeat with other nostril delivering the remaining volume of medication
8. Note: Maximal dose per nostril is 1 cc

**Michigan**  
**General Procedures**

INTRANASAL MEDICATION ADMINISTRATION (OPTIONAL)

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<b>Indication</b>	<b>Medication</b>	<b>Dose</b>	<b>Comments</b>
Adult Seizure	Midazolam (5 mg/1 cc)	10 mg	-Always use 5mg/1ml concentration
Pediatric Seizure	Midazolam (5 mg/1 cc)	0.2 mg/kg Max 10 mg	-Always use 5mg/1ml concentration
Sedation	Midazolam (5mg/1cc)	0.2 mg/kg Max 10 mg	-Always use 5mg/1ml concentration -Causes brief burning lasting approximately 30 seconds
Suspected Opiate Overdose	Naloxone (1mg/1ml)	2 mg	-Always use 1 mg/1ml concentration
Adult Pain Control	Fentanyl	2 mcg/kg	
Pediatric Pain Control	Fentanyl	2 mcg/kg	
Use most concentrated form of medication. Do Not dilute. Maximum 1 cc per nostril			

*Michigan*  
**Pediatric Treatment Protocols**  
PEDIATRIC FEVER

Date: December 2010

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***Pediatric Fever***

This protocol is intended to assist EMS providers in reducing fever in the pediatric patients prior to arrival to the emergency department. Fever is defined as a core temperature of 101 degrees Fahrenheit (38 degrees Celsius) or greater. Emergency management of the febrile child involves an assessment to determine if any associated problems are present which may require emergency treatment.

**Pre-Medical Control**

**MFR/EMT/SPECIALIST/PARAMEDIC**

1. Obtain baseline temperature and document method used.
2. Facilitate passive cooling by removing excess clothing and blankets.

**PARAMEDIC**

3. If the child has not been given acetaminophen in last four (4) hours and is alert, give oral Tylenol (acetaminophen) 15 mg/kg.
4. If any question concerning alertness or ability to swallow, **DO NOT ADMINISTER.**