Mercyhealth

EMS 2022 Protocol Update: Wisconsin

Referenced Guideline	Changes Made
General Changes	
Intro	For Medical Control, Call RockCom at **815-968-0993**
General Language	Epinephrine no longer referenced as 1:1,000 or 1:10,000, but rather as **1mg/1mL or 1mg/10mL**
General Language	The term Blindly Inserted Airway Device (BIAD) has been replaced with **Supraglottic Airway**
Medication Dose Changes	
2.40, 2.42, 4.68, 6.6	TXA dose increased to **2 Grams IV/IO over 20 minutes**
2.0, 2.36, 4.36	Ketamine dose decreased to **4 mg/kg IM (max of 400mg)**
2.6, 2.36, 2.38, 4.36	Ketamine low-dose now 0.25mg/kg for IV, IO, and **IM**
2.2, 2.52	Glucagon increased to **2mg IV/IO/IM** for anaphylaxis and β-blocker overdose. NOTE: Dose unchanged for hypoglycemia, still 1mg IV/IO/IM
2.2, 2.6, 4.22, 6.12	Epinephrine increased to **0.5 mg IM**
2.34	Zofran pediatric dose changed to **0.15 mg/kg** (max dose 4 mg)
2.8, 4.10	Atropine dose increased to **1 mg**
2.2, 2.6	Albuterol Sulfate MDI dose increased to **6 puffs**
4.14	Dextrose 10% dose clarified as **12.5 g**
4.18	Benadryl dose clarified as **50 mg IV/IM**
2.6	Magnesium sulfate pediatric dose changed to **50 mg/kg** (max 2 g)
New Medications	
2.34	Zofran added to the **AEMT** level: **Ondansetron 4 mg IV/IM or ODT**, may repeat x1 in 15 minutes
2.36	Acetaminophen added for **EMT/AEMT/Paramedic: Acetaminophen 15 mg/kg PO max dose 1,000 mg**
2.36	Ibuprofen added for **EMT/AEMT/Paramedic: Ibuprofen 10 mg/kg PO max dose of 800 mg**
Language Changes	
1.0	Blood glucose should be judiciously checked when it guides patient care. **Blood glucose evaluation should not be routinely utilized during cardiac arrest, as it is highly inaccurate.**
1.0	**EMS providers are mandatory reporters of child and elder abuse.**

1.2	**Properly fitted N95 masks should be used when caring for patients with respiratory transmissible diseases.**
1.2	**Masks should be placed on patients or over oxygen delivery devices as source control of respiratory borne illnesses.**
1.2	**HEPA filters should be utilized when possible in the respiratory circuit.**
1.2	**Reduce aerosolizing procedures when possible with respiratory transmitted diseases**
1.6, 1.18	Every effort to cooperate with law enforcement should be made. In the event of a disagreement with law enforcement, EMS personnel should document the problem and refer the matter to their superior for follow-up and/or action. If the disagreement involves, in the opinion of the pre- hospital provider, an issue that will or could result in patient harm, an immediate request for on- scene **EMS and Law Enforcement** supervisory personnel should be made, including consideration for direct medical oversight advice.
1.12	Criteria for Paramedic intercept added: **Abnormal vital signs (severe hyper/hypotension, brady/tachycardia)**
1.18	Prior to signing a statement of release, **attempt to obtain a set of vital signs**
Specific Medical Guideline Changes	
2.12 Cardiac Arrest	At EMR/EMT level: **If refractory to multiple shocks an attempt to change pad location and energy vector may be warranted. If refractory to multiple shocks and 2nd defibrillator available perform dual sequential defibrillation**
2.12 Cardiac Arrest	At EMR/EMT level: Ventilate at 6/minute only enough volume to just make chest rise. **Pediatric-follow AHA Guidelines.**
2.12 Cardiac Arrest	At Paramedic: **IV is preferred route for ACLS medications**
2.16 Congestive Heart Failure	Note: No NTG if patient has used Viagra or Levitra in the last 24 hours, or Cialis in the last 48 hours
2.16 Congestive Heart Failure	If SBP>160 may use **Nitroglycerine 0.8mg** (2 sublingual spray or tablets) every 3-5 minutes. If SBP<160 after initial 0.8mg dose, use **0.4mg** dose for subsequent doses
2.16 Congestive Heart Failure	If SBP < 90 mmHg **withhold NTG and consider** Push Dose Epinephrine per section 5.42 to maintain SBP >100
2.18 Diabetic Emergencies	Pediatric patient under **25kg** give ½ dose, may repeat x1 in 15min
2.22 Emergency Childbirth	EMT/EMR: Suction mouth then nose as needed, **do not aggressively suction as this may stimulate bradycardia.** **BGM if signs of hypoglycemia.**
2.30 Hypovolemia & Shock	**If suspected infection accompanied by two or more of below signs/symptoms, notify receiving facility of Sepsis Alert:** **T<36C or T>38C - P>90 - BP<90 - RR>20 - BGM>120(no DM hx) - etCO2<25 - Acute mental status changes - chills/rigors**

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2.32 Narrow Complex Tachycardia	Valsalva Maneuvers moved from Paramedic Level to EMT: **If the rhythm is faster than 150, is perfectly regular, and the patient is stable, attempt Valsalva maneuvers. Have the patient bear down. If no success, have seated patient blow through a 10mL syringe enough to move plunger. Once plunger moves, lie them flat and elevate their legs.**
2.32 Narrow Complex Tachycardia	At the paramedic level: Adenosine 6mg IV over 1-2 seconds. If unsuccessful, repeat with 12 mg (may repeat **once**) IV over 1-2 seconds.
2.36 Pain Management	Fentanyl Citrate pediatric dose 1mcg/kg IV/IO and 2mcg/kg IN (**max dose 100mcg per bolus**)
2.38 Respiratory Distress	**Non RSA intubations are restricted to patients with no gag reflex and need for airway management. Paramedics performing non RSA intubations should use the below guidelines for airway management, may not sedate or paralyze unless RSA credentialed.**
2.38 Respiratory Distress: Intubation	**Pre-paralysis Sedation/Induction (2 RSA trained providers at bed side [2])::** • **Etomidate 0.3mg/kg IV/IO(max dose 40mg)** **Do not repeat any administration of Etomidate after initial sedation.** **Or** • **Give Ketamine 2 mg/kg IV/IO (max dose 200mg), or 4 mg/kg IM (max dose 400mg)** **For patients with concern of cardiac ischemia, avoid Ketamine.**
2.38 Respiratory Distress: Intubation	**[2] Minimum of two Paramedics or one Paramedic and one EMT that are current with all RSA education and skill requirements of the local EMS Medical Director. If a single Paramedic unit, attempt to request a second Paramedic unit to respond, but do not delay procedure if patient condition warrants immediate action** ***Must be Credentialed**
2.38 Respiratory Distress: Intubation	**Long acting paralytics should only be used on patients at risk or self-extubation or those requiring full muscle paralysis for effective ventilation. Repeat doses are not usually indicated.**
2.38 Respiratory Distress: Intubation	**Provide adequate sedation every 10 minutes as necessary. Long term paralysis may be unnecessary if adequately sedated and soft restraints utilized. Monitor vitals, as adjustment in sedation drugs may be necessary. If hypotensive, use Ketamine(1-2mg/kg IV/IO max 200mg per bolus) or Fentanyl(1mcg/kg IV/IO max 100mcg per bolus). If possibility of ongoing seizures, or inadequate sedation with other agents use Versed (0.1mg/kg IV/IO max 5mg per bolus).**
2.42 Routine Trauma Care	At the Paramedic Level: Bilateral needle decompression, **pelvic binder**, and pericardiocentesis for traumatic arrest
2.42 Routine Trauma Care	At the Paramedic Level: **Traumatic Brain Injury** • **Adults with TBI within 3 hours of injury and Glasgow Coma Scale (GCS) score of 12 or lower** • **Over 12 years old: TXA 2 Grams IV/IO over 20 minutes** • **Under 12 years old: TXA 15mg/kg(maximum dose 2 Grams) IV/IO over 20 minutes**

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2.46 Stroke	Those scoring 3 or more on the GFAST stroke scale should preferentially be taken to a thrombectomy capable center if the diversion time from acute stroke ready or primary stroke center is less than 30 minutes **and additional transport time will not disqualify for thrombolytics.**
2.48 Submersion	**DAN, US Navy, as well as hyperbaric treatment centers have additional reference materials on neurological exams for divers. Have a low threshold for transport, as any divers experiencing neurologic or musculoskeletal complaints warrant a full medical evaluation.**
2.48 Submersion	**Increasing submersion duration is associated with worse outcomes regardless of water temperature. Submersion durations <5min are associated with favorable outcomes, while those >30min are associated with poor outcomes and the incident commander should consult with the EMS medical director to make a risk vs benefit analysis when determining rescue vs. recovery.**
3.42 NIPPV Noninvasive Positive Pressure Ventilation (BiPAP)	New Guideline created for use of BiPAP for interfacility transport: Please see full guideline for details
4.6 Amiodarone Hydrochloride (Cordarone)	Torsades added as a contraindication
4.74 Etomidate (Amidate)	Contraindication added: **Do not use under age 10**
Procedure Guideline Changes	
5.10 EZ-IO Placement	At AEMT/Paramedic Level: Distal Femur added as site. For pediatrics, 1 cm above patella and 1 cm medial. For adults, 5 cm above patella. Always drill perpendicular to bone
5.22 Supraglottic Airways	The current medical director approved Supraglottic Airways for adult and pediatric patients are the King Airway and the i-gel.
5.22 Supraglottic Airways	**Placement confirmation with colorimetric capnometry is required if $EtCO_2$ unavailable.**
5.22 Supraglottic Airways	**If ventilation port becomes occluded with secretions or blood, proceed to suction. Suction attempt should not exceed 10 seconds, and patient must be ventilated between attempts. Suction catheter should not be inserted past the airway device distal tip.**
5.34 Emergency Cricothyrotomy	Paramedics credentialed and trained by medical director for open surgical cricothyrotomy(age>12)/pediatric needle cricothyrotomy may use that technique or QuickTrach
5.38 Chest Decompression	Landmarks: **4th/5th intercostal space, anterior axillary line**