



State of Maryland

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To: EMS Clinicians
Highest Jurisdictional Officials
Commercial Services
Base Stations

From: Timothy Chizmar, MD
State EMS Medical Director

Meg Stein, NRP
MIEMSS Protocol Administrator

Date: August 4, 2022

RE: **Maryland Medical Protocols for Emergency Medical Services –
2022 Clarifications**

Please note the following clarifications for the 2022 release of the *Maryland Medical Protocols for Emergency Medical Services*:

- **Appendices – Procedures, Medical Devices, and Medications for EMS and Commercial Services (9.2); page 172:** Morphine infusion is permitted for CRTs and Paramedics, with medical consultation, during interfacility transports. The published table had listed this as “MC” for paramedics.
- **ALS Pharmacology – Acetaminophen (11.1); page 185:** Contraindications (9) should read “Patients less than 3 months of age” not “Patients less than 2 years of age.” The BLS Pharmacology – Acetaminophen page (p 175) is correct.

These changes, noted in red on the attached pages, apply to all iterations of the 2022 *Maryland Medical Protocols for EMS*, and should be adopted immediately by all Maryland EMS Clinicians.

Appendices – PROCEDURES, MEDICAL DEVICES, AND MEDICATIONS FOR EMS AND COMMERCIAL SERVICES (continued)

MEDICATIONS	EMR	EMT	CRT	PM
Acetaminophen	–	SO	SO	SO
Activated Charcoal (Without Sorbitol)	–	MC	MC	MC
Adenosine	–	–	SO	SO
Albuterol/Fast-acting Bronchodilator MDI	–	SO/MC	SO/MC	SO/MC
Albuterol Sulfate Nebulizer	–	SO/MC	SO/MC	SO/MC
Amiodarone	–	–	SO/MC	SO/MC
Antimicrobial (Pre-established interfacility only)	–	–	–	OSP
Aspirin	–	SO	SO	SO
Atropine Sulfate	–	–	SO/MC	SO/MC
Atrovent	–	–	SO	SO
Calcium Chloride (10% Solution)	–	–	SO	SO
Dexamethasone	–	–	SO	SO
Dextrose	–	–	SO	SO
Diazepam	–	–	MC	SO/MC
Diltiazem	–	–	SO/MC	SO/MC
Diluent D5W, NS, LR	–	–	SO	SO
Diphenhydramine Hydrochloride	–	–	SO	SO
Dopamine Hydrochloride	–	–	SHORT	SHORT
Droperidol	–	–	SO	SO
Epinephrine Auto-Injector	OSP	SO/MC	SO	SO
Epinephrine Infusion	–	–	SO/MC	SO/MC
Epinephrine Nebulizer	–	–	MC	MC
Epinephrine (1:1,000) Vial or Syringe	–	OSP	SO	SO
Epinephrine 1:10,000	–	–	SO	SO
Etomidate (Amidate)	–	–	–	PP
Fentanyl	–	–	SO/MC	SO/MC
Glucagon	–	–	SO/MC	SO/MC
Glycoprotein IIb/IIIa	–	–	–	OSP
Haloperidol	–	–	SHORT	SHORT
Hemophilia Blood Factor (VIII or IX)	–	–	SO	SO
Heparin (Interfacility transport only)	–	–	–	OSP
Hydroxocobalamin	–	–	OSP	OSP
Ketamine	–	–	SO/MC	SO/MC
Ketorolac	–	–	OSP	OSP
Lidocaine	–	–	SO	SO
Magnesium Sulfate	–	–	SO/MC	SO/MC
MARK I/DuoDote (Atropine & 2 PAM)	OSP	OSP	OSP	OSP
Midazolam (Versed)	–	–	SO/MC	SO/MC
Morphine Sulfate	–	–	OSP	OSP
Morphine Sulfate (Infusion)	–	–	MC	MC
Naloxone (IN) Public Safety	SO	SO	SO	SO
Naloxone (IV, IM, ET)	–	–	SO	SO

SO Standing Order
OSP Optional Supplemental Program
SHORT Jurisdictional Option with State EMS Medical Director Approval

MC Medical Consultation Required
PP Pilot Program
REA Research

TRADE NAMES: Tylenol®

a) Indications

Patients 3 months of age and older with:

- (1) Mild to moderate discomfort (e.g., 1–5 on FACES scale) or
- (2) Fever (EMS-documented temperature greater than or equal to 100.4 F / 38 C)

b) Adverse Effects

Not clinically significant

c) Precautions

- (1) Administration of acetaminophen for mild to moderate pain does not eliminate the need for transport of the patient to the hospital to receive a comprehensive evaluation of the cause of the pain and appropriate definitive treatment.
- (2) A 5 cc or 6 cc syringe must be used to measure doses of acetaminophen.

ci) Contraindications

- (1) Head Injury
- (2) Hypotension
- (3) Administration of acetaminophen or medications containing acetaminophen within the previous 4 hours. Many common cold preparations contain acetaminophen.
- (4) Inability to swallow or take medications by mouth
- (5) Respiratory distress
- (6) Persistent vomiting
- (7) Known or suspected liver disease (including patients suspected of current alcohol ingestion)
- (8) Allergy to acetaminophen
- (9) Patients less than ~~2 years of age~~ **3 months of age**

cii) Preparations Use Unit Dose Only

(DO NOT USE MULTIDOSE BOTTLE OF LIQUID)

Unit dose 160 mg/5 mL liquid

Unit dose 325 mg pill or tablet

f) Dosage

- (1) Less than 3 months of age: Not indicated
- (2) 3 months to 2 years of age:

Age	Under 3 months	3 months	4-11 months	12-23 months
Liquid 160 mg/ 5 mL	Not indicated	1.25 mL	2.5 mL	3.75 mL

- (3) 2–4 years: Unit dose 160 mg/5 mL
- (4) 5–12 years: TWO unit doses of 160 mg/5 mL each for a total of 320 mg/10 mL
- (5) 13 years and above: FOUR unit doses of 160 mg/5 mL each for a total of 640 mg/ 20 mL OR in a form of 325 mg pill or tablet x2 for a total of 650 mg with sips of water as tolerated by the patient.