ACADEMY OF MEDICINE OF CINCINNATI

2027 EMS Protocols: What Changed from 2026

Training for EMS

Thomas E. Charlton, MD
Protocol Committee Co-Chair



How to use this training

1 What it covers

Every change that affects what you assess, give or do, plus the new protocol numbers. Wording, punctuation and formatting edits are left out.

2 How it is labeled

ALL	applies to every provider
EMT	EMT-level steps
MEDIC	paramedic-only steps
PEDS	pediatric content
NEW	did not exist in 2026

3 Read this first

This is a training deck. Corrections may occur before publication. Your department and medical director control what you may do. The current version of the protocols is always available on the Academy of Medicine website.

The big picture

71

clinical change items catalogued across the protocols

42

protocols renumbered or moved with no clinical change

4

new items: Pediatric Septic Shock (P618), Safe Transport (A112), Appendices W and X

Themes to listen for

- Higher, simpler epinephrine dosing and earlier epinephrine for anaphylaxis
- Cardiac arrest care built around early defibrillation, fewer pauses and supraglottic airways
- No endotracheal drug routes for children or newborns
- Normal vital-sign tables replace old pediatric hypotension formulas
- A new numbering system: Symptom Based, Cardiac, Medical, Trauma, Pediatric, Procedures

Top 8 changes to know first

1 Epinephrine IM is now 0.5 mg

Adults with anaphylaxis (M409) and severe asthma (M403): 0.3 mg is now 0.5 mg of 1 mg/mL.

2 Cardiac arrest (SB204)

Defibrillate first, shorter pauses, SGA may be preferred, A/P pad placement.

3 Newborn resuscitation (P600)

Dry and warm first, suction only if obstructed, new epinephrine and fluid doses.

4 Sepsis is split

Adult Septic Shock (M404) with a fixed 500 mL bolus; new Pediatric Septic Shock (P618).

5 No endotracheal drug routes

ETT epinephrine and atropine are removed from pediatric and newborn protocols.

6 Pacing and sedation

Start pacing at 60 mA; new RASS-based sedation after intubation (T706).

7 Toxicology

New hydrofluoric acid section; naloxone leave-behind policy.

8 New numbering

SB205 is now M401, trauma is S500-S514, procedures shifted. See the crosswalk.



PART 1

Finding your way: new numbering

Many protocols moved. Learn where the ones you use most now live.

Crosswalk: symptom, medical and cardiac

2026	2027	Protocol
SB200	A103	Standard assessment
SB212	SB200	Crashing patient
SB205	M401	Hypotension / shock
SB211	A117	Refusal of care
M400	C308	Acute coronary syndrome
M401	C309	Cardiogenic shock
M404	C310	Congestive heart failure
M419	M404	Adult septic shock
M421	M400	Fever
M422	A107	Legal situations involving EMS
P618	A112	Safe transport by EMS

Swapped numbers

C303 and C304 traded places. In 2027, C303 is wide-complex tachycardia, stable; C304 is wide-complex tachycardia, unstable.

Moved with the content

Cross-references inside protocols were updated, so refer to the 2027 number when a protocol points you elsewhere.

Crosswalk: trauma and procedures

2026	2027	Trauma
SB206-SB210	S500-S504	Assessment, adult, pediatric, geriatric, triage
S500	S505	Hemorrhagic shock
S501	S506	Head or spinal trauma
S504	S509	Eye injuries
S505	S510	Pain management
S506	S511	TXA administration
S507	S512	Special trauma situations
S509	S514	Traumatic arrest

2026	2027	Procedure
T704	T703	Spinal motion restriction
T705	T704	Airway management
T706	T705	Orotracheal intubation
T715	T706	Sedation after intubation
T709	T707	Positive airway pressure
T710	T708	Hemorrhage control
T711 / T712	T709 / T710	IO access / Taser
T714	T712	Calcium administration
T708	P619	Pediatric needle cricothyrotomy



PART 2

Cardiac arrest and rhythms

SB204, C302, C303, C307 and related pediatric changes

SB204: defibrillate first, pause less

ALL MEDIC

1 Shock before anything else

On arrival, analyze the rhythm and defibrillate before any other action besides compressions while charging. Pre-charge the defibrillator during CPR.

2 Minimize pauses

Keep pauses under 10 seconds and as few as possible. Avoid early pauses before the 2-minute rhythm check unless defibrillating.

3 Access and children

IV is preferred; use IO if IV is not feasible or not immediately successful, and keep trying IV after IO. Compress children over 12 months with 2 hands; infants under 12 months with 1 hand or encircling thumbs.

SB204: airway and ventilation

ALL MEDIC

Situation	2027 guidance
Choosing an airway	An SGA may be preferable to intubation, especially in pediatric arrest and for agencies without high intubation proficiency
No advanced airway	30:2 only; the 10 per minute asynchronous option was removed. Use a 2-hand BVM seal
Advanced airway, adult	10 breaths per minute
Advanced airway, infant or child	20-30 breaths per minute (one every 2-3 seconds)
Only 2 rescuers	Reasonable to use 30:2 (15:2 for children) with the compressor doing the pause

SB204: pads, teams and transport

ALL MEDIC

1 Pad position

Anterior-posterior (A/P) placement is generally preferred because ROSC is more likely. After three unsuccessful shocks, consider changing the vector from A/P to A/L (C300).

2 High-performance teams

Pre-assigned roles, initial priorities and a clear team leader. See the new Appendix X: High-Performance Resuscitation, which includes example role structures.

3 When to move early

Transport is still generally delayed, with new exceptions: persistent shockable rhythm (for example, three failed shocks), severe hypothermia, and other ECMO candidates.

SB204: mechanical CPR, CPR-IC, hypothermia

MEDIC

1 Mechanical CPR

Devices (LUCAS, Autopulse) are not superior to good manual CPR. Ideally, delay until about 3 rounds of manual CPR unless transporting early. Apply before moving and do not pause CPR early.

2 CPR-induced consciousness

Midazolam 1 mg IV/IO every 3-5 min as needed OR ketamine 20 mg IV/IO every 3-5 min as needed.

3 Severe hypothermia (<86 F)

Check for a pulse up to one minute and contact medical control. It may be reasonable to limit defibrillations and drug doses. Consider early transport for ECMO. Same approach in M412.

Pacing, ROSC and wide-complex tachycardia

MEDIC

C302 external pacing	2026	2027
Pacing mode	Non-demand use not clarified	Asynchronous (non-demand) generally desired
Starting current	20 mA	60 mA (rate 60-80 unchanged)
Pain	Do not stop pacing for pain	Consider fentanyl 25-50 mcg
Midazolam IV/IO	2-5 mg	1-2 mg every 5 min (IN/IM 2-5 mg unchanged)

C307 post-ROSC

Do not disconnect the monitor before or during transport. If a mechanical CPR device was used, leave it connected (off or standby) in case of re-arrest.

C303 stable wide-complex tachycardia

The lidocaine substitute for amiodarone during drug shortages was removed.



PART 3

Crashing patient, AMS and shock

SB200, SB201 and M401

SB200: the crashing patient

ALL MEDIC

1 Airway and breathing

NPA/OPA no longer limited to patients who do not follow commands; suction added. Oxygen only if hypoxic. CPAP for tachypneic adults with inadequate respirations (T707). BVM if not following commands, SpO2 under 90% or respirations below age-normal, using a 2-person 2-hand seal.

2 Medic additions

Consider naloxone 0.4-4 mg IN (M411). Place an advanced airway (for example, an SGA) before movement if assisted ventilation is needed. A new AMS block: midazolam for seizure, stroke assessment, ECG, treat hypoglycemia (M406/P608).

3 Monitoring and transport

Do not disconnect the patient from the monitor during movement or transport. Re-dose medications such as epinephrine as needed. Electrical therapy now references C302, C304, C306, P603 and P604.

M401: push-dose epinephrine escalation

MEDIC

5-20 mcg

standard adult dose every 2-5 min (peds 1 mcg/kg)

50 mcg

adult with thready pulse and SBP under 70 (or unreadable) after 2 standard doses; call medical control

50-100 mcg

peri-arrest may need higher dosing (5-10 mL of 10 mcg/mL)

Where it lives now

Hypotension/Shock moved from SB205 to M401. Cardiogenic shock is C309 and septic shock is M404. Call medical control whenever push-dose epinephrine is not resolving the blood pressure.

SB201: altered mental status

ALL MEDIC

What changed	2027
Inclusion	Any patient with altered level of consciousness or AMS, pre-syncope or syncope. The separate "GCS under 15" definition was removed
Flowchart	Replaced by a step-by-step protocol: vital signs, airway, SpO2, EtCO2, monitor, diagnostic EKG sent to the receiving hospital, notification call
Oxygen	Give if SpO2 is under 90%
Treat reversible causes	Glucose under 60 (M406), hypotension (M401), narcotic overdose (naloxone) and others
Scene history (new)	Ask caregivers and bystanders; look for medications, patches, paraphernalia, medical-alert tags, devices, signs of neglect or CO exposure
Differential	The long narrative list became a table that points to the right protocol



PART 4

Allergy, asthma and choking

M409, P609, M403, M402 and P606

Adult anaphylaxis: epinephrine 0.5 mg

ALL MEDIC

0.3 → 0.5

mg of 1 mg/mL epinephrine IM (0.3 mL → 0.5 mL), for EMT-IM and Medic steps. Repeat every 5-15 minutes as before.

Diphenhydramine is no longer routine

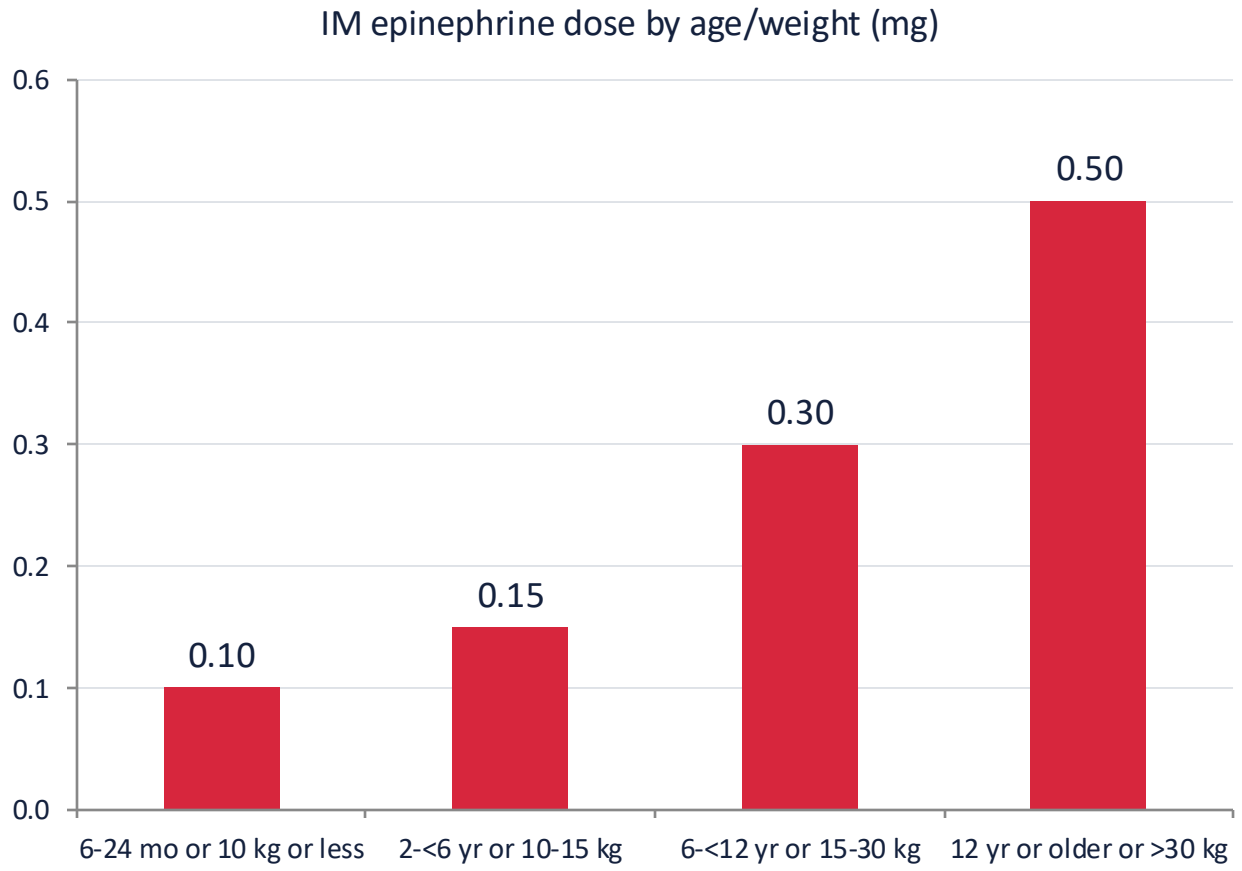
Consider 25-50 mg IV/IM/PO only for isolated rash or itching. For that same isolated rash, consider famotidine (Pepcid) 20 mg IVP.

Recognition

Two or more body systems, or hemodynamic instability, or respiratory compromise. Think anaphylaxis without a trigger if skin or mucosal symptoms occur with respiratory or cardiovascular/CNS symptoms. Hypotension: M401.

Pediatric anaphylaxis: four dosing bands

PEDS ALL MEDIC



Doses are in mL as well: 0.1, 0.15, 0.3 and 0.5 mL of 1 mg/mL.

What else changed in P609

- 2026 had three weight bands; 2027 has four
- Give epinephrine as soon as possible and before any other medication
- Verbal medical direction is no longer needed to use an EMS-supplied auto-injector
- Neffy nasal spray added to patient-prescribed products
- IM is preferred over IV even when IV access exists
- Albuterol and diphenhydramine must not delay epinephrine; diphenhydramine only with rash

Asthma and choking

M403 asthma

ALL MEDIC

- Albuterol 2.5 mg neb can be given up to three times; MDI assistance up to three times
- Removed the "do not use inhaler if" checklist and the prior-dose check
- Severe asthma only: epinephrine IM 0.5 mg (was 0.3 mg), then magnesium sulfate 2 g IV/IO in 100 mL NS over 20 min

M402 and P606 choking

ALL

- Alert patient: encourage coughing, give oxygen, keep upright (no more "Heimlich until successful")
- Severe obstruction: cycles of 5 back blows then 5 abdominal thrusts
- Pregnancy or obesity: 5 back blows then 5 chest thrusts
- Unconscious: begin CPR regardless of pulse
- Infants under 1: 5 back blows then chest thrusts



PART 5

Sepsis, toxicology and behavioral

M404, P618, M411, M420, M407, M408, T710

Septic shock: adults and children now separate

	Adult septic shock (M404)	Pediatric septic shock (P618) NEW
Age	16 and older	Under 16
Alert criteria	Temp >100.4 F or 96.8 F or lower (was 96.0), SBP 90 or lower or MAP under 65, HR 100 or higher (was 90), RR 20 or higher, AMS	Sustained tachycardia, hypotension, tachypnea, fever 100.4 F or higher or temp 96.5 F or lower, poor perfusion, AMS; judged against a normal-vitals table
Fluids	Fixed 500 mL bolus, then reassess (was 30 mL/kg, max 500 mL)	20 mL/kg (max 500 mL) push-pull over 5-15 min; repeat once (max 40 mL/kg, 1000 mL total)
Also	Push-dose epinephrine per M401	Stop boluses for worsening tachycardia, tachypnea, crackles or hepatomegaly; call medical control; do not delay transport

MEDIC

Toxicology: hydrofluoric acid and naloxone

NEW M411 Section F: hydrofluoric acid

NEW MEDIC

- Decontaminate, request ALS, expect delayed symptoms and calcium-leaching/cardiac arrest risk
- Skin: iced 0.13% benzalkonium chloride soak or compresses, then calcium gluconate 2.5% gel
- Eye: tetracaine, irrigation, then calcium gluconate rinse
- Ingestion: no vomiting; calcium per T712; magnesium 4 g if QTc 500 ms or more
- Inhalation: oxygen with calcium gluconate 2.5% nebulizer

M420 naloxone leave-behind

If opioid misuse is known or suspected, dispense naloxone to the patient or bystanders per department policy. Each department must keep a leave-behind policy.

T712 calcium and Appendix A

Hydrofluoric acid ingestion is a new indication for calcium (calcium gluconate preferred). Appendix A adds pediatric AtroPen sizing and IV/IM chemical-agent dosing tables.

Smaller changes that still matter

M408 restraint

Predict the need for restraint with the Broset Violence Checklist: 1-2 signs is moderate risk, more than 2 is high risk.

MEDIC

M407 psychiatric

The medically stable glucose cutoff drops from 70 to 60 mg/dL.

ALL

T710 Taser

Offer transport even if barbs are removed. Never transport face down or prone (M408).

ALL

M406 glucagon

If no IV, glucagon 1 mg IM or intranasal Baqsimi 3 mg.

ALL

M405 ondansetron

Ohio AEMTs may give it only to patients age 4 and older. Adult 4 mg repeat dose limited to 8 mg total.

ALL

M415 LVAD

New Doppler MAP method: cuff, Doppler on the brachial or radial, pressure at first signal is the MAP. Target usually 60-80 mmHg.

MEDIC



PART 6

Pediatrics and newborn

P600-P603, P611, P619 and pediatric tables

P600 newborn resuscitation: the new sequence

PEDS ALL MEDIC

1 Dry and warm first

Drying and warming are now step one

2 Position, suction only if needed

Suction only if obstruction is suspected (2026: routine suction)

3 Check heart rate

Monitor, stethoscope or cord pulse

4 Ventilate 30-60 per minute

BVM, one breath every 1-2 seconds; right-arm pulse ox guides oxygen

Applies to newborns under 12 hours old. Ventilation is the most important step: use only enough bag pressure and check the mask seal. Meconium intubation and suction for non-vigorous infants was removed.

P600 newborn: new drug and fluid doses

PEDS MEDIC

	2026	2027
Epinephrine 0.1 mg/mL	0.04 mg (0.4 mL) IV/IO; 0.2 mL preterm	Full term 0.03 mg (0.3 mL); premature 0.02 mg (0.2 mL); repeat every 3-5 min until HR 60 or higher
No IV or IO	0.1 mg/kg via endotracheal tube	Endotracheal route removed. Obtain IV or IO (distal femur IO acceptable)
Fluid for hypovolemia	NS 20 mL/kg (about 40 mL; 20 mL preterm)	NS 10 mL/kg: 30 mL full term, 20 mL premature

Pediatric arrest, pain and airway

PEDS MEDIC

1 No ETT drug routes

Endotracheal epinephrine and atropine were removed from P601, P602 and P603. Use IV or IO only. Early SGA placement is recommended; intubate if BVM or SGA ventilation is inadequate.

2 P611 pain management

Now covers 6 months to under 16 years. Fentanyl, morphine or ketamine for ages 6-16. A single fentanyl dose may be considered for 6 months to 6 years. Hypotension is judged by the new normal-vitals table.

3 P619 needle cricothyrotomy

Moved from T708. For children under 12 (12 and older use T704). One 14-gauge angiocatheter for all weights. Connector options include a manual jet ventilator: start at 5 psi, titrate up to 25 psi.



PART 7

Procedures, OB and trauma

T700, T706, O801, S509, S512, A105, A112

T706 sedation after intubation

MEDIC

1 Monitor with RASS

Document RASS every 5 minutes until the goal is reached, then every 10. Goal: RASS -2 to -4. When feasible, give analgesia before the sedative.

2 Pick the pathway by blood pressure

SBP 100 or lower or at risk of hypotension (trauma, sepsis, shock, asthma): ketamine 2 mg/kg IV/IO, then 1 mg/kg every 5 min. Push-dose epinephrine is acceptable. Otherwise either pathway.

3 If sedation fails

After two dosing cycles without adequate sedation, consider an alternative agent and contact medical control. The protocol is now T706 (was T715).

OB and trauma updates

500 → 1,000

mL: post-partum hemorrhage (O801) is now 1,000 mL or more, or any loss with signs of hypovolemia, within 24 hours

S509 eye injuries

MEDIC

Inclusion expanded to include recent head or periocular trauma, foreign-body sensation, light sensitivity, and abnormal pupils.

S512 crush injury

MEDIC

Complete treatment is in the 2027 text: fluids 1-2 L, sodium bicarbonate for prolonged extrication, early tourniquets, and pain management.

T700 blood products

MEDIC

A normal-vitals table, including neonates, now defines hypotension.

A105 rigor mortis

ALL

Rigor must involve larger muscles. Isolated jaw stiffness does not count.

A112 safe transport

ALL

Replaces the pediatric-only protocol. A privately owned child seat is not a primary restraint on a cot unless designed for it.

Key takeaways

1

Use the new numbers

Check the crosswalk before looking up a protocol.

2

Epinephrine is 0.5 mg

Adults IM for anaphylaxis and severe asthma; four pediatric bands.

3

Defibrillate early, pause less

And no endotracheal drug routes in children.

4

Hydrofluoric acid is deadly

Involve medical control early if you suspect the patient may want to refuse transport. Be aggressive about calcium administration.

Questions? Contact your agency medical director or the AofM Protocol Committee.