SJCEMS Guideline Updates

Patient Care Guidelines

- Removed hyperventilation (Low ETCO2) from the BVM procedure guideline (4/2025)
- Corrected stroke alert matrix box (3/2025)
- Changed “medical alert” to “Resuscitation alert” to match verbiage in ESO (3/2025)
- Added “activate a ‘Resuscitation Alert’” to the Crashing Patient guideline (3/2025)
- Added “supraglottic airway or endotracheal intubation, as indicated” to the Crashing patient guideline in the 5-minute bundle (3/2025)
- Added “activate a ‘Resuscitation Alert’” to the *Pediatric* Crashing Patient guideline (3/2025)
- Added “supraglottic airway or endotracheal intubation, as indicated” to the *Pediatric* Crashing patient guideline in the 5-minute bundle (3/2025)
- Changed “Administer 1 mL – 5 mL of epinephrine to effect” to “Administer 2 mL to 3 mL of push-dose epinephrine to effect.” (3/2025)
- Added “Activate a Resuscitation Alert for the destination hospital during the prehospital patient report.” to the ROSC Checklist (3/2025)
- Fixed footer on Ventricular Fibrillation/Ventricular Tachycardia to reflect guideline “3003” instead of “3002” (3/2025)
- Changed Dual Sequential Defibrillation to Paramedic and Lead Paramedic from only Lead Paramedic (3/2025)
- Added “or can be obtained in ambulance *prior* to transport” to the ROSC checklist (4/2025)
- Added “Confirm continuous cardiac monitoring, if available” to the ROSC checklist (4/2025)
- Added “This guideline is intended to provide a framework to identify a crashing patient and intervene before the patient goes into respiratory or cardiac arrest” to the Crashing Patient guideline. (4/2025)
- Added “This guideline is intended to provide a framework to identify a crashing patient and intervene before the patient goes into respiratory or cardiac arrest” to the Pediatric Crashing Patient guideline. (4/2025)
- Added thiamine to Diabetic Emergencies/Hypoglycemia/Hyperglycemia and altered mental status guidelines (4/2025)
- Added “Epinephrine” to the permitted treatments for cardiac arrest for AEMTs (4/2025)

- Multiple instances of “EMS clinician” changed to “EMS practitioner” (4/2025)
- Changed “side” to “site” in the background section of the nebulizer procedure (4/2025)
- Changed VF/VT guideline (3003) to allow paramedics to administer lidocaine and amiodarone (6/2025)
- Changed multiple portions of the Environmental: Heat-Related Injuries Guideline (3043). Active cooling temperature changed from 102°F to 104°F. Added the TACO method as a suggestion for active cooling. Stop active cooling at 101°F. Submerge patient in ice back for approximately 1 min per degree Fahrenheit (°F) over 101°F. Added Transporting units should turn on air conditioning in ambulance while en route to scene in the notes section. Removed requirement for OMCP with ice water submersion is criteria are met. Added Notify destination emergency department of ice water submersion while en route to hospital. Removed heat tetany, heat edema, and heat syncope as additional considerations for purposes of conserving space. (7/2025)
- Added “Endotracheal intubation should strongly be considered in cardiac arrest, if possible” to the lead paramedic section of the Environmental: Drowning (3042) guideline. (7/2025)
- Added “a patient where the risk of having the collar on outweighs the benefits” as a contraindication to the C-Collar Application Procedure (6030). (7/2025)
- Added “consider *medical* causes of the drowning” and obtain a “blood glucose level (BGL)” to the Environmental: Drowning guideline (3042). (7/2025)
- Removed Jason Jaronik, MD and added George Kim, MD as the medical director for SJRMC (8/2025)
- Removed George Kim, MD and added Zach Walker, MD as the medical director for SJRMC (10/2025)
- Added “Ensure scene safety for fire and EMS practitioners” as a first step in the acute psychosis guideline (3017). (12/2025)
- Added “Scene safety and transport safety is of the utmost importance for these cases!” to the notes section of the acute psychosis guideline (3017). 12/2025

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- Added Tranexamic Acid (TXA) to the vaginal bleeding guideline for hemodynamic instability due to vaginal hemorrhage. (1/2026)
- Added “Consider tourniquet take-down if tourniquet is up for a prolonged period of time” to the “General Trauma” guideline. (1/2026)

- Removed “and apneic” from the adult emergency cardiac care guideline (3001). It now reads “Pit Crew CPR, if pulseless.” (2/2026)
- Removed “and apneic” from the Cardiac – VF/pVT guideline (3003). It now reads “Pit Crew CPR, if pulseless.” (2/2026)
- Removed “and apneic” from the Cardiac – PEA/Asystole guideline (3004). It now reads “Pit Crew CPR, if pulseless.” (2/2026)
- Added “Only” and “(6 minutes)” to the mechanical CPR device allowance in the Adult Cardiac Care guideline. (3001). It now reads “Mechanical CPR is permitted, but not required, *only* after a minimum of 3 cycles (6 minutes) of manual compressions.” (2/2026)
- Added “Only” and “(6 minutes)” to the mechanical CPR device allowance in the Cardiac – VF/pVT guideline. (3003). It now reads “Mechanical CPR is permitted, but not required, *only* after a minimum of 3 cycles (6 minutes) of manual compressions.” (2/2026)
- Added “Only” and “(6 minutes)” to the mechanical CPR device allowance in the Cardiac – PEA/Asystole guideline. (3003). It now reads “Mechanical CPR is permitted, but not required, *only* after a minimum of 3 cycles (6 minutes) of manual compressions.” (2/2026)
- Added “Continuous compressions should be initiated when EMT or above arrive on scene” to the EMT section of the adult emergency cardiac care guideline (3001). (2/2026)
- Added “Continuous compressions should be initiated when EMT or above arrive on scene” to the EMT section of the Cardiac – VF/pVT guideline (3003). (2/2026)
- Added “Continuous compressions should be initiated when EMT or above arrive on scene” to the EMT section of the Cardiac – PEA/Asystole guideline (3004). (2/2026)
- Changed the supraglottic airway recommendation in the EMT section to “Supraglottic airway, if pulseless and/or apneic” in the adult emergency cardiac care guideline (3001). (2/2026)
- Changed the supraglottic airway recommendation in the EMT section to “Supraglottic airway, if pulseless and/or apneic” in the pediatric emergency cardiac care guideline (3002). (2/2026)
- Added “Only” and “(6 minutes)” to the mechanical CPR device allowance in the Cardiac – VF/pVT guideline. (3003). It now reads “Mechanical CPR is permitted, but not required, *only* after a minimum of 3 cycles (6 minutes) of manual compressions.” (2/2026)

- Changed the supraglottic airway recommendation in the EMT section to "Supraglottic airway, if pulseless and/or apneic" in the Cardiac – PEA/Asystole guideline (3004). (2/2026)
- Added With compressions being administered, a practitioner should palpate femoral pulses. When felt, a mark should be made over the femoral artery with a marker" to the EMR section of the Adult cardiac care guideline (3001). (2/2026)
- Added With compressions being administered, a practitioner should palpate femoral pulses. When felt, a mark should be made over the femoral artery with a marker" to the EMR section of the pediatric cardiac care guideline (3002). (2/2026)
- Added With compressions being administered, a practitioner should palpate femoral pulses. When felt, a mark should be made over the femoral artery with a marker" to the EMR section of the Cardiac – VF/pVT guideline (3003). (2/2026)
- Added With compressions being administered, a practitioner should palpate femoral pulses. When felt, a mark should be made over the femoral artery with a marker" to the EMR section of the Cardiac – PEA/Asystole guideline (3004). (2/2026)
- Changed dual sequential defibrillation requirements to "if refractory to at least 3 standard manual defibrillation – ADULT ONLY" in the Cardiac – VF/pVT guideline (3003). (2/2026)
- Added "Pit Crew CPR if pulseless OR Pit Crew CPR if heart rate less than 60 despite supplemental oxygen/respiratory support, until the age of puberty" to the Crashing Medical Patient – Pediatric guideline (3/2026)
- Added "Pit Crew CPR if pulseless (puberty+) OR Pit Crew CPR if heart rate less than 60 despite supplemental oxygen/respiratory support, until the age of puberty" to the Cardiac – Pediatric Emergency Cardiac Care guideline (3/2026)
- Added "Pit Crew CPR if heart rate less than 60 despite supplemental oxygen/respiratory support, until puberty" to the Cardiac VF/pVT guideline. (3/2026)
- Added "Pit Crew CPR if heart rate less than 60 despite supplemental oxygen/respiratory support, until puberty" to the Cardiac PEA/Asystole guideline. (3/2026)
- Added "pre-pubescent" to the bradycardia with a pulse pediatric CPR treatment recommendation. (3/2026)
- Updated stroke guideline to include balance and visual changes as part of the stroke activation criteria. This was also included in the clinical decision guideline. "Cincinnati Stoke Scale (CSS) AND check for *new* vision changes AND check for *new* balance problems. FAST-ED Score, if Cincinnati Stroke Scale is *positive* or *new* vision changes or *new* balance problems." (3/2026)

- Added oral glucose into the stroke guideline at the EMR level for hypoglycemia under 60. (3/2026)
- Updated the destination grid in the stroke alert guideline and the stroke guideline as below. (5/2026)

Destination Hospital Determination for Suspected Acute Ischemic Stroke	**FAST-ED Score ≥ 4**	**FAST-ED Score < 4**
LKWT < 9 hours prior to EMS evaluation	Transport to MHSB. Emergent transport at EMS discretion if LKWT < 9 hours prior to EMS evaluation or wake-up stroke. If the extra time necessary to transport to MHSB will disqualify the patient from fibrinolytic therapy, transport to closest hospital capable of administering fibrinolytic therapy OMCP	Transport to closest certified Stroke Center. Emergent transport at EMS discretion if LKWT < 9 hours prior to EMS evaluation or wake up stroke.
LKWT between 9 and 24 hours	Transport the patient to MHSB	
LKWT ≥ 24 hours prior to EMS evaluation	Transport to closest certified Stroke Center (ASRH, PSC, or TSC)	

- Moved ASA administration to the EMR level for the Chest Pain/ACS/STEMI guideline. (3/2026)
- Removed the statement about only supplementing ASA administration if previously taken in the last 24 hours. If the patient has not taken 324mg of ASA in the last 6 hours the patient should receive the full dose. If the patient has taken less than 324 mg in the last 6 hours, the patient should receive the supplement to equal 324mg.
- Added glucagon to the anaphylaxis guideline for lead paramedics. (3/2026)

- Updated the destination grid in the stroke alert guideline and the stroke guideline as below.

Destination Hospital Determination for Suspected Acute Ischemic Stroke	FAST-ED Score ≥ 4	FAST-ED Score < 4
LKWT < 4.5 hours	Transport to MHSB*	Transport to closest Certified Stroke Center
LKWT 4.5 - 9 hours	Transport to MHSB^	Transport to MHSB or EGH
LKWT between 9 and 24 hours	Transport to MHSB	Transport to MHSB[!] or patient preference
LKWT ≥ 24 hours	Transport to closest Certified Stroke Center	

- * If additional transport time to MHSB would disqualify the patient from receiving thrombolytic therapy (i.e. TNK), consider taking the patient to the nearest hospital capable of administering thrombolytic therapy. These hospitals include Memorial Hospital (MHSB), St. Joseph Mishawaka Medical Center (SJMMC), Beacon Granger Hospital (BGH), and Elkhart General Hospital (EGH).
- ^ If additional transport time would disqualify the patient from receiving thrombolytic therapy (i.e TNK) in the "extended time window," consider taking the patient to the nearest hospital capable of obtaining a CT Perfusion (CTP). These hospitals include Memorial Hospital (MHSB) and Elkhart General Hospital (EGH). SJMMC and BGH hope to come online with CTP in later 2026.
- [!] Highest level stroke center in area. However, patient can be taken to alternative certified stroke center based on patient/family preference unless FAST-ED ≥ 4, then the patient should be taken to MHSB.
- Added Blood glucose level (BGL) measurement, if < 60 mg/dL, with intact gag reflex, administer oral glucose to the Headache, drowning, and hypothermia guidelines. (6/2026)
- Added hyperlink to procedure for all Blood Glucose Level (BGL) measurements listed in guidelines. (6/2026)
- Changed Blood glucose level (BGL) measurement to the hyperkalemia, carbon monoxide, cyanide, overdose, and seizure guidelines to the EMR level. (6/2026)
- Added verbiage to give oral glucose to seizure patient if hypoglycemic, awake, can tolerate PO, and has an intact gag reflex. (6/2026)
- Added dextrose and glucagon to the seizure guidelines at the AEMT level. (6/2026)
- Changed "acidosis" to "Severe Acidosis as cause of arrest (suspected)" in the reversible causes of cardiac arrest guidelines (3006). (9/2026)
- Changed "1 amp" sodium bicarbonate to "50 mEq" sodium bicarbonate for additive to each 1L fluid for crush injuries. (9/2026)

- Added “LR is preferred fluid in crush injuries to avoid worsening acidosis” to the crush injury guideline. (9/2026)
- Added “severe” before hyperkalemia so it now reads “…suggestive of severe hyperkalemia:” in the hyperkalemia treatment guideline. This allows for continued treatment of hyperkalemia with severe features, not requires OMCP for non-severe features, such as iolated peaked T-waves. (9/2026)
- Added serum potassium levels next to the EKG changes in the Clinical Pearls section of the hyperkalemia guideline. Also added *Severe* next to the bradyarrhythmias and prolonged QRS and Sine Wave, VF, Asystole EKG findings. This gives the description of what is considered “severe” for purposes of hyperkalemia treatment. (9/2026)
- Added APGAR score calculator to the clinical tools section. (10/2026)

Medication

- *Added* Thiamine back to the formulary as an optional medication (3/2025)
- Changed TXA to guideline 7038 to allow for thiamine to be added back to 7037 (4/2025)
- *Removed* adenosine as a *required* medication for *non-transport vehicles* (3/2025)
- *Removed* Zofran as a *required* medication for *non-transport vehicles* (3/2025)
- *Removed* amiodarone as a *required* medication for *non-transport vehicles* (3/2025)
- Clarified oral diphenhydramine is the only formulation available for EMTs and AEMTs (4/2025)
- Clarified cardiac epinephrine was available for AEMTs (4/2025)
- Lowered credential requirement to administer amiodarone and lidocaine from lead paramedic to paramedic (6/2025)
- Added ceftriaxone as a required medication for open fractures (7/2025)
- Added degloving as an indication for ceftriaxone administration (8/2025)
- Added fentanyl and morphine to a paramedic and lead paramedic medication (8/2025)
- Adjusted the layout of the medication formulary coversheet (8/2025)
- Changed morphine to an optional medication, but fentanyl remains mandatory (8/2025)
- Changed required ALS non-transport vehicles to have 2 albuterol vials rather than 3 vials (8/2025)
- Changed required ALS transport epinephrine from 4mg to 3mg (8/2025)
- Changed required midazolam to 20 mg for ALS transport vehicles (8/2025)
- Changed required lorazepam to 6 mg from 4 mg if agencies opt to carry this medication (8/2025)
- Changed name of blood from “Whole Blood” to “Blood (Whole)” (10/25)
- Changed epinephrine from 7018 to 7017 (10/25)
- Changed racemic epinephrine from 7019 to 7018 (10/25)
- Changed etomidate from 7020 to 7019 (10/25)
- Removed “cardiac epinephrine” as a separate monograph as it’s included in “epinephrine” and removed from medication formulary sheet (10/25)
- Changed fentanyl from 7019 to 7020 (10/25)
- Changed all meds from fentanyl to TXA to match appropriate numerical monograph number (10/25)
- Formulary cover page now reads, “Transport agencies must have fentanyl but can also opt to carry both morphine and fentanyl.” (10/25)

- Removed the weight-based dosing for Ketamine for adults IV/IO, removed the weight-based dose and increased dose for Ketamine for adults IN, added IN as an alternative route of administration with same dosing as IV/IO (10/25)
- Removed increased IN dosing of ketamine for pediatrics and added IN to the IV/IO dosing to eliminate having varying doses of the same medication which varied based on the route (10/25)
- Added "The second-best option is giving it as a slow IV push mixed in a 10 mL saline syringe" for the adult and pediatric ketamine administration (10/25)
- Updated TOC to reflect appropriate medication numbers (10/25)
- Updated adult dosing for midazolam and added the ability to give a smaller amount for smaller adults. (12/2025)
- Updated adult dosing for haloperidol and added the ability to give a smaller amount for smaller adults. (12/2025)
- Updated diphenhydramine to include 50mg for acute psychosis with haloperidol administration. (12/2025)
- Added Ketorolac to the pain management guideline. (12/2025)

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- Added Ketorolac IV/IM to the medication formulary. (1/2026)
- Added "Hyperkalemia" (without cardiac arrest) as an indication for Calcium Chloride in the medication formulary. Also added, "Consider in those patients with end-stage renal disease on dialysis. OMCP is recommended before administering empirically in patients without known hyperkalemia or those without end-stage renal disease on dialysis." in the notes. (1/2026)
- Updated medication guideline numbers (1/2026)
- Added "or manufacturer's recommendations" to the CPAP oxygen connection/flow. (1/2026)
- Added "Maximum of 4 mg of epinephrine should be given under standard cardiac arrest circumstances. With rhythm changes or extenuating circumstances, AEMTs and paramedics have the option to give additional doses" to the cardiac arrest indication for Epinephrine (7017). (2/2026)
- Added ketorolac into the medication formulary coversheet and added a required 30mg for ALS transport and made it an optional medication for ALS non-transport 3/2026)
- Removed "ET Tube" administration route for atropine in the medication monograph. (3/2026)
- Removed "ET Tube" administration route for epinephrine in the medication monograph. (3/2026)
- Changed OMCP requirement for IM epinephrine for pediatric anaphylaxis to *after the second* administration. (3/2026)

- Changed OMCP requirement for push-dose epinephrine for pediatric hypotension to *after the second* administration. (3/2026)
- Added "Anaphylaxis unresponsive to epinephrine" as an indication for pediatric anaphylaxis patients and added the dose 0.02 mcg/kg up to 1mg. (3/2026)
- Made glucagon for anaphylaxis unresponsive to epinephrine a lead paramedic credential only. (3/2026)
- Removed calcium channel blocker overdose as an indication for glucagon in pediatric patients. (3/2026)
- Adjusted glucagon dosing for pediatric hypoglycemic patients. (3/2026)
- Added oral glucose into the scope of practice for EMR on the medication formulary page and oral glucose medication monograph page. (3/2026)
- Added aspirin (ASA) into the scope of practice fort EMR on the medication formulary page and aspirin medication monograph page. (3/2026)
- Updated the dextrose medication monograph to show indication for IV/IO dextrose to "altered mental status with blood glucose less than 60." (3/2026)
- Changed pediatric dose for lorazepam from 0.05 mg/kg to 0.1 mg/kg for the first dose and then halving the second dose, if needed. Max dose 4 mg then 2 mg. (6/2026)
- Added IM as an administration option for magnesium sulfate for eclampsia along with notes indicating it should be used as a last resort and ONLY given in the buttocks. (6/2026)
- Added "Hyperkalemia in Cardiac Arrest (suspected)" in a dialysis patient as an indication for 100meq sodium bicarbonate. (9/2026)
- Added "Severe Acidosis in Cardiac Arrest" in a patient with hyperactive delirium with severe agitation as an indication for 100meq sodium bicarbonate. (9/2026)
- Added "severe bronchospasm due to asthma or COPD" as an indication for magnesium sulfate. (9/2026)
- Added "OMCP" next to hyperkalemia indication for albuterol. Note: this is unless severe EKG changes noted – which are described in the guideline. (9/2026)
- Added "OMCP" next to hyperkalemia with a pulse indication for calcium chloride. Note: this is unless severe EKG changes noted – which are described in the guideline. (9/2026)
- Added "OMCP" next to hyperkalemia with a pulse indication for sodium bicarbonate. Note: this is unless severe EKG changes noted – which are described in the guideline. (9/2026)
- Changed the notes for sodium bicarb in crush injuries to indicate NS is acceptable as a resuscitative fluid, but LR is preferred. (9/2026)
- Added "LR is preferred" to the Isotonic Crystalloid medication sheet for adults and pediatrics. (9/2026)

- Added “Status epilepticus refractory to benzodiazepines” as an indication for ketamine administration. Indication is after 2 doses of benzodiazepine. Ketamine will be administered with the third dose. Dose is 2 mg/kg up to 200 mg. (10/2026)
- Ketamine maximum dose for a pediatric patient is increased to 20 mg up from 15 mg. (10/2026)
- Changed magnesium adult dose for acute bronchospasm from 25-50 mg/kg up to 2g to a straight 2g dose. (11/2026)

Procedures

- Changed manual defibrillation procedure to indicate maximum joules rather than increasing joules (6/2025)
- Changed dual sequential procedure to indicate maximum joules rather than increasing joules (6/2025)
- Added “or confirmed” epiglottitis as a contraindication to NPA procedure (8/2025)
- Added “Fourth or fifth intercostal space in the anterior axillary line” as the preferred location for decompression (8/2025)
- Added “anterolateral thigh” as part of the anatomic location for auto-injector administration (8/2025)
- Added triage tag example to SALT triage procedure (8/2025)
- Updated the procedure portion of the SALT triage procedure (8/2025)

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- Updated existing AHA Guidelines flowsheets (1/2026)
- Added TQ take-down procedure (1/2026)
- Added junctional TQ procedure (2/2026)
- Changed the order of the procedure for manual defibrillation. It now states the defibrillator should be charged *prior* to confirming the patient is in cardiac arrest. If the patient is not in VF or pVT, the charge should be dumped and the patient should be treated according to the findings of the rhythm check. (2/2026)
- Added “Phlebotomy” as a new procedure, number 6056. (5/2026)
- Added, “The primary site for IM injections is the anterolateral thigh” to the IM/SQ injection procedure. (5/2026)
- Added, “The glucometer should undergo a “QI” check every 24-hours to ensure accuracy.” to the POC Capillary Glucose Testing procedure. (6/2026)
- Bolded the note indicating the primary site for IM injections is the anterolateral thigh. (6/2026)

- Added point-of-care ultrasound (POCUS) to the clinical research/pilot program guideline section (9001). (9/2026)
- Updated neonatal resuscitation flowsheet (10/2026)

Administrative

- Updated the credentialing for EMR to include ASA (PO) and oral glucose. (3/2026)
- Updated sponsoring hospitals' medical director for SJRMC to Dr. Walker. (3/2026)
- Updated the credentialing for paramedic+ to include ketorolac. (3/2026)
- Added "AND/OR new balance problems AND/OR new vision changes." As inclusion criteria for stroke alert to the stroke alert patient management guideline (2026). (6/2026)
- Updated Union-Lakeville Fire to a BLS *transport* agency (9/2026)
- Added a "Pregnancy-Related" category to the destination guide (Guideline 2005). (10/2026)