MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
ACETAMINOPHEN	MILD pain (score 1 - 3) or MODERATE pain (score 4 - 6) or SEVERE pain (score 7 - 10) or Refusal / contraindication to ketamine	S-141, S-173	Maximum total daily dose: 4000 mg in 24 hours Give over 15 minutes **BHPO** required for: • Isolated head injury • Acute onset severe headache • Drug/ETOH intoxication • Major trauma with GCS <15 • Suspected active labor	Severe hepatic impairment or active liver disease Known hypersensitivity or allergic reaction history If known or suspected total dose exceeding 4000 mg in a 24-hour period Acetaminophen IV <2 years of age Pediatric administration requires signs of adequate perfusion
ADENOSINE	Stable (symptomatic) SVT	S-127, S-163	Patients with history of bronchospasm or COPD may suffer bronchospasm following administration	Second- or third-degree AV block Sick Sinus Syndrome (without pacemaker)
ALBUTEROL	Respiratory distress of non-cardiac origin Anaphylaxis with respiratory involvement Burns with respiratory distress with bronchospasm Suspected hyperkalemia in hemodialysis patient in presence of widened QRS complex or peaked T waves	S-122, S-124 S-131, S-136 S-162, S-167 S-170	Continuous administration via O_2 powered nebulizer or MDI If concerned about aerosolized infectious exposure, substitute with albuterol MDI, if available	Avoid in croup
AMIODARONE	Reported/witnessed ≥2 AICD firing and pulse ≥60 Stable VT Persistent pulseless VF/VT after 3 defibrillation attempts	S-127 S-163	Cardioversion first if unstable with severe symptoms	
ASPIRIN	Pain/discomfort of cardiac origin	S-126	Aspirin 324 mg chewable PO should be given regardless of prior daily dose(s)	

MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
ATROPINE SULFATE	Unstable bradycardia Symptomatic organophosphate poisoning	S-127, S-163 S-134, S-165	In organophosphate poisoning, titrate atropine to SLUDGEM symptoms, not to tachycardia	
CALCIUM CHLORIDE ($CaCl_2$)	Suspected hyperkalemia in hemodialysis patient in presence of widened QRS complex or peaked T waves Suspected hyperkalemia in PEA/asystole Suspected calcium channel blocker OD with SBP <90 mmHg Crush injury with compression of extremity or torso ≥2 hours (Adult)	S-127, S-163 S-131 S-134 S-139	Give IV over 30 seconds Avoid use in small veins (feet/hands) as extravasation of $CaCl_2$ can cause necrosis	
CHARCOAL (no Sorbitol)	Ingestion	S-134, S-165	Assure patient has gag reflex and is cooperative If not vomiting and ingestion within 60 min, activated charcoal SO with any of the following: 1. Acetaminophen 2. Colchicine 3. Beta blockers 4. Calcium channel blockers 5. Salicylates 6. Sodium valproate 7. Oral anticoagulants (including rodenticides) 8. Paraquat 9. Amanita mushrooms For pediatric ingestions, if ingestion within 60 minutes and recommended by Poison Center SO	Isolated alcohol, heavy metal, caustic agents, hydrocarbons, or iron ingestion

MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
DEXTROSE 50% (D_{50}) (Adult) **OR** DEXTROSE 10% (D_{10}) (Pediatric)	Symptomatic hypoglycemia with altered LOC or unresponsive to oral glucose agents with BS <60 mg/dL (Neonate <45 mg/dL)	S-123, S-161	Repeat BS not indicated en route if patient improving Repeat BS must be done if patient left on scene and initial was abnormal (AMA/Release)	
DIPHENHYDRAMINE	Allergic reaction Anaphylaxis Extrapyramidal reactions	S-122, S-162 S-134, S-165	IV - administer slowly Diphenhydramine may be administered between epinephrine doses in anaphylaxis	
EPINEPHRINE (PUSH-DOSE)	Anaphylaxis with SBP <90 mmHg (Adult)/ with hypotension per age (Pediatric) Discomfort/Pain of cardiac origin with associated shock Unstable bradycardia (after max atropine or TCP) ROSC with SBP <90mmHg (Adult)/ with hypotension per age (Pediatric) Newborn deliveries with sustained HR<60 Non-traumatic, hypovolemic shock (Adult) Neurogenic shock (Adult) Neurogenic/ cardiogenic/ anaphylactic shock (Pediatric) Sepsis	S-122, S-162 S-126 S-127, S-163 S-133, S-166 S-138, S-168 S-143, S-177	Titrate to maintain systolic SBP ≥90 mmHg (Adult) or adequate perfusion (Pediatric) Mixing instructions: 1. Remove 1 mL normal saline (NS) from the 10 mL NS syringe 2. Add 1 mL of epinephrine 1:10,000 (0.1 mg/mL) to 9 mL NS syringe The mixture now has 10 mL of epinephrine at 0.01 mg/mL (10 mcg/mL) concentration.	

MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
EPINEPHRINE	Cardiac arrest (VF/VT/PEA/Asystole) Cardiac arrest with hypothermia Anaphylaxis Severe respiratory distress/failure or inadequate response to albuterol/ipratropium bromide No improvement after epinephrine via nebulizer x2 or impending respiratory/airway compromise Unstable bradycardia (Pediatric) Respiratory distress with stridor	S-122, S-162 S-127, S-163 S-136, S-167 S-168 S-170 S-176	Cardiac arrest with hypothermia: Limit epinephrine to 1 dose and withhold antiarrhythmic medications until temperature ≥86 °F / ≥30 °C Epinephrine IM: Use caution if known cardiac history, history of hypertension, SBP >150 mmHg, or age >40 Diphenhydramine may be administered between epinephrine doses in anaphylaxis	
FENTANYL CITRATE	MODERATE pain (score 4 - 6) or SEVERE pain (score 7 - 10) or Refusal /contraindication to acetaminophen or ketamine	S-141, S-173	Changing route of administration requires **BHO** (e.g., IV to IM or IM to IN) Changing analgesic requires **BHO** (e.g., fentanyl to ketamine) Treatment with opioids if SBP <100 mmHg requires **BHO** **BHPO** required for: • Isolated head injury • Acute onset severe headache • Drug/EtOH intoxication • Major trauma with GCS <15 • Suspected active labor	

MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
GLUCAGON	Unable to start IV in patient with symptomatic hypoglycemia with altered LOC or unresponsive to oral glucose agents if BS <60 mg/dL (Neonate <45 mg/dL) Suspected beta blocker OD with cardiac effects (e.g., bradycardia with hypotension)	S-123, S-161 S-134 S-144	High doses of glucagon may cause nausea/vomiting	
IPRATROPIUM BROMIDE	Respiratory distress of non-cardiac origin Anaphylaxis with respiratory involvement	S-122, S-162 S-136, S-167	Added to first dose of albuterol via continuous O_2-powered nebulizer If concerned about aerosolized infectious exposure, use patient's ipratropium bromide MDI, if available, or withhold ipratropium bromide	
KETAMINE	For moderate to severe pain (score ≥5) with trauma, burns, or envenomation injuries	S-141	Must meet all requirements: • ≥15 years old • GCS of 15 • Not pregnant • No known or suspected alcohol or drug intoxication Changing route of administration requires **BHO** (e.g., IV to IM or IM to IN) Changing analgesic requires **BHO** (e.g., fentanyl to ketamine) Treatment with opioids if SBP <100 mmHg requires **BHO** **BHPO** required for: • Isolated head injury • Acute onset severe headache • Drug/EtOH intoxication • Major trauma with GCS <15 • Suspected active labor	Pediatric patients (14 years of age or younger)

MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
LIDOCAINE	Prior to IO fluid infusion in the conscious patient Reported/witnessed ≥2 AICD firing and pulse ≥60 Pulse ≥60 status post-defibrillation (defibrillation/AED) Stable VT Persistent pulseless VF/VT after 3 defibrillation attempts	S-127, S-163	Adult doses should be given in increments rounded to the nearest 20 mg amount In the presence of shock, CHF or liver disease, the repeat bolus is recommended at 10-minute intervals Cardioversion first if unstable with severe symptoms	Second- and third-degree heart block and idioventricular rhythm
LIDOCAINE JELLY (2%) optional	Intubation or Nasopharyngeal airway		Apply to ET tube or nasal airway	
MIDAZOLAM	Consider prior to cardioversion Severely agitated and/or combative patient requiring restraint for patient or provider safety Consider prior to external pacemaker Status epilepticus seizure Partial seizure lasting >5 minutes (includes seizure time prior to arrival of prehospital provider) Eclampsia (seizures)	S-123, S-161 S-127, S-163 S-133, S-166 S-142, S-175	Pre-cardioversion sedation is recommended whenever possible. Consider lower dose of midazolam for pre-cardioversion with attention to age and hydration status. For severely agitated or combative patients, IN or IM midazolam is the preferred route to decrease risk of injury to the patient and personnel. **Alert:** Co-administration of midazolam in patients with alcohol intoxication can cause respiratory depression. Consider avoiding or reducing midazolam dose. Severely agitated and/or combative patient requiring restraint for patient or provider safety midazolam SO ≥8 years, **BHO** <8 years	

MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
MORPHINE SULPHATE	MODERATE pain (score 4 - 6) or SEVERE pain (score 7 - 10) or Refusal /contraindication to acetaminophen or ketamine	S-141 S-173	Changing route of administration requires **BHO** (e.g., IV to IM or IM to IN) Changing analgesic requires **BHO** (e.g., fentanyl to ketamine) Treatment with opioids if SBP <100 mmHg requires **BHO** **BHPO** required for: • Isolated head injury • Acute onset severe headache • Drug/EtOH intoxication • Major trauma with GCS <15 • Suspected active labor	
NALOXONE	Symptomatic suspected opioid OD with respiratory depression (RR<12, SpO_2<96%, or $ETCO_2$ >40 mmHg). Titrate slowly in opioid-dependent patients.	S-123, S-161 S-134, S-165	If patient refuses transport, give additional naloxone IM SO If patient refuses transport, consider dispensing Leave Behind Naloxone 4 mg nasal spray preloaded device with education for patient and household members SO	
NITROGLYCERIN (NTG)	Discomfort/pain of suspected cardiac origin with SBP ≥100mmHg Respiratory distress with suspected CHF/cardiac origin Fluid overload with rales in hemodialysis patient	S-126 S-131 S-136		Suspected intracranial bleed NTG is contraindicated in patients who have taken: • erectile dysfunction medications such as sildenafil (Viagra®), tadalafil (Cialis®), and vardenafil (Levitra®) within 48 hours; and • pulmonary hypertension medications such as sildenafil (Revatio®) and epoprostenol sodium (Flolan® and Veletri®).
NORMAL SALINE	Definitive therapy	All	Definitive therapy defined as immediate or anticipated immediate need for administration of a fluid bolus or medications	Rales is a relative contraindication for fluid bolus Fluid bolus may be administered regardless of lung sounds in adult sepsis (S-143), and one time only in pediatric sepsis (S-177)

MEDICATION	INDICATIONS	PROTOCOL	COMMENTS	CONTRAINDICATIONS
ONDANSETRON	Nausea and/or vomiting	S-120 S-174		
SODIUM BICARBONATE ($NaHCO_3$)	Suspected hyperkalemia in PEA/asystole Suspected tricyclic OD with cardiac effects (e.g., hypotension, heart block, or widened QRS) Suspected hyperkalemia in hemodialysis patient in presence of widened QRS complex or peaked T waves Crush injury with compression of extremity or torso ≥2 hours	S-127, S-163 S-134, S-165 S-131 S-139, S-169	Flush IV tubing between medication administration	