1. EMD Drugs Table 5.2
2. EMT Narcan Protocol
3. EMT OTC Protocol
5. Push-dose Epi Protocol
6. Sedation Protocol
**KEY:**

A  = Authorized to administer the agent

SVN  = Agent shall be administered by small volume nebulizer

MDI  = Agent shall be administered by metered dose inhaler

**  = Authorized to assist in patient self-administration

A-T  = May be performed with training

<table>
<thead>
<tr>
<th>AGENT</th>
<th>EMT</th>
<th>PARAMEDIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenosine</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Albuterol Sulfate</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>SVN or MDI (sulfite free)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amiodarone</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Aspirin (ASA)</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Atropine Sulfate</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Atropine Sulfate</td>
<td>A-T</td>
<td>A</td>
</tr>
<tr>
<td>Auto-Injector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atropine Sulfate and Pralidoxime Chloride</td>
<td>A-T</td>
<td>A</td>
</tr>
<tr>
<td>(Combined) Auto-Injector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bumetanide</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Calcium Chloride</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Calcium Gluconate 2.5% topical gel</td>
<td>A-T</td>
<td>A</td>
</tr>
<tr>
<td>Charcoal, Activated (without sorbitol)</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Cyanokits</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Dexamethasone</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Dextrose</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Dextrose, 5% in H2O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Diazepam</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Diltiazem</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Diphenhydramine HCl</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Dopamine HCl</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Epinephrine Auto Injector</td>
<td>A-T</td>
<td>A</td>
</tr>
<tr>
<td>Epinephrine</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Etomidate</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Fentanyl</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Furosemide</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Glucagon</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Glucose, oral</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Ipratropium Bromide</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>SVN or MDI</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Drug</td>
<td>ADMIN</td>
<td>MONITOR</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>Ketamine</td>
<td>A-T</td>
<td></td>
</tr>
<tr>
<td>Lactated Ringers</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Lidocaine</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Lorazepam</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Magnesium Sulfate</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Midazolam</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Morphine Sulfate</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Nalmefene HCl</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Naloxone HCl</td>
<td>A-T</td>
<td></td>
</tr>
<tr>
<td>Nitroglycerin Sublingual Tablets or Spray</td>
<td>**</td>
<td>A</td>
</tr>
<tr>
<td>Normal Saline</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Ondansetron HCl</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>OTC Medications</td>
<td>A-T</td>
<td>A-T</td>
</tr>
<tr>
<td>Oxygen</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Oxytocin</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Phenylephrine Nasal Spray 0.5%</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Pralidoxime Chloride Auto-Injector</td>
<td>A-T</td>
<td></td>
</tr>
<tr>
<td>Rocuronium</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Sodium Bicarbonate 8.4%</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Succinylocholine</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Thiamine HCl</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Vasopressin</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Verapamil HCl</td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>
EMT Administration of Naloxone Protocol

General Guidelines
1. Training prior to use of naloxone in recognizing a patient suffering from an opioid-related overdose.
2. Follow the EMT Stabilization Administrative Order (AO), CCR AO along with protocol and algorithm.
3. Use caution when administering Naloxone to narcotic-dependent patients.
4. Other disease processes may mimic opioid overdose; be aware of possible low blood glucose, head injury, stroke, shock or hypoxia.
5. Post administration:
   - Place the patient in the recovery position
   - If patient is not breathing and/or has no pulse, begin rescue breathing/ventilations or CPR
   - Be alert for vomiting/diarrhea and agitation (withdrawal symptoms)
   - Even if the person wakes up and starts breathing, the overdose symptoms can come back
   - The patient should be transported to the hospital ALS if possible
6. Documentation should include but not limited to:
   - Location of incident
   - Indications for use
   - Dose, route, and time of naloxone administration
   - Response to administration
   - Patients disposition, i.e. EMS, DOA, Elope, etc.

Medication
1. Naloxone Dosage (Adult and Pediatric)
   A. Prehospital Indications
      - Altered Level of Conscious (LOC)
      - Respiratory depression or apnea
        - Shallow, slow respirations-less than 8-10 breaths per minute
        - Inadequate respirations
        - In setting of likely opioid ingestion
          - Unable to wake up with painful stimuli
      - Constricted pupils (miosis)
      - Needle track marks
      - Profuse sweating (diaphoresis)
      - Cardiac arrest
   B. Dosage (Adult and Pediatric)
      Auto-injector (IM)
      - 0.4 mg IM dose
      - If no response after 2 minutes, may repeat as necessary
      - Max dose 4.0 mg
      Intrasal (IN)
      - 1.0 mg in each nostril using the MAD for a total of 2.0 mg
      - If no response after 2 minutes, may repeat with max dose 4.0 mg
EMT Administration of Naloxone Protocol

Naloxone Algorithm: When to use Naloxone

Overdose Suspected

Responsive to Painful Stimuli

Breathing Status

Normal or Fast

Slow (<10/Min)

None or Gasping

Turn on Side

Naloxone

Initiate CPR/Rescue Breathing

Administer Naloxone
Over-the-Counter Medication Protocol

General Guidelines

1. Protocol for administer of Over-the-Counter (OTC) medications to patients who have fevers in the prehospital setting with suspected infection, illness or febrile seizure.
2. If patient is alert and not vomiting give all medications orally if age appropriate.
3. If patient has decreased level of consciousness or is vomiting use suppository.
4. Child under age of six years, who has experienced a febrile seizure; take axilla temperature.
5. Acetaminophen suppositories will be administered after the EMTC has donned gloves, gently push the lubricated suppository into the rectum.
6. Temperatures by axilla are normally one degree lower than the oral temperatures while temperatures taken rectally are one degree higher than oral temperatures.
7. Fever is defined as greater than 99° F or 37.2 C (axilla) and/or oral/rectal as 100.5° F or 38° C (as documented by a suitable device)
8. Acetaminophen and ibuprofen: Contraindication to oral administration of medications (i.e. abdominal pain or trauma, facial or head injury) or patient has taken acetaminophen or ibuprofen within the last four hours.
9. Acetaminophen and ibuprofen: Precautions for use in individuals with major liver disease, heavy ETOH use or renal disease.
10. Dosage for pain control follow Pain Management Administrative Order

Medications

1. Acetaminophen Administration (one time dose)
   A. Prehospital Indications
      • Administration approved for patients greater than 3 months of age
   B. Dosage for patient with pain or febrile (oral liquid, rectal suppository or tablet/capsule)
      • Adult (≥ 15 years age) up to 650 mg PO
      • Pediatric (3 months-14 years of age) 10 mg/kg PO
      • ALS Only: Pediatric ≤ 2 years of age rectal:
         a. ≤ 10 kg - 120 mg suppository
         b. 10-20 kg - 160 mg suppository
         c. ≥ 20 kg - 325 mg suppository

2. Ibuprofen Administration (one time dose)
   A. Prehospital Indications
      • Administration approved for patients greater than 6 months of age
   B. Dosage for patient with pain or febrile (oral liquid, or tablet/capsule)
      • Adult (≥ 15 years age) 200-600 mg PO
      • Pediatric (≥ 6 months-14 years of age) 5 mg/kg

3. Diphenhydramine (one time dose)
   A. Prehospital Indications
      • EMTC use with stable Anaphylaxis/Allergic Reaction SO
      • Administration approved for patients greater than 3 months of age
   B. Dosage
      • Adult (≥ 15 years age) 25-50 mg PO
      • Pediatric (≥ 6 months-14 years of age) 1 mg/kg (max 25mg) PO
PARAMEDIC TREATMENT PROTOCOL: SEDATION/ CHEMICAL RESTRAINT

This Protocol is to be reserved for patients who cannot otherwise be restrained or restrained only at the risk of significant harm to the patient, law enforcement, and EMS providers. Chemical restraint is to be used only when the patient can be adequately and repeatedly monitored by Paramedic providers after the patient has been dosed with below medications.

1. Age limit; 15-69 years of age
2. Consider other causes of combative or irrational behavior, including but not limited to hypoxia and hypoglycemia.
3. Approach patient in a calm and cautious manner, attempt verbal de-escalation prior to involuntary restraint.
4. Urgent de-escalation of patient agitation is imperative in the interest of patient safety as well as for EMS personnel and others on scene.
5. After patient has been sedated and when possible; assess mental status, vital signs including blood glucose and temperature, ECG monitor, SpO2, ETCO2.
6. Venous access, if possible, with normal saline 250ml fluid challenge; may repeat prn with clear lung sounds.
7. Patients with restraints shall not be transported in the prone position
8. Patient must be examined and documented every 5 minutes. All patients will be transported to the closest most appropriate facility for further evaluations.

MILD SEDATION (Anxiety)
- Midazolam 1-2mg IV/IN/IM or
- Lorazepam 0.5-2mg IV/IM

MODERATE SEDATION (potential harm to self or others without psychiatric history)
- Midazolam 2-5mg IV/IN/IM (IN administration use only 5mg/ml dosing. Ideal volume is maximum 1 ml per nostril)
- Lorazepam 1-2mg IV

CHEMICAL RESTRAINT (Potential harm to self or others, psychiatric history, drug use)
- Ketamine 250mg IM only (May repeat x 1 with medical direction authority)
- Midazolam 2-5mg IV/IN/IM and/or
- Lorazepam 2mg IV

SPECIAL CONSIDERATIONS

EXCITED DELIRIUM SYMPTOMS - also known as agitated delirium (AD)
Is characterized by an acute onset of extreme agitation aggressive, threatening, or combative behavior, amazing feats of strength, loud, incoherent speech, dilated pupils/less reactive to light, bizarre, combative behavior.

1. AD can interfere with the body’s ability to regulate temperature:
   - Treatment protocol for suspected hyperthermia: active cooling measures i.e. ice bags, air conditioned ambulance, IV access normal saline 250ml fluid challenge; may repeat prn with clear lung sounds, treat potential medical complications
   - Follow Hyperthermia AO as needed
2. All patients will be transported to the closest most appropriate facility for further evaluation

**If chemical restraint is used, a copy of the patient care report must be made available to the Base Hospital Medical Director through the Base Hospital Manager within 24 hours.**
Push-Dose Epinephrine Policy and Protocol

Purpose
To provide for rapid, effective and safe management of hypotensive patients requiring intravenous epinephrine in the non-cardiac arrest setting.

Policy
Using online medical direction only: Paramedics based with Tucson Medical Center may utilize epinephrine as a “push-dose” option for certain situations requiring IV epinephrine as an alternative to a continuous infusion when time or equipment constraints do not allow for the timely administration of this medication. This protocol is intended to only be used in adult patients.

Procedure
1. Obtain a 10 ml syringe and fill it with 9 ml of sterile normal saline.
2. Into the syringe, draw up 1 ml of epinephrine 1:10,000 (from a cardiac arrest amp, concentration is 100mcg/mL) and vigorously roll syringe between your hands to ensure it is well mixed.
3. Label the syringe “Epinephrine: 1:100,000” or 10 mL of Epinephrine 10mcg/mL

Or
1. Obtain a 10 mL syringe prefilled with sterile normal saline and push 1 ml out of syringe.
2. Into the syringe, draw up 1 ml of epinephrine 1:10,000 (from a cardiac arrest amp, concentration is 100mcg/mL) and vigorously roll syringe between your hands to ensure it is well mixed.
3. Label the syringe “Epinephrine: 1:100,000” or 10 mL of Epinephrine 10mcg/mL

Indications
- Indications for push-dose pressors include transient hypotension — when the paramedic anticipates that the patient’s blood pressure will improve if given some time, but the current blood pressure is dangerously low, as may occur post-intubation
- Another indication is as a temporizing measure until arrival to emergency department when ETA constraints do not allow for the timely administration of this medication for severe asthma or anaphylaxis, post arrest hypotension

Dose
- Asthma/Anaphylaxis- 0.5-2 ml every 2-5 minutes (5-20 mcg). This is equivalent to dose of epinephrine given via infusion (5-20 mcg/min)
- Hypotension/Symptomatic Bradycardia- 0.5-1 ml every 1-2 minutes (5-10 mcg). This is equivalent to dose of epinephrine given via infusion (5-10 mc/min)
- Post Arrest Hypotension- 0.5-1 ml every 1-2 minutes (5-10 mcg). This is equivalent to dose of epinephrine given via infusion (5-10 mc/min)

Onset
- 1 minute

Duration
- 5-10 minutes

Pearls, Pitfalls and Conclusions
Push-Dose Epinephrine Policy and Protocol

- **Ensure your use of the correct dosage of epinephrine**
- **Do not bolus cardiac arrest doses of epinephrine (1:10,000) unless the patient is pulseless**
- Use your critical thinking. Ask yourself why your patient is hypotensive? If rate related, treat that. Fill the tank first
- Utilize the smallest dose necessary to alleviate undesirable symptoms and titrate your dosing to patient effect
- Epinephrine has both \(\alpha\) and \(\beta\)-adrenergic activity and will therefore stimulate the heart in addition to causing vasoconstriction. This will increase myocardial oxygen demand
- Pressors can be given via peripheral IV but carefully monitor your IV site for S/S of extravasation. If extravasation is noted, discontinue use of this site and reestablish reliable IV access at another site
- IO cannulations should be considered the preferred site for administration of antihypotensive agents in the field until another means of central access can be achieved later in the ED.
Sedation Protocol

Base Hospital

Indication
Sedation should only be administered when indicated in specific Administrative Order (AO) for controlled reduction of environmental awareness. Should not be used on patients that meet the Behavioral AO or Chemical Restraint Protocol (follow those guidelines).

Procedures
1. Transcutaneous Pacing
2. Sync Cardioversion
3. Extrication
4. CPAP as indicated

Primary Treatment
1. Anxiety
2. Hyperventilation brought on by acute anxiety
3. A sense of impending danger, panic or doom
4. Alcohol or drug withdrawal

Treatment Plan
1. Follow appropriate AO along with this protocol.
2. Continuous ECG, ETCO2, and Pulse Oximetry monitoring when available.
3. Monitor vital signs every 5 minutes. If patient becomes hypotensive, administer 250-500 ml NS/LR IV bolus for adults and 20 ml/kg for pediatric patients
4. Closely monitor patients’ respiratory effort and effectiveness as indicated

CPAP Management
• Midazolam Dosing:
  o 0.5-2.5mg IV, 5mg IM. May repeat every 5-10 minutes as needed to max of 5mg

Sedation for Painful Procedures
• Midazolam Adult Dosing
  o 0.5-2.5mg IV, 5mg IM. May repeat every 5-10 minutes as needed to max of 5mg
• Midazolam Peds Dosing
  o 0.05-0.1mg/kg IV, repeat every 5-10 minutes as needed to max of 2.5mg

Anxiety/Alcohol/Drug Withdrawal
• Choose ONE for treatment and maximize dosing. Contact Medical Direction before changing to different medication. Lorazepam prefer for alcohol/drug withdrawal

Adult Dosing
Midazolam
• Dosage is cut in half if the patient has received narcotics or alcohol
• IV/IO/IM 2-4 mg every 5 min to the desired effect or max 10 mg dose
• Intranasal 2-4 mg/kg to a maximum of 10 mg as one-time dose

Lorazepam
• IV/IO/IM 1-2 mg every 5 min to the desired effect or max dose of 4 mg

Peds Dosing
Midazolam
• Dosage is cut in half if the patient has received narcotics or alcohol
• IV/IO/IM 0.1 mg/kg (max dose 4 mg) DO NOT exceed adult dosing
• Intranasal 0.4 mg/kg (max dose 10 mg)

Lorazepam
• IV/IO/IM 0.1 mg/kg (max dose of 4 mg) DO NOT exceed adult dosing