



Arizona EMT Drug Profiles

v2.0

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EMT Drug Profile Format

GENERIC NAME

- The generic name is an abbreviated version of the drug's *chemical name* usually created by the pharmaceutical manufacturer.
- The first letter of the generic name *is not* capitalized.
- Examples:
 - *nitroglycerin*
 - *diphenhydramine*
 - *albuterol*
- The drug receives its *official name* from the Federal Drug Administration (FDA) when it approves the drug for entry into the *United States Pharmacopeia* (USP).

TRADE, BRAND, OR PROPRIETARY NAME

- The trade, brand, or proprietary name is protected by a patent from the drug's pharmaceutical company.
- The first letter of the trade, brand, or proprietary name *is* capitalized and followed by the trademark symbol.
- Examples:
 - *Nitro-Bid*®
 - *Benadryl*®
 - *Proventil*®

CLASS

- The class describes
 - characteristics and traits of the drug
 - desired therapeutic effects of the drug
 - the drug's physiologic effects on the body
 - indications for administering the drug
- The drug may be included in multiple classes.

STANDARD SUPPLY

- The standard supply describes the form(s) of the drug packaged for the provider.
- The drug may be packaged in multiple forms.

MECHANISM OF ACTION

- The mechanism of action describes how the drug produces its desired therapeutic effects.

INDICATION

- An indication is a medical condition which the drug has been proven to produce desired therapeutic effects.

CONTRAINDICATION

- A situation when the drug should not be administered is considered a contraindication.

ADVERSE REACTIONS/SIDE EFFECTS

- An adverse reaction or side effect is an undesirable response to administration of the drug.

ROUTE OF ADMINISTRATION

- The route describes how the drug is administered.
- There may be multiple routes to administer the drug.

ONSET OF ACTION

- The onset of action is the amount of time it takes the drug to produce its desired therapeutic effects.

ADULT DOSAGE

- This is the amount of the drug administered to an adult according to protocols or medical control preference.
- There can be multiple adult dosages.

PEDIATRIC DOSAGE

- This is the amount of the drug administered to an infant, child, or adolescent according to protocols or medical control preference.
- There can be multiple pediatric dosages.

SPECIAL CONSIDERATION

- This is additional information to consider when administering the drug.

AUTHORIZATION FOR THE EMERGENCY MEDICAL TECHNICIAN (EMT) TO ADMINISTER SELECT DRUGS IN THE STATE OF ARIZONA

The Arizona Department of Health Services Bureau of Emergency Medical Services & Trauma System (AzDHS/BEMSTS), medical direction, and scope of practice protocols authorize the EMT to administer select drugs in the State of Arizona.

GENERIC NAME**Acetylsalicylic acid****TRADE, BRAND, OR PROPRIETARY NAMES**

- Bayer Aspirin®
- Anacin®
- Bufferin®
- Excedrin®
- St. Joseph Adult Low Dose Aspirin®
- Others

CLASSES

- Platelet aggregator inhibitor
- Nonsteroidal anti-inflammatory drug (NSAID)

STANDARD SUPPLIES

- 81 mg tablet
- 325 mg tablet

MECHANISM OF ACTION

- Prevents platelets from clumping (aggregating)
- Prevents clots from forming

INDICATION

- Chest pain suggestive of an acute myocardial infarction

CONTRAINDICATIONS

- Known hypersensitivity to the drug
- Not recommended for use with pediatric patients

ADVERSE REACTIONS/SIDE EFFECTS

- None in the emergency setting

ROUTE OF ADMINISTRATION

- Oral - chewed

ONSET OF ACTION

- 5 to 30 minutes

ADULT DOSAGES

- 160 to 325 mg

SPECIAL CONSIDERATION

- Chewing is preferred to swallowing the tablet(s)

Bronchodilators

GENERIC / TRADE, BRAND, OR PROPRIETARY NAMES

- albuterol / Proventil[®], Ventolin[®]
- ipratropium bromide / Atrovent[®]
- ipratropium bromide & albuterol premix / Combivent[®]
- isoetharine / Bronkosol[®], Bronkometer[®]
- levalbuterol / Xopenex[®]
- metaproterenol / Alupent[®], Metaprel[®]
- salmeterol / Serevent[®]
- triamcinolone / Azmacort[®]

CLASS

- Bronchodilator

STANDARD SUPPLIES

- Metered-dose inhaler
- Premixed solution in a unit dose

MECHANISM OF ACTION

- Relaxes bronchial smooth muscle resulting in bronchodilation

INDICATIONS

- Asthma
- Bronchospasm associated with chronic bronchitis and emphysema

CONTRAINDICATIONS

- Known hypersensitivity to the drug

ADVERSE REACTIONS/SIDE EFFECTS

- Tachycardia
- Hypertension
- Irregular heart rate
- Tremors
- Palpitations
- Chest pain
- Nervousness
- Anxiety
- Headache
- Nausea, vomiting

ROUTES OF ADMINISTRATION

- Metered-dose inhaler (MDI) that delivers a unit dose
- Aerosolized inhalation delivered by small volume nebulizer (SVN)

ONSET OF ACTION

- Varies according to the medication and the route of administration
- 5 to 15 minutes

ADULT DOSAGE

- Follow local protocols and medical control preference for administering the drug

PEDIATRIC DOSAGE

- Follow local protocols and medical control preference for administering the drug

SPECIAL CONSIDERATION

- When administered with other bronchodilators, these drugs can increase adverse reactions and side effects

GENERIC NAME**Charcoal, Activated****TRADE, BRAND, OR PROPRIETARY NAMES**

- Actidose®
- EZ-Char®
- Liqui-Char®
- Others

CLASS

- Adsorbent

STANDARD SUPPLIES

- Tube
- Bottle

MECHANISM OF ACTION

- Adsorbs (binds with) and inactivates toxic substances in the gastrointestinal tract

INDICATIONS

- Oral poisonings
- Oral overdoses

CONTRAINDICATIONS

- The patient cannot protect their airway
- Ingestion of
 - Caustics
 - Hydrocarbons
 - Acids
 - Corrosives
 - Cyanide
 - Solvents
 - Iron
 - Lithium
 - Lead
 - Petroleum substances

ADVERSE REACTIONS/SIDE EFFECTS

- Aspiration
- Nausea, vomiting

ROUTE OF ADMINISTRATION

- Oral

ONSET OF ACTION

- Immediate

ADULT DOSAGES

- 30 to 60 Gm (1.0 to 2.0 Gm/kg)

PEDIATRIC DOSAGES

- 0.5 to 1.0 Gm/kg

SPECIAL CONSIDERATION

- If aspirated, the drug can cause serious pulmonary complications

GENERIC NAME

Epinephrine

TRADE, BRAND, OR PROPRIETARY NAMES

- Adult EpiPen®
- EpiPen Jr.®

CLASS

- Bronchodilator
- Sympathomimetic

STANDARD SUPPLIES

- Adult EpiPen® auto-injector – 0.3 mg
- EpiPen Jr.® auto-injector – 0.15 mg

MECHANISM OF ACTION

- Relaxes bronchial smooth muscle resulting in bronchodilation

INDICATIONS

- Severe allergic reaction
- Anaphylaxis
- Asthma
- Reversible bronchospasm associated with chronic bronchitis and emphysema

CONTRAINDICATION

- None in the emergency setting

ADVERSE REACTIONS/SIDE EFFECTS

- Tachycardia
- Increased myocardial oxygen demand
- Hypertension
- Irregular heart rate
- Dyspnea
- Palpitations
- Chest pain
- Nervousness
- Anxiety
- Dizziness
- Headache
- Tremors
- Nausea, vomiting

ROUTE OF ADMINISTRATION

- Intramuscular (IM) injection by auto-injector

ONSET OF ACTION

- Immediate

ADULT DOSAGE

- 0.3 mg
- Do not repeat the dosage

PEDIATRIC DOSAGE

- 0.15 mg
- Do not repeat the dosage

SPECIAL CONSIDERATION

- When administered with other bronchodilators and sympathomimetics, the drug can increase adverse reactions and side effects

GENERIC NAME**Naloxone****TRADE, BRAND, OR PROPRIETARY NAME**

- Narcan®

CLASS

- Narcotic antagonist

STANDARD SUPPLIES

- Prefilled syringe with a mucosal atomizer device (MAD)
- Others

MECHANISMS OF ACTION

- Reverses the effects of narcotics and synthetic analgesic drugs:
 - central nervous system depression
 - respiratory depression
 - respiratory arrest

INDICATIONS

- Narcotic and synthetic analgesic overdoses, including:
 - morphine
 - heroin
 - oxycodone
 - methadone
 - codeine
 - meperidine
 - fentanyl
 - hydrocodone
 - hydromorphone
- Unconsciousness of unknown etiology

CONTRAINDICATION

- None in the emergency setting

ADVERSE REACTIONS/SIDE EFFECTS

- Withdrawal symptoms, including:
 - Confusion
 - Hypotension
 - Tachycardia
 - Hypertension
 - Irregular heart rate
 - Diaphoresis
 - Nausea, vomiting

ROUTES OF ADMINISTRATION

- Intra-nasal (IN)
- Other routes approved by medical direction

ONSET OF ACTION

- Less than 2 minutes

ADULT DOSAGES

- 1.0 mg (1.0 mL) sprayed in each nostril with a MAD or other dosage approved by medical direction
- May repeat the dosage every 2 minutes

PEDIATRIC DOSAGES

- 1.0 mg (1.0 mL) sprayed in each nostril with a MAD or other dosage approved by medical direction
- May repeat the dosage every 2 minutes

SPECIAL CONSIDERATION

- Duration of the drug is 30 to 60 minutes

GENERIC NAME**Nitroglycerin****TRADE, BRAND, OR PROPRIETARY NAMES**

- Nitro-Bid®
- Nitrolingual®
- Nitrostat®
- Others

CLASSES

- Vasodilator
- Antianginal

STANDARD SUPPLIES

- Tablet
- Multi-dose spray bottle

MECHANISMS OF ACTION

- Relaxes vascular smooth muscle
- Dilates coronary arteries resulting in increased blood flow to the myocardium
- Decreases workload on the heart
- Decreases myocardial oxygen demand

INDICATIONS

- Chest pain and signs/symptoms suggestive of an acute myocardial infarction or unstable angina

CONTRAINDICATIONS

- Hypotension (systolic blood pressure less than 100 mm Hg)
- Hypovolemia
- The patient has taken an erectile dysfunction (ED) medication in the previous 24 hours including:
 - sildenafil (Viagra®)
 - tadalafil (Cialis®)
 - vardenafil (Levitra®)
- Not recommended for use with pediatric patients

ADVERSE REACTIONS/SIDE EFFECTS

- Hypotension
- Bradycardia
- Tachycardia
- Headache
- Dizziness
- Weakness
- Syncope
- Nausea, vomiting

ROUTE OF ADMINISTRATION

- Sublingual

ONSET OF ACTION

- 1 to 3 minutes

ADULT DOSAGES

- **Tablet:** 0.4 mg
- **Single spray:** 0.4 mg
- May repeat the dosage in 3 to 5 minutes twice after the initial dosage

SPECIAL CONSIDERATION

- Peak effect of the drug is 5 to 10 minutes

GENERIC NAME

Oral glucose

TRADE, BRAND, OR PROPRIETARY NAMES

- Glutose®
- Insta-Glucose®
- Others

CLASSES

- Carbohydrate
- Hyperglycemic

STANDARD SUPPLY

- Tube

MECHANISM OF ACTION

- Increases the glucose levels in the blood

INDICATION

- Hypoglycemia

CONTRAINDICATION

- The patient cannot protect their airway

ADVERSE REACTIONS/SIDE EFFECTS

- Nausea, vomiting

ROUTES OF ADMINISTRATION

- Buccal
- Sublingual

ONSET OF ACTION

- Variable

ADULT DOSAGES

- 15 to 50 Gm
- May repeat the dosage

PEDIATRIC DOSAGES

- 5.0 to 50 Gm
- May repeat the dosage

SPECIAL CONSIDERATIONS

- Check the blood glucose level before administering the drug
- Check the blood glucose level after

GENERIC NAME

Oxygen

CLASS

- Natural atmospheric gas

STANDARD SUPPLIES

- Cylinders of various sizes

MECHANISMS OF ACTION

- Reverses hypoxia
- Increases arterial oxygen concentration
- Increases hemoglobin saturation
- Increases tissue oxygenation

INDICATIONS

- Hypoxia
- Suspected hypoxia

CONTRAINDICATION

- Oxygen supports combustion with an ignition source

ADVERSE REACTIONS/SIDE EFFECTS

- Oxygen that is not humidified may dry or irritate mucous membranes in the nose and throat

Oxygen Delivery and Ventilation Devices Rates and Percentages

Oxygen Delivery & Ventilation Devices	Delivery Rate	Oxygen Percentages
nasal cannula	1 to 6 L/minute	24 to 44%
simple face mask	8 to 10 L/minute	40 to 60%
partial nonrebreather mask	15 L/minute	80 to 90%
nonrebreather mask	10 to 15 L/minute	up to 90%
mouth-to-mask device without supplemental oxygen	N/A	16 to 17%
mouth-to-mask device with supplemental oxygen	15 L/minute	up to 55%
bag-valve mask with reservoir	15 L/minute	up to 100%
continuous positive air pressure (CPAP)	variable	up to 80%

ONSET OF ACTION

- Varies according to the delivery device, ventilation device, and liter flow

SPECIAL CONSIDERATION

- In the emergency setting, delivery of high-flow oxygen does not have a significant respiratory depressive effect on the patient with a cardiovascular condition or chronic obstructive pulmonary disease specifically emphysema