

# Marquette County EMS Medical Control Authority

## Medication Administration Procedure

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**Purpose:** To define the procedure to be utilized by personnel in administering medication in compliance with the Marquette County EMS Medical Control Protocol unless otherwise authorized by an on-line Medical Control Physician.

### I. Indications for Administration

- a. Patient assessment is completed by on-scene EMS personnel.
- b. Need for medication identified by on-scene paramedic, or as ordered by on-line medical control.
- c. Patient is interviewed for known allergies and medication history to identify risk of drug interaction or potentiation.
- d. Paramedic is familiar with the:
  - i. Medication
  - ii. Guidelines for administration
  - iii. Actions
  - iv. Side-effects
  - v. Drug interactions
  - vi. Contraindications

### II. Preparation for Administration

- a. Correct medication identified
- b. Supply of medication acquired
- c. Medication is checked for:
  - i. Right medication
  - ii. Right dose /amount
  - iii. Right time
  - iv. Right route for administration
  - v. Expiration date
- d. All supplies needed are gathered and organized in work area.
- e. Communication is provided to patient regarding need for medication, and its effects.
- f. Personal protective equipment is utilized.

### III. Administration

- a. Oral Medications
  - i. Open packaging over a clean work area in case medications spill from package and can be retrieved.
  - ii. Provide medications to patient with direction on the administration; ie to be chewed, swallowed, held under the tongue, or buccal, etc.
    1. For buccal administration of glucose paste to the patient with an altered level of consciousness:
      - a. Position the patient on their side
      - b. Administer small amounts of the paste between the gum and the cheek wall. Instruct the patient to swallow.
- b. Rectal Medications
  - i. Attach a teflon catheter (from an angiocath) to the end of a syringe that contains medication to be administered. Gently insert catheter into rectum and instill medication.
- c. Nebulizer Therapy
  - i. Self-administered by the patient with a hand-held, or mask nebulizer, **OR** nebulized with positive-pressure breathing device such as a bag-valve-mask, **OR** with the bag-valve attached to the ET tube.

- ii. Medication is measured and introduced into nebulizer using manufacturer's recommend liters per minute of oxygen attached to nebulizer.
  - iii. Patient is instructed to breathe normally and to hold a deep inspiration every 4-5 breaths.
  - iv. Patient is monitored throughout procedure per protocol, policy or procedure.
  - v. Treatment is continued until all medication is gone or is discontinued due to complication in patient condition.
- d. Endotracheal Administration
- i. When vascular access cannot be obtained and an endotracheal tube is in place, specific medications can be administered down the ET tube.
  - ii. The medication is rapidly injected down the tube in a bolus that is diluted or followed by normal saline to flush the tube. The total fluid that should be administered in one bolus is 10 ml.
  - iii. The medications that may be given down the ET tube are:
    - 1. epinephrine
    - 2. atropine
    - 3. naloxone (Narcan)
    - 4. lidocaine
    - 5. midazolam (Versed)
    - 6. diazepam (Valium)
- e. Subcutaneous Injections
- i. Medication is prepared in syringe 1 ml or less with needle 25-27ga., ½ - 5/8 inch.
  - ii. A site is selected and cleansed (upper outer arm, front of the thigh, or abdomen).
  - iii. Pinch skin up into a fat fold of at least 1 inch.
  - iv. Insert needle at 45-degree angle, aspirate.
  - v. If no blood appears in syringe, inject medication slowly.
  - vi. Gently massage site with alcohol wipe.
  - vii. Dispose of syringe in sharps container.
- f. Intramuscular Injections
- i. Medication is prepared in syringe of less than 5 cc with needle 18-22 ga., 1½ to 2 inches. 0.2 ml of air may be added to syringe.
  - ii. Site is selected and cleansed (deltoid, dorsalguteal, ventrogluteal, or vastus lateralis).
  - iii. Spread skin taut, insert needle at 90-degree angle, aspirate.
  - iv. If no blood appears in syringe, inject medication slowly.
  - v. Apply slight pressure to site with alcohol wipe.
  - vi. Dispose of syringe in sharps container.
- g. Intravenous Medications: Bolus Dose
- i. Medication is prepared in syringe with Luer-lock connector or protected-needle. (A needle to insert into a port should only be used as a last resort.)
  - ii. All air is cleared from syringe and excess medication expelled.
  - iii. Site is cleansed and syringe is attached via luer-lock to stop-cock, other luer-lock connector, or protected needle is inserted into capped port of IV line.
  - iv. Patency of IV is checked by aspirating blood or by monitoring flow with no signs of infiltration.

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- v. IV line is clamped, or flow is controlled to flush medication, as medication is pushed into IV port.
  - vi. Time taken to administer medication is specific to medication. Flush IV line to assure medication administration.
  - vii. Monitor IV catheter site for signs of infiltration.
  - viii. Dispose of syringe in appropriate container.
  - h. Intravenous Medications: Continuous Drip
    - i. Pre-mixed intravenous medications are selected or appropriate dose of medication is added to intravenous fluid bag. Affix label to fluid container.
    - ii. Calculations of drip rates are completed prior to administration of medication.
    - iii. Shake bag to distribute medication, add administration line and flush.
    - iv. IV line may be connected directly to stop-cock on IV catheter or, if to be connected to main-line IV, needle must be attached to connect to port on IV line, unless needle-less port is available. Main-line fluid will be turned off during piggy-back drip administration.
    - v. Control flow rate for desired drops per minute and monitor for consistency.
- IV. Patient Assessment**
- a. Patients are assessed closely for change in condition following medication administration.
    - i. Medications are discontinued when possible if untoward effects occur or as directed by physician.
- V. Documentation**
- a. Documentation of all medication administration on the Run Form will occur.
  - b. Documentation will include:
    - i. Name of medication
    - ii. Dose and concentration of medication
    - iii. Time of administration
    - iv. Route/site of administration
    - v. Who ordered medication, if not part of applicable protocol.
    - vi. Documentation of narcotic waste with witness signature.
      - 1. ED staff should witness narcotic wastes vs other EMS personnel.
  - c. Patient condition is documented before and after medication administration.
  - d. Patient Run Sheet or prescription for medication used is to be signed by the physician ordering medication or by accepting physician of patient in the receiving emergency department.
  - e. All additional service and hospital documentation requirements for narcotic use to be completed as necessary.

### AUTHENTICATION AND APPROVAL

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Marquette County EMS Medical Director

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Date

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