Medication Administration

Information:

EMS providers preparing to administer medications in the out of hospital setting should review and/or recite the "6 Rights" prior to administering any medication to a patient. While all 6 elements are important, In the out of hospital setting, special attention should be paid to the right medication, right dose, and right route - as these are frequently the areas of error in the EMS environment. In addition, EMS providers should ensure the patient is informed as to what medications they are receiving and afford an opportunity for the patient to refuse. Lastly, documentation is essential so that medications administered in the out of hospital setting become part of the patient's clinical medical record. By following the "6 Rights" of medication administration, EMS providers will significantly decrease the potential and number of errors associated with medication administration.

Definitions:

I. Medication: Any pharmacological intervention used to treat, prevent, or reduce signs and symptoms of diseases, disorders, and/or traumatic injuries.

II. Medication administration routes include the following: Intramuscular, Intravenous, Intraosseous, Oral, Buccal, Rectal, Inhaled, and Subcutaneous.

Procedure:

I. Prior to the administration of any medication ensure the following are reviewed and/or verbalized by at least two providers – if available (checked, and double checked):
   A. 6 Rights of Medication Administration –
      1. Right Patient
      2. Right Dose
      3. Right Medication (including indication)
      4. Right Route
      5. Right Time
      6. Right Documentation (including response)

II. Calculating medications when given a dosage range and a per kg dose:
   A. Calculate weight in kilos and multiply by the prescribed dosage (e.g. - mg/kg)
   B. The resultant dose should be less than the maximum single dose.
      1. In adults, for ease of administration, doses may be rounded to the nearest whole number within the range for those calculated doses at or above 1 dosage unit, or to the nearest tenth for those below 1 dosage unit (examples: 1.2 mg rounded to 1 mg, and 0.26mg rounded to 0.3mg). That calculated and rounded dose may be given and repeated in timed intervals, as indicated for that medication, to the control of symptoms or maximum stated cumulative dose if symptom control is not previously achieved.
      2. For pediatric patients, utilize MI-MEDIC and a length-based tape for all medication calculations.

C. Pediatric patients will never be given a single or total dose that exceeds the maximum single or total adult dose.

III. Following administration of any medication
   A. Document all pertinent aspects of the medication administration including but not limited to medication name, dose, route, and time in an electronic patient care report.
   B. Obtain signature of prescriber (medical control physician or other qualified designee) per local medical control authority policy.

Intranasal Medication Administration:

Intranasal medication administration using an FDA approved and MCA authorized atomizing device as specified in applicable patient care protocols may be allowed for MFR per MCA selection.

MCA Approval for intranasal medication administration for MFR
☑ Yes
☐ No

MCAs will be responsible for maintaining a roster MFR of the BLS agencies choosing to participate and will submit roster to MDHHS

Procedure:

1. Select desired medication and determine dose per applicable protocol.).
2. Draw up appropriate dose (volume) of medication plus an additional 0.1 mL to account for device dead space.
3. Attach atomizing device to syringe.
4. Use one hand to support back of patient's head as needed.
5. Place tip of atomizing device snuggly against nostril aiming slightly upward and outward. Administration angle should be approximately 45°.
6. Rapidly administer one half of the dose of medication, briskly pushing plunger.
7. Repeat with other nostril delivering the remaining volume of medication.
8. Use the highest concentration available for the medication.
9. Note: Maximal dose per nostril is 1 mL

Nebulized Medication Administration

Nebulized medication administration using an FDA approved and MCA authorized atomizing device as specified in applicable patient care protocols may be allowed for EMT per MCA selection.

MCA Approval for nebulized medication administration by EMT

☑ Yes
☐ No

MCAs will be responsible for maintaining a roster MFR of the BLS agencies choosing to participate and will submit roster to MDHHS

Procedure:

1. Obtain vital signs and auscultate lung sounds.
2. Select desired medication and determine dose per applicable protocol.).
3. Place the appropriate volume of medication in the lower half of the nebulizer unit. Then screw the upper half of the unit in place.
4. Attach the nebulizer to the base of the T piece. Then attach the mouthpiece to the T piece or connect neb chamber to NRB mask.
5. Attach one end of the oxygen tubing to the base of the nebulizer and the other end of the oxygen tubing to the oxygen source.
6. Set the **oxygen** liter flow at 6 L/min.
7. Instruct the patient to breathe normally through the mouthpiece, taking a deep inspiration every 4 or 5 breaths.
8. Continue the treatment until all the medication has been delivered through the nebulizer. You may need to gently tap the reservoir once or twice during the treatment to re-disperse the medication.
9. Obtain and record another complete set of vital signs and lung sounds after completion of the treatment.

Pediatric Considerations

1. Infants and small children may not be able to use adult mouthpiece and may need to use blow-by or pediatric mask

NOTES:
MCL 333.17754 Section 1(C)) An electronic signature or other identifier that specifically identifies and authenticates the prescriber or his or her agent.