Objectives

1. Define key terms introduced in this chapter.
2. Describe the roles and responsibilities associated with administering and assisting patients with administration of medications (slides 13-14).
3. Differentiate between administration of medication and assisting a patient in taking his own medications (slide 14).
4. List the medications in the EMT's scope of practice (slides 15-26).
5. Differentiate between a drug's chemical, official, generic, and trade names (slides 27-28).

Objectives

6. Demonstrate the proper administration of drugs by each of the following routes (slides 29-30):
   a. Sublingual
   b. Oral
   c. Inhalation
   d. Intramuscular (epinephrine auto-injector only)
7. Differentiate between the following medication forms (slides 31-32):
   a. Tablet
   b. Liquid for injection
   c. Gel
   d. Suspension
   e. Fine powder for inhalation
   f. Gas
   g. Liquid for spray or aerosolization
Objectives

8. Explain the roles of off-line and on-line medical direction with regard to medication administration (slides 36-37).
9. Adhere to the following key steps of medication administration (slides 35-47).
   a. Obtain an order.
   b. Verify on-line orders.
   c. Select the proper medication.
   d. Verify the patient’s prescription.
   e. Check the expiration date.
   f. Check for impurities and discoloration.
   g. Verify the form, route, and dose.
   h. Ensure that the “five rights” of medication administration are followed.

Objectives

11. Describe the reassessment of a patient after you have administered or assisted the patient in taking a medication (slides 50-51).

Multimedia Directory

Slide 21  Oral Glucose Administration Video
Slide 22  Nitroglycerin Administration Video
Slide 23  Activated Charcoal Administration Video
Slide 24  MDI Administration Video
Slide 25  Epinephrine Auto-Injector Actions and Use Video
Slide 26  Epinephrine Auto-Injector Administration Video
Topics

- Administering Medications
- Medications Commonly Administered by the EMT
- Medication Names
- Routes of Administration
- Medication Forms

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Topics

- Essential Medication Information
- Key Steps in Administering Medications
- Reassessment Following Administration
- Sources of Medication Information

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CASE STUDY

Dispatch
EMS Unit 202

Respond to 1934 Lincoln Avenue for a 76-year-old male complaining of severe chest pain.

Time out 2136

Upon Arrival

- House unlit, dark area
- Hear a voice after ringing the doorbell
- Find an elderly man sitting on the hallway floor against the wall
- Complains of severe, crushing chest pain

How would you proceed to assess and care for this patient—including the administration of medication?
Administering Medications

Medications Commonly Administered by the EMT

Medications Carried on the EMS Unit
Medications Prescribed for the Patient

Inhaled Bronchodilator

- Metered-dose inhaler
- Small-volume nebulizer
Nitroglycerin

- “Nitro”
- Function

Epinephrine

- Allergic reaction treatment
- Action of epinephrine

Oral Glucose Administration

Click here to view a video on the topic of oral glucose administration.

Return to Directory
Nitroglycerin Administration

Click here to view a video on the topic of nitroglycerin administration.

Activated Charcoal Administration

Click here to view a video on the topic of activated charcoal administration.

MDI Administration

Click here to view a video on the topic of MDI administration.
Epinephrine Auto-Injector Actions and Use

Click here to view a video on the topic of the actions and use of an epinephrine auto-injector.
Return to Directory

Epinephrine Auto-Injector Administration

Click here to view a video on the topic of epinephrine auto-injector administration.
Return to Directory

Medication Names

Back to Topics
• Chemical name
• Generic name
• Trade name
• Official name

Routes of Administration

• Sublingual
• Oral
• Inhalation
• Intramuscular injection
Medication Forms

- Compressed powder or tablet
- Liquid
- Gel
- Suspension
- Fine powder for inhalation
- Small-volume nebulizer
- Gas
- Spray

Essential Medication Information
• Indications
• Contraindications
• Dose
• Administration
• Actions
• Side effects

Key Steps in Administering Medications

Obtain an Order from Medical Direction
Select the Proper Medication

- Restate drug to be administered, dose, and route
- Make a judgment if the patient can tolerate the medication

Appropriate for the situation
Verify the Patient’s Prescription

• Make sure it is prescribed to the patient
• Some medications may not have labels on the container

Check the Expiration Date

and

Check for Discoloration and Impurities
Verify the Form, Route, and Dose

- Drug
- Dose
- Route
Medication Administration: The Five “Rights”

- Right patient
- Right medication
- Right route
- Right dose
- Right date

Documentation

Back to Objectives
Document the drug, dose, route, and time the medication was administered.

Reassessment Following Administration

Recheck the patient's status and the effectiveness of interventions.
Sources of Medication Information

• AMA Drug Evaluation
• Physicians' Desk Reference (PDR)
• Package inserts
• Poison control centers
• EMS pocket drug reference guide
• ePocrates for the PDA

CASE STUDY

Follow-Up
**CASE STUDY**

**Primary Assessment**
- Patient's name is “Jack Brookline”
- Severe chest pain
- Skin pale, sweaty, and cool
- Respiration 20; pulse 80 and strong
- Nonrebreather mask at 15 lpm

**CASE STUDY**

**Secondary Assessment**
- S: pain occurred while sleeping on couch
- A: denies
- M: nitroglycerin
- L: cup of coffee and sandwich at 1800hrs
- E: denies anything unusual

**CASE STUDY**

Secondary Assessment
- Vitals: BP: 114/64 mmHg; P: 84; RR: 20; SpO₂ 95 percent on room air
- Medical direction gives permission to administer nitroglycerin
Reassessment

- After two minutes, BP: 110/60 mmHg; P: 82 per minute, RR: 18; SpO₂ 99 percent on O₂
- Pain decreasing to two or three out of ten
- Place patient on stretcher and transport
- No other changes en route
- Transfer patient to hospital staff

CASE STUDY

46-year-old male with shortness of breath and chest discomfort
Onset while exercising on a treadmill at the gym

Critical Thinking Scenario

- S – alert and oriented; onset while exercising; also lightheaded and nauseated
- A – denies any allergies
- M – takes no medication
- P – no previous significant medical history
- L – sports drink 45 minutes prior
- E – pain started ~15 minutes prior to the end of his workout; it got so bad he had to stop exercising
Critical Thinking Scenario

- O – while exercising on the treadmill
- P – pain started during exercise; he has had no relief, and it continues to worsen
- Q – a "tightening" feeling in the middle of his chest
- R – aching-type pain down the medial aspect of both arms
- S – eight out of ten
- T – 30 minutes since onset of the pain

Critical Thinking Scenario

Vital signs:
- BP: 138/92 mmHg
- HR: 102 bpm
- RR: 22 per minute with good tidal volume
- SpO₂ 96 percent on room air
- Skin is pale, cool, and clammy

Critical Thinking Questions

1. What medications might you consider administering in this patient?
2. What medication would the patient possibly have on his person?
3. What are the forms of the medications that you would possibly administer to this patient?
4. Why are those forms of medications used?
Critical Thinking Questions

5. What information must you understand about the medication prior to administering it?

6. What are the possible ways to obtain an order for the medication from medical direction?

7. What are the five “rights” you would check prior to administering the medication?

Reinforce and Review

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