

DRUG



ADMINISTRATION



INTRODUCTION



- Drug administration is very important and can be a dangerous duty
 - Given correctly – restore patient to health
 - Given incorrectly – patient's condition can worsen
- Medical assistant must
 - Understand principles of pharmacology
 - Understand fundamentals of drug administration
 - Routes
 - Dosage calculations
 - Techniques for injection
 - Seven rights
 - Patient education

You should be familiar with the medications frequently prescribed in your practice.

Preparing to Administer a Drug

- Drugs
 - Local effect – applied directly to skin, tissue, or mucous membranes
 - Systemic effect – given by routes that allow the drug to be absorbed or distributed into the bloodstream
- Pay close attention
 - Dose
 - Route
 - Form of medication



Preparing to Administer a Drug (cont.)

- Rules for administration
 - Give only drugs the doctor orders – use drug reference, if necessary
 - Wash your hands
 - Prepare in a well-lit area
 - Focus on task; avoid distractions
 - Calculate the dose carefully
 - Do not leave a prepared drug unattended – never give a drug that someone else has prepared

Preparing to Administer a Drug (cont.)

- Rules for administration
 - Identify patient properly
 - Physician should be in the office
 - Observe patient following administration
 - Discard any ungiven medications properly
 - Report error to physician immediately
 - Document properly

RIGHTS OF MEDICATION ADMINISTRATION

- 1) **Right Patient**
- 2) **Right Medication**
- 3) **Right Dosage**
- 4) **Right Route**
- 5) **Right Time**
- 6) **Right Documentation**
- 7) **Right Client Education**
- 8) **Right to Refuse**
- 9) **Right Assessment**
- 10) **Right Evaluation**

RIGHTS OF MEDICATION ADMINISTRATION

1. RIGHT PATIENT

- Check the name on the order and the patient.
- Use 2 identifiers.
- Ask patient to identify himself/herself.
- When available, use technology (for example, bar-code system).

2. RIGHT MEDICATION

- Check the medication label.
- Check the order.

3. RIGHT DOSE

- Check the order.
- Confirm appropriateness of the dose using a current drug reference.
- If necessary, calculate the dose and have another nurse calculate the dose as well.

4. RIGHT ROUTE

- Again, check the order and appropriateness of the route ordered.
- Confirm that the patient can take or receive the medication by the ordered route.

5. RIGHT TIME

- Check the frequency of the ordered medication.
- Double-check that you are giving the ordered dose at the correct time.
- Confirm when the last dose was given.

6. RIGHT DOCUMENTATION

- Document administration AFTER giving the ordered medication.
- Chart the time, route, and any other specific information as necessary. For example, the site of an injection or any laboratory value or vital sign that needed to be checked before giving the drug.

7. RIGHT REASON

- Confirm the rationale for the ordered medication. What is the patient's history? Why is he/she taking this medication?
- Revisit the reasons for long-term medication use.

8. RIGHT RESPONSE

- Make sure that the drug led to the desired effect. If an antihypertensive was given, has his/her blood pressure improved? Does the patient verbalize improvement in depression while on an antidepressant?
- Be sure to document your monitoring of the patient and any other nursing interventions that are applicable.

Apply Your Knowledge



How do you properly identify the patient before administering a drug?

ANSWER: To ensure that you have the right patient, you should check the name and date of birth on the patient record and ask the patient to state his/her name and date of birth.

Right!

Standards for administering medicines

Revision:

- ✓ Correct drug
- ✓ At correct time
- ✓ Given to the correct patient
- ✓ Has expected and desired outcome, with no ill effects



Standards for administering medicines

The accountable nurse must therefore ensure that he/she:

- ✓ Has an understanding of the drug they are giving, this includes understanding its therapeutic purpose
- ✓ Must be able to justify their actions
- ✓ Is prepared to be accountable for their actions

- ✓ Is certain of the identity of the patient
- ✓ Aware of current patient needs, the programme of care and other drugs the patient is currently receiving
- ✓ Pay due regard to the environment in which care is being given
- ✓ Ensure prescription/medicine container agree and all writing is clear, unambiguous and complete

- ✓ That the patient is not allergic to the drug
- ✓ That the drug has not reached its expiry date
- ✓ If there has been a withdrawal notice issued by pharmacy, that it does not relate to the drug being given

Techniques for Administering Drugs

- Oral
 - Tablets, capsules, lozenges, and liquids
 - Slower absorption through GI tract
- Buccal or sublingual
 - Buccal – placed between the cheek and gum
 - Sublingual – placed under the tongue
 - Faster absorption; bypasses GI tract



Techniques for Administering Drugs (cont.)

- Parenteral
 - Administration of substance into a muscle or vein
 - Fast absorption; bypasses GI tract
 - Safety risks
 - Rapid administration; rapid action
 - Exposure to bloodborne pathogens
 - Methods of injection
 - Intradermal (ID)
 - Subcutaneous (SC)
 - Intramuscular (IM)
 - Intravenous (IV)



Techniques for Administering Drugs (cont.)

- Parenteral drug packaging
 - Ampule – glass or plastic container that is sealed and sterile (open with care)
 - Cartridge – small barrel prefilled with sterile drug
 - Vial – small bottle with rubber diaphragm that can be punctured by needle

Techniques for Administering Drugs (cont.)

- Methods of injection

- Intradermal

- Into upper layer of skin
 - Used for skin tests

- Subcutaneous

- Provides slow, sustained release and longer duration of action
 - Rotate sites

- Intramuscular

- More rapid absorption
 - Less irritation of tissue
 - Larger amount of drug
 - Z-track method

- Intravenous

- Not usually given by medical assistants

Techniques for Administering Drugs (cont.)

- Inhalation – administered through the mouth or nose
- Topical
 - Direct application of a drug on the skin
 - *Transdermal* – use of a medication patch that will release medication slowly and evenly
- Urethral – instill liquid drugs directly into the bladder
- Vaginal and rectal
- Eye or ear – creams, ointments, drops, or irrigations

Apply Your Knowledge



Matching:

ANSWER:

B Absorption through GI tract

E Under the tongue

F Small bottle with rubber diaphragm

C Less irritation of tissue

A Direct application to skin

D Need to rotate sites

A. Topical drug

B. Oral drug

C. Intramuscular drug

D. Subcutaneous drug

E. Sublingual drug

F. Vial

Super!

Educating the Patient About Drug Administration

- How to read the prescription drug label
- Interactions
 - Drug-drug interactions
 - Drug-food interactions



Educating the Patient About Drug Administration (cont.)



- Adverse effects
 - Report changes
 - Recognize significant adverse effects
- Instructions on taking the drug
 - At the right time
 - In the right amount
 - Under the right circumstances

Apply Your Knowledge



What should you instruct the patient about drug administration?

ANSWER: The patient should be taught how to read the prescription label, drug-drug and drug-food interactions, adverse effects, and how to take the drug correctly.

Bravo!



Special Considerations

- Pediatric patients
 - Physiology and immature body systems may make the drug effects less predictable
 - Require dosage adjustments and careful measurements of doses
 - Observe pediatric patients closely for adverse effects and interactions
 - Administration sites and techniques may differ

Special Considerations (cont.)

- Pregnant patients
 - Remember that you are caring for two patients
 - Giving the mother a drug also gives it to the baby
 - Check drug information sources for pregnancy drug risk categories



Special Considerations (cont.)

- Patients who are breast-feeding
 - Some drugs are excreted in breast milk
 - Ingestion can be dangerous because baby can't metabolize or excrete drugs
 - Check drug information sources for contraindication during lactation



Special Considerations (cont.)

- Elderly patients
 - Age-related changes affect
 - Absorption
 - Metabolism
 - Distribution
 - Excretion



- May have increased risk of
 - Drug toxicity
 - Adverse effects
 - Lack of therapeutic effects

Apply Your Knowledge

What do children and the elderly have in common in relation to drug administration?

ANSWER: Both have alterations in metabolism and absorption of drugs requiring adjustments in dosages.

Fantastic!

Charting Medications

- Progress notes
 - Administration
 - Special problems
 - New symptoms
 - Patient's statements
 - Patient tolerance
- Be sure to have the right chart
- Be specific and accurate



Apply Your Knowledge



1. You administer a medication to Mr. Max. What and where should you chart?

ANSWER: You should chart in the progress notes the date, time, dosage, route, and name of the medication, as well as how well the patient tolerated it.

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Giving of drugs in Emergency situations

A local protocol agreed by Medical Practitioners, Nurses, Midwives and pharmacists may allow a Qualified Nurse to give a specific Dose of a specific drug in emergency situations.



Documentation of Drug Administration

- A critical element of drug administration is documentation.
- The standard is *“if it was not documented it was not done.”*
- The nurse should document that a drug has been given *after* the client has received the drug.

Responsibilities of Nurses Regarding Drug Administration

- Nurses are both legally and morally responsible for correct administration of medications. They must:
 - Follow institutional policy.
 - Consider clients' desires and abilities.
 - Foster compliance.
 - Correctly document all actions related to medication administration and medication errors.