

# DRUG ADMINISTRATION

**DRUG**



**ADMINISTRATION**



# *Outline*

## *\*administration of medication*

*-Administering of oral medication*

*-Rectal method (suppository)*

*-Ophthalmic method*

*-Ear (otic) method*

*-Nasal method*

## *\*Administering medication by injection:*

*-ampoule preparation*

*-vial containing a powder preparation*

*-administering an intradermal injection*

*-intramuscular injection*

*-subcutaneous injections*

*-prevention of the needle-stick injuries*

## ***Introduction***

***Medication:*** *is commonly defined as a substance or preparation that can treat or prevent*

*Disease.*

***Therapeutic agent:*** *means drug or medication*

*Purpose of medication administration:*

*1\_ providing the patient with a substance prescribed intended for the diagnosis, treatment*

*2\_ prevention of a medical illness or condition. To prevent the disease and take*

*Supplement in order to maintain health*

*3. To cure the disease*

*4. To promote the health*

*5. To give palliative treatment*

## Calculation of medication dosage:

### Formula of medication

$$A=(D/H)\times S$$

*D: desired dose*

*H: dose of hand*

*S: vehicle –tablet or liquid*

### Example:

*Order-dioxin 0.25 mg p .o . QD*

*Drug available-0.125 mg per tablet*

*D=0.25 mg    h=0.125 mg    v-1 tablet*

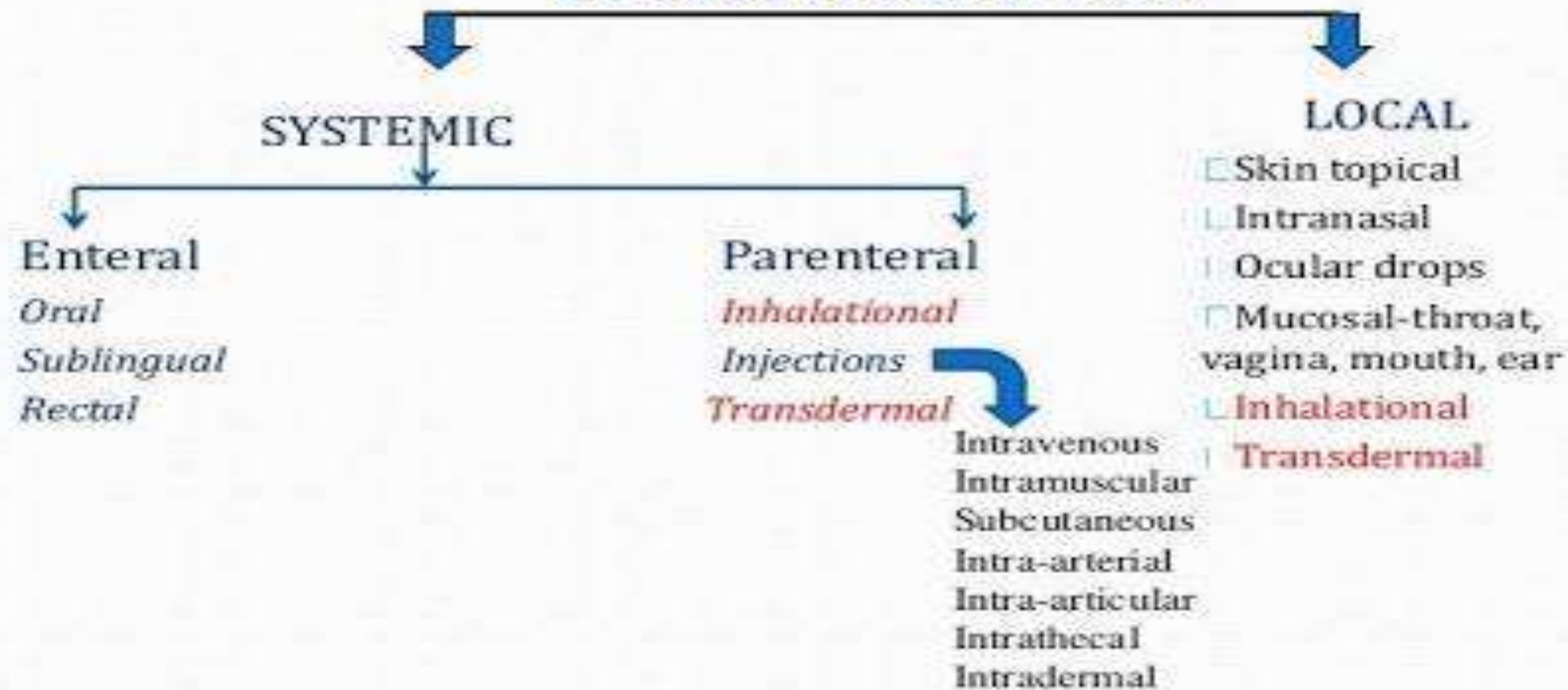
$$0.125/1 = 0.25/x$$

$$0.125x= 0.25 \quad x=0.25/0.125 \quad x=2 \text{ tablets}$$

# **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**

# CLASSIFICATION



# Oral Route

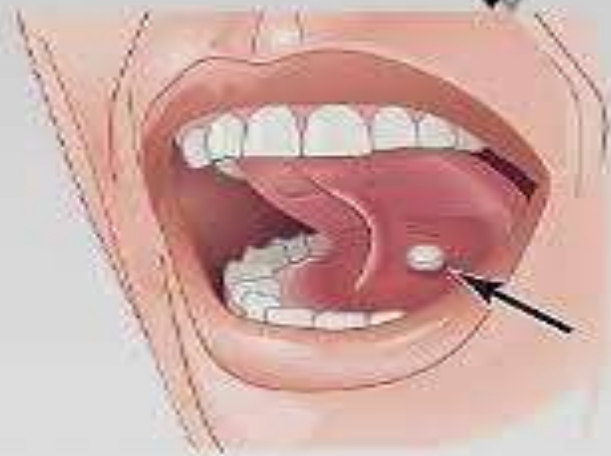
The most common route of drug administration.

In which drug is given through the **mouth**.

Drug Examples: Capsules, Tablets, Syrup



**Sublingual**



**Buccal**



# Oral Dosage Forms

- Common dose forms for *oral administration*
  - tablets
  - capsules
  - liquids
  - solutions
  - suspensions
  - syrups
  - elixirs





### *Indication:*

- 1\_ when local effect on GI tract are desired
- 2\_ when prolonged systemic action is desired

### *Contraindication:*

- 1\_ The patient may refuse the drug.
- 2\_ There may be difficulty in swallowing.
- 3\_ The drug may irritate the gastrointestinal tract.
- 4\_ The drug may pass quickly through the body, and the benefits of the drug may be lost.
- 5\_ pt who have vomiting or unconscious

*Equipment:*

1. Steel tray
2. Drinking water in jug
3. D r's prescription
4. Medicine prescribed
5. Medicine cup
6. Pill crusher/ tablet cutter if needed
7. Kidney tray/ paper bag (to discard the waste)
- .8.gloves (if required)

# technique



Oral administration



Sublingual administration is where the dosage form is placed under the tongue



Buccal administration is where the dosage form is placed between gums and inner lining of the cheek

# RECTAL ROUTE

- Drugs that are administered rectally as a suppository.
- In this form, a drug is mixed with a waxy substance that dissolves or liquefies after it is inserted into the rectum.
- ex- Diazepam, indomethacin, paraldehyde, ergotamine

## ADVANTAGES

- Used in children
- Little or no first pass effect (ext haemorrhoidal vein)
- Used in vomiting or unconscious
- Higher concentrations rapidly achieved



## DISADVANTAGES

- Inconvenient
- Absorption is slow and erratic
- Irritation or inflammation of rectal mucosa can occur



## *Purpose:*

- 1. Shorter duration than oral administration.*
- 2. Another advantage of administering a drug rectally, is that it tends to produce less Nausea compared to the oral route and prevents any amount of the drug from being Lost due to emesis (vomiting)*
- 3. When oral route is contra-indicated or presents difficulty in administration*
- 4. For a child who is vomiting or vomiting is predicted*
- 5. To empty the bowel prior to surgery/endoscopy*
- 6. Localized treatment (hemorrhoid's, anal pruritus)*
- 7. Treatment of constipation (after diet/oral laxatives)*

***Contraindication:***

*Rectal medications are contraindicated after rectal or bowel surgery, with rectal bleeding or Prolapse, and with low platelet counts.*

***Equipment:***

*Medication (suppository)*

*Water soluble lubricant*

*Disposable plastic backed blue pad*

*Gloves*

*Bedpan*

## *Procedure*

*1\_ Position the patient on their left side in the Sim's position.*

*2\_ Drape the patient exposing only the buttocks.*

*3\_ Remove the suppository from the wrapper and lubricate it with a water soluble jelly.*

*4\_ Don gloves.*

*5\_ Lift the person's upper buttock with the no dominant hand and insert the suppository with The tapered end first into the rectum for about 3 inches beyond the rectal sphincter while the Patient is taking deep breaths to relax the sphincter.*

*6\_ Instruct the person to lie still so the suppository can be retained. If the person has the urge to defecate, place a gauze pad over the rectum and gently press the area until the urge to defecate passes.*



# ADMINISTERING OPHTHALMIC MEDICATIONS

## Definition:

Medications are instilled in mucous membranes of eye for various therapeutic effects.

## Purpose:

- To treat infection.
- To relieve inflammation.
- To treat eye disorders such as glaucoma.
- To diagnose such as foreign bodies and corneal abrasions.





## ***Procedure:***

*1\_ Don gloves.*

*2\_ Position the patient in a sitting position or in a supine position.*

*3\_ Have the patient tilt their head back and toward the eye getting the drops or ointment in*

*Order to prevent the medication from entering and collecting in the client's tear duct.*

*\_Have the patient look up and away to prevent the tip of the tube or dropper from touching*

*The client's eye. .*

*4\_ Rest your hand against the client's forehead to steady it.*

*5\_ To administer drops, pull down the lower lid and instill the ordered number of drops into*

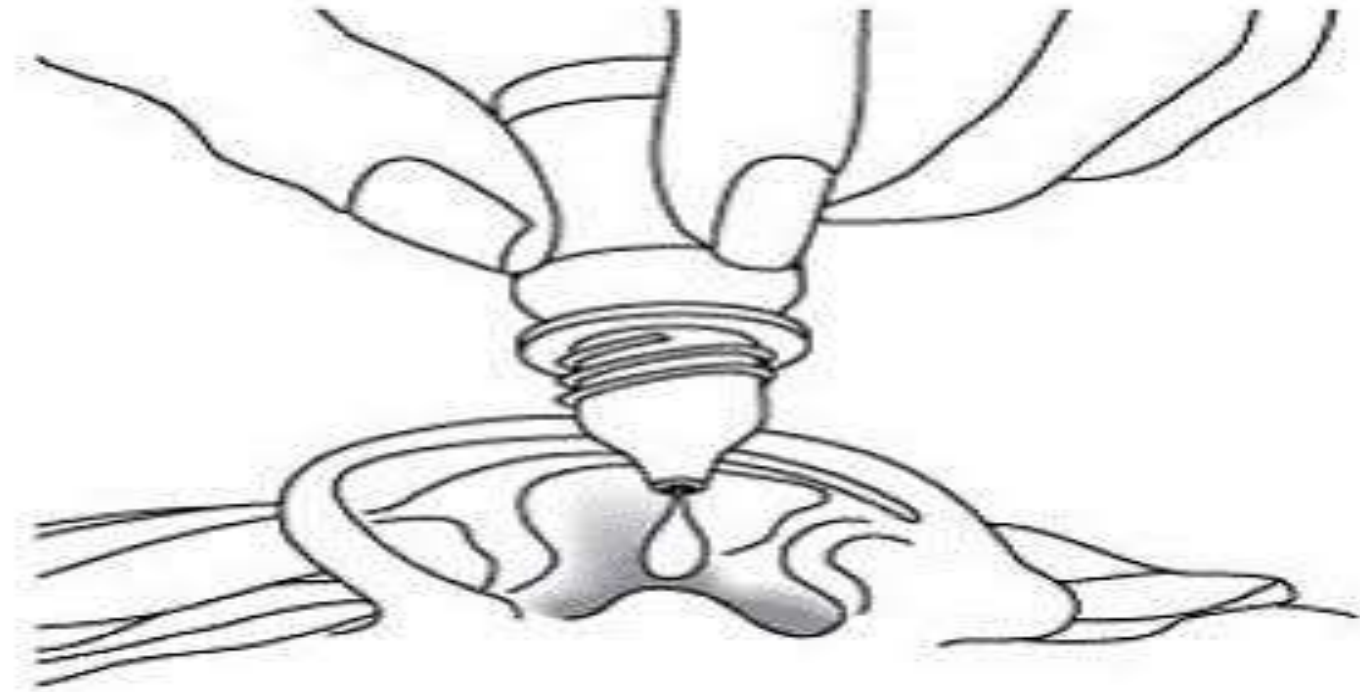
*The conjunctiva space.*

*6\_To administer an ointment, pull down the lower lid and squeeze the ointment into the Conjunctiva space from the inner to the outer canthus of the eye without letting the tip of the Tube or dropper from touch the client's eye.*

*7\_Instruct the client to close their eyes, roll their eyes and blink. Blinking will spread the Drops and rolling the closed eyes will spread the ointment over the eye.*

*8\_Clean off any excess drops or ointment gently using a facial tissue from the inner to the Outer canthus of the client's eye(s).*

# Ear(oatic) method



***Purpose:***

*To treat infection*

*To relieve pain*

*To better visualize during examination*

***Equipment:***

*\_ Medication*

*\_ Cotton ball*

*\_ Gloves*

*\_ Disposable tissue*

## ***Procedure:***

*1\_ Warm the ear drops to body temperature.*

*2\_ Instruct the person to lie on their side so that the ear to receive the medication is upright.*

*3\_ Straighten out the ear canal by pulling the auricle up and back for the adult and down and back for the infant and young child less than 3 years of age.*

*4\_ Administered the ordered number of drops against the side of the inner ear and hold the auricle in place until the medication is no longer visible.*

*5\_ Release the auricle of the ear.*

*Instruct the client to remain in the side lying position with the treated ear up for at least 10 minutes so that the medication gets a chance to enter the ear.*



# Nasal Medication Administration



## *Def.:*

*Route of administration for medication through nose*

## *Purpose:*

*To safely administer a prescribed intranasal medication*

## *INDICATIONS:*

*The intra-nasal route provides a non-invasive route of medication delivery for approved medications when other routes are not available or will result in an unacceptable delay in medication effectiveness*



## ***Equipment:***

*Medication as ordered*

*Facial tissue*

*Clean gloves (non-sterile)*

## ***Procedure:***

*1-Perform hand hygiene*

*2- Determine the prescribed amount of medication into using a concentrated form*

*For first time administration,*

*3-Explain the procedure and expected outcome*

*4-don clean gloves*

*5-Inspect nostrils for blood or discharge that Secretions may impair drug*

*May impair drug absorption and have patient absorption*

*Blow their nose to clear passage if possible*

*6-Position the patient upright with head back*

*Slightly or lying in bed. The patient does*

*Not have to inhale as the medication is*

*Administered*

*7-put medication in nostril*

Thank you