

DRUG FORMS

Pills

Liquids

Creams

Semi-solids



General information...

- **Specific drugs may come in a number of forms:**
 - Digoxin
 - capsule, tablet, liquid for swallowing, liquid for injection
- **Never change the route or form without specific clinician's order**

Topical Routes

- **Absorbed through the skin or mucus membrane**
- **Desired effect can be local:**
 - inhaled asthma medication
- **Desired effect can be systemic:**
 - fentanyl transdermal patches for pain

Other Topical Forms

- **Liquids:**
 - solutions - active ingredient dissolved in liquid
 - suspensions - particles of medication suspended in liquid
- **Semi-liquids:**
 - ointments, creams, lotions, & gels
- **Semi-solids:**
 - suppositories & lozenges

Administration of Topical Medications

- **Verify order**
- **Follow 6 rights of drug administration**
- **Follow standard precautions**
- **Examine area where medication will be applied**
- **Cleanse if needed with saline or water as directed by manufacturer or clinician**

Topical administration...

- **Apply medication**
- **If patient c/o:**
 - itching
 - if rash or swelling appear
 - notify clinician
 - rinse with saline or water



Inhalation Route



- Medication delivered to mucus membrane of respiratory tract
- Actions:
 - alter condition of mucus membrane
 - alter secretions
 - treatment of infection
- Goal - suspend medication in particles / droplets fine enough to penetrate deepest part of lungs

Inhalation route...



- Nebulizer:
 - stream of air flowing past a liquid to create a fine mist
- Metered dose inhaler (MDI):
 - AKA “puffer”
 - contains medication & compressed gas
 - delivers specific amount of medication with each activation

For all medications

- Verify order
- Follow 6 rights of medication administration
- Follow standard precautions



Inhalation administration...

- **MDI:**
 - assemble canister into the mouthpiece
 - shake, prime by squeezing canister until a dose is discharged into the air
 - instruct patient to hold mouthpiece or spacer in mouth (canister up) & seal between lips
 - start slow, deep inhalation
 - squeeze canister until dose discharged, continue inhalation
 - hold breath briefly

Ophthalmic Medications

- **Instillation of:**
 - cream
 - ointment
 - drops
- into conjunctival sac of eye
- absorption into mucus membrane
- OD, OS, OU
- Frequently stored in refrigerator, administer at room temperature



Administering Ophthalmic Medication



The Human Eye

- **Remove crusting or drainage:**
 - enhances absorption
 - wipe from inner to outer canthus with sterile saline or water & sterile cotton ball
 - prevents plugging of, or infection of lacrimal duct
 - use each cotton ball only once, decreases spread of infection
 - remove gloves, wash hands, put on clean gloves

Ophthalmic medication...

- **Position patient:**
 - lying down
 - sitting with head tilted back slightly
- **If administering ointment, discard first bead**
- **Have patient look up**
- **Using tissue over finger gently pull down tissue of upper cheek**
- **Expose conjunctival sac**

Ophthalmic medication...

- **Administer drops into conjunctival sac**
- **Administer thin line of ointment onto inner surface of lower eyelid from inner to outer**
- **Do not touch eye or lid with applicator**

Ophthalmic medication...

- **Patient instructions:**
 - squeeze both sides of nose between eyes X 30 seconds
 - prevents drug from running down lacrimal duct
 - move eyes around while closed
 - facilitates distribution
- **Blot away any excess medication from inner to outer canthus**

Ophthalmic medication...

- **Observe patient for any reaction:**
 - rash, swelling, c/o burning sensation
 - notify clinician, flush with water
- **Inform patient medication may blur vision temporarily**
- **Assist patient as needed until vision clears**
- **Instruct patient not to share medication**

Otic Medication



The Ear

- **Local treatment of:**
 - inflammation
 - infection
 - excessive cerumen
- **May be solution or suspension**
- **If tubes in ears or ruptured ear drum, suspension usually ordered**

Otic medication...

- **Warm medication to room temperature**
- **Remove drainage or crusting on outer ear**
 - remove gloves, wash hands, reglove
- **Position patient:**
 - lying on unaffected side
 - sitting with head tilted toward unaffected ear
- **Adults:**
 - pull ear lobe upward & back
- **Children:**
 - pull ear lobe downward & back

Otic medications...

- Instill prescribed dosage
- Do not touch any portion of ear with tip of applicator
- Gently massage area anterior to ear
- Maintain patient in position for 5 minutes
- If ordered, insert moistened cotton ball into external ear
- Observe for any reaction

An ophthalmic medication may be ordered for use in the ear.

An otic medication cannot be put in the eyes.

Nasal Route

- Administered by:
 - instillation (drops)
 - spray
- Typically self-administered
- Position patient with head slightly back
- Place tip of dropper into nostril
 - point toward eyes
 - allows drops to flow down back of nose
- Instill correct number of drops
- Instruct patient to breath through mouth
 - avoid sniffing drops into sinuses



Sublingual & Buccal Routes

- Sublingual - under the tongue
- Buccal - between cheek & gum
- Routes used for rapid action
 - drug specifically designed for easy absorption into blood vessels
 - mucus membrane of mouth highly vascular

Administration of sublingual or buccal medications...

- Sublingual:
 - hold tablet under tongue until completely absorbed
- Buccal:
 - hold tablet between cheek & gum with mouth closed until absorbed
- Do not:
 - chew, drink water or swallow excessively

Rectal Route

- Suppository
- Glycerin
- Dissolves at body temperature
- Absorbed into large intestine



Rectal route...

- **Advantages:**
 - medication not dependent on digestive tract for absorption
 - frequently used to Tx of nausea & vomiting (systemic effect)
 - Tx of constipation (local effect)
 - Infants & children

Rectal route...

- Assist patient into Sim's position
- Lubricate pointed tip of suppository
- Expose anus
- Instruct patient to take deep breath
- Insert gently with index finger pointed toward patient's naval

Rectal route...

- **Insert to total length of finger (adult):**
 - ensures insertion to level of internal sphincter
 - ensures best absorption
- **Stop if resistance met**
- **Patient to remain in Sim's position 20-30 minutes**
- **Remove excess lubricant**


