

TOPICAL ADMINISTRATION INUNCTION, INSERTION & INHALATION

Presented by
Mrs. Preethi Ramesh
Senior Nursing Lecturer
BGI



TOPICAL ADMINISTRATION

Topical medications are administered directly to the skin and mucous membranes by painting or spreading it over an area, applying moist dressings, soaking body parts in a solution, or giving medicated baths.

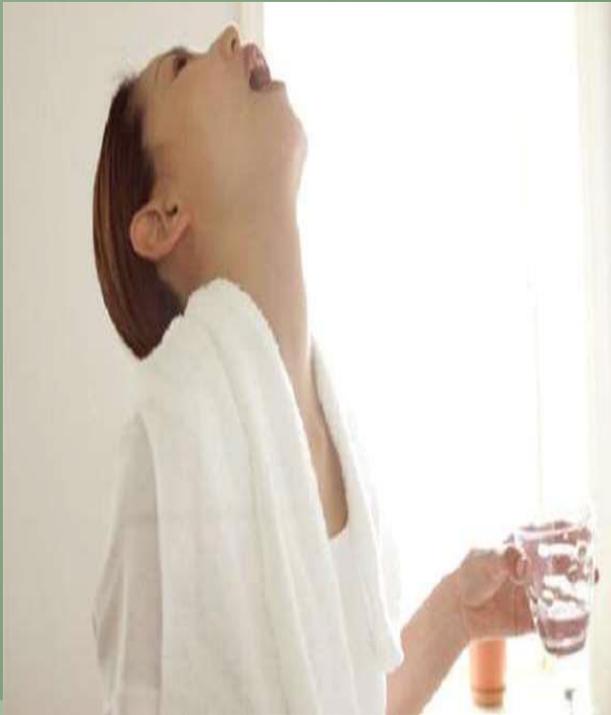
- Applied to produce local effects.
- Some topical preparations have systemic effects, absorbed through the skin and mucous membrane.
- Systemic effects will be more, if skin is very thin, drug concentration is high or skin contact is prolonged.



TOPICAL ADMINISTRATION

Methods of application of medications

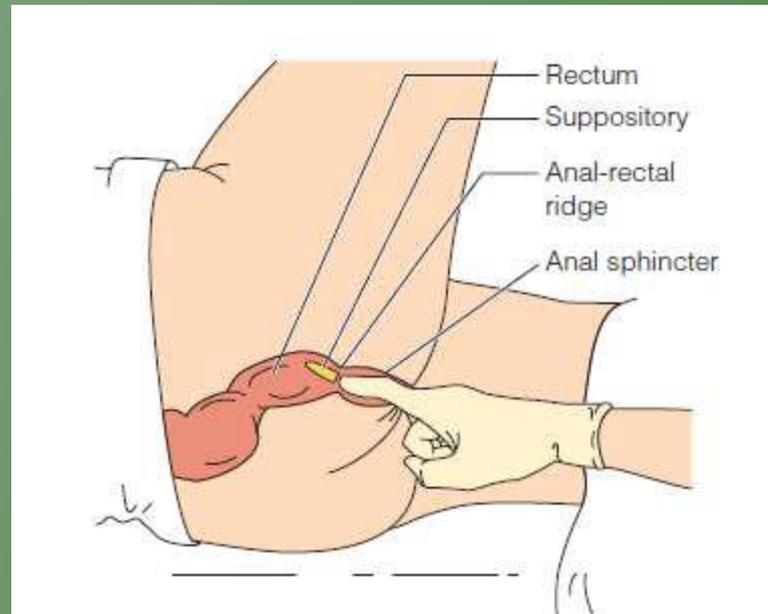
- ❖ Direct application of liquid - eye drops, swabbing of throat, gargling.



TOPICAL ADMINISTRATION

Methods of application of medications

- ❖ Insertion of the drug into the body cavity - suppository in the rectum.



TOPICAL ADMINISTRATION

Methods of application of medications

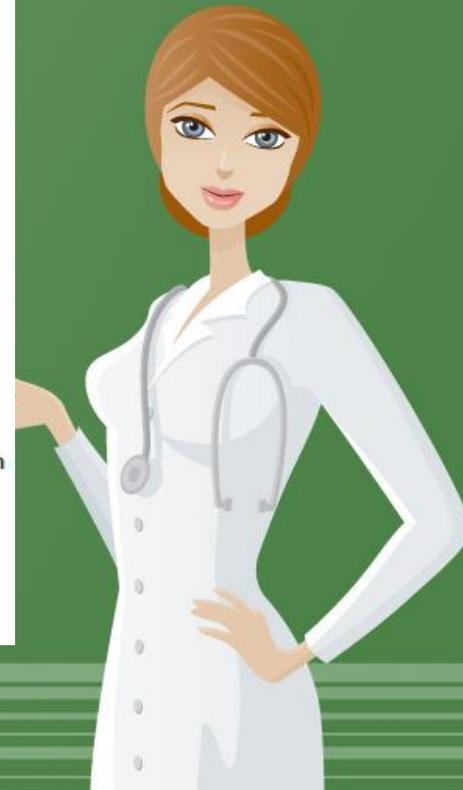
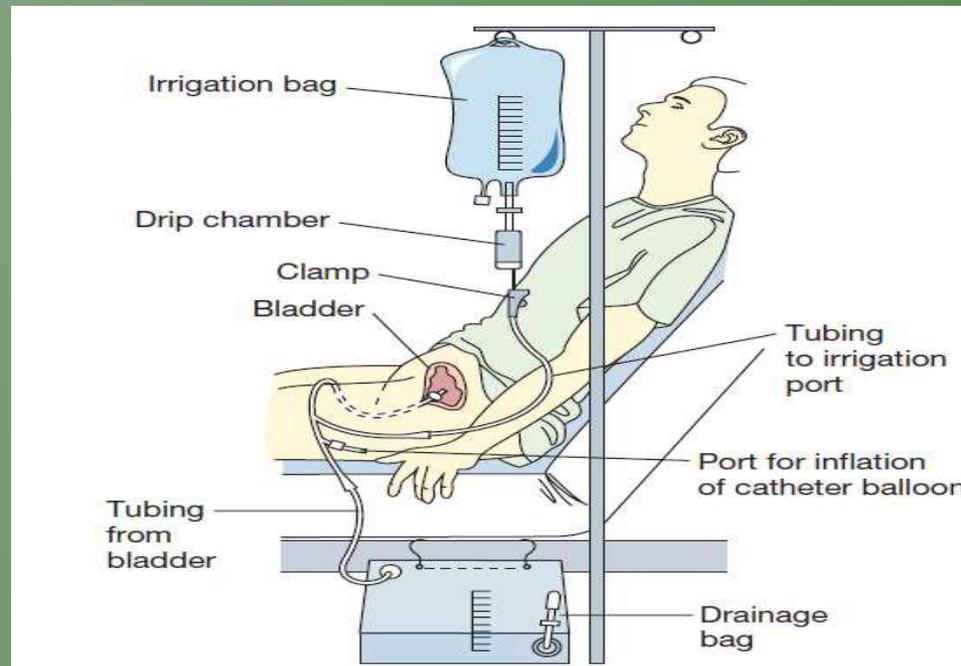
- ❖ Instillation (slow introduction) of fluid into a body cavity - ear drops, nasal drops.



TOPICAL ADMINISTRATION

Methods of application of medications

- ❖ Irrigation (washing out) of body cavity - bladder irrigation.



TOPICAL ADMINISTRATION

Methods of application of medications

- ❖ Spraying – instilling medication into the throat.



INUNCTION

Inunction is the act of rubbing an oily or fatty preparation into the skin make to produce a local effect as **CLEANING**, **SOOTHING** , **DISINFECTING** or **RELIEVING** a local inflammation. Lotions and Ointments are used for inunction.



TOPICAL ADMINISTRATION

General Instructions

- The area of the skin should be thoroughly cleaned before the application of an ointment or lotion.
- The ointment or lotion should be 'rubbed in' instead of 'painted on' to achieve a therapeutic effect.
- A lotion should be shaken well first, then applied on the skin and allowed to dry.
- The lotion tend to flake and fall off , they have to be reapplied as necessary. Before the re-application , the lotion or ointment should be completely removed from the skin.



TOPICAL ADMINISTRATION

General Instructions

- The skin should be observe frequently after the application of ointment or lotion for any local skin irritation. Any skin irritation should be reported immediately and application should be discontinued.
- A thin coating of ointment is preferable to a thick layer, both for the economy of medications and for efficiency.
- The nurse use a sterile/clean gloves depending upon the condition of the skin. The use of gloves will prevent the cross infection and the effect of the treatment on the nurse.



TOPICAL ADMINISTRATION

General Instructions

- When ointments are taken from large containers, care should be taken to prevent contamination of the stock jar. Take only sufficient medications for one application to the patient's unit in order to prevent wastage. Once the applicator has touched the skin, never placed back into the container as contamination of the entire bottle may take place.
- When lotion and ointments are applied , avoid introducing them into the EYES , MOUTH, RESPIRATORY PASSAGES etc.
- Look for the special instruction on the label.



TOPICAL ADMINISTRATION

General Instructions

- Follow the instructions carefully for a therapeutic effect.
- No ointment or lotion should be applied on any patient without the doctor's orders.



INSERTION

It is the method of placing medication into an area of mucous membranes for either local or systemic effects is called “INSERTION”

eg. NITROGLYCERIN tabs are inserted under the tongue for – relief angina pectoris, suppositories are inserted into the rectum or vagina as laxative or as antiseptics.

When keep the sublingual tablets, it is the nurse’s responsibility to be sure that the pt understand that these types of tablets are not to be chewed or swallowed, but they should be slowly dissolved and absorbed through blood vessels.



INSERTION

Vaginal and Rectal Medications

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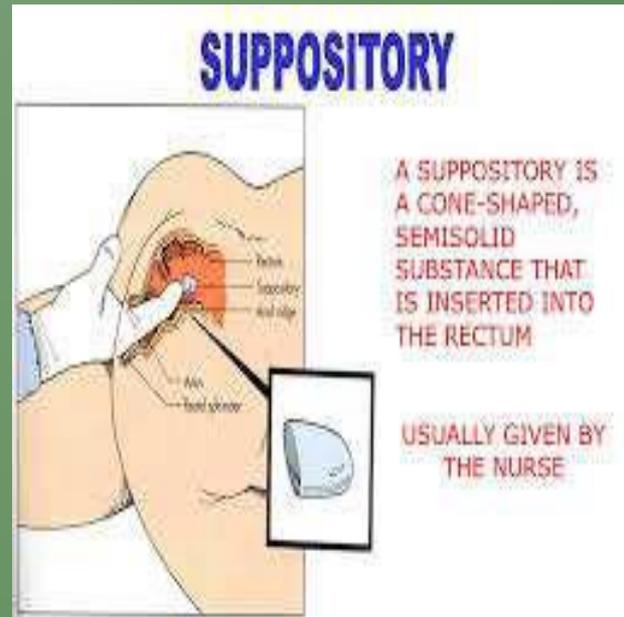
- Vaginal
 - Suppositories
 - Tablets
 - Douches for liquid forms of medication
 - Creams and foams
- Rectal
 - Suppositories
 - Enemas for liquid forms of medication
 - Creams and foams



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INSERTION



INHALATION

The act of drawing in AIR, VAPOR, OR GAS into the lungs is known as inhalation.

- ❖ Medications inhale for,
 - LOCAL EFFECT (Steam inhalations for relieve congestion in the Respiratory Tract)
 - GENERAL EFFECT (Inhalation of Oxygen, Anesthetics)
- ❖ Two Types of Inhalations
 - DRY INHALATION
 - MOIST INHALATION.



TYPES OF INHALATION

Dry Inhalation: It is the process of Inhalation of GASES, FUMES from volatile medications or Burning Medications. E.g.

- Inhalation of General Anesthetics – Ether, Chloroform, Nitrous Oxide (using mask)
- O₂ and CO₂ Inhalation - (mask ,tent, catheter)
- Inhalation of Volatile Medications – such as menthol, aromatic spirits of eucalyptus.
- Inhalation of Strammonium & belladonna – These are burned the pt breathes the fumes.
- Aerosol Spray – a fine suspension of liquid or a powder that deliver the medications directly into the Respiratory Tract. Nebulizers are used for spraying medications into the respiratory passages.



TYPES OF INHALATION

- **Steam / Moist Inhalation:** It is the process of Inhalation of breathing warm and moist air.



Steam Inhalation For Bronchitis



INHALATION

Purposes of steam inhalation

- To relieve the Inflammation and Congestion of the mucous membrane of the respiratory tract and paranasal sinuses
- To make symptomatic relief in acute cold and sinusitis.
- To soften thick, tenacious mucous and help its expulsion from the respiratory tract.
- To provide heat and moisture and to prevent the dryness of the mucous membranes of the lung and upper respiratory passages following operations such as tracheostomy.



INHALATION

Purposes of steam inhalation

- To help in the absorption of Oxygen.
- To relieve spasms of the larynx and bronchus and bronchioles.
- To provide antiseptic action on the respiratory tract. E.g. by using menthol, tincture benzoin, eucalyptus etc.



INHALATION

Drugs used for steam inhalation

- ❖ **Tr. Benzoin** – 5ml per 500ml of boiling water.
- ❖ **Methyl salicylate** – few drops per 500ml of boiling water.
- ❖ **Menthol** - few crystals per 500ml of boiling water.
- ❖ **Camphor** – few crystals per 500ml of boiling water.
- ❖ **Eucalyptus** – 2ml per 500ml of boiling water.



INHALATION

Methods for giving steam inhalation

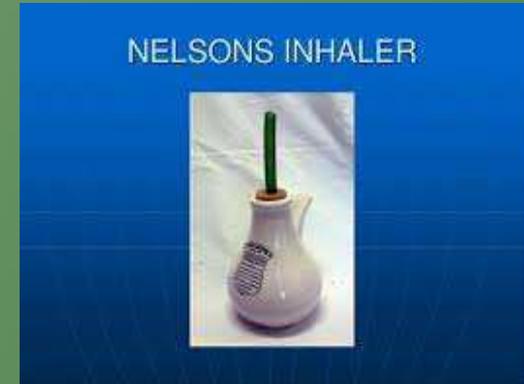
- ❖ **JUG METHOD.**
- ❖ **STEAM TENT.**
- ❖ **ELECTRIC STEAM INHALER.**



INHALATION

JUG METHOD

- A Nelson's Inhaler is used.
- The type of the inhalent required and the boiling water is filled in the jug the patient breaths the vapour.
- At the home (no nelson's inhaler) patient can be taught to improvise the jug. A tea kettle or a mug is filled with boiling water and the inhalent.
- A cone is made with a cardboard paper and fitted over the kettle or a mug.
- A small hole is made on the top of cone and the pt breaths in the steam.



INHALATION

STEAM TENT METHOD

- This method is used for the pt when a high concentration of steam is required.
- There are different methods use a making tent. The quick and easy method:

Place a screen on either sides on the patient's bed and stretch blankets or sheets across them and fix with safety pins and forming canopy. Steam can be directed in to the tent from the spout of a kettle.



INHALATION

STEAM TENT METHOD

- Care should be taken that the stove and the kettle are placed far away from the screen and the bed clothes to prevent the danger of catching fire.
- Never point the spout towards the face of the patient.
- A child should never be near to the steam generating apparatus to get his hand into the steam jet.
- The steam is given for 20 – 30 minutes at a time, & repeated for every 4th hrly.



INHALATION

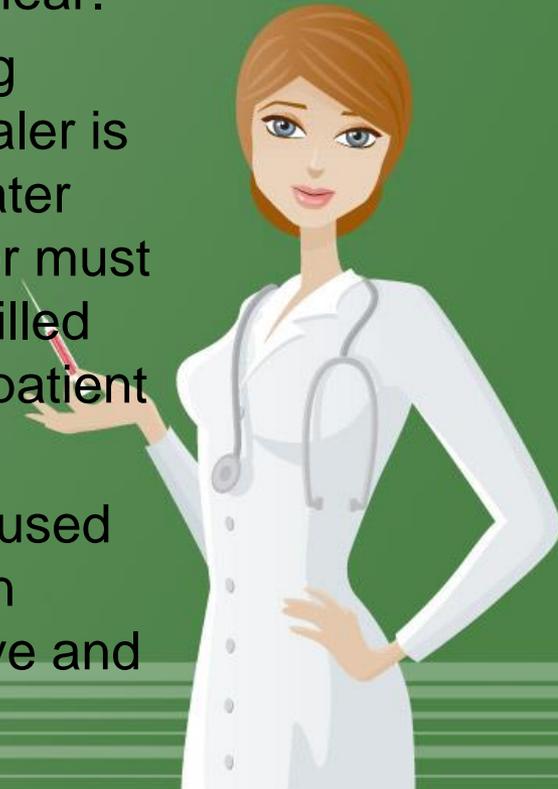
ELECTRIC STEAM INHALER

- Small electric vaporizer is used to give steam inhalation. A small jar with a heating element extending into the jar. The jar is filled with water. On the top of the jar is a removable perforated cup to which is attached a small metal spout. Cotton saturated with medication is placed inside the cup and metal spout is fitted over the cup. As the water boils, the medication steam is directed through the spout which is inhaled by the patient.



GENERAL INSTRUCTIONS

- Remember the danger involved of scalding the patient by steam or boiled water coming out of the inhaler. This is important when the patient is very old, very young, actually ill or in state of confusion. In this case the spout of the inhaler placed in such a way that the patient can't touch it or put the patient's face too near.
- When jug or kettle is used, fill it only 2/3 of boiling water to prevent scalding of the patient. If the inhaler is filled to the brim, there is possibility of drawing water into the mouth and scalding the patient. The water must be remained just below the spout. If the spout is filled with the water, it will not act as an air inlet & the patient will not get warmed air.
- Always remember the danger of fire. If a stove is used with a kettle to generate steam continuously, as in steam tent, the blankets used may fall on the stove and catch fire.



GENERAL INSTRUCTIONS

- The temperature for jug method is maintained between 120 –160 degree F. If water is cold, it will not produce steam. If water is too hot , cause scalding of the patient.
- Keep the patient warm and prevent the draught before, during and after the inhalation.
- If volatile drugs are used (e.g – Menthol) warn the patient to keep his eyes closed to prevent the drug irritating the conjunctiva.
- Observe the patient closely throughout the procedure for adverse effects.
- While giving inhalation by jug method , keep spout away from the patient.
- Place the sputum cup in the reach of the patient to spit the sputum during the inhalation.
- Explain the procedure to the patient before the preparation of the inhalation. Not during procedure.



Thank
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All

