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Gaseous Dosage Forms

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1. Introduction

- The gaseous dosage forms are one of the dosage forms which is used.
- Most of the asthma patients prefer this dosage form.
- Vaporous dose structures are stuffed in a holder which gets discharged after applying weight. The gas inside contains restoratively dynamic medicaments. The holder has valve frameworks with ceaseless or restricted conveyance. They are utilized for topical application on skin and as nearby application into nose and mouth. Ex: Nebulizer, Sprays, Inhalers **(1-6)**.

2. Inhalers

Inhalers are arrangements, suspensions or emulsion of medications in a blend of dormant forces held under weight in an airborne distributor. Inhalation is also defined as gases, vapour, solution or suspension intended to be inhaled via the nasal or oral respiratory routes.

Arrival of a measurement of the medicament as beads of 50 um breadth or less from the holder through a spring-stacked valve fusing a metering device. The patient then breathes in the discharged medication through a mouthpiece **(6)**.

In a few sorts, the valve is impelled by finger weight, in different sorts the valve is activated by the patient breathing it through the mouthpiece. It is commonly used to treat asthma and other respiratory problems.

Figure (1): Inhaler.

3. Nebuliser

Nebuliser is a drug delivering device used to intake the medication in the form of mist which is inhaled into the lungs. Nebulisers are commonly used for the treatment of cystic fibrosis, asthma, COPD and other respiratory devices **(5)**.

Analytical nebulisers are another type of nebulizer and are used primarily in the laboratory settings. It pumps air or oxygen through a liquid medicine to turn it into a vapour , which is then inhaled by the patient.

Figure (2): Nebulisers.

4. Aerosols

An aerosol is a pressurized dosage forms containing one or more therapeutic active ingredients which upon actuation emit a fine dispersion of liquid and solid materials in a gaseous medium contain smaller than 50um. Aerosol is also called as Pressurized Packages, Pressure Package or Pressurized dosage forms **(4).**

The components of aerosols consist of:

- Propallent
- Container
- Valve and actuator
- Product concentrate

Most aerosols are for topical application to the skin.

Figure (3): Aerosols.

5. Advantages of Gases Dosage Form

- It is used to prevent asthma and other respiratory problems.
- Fine mist of drug is produced for inhalation purpose.

- These dosage form is easy to apply.
- The medicament dispersion is goog.
- Sterility is more.
- Side effects are very less.

6. Disadvantages of Gases Dosage Form

- The equipment is expensive.
- The equipment is difficult to carry.
- It is difficult to disposal empty containers.
- Some propallents causes toxic effects when the reaction is continued for long periods.

7. References

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