TYPES OF DOSAGE FORMS AND THEIR DEFINITIONS

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TYPES OF DOSAGE FORMS AND THEIR DEFINITIONS

Definition: The manner in which drug substance are presented in the market (e.g.- solids, liquids or semi solids)

Need for convert drug to dosage forms:
1- Accurate dose.
2- Protection e.g. coated tablets, sealed ampoules.
3- Protection from gastric juice.
4- Masking taste and odor (to make palatable).
5- Placement of drugs within body tissues.
6- Sustained release medication.
7- Controlled release medication.
8- Optimal drug action.
9- Insertion of drugs into body cavities (rectal, vaginal)
10- Use of desired vehicle for insoluble drugs.
Need for different dosage form of same drug

To minimize discomfort and instant relief and improve patient compliance

Desirable properties of dosage form:

Should:

• Convenient to handle, use and store
• Stable during storage and use
• Withstand mechanical shock during transport
• Flexibility in different drug strength
• Provide expected therapeutic effect
• Extent, drug release, onset, intensity, duration of action predictable
• Economical and elegant
Classification

Based on

- Physical state
- Route of Administration
- Site of Application
- Uses
Monophasic Liquid Dosage Forms

Liquids meant for internal administration
- Syrups
- Mixtures
- Elixirs
- Linctuses

Liquids applied to the skin
- Lotions
- Liniments
- Collodions
- Paints

Liquids used in mouth
- Gargles
- Mouthwashes
- Throat paints

Liquids instilled into body cavities
- Douches
- Ear drops
- Nasal drops
- Eye drops
- Enemas
<table>
<thead>
<tr>
<th>Oral</th>
<th>Parenteral</th>
<th>Rectal</th>
<th>Urethral</th>
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<tbody>
<tr>
<td>2. Tablets</td>
<td>2. Suspensions</td>
<td>2. Enemas</td>
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<tr>
<td>4. Solutions</td>
<td>Intra respiratory - Aerosols</td>
<td>1. Tablets</td>
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<td>5. Suspensions</td>
<td>Trans dermal</td>
<td>Vaginal</td>
<td>2. Lozenges</td>
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<td>7. Syrups</td>
<td>2. Creams</td>
<td>2. Tablets</td>
<td>Intranasal</td>
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<tr>
<td>12. Pills</td>
<td>Intra ocular – Solutions, Suspensions, Ointments</td>
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<tr>
<td>Site of Application</td>
<td>Uses</td>
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<tr>
<td>1. Skin- Ointments, creams, lotions, liniments</td>
<td>1. Internal – all preparations except external</td>
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<tr>
<td>2. Eye- Solutions, ointments, creams</td>
<td>2. External – Ointments, lotions, creams, powders, solutions, liniments, paste, hair dyes, hair colorants</td>
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<td>3. Tooth- Tooth powder, tooth paste</td>
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<td>4. Hand- Hand creams, lotions, hand washings</td>
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<td>5. Foot- Creams, ointments, dusting powders</td>
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<td>6. Hair- Hair cream, hair lotions, shampoos, hair fixing</td>
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<td>7. Nasal- Solutions, sprays, inhalations</td>
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Definitions: Solid dosage forms

- **Powders:** Solid dosage forms containing finely divided particles in micron size
- **Tablets:** Solid dosage form containing medicaments with or without excipients
- **Granules:** Aggregate of particles
- **Capsules:** Drug enclosed with gelatin capsule
- **Cachets:** Drugs enclosed with wafer sheet of rice
- **Pills:** Small tablet containing excipients
- **Lozenges:** Solid preparations containing sugar and gum used to medicate mouth and throat
- **Suppositories:** Solid dosage containing medicaments with suitable suppository base that inserted in to the body cavities other than mouth, like rectum, nose, ear
- **Poultices:** Solid dosage form converted to paste like preparation used externally in the skin to reduce inflammation
Definitions: Liquid dosage forms

1. **Collodions**: Liquid preparations for external use having nitro cellulose used to protect the skin

2. **Droughts**: Liquid preparations for oral containing medicaments available in single dose or multiple dose

3. **Elixirs**: Liquid preparation for oral containing medicaments with suitable excipients

4. **Emulsions**: Biphasic liquid dosage form for oral containing medicaments in which fine oil globules dispersed in continuous phase

5. **Suspensions**: Biphasic liquid dosage form for oral containing medicaments in which fine solid particles suspended in continuous phase

6. **Enemas**: Liquid preparation for rectal containing medicaments
7. **Gargles**: Concentrated aqueous solutions for external use used to treat throat infections

8. **Gels**: Aqueous colloidal suspensions containing medicaments used as antacids

9. **Linctuses**: Viscous, liquid oral preparations used to relief cough

10. **Lotions**: Liquid preparations for external application usually applied without friction

11. **Liniments**: Liquid preparations for external application usually applied with friction

12. **Mixtures**: Liquid oral preparations containing one or more medicaments

13. **Mouth washes**: Concentrated aqueous solutions for external use used to treat mouth infections and oral hygiene
14. **Nasal drops**: Liquid preparations containing medicaments that are instilled into the nose with a dropper used to treat nose infections and blockage of nose.

15. **Paints**: Liquid preparations for external application to the skin or mucous membrane with a soft brush.

16. **Solutions**: Clear liquid preparation containing with or without medicaments used to internal or external preparations.

17. **Syrups**: Sweet, viscous, concentrated liquid preparations containing with or without sugar and medicaments.
Definitions: Semisolid dosage forms

1. Ointments: Semisolid dosage forms for external use containing with or without medicaments with suitable ointment base

2. Creams: Semisolid dosage forms for external use containing with or without medicaments with suitable fatty base

3. Paste: Semisolid dosage forms for external use containing high proportion of finely powdered medicaments with suitable fatty base

4. Gels: Transparent semisolid dosage forms for external use containing hydrophilic or hydrophobic base with gelling agents

5. Poultices: Semisolid dosage forms for external use containing medicaments applied to the skin to hold the dressing and protective
Definitions: Gaseous dosage forms

1. **Aerosols**: Suspension of fine solid or liquid particles with gas used to apply drug to respiratory tract having atomizer with in device

2. **Inhalations**: Internal liquid preparations containing medicaments dissolved in suitable solvent or if insoluble suspended in the propellent

3. **Sprays**: Gaseous preparations of drugs containing alcohol applied to mucous membrane of nose or throat with atomizer or nebulizer
Thank you