



Liquid Dosage Forms

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1. Introduction

- The dosage forms are commonly used in pharmacy are either Monophasic or Biphasic.
- A true solution is a clear or homogenous mixture that is prepared by dissolving a solid, liquid or gas in a liquid.

2. Oral Solutions

Oral solutions are clear fluid preparations oral use containing one or more active ingredients disintegrated in an appropriate vehicle.

3. Syrups

Syrup is a concentrated or nearly saturated solution of sucrose in distilled water. The concentration of sugar in syrups is 66.7% w/w. The syrup is a sweet viscous preparation. The syrups which contains medicinal substance are called “medicated syrups”. The syrups containing flavoured substances are “flavoured syrups”.

4. Elixirs

Elixir is a clear sweetened, aromatic, hydro alcoholic liquids meant for oral use. The vehicle may contain high proportion of both ethanol and sucrose with antimicrobial preservatives which confers the stability of the preparation.

5. Linctuses

Linctuses is a viscous, liquid and oral preparations that are generally used for the relief of cough. They contain medicaments which shows demulcent, sedative or expectorant action.

6. Aromatic Water

Aromatic waters are the clear aromatic solutions of volatile oil or volatile substance in distilled water. They are also called as medicated water.

7. Oral Drops

Oral drops is a liquid preparation for oral use that are intended to be administered in less volumes with the aid of suitable measuring devices. These may be solutions, suspensions or emulsions.

8. Gargles

They are aqueous solutions used for prevention or treatment of throat infections. Generally, they are prepared in concentrated solutions with directions for the patient to dilute with warm water before use.

9. Mouth Washes

They look similar to gargles but are used for oral hygiene and to treat infections of the mouth.

10. Liniments

The liniments are liquid or semi liquid preparations meant for application to the skin. The liniments are usually applied to the skin with friction and rubbing on the skin. The liniments may be alcoholic or oily solutions or emulsions.

11. Lotions

These are liquid preparations meant for external use without friction.

They are applied on the skin directly with the help of absorbent cotton. Lotions are used for local action such as soothing, cooling, or protective purposes.

12. Collodions

Collodions are liquid preparations meant for external purpose containing pyroxylin in the mixture of ethyl ether and alcohol. They are applied on the skin by means of soft brush.

13. Enemas

These are aqueous or oily solutions, suspensions which are introduced into the rectum for cleansing, therapeutic or diagnostic purpose.

Enemas are meant to evacuate faeces from constipation or before an operation.

14. Ear Drops

Ear drops are solutions of drops which are instilled into the ear using a dropper.

15. Nasal Drops

Nasal drops are aqueous solutions of drops which are instilled into the nose using a dropper.

16. Throat Paints

These are viscous liquid preparations meant for mouth and throat infections in which glycerine is used as a base.

17. Emulsion

Emulsion is a biphasic liquid dosage form containing two immiscible liquids, one of which is dispersed as minute globules into the other. The liquid which are converted into minute globules is called “dispersed phase” and the liquid in which the globules are dispersed is called as “continuous phase”.

Emulsions are two types. They are:

17. 1. Oil in water type

Emulsions in which oil acts as dispersed phase and water acts as continuous phase. The oil in water emulsions is preferred for internal purpose. In these emulsions gum acacia, tragacanth , methyl cellulose , saponins, synthetic substances and soaps formed from mono-valent bases like sodium , potassium are used as emulsifying agent .

17.2. Water in oil type

Emulsion in which water acts as dispersed phase and oil acts as continuous phase. wool fat, resins, beeswax, and soaps are formed from divalent bases like calcium, magnesium and zinc is used as an emulsifying agent. The w/o emulsions are mainly meant for externally as lotions, creams.

18. Suspensions

These are biphasic liquid dosage form of medicament in which finely divided solid particles which are dispersed in a liquid or a semi solid vehicle. Here the solid particle acts as a dispersed phase where liquid vehicle acts as continuous phase. Suspensions are generally consumed orally or by parental route. They are also meant for external use.

Advantages of Liquid Dosage Form:

- Its action is rapid.
- The consumption is easy.
- The products like antacids and adsorbents are much effective in this dosage form.

Disadvantages of Liquid Dosage Form:

- Less dosage accuracy.
- Preservation is main problem.
- Transportation is main difficult.

References

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