PHARMACEUTICS-I (BP103T)

UNIT: 4 (Suppositories, Pharmaceutical incompatibilities)

CLASS: 2

TOPIC: Method of preparation

Hand rolling

It is the oldest and simplest method of suppository preparation and may be used when only a few suppositories are to be prepared in a cocoa butter base.

It has the advantage of avoiding the necessity of heating the cocoa butter.

A plastic-like mass is prepared by triturating grated cocoa butter and active ingredients in a mortar.

The mass is formed into a ball in the palm of the hands, then rolled into a uniform cylinder with a large spatula or small flat board on a pill tile. The cylinder is then cut into the appropriate number of pieces which are rolled on one end to produce a conical shape.

Effective hand rolling requires considerable practice and skill.

Fusion method

1. Melting the suppository base.
2. Dispersing or dissolving the drug in the melted base.
3. The mixture is removed from the heat and poured into a suppository mould.
4. Allowing the melt to congeal.
5. Removing the formed suppositories from the mould.

The fusion method can be used with all types of suppositories and must be used with most of them.

Small scale moulds are capable of producing 6 or 12 suppositories in a single operation.

Industrial moulds produce hundreds of suppositories from a single moulding.

Cold compression

Compression moulding is a method of preparing suppositories from a mixed mass of grated suppository base and medicaments which is forced into a special compression mould using suppository making machines.

The suppository base and the other ingredients are combined by thorough mixing.

The friction of the process causing the base to soften into a past-like consistency.

On a small scale, a mortar and pestle may be used (preheated mortar facilitate softening of the base). On large scale, mechanically operated kneading mixers and a warmed mixing vessel may be applied. In the compression machine, the suppository mass is placed into a cylinder which is then closed. Pressure is applied from one end to release the mass from

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the other end into the suppository mould or die. When the die is filled with the mass, a movable end plate at the back of the die is removed and when additional pressure is applied to the mass in the cylinder, the formed suppositories are ejected. The end plate is returned, and the process is repeated until all of the suppository mass has been used.

2 MARKS QUESTIONS

1. Mention the different methods for the preparation of suppositories.

5 MARKS QUESTIONS

1. Explain about cold compression method for the preparation of suppositories.

10 MARKS QUESTIONS

1. Write briefly about the method of preparation of suppositories.