

chapter 8

Powders and capsules

Overview

Upon completion of this chapter, you should be able to:

- prepare bulk powders for external use (dusting powders), bulk oral powders, individual unit dose powders and unit dose capsules
- perform both single and double dilution calculations
- select an appropriate container in which to package powders and capsules
- prepare an appropriate label for powders and capsules.

Introduction and overview of powders and capsules

This section will include solid preparations intended for both internal and external use. The following types of preparation will be considered:

- bulk powders for external use – termed dusting powders
- bulk oral powders
- individual unit dose powders
- unit dose capsules.

General method

General method for preparing dusting powders

The method for mixing powders in the formulation of a dusting powder is the standard ‘doubling-up’ technique.

‘Doubling-up’ technique

1. Weigh the powder present in the smallest volume (powder A) and place in the mortar.
2. Weigh the powder present in the next largest volume (powder B) and place on labelled weighing paper.
3. Add approximately the same amount of powder B as powder A in the mortar.

KeyPoints

Advantages and disadvantages of dusting powders as dosage forms

Advantages

- Easy to apply
- Pleasant to use
- Absorb skin moisture
 - decreasing skin friction
 - discouraging bacterial growth
 - drying action gives cooling effect

Disadvantages

- May block pores causing irritation
- Possibility of contamination
- Light fluffy powders may be inhaled by infants leading to breathing difficulties
- Not suitable for application to broken skin

KeyPoints

Advantages and disadvantages of bulk oral powders as dosage forms

Advantages

- May be more stable than liquid equivalent
- Administered with relative ease
- Absorption quicker than capsules or tablets

Disadvantages

- Variable dose accuracy
- Bulky and inconvenient to carry
- Difficult to mask unpleasant tastes