

chapter 6

Ointments, pastes and gels

Overview

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

- understand the difference between ointments, pastes and gels
- prepare an ointment from first principles
- incorporate solids and liquids into an ointment base
- select an appropriate container in which to package ointments, pastes and gels
- prepare an appropriate label for ointments, pastes and gels.

Introduction and overview of ointments, pastes and gels

This chapter will focus on the following dosage forms:

- ointments
- pastes
- gels.

Ointments

British Pharmacopoeia (BP) definition

Ointments are formulated to provide preparations that are immiscible, miscible or emulsifiable with the skin secretion. Hydrophobic ointments and water-emulsifying ointments are intended to be applied to the skin or certain mucous membranes for emollient, protective, therapeutic or prophylactic purposes where a degree of occlusion is desired. Hydrophilic ointments are miscible with the skin secretion and are less emollient as a consequence.

Definition

Ointments are preparations for external application but differ from creams in that they have greasy bases. The base is usually anhydrous and therefore most ointments are immiscible with skin secretions. Ointments usually contain a medicament or a mixture of medicaments dissolved or dispersed in the base.

Pastes

Pastes are semi-solid preparations for external use. They consist of finely powdered medicaments combined with White Soft Paraffin BP or Liquid Paraffin BP or with a non-greasy base made from glycerol, mucilages or soaps. Pastes contain a high proportion of powdered ingredients and therefore are normally very stiff. Because pastes are stiff they do not spread easily and therefore this localises drug delivery. This is particularly important if the ingredient to be applied to the skin is corrosive such as dithranol,