

**Table 10.4** EXAMPLES OF RECTAL AND VAGINAL CREAMS AND OINTMENTS

COMMERCIAL PREPARATION	ACTIVE INGREDIENTS	PRODUCT TYPE	PRIMARY USE
<b>Rectal</b>			
Anusol (Salix)	Starch	Ointment	Hemorrhoid treatment
Tronolane (Monticello)	Pramoxine HCl	Cream	Hemorrhoidal analgesic, antipruritic
<b>Vaginal</b>			
Mycelex-7 (Ortho-McNeil)	Clotrimazole	Cream	Antifungal
AVC (Novavax)	Sulfanilamide	Cream	Vulvovaginitis ( <i>C. albicans</i> )
Cleocin (Pfizer)	Clindamycin PO <sub>4</sub>	Cream	Bacterial vaginosis
Terazol 7 (Ortho-McNeil)	Terconazole	Cream	Antifungal ( <i>C. albicans</i> )
Ogen (Pharmacia)	Estropipate	Cream	Estrogenic for vulvar, vaginal atrophy
Premarin (Wyeth-Ayerst)	Conjugated estrogens	Cream	Atrophic vaginitis, kraurosis vulvae

## FEATURES AND USE OF VAGINAL PREPARATIONS

Among the dosage forms used in the topical treatment of conditions and diseases of the vulvovaginal area are ointments, creams, creamlike foams, and gels. Other dosage forms include vaginal inserts, transdermal drug delivery systems, and oral forms, discussed elsewhere in this text.

The vaginal surface is lined with squamous epithelium cells and mucus produced by various underlying glands. Topical products are used to treat vulvovaginal infections, vaginitis, conditions of endometrial atrophy, and for contraception with spermocidal agents.

The usual pathogenic organisms of vulvovaginal infections and vaginitis are *Trichomonas vaginalis*, *Candida (Monilia) albicans*, and *Haemophilus vaginalis*. Among the antiinfective agents are nystatin, clotrimazole, miconazole, clindamycin, and sulfonamides. Endometrial atrophy may be treated locally with the hormones dienestrol and progesterone, which are used to restore the vaginal mucosa to its normal state. Contraceptive preparations containing spermocidal agents such as nonoxynol-9 and octoxynol are used alone or in combination with a cervical diaphragm.

As noted previously, because products intended for use in the vulvovaginal area come into direct contact with tissues prone to infection, it is important these products be manufactured and tested to be free of offending microorganisms, yeasts, and molds. Because gels are especially subject to bacterial growth, most vaginal gels are preserved with antimicrobial agents.

Ointments, creams, and gels for vaginal use are packaged in tubes and vaginal foams in aerosol canisters. Although some preparations are applied externally to the vulva (e.g., Mycelex-7 Vaginal Cream, Ortho-McNeil), most are intended to be delivered to the vagina by means of applicator tips that accompany the products (Fig. 10.11).

In treating external vulvar conditions, the patient squeezes a small amount of product onto the fingers or tissue and gently spreads

**FIGURE 10.11** Vaginal cream with inserter.