PIPADOR REVISION

MRCOG Part 1 Revision Notes

Antifungals

PHARMACOLOGY • LECTURE 378

VISUAL EXAMINATION REVISION NOTES

2026 Edition

MRCOG PART 1 REVISION NOTES | PHARMACOLOGY

378 Antifungals

Mechanisms, adverse effects and use of antifungals in pregnancy, breastfeeding and O&G

Ergosterol	Topical azole	Fluconazole	Amphotericin
Fungal membrane target	First line VVC in pregnancy	Avoid in pregnancy	Systemic choice in pregnancy

■ KEY FACTS: Learning objectives

- Describe the mechanisms of action of antifungal classes.
- Describe adverse effects and interactions.
- Describe antifungal use in pregnancy and breastfeeding and in O&G infections.

378.1 Mechanisms

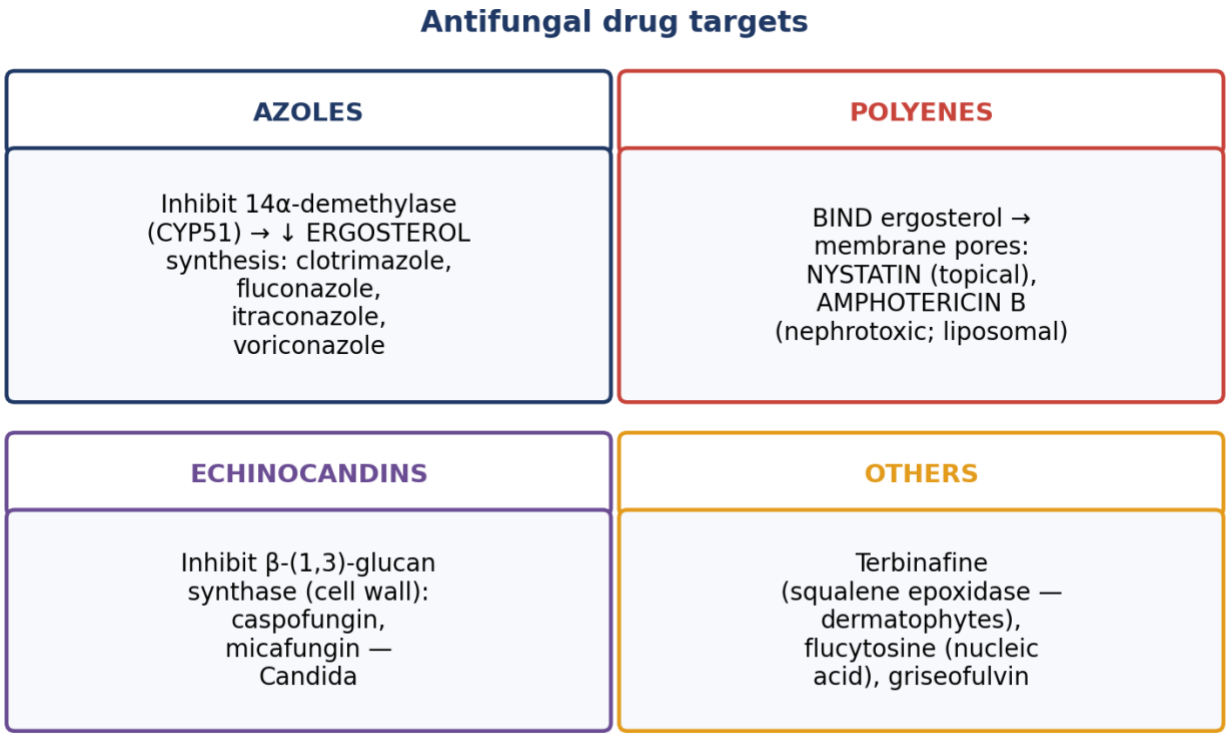


Figure 378.1 — Antifungal targets

Class	Adverse effects / interactions
Azoles	• Hepatotoxicity, QT prolongation • **CYP3A4 inhibition** (↑ statins, tacrolimus, warfarin, some ART) • Voriconazole — visual disturbance, photosensitivity
Polyenes	• Amphotericin B — nephrotoxicity, hypokalaemia, infusion reactions (liposomal less toxic) • Nystatin topical/oral only
Echinocandins	Well tolerated; IV only

Class	Adverse effects / interactions
Terbinafine	Hepatotoxicity; taste disturbance
Flucytosine	Bone marrow suppression (with amphotericin — cryptococcal meningitis)

378.2 Pregnancy and breastfeeding

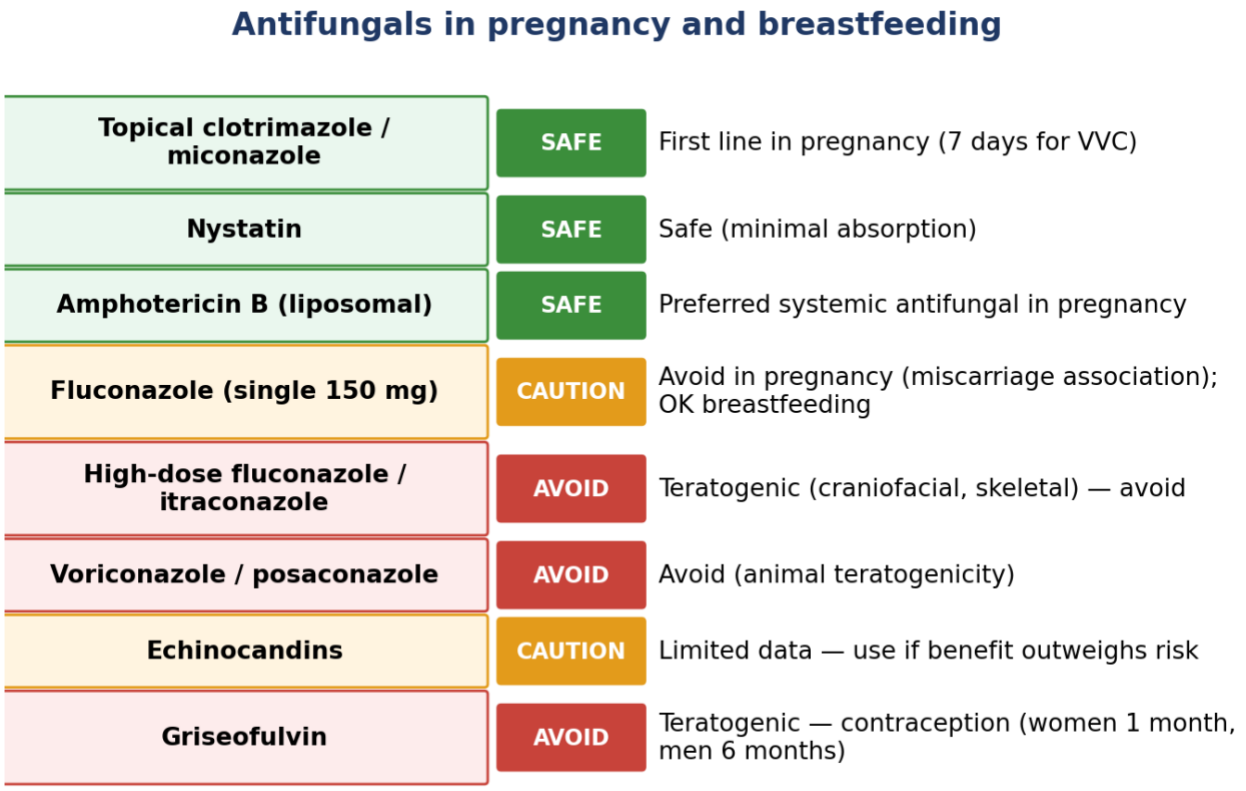


Figure 378.2 — Antifungals in pregnancy and breastfeeding

- **Vulvovaginal candidiasis in pregnancy**: clotrimazole pessary ± cream for **7 days**; avoid oral fluconazole.
- **Breastfeeding**: fluconazole compatible (also used for nipple/ductal candida with infant oral treatment — miconazole gel (> 4 months) or nystatin).
- **Invasive fungal infection in pregnancy**: liposomal amphotericin B; specialist input.

378.3 O&G uses

Condition	Treatment
Uncomplicated VVC (non-pregnant)	Fluconazole 150 mg oral single dose or clotrimazole 500 mg pessary
Recurrent VVC	Induction then weekly fluconazole for 6 months (non-pregnant)
C. glabrata VVC	Boric acid or nystatin pessaries (not in pregnancy — boric acid)
Oral/nappy thrush in infants	Nystatin or miconazole (age-appropriate)
Neonatal invasive candidiasis (NICU)	Fluconazole prophylaxis (ELBW in some units); amphotericin treatment
Neutropenic sepsis not responding	Empirical antifungal (echinocandin/liposomal amphotericin)

378.4 Must-know summary

■ EXAM TIP

- Azoles block ergosterol synthesis (CYP51); polyenes bind ergosterol; echinocandins block glucan synthesis.
- Azole interactions (CYP3A4); amphotericin nephrotoxicity.
- Pregnancy: topical azoles (7 days); avoid oral/high-dose fluconazole; amphotericin for systemic infection.
- Fluconazole OK in breastfeeding.

■ MNEMONIC / MEMORY AID

Antifungals — 'Azoles Arrest synthesis; Polyenes Puncture membranes; Echinocandins Erode walls'.