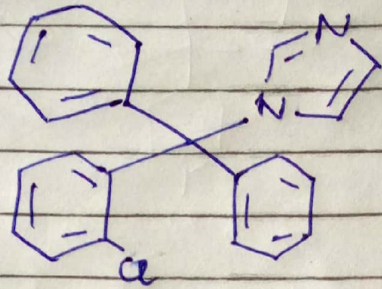


* Antifungal agents *

Synthetic Antifungal agents :- Classification

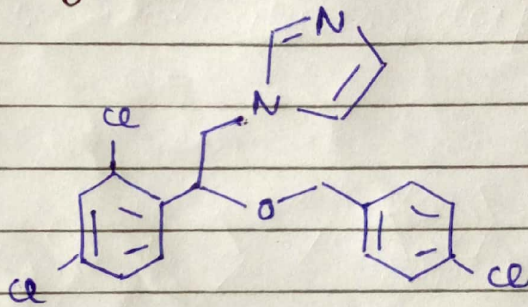
1) Clotrimazole :-



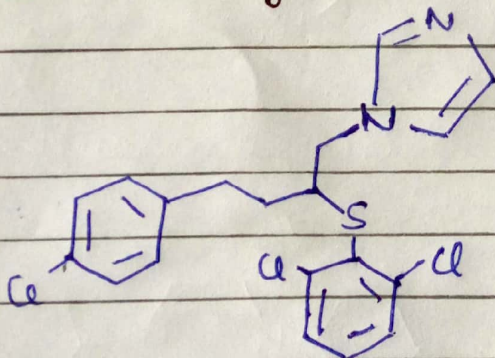
Uses :-

- Dermatophyte infections
- Candida : oral, pharyngeal, vaginal

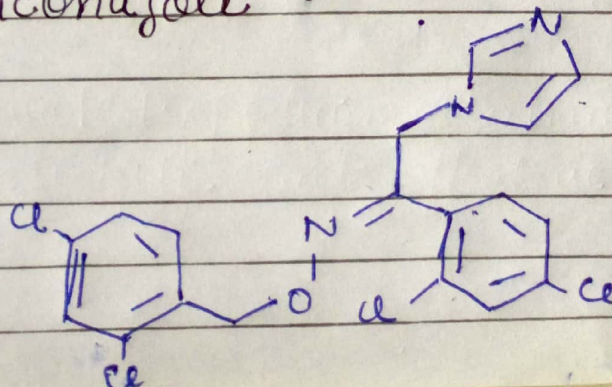
2) Econazole :-



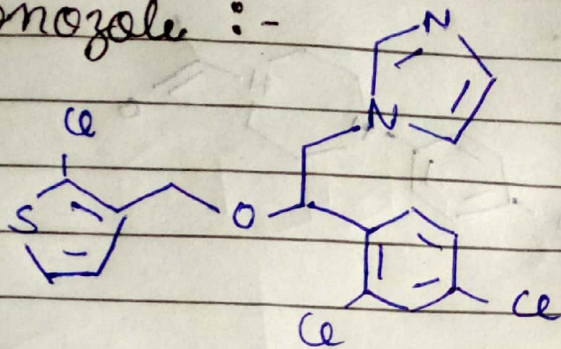
3) Butoconazole :-



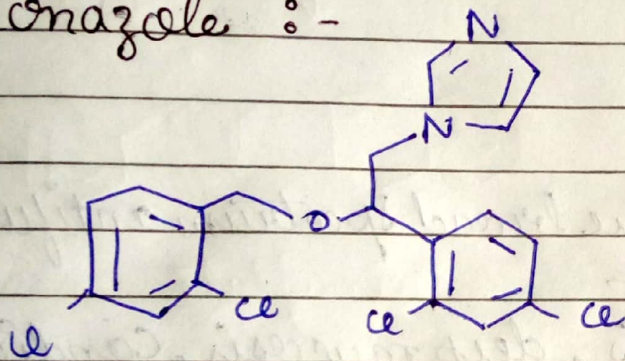
4) Oxiconazole :-



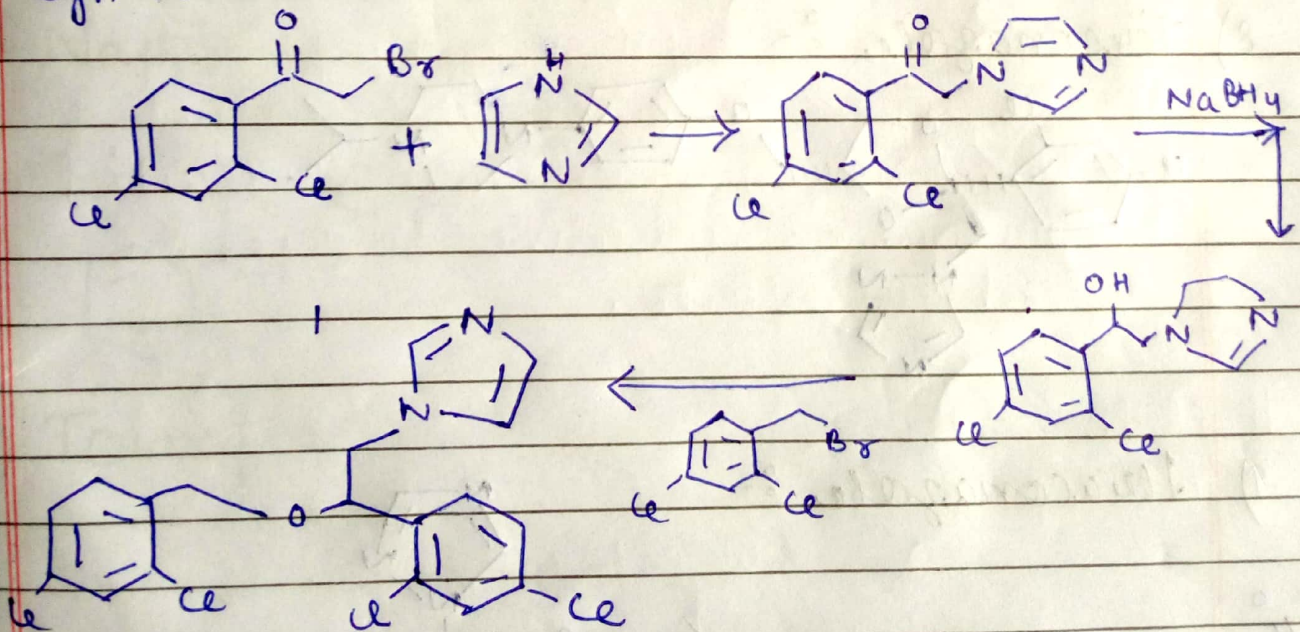
5) Micoconazole :-



6) Miconazole :-



• Synthesis :-

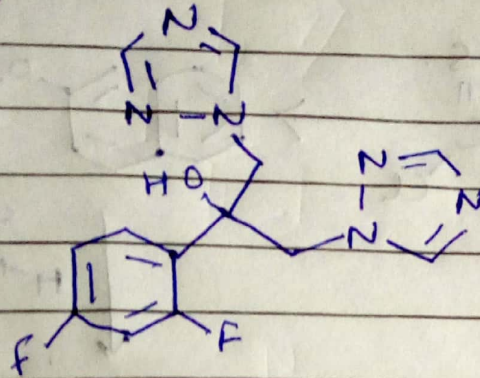


Miconazole

Uses :-

- Oomycete infections
- Candida

10) Fluconazole :-



→ Oral, IV as well as topical

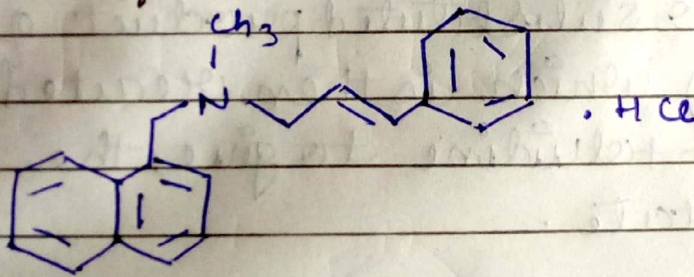
Uses :-

→ Candida

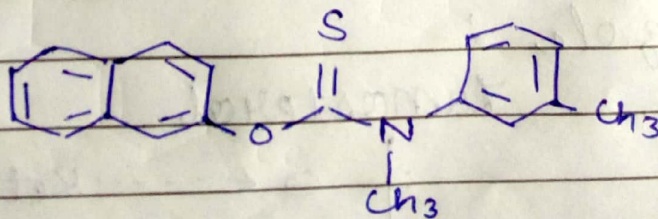
→ Tinea infections & cutaneous candidiasis

→ Eye drops

11) Naftifine HCl :-

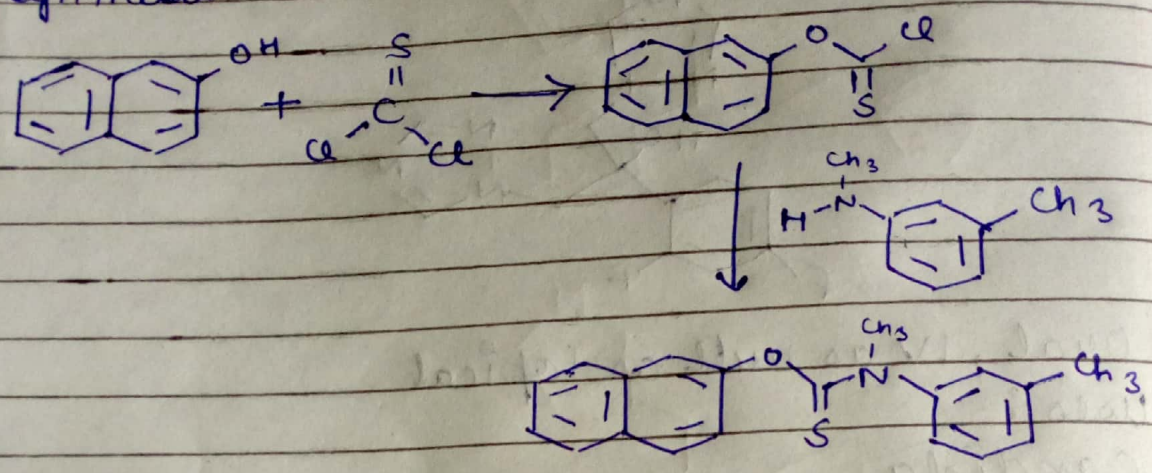


12) Tolnaftate :-



→ Tolnaftate is a thiocarbamate derivative with either fungicidal or fungistatic property.

• Synthesis :-



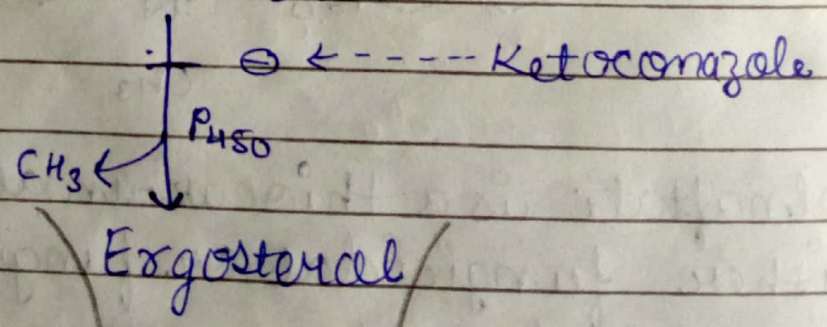
Tolnaftate

→ Tolnaftate is synthesized by reacting equimolar amounts of 2-naphthol & thiophosgene to make a mono substituted product of thiophosgene (2) which is then reacted with N-methyl-3-toluidine to give the desired Tolnaftate.

Mode of action :-

i) Ketoconazole :-

Lanosterol



Inhibition of ergosterol synthesis disrupts membrane function & increase permeability