

KEY WORDS OF MODERN ANTIFUNGAL THERAPY

CYTOCHROME P450 OR WHAT'S IN A NAME...

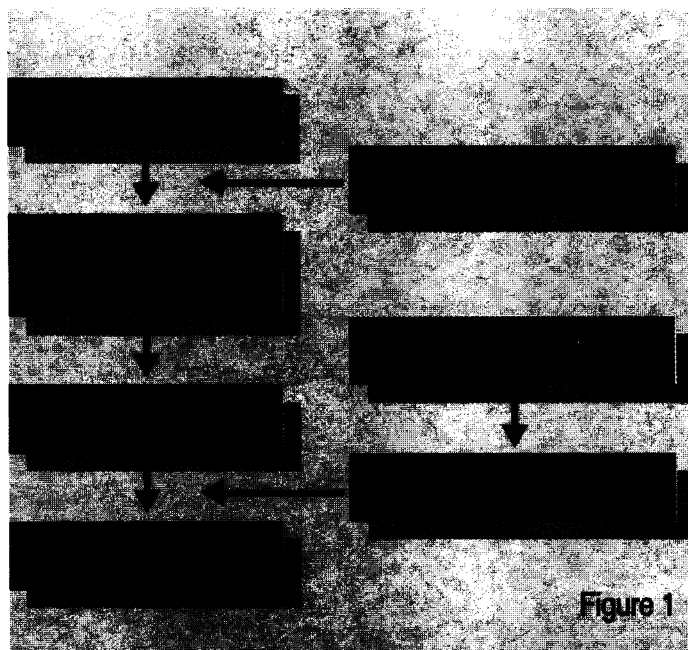


Figure 1

Figure 1 is a simplified illustration of one of the pathways for the enzymatic ergosterol synthesis in fungal cell membranes. (Ergosterol is essential for the structural cohesion of these membranes). Pharmacologically one can disrupt this process at two distinct points. The first is where squalene is made into an oxide. Alternatively, one can interfere where lanosterol is converted into ergosterol, by inactivating **cytochrome P450** — a chemical catalyst that performs a vital function in the enzymatic reaction. The broadest research experience to date has been gathered with the latter approach. Importantly, in view of the close similarities between the enzymatic processes in fungi and humans, either approach must be highly selective in disrupting the fungal enzyme systems only.

The metabolism of fungi is almost identical to that of other eukaryotic organisms, such as humans. Therefore, trying to design a systemic drug that kills fungi without harming their human host means searching for infinitesimal differences in metabolic pathways.

Selective precision for the metabolic pathways in fungi, as distinct from those in humans, remains the key determinant for any systemic antimycotic, regardless of its point of biochemical interaction. This precision has been achieved to an exceptional degree with itraconazole, alias **Sporanox***, because it selectively inactivates the fungal cytochrome P450 only.

Sporanox^{*}

itraconazole

SHORT AND SIMPLE ORAL THERAPY

standard dose in dermatomycoses: 1 capsule (100 mg) once daily for 15 days
standard dose in vaginal candidosis: 2 x 2 capsules (400 mg) for 1 day only

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JANSSEN
PHARMACEUTICA
2340 Beerse, Belgium
expertise in
antimycotic research

Properties: Sporanox (itraconazole), a triazole derivative, is orally active against infections with dermatophytes (*Trichophyton* spp., *Microsporum* spp., *Epidermophyton floccosum*), yeasts (*Candida* spp., *Pityrosporum* spp.), *Aspergillus* spp. and various other yeasts and fungi. **Indications:** Sporanox (itraconazole) is indicated for vulvovaginal candidosis, pityriasis versicolor, dermatophytoses, fungal keratitis and oral candidosis. **Dosage and administration:** Vulvovaginal candidosis: 2 capsules (200 mg) morning and evening for 1 day, Pi-

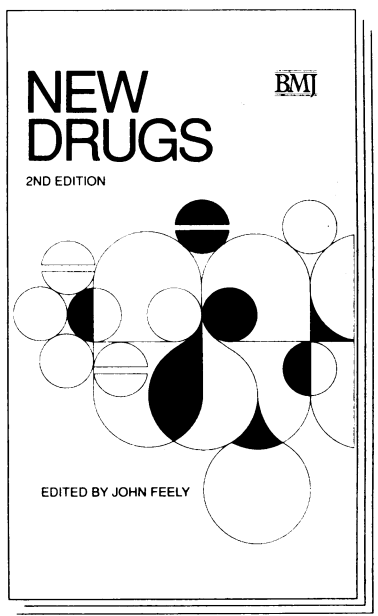
tyriasis versicolor: 2 capsules (200 mg) once daily for 7 days. - Tinea corporis, tinea cruris, tinea pedis, tinea manus: 1 capsule (100 mg) daily for 15 days; highly keratinized regions, as in plantar tinea pedis and palmar tinea manus, require 1 capsule (100 mg) daily for 30 days. - Oral candidosis: 1 capsule (100 mg) daily for 15 days. - Fungal keratitis: 2 capsules (200 mg) once daily for 21 days. **Contra-indications:** Sporanox (itraconazole) is contra-indicated during pregnancy. **Warnings and precautions:** Although clinically Sporanox (itracona-

zole) has not been associated with hepatic dysfunction, it is advisable not to give this drug to patients with a known history of liver disease. **Nursing mothers:** It is recommended not to breast feed whilst taking Sporanox (itraconazole).

Drug interactions: Sporanox (itraconazole) should not be given concomitantly with rifampicin.

Full prescribing information is available on request.

What's best for patients?

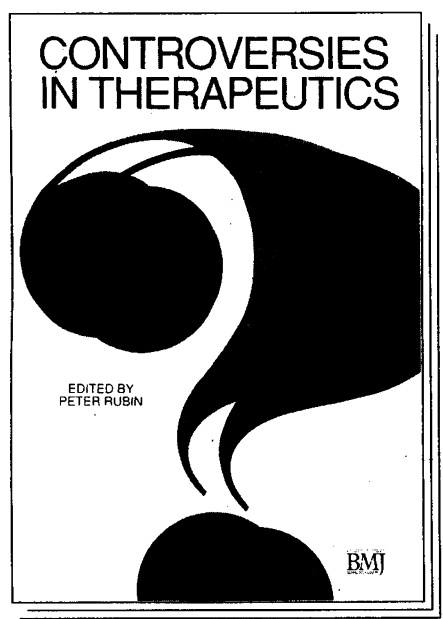


New drugs are continually being developed and knowledge about existing drugs is constantly expanding, so it is essential, but difficult, for doctors to keep up to date with the latest developments. *New Drugs* describes the most important therapeutic advances of the past decade and discusses the drugs that will be in common use in the 1990s. Completely revised and updated, this second edition has been expanded to include 11 additional chapters. Its coverage of practical aspects of drug use, avoidance of adverse reactions and interactions, and prescribing at extremes of age makes it an invaluable guide for busy practitioners who want to get the best out of the new drugs currently available.

Chapters include: Adverse reactions to drugs • Calcium antagonists
• Diuretic treatment • Antiarrhythmic drugs • Insulin • Lipid lowering drugs
• Antidepressant drugs • Centrally acting drugs • Controlling symptoms in advanced cancer

Second edition April 1991

UK £14.95; Abroad £18.00 (BMA members £13.95 or £17.00)



Doctors do not always agree on what is the right treatment even for quite common conditions. Often definitive clinical trials have not been performed and no one knows for sure the best way to treat. *Controversies in Therapeutics* looks at some problems that arise in general practice. For each one it offers two different approaches; and Peter Rubin, professor of therapeutics and consultant physician at the University Hospital of Nottingham, provides an editorial comment on these which summarises the prevailing views and helps you to make up your own mind. Written by academic experts with everyday clinical experience, *Controversies in Therapeutics* is a must for all physicians and general practitioners—both those who think they know it all and those who know they don't.

Chapters include: Role of diet in treating atopic eczema • Risks of dependence on benzodiazepine drugs • Thrombolysis and the general practitioner
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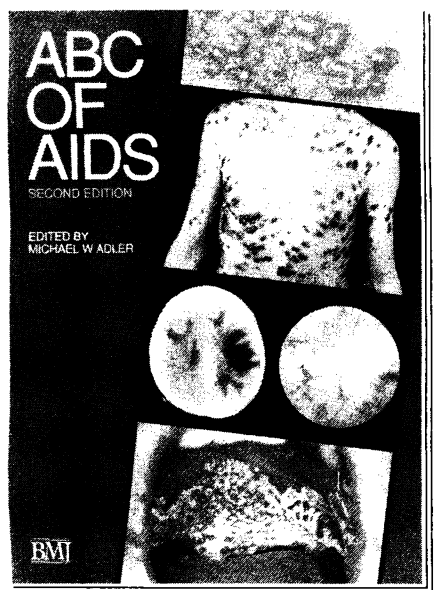
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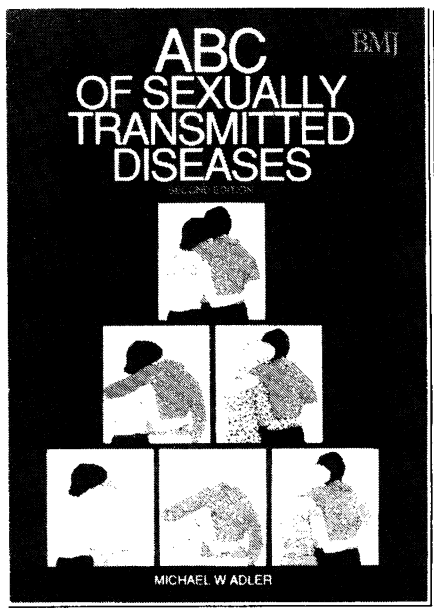
Expert information on important problems



It is vital for all doctors to keep up to date with the facts about AIDS. The second edition of *ABC of AIDS* has been completely revised to give a clear picture of the present state of knowledge about the epidemic and current approaches to treatment. It also includes two new chapters, on HIV infection related to misuse of drugs, and HIV infection in children. Edited by Michael Adler, a leading authority on the topic, the *ABC of AIDS* is a concise, authoritative guide that all medical practitioners should read.

January 1991

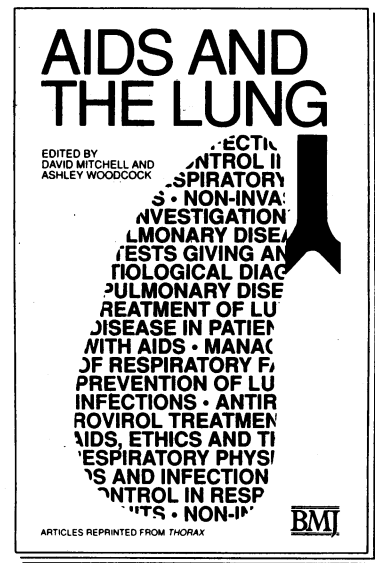
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The number and range of sexually transmitted diseases have been increasing steadily in the past few years, and the second, revised edition of the *ABC of Sexually Transmitted Diseases*, includes the most up to date figures as well as new chapters on AIDS and psychosexual problems. Doctors need to be aware that common clinical conditions such as rashes, vaginal discharge, and pelvic pain may have a sexual origin and in the new edition of this invaluable handbook Professor Michael Adler gives expert guidance on the diagnosis and management of these conditions.

August 1990

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The lung is the organ most affected by the opportunistic infections that occur in patients with AIDS. Pneumocystis pneumonia occurs in up to four fifths of such patients in Europe and North America, while tuberculosis is a major factor in Africa. As the numbers of patients with AIDS increase, respiratory physicians throughout the world are more likely to be concerned in their management. In *AIDS and the Lung* experts review the problems, emphasising practical points and providing up to date information on this rapidly changing subject.

September 1990

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- means and their differences
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For each method relevant intermediate statistics and the required confidence interval are produced on the screen. Complete with its own manual, the program may also be used in conjunction with the book *Statistics with Confidence*, which provides numerous worked examples. The software is available for IBM compatibles on either a 5¼" or a 3½" disk.

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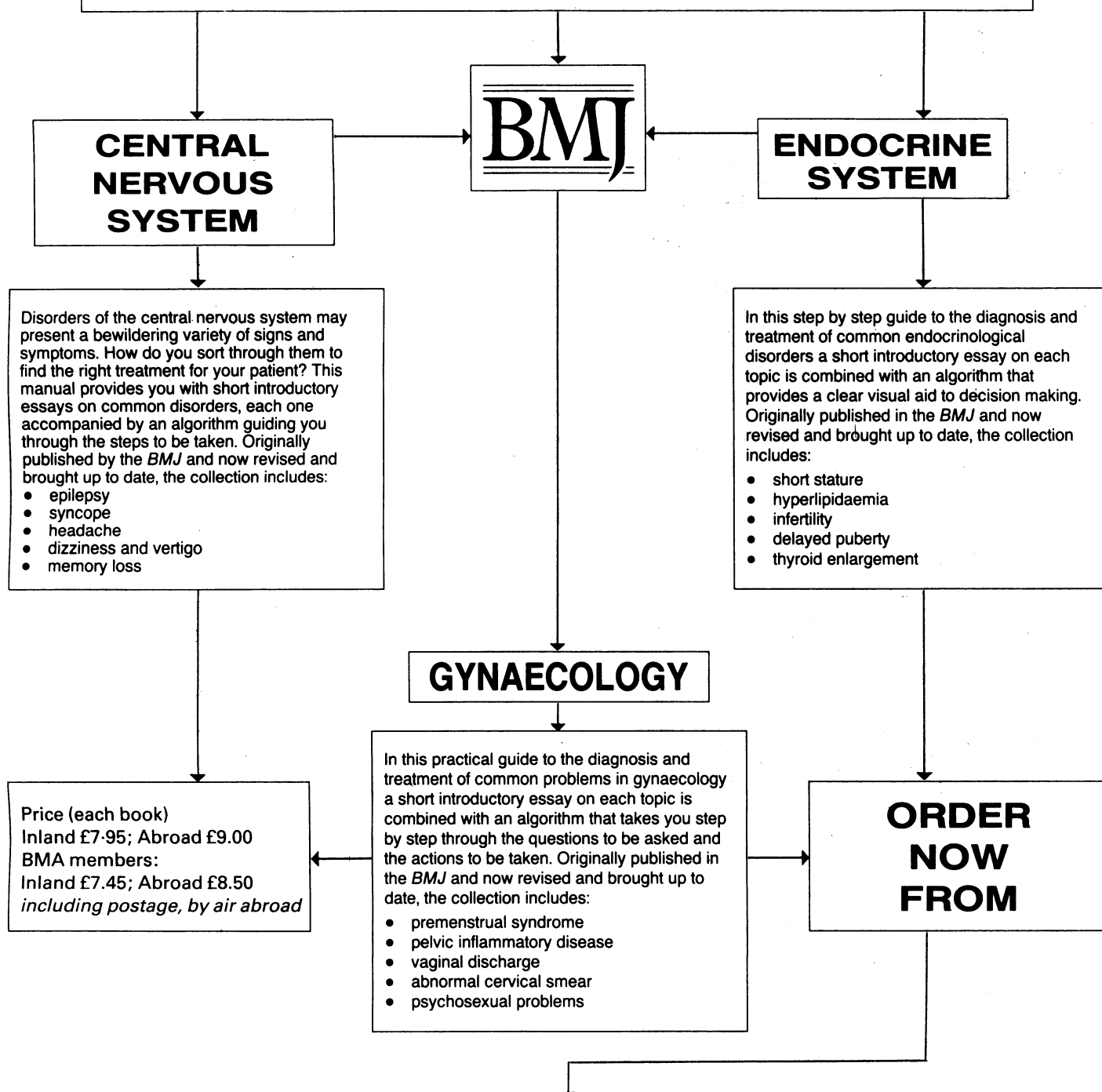
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352 pp., illus., Clarendon Press/BMJ, September 1990

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