TABLE I

N-SUBSTITUTED DIMETHOXYPHENYLACETAMIDES

$(CH_3O)_2C_6H_4CH_2COR$

Compd.	$(CH_3O)_2$ position	R	M.p., °C.	Yield, %	Formula	% calcd. C	% calcd. H	% found C	% found H
I	3,4	NHC:NCH:CHS	166–167	80	$C_{13}H_{14}N_2O_3S$	56.09	5.07	56.27	5.21
II	3,4	NHC:$NC_6H_3(CH_3O)$S	189–190	75	$C_{18}H_{18}N_2O_4S$	60.35	5.06	60.61	5.18
III	3,4	NHC:$NC_6H_3(Cl)$S	153–154	73	$C_{17}H_{15}ClN_2O_3S$	56.21	4.16	56.54	4.20
IV	2,5	NHC:NCH:CHS	199–200	60	$C_{13}H_{14}N_2O_3S$	56.09	5.07	56.55	5.17
V	2,5	NHC:$NC_6H_3(CH_3O)$S	156–157	60	$C_{18}H_{18}N_2O_4S$	60.35	5.06	59.99	5.01
VI	2,5	NHC:$NC_6H_3(Cl)$S	168–170	58	$C_{17}H_{15}ClN_2O_3S$	56.21	4.16	56.44	4.27

TABLE II

N-SUBSTITUTED DIMETHOXYPHENYLETHYLAMINES AND THEIR PICRATES

$(CH_3O)_2C_6H_4CH_2CH_2R$

Compd.	$(CH_3O)_2$ position	R	M.p., °C.	Yield, %	Formula	% calcd. C	% calcd. H	% found C	% found H	Picrate m.p., °C.
I	3,4	NHC:NCH:CHS	106–107[a]	35	$C_{13}H_{16}N_2O_2S$	59.09	6.06	58.76	6.23	177–178
II	3,4	NHC:$NC_6H_3(CH_3O)$S	107–108[a]	20	$C_{18}H_{20}N_2O_3S$	62.79	5.81	62.51	5.79	189–190
III	3,4	NHC:$NC_6H_3(Cl)$S	180–180.5[b]	27	$C_{17}H_{17}ClN_2O_2S$	58.53	4.88	58.61	4.67	197–198
IV	2,5	NHC:NCH:CHS	99–100[a]	35	$C_{13}H_{16}N_2O_2S$	59.09	6.06	59.11	6.13	182–184
V	2,5	NHC:$NC_6H_3(CH_3O)$S	166–167[a]	21	$C_{18}H_{20}N_2O_3S$	62.79	5.81	62.51	5.89	204–205
VI	2,5	NHC:$NC_6H_3(Cl)$S	171–172.5[b]	50	$C_{17}H_{17}ClN_2O_2S$	58.53	4.88	48.39	4.75	235–236

[a] Crystallized from water. [b] Crystallized from aqueous methanol.

Book Reviews

Drugs of Choice 1964-1965. Edited by W. MODELL with 47 Contributors. C. V. Mosby Co., St. Louis, Mo. 1964. xli + 1018 pp. 18 × 25 cm. $16.75.

The fourth revision of this guide to medicinal therapy, like its predecessors, establishes its worth to the reader on the basis of broad coverage, up-to-date information, authoritative opinion, and a well-organized format.

On the first count, the 1964–1965 revision fares well indeed, with a total of 41 chapters by 47 authors, ranging in size from the short chapter, "The Choice of Stimulants to the Medulla," to Modell's chapter, "Drugs for Diseases of the Heart." The introductory chapters on principles of choice, applications of clinical pharmacology, physical and clinical considerations, and adverse drug reactions are full of wisdom as well as information. The last six chapters cover drugs used in the various specialties and in the treatment of poisoning, topics which could not well be fitted into other pigeon holes.

Perhaps "1964–1965" in the title is ambiguous; a book published in January 1964 can only contain knowledge derived up through 1963 at the latest. Even after this short interval, it is hard to remember how much each author could have known and written on his own topic at that time. The chapters on antimicrobials seem quite up to the minute, for example, while the oral contraceptives are described and dismissed in half a page, without naming or comparing any of the preparations then available. Similar examples of either tendency can be found in other chapters; on balance, the book succeeds much more often than it fails.

What has been difficult for many authors is to give a clear yet concise idea of the subvarieties of clinical disease, and, thus, how best to choose the proper drugs for each. Perhaps most of them would conclude that the physician had best learn this elsewhere before attempting to use this book. The chapter on antidiabetic agents is short, extremely general, and lacks any discussion of how one evaluates results of treatment and control of diabetes in general. The next author, in the chapter on endocrine dysfunction, succumbs to the temptation to write a textbook of endocrinology, but does a much better job of adapting the treatment of the patient to the problems he presents.

Each chapter is headed by a short table of contents which usually includes an introduction, discussion of the clinical and pharmacological considerations involved, describes the several drugs in use, discusses a rational plan for therapy, and ends with a prospective analysis of how newer or yet undeveloped drugs might be even more effective. Selected references, apropos and up to date, follow each chapter. There is a Drug Index (on green paper) giving a capsule listing of all commercial drugs worthy of note and a very good general index of the book itself.

This is a well-organized and useful comparison of drugs available in the treatment of human disease. No book can tell a specific physician what his specific patient needs for a specific complaint, but this one is a good point of departure on the road to self-education.

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The National Formulary, Twelfth Edition. Prepared by THE COMMITTEE ON NATIONAL FORMULARY under the supervision of the Council, by authority of the American Pharmaceutical Association. Published by the American Pharmaceutical Association, Washington, D. C. 1965. Distributed by Mack Publishing Co., Easton, Pa. xliv + 618 pp. 15 × 23 cm. $10.00

This new edition becomes official on September 1, 1965, and represents a rather drastically revised book in comparison with the last edition. Extent of use has been eliminated as a criterion for selection and monograph admission is based solely on therapeutic value. Monographs are given for 783 drugs, 248 of which are new to this edition, while 280 drugs from the eleventh edition

are omitted. For the first time 94 new drugs, not previously recognized officially in the U. S., are described.

In general, assay and test procedures reflect the widespread use of modern analytical techniques and instrumentation. For the first time, gas–liquid chromatography, flame spectrophotometry, thin layer chromatography, polarography, and Δ-pH titrimetry are used. The general tests section includes a number of new general procedures for several classes of drugs.

Some revisions of interest include a time reduction in time disintegration tests for tablets, a content uniformity test for tablets, and new standards for fill tolerances on creams, ointments, and powders. A section on pharmaceutical preparations gives general discussions of various dosage forms. Synonyms in monographs have disappeared and some names have changed because of the 1962 amendments to the Federal Food, Drug, and Cosmetic Law, but an alphabetical listing of former synonyms is given. Federal regulations on narcotic drugs are given in the general information section.

Because of new information, this new "National Formulary" is about 100 pages larger than the last edition. The widened margins enhance readability, and altogether it is more attractive than the XIth edition. Chemical names for drugs have been replaced with the systematic chemical name used by *Chemical Abstracts*, which will be a joy to most organic chemists. The "National Formulary XII" should prove to be a useful guide to pharmacists and chemists who are concerned with drug standards and control.

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The Quantitative Analysis of Drugs. By D. C. GARRATT. 3rd Ed. Charles C Thomas, Publisher, Springfield, Ill. 1964. xiii + 925 pp. $27.50.

This book may be divided into five sections. The first and major portion contains general monographs for the quantitative determination of the substance and its salts and preparations of which it is a principle constituent. Also included in this section are the antibiotics and natural as well as synthetic steroids. The following three sections are devoted to the quantitative determination of synthetic organic compounds (not included in the general monographs), essential and fatty oils, fats, and waxes.

Those methods which are likely to prove most serviceable are selected, and in many instances as many as three to four methods or techniques are described for the determination of one substance. The book cites numerous references and the scope, limitations, and the relative merits of various methods.

The last section consisting of over 100 pages contains several appendixes among which are included the determination of water and alcohol content, nonaqueous titrations, and a brief survey of the various applicable instrumental methods of analysis. Worth mentioning is an appendix describing the statistical treatment of analytical results and the interpretation of analytical data.

Teachers and students of pharmacy as well as chemists interested in the quality control and analysis of drugs will find this book useful.

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