

# Chemotherapy in Psychiatry



Ross J. Baldessarini

# Chemotherapy in Psychiatry

Pharmacologic Basis of Treatments  
for Major Mental Illness

Third Edition

 Springer

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*For Frances, who thrice  
encouraged and supported the  
writing of this book*



# Preface

This third edition of *Chemotherapy in Psychiatry (CTP-III)* has been extensively updated since the second edition of 1985, and is being produced by a new, international publisher. As in the first editions, the monograph addresses the basic aspects of modern psychopharmacology and the clinical applications of drugs that are useful for the treatment of many major psychiatric disorders, including psychoses, major mood disorders, and many anxiety disorders. The presentation covers descriptions of the main classes of psychotropic drugs, selected information concerning their known action mechanisms and metabolic disposition, and their clinical applications for acute illnesses and for prevention of recurrences or long-term morbidity, which are all too common among psychiatric disorders. In addition, limitations and adverse effects of each type of agent are covered.

The title of the book, by analogy to treatments used for cancer, was selected to emphasize the point that all psychotropic agents have adverse effects, ranging from annoying to potentially lethal. The art of clinical application of psychotropic medicines centers on the need to balance benefits and risks at the level of individual persons. Moreover, it is increasingly appreciated that use of psychotropic drugs has come to dominate clinical practice in psychiatry worldwide—perhaps owing largely to perceived simplicity, ease of use, and apparent efficiency, as well as apparent cost-effectiveness of such treatments. Nevertheless, it is important to emphasize that medicinal treatments for almost all psychiatric patients are but one component of comprehensive clinical care of complex human problems. Effective application of psychiatric chemotherapy requires more than rapid recognition of a syndrome and selection of an appropriate medicine and dose aimed at suppressing selected target symptoms. The now nearly universal domination of clinical psychiatry by a relatively narrow medicinal approach underscores the thesis that premature devaluing or abandonment of traditional psychological and social aspects of clinical psychiatry would be a grave error.

In addition to its profound impact on clinical practice since the 1950s, modern psychopharmacology has had a fundamental effect on contemporary academic and theoretical psychiatry. Despite limited advances in fundamental understanding of basic neurobiological and behavioral processes that may underlie major psychiatric

disorders, the availability of effective medicinal treatments and partial understanding of their neuropharmacology have strongly stimulated a generation of research strategies that have moved modern psychiatry closer to the mainstream of general medicine. In part, as a contribution to more precise applications of specific treatments to particular disorders and individual patients, there is also a renewed interest in psychiatric nosology and in psychopathology after decades of neglect, particularly by American academic psychiatry.

This monograph developed initially from several years of seminars on psychopharmacology for psychiatric residents, medical students, and postgraduate training programs, and many additional years of consultative clinical practice and case conferences for inpatients and outpatients based at Massachusetts General and McLean Hospitals in Boston. It has also been informed by more than four decades of leading a laboratory program in preclinical neuropharmacology at the Mailman Research Center of McLean Hospital, aimed at better understanding of known psychotropic drugs and in developing improved agents. Additional insights have come from many years of industrial consulting to the pharmaceutical and biotechnology industries, as well as from authoring the chapters on psychopharmacology for a leading textbook of general pharmacology (*Goodman and Gilman's The Pharmacological Basis of Therapeutics*; New York: McGraw-Hill) from 1980 to 2010. Particularly valuable information has arisen from interactions with patients, trainees, and especially from experiences shared in a series of continuing medical education seminars for a broad range of mental health professionals in Boston, Cape Cod, Santa Fe and elsewhere, and from ongoing international research collaborations with academic and clinical colleagues throughout the world.

Since the first edition of the book appeared in 1977, at a time when textbooks in this field were uncommon, many specialized reviews and excellent comprehensive textbooks on various aspects of psychopharmacology have appeared. In the face of the growing complexity and specialization of the field, this monograph has attempted to provide a relatively brief, consistent, and hopefully readable text aimed at communicating basic principles as well as facts, and at contributing to safe and effective clinical application of chemotherapy in psychiatry. It may be limited in representing largely American, and possibly somewhat regional, perspectives and practices, but attempts to balance the risk of parochialism with the principles and major research findings that underlie modern theories and practices. Now that the field has been in existence for more than six decades, it also seemed timely to consider the current state of psychopharmacology, its evolution and promise, but also its theoretical and practical limitations, as the rate of innovation and of fundamentally new drug-products is declining, and its negative as well as many positive effects on clinical care of the mentally ill have become more apparent.

Many colleagues in psychiatry, pharmacology, and industry have shared expertise, scientific insights, and clinical experiences that have contributed importantly to this book. Special thanks is also given to Mrs. Rita Burke, for her tireless assistance in gathering research literature on which the book is based.

Macbeth: *How does your patient, doctor?*

Doctor: *Not so sick, my lord, as she is troubled with thick-coming fantasies, that keep her from her rest.*

Macbeth: *Cure her of that: Canst thou not minister to a mind diseas'd: pluck from the memory a rooted sorrow; raze out the written troubles of the brain; and with some sweet oblivious antidote cleanse the stuff'd bosom of that perilous stuff which weighs up on the heart?*

Doctor: *Therein the patient must minister to himself.*

—William Shakespeare, *Macbeth* (67)



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