

PHARMACY TECHNICIANS' MANUAL

SECOND EDITION



EDITED BY

DURGIN • HANAN • WARD

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FOREWORD

Immediately before and since the publication of the first edition of this manual, there has been much professional discussion on the utilization of pharmacy technicians or aides. The need for supportive personnel to assume technical responsibilities has been increased as the role of the pharmacist has continued to expand and as more opportunities for greater involvement in those areas requiring judgments based on professional and scientific knowledge have become available. The areas still awaiting more universal definition include functions to be performed, minimum competencies, and educational or training requirements.

A task force with representation from the American Pharmaceutical Association (APhA), the American Association of Colleges of Pharmacy (AACCP), the National Association of Boards of Pharmacy (NABP), and the American Society of Hospital Pharmacists (ASHP) issued a report that provides a comprehensive list of role components for nonpharmacists. These have not been accepted in total, but instead approval has been granted by pharmacy groups including state boards of pharmacy, for selected tasks to be performed by nonpharmacists. The National Association of Chain Drug Stores and the ASHP have developed training guidelines for their respective pharmacy constituents and the APhA is expected to do the same for the community environment. The AACCP is expected to develop an Association position concerning minimal competencies to be achieved and guidelines for training supportive personnel that are consistent with professional pharmacy education and training.

There are differences in the terminology used to designate supportive personnel. Identifying terms include “aides,” “assistants,” “technicians,” and “technologists.” To keep from contributing to an already confused nomencla-

ture situation in the health field, I advocate the classification scheme of Dr. Harry I. Greenfield.* He separates allied health personnel into three components based on educational levels. For legislative purposes, the first has already been termed "allied health *professionals*"; the second he terms "allied health *technicians*"; and the third, "allied health *assistants*." The professionals are those who have attained a minimum of a baccalaureate degree; the technicians are those who have been trained mainly in vocational schools and community colleges; and the assistants are all of the others who have attained various educational levels up to and including high school graduation.

While there are still questions to be resolved, there are programs in operation at the time of this writing under different sponsorships. One program is conducted by a pharmacy college, many are conducted by community colleges, and many more by hospital-based pharmacies. In addition to sponsorships, there are differences in the required competencies, levels of instruction, and sophistication of technological requirements.

This manual is directed toward a professional appreciation of pharmacy rather than the specific development of skills, which for the most part must be learned through supervised work experience. Special emphasis is given to the importance of the contribution to be made by the assistant in providing quality pharmaceutical services.

This book, therefore, stands ready to contribute to the training of allied health technicians or assistants as previously defined, and the authors and publishers are to be commended for introducing the first text, and now its revision, in an area that will continue to receive considerable professional attention.

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*Greenfield, H. I.: *Allied health manpower; trends and prospects*, Irvington, N. Y., 1969, Columbia University Press, pp. 25-28.

PREFACE

The practice of pharmacy is in the process of revolutionary change. Pharmacy educators, industrialists, legislative bodies, and practitioners are aware of these changes initiated by an inherent cultural need for a more knowledgeable involvement on the part of the pharmacist. Across the United States pharmacists are becoming more involved in drug therapy, drug monitoring procedures, and drug utilization reviews. To meet these challenges pharmacists will require trained technicians to assist in many supportive tasks and functions.

Part one of this manual introduces the technician to the history, heritage, and literature of pharmacy and general techniques of communication skills. Part two relates to the administrative aspects of pharmacy: purchasing, inventory control, formulary system, and computer applications in pharmacy. Part three relates to professional considerations of practice; including dosage forms and calculations, actions and use of drugs, clinical pharmacy concepts, drug information services, dispensing systems, parenteral procedures, extemporaneous compounding, and the preparation and administration of medications. Part four focuses on the qualifications, role, training, and education as well as assessment procedures for technicians and describes daily responsibilities. The Glossary provides valuable information on pharmaceutical terminology. The Appendixes contain illustrative job descriptions and other information of value to the pharmacist and the technician.

This manual addresses the training and education of pharmacy technicians on a national level. Different states have different regulations pertaining to pharmacy technician activities. Local and state statutes should be investigated and ascertained prior to assignment of professional tasks and responsibilities to pharmacy technicians.

It is our intention that this manual will assist pharmacists and educators who are involved with technician training to plan a program and to provide a referenced reading source for technicians. We are most grateful to the pharmacist-authors, including a number of outstanding pharmacy leaders, for their professional support and for the chapters which they prepared.

Jane M. Durgin
Charles O. Ward
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PART ONE

**APPRECIATION OF
PHARMACY**

1 | INTRODUCTION

Jane M. Durgin

The Report of the Study Commission on Pharmacy, which was commissioned by The American Association of Colleges of Pharmacy and published in 1975 under the Chairmanship of John S. Millis, states:

. . . the utilization of technicians (in pharmacy) will increase as more and more health services are delivered under organized and institutionalized auspices. The characteristic of organizations is the division of labor. . . . It seems highly probable that pharmacists' aides will be employed in ever increasing numbers.

When this occurs, pharmacy technicians will become a recognized part of the system of drug dispensing. As their duties and roles become defined, the question as to their proper training will have to be answered. The definition of that training will be the joint responsibility of the pharmacy profession, pharmacy education and the state boards of pharmacy. The general supervision of the training, however, should be the responsibility of the colleges of pharmacy. The role of pharmacy technicians can be rationally defined only in terms of the pharmacists' role. The education of pharmacy technicians can be defined rationally only in terms of the pharmacists' education. . . . If pharmacists are to use technicians, then learning to work with them must be part of professional education.*

While Millis supports the organizational utilization of technical skills, Jeffrey sees the pharmacy practitioners as having a role in secondary health care in both community and hospital pharmacy practice:

*Health Administration Press, Ann Arbor, 1975.

Supportive personnel are extensively utilized in both community and hospital pharmacy practice. A review of the literature over the past decade reveals a wealth of information and data which documents the need and justification of a secondary level pharmacy practitioner.*

Warren McConnell, Director of the American Society of Hospital Pharmacists, Bureau of Professional and Educational Services, notes that:

In the last five years there has been a surge of interest in the development of training programs for supportive personnel, brought on by the increased pressure for more efficient and economical use of pharmacists' professional talents and by recognition of the need for pharmacists to examine their own role in health care.

Restrictive pharmacy regulations in some states outlaw the use of technical pharmacy personnel for many of the functions they could and should perform; consequently role definitions are confused. . . . Not the least impediment to defining the roles of pharmacy supportive personnel is the uncertainty of role definitions for pharmacists themselves.†

At present the American Society of Hospital Pharmacists favors hospital-based programs but recommends that consideration be given to academic alternatives. It is interesting to note that two of the leading pharmacy organizations in this country each support the concept of formal technician training programs, and documentation from each organization indicates a willingness to provide support for this concept within the boundaries of their constituencies.

Similar to so many other current pharmacy professional issues, the technician has both protagonists and antagonists, with rational and legitimate support for both sides. The protagonists view technicians as an extension of the professional pharmacist and a means of broadening the base of pharmacy service. They express an attitude of eagerness to personally participate in the mainstream of health care service as an integral part of the therapy team. The antagonists are sensitive to the proliferation, through government capitalization support, of vast numbers of pharmacy practitioners entering the field each year, and their concern is that technicians will replace yesteryear's pharmacy graduate, whose primary training and education prepared him more for pharmacy distributional services than for pharmacy clinical services.

Within the polarity of these views, the technician's role, education, and service function are being scrutinized. This is a wholesome way of clarifying, projecting, defining, and perhaps modifying the approach to the technician issue. No one will argue that the promotion of technicians has been rashly espoused,

* Jeffrey, L. P.: Letter to editor: Pharmacy supportive personnel and the potency of language, *Am. J. Hosp. Pharm.* **33**:1240, Dec. 1976.

† McConnell, W. E.: Towards the orderly development of supportive personnel in pharmacy, *Am. J. Hosp. Pharm.* **33**:1135, Nov. 1976.

since their services have been utilized in hospitals for the last three to four decades. Some practitioners advocate more than one level of supportive pharmacy personnel and refer to technicians, aides, clerks, and helpers. The concern is that the dilemma continue to be addressed and a solution sought through professional pharmacy consensus. Millis has indicated that this responsibility is incumbent upon practitioners, educators, organizations, and state boards of pharmacy. To avoid resolution can be of itself a solution, but this would not be in the best interests of the profession.

The number of community colleges that give associate degrees to pharmacy technicians is growing every year. At present there are more than a dozen. Many of these are not affiliated with colleges of pharmacy and do not provide an integrated professional approach related to pharmacy students. The majority of the training programs for technicians are still provided in health care institutions. There is a wide diversity as to entrance requirements, competency, identification, curricula, and assessment methods. A certificate from one institution bears weight according to the credentials of the particular pharmacy department of that institution. McConnell states:

The need for early action in these matters is becoming increasingly obvious and crucial, not only to the training of supportive personnel but also as to their official recognition by the (American) Society (of Hospital Pharmacists).*

A profession has been defined as an institution based on a proved body of knowledge that is used in the service of others. Pharmacy, along with medicine, law, and religion, has a history and tradition that goes back to biblical times.

The knowledge component of pharmacy is related to drugs; the service component relates to the provision of drug information and the provision of drug products. The first component remains under the evaluative judgment of the pharmacist, while the particular aspects of the service component that relate to the provision of drug products may be delegated to technicians. Some states, such as Massachusetts, permit, and even encourage, this type of delegation, while others discourage it.

There are five qualifying characteristics of any profession.

First, a profession is based on a body of scientific knowledge. In the case of pharmacy this knowledge pertains to the preparation, purity, standardization, preservation, distribution, and effectiveness of drugs. Before the time of Christ, such men as Hippocrates and Theophrastus were formulating drug knowledge related to disease. In the second century, Galen made a scientific contribution

*McConnell, W. E.: Towards the orderly development of supportive personnel in pharmacy, *Am. J. Hosp. Pharm.* 33:4, Nov. 1976.