

# THE PHARMACY TECHNOLOGIST: A NEW ASSISTANT FOR THE CLINICAL PHARMACIST

# EDITORIAL

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SUPPORTIVE PERSONNEL HAVE BEEN USED IN HOSPITALS and to a limited extent in community pharmacies for a considerable time, however, as a result of the lack of definitions and standards, the term pharmacy technician has come to be generally accepted to mean almost any category of pharmacy supportive personnel. The time has arrived that organized pharmacy needs to recognize specific job classifications and levels of performance for supportive personnel within the profession and that labels must be attached to them. Stratification in hospital pharmacy already exists and such labels as those of pharmacy technologist, technician and pharmacy helper should receive formal status. Also, national standards for technician training programs should be introduced.

This past month an Invitational Conference on Hospital Pharmacy Supportive Personnel was held by the University of Cincinnati. David J. Osterberger, Pharm.D., in speaking on one of the topics, "Role Distinctions Between Pharmacy Technologists and Technicians," made the point that there are major differences between a technologist and a technician and that these differences should be recognized. Some appreciation of the extent of preparation of the pharmacy technologist can be gained by examining the curriculum in Table 1. The term technologist is desirable and preferred because it has been recognized by other professions to mean a person with a college degree in a specific occupation. Further, the school that prepares the pharmacy technologist must meet accreditation standards while in contrast there is a great variety in the training given technicians in terms of program content, duration and cognitive level.

Upon receiving an Associate in Science degree the pharmacy technologist is prepared to practice at a higher or more sophisticated standard of performance than a technician. This higher skill level is important in bridging the gap between the on-the-job trained technician who usually has not gone beyond a high school education and the five to seven year educated clinical pharmacist of the present and future. The advancement and development of clinical pharmacy will only result if the profession continues to provide enough people to carry out the distributive functions and technical tasks. Presently this need is being fulfilled by technicians and pharmacists. If all pharmacists in the future are to be clinical practitioners, then who will fill the void left in traditional practice? Certainly there always will be a degree of distributive functions and other technical tasks despite advancements made by computer technology. While some would recommend the establishment of two classes of pharmacists, I believe the answer is a formally educated and trained technologist. The first class of pharmacy technologists to graduate from the University of Cincinnati is already undergoing observation and utilization by pharmacists in practice. These technologists are demonstrating their ability to perform many of the functions of a pharmacist.

Beyond the traditional duties left by the pharmacist turned clinician are a whole new set of technical tasks created by the development of the clinical role. Donald C. McLeod, M.Sc., in speaking at the U.C. Conference on the topic, "Pharmacy Technologists as Support for the Clinical Pharmacist," stated: "I could use someone in my clinical practice who could help me spot potential therapeutic problems. I would like to know what the serum

creatinine is, if the bilirubin is elevated and if certain liver enzymes are abnormal . . . The technologist could alert me to some problems if (she) knew what to look for." Such tasks as poring through a patient's medical record to find the results of laboratory tests for the clinical pharmacist are better delegated to pharmacy technologists. Many other duties in the clinical area should be considered for delegation to the technologist, such as performing literature searches to retrieve drug information, and calculating dosages for patients taking drugs like gentamicin and digoxin. The important points are: (1) the individual has received the proper education and training for the role, (2) the clinical pharmacist provides a protocol which describes the specific tasks to be performed within the role, and (3) the role is monitored by the clinical pharmacist. Protocols, which are step-by-step outlines of the logical approach to specific duties, are being used by para-professionals under the supervision of physicians "to diagnose and prescribe for common medical problems with accuracy, safety and patient satisfaction."<sup>1</sup>

The limitations of using highly skilled technical support (*viz.*, pharmacy technologists) are governed only by our own imagination.

1. Otten, A. L.: Doctors' Helpers, *Wall Street Journal* April 4, 1974.

Table 1. University of Cincinnati Program for Hospital Pharmacy Technologists

The program requires two academic years. The sophomore year is spent entirely at the Medical Center. Degree: Associate in Science.

FRESHMAN YEAR	CREDITS PER QUARTER		
	SUMMER	AUTUMN	WINTER
Freshman English I, II, III	4	4	4
Psychology I, II	3	3	
General Chemistry I, II, III	4	4	4
Anatomy & Physiology I, II, III	4	4	4
Microbiology			4
Typing	3		
	18	15	16
SOPHOMORE YEAR	CREDITS PER QUARTER		
	SUMMER	AUTUMN	WINTER
*Drug Supply Services	2	2	2
Pharmacology	3	3	3
*Technical Procedures of Compounding	2	2	2
+Sterile Products & Aseptic Technique	3	3	3
+Techniques of Drug Administration	3	3	3
*Drug Packaging & Labeling	2	2	
Weights, Measures & Calculations	2	2	
Community Health			1
Medical Terminology & Abbreviations	1		
Procedural and Legal Control of Drugs			2
	18	17	16

\*One lecture and one three-hour laboratory period a week.  
+One lecture and two three-hour laboratory periods a week.