

medicines to insured patients. This delivery is permitted only to the pharmacist, and therefore the pharmacist is gaining ground.

The reason for this separation is evident and has the same validity in all countries of the world. The purpose is to avoid a conflict between the physician's duty and his profit. The physician shall be interested exclusively in the treatment of the insured patient and by no means in the profit for the medicine.

In the United States the physicians have the liberty of delivery of medicine as their English colleagues formerly had. It may be possible that the introduction of the Health Insurance Plan in the U. S. A. will have the same effect it had in England. This would be to the benefit of American Pharmacy as a profession.

The proper function of the pharmacist, as we all know, is to manufacture and distribute medicines and supplies to the people. On the continent the pharmacist accustomed to be regulated by strong laws, is now gaining by degrees more liberty, whereas in the United States and in England the reverse is true. Should it not be possible that all of them learn from each other what to do?

The introduction of Health Insurance Plans may be as well the ascent as the descent of professional pharmacy in the United States. What it will be depends entirely on the activity and intelligent interest of the American pharmacists, on their professional integrity and, last but not least, upon their profound recognition of all possibilities included and implied in this movement.

HOSPITAL PHARMACY IN THE COLLEGE CURRICULUM.*

BY MORRIS DAUER.¹

In recent years pharmaceutical educators have made progressive strides toward the elevation of Pharmacy by means of a college curriculum which will adequately equip the graduate to meet the rigid demands made upon him by any branch or speciality in Pharmacy. They do not, however, give the consideration to that very important phase of pharmaceutical practice denoted as Hospital Pharmacy, which plays such a vital rôle in the maintenance of the physical well-being of the American people.

A careful scrutiny of the bulletins issued by the various colleges and schools of pharmacy reveals that with the exception of a very small number, no courses in Hospital Pharmacy are offered. As a result of this omission the graduate in pharmacy, when seeking a career in Hospital Pharmacy, finds himself sadly embarrassed and greatly handicapped because, although he possesses the basic and fundamental knowledge of Pharmacy in theory and practice, he finds himself unable to cope with the Hospital Pharmacy problems.

We must concede that Hospital Pharmacy is a highly specialized field which should be limited to men and women who manifest adaptability in this phase of Pharmacy. In the writer's opinion, based on many years of experience in Hospital Pharmacy, which were preceded by several years of retail pharmacy practice, the usefulness of a graduate who has not received training in Hospital Pharmacy is limited.

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In view of the demands on the pharmaceutical departments of most of our large institutions, hospital executives will invariably employ those pharmacists who have either received their training in another hospital or those who have had equivalent experience in a College of Pharmacy which devotes a portion of its curriculum to the study and preparation for this important work.

Every student of pharmacy should be given an opportunity to learn at least the elementary principles involved in Hospital Pharmacy procedure. This will offer to him an opportunity to compare Hospital Pharmacy practice with retail practice to determine whether he prefers to dedicate his services to Hospital Pharmacy.

The existing number of hospitals, as reported in 1932, reached a total of 7375, having a total bed capacity of 1,015,104. Allied institutions were reported to number a total of 2065, having a bed capacity of 313,421. The average daily population of hospitals and allied institutions, as reported in 1932, reached a staggering total of 1,708,415 persons; and 12,000,000 persons were admitted as in-patients annually, and in addition 10,000,000 patients were served in the out-patient departments and dispensaries. These figures, no doubt, have greatly increased in the last few years.

The pharmaceutical department of a hospital is the very heart of the institution, its auricles receiving, cleaning and purifying the crude drugs and medicaments before they are furnished to the bedside of the patients; and its ventricles sending out a fresh supply of drugs, biologicals, galenicals and other pharmaceutical preparations to the various wards, services and clinics.

Since the pharmacy plays such an important rôle in the daily lives of the patients and in the operation of the hospital, the hospital pharmacist must possess the highest type of skill and training to be able to perform the tasks that will be required of him. He must be thoroughly equipped with the knowledge of large-scale production and with the apparatus required. He must be qualified to carefully inspect, analyze and standardize, chemically and biologically, all products listed in the United States Pharmacopœia and National Formulary. He must be in a position to analyze, chemically, physically, macroscopically and microscopically, all chemicals, crude drugs, galenicals and other similar products before he accepts them for use. This knowledge will serve two purposes: *First*, the assurance of purity and uniformity of all preparations; and *secondly*, it will result in substantial economy without detriment to the patient. He must know the definition, physical description, classification, use, care, cleansing, sterilization, storing, cost and repairing of all surgical instruments, hospital and sick room supplies and accessories. The preparation of intravenous, intramuscular and subcutaneous ampuls and solutions must not be unfamiliar to him. He must also be able to furnish complete and intelligent specifications when requisitioning all crude drugs and chemicals. He must inspect all drugs on the wards at regular intervals. He should also know how to prepare budgets, reports, inventories, and keep records, perpetual inventories and statistical studies of manufactured and proprietary preparations. In addition, the hospital pharmacy administrator must have adequate knowledge of the assignment of personnel, inspection of ward medicine cabinets, and clinics. He must be familiar with the arrangement of stock and supplies.

These qualifications, which are at the present time demanded of a hospital pharmacist, can only be acquired at a college or school of pharmacy from a professor who has had years of personal contact and experience in the field of Hospital Pharmacy.

THE HOSPITAL INTERN AND DRUG THERAPY.*

BY AARON LICHTIN.¹

Contact with a number of medical practitioners over a period of some fifteen years affords the observation that their knowledge of the use and prescribing of drugs is deficient. The matter of drug therapy is often taken by them so lightly as to leave the impression that little is to be gained from the treatment of disease with drugs. This attitude, particularly of the younger practitioner, is extremely disappointing to a pharmacist, who, by his training and observation, is imbued with a confidence not only in the healing power of drugs but with their consoling power on the mind as well.

The physician is acquainted with the action of drugs but his knowledge of how to use and prescribe them is rather fragmentary. Physicians when properly approached by one who is familiar with the general subject of drug therapy and prescribing, are receptive to ideas which would improve their knowledge of *Materia Medica* and help them make their treatment of disease more effective. In this situation, an opportunity exists for Pharmacy to be of real service to Medicine. The busy practitioner is more or less set in his accustomed ways of prescribing drugs; but the medical intern, eager to learn as much as possible about his chosen profession and having the idealistic viewpoint toward his calling, the practice of which he is just about to begin, makes the fitting student to whom to teach rational drug therapy under the most appropriate conditions. This view was presented in a general way, in 1929 and 1930, to several chiefs of medical services in hospitals with which they were associated. They generally admitted the correctness of the views, but then came the devastating depression, and the plan was temporarily abandoned.

The opportunity came in the fall of 1935, when Dr. Truman G. Schnabel, of the Philadelphia General Hospital, associate professor of Medicine at the Medical School of the University of Pennsylvania, permitted me to give a series of lectures to the interns of that institution. The Philadelphia General Hospital is one of the largest institutions of its kind in the country, having a bed capacity of twenty-five hundred and numbers sixty-five interns, who are recruited from medical schools throughout the country.

The first lecture of the series which was arranged on a monthly schedule, was given in December 1935. The general plan was to discuss a group of drugs more or less related and give directions for formulating them into suitable prescriptions. All drugs and finished prescriptions were exhibited in the lecture room so as to permit the auditors to gain a first-hand acquaintance with them. All lecture notes were mimeographed and distributed to the interns for a permanent record.

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