

PROFESSIONAL OPPORTUNITIES OPEN TO THE HOSPITAL PHARMACIST.*

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This paper, it is hoped, will present other phases of professional work of which the hospital pharmacist is capable provided he is given the opportunity. The comparatively small financial consideration offered to the average hospital pharmacist for this responsible position has caused many to seek other fields of pharmacy. Statistical data published in a current pharmaceutical magazine indicate that the professional pharmacist engaged in hospital pharmacy has little, if any, prospects of future advancement. This, in conjunction with the present financial scale, means that something must be done to improve this condition for the individual hospital pharmacist.

We are equipped with a considerable amount of technical knowledge that might well be applied in the professional field of laboratory analysis as conducted in the hospital. To illustrate of just what this knowledge may consist, take, for example, the analytical balance—this apparatus is of considerable importance in the preparation of many stock solutions used in a hospital laboratory. The handling of pipettes used to measure solution with great accuracy and precision, the proper handling of volumetric and Erlenmeyer flasks, all play a considerable and important part in the routine work as considered in the laboratories. In some of the small hospitals the pharmacist has time and opportunity to make use of this knowledge and skill in assisting with the laboratory work, in addition to the routine drug room duties. The opportunity to do such work and to receive remuneration for it depends, of course, upon the hospital policy and the coöperation of the hospital authorities. More such opportunities might be created if more hospital pharmacists were interested and talked it over with the medical officers responsible. Not only is this work more interesting but the association of the pharmacist with the caliber of men and women who are engaged in this professional field all tends to make his assignments very stimulating.

The pharmacist who is fortunate in having some few hours free each day is in a position to apply ability that has been somewhat dormant, that is, of course, with the understanding that a plan be presented to the proper individuals, indicating that the technical training might be useful in the hospital laboratory work.

The duties as demanded by a hospital laboratory require just so much time in order to properly carry on this work. These so-called laboratory duties as mentioned from time to time may be somewhat confusing; therefore a brief outline of what analyses are frequently done in the hospital will be discussed.

First, the analysis of urine as conducted in a hospital consists for the most part of routine examination for the color, acidity, specific gravity, albumin, sugar or acetone, and also the microscopic study of the urine sediment. The amount of time required in doing these analyses depends a great deal on the size and type of hospital. Such analyses are very often done by a trained technician or some intern and in some rare cases the pharmacist. The pharmacist who may wish to acquire the proper training for this work can do so by taking a course of urine analysis either at a College of Pharmacy or possibly under the supervision of the laboratory director or his assistants.

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Second, the routine analyses of blood are very apt to differ with the type of hospital. The outline as here described in brief is based on experience gained by doing this work for the past few years. The most common routine analyses of blood consist of doing a red and white cell count, determining or finding the Hb content, and finding the amount of sugar and non-protein nitrogen present. Less frequently other analyses of the blood are requested, the technique of which may be acquired both by observation and instruction, as, for example, the estimation or normal or abnormal amounts of calcium bromides, chlorides or phosphates present in the blood serum. A new patient recently admitted may be found by these laboratory analyses to have an abnormally high bromide concentration in his blood serum and the pharmacist who is doing these tests has the interesting opportunity to see for himself the rapid decrease in the serum bromide after the treatment with extra sodium chloride. This illustrates some of the fascination in doing this work and can hardly be equalled in other fields of pharmacy. A similar situation is met when doing the analysis of a blood indicating diabetes—very quickly insulin is ordered and then administered to this patient with the result of a lowered blood-sugar content. Take also the blood that indicates a presence of either secondary or primary anemia as observed by the pharmacist-technician; he receives the order to issue either liver extract or some iron preparation at once. Several weeks later another blood analysis is done on the patient and very often the hemoglobin content or red cell count becomes elevated. The pharmacist not only has the opportunity to see that this does occur but has the interesting experience of observing in detail the different effects of various preparations.

Third, as the large hospital requires most of the pharmacist's time the chance of trying to do the work as described is nearly impossible. There is the opportunity, however, of teaching or instructing the student nurses in the fundamentals of *Materia Medica*. The benefits observed from this experience are many, but one of the more important is the fact of educating oneself by keeping in touch with the new and more recently discovered drugs. The time required in preparing the material for a lecture can be arranged at the convenience of the pharmacist. As a rule the lecture will require about one hour several days a week. This course in *Materia Medica* should be made the responsibility of every pharmacist employed in a hospital which maintains a training school. This is not the case at present in many hospitals, such instruction being done by either a graduate nurse or intern, both of whom may be sincere and earnest in their efforts but can hardly meet the quality of instruction that could be offered by the hospital pharmacist. My knowledge is not only based on the teaching of this subject but, better still, in talking with the affiliating nurses from other hospitals and discussing with them the methods that had been used in presenting this course at their hospital. The information as gathered leads me to believe that much trouble centers around the fact that many instructors have little interest in their subject. Also for some unexplained reason this subject of *Materia Medica* was not considered important as compared with chemistry, bacteriology or practical nursing, and was therefore treated accordingly. This attitude for such an important science might very well be one explanation for some of the mistakes made in the administration of drugs in the hospitals to-day. With these few facts in mind the pharmacist employed

in a hospital should make a real effort to undertake this responsibility that cannot only prove to be very interesting and educational but also a means of adding some prestige to his position.

A pilular compound consisting of ability, professional responsibility, time and opportunity all rolled together, may prove to be the tonic necessary to treat the chronic condition of monotony often present in our hospital pharmacies to-day.

THE OUTLOOK FOR HOSPITAL PHARMACY.*

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For the past nine years I have been dividing my time between a hospital pharmacy and a retail drug store. The hospital with which I am connected has only ninety beds, which accounts for my not being employed full time.

My experiences during this nine-year period have impressed me daily with the differences between hospital pharmacy and that of the retail store. These differences are known to all of you and hence need not be named specifically.

It is my firm belief, however, that hospital pharmacy will play a large part in redeeming professional pharmacy. The literature for the past year shows that hospital authorities are thinking more about pharmacy now than they ever have in the past. They have always known that the administration of medicine is important. They are now beginning to realize that medicines should be carefully prepared by people who are properly trained in this field. They are attaching more and more significance to the fact that the pharmacy should be properly equipped and should be conducted by a properly trained pharmacist rather than by nurses and interns.

Recent articles in the *JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION* and the *American Journal of Pharmaceutical Education* show that our colleges of pharmacy are considering hospital pharmacy more seriously, and in some cases are making changes in their courses in order that their graduates may be better trained for hospital work.

The employment of pharmacists by hospitals which are large enough to justify this, will create professional positions for several thousand. This will add to the usefulness and efficiency of the hospital and will help establish pharmacy as a profession in the minds of the interns who go into the field each year for the practice of medicine.

I am glad this sub-section on hospital pharmacy has been formed. It should be highly useful by enabling hospital pharmacists to get together annually and discuss their problems. I hope that at the proper time the section will consider preparing a manual of approved methods of procedure in the manufacture of sterile solutions and other products which require skill and precision.

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