

training in Pharmacology, to permit his necessary understanding and required evaluation of the newer therapeutic agents, that are mostly synthetic.

The pharmacy interne must of necessity learn the medical nomenclature and professional lingo of the medical interne as a conversational medium.

In adopting this conversational medium, the pharmacy interne can enjoy the medical meetings and discussions, be assured of a broader understanding of Physiology, Anatomy, Pathology and develop an expanded Pharmacology. His need for a broadened and modernized *Materia Medica* is unquestionable, since in effect he becomes a practicing pharmacologist.

It is further noticeable that the internist and the surgeon are ever willing to consult with the pharmacist on the most beneficent treatment for the patient. The pharmacist on his part must certainly be fortified with a complete and discriminating knowledge of all existing *Materia Medica*; must be able to understand the explanations and diagnoses of the physician or surgeon; and finally must be able to impart information that is intelligent and honest.

#### REFERENCES.

- (1) "Remington's Practice of Pharmacy," Cook and LaWall.
- (2) Whitney and Watts, "A Plan for Pharmacy Internships at the University of Michigan Hospital," *Jour. A. Ph. A.*, 24, 852 (1935).

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#### THERAPEUTICS COMMITTEE.\*

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A Therapeutics or Pharmacy Committee is a committee organized to promote rational therapeutics in a hospital. It is usually composed of several physicians and the Directing or Chief Pharmacist. Each physician on the Committee should represent a major service such as medicine, surgery, obstetrics and pediatrics.

The purpose of this Committee is to make recommendations to the Medical Council or Executive Medical Board. These should include: *first*, recommendations relative to additions to and deletions from the stock carried by the pharmacy of the hospital; *second*, the functions which it (the Committee) should assume; *third*, its policy of operation; *fourth*, such other recommendations upon pharmaceutical problems as from time to time may seem necessary.

The power of this Committee rests in its ability to make recommendations to the executive medical council of a hospital. By virtue of the fact that the Committee is composed of representatives of each major service and the pharmacy, its discussions must result in a more harmonious understanding and coöperation between the medical staff and the pharmacy.

The Committee should have within its scope the policy of operation of the hospital pharmacy, out-patient department pharmacy and professional stores providing the latter two are under the jurisdiction of the pharmacy.

It should include control over drugs, preparations and proprietaries carried and pharmaceutical products or sterile solutions manufactured by the pharmacy.

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\* Presented before the Sub-Section on Hospital Pharmacy, *A. Ph. A.*, Minneapolis meeting, 1938.

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In the University Hospitals of Cleveland, the out-patient department pharmacy and professional stores are under the supervision of the pharmacy. Professional stores include all such items as are used in the care and treatment of a patient, *i. e.*, catheters, hot water bottles, surgical instruments, laboratory supplies, cotton, gloves, etc. Professional stores are separated from the general stores where such items as are used in the upkeep or maintenance of the ward, division or building are carried, *i. e.*, stationery, charts, groceries, dishes, etc.

The functions of the Committee are perhaps best illustrated by citing examples. The first of these is the "Drug Policy." The purpose of this plan is to promote rational therapeutics in both teaching and practice, to discourage the use of secret formula proprietaries, as well as those of known composition having no demonstrable superiority over official preparations, and to reduce the cost of drugs to the hospital. At the same time, it is felt that opportunity must be afforded for the controlled study of new preparations as well as those for which some special virtue is claimed.

#### DRUG POLICY.

The pharmacy shall stock, or be prepared to supply, preparations of the United States Pharmacopœia, National Formulary and New and Nonofficial Remedies. Where New and Nonofficial Remedies lists several articles "having similar composition or action," a selection of such preparations, chosen by the Pharmacy Committee and approved by the Medical Council, shall be carried. This is necessary because of the expense involved in carrying a large stock of infrequently used items. A selection shall also be made where New and Nonofficial Remedies lists identical products of several manufacturers.

Preparations carried by the Pharmacy, excluding such sera and expensive preparations as may be determined from time to time by the Administration and Pharmacy Committee, shall be included in room charge to patients. The pharmacy shall procure other drugs or preparations for hospital patients on request of the visiting physician. Such special orders, however, are to be charged to the patient.

The Pharmacy Committee shall provide a book known as the Formulary and revise it from time to time. It is to be considered as supplementary to the United States Pharmacopœia, National Formulary and New and Nonofficial Remedies. It is to contain those preparations of drugs and chemicals, sizes of tablets, ampules, suppositories, etc., which are kept by the pharmacy and may be called for under distinctive titles, and which are ready to be dispensed either to out-patient or hospital departments. Its purpose may be said to be one of convenience in ordering and prescribing.

No new drug or preparation is to be carried by the pharmacy until it has been recommended by the Pharmacy Committee and approved by the Medical Council.

*Proprietary Preparations.*—Any drug or preparation, not carried by the pharmacy, which is requested by a visiting physician for a private patient will be procured from an outside pharmacy in the amount ordered by the physician and charged to the patient.

*Drugs for Research.*—The above regulations are not intended to hamper the controlled study of any drug or proprietary article. The pharmacy will, therefore,

supply a specified amount of any preparation for a member of the teaching staff after the approval of the head of his service. When this supply is exhausted more will not be supplied, nor will it be added to the pharmacy stock until a report showing its value has been given to the Pharmacy Committee.

A similar policy was drawn up at a later date to govern the Professional Stores.

#### PROFESSIONAL STORES POLICY.

*Preamble.*—The Professional Stores were placed in the pharmacy and under the jurisdiction of the Pharmacy Committee by vote of the Medical Council November, 21, 1934.

There are no standard books nor lists of approved instruments and professional supplies such as exist for drugs, chemicals and pharmaceuticals. Some standards have been developed by individuals, institutions, manufacturers and by the government, but in the end the choice of items stocked and used in any given institution should rest upon responsible medical opinion.

The purpose of this written policy is to provide for *responsible medical opinion* upon each item of stock contained in the professional stores of the University Hospitals.

*Policy.*—(1) The Pharmacy Committee shall prepare a list of all items stocked in the Professional Stores. This list shall be known as the *Instrument and Professional Stores List*.

(2) Items which appear on this list, and which are commonly used throughout the institution, shall be selected upon the recommendation of the Pharmacy Committee subject to approval of Medical Council. No new item will be added to the general stock until such item has been recommended by the Pharmacy Committee.

(3) Items, the use of which is confined to one department, shall need only the approval of the Head of that department before purchase. Such items will not be added to the general stock without the approval of the Head of that department.

(4) Non-returnable items, indicated by an asterisk, will be charged to the patient.

(5) Any item, not upon the list, which is requested by a visiting physician for a private patient will be procured and charged to the patient.

(6) Nothing in the above regulations will prohibit the trial of an instrument or of any item of professional stores furnished by a manufacturer provided such trial is in the nature of investigation to determine its usefulness.

(7) Nothing in the above regulations shall prevent a physician or surgeon from employing instruments of his own that are considered by the Head of the department as too expensive or too infrequently used to warrant making stock items of them.

Another item of importance that was accomplished by the Pharmacy Committee was the revision of the Formulary of the University Hospitals. The old edition of the Formulary listed all of the prescriptions by number. However, this system did not prove to be satisfactory and was discontinued in the new edition.

#### FORMULARY.

“The formulary is designed as a book of ready reference, containing the formulæ of preparations carried ready mixed in the pharmacy, solutions ready prepared and sizes of tablets in stock. The formulary does not contain all the preparations carried in the Hospital Pharmacy. The pharmacy is ‘prepared to supply preparations in the United States Pharmacopœia, National Formulary, and the New and Nonofficial Remedies.’ Where the latter lists several preparations

having similar composition or action, a selection has been made. The New and Nonofficial Remedies' preparations available are listed alphabetically in the back of the formulary. While prescribing is not limited to preparations listed in the formulary, these can be dispensed most readily and at least expense.

"Preparations, wherever possible, should be ordered by the formulary name or official abbreviation which is listed after the title of each prescription. If amounts or directions other than those given are required, they must be clearly written on the prescription. Unless so written, the directions appearing in the formulary will be given to the patient. Where no directions are listed, these must be written in.

"The pharmacist is authorized to reject all prescriptions not clearly and legibly written.

"Drugs will be sold in the pharmacy only on presentation of a prescription signed by a physician.

"Prescriptions for 'home going' patients must be filled in the pharmacy, and not from ward or accident ward supplies. If the pharmacy is closed, they must be filled at a commercial drug store.

"The more expensive preparations are marked with a star (\*)."

#### NARCOTIC REGULATIONS.

1. All orders for narcotics must be written in the doctor's order book before administration.

2. The United States Government recognizes p.r.n. orders for narcotics only when a specified number of doses is indicated as: Morph. Sulph. Gm. 0.010 (H) q. 3h, p.r.n. x 4. The time intervals between doses should be specifically indicated.

3. All narcotics will be administered by mouth unless the order indicates otherwise.

4. Do not write orders for narcotics in the following form: Morph. Sulph. Gm. 0.010 (H) s.o.s. and s.o.s. and s.o.s. The method in 2 should be adhered to.

5. No dosage upon a p.r.n. order shall be administered more than twelve times without a new order.

6. When a new order for narcotics is written, any previous order for a narcotic is automatically cancelled.

7. P.r.n. orders are good for 24 hours only, unless used or cancelled. This means that narcotic orders are not to be cancelled at 7 A.M. unless the orders expire at that time.

8. No nurse may administer a narcotic drug upon p.r.n. order without the permission of the nurse in charge. The night nurse may administer such drugs, but in case of doubt, the question should be submitted to the night supervisor or head nurse.

NOTE: Before administering any narcotic the nurse should observe the patient for possible toxic signs from previous dosage, such as:

(a) Slow respiration (12 or below); (b) Shallow or irregular respiration; (c) Cyanosis; (d) Pin-point pupils in infants; (e) Stupor.

9. The method of checking is as follows:

(a) The order reads: Morph. Sulph. Gm. 0.010 (H) q. 3h, p.r.n. x 4. Each time an order is written the nurse writes it on the order sheet as follows: 9 A.M. Morph. Sulph. Gm. 0.010 (H) *No. 1 dose* by p.r.n. order. 12:30 P.M. Morph. Sulph. Gm. 0.010 (H) *No. 2 dose* by p.r.n. order. This is repeated until the last dose is given, at which time the nurse writes: 9 A.M. Morph. Sulph. Gm. 0.010 (H) *No. 4 and last dose* by p.r.n. order.

In each case the number of the dose is underlined in red to facilitate keeping account of the doses. When the last dose is given the original order is cancelled by a red line, as in the case of any other order. A new order is then necessary before any further administration.

(b) All such narcotic orders are checked in red by the nurse who administers them, as heretofore, *i. e.*, name, time, tablets *used*.

Each nursing unit carries a standard stock of narcotic drugs. Any narcotics that are desired by a nursing unit for the treatment of patients that are not in this stock must be ordered on a doctor's prescription, giving the name and address of the patient, the division number and the doctor's name and the hospital's narcotic registry number.

#### THE WRITING OF NARCOTIC PRESCRIPTIONS.

All members of the Medical Staff of the University Hospitals may write narcotic prescriptions for patients on the nursing units, patients who are being discharged from the hospital whether they be private, semi-private or free patients, patients in the out-patient department, and members of the personnel (through the medium of the health clinic), if they will use the narcotic registry number of the hospital.

The United States Government requires that narcotic prescriptions contain the following information: name and address of the patient, name and address of the prescribing physician and the physician's registry number. Members of the staff not having narcotic registration themselves will use the hospital registry number. The Government also requires that narcotic prescriptions be written in full, giving the specific quantity in each dose and the exact number of doses, or the total amount of narcotic to be used in the prescription.

A comprehensive list of drugs and treatments for poison cases was prepared and distributed to Emergency and Admitting suites.

The Pharmacy Committee took the following action with regard to the sale of drugs on requisition to members of the personnel of the hospital, also the dispensing of drugs on internal requisition to various department heads for distribution to the personnel of that department.

"The Pharmacy Committee is of the opinion that the requisitioning and dispensing of drugs by heads of departments, who are not physicians, constitutes practicing of Medicine without a license and, therefore should not be tolerated.

"The Committee is also of the opinion that dispensing drugs to individuals on their own request encourages self-medication which should not be encouraged in an educational institution such as the University Hospitals.

"The Pharmacy Committee, therefore, recommends that the sale of drugs by the Candy Shop be prohibited and that the pharmacists be instructed to issue drugs only through the established channels for use on the wards or on prescription of a physician."

By way of explanation the Candy Shop and Newstand had formerly sold such items as Aspirin, Bromo-Seltzer, etc.

A request was received from the Medical Council for an official list of accepted abbreviations to be used in the hospital. The Committee took the following action regarding this:

"*First*, the Pharmacy Committee recommends that in orders for the administration of drugs and medications the only abbreviations recognized be the list of commonly accepted Latin abbreviations published in the Hospital Formulary; that the only abbreviations for drugs or preparations accepted be the official abbrevia-

tions of the United States Pharmacopœia and National Formulary or the English abbreviations in the Hospital Formulary.

"*Second*, that a list of permissible abbreviations for commonly used orders other than medications, such as E.K.G., B.M.R., etc., be prepared in collaboration with the Nursing Department. This list was to be forwarded to the Medical Council for approval and then attached to the Doctors' Order Books."

The following action was taken in regard to refilling of prescriptions and issue of copies of prescriptions:

"That no prescriptions filled in the pharmacy of University Hospitals of Cleveland for hospital patients can be refilled or copies given except by permission of the patient's private physician. Under no condition, will prescriptions be refilled for staff cases inasmuch as they should return to the dispensary for further treatment."

Staff patients are those who are hospitalized in the ward service, attended by the staff physicians, and who for the most part are non-paying patients.

The Pharmacy Committee recommended that a residency in Pharmacy be established, the resident to be appointed for one year. During that year he is to have opportunity to work in every phase of hospital pharmacy. By virtue of the fact that he is living in the hospital a continuous "on call" schedule was originated. There is a pharmacist on call at all times of the day and night to take care of any emergencies that may arise.

The Committee has on its records the discussion of innumerable drugs or preparations for the pharmacy and items for the Professional Stores which will not be mentioned here. Other various activities of the Committee are listed below:

- (1) Discussion of the cost of more expensive medications and calling the attention of the staff physicians to these medications.
- (2) Discussion of the manufacture of sterile solutions as to type of flask, closure, label, date of expiration and technique of manufacture.
- (3) Selection of one preparation to be carried in stock by the pharmacy when several products having similar composition or action or identical products of several manufacturers are accepted by the New and Nonofficial Remedies.
- (4) Discussion and recommendations as to what types and amount of biologicals should be carried in stock by the pharmacy.
- (5) Recommendations regarding the remodeling of the pharmacy.
- (6) Discussion and recommendations as to various antiseptics and germicides.
- (7) Study of syringe sterilization.
- (8) Study of various sedative drugs.
- (9) Study of various soaps.
- (10) Discussion and recommendations concerning intravenous sets.

While all of the above activities and functions of the Pharmacy Committee are concerned with the University Hospitals of Cleveland, the idea and purpose could be very well adapted to any hospital pharmacy. The value of this Committee has been established not only in being able to save money on the drug budget but also in promoting the practice of ethical pharmacy and rational therapeutics.

#### REFERENCES.

- (1) Minutes of the Pharmacy Committee, University Hospitals of Cleveland.
- (2) Formulary of the University Hospitals of Cleveland.