

THE PROPAGANDA FOR "LEGITIMATE" PRESCRIPTION WRITING.*

BY JACOB DINER.

On his way back from the Boston meeting of the A. Ph. A. the late C. S. N. Hallberg paid me a visit at the store which I was then conducting. In the course of our conversation he referred to the new impetus which he felt had been given at the meeting to the propaganda for the writing of proper prescriptions. He made some statements, relating to the percentage of legitimate prescriptions as compared with those calling for nostrums of unknown composition and of questionable value, and estimated that the latter would outnumber the former about 3 to 1. I not only assured, but convinced, him that my prescription file averaged less than 5 percent of the undesirable prescriptions mentioned. At that time so-called propaganda work was still in its infancy. Since then much good work has been done both by individuals and associations. Yet if one were to count up the results achieved I venture to say that they would not prove very satisfactory. Here and there some success has undoubtedly been recorded; but on the whole the expenditure of time and money, not to mention the labor, should have shown better results. One is naturally led to ask what are the reasons for the inadequate returns on this investment? The general tendency of propaganda workers is to lay the blame for this comparative failure on the indifference or the greed of the practitioners of medicine and to let it go at that.

From careful observation of many of these propaganda movements, some in which I was personally active, I have come to the conclusion that most of them were not aimed in the right direction nor carried out in the right manner. When one wishes to correct an evil, to treat a disease, as it were, it becomes his duty to first properly diagnose the case, study it from its etiology, through its pathological lesions, consider possible complications and sequelæ, etc., and then, having a fair knowledge of physiology, pharmacology and therapeutics, it becomes a matter of simply applying that knowledge for the purpose of outlining a successful course of treatment. Looking upon the indiscriminate prescribing of nostrums as a disease we will study it as a distinct entity, diagnose, prescribe and, perhaps, cure it.

Definition.—Nostrum prescribing is a disease characterized by indiscriminate prescribing of everything that anyone recommends, either by way of pamphlets, advertising in second-rate journals, bolstered-up case histories or liberal distribution of samples.

Etiology.—The principal cause of this disease is ignorance, on the part of the physician, of the fundamental principles of pharmacology. Contributing causes: Laziness, fear of incompatibilities—successfully played on by unscrupulous manufacturers—and occasionally the desire to make a dishonest dollar by participating in the profits, if there are any left, derived from the sale of these nostrums. Other contributing causes are also: Medical journals, too indifferent to the cause of rational treatment, medical journals owned or in the pay of nostrum venders and the abuse of hospital and dispensary prescribing by number so that the embryo doctor never does know what his patient is getting.

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Symptoms.—The symptoms can be found on the prescription file of any pharmacy in this and many other countries.

Treatment.—Like all treatments, the treatment of this disease may be divided into three subdivisions: (1) Prophylactic; (2) dietetic; (3) medicinal (generally there is also the hygienic—but if the first three are successful the hygienic condition of the patient, physician and pharmacist will leave nothing to be desired).

Prophylactic.—The proper prophylaxis lies, of course, in the medical colleges. Up to within recent years the teaching of pharmacology and therapeutics in the medical schools was a matter of minor importance. The selection of a professor in surgery or medicine was a matter of vital concern. The specialties were represented by men high in their community. Laboratories were equipped for pathology and bacteriology, biochemistry, etc., irrespective of cost. Research work in all branches was encouraged and many grants and endowments were made for that purpose. This was true of every branch of medicine except one—pharmacology and therapeutics. I know that here and there exceptions could be cited, but as a rule this condition held good in the majority of medical schools. The number of hours assigned to the subject were reduced to the minimum possible, and in many schools a dozen or so recitation hours were all that could be spared for this “useless” (?) branch of medicine. It is said that a prominent teacher in medicine of our city was wont to tell his students that if they could make the proper diagnosis they need not bother about the treatment (only he presented this in a more dramatic way than I am stating it here).

It becomes, therefore, evident that the physician who studied and graduated some years ago went out into the world entirely unprepared. To-day the majority of medical schools are embodying an extensive course in pharmacology and therapeutics in their curriculum. The Council on Education of the American Medical Association is insisting on that and doing splendid work in that direction, so that to a great extent we feel somewhat reassured as to the “lost art” of prescription writing, since the proper prophylactic measures are being enforced.

The actual treatment, therefore, can be limited to those men in practice now, who have not enjoyed the systematized courses in the subjects mentioned, the majority of the practitioners of to-day.

Dietetic and Medicinal.—Any therapist will tell you that the success of all treatment depends on the employment of that agent which is physiologically, or, in this as well as many other cases, logically indicated. Now, inasmuch as the disease is due to lack of proper training on the part of the physician, it becomes at once evident that the logical remedy is to supply the means to correct this deficiency. This, in a measure, has been the object of all so-called propaganda campaigns, but I fear the *modus operandi* was not the logical one. In the majority of these abortive attempts the greatest attention possible was paid to supply the “tired and ever busy physician” with a short name, formula indifferent, which he was urged to use “as just as good as the nostrum now employed by him.” There was no attempt to go back to first principles. And that was a serious mistake.

As pointed out by Professor A. B. Lyons, a member of the Pharmacopœial Revision Committee, “physicians themselves should be the ones to select the combinations they desire to prescribe, as in the beginning they did in constructing their pharmacopœias.” Therefore, the aim of propaganda work should be directed towards teaching the physician something about the drugs themselves, make him familiar with their appearance, solubility, best mode of prescribing and their physiological action, if not also their therapeutic indications. Work of this kind must be taken up systematically, must be handled carefully and must con-

tinue at regular intervals for a sufficient period of time to cover the subject as completely as possible.

It is my good fortune to have been authorized to carry out such an educational campaign under the auspices of The Bronx County Pharmaceutical Association and, with your permission, I will endeavor to outline here just how we intend to do this.

The campaign is divided into three distinct methods: (1) Joint meetings; (2) circulars to the members of the medical and pharmaceutical profession in the Bronx; (3) samples.

Joint Meetings.—A circular is being prepared notifying the physicians and pharmacists that beginning with October, 1916, there will be held one meeting each month for the next ten months. At these meetings teachers in pharmacology and other prominent pharmacists and physicians will deliver lectures on pharmacology, taking up one subject at each meeting. The subject to be treated at the October meeting will be: Digestives; November: Cathartics, etc.

Circulars.—The circulars will contain a brief abstract of the lecture delivered that month and will be sent out to the physicians and the pharmacists together with *samples*, which will be representative of some of the modes of prescribing suggested in the lecture and the circular.

The first circular outlined reads as follows:

“DIGESTIVES.¹”

Before beginning the discussion on remedies used for the purpose of aiding digestion I will,¹ with your permission, briefly discuss the physiology of digestion. Broadly speaking, digestion begins in the mouth and terminates somewhere in the large intestines. In the mouth the ptyalin, acting in the alkaline medium supplied by the saliva, initiates the carbohydrate digestion and this carbohydrate digestion, according to some physiologists, is continued for about half an hour in the stomach until the hydrochloric acid secretion of the “acid” cells neutralizes or acidifies the gastric contents. Then “gastric digestion” of the protein begins. This is carried on by the ferments of the stomach, principally pepsin and rennin, which are active only in the acid medium supplied by the hydrochloric acid. The partly digested protein and carbohydrate are then forwarded into the small intestines by the peristaltic action of the stomach, and the relaxation of the pyloric sphincter. While passing through the duodenum the partly digested food, acid in reaction, is made alkaline by the bile coming from the liver through the bile-duct, leading from the gall-bladder, and to this is added the secretion of the pancreas, carried through the duct of Wirsung and emptying into the duodenum at the same point where the common duct opens (ampulla of Vater).

The pancreatic secretion grossly consists of three enzymes: A protease (trypsin), an amylase (amyllopsin), and a lipase (steapsin). The function of these enzymes is to digest respectively the protein, carbohydrates and fats. These enzymes, as already mentioned, require the alkaline medium which is supplied by the bile, besides its other functions. When we come to the administration of digestants we must bear in mind these fundamental principles of digestion.

Gastric digestion may be impaired either by a deficiency or absence of the hydrochloric acid, or by an excess of the latter. Without entering into the diagnosis or general treatment, I will limit myself merely to the rationale of supplying those elements necessary for the improvement of impaired digestion. In those cases in which there is deficiency of the gastric enzymes, notably of pepsin, there is as a rule also a deficiency of the hydrochloric acid. Therefore the physician, of course, will prescribe pepsin, in an acid medium. The points

¹ Abstract of a lecture delivered before members of the medical and pharmaceutical profession of the Bronx, under the auspices of the Bronx County Pharmaceutical Association, October, 1916.

to be remembered, however, are these: Pepsin itself is a protein and as such is subject to certain reaction of proteins. It is precipitated or coagulated by alcohol and its enzymic action is impaired or destroyed by such coagulation as well as by subjecting it to the action of heat beyond certain temperatures; it is also incompatible with many other substances. Furthermore its action is desired in the stomach, its natural habitat, at a time when nature would normally supply it in the active stomach, that is from 30 to 45 minutes after ingestion of the food, and it must be promptly available for that action, therefore it appears logical that pepsin should be given in liquid form, in a medium which is free from alcohol and without complicating other drugs, except hydrochloric acid which enhances its activity. For that reason the following rather palatable formulas suggest themselves.

R Pepsin	10	grains
Dil. Hydrochloric Acid	10	minims
Glycerin	½	fluidrachm
Water,		
To make	1	fluidrachm

Instead of water, aromatic waters like those of anise, cinnamon, spearmint, or peppermint may be used, or a small amount of the corresponding oil.

Syrup of rose, tincture of cardamom compound or other adjuvants or vehicles may be employed or substituted. It should be remembered that alcohol is not compatible with pepsin and such addition to a preparation should be in very limited amount.

If we are dealing with a condition of hyperacidity, then antacids are indicated.

Antacids are subdivided into two great groups, direct and indirect antacids. The former act directly in the stomach to counteract excessive acid secretion, while the latter after absorption into the circulation render other body juices alkaline or tend to reduce existing hyperacidity (urine, etc.). For our purpose, we are concerned with direct antacids only. Those available are, the hydroxides of calcium and magnesium, and the carbonates and bicarbonates of sodium, potassium lithium, calcium and magnesium. (Dr. Diner, in his paper, also included suggested combinations for these.) If we desire, however, to improve intestinal digestion, then recourse must be had to the pancreatic secretion. Pancreatin is admirably adapted for this purpose. Bearing in mind that intestinal digestion does not really begin until at least two hours after ingestion of food and also remembering that pancreatin should become active only after reaching the small intestines and that we must secure an alkaline medium for its activity, the following form prescription suggests itself:

Pancreatin	5	grains
Sodium Bicarbonate	1	grain
Inspissated Oxgall	1	grain

Enclose in capsule and coat with tolu.

The prescriptions are given as types only, the judgment of the physician will direct and adapt the remedy to the case and not the case to the remedy. Many modifications, changes and improvements are possible, and we are certain that the consideration of each case as an individual one with the adaptation of the remedy accordingly is bound to result in benefit to the patient and gratification of the physician.

The circular is to be accompanied by a letter, and a form for the first subject is outlined as follows:

DEAR DOCTOR:

Enclosed please find an abstract of a lecture delivered at the October meeting of the Bronx County Pharmaceutical Association.

It is the intention of our Association to continue these lectures throughout the entire winter. We have the promise of prominent teachers of pharmacology to continue the course so long as there is interest shown by the men of Bronx.

Many of us, both in the medical and pharmaceutical profession, are apt to become somewhat rusty in our materia medica and pharmacology. Many of us would be willing to pay a fair fee for the privilege of attending a post-graduate course in these subjects if we could only find the time and opportunity to do so. We believe that in securing the free service

of the professors of pharmacology in the various schools of medicine of this city we have provided the opportunity, and by holding the meetings at 9 o'clock at night we have arranged for a convenient time.

We would greatly appreciate an expression of opinion from you as to whether you are interested in this move or not.

We enclose with this a sample of some capsules each containing 5 grains of sodium bicarbonate and 1 grain of inspissated oxgall; the capsules are coated with tolu as outlined in the enclosed circular.

Fraternally Yours,

DISCUSSION.

OTTO RAUBENHEIMER: This is certainly an ideal condition for propaganda work. But where are the men to do it? The trouble is, that we have in New York but one Diner. Of course, other places may have other Diners; but the man to do that kind of work needs to be a pharmacist, and also a physician, because he must be able to answer the questions of physicians. Dr. Diner possesses this happy combination. It is certainly the right kind of propaganda work.

C. P. WIMMER: To my mind, it is unnecessary to have the combination of physician and pharmacist in one person. Arrangements could be made with teachers of pharmacology in medical colleges to have them deliver the medical part of the lecture, and with a teacher of a pharmaceutical college to give the other part as a supplement. I think that this paper contains the best suggestion I have heard for this propaganda work. Physicians will not read circulars, except the head lines, and get-together meetings while good, do not accomplish the purpose. If, however, you have a medical lecture and this supplemented by a talk on the required remedies, delivered by a pharmacist, the meeting will be interesting to both physicians and pharmacists, and valuable work will be accomplished.

EMIL ROLLER: I think you should not be too optimistic. If you have these lectures, you cannot have them very often; and to get physicians together is just as hard as getting pharmacists together after a day of hard work. Besides, there is an antagonistic factor, the salesmen of the pharmaceutical manufacturers are generally physicians, and have studied the subject in such a way as to be able to show the physician that their preparation is better than any other, and that he will do better to keep the preparation in tablet form; for if he writes the prescription, the druggist may not have the particular preparation. To offset the influence of the salesmen of the manufacturing houses, we must have scores of lectures, and must send propaganda men to see the physicians at their offices. To see them only at the lectures will have little effect. Office dispensing is the greatest danger that confronts pharmacy to-day; and it is so common over the country that we should take other measures than this propaganda work to stamp it out. We should try to have passed a law providing, that if a physician wants to dispense his own medicine, he must have a registered pharmacist in his office. So long as the handling of medicaments by the physician, assisted by the office girl or nurse, is tolerated, we shall have this trouble. The cost of the two or three dozen tablets that the physician gives is small, and it forces the patient to come back to his office for another supply. Propaganda work will be practically without results, so long as we do not consider these points.

L. H. FRIED: We have a National Formulary, and I think that book contains as many formulas for digestants as could be found anywhere, although a physician might improve on them. Still, if the physician could be induced to learn the contents of the books and prescribe articles found in the United States Pharmacopœia and National Formulary, I think it would be better than for us to suggest combinations for prescriptions.

L. E. SAYRE: I have been in a part of the country, the Middle West, where I could watch the value of propaganda work. It seems to me, when we come here and discuss these problems, that those who take the pessimistic view are apt to feel that we should have obtained better results. I feel much encouraged by the work done in the East along the line of propaganda. I can point to a number of physicians who never knew anything about the National Formulary, and very little about the United States Pharmacopœia, who now come to me and say, "I am going to hold to these formulas, because they are authentic." I could mention a number of cases in which this effect has been obtained in the Middle West. While we have discouraging aspects of the situation I think that we must keep hammering away all the time;

and finally we shall get somewhere. The fact that physicians when they dispense ought to employ a registered pharmacist has been emphasized over and over again. In many hospitals where students formerly compounded prescriptions, they are now employing registered pharmacists. That looks as if we were making a little progress. I think that if we can get the physicians to cooperate with us, we can together enlist the attention of the other physicians so that they will hear us.

PHILIP ASHER: I think the condition can be remedied through the hospital drug store. This Association should start an association of hospital drug stores. The druggists in hospitals come in contact with the young physicians. If we take the young men who are studying medicine and have the pharmacists give them instruction on the proper method of dispensing, showing them what the pharmaceutical preparations are, I believe we shall get better results.

While it is true that in all colleges of medicine, there is a little dispensing taught in the department of pharmacology and therapeutics, there is very little practice. What the professors tell the students on the subject makes very little impression. The young men should be in actual touch with things, and see what the combinations mean. When they get this practical knowledge, they will know more about the subject when they get out of college. The reason that we have so many large pharmaceutical houses is not because of lack of interest or laziness on the part of the retailer, but because of the fact that it is much easier for a young physician to remember the names the pharmaceutical laboratory has given him than to use his own brain in constructing prescriptions to fit the case. I believe that an association of hospital apothecaries should be started in our Association. Then this propaganda work will have more force, and we shall see the effect of it in time.

MISS M. G. TRUBY: I can confirm this gentleman's ideas, because we run a dispensary, and young physicians often come for advice in the writing of prescriptions. They do not seem to have much practical prescription writing in the medical curriculum. In Pennsylvania we have a State law which says, that all physicians must have one year of experience in a hospital; so the plan proposed by Professor Asher would give all the physicians in the State a chance for instruction by the hospital pharmacists.

GEO. HOHMANN: It is one of my duties to take young men around the wards, criticise their work, and go over their cases. After we have made a diagnosis we discuss the treatment, and spend a good deal of time on that subject. I have my Pharmacopœia and National Formulary right with me. When we commence talking about treatment, I naturally ask, "What would you do for the patient?" I get all sorts of answers. They know very little about therapeutics or the action of drugs. The medical schools are very lax in teaching this, especially the pharmaceutical end of it—how these drugs may be combined; so we spend an hour every morning in going over the Pharmacopœia and National Formulary and in prescription writing.

I think that if you can get the men while they are young, you can do much with them, I have accomplished quite a good deal. Last year was the first opportunity for such work with us and it has been very successful, and this year I have a new plan along the same line that I think will net good results. It will take several years, probably, but that is the only way that you can reach the physicians. The older men have fixed ideas, and it is hard to change them; but you can mold the ideas of the young men. We go over the why's and, wherefor's in the preparation, find out why each constituent is there, and give a thorough explanation of its purpose.

F. S. FRANKFURTER: I am in a position to know that the training of the college of medicine is telling on the young graduates. Those in the Bronx are now depending upon the United States Pharmacopœia and National Formulary preparations. In one week I have had three different doctors call for a formula for summer complaint in children, each having the same composition. I think that Fordham is somewhat responsible for this improvement in the method of prescribing.

MRS. ST. CLAIRE R. GAY: I do not agree with Dr. Hohmann about the possibility of molding a young physician. After he gets out of college, there is nothing that he can learn. He knows it all; and you are insulting him, when you try to tell him anything. The older men, those of value to the medical profession, will much more readily take a new suggestion. You can tell them of a new preparation, and explain to them why it is better than the one that

they are now using; and, nine times out of ten, they will use it without hesitation. If you tell the same thing to an interne, he will say: "It's easier to make the other one." He will listen when he is in college, but not to the pharmacist outside. I just ignore the interne and go to the attending physician, and then the interne is forced to use it.

Another point is this: What are you going to do with the "five-drug" doctor? It is useless to say that he does not exist. Johns Hopkins is turning men of that sort out by the hundreds. What are you going to do with the surgeon who says, "It is not the medicine that pulled the patient through, it is my surgery"—when we all know that it is the good work of the nurse plus the good care of the pharmacist. What can you do with a man who says he needs only five drugs? Can you do propaganda work with him? I am willing to have any man come into my hospital and try it.

JACOB DINER: I thoroughly agree with Mrs. Gay that the older man is more adaptable to teaching, and our propaganda work is for the older men. We are trying to train the younger men so that they will be amenable to gentle treatment by the pharmacist.

The matter of the hospital pharmacist is well taken care of in New York. We do not permit any man to dispense drugs in our hospitals unless he is a licensed pharmacist and registers with the State Board.

The "five-drug" man is not a hopeless case, by any means. He is using five drugs intelligently, and all that we have to do is to enlarge his scope.

I would hesitate to class myself with men like Cushing, Bastedo or Hatcher; but we have enlisted the services of the men teaching pharmacology in New York to give these lectures, because they are both pharmacologists and physicians. Physicians, therefore, will listen to them: because doctors will be glad to hear a talk on a remedy given by a physician, and will do so with more interest than they will listen to a talk from a pharmacist.

It has been said that this was all purely theoretical, and that no practical results could be obtained. I recall that, ten or twelve years ago, when the Hudson River Pharmaceutical Association first started with a propaganda, we carried it on with little experience and the little knowledge at our disposal and yet, while when we started there was an average of 74 percent of proprietary remedies used in prescriptions in the surrounding districts, within two years we had succeeded in reducing the percentage to less than 15 percent. That may be theoretical; but in our district it was a mighty practical, good result, when we could look over prescriptions taken at random from various stores, and find such a low proportion of proprietary remedies called for. The doctors came to our meetings, and they did not come for a feed or a free souvenir. They selected the topic nearest to their minds, and these talks were given. There is one thing, however, that must not be left out of sight and that is "stick-to-it-iveness." You have to stick to it. You have to hammer away at it.

The detail man is all right in his way. He reaches the physician but once a year, however, and the circular can reach him once a month. That propaganda is carried on, also, among the pharmacists. We tell them what we are going to talk of and show them the preparation, and they are urged to be prepared to meet the demand and be individual propaganda agents with the physician, when he comes into their stores.

There is no doubt that, with the hospital pharmacist on the one side, and the young physician on the other, the result is unsatisfactory. The modern medical school, however, is not satisfied with merely showing the young physician what a preparation looks like. We now take the young man in the second year and put him into the pharmaceutical laboratory. He prepares a galenical of each type. He is told that this is not required of him in order to make him a pharmacist, but to show him what is necessary in making a galenical. In the next year, he sees the application of pharmacodynamics. He is shown very clearly by tracings that the antipyretic is practically inactive in a normal case, and does work in an abnormal case, a febrile condition. He is, furthermore, if he has gone through that course, put through a drill in prescription writing. We do not stop there, but let him compound some prescriptions. We give him the prescriptions as generally written, and suggest corrections and improvements.

So successful has this method been with the two classes that I have been teaching, and with those taught by some others, such as Bastedo, Hatcher and Wallace, that some of our medical graduates, after coming out of the hospital courses, have enrolled themselves in pharmaceutical schools and taken courses there, so as to get better acquainted with drugs. I do not believe that the outlook is so bad. Let us stick to it and work with enthusiasm.