

After the organization was completed, a discussion followed as to the selection of some worth-while project to engage in. Mr. McCabe solved the problem by suggesting that, through their contacts with interns and staff physicians, the hospital apothecaries could render unusual services in behalf of professional pharmacy. It was decided that a systematic campaign of education in the new U. S. P. and N. F. was the most expedient plan to pursue, so plans were formulated for an organized and consistent series of lectures and demonstrations, to be conducted uniformly at the various institutions from October to June. There are over fifty hospitals in the district and we hope to contact the medical staff of each.

Another project to be worked upon is a hospital formulary to meet the needs of the district. Committees will organize the lectures and demonstrations and they will be presented by competent speakers.

My only excuse in bringing this premature local plan to your notice is to call attention to its potentialities at this particular time when the old and new graduates of medicine will be more receptive to U. S. P. and N. F. information and advice relative to the official materia medica. We feel confident that if other metropolitan A. Ph. A. branches will organize sub-sections and put into effect similar plans the accumulated results will help to develop a certain amount of professional interest.

A NEW STUDY OF PRESCRIPTION PRICING.*

BY JOSEPH H. GOODNESS.¹

About eighteen years ago I was introduced to the mysteries of a drug store. During the first day the proprietor invited me to watch how a prescription was filled. With running comment on the meanings of the strange drachm and ounce curlicues, abbreviated Latin titles and directions in hieroglyphics, he completed the prescription, acknowledged my "Ah!" and retired to the desk to number, label and price the finished work. I watched him closely from a distance. With the labeling completed, he dipped his pen and scratched a "65" upon the blank. The ink failed to deposit; he tried again, and again failed to leave a mark. For his third try he once more dipped his pen and this time marked the prescription "75." The price was final.

Although untrained in business methods I could not help doubting the honesty of my benefactor and teacher. Longer contact corrected the first impression, for my friend proved to be of the finest ethical and social character, but the feeling of uneasiness the incident created has always remained a stimulus that has led to an extensive study of the subject.

This study has disclosed many things, among them the following: *First*, most druggists do not use a recognized or definite system of prescription pricing, for as scientists they revolt against other people's price-lists, yet cannot figure out a better system of their own. They have in many cases become scientists who guess at prescription prices.

Second, many druggists using a system frequently change from one to another.

Third, all pricing systems have an economic rather than a professional or psychological basis—that is, the final price is the result of several individual costs, each assigned to some particular material or service involved in filling the prescription.

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This is unlike the charge made by doctors, dentists and other professional men, whose charges are somewhat standard, with a final price usually a multiple of whole or half dollars. Pharmacists, slaves to custom as are most humans, have never wholeheartedly tried to charge a professional price in place of an economic one. The few pharmacists who have sought to establish the practice of a single price for all prescriptions have been motivated by the wrong ideas, for they have failed either because they neglected to set the price high enough, and thus caused their working capital to vanish through the loop hole of "operating expenses," or the law (semi-judicially) stopped the "prescription insurance" (a year's supply of prescriptions for \$10.00) because the operators had no license to practice the calling of insurance. In any event, pharmacists have made their bed and must continue to calculate prescription prices upon an economic basis.

Fourth, most systems in use yield fair-to-excellent prices for the localities in which they are used, but the component charges constituting the price cannot be explained in a manner that will enable the pharmacist to stand his ground when a customer questions the fairness of the price. As a result many pharmacists using any of the existing systems reduce the prices of their prescriptions below the system's figures.

A study of the field discovers what appear to be three basic systems, and all systems now in use seem to be either modifications of these three, or merely arbitrary price-lists. The first basic system has a single formula for all prescriptions: *Cost of materials doubled, plus an additional charge*. The additional charge is sometimes explained as a labor charge; at other times as a combined charge for labor and one or more other charges. The second basic system, also for all prescriptions, has this formula: *Materials at selling price, plus a compounding fee, plus a service charge* (based upon the number of doses or applications in the prescription). This system really has four formulas, for prescriptions are divided into four classes, and the above three charges are given different values for each class. The third basic system is a combination of *minimum price-lists* (for inexpensive-material prescriptions), and *formulas* (for the more-expensive-material prescriptions). This system divides prescriptions into two classes: those compounded, and those ready-made.

Representative pricing systems are those of Evans, *Pacific Drug Review*, Blanner, Finneran, Seltzer, Secord, and the South Dakota Pharmaceutical Association.

The criticism to be made of existing systems is *not* that they yield inequitable prices, but that they are insufficiently explained, or, where explained, that the explanation is arbitrary or unscientific, either because charges of a variable and a fixed nature are combined, or because some charges are entirely omitted and others are exaggerated to compensate for the omissions. If a pharmacist has no justifiable grounds for asking a price, or feels that the charges are excessive, prices come down. Another criticism is of the constantly present *series of exceptions* to the general rule or formula. In fact, often the exceptions cover as many cases as the rule does itself.

Because of these faults there is need of a formula for pricing prescriptions so fundamental in its elements and accurate in principle that it could be applied to any store, anywhere, after slight modification in its values to fit local conditions. A formula of this sort is not easy to find, and it is possible that the one to be presented falls short of the mark, but it is nevertheless offered as one that aims at this

goal. Its value, I believe, lies in the fact that each charge going into the final price is so explained that any druggist can find unlimited support for it in economics, business, and law, and that no charges are omitted. If this system can convince even a small number of druggists that prescription prices should not be based upon factors other than costs and competition, the time spent in creating it will be considered well spent.

Before presenting the pricing system, it might be well to outline the principles upon which it has been constructed. If the reader won't agree with the principles, then he can and probably will find cause to disagree with much that follows in the explanation of the system. The principles follow. (As you read each principle check it if you can agree:)

1. Each department in a drug store must, in the long run, support itself. The prescription department, in particular, should not be an exception to this rule.
2. The pharmacist must get, as part of the price, the cost of *materials used* in the prescription (ingredients, label and container).
3. For each prescription filled, the druggist is entitled to add a reasonable *merchantman's profit* to the material cost.
4. All true economic *expenses* of a department (in addition to material cost) must be paid by customers of that department. In other words, prescription department expenses must come out of prescription sales. (The word "economic" as used here outlaws all needless or unreasonable expenditures in the department.)
5. The pharmacist is entitled by legal and economic laws to charge for the exercise of his *skill and labor* in filling a prescription. Neither Pharmacy nor the law makes demand upon the members of the profession to serve others consistently without making this charge.
6. The pharmacist should charge for the *legal risks and duties* that the law places upon him every time he fills a prescription.
7. Rarely (probably one in five hundred or a thousand) the druggist, in his duty to create confidence in the prescription, must charge an *additional amount* over those charges already enumerated.
8. The system must be easy and simple to manipulate (although the system itself need not be simple), and the price for each prescription should be figured by arithmetical rather than algebraic means.
9. The system should provide the means for pricing *all* prescriptions.
10. The system should not be arbitrary, but must be applicable at all times and places, under all possible economic conditions, after but slight adjustment.

From an examination of these principles it can be seen that a pharmacist should make charges for each prescription as follows: (1) the material cost, (2) the merchantman's profit, (3) a fixed part of the department's overhead expenses, (4) a charge for labor and skill, (5) a charge for the legal liabilities and duties imposed by law and sometimes (6) an additional, psychic, charge. These charges are not duplicated in whole or in part; therefore they should all be present in our system. The system under discussion makes use of six charges, but has provision for reducing the number to five under certain conditions.

The absolute need of each of these charges as separate values requires an explanation. These charges are of two types: those that vary greatly from prescription to prescription (called the *variable costs*), and those that remain constant for each prescription (called the *fixed costs*). As examples of the variable costs we have the material cost, the profit, the labor charge and the liability charge. The psychic charge may also be placed in this class when it is used. Each variable charge must

be figured separately for each prescription filled. This statement may discourage the average pharmacist who probably visualizes, at this point, a battery of accountants calculating the price of a two-ounce cough syrup. To ease his mind, let me explain that only the material charge has to be figured "from scratch" after the system is established, for all other variable charges, except the psychic charge, can be found on charts by the simple method of sliding the finger along the line assigned to the *type* of prescription to the column that corresponds to the *quantity* involved. The charge is beneath the finger tip.

The other class is the fixed charge. The overhead charge is the only fixed charge in the system. This is figured once a year, or whenever economic conditions change so much that a wholesale readjustment of the system is necessary.

Because economic conditions differ in various parts of the United States, and also because there is not yet a sufficient amount of information collected concerning price levels in the different sections of the country as well as other necessary figures, the system is presented in outline form only. The rules for the collection and arrangement of figures for the various charts of charges are provided, so that any pharmaceutical organization, commercial pharmacy teacher, or individual pharmacist may make a working system for prescription pricing in his locality. A discussion of each charge with rules follows.

I. The Cost-of-Materials Charge.—This charge should cover the following items: (1) cost of ingredients used, (2) cost of the container used, (3) cost of the label and (4) any special costs assignable to a particular prescription, as cost of heat for sterilization, cost of filter paper, etc. The cost of ingredients should be determined with the aid of the following rules: (1) Goods should be marked as soon as received, with the cost of the entire amount purchased and the cost of every commonly used unit. As an example, aspirin purchased in a pound container should be marked with the price of the pound, the ounce and the drachm. Codeine, on the other hand, should be marked down to the cost per grain. (2) Prices should be list. Discounts received should not be handed down to the customer. (3) The cost of each unit should be expressed in whole cent amounts. (4) Materials entering any prescription should not be below a set minimum charge (of, say, five cents). This material charge can be combined with the profit amount, which is next discussed.

II. The Profit Charge.—All vendors are entitled to a reasonable profit upon cost of materials furnished. This charge can be figured by marking up the material cost by any given percentage, depending upon the profit desired. Since economic conditions change, it may be a good policy to add this charge separately to every price figured. A business may, however, combine the cost and the profit, and then mark the package received accordingly. Either one or the other method must be used. To mix them would cause confusion. It is worth noticing that in the entire system this is the only *profit* charge. All other charges are true costs or expenses.

III. The Overhead Charge.—The patrons of the prescription department must eventually pay for all necessary expenses to keep the department open. These expenses are divided into two classes: those that are like the expenses that customers in any other department pay (called the *General Overhead* expenses), and those that are due solely to prescription work (called the *Prescription Department Overhead* expenses). Each class should be figured separately about once a year and

the results combined into a single figure to be added to the price of every prescription filled.

The *General Overhead* is figured by finding the annual expenditure for general upkeep and operation of the entire store, and then apportioning this expense to the departments upon some equitable basis. The items of general overhead should consist of *at least* the following:

1. Rent
2. Repairs
3. Delivery
4. Losses from bad accounts
5. Depreciation of fixtures
6. Insurance expenses (fire, public liability, plate glass, etc.)
7. Interest on borrowings and investment
8. Taxes (property, income, sales, corporation, etc.)
9. Advertising and displaying
10. Management and maintenance wages and salaries
11. Wrapping expenses
12. Light, heat, refrigeration, power
13. Miscellaneous.

The total of these expenses, and any others that an individual store may have, are then apportioned for payment by the customers of each department. The scientific way (which is hardly worth the trouble in a drug store) is to assign rent, heat, refrigeration and possibly others, upon a basis of floor space. Thus, if the prescription department occupies half of the total floor space of the store, its patrons must contribute half the expense for heat, rent, refrigeration, etc. On the other hand, fire insurance is assigned upon the basis of the value of stock in each department, wages and salaries upon the basis of time spent by the worker in each department, etc. The quickest and perhaps the best way of apportioning general overhead is to divide it according to sales. For this purpose the following proportion is useful:

$$\text{Total Store Sales} : \text{Total } \text{R} \text{ Dept. Sales} :: \text{Total General Overhead} : X$$

X is, then, the share that the prescription department must bear. Since every patron of the department must bear his share of the general overhead, the overhead is divided by the average number of prescription department customers per year. The result is an amount that each customer should contribute. This figure is to be combined with another overhead figure, to be considered next.

The *Prescription Department Overhead* consists of charges similar to and including the following:

1. Narcotic stamp tax
2. Salaries of prescription compounders
3. Taxes upon prescription room property, sales, etc.
4. Druggists' liability insurance premiums
5. Recording, filing, reporting and compulsory prescription copy expenses
6. Depreciation of prescription department equipment
7. Losses through U. S. P. and N. F. changes
8. Losses through incompatibilities, age
9. Amortization of the owner's training, examination and registration costs
10. Library and professional progress expenses
11. Miscellaneous.

The total of these expenses is then divided by the average annual number of prescription patrons. The result is the amount added to the prescription price. Combine both overhead figures into a single one.

Sometimes pharmacists may feel that it is unjust to charge the same amount of overhead to the different types of patrons he serves. In that case he may establish two or three levels for the overhead charge. The drawback here is that he will probably find himself using the low charge too often to allow his customers to pay the overhead.

IV. The Labor Charge.—Filling even the simplest prescription calls for some skill and labor. Make a charge for each of the following:

1. Interpreting the prescription
2. Checking the accuracy of the doctor
3. Compounding the prescription
4. Labeling the prescription
5. Checking the accuracy of the compounding
6. Cleaning the utensils used.

Since one prescription may call for mere counting while another may require complicated manipulation, a uniform charge for labor is not justified. The skill required and exercised is always of the highest degree, so a varying labor charge must be based upon time spent in active compounding. For the present, the labor charge can be figured by multiplying the time consumed in actual work by a rate of \$1.80 or \$2.00 (or any other rate) per hour.

It is hoped that in the near future enough information can be collected so that a chart of labor charges can be compiled. This chart will allow the pharmacist to find a fair labor charge for his work by merely following a column for the *type* of prescription to a cross column for the *amount* involved. The finished chart can have the following form:

	Rate per hour \$——			
	1 Ounce 6 Units or Less.	2 Ounces 12 Units.	3 Ounces 18 Units.	Etc.
Ready-made				
Liquids				
Ointments				
Folded powders				
Bench-made capsules				
Bench-made suppositories				
Konseals				
Tablet triturates				
Ampuls				
Etc.				

V. The Insurer's Charge.—Unlike many other vendors, the druggist subjects himself to a multitude of legal risks and duties every time he fills a prescription. These legal risks and duties are of two types—criminal and civil—in nature. The criminal, or police power requirements, impose such duties as:

1. Labeling narcotic prescriptions in a particular way,
2. Filing narcotic prescriptions in separate files for stated periods of time,

3. Reporting to federal officers all transactions for the last three months concerning any narcotic or narcotics,

4. Furnishing the doctor or the customer with a copy of the prescription (non-narcotic) upon request,

and innumerable other duties. Breach of any of these duties may mean fines, loss of the right to practice, loss of reputation, loss of business or even a jail term. And the offense need not have been committed maliciously.

On the civil side, the pharmacist is compelled by law in at least one state to be an insurer against injury by his prescription.

In a Kentucky case the court said, "the defendants, being owners of a drug store, *are legally responsible* in damages to the plaintiff *for the accident*, if it was one, and for the outrage, if it was designed." (56 Am. Dec. 568.) Every other state that has had occasion to determine the degree of care a druggist must exercise, has placed that care at an unbelievably high level. As examples: Michigan demands that "the care required be proportioned to the danger involved" (47 Mich. 576); New York insists upon care "in proportion to the gravity of the injury that might result from want of care" (43 Hun 265), and it can be added that injury to the sick is generally greater than that which might result to the well from the same error; Connecticut wants "the highest practical degree of prudence" (85 Conn. 231); and Virginia wants that "degree of care commensurate with danger" (144 Va. 106). As though that were not enough, the common law (like the statutes in some states) requires that the druggist impliedly warrant with every prescription he fills: (1) that the prescription was filled as written (that is, ingredients are accurate as to identity and amount), (2) that the compounder was a registered pharmacist or had equal skill and (3) that the highest degree of care was used in compounding the prescription. All these risks and duties have been shifted from the consumer of the medicine to the compounder; therefore, a pharmacist is entitled to a "premium" for the risks assumed, as is any insurer or risk bearer. This charge is for the risk the pharmacist bears in excess of that covered by druggist liability insurance. In too many cases the juries' verdict has been far in excess of insurance coverage.

Since the risk the pharmacist bears is determined by the nature and the number of doses or applications in the prescription, the amount of this charge should be based upon these factors. The present system requires such a charge, but as yet has not provided a chart (which is in the process of formation). This chart when completed will have a general form somewhat as follows:

INSURER'S CHARGES.				
	6 Doses or Less.	12 Doses.	18 Doses.	Etc.
Ordinary R _x				
Narcotic R _x				
Poison R _x (Internal)				
Eye R _x				
Sterilized R _x				
Specific				
Etc.				

Until this chart is completed, the druggist should add as an insurer's charge, an amount sufficiently large to raise the final price to a point where material cost does not exceed 25% of it. In other words, the profit, overhead, labor and insurer's charges should be about 75% of the total prescription price. There should also be a set minimum insurer's charge.

VI. *The Psychic Charge.*—On rare occasions, a druggist must act as a psy-

chologist and help the doctor in convincing the patient that the medicine prescribed is beneficial to him, though it may contain but a small amount of bromide or aspirin, or even no active ingredients. At such times the demeanor of the druggist, and a sufficiently high price will create a confidence in both doctor and pharmacist which cannot be otherwise obtained. The doctor wants and expects this confidence. The amount to add as a psychic charge depends entirely upon the particular case and the judgment of the druggist.

To complete this pricing system a few supplementary rules are necessary or advisable. They follow.

1. When two or more prescriptions are dispensed to the same person at the same time, they should be differently priced.
2. Prescription prices should end in five or zero.
3. Charity and other discounts upon prescriptions should be fixed.
4. Ready-made prescriptions should be priced by the same method used in pricing all other prescriptions.

If the druggist has any doubts about the wisdom of the last rule, let him ask himself the following questions before he fills a ready-made prescription at retail price or retail price plus fifteen cents:

- Am I giving him the materials below cost? (material-cost charge)
- Am I forgoing my profit? (profit charge)
- Am I omitting the overhead charge? (overhead charge)
- Am I working for nothing? (labor charge)
- Am I assuming the legal risks and duties for nothing? (insurer's charge) (Remember, *you* are liable for any errors caused by a ready-made preparation. The law recognizes *only you*, the druggist, as the maker of the prescription. Has it *your* label upon it?)

In conclusion, the system outlined seems to possess the following advantages:

1. It provides a uniform pricing procedure for all prescriptions.
2. It includes in the price all expenses without duplication.
3. It explains each charge with reference to legal or economic principles.
4. It is subject to revision to meet changing economic conditions.
5. An approximation of one or more of the charges does not affect the accuracy of the other charges.
6. It prevents price variations due to personal variations of clerks.

AN ADVENTURE IN PHARMACEUTICAL CURRICULUM CONSTRUCTION.*

BY HOWARD C. NEWTON.¹

If you should have an opportunity to construct a pharmaceutical curriculum just as you want it, one which would represent your very best thought on the subject, how would you go about it?

Deans and others have had such an opportunity during the past five years and the results have been interesting and diversified. Doubtless it will be a long time before the full effect of their work is known because we are still feeling the effects of

* Section on Education and Legislation, A. P. H. A., Dallas meeting, 1936.

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