



PHARMACIST BETWEEN COMPOUNDS AND HEALTH CARE

Moving from the role of consultant between mass production options to customer oriented service provider, adapting to each and every patient's need

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Abstract

Pharmacists also known as druggist or chemists are health care professionals, who practice in pharmacy, the field of science focusing on safe and effective medication use. Historically the fundamental role of pharmacist as a healthcare practitioner was to distribute drugs from doctors for medications that had been prescribed to patients. In more modern times, pharmacists advise patients and healthcare providers on the selection, dosages, interactions, and side effects of a drug. Pharmacists monitor the health and progress of patients to ensure the safe and effective use of medication. As the pharmacist already operates as an adviser, he/she may practice compounding, however many medicines are now produced by pharmaceutical companies, in a standard dosage and drug delivery form. Pharmaceutical compounding: is the creation of a particular pharmaceutical product to fit the unique needs of a patient. To do this compounding appropriate ingredients are combined or processed by pharmacists using various tools. This practice is used for medically necessary reasons, such as to changing the form of the medication from a solid pill to a liquid, avoidance of ingredient(s) etc. It may be also done for more optimization reasons, such as adding flavors to a medicine or otherwise, altering taste or texture, etc. Pharmaceutical companies make many, or most of drugs available for use. So the pharmacists waste the sense of making a drug by own self and most commonly the job of the pharmacist's shifts from compounder to only distributor/reseller of medications. From this various problems are raised; doses too high for a certain range of patients and foremost, side effects or possible reaction that can give an excipient to a patient. In any time a specific drug product is made or modified to have characteristics that are specially contemplated for an individual patient. These combinations may be used when a patient is intolerant to certain of the shelf product(s). In this case preparations in pharmacy laboratories are more valuable than the branded products.

Keywords: Pharmacist, Reseller, Compounding, Special Needs Patient, Optimization

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Introduction:

As mentioned above pharmaceutical compounds include the act of combining, mixing and altering different ingredients, to prepare an appropriate drug for a particular patient, according to a prescription. Run by medical needs, this professional practice creates a link between "physician-pharmacist-patients". The golden age of development compounds dates back to the 19th century. It is believed that the compounds are mostly developed up to 1950 years, which at this time began the development of the pharmaceutical industry. From 1930 to 1940 pharmacists themselves prepared almost 60% of pharmaceutical products. One of the facts that we had regress in production of galenic preparations was: It couldn't prepare for large masses of people and spending a lot of time. Population grew in number with drastic rates, especially after WWII. With the advances of technology there were increase of manners of communication between people of various areas. The time and costs of transportation decreased and there were an expanding number of manners of transportation. All this mixing and co-operation within people of different areas, cities and countries did not include only the good stuff, as increase of business, wider work fronts etc but it came with full package, it also included area specific diseases spread wide. In order to respond to these threats (and in the other side a lot of people saw these as opportunities), in medical industry was also implemented the mass production strategy. This started the difference between classical galenic way and industry-based pharmacies, where the latter took over. With the improvements in technology, not only in the medical are but generally, some of the old professions went extinct, some new professions were born, as some others reshaped to survive. The second case happened with the pharmacists, they had to reshape their way of delivering drugs, they had to adapt to the technical and social changes of every day life. With the help of technology pharmaceutical factories could produce a quantity of drugs per hour that surpasses what a galenic pharmacist can produce per whole day.

Current Situation

On today's traditional way of people getting their pills is explained as follows:

Scenario 1 – People go to the doctor for a check up, the doctors get the possible analysis and come out with the diagnose. As doctors are already aware of the various pharmaceutical pills and their components through various trainings and conferences they prescribe in most of the cases the marketing name of the preparation and the dosage. In some other cases they don't, they write the active principles in the solution definitely with the dosage to use.

The patient goes to the pharmacy where the pharmacist executes the receipt of prescriptions as stated by the doctor. They also make the possible suggestions based on questioning the client for possible reactions, or put substitute product if the first suggestion is not available. We see also cases where the

negotiation for the product is initiated from the patient seeking for a cheaper version. Then the drugs are given to the patient with their way of usage written, and they call it a day.

Scenario 2- The patient goes directly to the local pharmacy asking the pharmacists for a relief drug by explaining them their symptoms. The pharmacist plays both roles in here (both medical diagnostician as well as pharmacist) where he suggests the drug to use to fix the problem.

Scenario 3 – The patient is already familiar with the products to buy. He/She gets the information from various advertisements, marketing campaign or word of mouth. They make a request to the pharmacists directly with the marketing name of the drug. A pharmacist delivers the drug as requested, and the loop goes on.

The problems encountered

The production of large quantities in industry in a specific dosage form, excludes people with special needs unsuitable to these products. In a specific given population, the industrial productions must adapt, redesign and must change their pharmaceutical forms. But in order to do that they face big expenses in cost compared with the production of galenic preparations.

As we mentioned above during time, together with the big changes that happened in the society in general, also the role of the pharmacist as a preparatory of drugs was converted into a distributor of drugs produced in various forms. However, in these last two decades, we see a swap, where galenic preparations were developed as a technology for patients with specific needs

The proposed solution

Pharmaceutical compounds are practiced where appropriate medications are prepared for patients from local pharmacists. This way of preparing medicines backs us back to the origin of the pharmaceutical profession. When we sit down and make a deeper search on this phenomena seem that there are several different reasons why the description of the preparations started again.

Pharmacists can develop various galenic forms composition as:

- a) Creams and ointments
- b) Capsules
- c) Suppository
- d) Syrups
- e) Shampoo
- f) Transdermal gels

Many of the patients are allergic to preservatives or different excipients, or are sensitive to standard hardness of a given dose of drug. Together with the help of a physician, a pharmacist can change the strength of a drug, making it easier to digest by the patient. They can also alter this drug in order to use it in various forms of distribution to the body, such as sublingual or transdermal gel-cream that can be absorbed through the skin. For those patients who have difficulty of assimilating capsules, the pharmacist can prepare a liquid instead of capsules. A question that often arises is, whether these preparations are safe to use on children of young ages? The answer is, and I must stress it here: - YES!

Children and patients of early age are the typical patients who will benefit the most from this practice. Together with physician, pharmacist can work directly to select even the flavoring agents such as strawberry, orange, apple, etc. to make the drug suitable for young ages.

The pharmacist can also help directly those patients who have chronic pain. For example, some patients with arthritis cannot consume some type of drugs due to gastrointestinal side effects. As prescribed by the physician, pharmacist can substitute these medications with a preparation containing the same anti-inflammatory and analgesic principles that doctor has given.

Another aspect of analyzing the benefits and advantages of compounds over traditional drugs is their cost. Compounds may have various costs (from saltier to almost nothing), but still cheaper than the equivalent manufactured drug.

Compounds were part of health care since the origins of pharmacy and still used today throughout the industry, (nuclear industry drugs to hospital) more than a decade compounds have higher benefits than advanced technology and other methods of quality control. FDA has considered that galenic descriptions are as ethical as legal as they are advised by a certified professional for a particular patient even though they are not approved yet by the FDA.

Benefits

The group of people that would benefit from this are the people with special need on drug taking. The first target group which would be benefited are the pediatric patients. They are still very young and still breastfed in most of the times / the usual drug usage which is allowed and practiced on them is very small as their organisms are young and fragile and cannot support high dosage use of most of the drugs.

Then the sub-group that would benefit from galenic compound are the people who have reaction from the active Principle or excipients. Their prescribed drugs will be customized to their dosage and usage need. As the drugs are being customized and would not include the elements who cause the side effect, then the possibilities for reaction or side effects are reduced to the maximum level. The other subgroup that would directly benefit from these approach are those who suffer from possible reactions to a given medical drug. As the galenic approach adapts and customizes to their needs it eliminates since the preparation all the possible reaction given elements. By implementing this approach the pharmacist finds him/herself much more near of understanding the patient's special need and has deeper knowledge of different elements that are composed in a single drug.

Objections

Through the proceeding of my study I encountered a couple of objections from both articles online as well as my pharmacist friends and colleagues. They arise different points of objection and reserves due to the following reasons:

- Cost of preparation: There are a lot of elements involved in the preparation of the galenical compound where each and every element has its cost.
 - Materials – For some compound some base materials are hard and costly to find
 - Standards – There are a couple of standards to follow for the preparation procedure of the compound.
 - Manpower/Time – These two elements are bond together. It needs both manpower as well as time to prepare galenical compound. For a pharmacy this means either increase of manpower in order to share the duties (execute the receipt – prepare the compound), or reduction of desk time in order to prepare the compounds.
- Awareness: People are more familiar with the brand names, or marketing names. They are informed either from advertisements, marketing campaigns or word of mouth. If we recall the scenarios described previously we find it hard to change mass habit to take drugs from the pharmacy.

Both of these obstacles can be passed. When it comes to the cost of preparations with all its elements the market usually adapts to the demand. When it comes with the materials that are difficult to find, with the increase of the requests the availability will increase. With the fear of keeping up with the standards the government institutions can fix this gap with the various laws and directives that enforces it in the early stages of opening a drug store, with continuous inspections and audits, which would result in achieving high standards. As well as if the way people get the drugs emerge the pharmacists approach will adapt the elements manpower/time to it.

Regarding the awareness, with the right approach from the government institutions, non-profit organizations and even the pharmacists and medical staff, I am sure that the traditional way of getting drugs will shift in no time, and the patients will get their prescript drugs tailored to their specific needs.

Conclusion:

In conclusion we say that pharmaceutical compounds should be conducted again for three reasons:

The pharmacist is closer to the patients with more knowledge about the products. He remains not just a seller but at the same time takes the role of consultants, handlers and then to sell medicine.

Second, pharmaceutical compounds complete the need of a particular part of the patients with specific needs.

Last but not least, in most cases decreases the cost of production for a variety of drugs.

It should be stressed again that these compounds should be under the supervision of a physician who collaborates with the pharmacist, the pharmacist must be certified for their preparation and production laboratories of these products should be under constant supervision that they do comply with the standards of sterility and quality assurance.

Highlights of treatment

1. the role of pharmacist and how does it change from the use of galenic preparations
2. the benefits of using galenic preparations
3. the fields where we use more galenic preparations

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