

IMPORTANCE OF PHARMACEUTICAL PACKAGING

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Annotation: *This article discussed about packaging for some tablets, drugs, medicines and given some important information*

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Each drug sold in a pharmacy today can have a special quality, since any of them can be simultaneously produced by several different manufacturers (pharmaceutical factories) located in several states in different parts of the world. The fact is that every pharmaceutical company has the right to change the formulation of any drug, give it a new name and not explain to the consumer the differences between its product and its counterparts on the market. At the same time, currently widespread textbooks on pharmacology, pharmaceutical and pharmacological reference books, advertising brochures, packaging, markings and labels of medicinal products do not belong to reference sources of information, since they have nothing to do with finished medicinal products (not to be confused with "medicinal products", authors), which have well-defined quality indicators, batch numbers, expiration dates and addresses of manufacturers.

Thanks to this, pharmaceutical companies managed to create an atmosphere of information chaos and confuse the consumer in almost the entire information field of pharmacy. However, in addition to profits for companies, this information mess harms world civilization. The fact is that artificially cultivated pharmaceutical chaos impedes progress in medicine and pharmacy, as it deprives consumers of information about the benefits of the best drugs and about the defects of the worst products. At this stage in the development of pharmacy and pharmacology, a very important role for humanity can be played not by false, but by reference information about drugs.

Moreover, today such information can be carried not so much by reference books and books about medicines as by packaging of medicines.

The fact is that the books are printed far from pharmaceutical factories and contain information about those drugs that were released before the books themselves were published. Therefore, no book can contain information about the quality of drugs released after the publication of the book. At the same time, not a single drug today leaves a pharmaceutical factory without quality control in the laboratory of the Technical Control Department and without packaging in a box indicating the name of the manufacturer, date of manufacture and product batch number. This indicates that, unlike books, the packaging of medicines can carry reference information about a medicine, however, only about one single medicine, and then only one specific batch number and one manufacturer. In other words, the package can be a carrier of reference information about a medicine. However, modern packaging for medicines is still lacking information on the quality of the medicines contained in them.

Moreover, today there is no standard of pharmaceutical information placed on the outer surface of packages. Therefore, modern packaging continues to mislead consumers about what they contain.

40 original carton packs with tablets of various drugs produced by various pharmaceutical factories and 20 original carton packs of paper clips and staples with similar dimensions and shapes were examined. The study group of drug packages included paper packages of tableted non-steroidal, steroidal, antihistamines, hypotensive, sulfanilamide, antibiotic, hypnotic, sedative, expectorant, diuretic, antacid drugs. The studied group of packages included packages of metal and plastic paper clips, as well as packages of metal staples.

Empty packs were examined. When examining the packages, the total area of their outer and inner surfaces, the area of each side of the box, as well as the area occupied by text and digital information about the product were measured.

Statistical processing of the results was carried out using the BIOSTAT program according to the generally accepted method. Our results have shown that the area of the outer and inner surfaces of modern packages is used irrationally. The study of

empty medicine boxes showed that all empty boxes are easily opened and at the same time they instantly turn into a sheet of cardboard paper, no different from a regular sheet of a book cover. This design feature of the packages makes it possible to visualize not only the entire outer, but also the entire inner surface of each package after its full disclosure.

It is shown that the inner surface of all cardboard boxes is absolutely clean and does not contain any information on it. In addition, the results of studying the content of the outer surfaces of the packages showed that it is not used by drug manufacturers as a carrier of reference information about the quality of the drug inside the package. It is shown that from the entire possible spectrum of reference information about a medicine, modern cardboard packages contain information only about the batch number, release date and shelf life of the drug.

It was determined that the size of the surface occupied by this part of the reference information occupies no more than 5% of the area of the entire outer surface of the package. Moreover, on half of the studied packages, this information is presented in a font with printing ink, and on the rest of the packages - in an extruded font without any paint. Therefore, some of the information is read well, and the other part is poor.

In addition, this information (which in its essence refers to reference information) is not placed on any package on the main (front) surface of the boxes. Moreover, it is located on the end or side surface (secondary parts) of the boxes.

It has been shown that the total area occupied by pharmacological and / or pharmaceutical information rarely exceeds half the area of the outer surface of packages. Surprisingly, no modern tablet packaging shows its real content! In particular, no package has a color photograph of actual tablets and / or blister packages on any of its surfaces.

In addition, it was determined that about 50% of the area of the outer surfaces of factory packages (for some manufacturers from 25 to 75% of the area) remain clean and devoid of any text or digital information.

It was also shown that inside modern packages there are not so much medicines as others, namely, plastic mini-packages containing several medicines, as well as a crumpled paper leaflet with information about the medicine (the so-called package leaflet). Most often, blister packs of tablets are inside the packages. Some packages contain 2 or even 3 blister packs of tablet preparations. An insert leaflet is a sheet of thin white paper folded several times with typographic text. This sheet can be easily removed and inserted with great difficulty back into a fully filled package.

In parallel with this, we studied the content of the outer and inner surfaces of modern packages of common office supplies, namely, paper clips and stationery staples intended for staplers. It turned out that empty stationery cardboard boxes are just as easy to open and transform into a sheet of cardboard paper, like boxes of medicine. However, their inner surface was also completely clean. The outer surface of the boxes of office supplies differed from the drug boxes in that on the front (main) side of it there was always an image of the real product inside the box.

Moreover, in almost half of the studied boxes with staples for staplers, the image of real staples occupied more than 60% of the area of the front surface of the package. In addition, the image of paper clips was duplicated and was located on the front and one of the sides of the boxes. In addition, the outer surface of the packages of staples and staples carried textual information about the quality of the products. This information indicated the size of the staples and staples, the material from which they were made, and the material that covered them.

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