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ANALYSIS OF UKRAINIAN MARKET AND CONSUMER PROPERTIES OF BABY DIAPERS

In this work attention was paid to the analysis of the Ukrainian pharmaceutical market of medical products used in pediatrics, namely children's disposable diapers. The analysis has been carried out on such indices as composition, manufacturer, and determination of demand for this group of goods on social level. Consumer properties have been analyzed by such criteria as efficiency of intended use, practical usefulness, safety and harmlessness, aesthetics which, as a result, will provide health of a baby and, as a consequence will have positive influence on health in general. Also basic classes and groups of disposable baby diapers have been studied.

From the results of pharmaceutical market it has been set that, according the State Register of Medical Products (MP) in Ukraine in production of baby diapers is engaged only private joint stock company «FACTORY» COMBI «. All other products of this category are imported. Leaders among the importers are Russia, Poland, Czech Republic, Germany and Japan. Also on the market are represented diapers produced in Turkey, Germany, Belarus and other countries.

Currently in Ukraine are registered 76 baby diapers. Of them most of the market is occupied by registered trademarks Pampers, Huggies and Libero.

The selected samples have shown overall good results at consumer properties analysis and met all the normative, used in this study. The main lack of the products is insufficient marking quality, which doesn't give complete information about the medical product, particularly its composition.

Key words: medical products, diapers, consumer properties, safety, harmlessness.

STATEMENT OF THE PROBLEM

It is difficult to overestimate the role of diapers in life of a modern family. Caring for a newborn and toddler is a hard work, the quality of which directly affects the health of all members of the family. Without proper supervision a child who can not yet fully meet all his needs, is almost unprotected against any diseases. Therefore it is not surprising that the disposable baby diapers have immediately won the affection of young parents and their use is limited almost exclusively with the family income.

ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

Because of the wide popularity of this group of medical devices, and in view of the fact that these products are in direct contact with the skin of a child, the state must ensure the highest quality and safety of these products, thus investing in maintaining the health of the nation [3, 10, 11]. Caring over a baby diapers are quite irreplaceable.

IDENTIFICATION OF ASPECTS OF THE PROBLEM UNSOLVED PREVIOUSLY

If earlier doctors argued, if their use is harmful or not, over time, consumers have rated by themselves all their advantages and disadvantages, and manufacturers have improved the technology. The range of baby diapers in a trading network is so wide that understanding the variety of models and famous brands is sometimes difficult.

OBJECTIVE STATEMENT OF THE ARTICLE

The aims of the work were the research of assortment of children's disposable diapers on the pharmaceutical market of Ukraine, determination of the leading producing countries, as well as analysis of consumer properties of these medical products.

PRESENTATION OF THE MAIN MATERIAL OF THE RESEARCH MATERIALS AND METHODS

According the data from the State Register of Medical devices and products, the analysis of the Ukrainian pharmaceutical market of children's disposable diapers in composition and manufac-

turer has been carried out. Consumer properties have been studied by such criteria as user-friendliness, efficiency, usefulness, safety and harmlessness, aesthetics, and also packaging and labeling of products.

In this study have been examined basic classes and groups of children disposable diapers.

RESULTS AND DISCUSSION

Disposable diapers for children - a product with cellulose and supersorbent crystals layer intended for single use to absorb and retain child urine.

Depending on the age of children the groups of diapers are divided into (Table). [4].

Table

| Name of diapers group | Child weight range (recommended), kg | Conditional name of diapers group |
|--------------------------------------|--------------------------------------|-----------------------------------|
| For newborns | Up to 5 | «New Baby» |
| For toddlers and preschool children: | | |
| small sizes | Up to 6 | «Mini» |
| medium sizes | Up to 9 | «Midi» |
| large sizes | Up to 20 | «Maxi», «Maxi +» |
| Extra Large sizes | More than 20 | «Junior» |

According to data from the State Register of medical products in Ukraine in production of baby diapers is engaged only private joint stock company «FACTORY» COMBI». All other products of this category are imported. Leaders among the importers are Russia, Poland, Czech Republic, Germany and Japan. Also on the market are represented diapers produced in Turkey, Germany, Belarus and other countries [1].

Currently in Ukraine are registered 76 baby diapers. Of them most of the market is occupied by registered trademarks Pampers, Huggies and Libero (see Fig.). [2, 4]

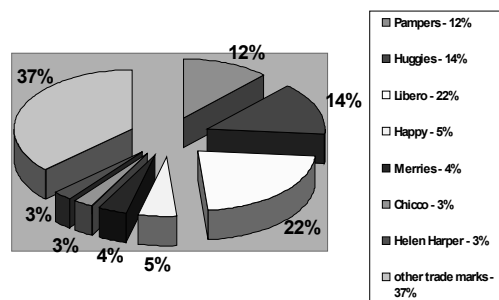


Fig. Structuring of baby disposable diapers by trademarks

Packaging. All diapers are packed in plastic bags, which helps protecting them from excessive moisture. Handles for easy transport are avail-

able in all brands of diapers, except for some lines of Libero (TM) . Packages have special notches for easy opening. In the package of Happy™ contained extra plastic bags for used disposable baby diapers [2, 4].

Marking. On the packaging is indicated symbol of the diaper group, baby weight range, brand, number of items in the package, country of manufacture, name of manufacturer, trade mark and address, features of diapers concerning their technical performance, date (month) of production, warranty period, barcode, indications on utilization “Do not throw down the drain”, terms of use. Widely distributed are the graphic symbols and pictures to explain consumer characteristics, application of products, etc. [1, 4].

All manufacturers put non-advertising information a small print, continuous text without breaking in paragraphs successively in several languages which makes it difficult to read [2].

On Huggies brand diapers is specified composition of balm and briefly the composition of the diaper. In contrast, Happy™ diapers contain no information on the composition at all. Pampers and Libero TMs have indicated on their products only balm composition [2, 8].

Efficiency is one of the main evaluation criterion of goods consumer properties. The main criterion for effectiveness of children’s disposable diapers is the ability to absorb and retain moisture. For this feature are responsible several layers of the diaper. Most high quality diapers consist of six layers. The inner layer that is in direct contact with the skin of the child should be soft and smooth, not to cause irritation during friction, and at the same time conduct moisture and do not let it back from the middle layers. Next is the distribution layer - the most thin layer of the diaper, that absorbs moisture and distributes it evenly across the surface so that it is not accumulated in one place. The absorbing layer keeps moisture due to chemical reaction of the water gelation. It is in this layer where supersorbent contains, polyacrylic polymer with high molecular weight, which has the ability to absorb a 50-fold amount of liquid relative to its mass. [2, 4, 5, 6, 7, 8].

Another important criterion of consumer characteristics is the ease of use. This is especially true for children, because any inconveniences have a great impact on the feel of the child. Except quality of diapers, they should be chosen according to the weight of the child. An important factor are the internal barriers that prevent fluid flow aside of the diaper around the legs. Equally important is the ability of children’s disposable panties to stretch. Most diapers have reusable Velcro, making it pos-

sible, if necessary, reopen a diaper several times [2, 4, 5, 6, 7, 11].

The aesthetic component, safety and harmlessness

Some types of diapers have various children's drawings printed on, which positively affects the child's perception of these products. At that manufacturers do not forget about safety. So, all the pictures are imprinted with paint that is not erased and is safe for children [2, 3]. All children's disposable diapers comply with safety regulations, which is crucial for maintaining the health of a child.

Proceeding from literature, when analyzed for the content of formaldehyde, which should not exceed 0,1 mg/l and other toxic substances all trademarks were in the normal limits [2, 3, 4, 9, 10, 11].

Separately, can be noted the ability of diapers to pass air that should allow the baby's skin to breathe. It is this property that manufacturers of children's disposable diapers make focus at. But unfortunately the study of samples of known brands of diapers it turned out that they pass air about 52 times worse than gauze, fold up of 12 layers [2].

CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

According to the results of pharmaceutical market study in Ukraine in production of baby diapers is engaged only private joint stock company "FACTORY "COMBI". All other products of this category are imported. Leaders among the importers are Russia, Poland, Czech Republic, Germany and Japan.

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The selected samples of products in general have shown good results when conducted analysis of consumer characteristics and meet all the stan-

dards that were used in this study. The main lack of the product is insufficiently qualitative marking that does not give complete information about medical product, particularly about its composition

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АНАЛІЗ УКРАЇНСЬКОГО РИНКУ ТА СПОЖИВЧИХ ВЛАСТИВОСТЕЙ ДИТЯЧИХ ПІДГУЗНИКІВ

В даній роботі приділялась увага аналізу фармацевтичного ринку виробів медичного призначення, що застосовуються у педіатрії, а саме: дитячим одноразовим підгузникам. Аналіз проводився за такими показниками, як: склад, фірма-виробник, визначення потреби виробів даної групи на соціальному рівні. Споживчі властивості досліджувались за такими критеріями, як ефективність використання за призначенням, практична корисність, безпечність та нешкідливість, естетичність, що в результаті забезпечить здоров'я дитини. Також були розглянуті основні класи та групи дитячих одноразових підгузників. За результатами аналізу фармацевтичного ринку встановлено, що за даними Державного реєстру медичної техніки та виробів медичного призначення, на території України виробництвом дитячих підгузників займається лише приватне акціонерне товариство «ФАБРИКА «КОМБИ». Вся інша продукція даної категорії являється імпортованою. Лідерами серед країн-імпортерів є Росія, Польща, Чехія, Німеччина та Японія. Також на ринку представлені підгузники виробництва Турції, Німеччини, Білорусії та інших країн. На даний момент в Україні зареєстровано 76 видів дитячих підгузників, з яких більшу частину ринку займають торгові марки Pampers, Huggies і Libero. Відібрані зразки продукції в цілому показали гарні результати при проведенні аналізу споживчих властивостей і відповідали всім нормам, які використовувались в цьому дослідженні. Головним недоліком представленої продукції є недостатньо якісне маркування, що не дає повної інформації про виріб медичного призначення, зокрема про його склад.

Ключові слова: вироби медичного призначення, підгузники, споживчі властивості, безпечність, нешкідливість.

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Т. В. Дядюн

АНАЛІЗ УКРАЇНСЬКОГО РИНКУ І ПОТРЕБИТЕЛЬСЬКИХ СВОЙСТВ ДИТЯЧИХ ПІДГУЗНИКІВ

В данной работе уделялось внимание анализу фармацевтического рынка изделий медицинского назначения, которые применяются в педиатрии, а именно: детским одноразовым подгузникам. Анализ проводился по таким показателям, как: состав, фирма-производитель, определение потребности изделий данной группы на социальном уровне. Потребительские свойства исследовались по таким критериям, как эффективность использования по назначению, практическая полезность, безопасность и безвредность, эстетичность, обеспечивающие здоровье ребенка. Также были рассмотрены основные классы и группы детских одноразовых подгузников. По результатам анализа фармацевтического рынка установлено, что согласно данным Государственного реестра медицинской техники и изделий медицинского назначения, на территории Украины производством детских подгузников занимается лишь частное акционерное общество «ФАБРИКА «КОМБИ». Вся другая продукция данной категории является импортной. Лидерами среди стран-импортеров являются Россия, Польша, Чехия, Германия и Япония. Также на рынке представлены подгузники производства Турции, Германии, Беларуси и других стран. На данный момент в Украине зарегистрировано 76 видов детских подгузников, из которых большую часть рынка занимают торговые марки Pampers, Huggies и Libero. Отобранные образцы продукции в целом показали хорошие результаты при проведении анализа потребительских свойств и соответствовали всем нормам, используемым в данном исследовании. Главным недостатком представленной продукции является недостаточно качественная маркировка, не дающая полную информацию об изделии медицинского назначения, в частности о его составе.

Ключевые слова: изделия медицинского назначения, подгузники, потребительские свойства, безопасность, безвредность.

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