

STUDY OF CONSUMER PROPERTIES OF PEDIATRIC ORAL DRUGS

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Introduction. Rapid development of pharmaceutical industry during recent years undoubtedly influenced package-producing industry. Today the latter is highly automated manufacturing of modern, attractively designed original packages. Development and introduction of new kinds of materials and technologies allow to implement advanced types of packages which design provides necessary consumer properties: to be convenient in transporting and use, to contain information about medical product, to have attractive appearance, etc.

Aim. The objective of the given paper is study of consumer properties of pediatric oral drugs.

Materials and methods. As materials of the research we use information taken from normative documents, scientific and educational literature, and also Internet sources.

Results and discussion. For packages of medical products applied in pediatrics there should be more strict requirements as well as for materials used in production of containers especially for primary packages and their design because children should get only the best. A child remained out of parents sight can reach a drug by himself and open it. Hence, to reduce danger of child self-poisoning there is a challenge for elaboration of such package types which would complicate availability of a drug to a child.

So, in number of European countries there are new requirements for packages of medical products according to which they should have protective devices preventing their opening by children. Review of patent materials shows that leading countries of the world pay great attention to this question: more than 37 % of overall quantity of patents directed to creation of new containers and packages which prevent their opening by children.

Child poisonings by overdosing of medical products after their administration at home when they are dispensed with tea or table spoon are observed. Thus a dose can exceed nominal one two and more times. Therefore creation of special portioning devices and their wide introduction in practice is an important task. So, auxiliary means (special measuring spoon, measuring reservoir, piston dispenser, etc.) should be structurally simple and accessible to washing, should withstand sterilization by boiling if needed.

Conveniently and simply is always important when it concerns administration

of a drug by a child. And it means that dosage form of a medical product should be adapted for children as much as possible.

Abovementioned requirements can be considered on an example of Nurofen drug for children which is very popular among parents. The drug quickly reduces fever, eliminates pains of various origin and simultaneously it is standard of simplicity in use. It's produced in form of syrup and this means that children can simply swallow it unlike tablets. And, of course, it's sweet and tasty ! Not a treatment but true delicacy as the syrup is manufactured with taste of orange and strawberry. One more advantage – convenient measuring syringe is attached to the package that allows to calculate necessary quantity of the drug precisely. With the help of a dispenser it's also convenient to give the medical product to an infant as any drop will not spill. As though it would be desirable, that all manufacturers of drugs for children in such manner will care of comfort for both child and adult.

Dosing devices should have attractive, not frightening appearance, and an instruction for application (leaflet) of a given medical product should contain all necessary information about calibration and usage of a dispenser that young patients will necessarily appreciate.

One of the most important requirements shown to closure means for pharmaceuticals of pediatric group is control of their dosing and protection against casual opening. Namely this should be a priority direction in development and creation of closure means and new kinds of packages.

It has been developed the device with passive resistance to flow of liquid pediatric dosage forms and also the package of such dosage forms containing single dose.

The Indian government is going to prohibit use of plastic, in particular, PET vials, bottles for packaging of such pediatric pharmaceuticals as syrups and other liquid dosage forms. Such a decision was accepted after introducing recommendations of advisory committee on medical products (DTAB). The authorities consider that plastic, in particular, PET containers used for packaging of pediatric medical products, and also preparations for aged people, women of reproductive age and pregnant ones can be harmful for health of patients.

Conclusions. Proceeding from the aforementioned, it is possible to make a conclusion that, speaking about new tendencies in development of package-producing industry, it is impossible to skip a problem of drugs applied in pediatrics. The given medical products require more serious and attentive approach for proper dispensing, high-quality package and rationally designed marking, because children are the most trustful but also the most exacting patients. Caring of children today we care of our future.