



---

## **Study of modern range and consumer aspects of bandages for pregnant women and postnatal rehabilitation**

Diadiun Tatiana \*, Baranova Inna, Stepanenko Sergiy, Kovalenko Svitlana, Lytovchenko Alina

National University of Pharmacy, Kharkov, Ukraine

---

Received: 28-01-2015 / Revised: 12-02-2015 / Accepted: 27-02-2015

---

### **ABSTRACT**

In this paper, attention has been paid to research of pharmaceutical market of medical products in the form of bandages for pregnant women and postpartum rehabilitation. The study was conducted on such indicators as: composition, manufacturers, determination of the need at social level. Consumer properties have been studied on such criteria as material properties, the effectiveness of the intended use, usefulness, safety and harmlessness, aesthetics, which as a result provide reproductive health of women. The analysis has found that materials for bandages are safe, breathable, absorbent, non-allergenic (except individual intolerance). Underwear designed for expectant mothers can significantly facilitate all functional processes. But it should be considered that underwear for pregnant and postnatal models significantly differ from each other. And their choice should be approached responsibly, with a doctor's consult.

**Keywords:** pregnancy, bandages, consumer aspects, safety, harmlessness, aesthetics, practical usefulness.



### **INTRODUCTION**

During pregnancy and after the birth of a baby for a woman particularly important become comfort and health. The majority of pregnant women want to still look beautiful and attractive. Therefore the aim of our work was to study consumer quality of bandages for pregnant women, carry out commodity analysis of this type of product and determine the importance of using them to ensure a comfortable and safe course of pregnancy. Bandages for pregnant women are medical products which provide abdomen support and correct position of the fetus in the uterus. Their main objective is to maximize the unloading of the spine, especially if a woman has a small height and body weight [1]. Indications for the use of bandages are repeated pregnancy, during which the abdominal wall is stretched faster and stronger, active lifestyle (when the mother-to-be is in an upright position for more than 3 hours per day), weak muscles of the anterior abdominal wall and pelvic floor, back and waist pain during pregnancy, obstetric pathology (scar on the uterus, abortion threat in the second and third trimester, excessive uterine size, multiple fetuses, increased size of the fetus. Using bandages is known to be one of the most effective methods for facilitating the course of

pregnancy and complications avoidance [2,3]. Previously, the use of bandages hasn't been paid as much attention as now. This item of underwear is constantly changes and improves, so the efficiency of its use is combined with comfort. They have its classification by the period of use and design features. Bandages are divided into prenatal, postnatal and combined ones [2]. Each type has its own usage features, shown in (Table.1).

### **MATERIALS AND METHODS**

An analysis of published data on the topic of this paper has been carried out using print and electronic sources. The object of the research was Ukrainian market of bandages for pregnant women and postnatal rehabilitation. Comparative analysis of the products has been conducted using information provided by manufacturers.

### **RESULTS AND DISCUSSIONS**

After analyzing the products of this group on the market of Ukraine, we have determined the range of bandages for pregnant women and postnatal rehabilitation. (Table.2). Thus, it has been found that today's Ukrainian pharmaceutical market is represented with a wide range of bandages for

---

\*Corresponding Author Address: Diadiun Tatiana, PhD, Assistant lecturer at commodity science department, National University of pharmacy, Kharkov, Ukraine; E-mail: [trunovaccommodity@gmail.com](mailto:trunovaccommodity@gmail.com)

pregnant women. They have different features and properties. Popular in Ukraine are bandages of Baltic, Italian and Russian manufacturers. The quality leaders are Germany and England, their bandages differ with balanced combination of medical feasibility, functionality and aesthetics, which is very important for pregnant women. They use a variety of color schemes [4,5].

In the manufacture of bandages use modern fabrics and elastic fibers from mixed, synthetic and natural fibers, modern accessories are also used [6]. The entire range is produced on the latest equipment, with advanced technology and meets quality standards.

An important property of materials for bandages is their safety. There have been cases of allergic reactions to human skin during contact with certain types of materials from synthetic fibers and threads or materials with special chemical treatment. Therefore, in this case, in the composition of the material there should be at least 90% of natural (cotton, silk) or similar hygienic performance fibers (viscose, microfiber). To ensure sufficient elasticity and flexibility is allowed up to 10% of synthetic fibers (lycra, elastane) [7,8].

Circulation in women during pregnancy becomes more intense, and therefore often manifests in increased sweating [9,10], so pregnant women are recommended to use materials with good vapor permeability, high moisture adsorption and moisture conductivity that can quickly absorb moisture and slowly evaporate it. Too fast evaporation of moisture from the material causes intensive cooling, especially in those areas where the material is in close contact with the body surface. This can cause colds. Choosing a bandage for use in the period before and after childbirth one should carefully choose the material of the product. If the composition of the product has a lot of cotton, the material is comfortable and environmental and also non-allergenic. Since the bandage should be elastic, and perform support and fixing role to cotton add such artificial high-tech

materials as: microfiber, nylon, elastane, lycra, polyester [11,12]. Characteristics of the materials used for the manufacture of bandages are extremely important which is why we have analyzed materials used by manufacturers of Ukraine and Germany. (Figures 1 and 2).

As the result of the analysis it has been found that manufacturers in Germany prefer elastane while Ukrainian manufacturers use more latex and polyamide. Also German bandages as opposed to Ukrainian ones contain viscose and cotton content in them is lower. Despite the consumers propensity to foreign goods, domestic bandages are not inferior in composition and have good market prospects.

**CONCLUSIONS**

Therefore, we have analyzed the Ukrainian pharmaceutical market of medical products in the form of bandages on composition, presentation, by the manufacturer. Among the producing countries customers prefer Germany and England, but despite the propensity of consumers to foreign goods, domestic bandages are not inferior in composition and have good market prospects. The range of medical elastic bandages that are on the market has been analyzed. Consumer properties have been analyzed by such criteria as efficiency of intended use, usefulness, safety, and aesthetics. Therefore, during expectation period there is a not easy alteration in a woman's body. Underwear, designed for expectant mothers can significantly facilitate all functional processes. The main focus when choosing a bandage should be stopped the on materials making up the model. Because keen skin sensitivity, its response to changing temperatures - are phenomena typical for pregnancy. The analysis has found that materials for bandages are safe, breathable, absorbent, non-allergenic (except individual intolerance). Also, it should be noted that underwear for pregnant and postnatal models sufficiently differ from each other. And their choice should be approached responsibly, with a doctor's consult.

Table 1 TYPES OF BANDAGES

Prenatal	Postnatal	Combined
It is recommended to use from the 20 weeks of pregnancy till birth of child. The bandage can be worn all day, but a 30-40 minutes break for every 3-4 hours is recommended.	Can be started to wear from the first day after delivery. Usually it is used for 6 weeks, but in some cases this period may be extended to 3 months	Used as prenatal and postnatal bandage.

Table 2 Ukrainian market of bandages for pregnant

Number	Model	Manufacturer	Country	Sizes	Color	Composition
1	Belt -bandage prenatal «Anita»	Anita	Germany	L, X, S	brown black, blue	70% polyamide, 30% elastane
2	Belt -bandage postnatal «Anita»	Anita	Germany	L, M, S, XL, XS	white, black, nude	50% viscose, 25% polyamide, 15% elastane, 10% cotton
3	Bandage postnatal «Anita" 2088	Anita	Germany	1-4	white	40% nylon, 40% cotton, 10% viscose, 5% Polyester 5% elastane
4	Bandage postnatal «Anita»	Anita	Germany	1-4	white, black	70% polyamide, 30% elastane
5	Bandage universal "Mama's House"	Mama's House	Ukraine	S, M, L, X, S	nude	45% polyester, 40% latex, 15% polyamide
6	Bandage postnatal "Mama's House"	Mama's House	Ukraine	S, M, L	nude	45% polyester, 25% latex, 20% cotton, 10% polyamide
7	Bandage universal "Ilifiya" 710	Ilifiya	Ukraine	S-XXL	white, black	75% polyamide, 25% elastane
8.	Bandage prenatal "Ilifiya" 720	Ilifiya	Ukraine	S-XXL	white	75% polyamide, 25% elastane
9	Belt-briefs postnatal "Rita"	Tonus Elast	Latvia	S, M, L	white, nude	70% cotton, 20% latex, 10% polyamide
10	Bandage postnatal «Oppo»	Oppo	USA	S, M, L	white	70% polyamide, 30% elastane
11	Bandage prenatal «Relaxmaternity»	Galze GT s.r.L	Italy	S, M, L, XL	white, black, nude	60% cotton, 32% polyamide, 8% elastane
12	Bandage prenatal TM "STAN"	STAN	Ukraine	M-XXL	white	90% cotton, 10% elastane
13	Belt-band prenatal "Tummy"	Ll-vanna Dilly	Ukraine	S, M, L	white, nude	70% cotton, 20% latex, 20% polyamide
14	Bandage prenatal universal "Aero" with silver thread	Ll-vanna Dilly	Ukraine	S, M, L	white, nude	60% cotton, 15% latex, 15% polyester, 5% polypropylene, 3% polyamide, 2% silver thread
15	Bandage postnatal «MedTexti»	Bionime	Ukraine	S- XXXL	white	Prolen Siltex 70% cotton, 30% latex

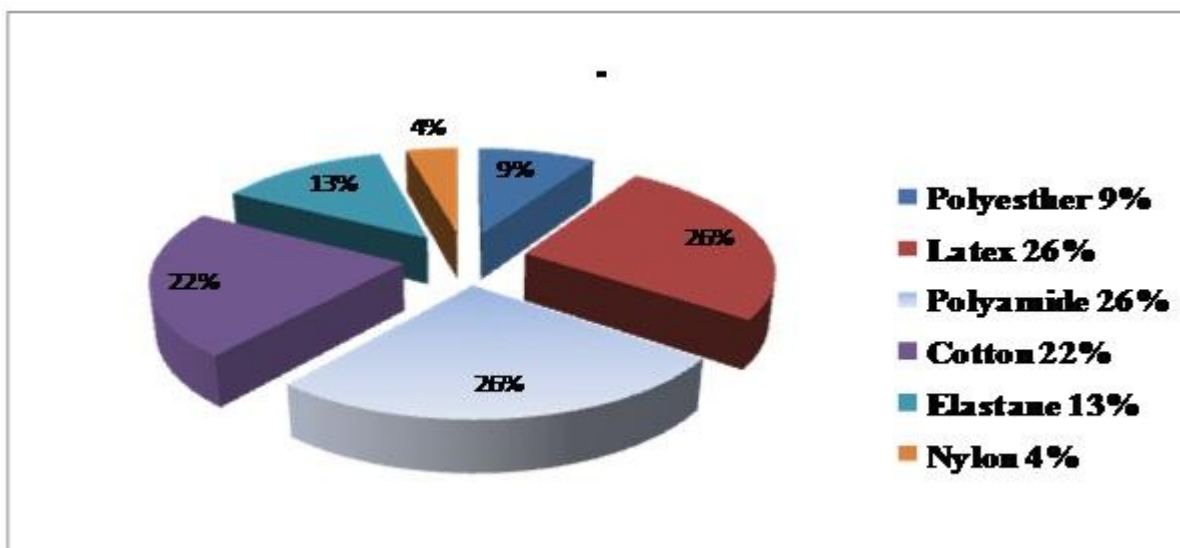


Fig. 1. The percentage of materials used by the manufacturers of Ukraine.

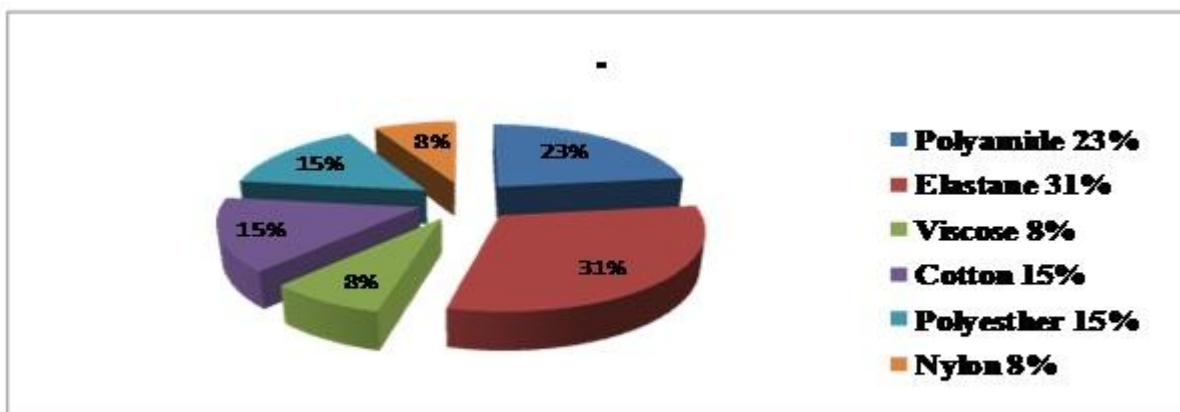


Fig. 2. The percentage of materials used by German manufacturers.

#### References:

1. Trunova T.V [Research of the assortment and evaluation of consumer characteristics of combined oral contraceptives in the pharmaceutical market of Ukraine. News of pharmacy 2013. 3 (75) - P. 59-63. [in Ukrainian]
2. Lytovchenko A.A. et al. In: [Microbial contamination of cosmetics: proceedings of XX international scientific and practical conference of young scientists and students (April 22- 23, 2014). -Kharkov , Ukraine 2014. P. 317. [in Ukrainian]
3. Maluhyna I.V [Development of methods for ergonomic design of mobile uniform and construction of socially-oriented clothing for women, expecting a baby: Thesis ... candidate of technical sciences.- Moscow, 2003.- 209 p . [in Russian]
4. Rohatyuk TN [Development of women size typology for engineering treatment clothing products. Thesis candidate of technical Sciences. Leningrad., 1987. 231p. [in Russian]
5. [Treatment underwear for pregnant - Bandages, types, appointment (electronic resource) – access mode: [http://www.chitamed.ru/pacientam/lechebnoe\\_bele\\_dlya\\_beremennyh\\_bandazhi\\_raznovidnosti\\_naznachenie](http://www.chitamed.ru/pacientam/lechebnoe_bele_dlya_beremennyh_bandazhi_raznovidnosti_naznachenie) [in Russian]
6. [What for is a bandage at pregnancy (electronic resource) - Access: <http://cardio-baby.ru/news/95-dlya-chego-nuzhen-bandazh-vo-vremya-beremennosti> [in Russian]
7. [Bandages and underwear for pregnant (electronic resource) - Access: [http://www.mamochka.kz/article.php?article\\_id=344](http://www.mamochka.kz/article.php?article_id=344) [in Russian]
8. Tikhomirov AL [Therapy of habitual miscarriage of pregnancy Pharmaceutical Bulletin 2006 №1.[electronic resource]: <http://www.pharmvestnik.ru> . [in Russian]
9. Chandraharan E, Arulkuma S.. Acute abdomen and abdominal pain in pregnancy, Obstetrics, Gynaecology & Reproductive Medicine. 2008, 18(8): 205-212
10. Davis DC.. The Discomforts of Pregnancy. Journal of Obstetric, Gynecologic & Neonatal Nursing. 1996, 25(1): 73-81
11. Vermani E, Mittal Rajnish & Weeks A.. Pelvic Girdle Pain and Low Back Pain in Pregnancy: A Review. Pain Practice. 2010, 10(1): 60–71
12. Chow D.H., et al. Effectiveness of maternity support belts in reducing low back pain during pregnancy; A review; Journal of clinical nursing, 2009, 18 (11), 1523-1532