S.K. ZHETEROVA, R.M. BLATOV

Kazakh National Medical University named after S.D. Asfendiyarov

MARKETING ANALYSIS OF TRANSDERMAL THERAPEUTIC SYSTEMS IN THE REPUBLIC OF KAZAKHSTAN.

This article provides an overview of transdermal therapeutic systems applied in Kazakhstan and the main data about market TTS - the volume and dynamics, based on the reports of IMS Health.

Keywords: transdermal therapeutic systems, IMS Health reports

Transdermal delivery represents an attractive alternative to oral delivery of drugs and is poised to provide an alternative to hypodermic injection too [1-5].

The first transdermal therapeutic system (TTS) was approved in USA in 1979 [5]. The name of this drug was Scopoderm with international nonproprietary name Scopolamine. Scopolamine indicated For the prevention of symptoms of motion sickness such as nausea, vomiting and vertigo [5,6]. After 3 decades already appeared more than 35 TTS in the world, and more than 55 medicines are at the different stage of development [7]. At 2015 regarding PharmaLive report the market worldwide volume will be increase till 31,5 billion dollars [7-9]. According this assumptions in coming years will be positive dynamic of introduction new TTS to the world pharmaceutical market. Most likely this trend will continue in Kazakhstan, because in 2005, there were registered only two TTS, and in 2012 are presented 8 TTS with different trade names [7,10].

In this review represented market volume of TTS in value and in units and analysis of current situation. According to reports from IMS Health in Kazakhstan from 2005 to 2012, were sales 7 TTS - Climara, Deponit 10, Evra, Ketotop, Diclofenac, Olfen, Matrifen [11]. These drugs are used in hormone replacement therapy to prevent angina, strokes and heart attacks, as painkillers for injuries, cancer diseases [12]. Based on these data, the sales volume of TTS in wholesale prices in Kazakhstan in 2005 amounted to about 78 thousand dollars, and in 2012, sales totaled 545 thousand dollars [11]. On the chart № 1 can follow dynamics of sales till 2012, and in the table № 1 market growth presented in percent. The compound annual growth rate (CAGR) from 2006 to 2012 amounted + 197% in terms of money [13]. More detailed analysis of the data showed that the main driver of sales growth up to 2008 was the medicine Evra. The market share of this drug in 2008 was 95% of all sold TTC. Market growth in 2011-2012 were provided by sales of transdermal non-steroidal antiinflammatory drugs (NSAIDs) - Ketotop, Diclofenac, Olfen. In 2012 their market share was over 92% [13]. TTS with NSAIDs were registered in the Republic of Kazakhstan in the period from late 2009 to middle 2011[10].

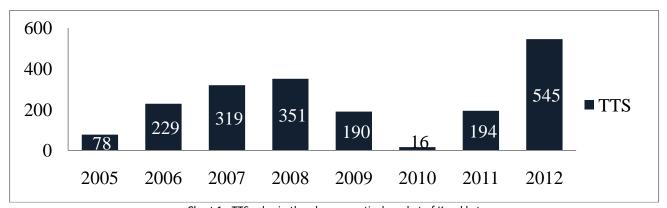


Chart 1 - TTS sales in the pharmaceutical market of Kazakhstan (thousands dollars) [11]

Table 1 - Total market volume of TTS in value and growth in 2005-2012 [11,13]

	2005	2006	2007	2008	2009	2010	2011	2012
Total market TTS, in thousands USD	78	229	319	351	190	16	194	545
Market growth in value, %		195%	40%	10%	-46%	-91%	1095%	180%

Turning to an analysis of the market in packs, it should be noted that in 2009 and especially in 2010 there was some decrease in TTS sales, which may be due to several reasons, one of which regulatory problems and thus absence product on the market, other likely cause - errors in the report of IMS.

The market volume in natural terms is growing, like growing market in value terms. TTS sales in packs in Kazakhstan in 2005 amounted 7 680 units, whereas in 2012, sales reached 45 000 units [11].

On the chart № 2 can follow the dynamics of sales in units by 2012, and in the table № 2 growth in percent [11,13]. The compound annual growth rate (CAGR) from 2006 to 2012 amounted + 242% in natural terms [13].

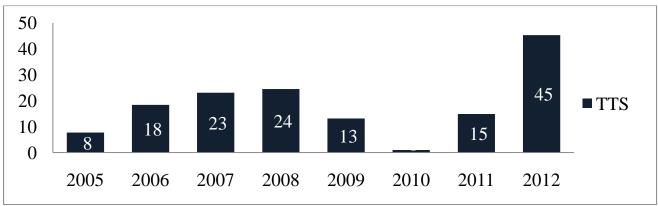


Chart 2 - TTS sales in the pharmaceutical market of Kazakhstan (thousands packs) [11]

Table 2 - Total market volume of TTS in units and growth in 2005-2012 [11,13].

	2005	2006	2007	2008	2009	2010	2011	2012
Total market TTS, in thousands units	8	18	23	24	13	1	15	45
Market growth in units, %		139%	26%	6%	-46%	-93%	1453%	205%

Conclusion.

Sales analysis of TTS in Kazakhstan showed steady growth dynamics, especially in recent years. The market volume in 2012 compared to 2005 increased by more than 600% in value and by 490% in natural terms [13].

This review about transdermal therapeutic systems applied in our country and their sales says that the development of TTS in Kazakhstan relatively new, but very promising direction with great potential of growth.

REFERENCES

- 1 Guy, RH.; Hadgraft, J., editors. New York: Marcel Dekker, 2003. Transdermal Drug Delivery.
- 2 Williams, A. London: Pharmaceutical Press, 2003. Transdermal and Topical Drug Delivery.
- 3 Prausnitz MR, Mitragotri S, Langer R. Current status and future potential of transdermal drug delivery. Nat Rev Drug Discov. 2004. 3. P.115–124. [PubMed: 15040576]
- 4 Bronaugh, RL.; Maibach, Hl., editors. Vol. Edn. 4th.. New York: Marcel Dekker, 2005. Percutaneous Absorption.
- 5 Transdermal drug delivery, Mark R. Prausnitz, Robert Langer; Nat Biotechnol. 2008. 26(11). P. 1261–1268.
- 6 Summary of Product Characteristics (SmPC) Scopoderm TTS
- 7 Трансдермальные лекарственные формы и их место в фармацевтическом секторе; Сакипова 3.Б., Жетерова С. К., Блатов Р. М.; Научно-практический журнал Вестник КазНМУ, Выпуск № 2, 2013.{Transdermal therapeutic systems and their place in the pharmaceutical sector; Z.B. Sakipova, S.K. Zheterova, R.M. Blatov; Scientific-Practical Journal of Medicine, "Vestnik KazNMU", Edition 2, 2013.}
- 8 Transdermal Delivery Market Predicted to Reach \$31.5 Billion by 2015: PharmaLive Special Report
- 9 The Top 40 Transdermal Drug Delivery Technology Companies Worldwide, http://www.researchandmarkets.com
- 10 Государственный реестр лекарственных средств РК, 2012, www.dari.kz
- 11 IMS Health Kazakhstan reports. 2005 2012
- 12 Summary of Product Characteristics (SmPC) Climara, Deponit 10, Evra, Ketotop, Diclofenac, Olfen, Matrifen
- 13 Analysis and calculations of IMS Health Kazakhstan reports. 2005 2012.

С. К. ЖЕТЕРОВА, Р. М. БЛАТОВ

ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДАҒЫ ТРАНСДЕРМАЛДЫ ТЕРАПИЯЛЫҚ ЖҮЙЕНІ МАРКЕТИНГТІК ТАЛДАУ

Түйін: Осы мақалада Қазақстанда қолданылатын трансдермалды терапиялық жүйеге шолу жасалды және IMS Health компаниясының есептерінің негізінде ТТЖ даму нарығының негізгі ерекшеліктері – көлемі және динамикасы ұсынылған. **Кілт сөздер:** трансдермалды терапиялық жүйе, IMS Health есептер

С. К. ЖЕТЕРОВА, Р.М. БЛАТОВ

МАРКЕТИНГОВЫЙ АНАЛИЗ ТРАНСДЕРМАЛЬНЫХ ТЕРАПЕВТИЧЕСКИХ СИСТЕМ В РЕСПУБЛИКЕ КАЗАХСТАН

Резюме: В данной статье представлен обзор трансдермальных терапевтических систем, применяющихся в Казахстане и основные особенности развития рынка ТТС - объем и динамика, на основании отчетов IMS Health. **Ключевые слова:** трансдермальные терапевтические системы, отчёты IMS Health