

Analysis of sales of antifungal drugs in the market of Uzbekistan
Aslanova Y.¹, Saipova D.² (Republic of Uzbekistan)
Анализ продажи антимикотических лекарственных средств
на рынке Республики Узбекистан
Асланова Ю. Г.¹, Саипова Д. Т.² (Республика Узбекистан)

¹Асланова Юлдуз Гуломовна / Aslanova Yulduz – магистрант;

²Саипова Дильфуза Тулқуновна / Saipova Dilfuza – кандидат фармацевтических наук, доцент,
кафедра организации фармацевтического дела,
фармацевтический факультет,
Ташкентский фармацевтический институт, г. Ташкент

Abstract: the article analyzes the sales performance of antifungal drugs and identified drugs making a leading share in the period of 2013-2015.

Аннотация: в статье проведен анализ показателей продаж противогрибковых лекарственных препаратов и выявлены препараты, составляющие лидирующие доли за период 2013-2015 гг.

Keywords: analysis, mycosis, antifungals, market share.

Ключевые слова: анализ, микозы, антимикотики, доля рынка.

In connection with the trend towards the growth and spread of fungal diseases (both surface and heavy visceral fungal infections associated with HIV infection, hematologic malignancies), the development of resistance of pathogens to existing medicines (drugs), the identification of fungal species previously considered to be nonpathogenic, increased need for effective anti-fungal agents. Taking into account the importance and significance of antifungals in the pharmacotherapy of skin diseases, it is of particular interest to analyze the tactical antifungals market indicators in Uzbekistan, in order to identify areas to improve it. The study was conducted based on the analysis of indicators proposed for the antifungals market approved for use in the Republic of Uzbekistan [1]. At this data of the information system Drug Audit was used, study period - 2012-2015.

For carrying out analysis was processed data of imported and produced in the country antifungals. Next, an inventory, which is subsequently, divided into subgroups of antimycotics, on the basis of their use and dosage forms for the purpose of comparative evaluation. At the same time were formed five sub-groups:

- solid dosage forms;
- topically applied formulations;
- rectal dosage forms;
- liquid dosage forms;
- aerosols.

At the same time were analyzed indices of commodity supply of antimycotics in monetary terms (in USD). The results of this analysis are presented in Table 1.

In view of the fact that in each subgroup there are drugs manufactured in various packages, dosages for the comparison of their monetary indicators previously were calculated their conversion factors, and then determined the market share of each preparation of total supply of antifungals. Table 1 shows a selection - the top 10 drugs, indicators of those are sorted according to descending in 2015.

Table 1
Share ratio of commodity supply of antifungals

№	Name of Medicines	2013		2014		2015	
		Amount (in thousand USD)	Market share, %	Amount (in thousand USD)	Market share, %	Amount (in thousand USD)	Market share, %
I.	solid dosage forms						
1	Erbinol tablets 250 mg № 14	127,2	1,89	78,94	0,77	218,68	2,47
2	Dermasol tablets 200 mg № 10	26,27	0,39	55,26	0,54	77,82	0,88
3	Binafin tablets 250 mg № 14	32,26	0,48	-	-	66,69	0,75
4	Terbisil tablets 250 mg № 14	48,8	0,72	73,9	0,72	33,12	0,37

5	Terbicide tablets 250 mg № 14	-	-	29,1	0,28	28,1	0,32
6	Lamisil tablets 250 mg № 14	83,97	1,25	24,36	0,24	15	0,17
7	Terbisil tablets 250 mg № 28	147,8	2,20	46,64	0,46	13,14	0,15
8	Navelbin capsules 20 mg № 1	-	-	30	0,29	9	0,10
9	Terbinafin-KB tablets 250 mg № 14	-	-	-	-	8,77	0,10
10	Griseofulvin tablets 0,125 g № 40	1,56	0,02	12,31	0,12	8,44	0,10
I.	Topically applied formulations						
1	Dexeril cream 250 g	1386,1	20,59	2403,79	23,49	326,58	3,69
2	Tridox cream 15 g	227,95	3,39	549,39	5,37	309,64	3,50
3	Dermasol cream 2 % 15 g	117,64	1,75	219,98	2,15	310,45	3,50
4	Dermasol cream 2 % 30 g	89,42	1,33	300	2,93	304,35	3,44
5	Terfalin cream 1 % 15 g	94,95	1,41	481,76	4,71	291,76	3,29
6	Mycoseptin ointment 30 g	304,74	4,53	748,91	7,32	283,75	3,20
7	Nystatin ointment 100000 I.U. 15 g	140,8	2,09	216,76	2,12	207,65	2,34
8	Erbinol cream 1 % 20 g	148,29	2,20	146,53	1,43	143,61	1,62
9	Terbisil cream 1 % 15 g	147,26	2,19	218,77	2,14	109,03	1,23
10	Klotrimazol ointment tube 1 % 25 g	-	-	26,08	0,25	102,71	1,16
I.	Rectal formulations						
1	Metromycon-Heo vag. supp. № 14	120,94	1,80	281,75	2,75	238,22	2,69
2	Metromycon vag. supp. № 10	55,75	0,83	122,37	1,20	96,17	1,09
6	Nystatin 500000 I.U. vag. supp. № 10	152,94	2,27	43,84	0,43	76,76	0,87
7	Nystatin 250000 I.U. vag. supp. № 10	74,77	1,11	24,86	0,24	53,74	0,61
3	Myconazol vag. supp. 0,1 mg № 7	3,18	0,05	2,76	0,03	14,5	0,16
4	Mycotran vag. supp. 1,2 g № 1	10,9	0,16	9,038	0,09	4,75	0,05
5	Isokonazol-M supp. vag. 600 mg № 1	-	-	-	-	0,56	0,01
8	Nystatin 250000 I.U. rect. supp. № 10	6,21	0,09	-	-	-	-
9	Nystatin 500000 I.U. rect. sypp. № 10	-	-	3,65	0,04	-	-
7.	Liquid dosage forms						
1	Exoderil p-p 10 ml	-	-	319,92	3,13	4075,65	46,01
2	Mycoster s-n 1 % 30 ml	78,84	1,17	51,21	0,50	109,62	1,24
3	Dermasol shampoo 100 ml	66,69	0,99	289,09	2,83	108,67	1,23
4	Nevelbin conc. vial. 10 mg/1 ml № 10	84,4	1,25	94,8	0,93	80	0,90
5	Dermasol shampoo 50 ml	71,53	1,06	116,92	1,14	51,74	0,58
6	Klotrimazol s-n 1 % 15 ml	55,62	0,83	40,25	0,39	33,45	0,38
7	Nisoral shampoo 60 ml	39,51	0,59	33,54	0,33	31,32	0,35
8	Klotrimazol 1 % s-n 30 ml	-	-	-	-	16,6	0,19

9	Mycoster s-n 8 % 3 ml	11,66	0,17	29,09	0,28	1,96	0,02
10	Candide s-n 1 % 15 ml	-	-	36,53	0,36	-	-
Aerosols							
1	Erbinol Spray 20 m 1 %	29,11	0,43	61,5	0,60	62,59	0,71
2	Terfalin Spray 1 % 30 g	34,11	0,51	172,97	1,69	37,41	0,42
3	Fungoterbin Spray 1 % 30 ml	8,86	0,13	-	-	2,95	0,03

It was found that among the drugs of the first subgroup (solid dosage forms) in 2013, the highest percentage (2.20 %) is determined from the drug Terbisil tablets 250 mg № 28. Thus, for 2014 and 2015 leading share (0.77 % and 2.47 %, respectively) was determined in Erbinol tablets 250 mg № 14.

When analyzing the performance of the second subgroup of drugs leading position was detected in drug Dexeril cream 250 g, the market share of which for the study period amounted - 20.59 %, 23.49 % and 3.69 %. Strong positions were revealed in drug Tridox cream 15 g, market shares of which for 2013-2015 years amounted to - 3.39 %, 5.37 % and 3.50 %.

The third sub-group of drugs, which is represented on the rectal dosage forms includes nine products, the analysis of commercial supply of which revealed the following results. In 2013 the leading position belonged to drug Nystatin 500,000 I.U. vag. supp. № 10 - 2,27 %. Since 2014 drug Metromikon Neo-supp. vag. № 14 goes to basic position with a share of 2.75 %, and in 2015 this drug has the leading share of - 2.69 %.

Based on the analysis of indicators of the fourth sub-group of drugs it was determined that in 2013 the leading position belonged to drug Mikoster solution of 1 ml of 30 % - 1.17 %. Since 2014 drug Exoderil solution 10 ml goes to basic position with a share of 3.13 %, and in 2015 this drug increases its leading share - 46.01 %.

Antifungal drugs in the form of aerosols entered the fifth subgroup. In the analysis of their performance should be noted that since 2013-2014 to the market with a relatively satisfactory position went domestic drug Terfalin Spray 1 % 30 g, the market share of which amounted to 0.51 % and 1.69, respectively, competing with foreign producers. In 2015 a leadership position takes Erbinol spray 20ml 1 % with 0.71 % market share.

Thus, we analyzed the sales indicators of antifungal drugs and identified drugs making a leading share in the period of 2013-2015 on the basis of which it is recommended to diversify the range of domestic antifungal drugs [2].

References

1. Saipova D. T., Aslanova Ju. G. Antimikotik dori vositalari assortimentining kontent taxlili // Ўzbekiston farmaceutik habarnomasi. 2015, № 4. S. 45-49.
2. Saipova D. T., Aslanova Ju. G. Antimikotik dori vositalari assortimentining diversifikacijasini // Farmaceutika zhurnali. 2015, № 4. S. 16-24.