Marketing Research of Antiviral Drugs at the Pharmacy

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Abstract
The article presents the results of the research detecting the most popular drugs for the treatment of influenza infection conducted in the Moscow retail pharmacy from November 2017 to February 2018. Drugs were analyzed on the basis of the data obtained through logical, sociological, situational, and statistical analysis. According to the data obtained, the most selling drugs for the specific and symptomatic therapy for acute respiratory viral infections can be drugs with little or no advertising support at all.
Key words: ABC analysis, advertising, drugs, marketing research, over-the-counter drugs.

INTRODUCTION

Viral diseases are caused by infection that penetrates into a weakened organism, causing an acute or slow form of the disease, followed by a decrease in immunity and high temperature, which contributes to the development of pathogenic microorganisms [1].

The main components of therapy for influenza infection are antiviral medications (specific treatment) and medications for symptomatic treatment (nonspecific treatment) of acute respiratory viral infections [2, 3].

The authors conducted a research to identify drugs cations most commonly purchased by the population for specific and symptomatic therapy in acute respiratory viral infections. The research was conducted in a retail pharmacy for the period independent of the influenza epidemic from November 2017 to February 2018. The research was conducted through the accounting for over-the-counter drugs for treatment of acute respiratory viral infections sold to the population.

METHODS

Logical, sociological, situational, and statistical analysis was used in the research.

RESULTS AND DISCUSSION

The first stage of the research included the accounting of drug packages sold to the population for the treatment of acute respiratory viral infections by months (Table 1).

The data obtained from Table 1 indicate that 329 packages for specific treatment for a total of 132,274 rubles and 478 packages for nonspecific treatment for a total of 43,251 rubles were sold over the given period.

As such, the total profit for 4 months from the group of drugs under study amounted to 248,832 rubles.

The ABC analysis was used to identify the most commonly used drugs for the treatment of acute respiratory viral infections (Table 2).

Table 1. Sales of drugs for the therapy of acute respiratory viral infections

Drug therapy	Drugs name	Number of packages sold in November 2017, pcs.	Number of packages sold in December 2017, pcs.	Number of packages sold in January 2018, pcs.	Number of packages sold in February 2018, pcs.	Total packages, pcs.	Average price per package, rub
Symptomatic	Coldrex pills No. 12	4	1	0	1	6	181.0
	Coldrex hotrem powder No. 5	2	10	4	2	18	175.0
	Coldrex hotrem powder No. 10	2	1	1	1	5	292.0
	Teraflu lemon powder No. 4	31	49	31	12	123	198.0
	Teraflu powder No. 10	11	19	10	9	49	381.0
	Fervex powder sugar-free sachet No. 8	1	4	0	0	5	367.0
	Fervex sugar powder sachet No. 8	2	2	3	2	9	372.0
	Rinza pills No. 10	18	23	21	8	70	128.0
	Rinzasip with vitamin C powder 5g No. 10	2	6	1	0	9	301.0
	Oscillococcinum homeopathic granules 1 g No. 6	3	1	6	4	14	341.0
	Oscillococcinum homeopathic granules 1 g No. 12	1	3	1	0	5	660.0
	Grippferon nasal drops 10,000ME 10 ml	5	11	12	5	33	237.0
	Ergoferon pills No. 20	31	33	34	14	112	269.0
	Anaferon pills No. 20	6	11	3	0	20	189.0
Specific	Tamiflu capsules 75 mg No. 10	3	1	2	0	6	1,231.0
	Kagocel pills 12 mg No. 10	23	86	77	39	225	228.0
	Arbidol capsules 100 mg No. 20	2	5	2	3	12	443.0
	Arbidol maximum capsules 200 mg No. 10	6	3	0	0	9	456.0
	Anaferon pills No. 20	6	11	3	0	20	189.0
	Amixin coated pills 125 mg No. 6	4	4	4	0	12	558.0
	Ingavirin capsules 90 mg No. 7	29	33	37	29	128	449.0

Table 2. Results of the ABC analysis of drugs for treatment of acute respiratory viral infections during the period under study (* – medications for specific treatment)

Drug name	Amount, rub.	Share, %	Cumulative %	ABC
Ingavirin capsules 90 mg No. 7*	57,472	23	23	A (80%)
Kagocel pills 12 mg No. 10*	51,300	20.6	43.6	
Ergoferon pills No. 20	30,128	12.1	55.7	
Teraflu lemon powder No. 4	24,354	9.8	65.5	
Teraflu powder No. 10	18,795	7.6	73.1	
Rinza pills No. 10	9,642	4	77.1	
Grippferon nasal drops 10,000ME 10 ml	8,229	3.3	80.4	B (15%)
Tamiflu capsules 75 mg No. 10*	7,386	3	83.4	
Amixin pills 125 mg No. 6*	6,696	3	86.4	
Arbidol capsules 100 mg No. 20*	5,316	2.1	88.5	
Oscillococcinum granules 1 g No. 6	4,742	1.9	90.4	
Arbidol maximum capsules 200 mg No. 10*	4,104	1.6	92	
Anaferon pills No. 20	3,780	1.5	93.5	
Fervex sugar powder sachet No. 8	3,348	1.3	94.8	
Oscillococcinum homeopathic granules 1 g No. 12	3,300	1.3	96.1	C (5%)
Coldrex hotrem powder lemon No. 5	3,150	1.2	97.3	
Rinzasip with vitamin C powder lemon 5g No. 10	2,709	1.1	98.4	
Fervex powder sugar-free sachet No. 8	1,835	0.7	99.1	
Coldrex hotrem powder No. 10	1,460	0.5	99.6	
Coldrex pills No. 12	1,086	0.4	100	

Table 3. Comparative analysis of drugs by price, features in use, and the number in a package

Drugs to compare	Features in use	Amount of drug required for the course of treatment, pack.	Amount of drug sold over the period under study, pack.	Cost per 1 package of drug, rub.
Combined drug for symptomatic therapy				
Coldrex pills No. 12		4	6	181
Rinza pills No. 10		2	70	139
Combined drug for symptomatic therapy				
Fervex powder sugar-free sachet No. 8	Medication contains no sugar and can be used by patients with diabetes mellitus.	2	5	367
Fervex sugar powder sachet No. 8	If the medication is taken by patients suffering from diabetes mellitus or on a diet with a low sugar content, it must be taken into account that each sachet contains 11.5g of sugar.	2	7	372
Homeopathic drug				
Oscillococcinum homeopathic granules 1 g No. 6		2	14	340
Oscillococcinum homeopathic granules 1 g No. 12		2	5	660

As a result of the ABC analysis, three of the most popular drugs were Ingavirin capsules 90 mg No. 7 and Kagocel pills 12 mg No. 10 for specific treatment, and Ergoferon lozenges No. 20 for nonspecific treatment. This is due to the fact that Ingavirin is more convenient to use, as only one capsule is taken per day. Kagocel has long been on the market, and buyers have commitment to this brand. Ergoferon can be used for children and adults and has almost no side effects.

Based on the results of the ABC analysis, a comparative analysis of some drugs by price, features in use, and the number of granules in a package was carried out (Table 3).

As follows from Table 3, the course of treatment with Coldrex requires twice more packages than Rinza, which is unprofitable for the buyer. In this regard, based on the ABC analysis, Coldrex is included in category "C", and Rinza is included in category "A". At the same time, it must be noted that Coldrex sales are accompanied by powerful advertising support. Fervex sugar-free powder is included in group "C", while Fervex sugar powder is included in group "B"; it must be noted that not all patients understand the difference between them without consulting a pharmacist. Oscillococcinum homeopathic granules 1 g No. 6 is included in group "B", and Oscillococcinum homeopathic granules 1 g No. 12 is included in group "C". One course of use requires only 6 pieces, but if two people in the family are ill, it is more profitable to buy the package No. 12, although patients cannot always figure out the financial benefit from purchasing a larger package.

CONCLUSION

All drugs, except for Tamiflu, had advertising support over the period under study, which undoubtedly had effect on their sales. But according to this research, drug advertising is not always efficient. Most patients cannot independently assess the risks of side effects of the advertised drugs and take their features in use into account, which necessitates a competent consultation with a pharmacist. In this regard, drug with little advertising support can become drug of choice for the treatment of acute respiratory viral infections.

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