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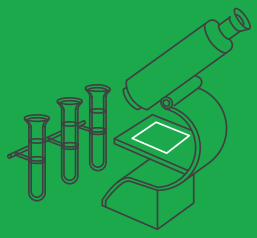
Russian pharmaceutical market

2016

English edition



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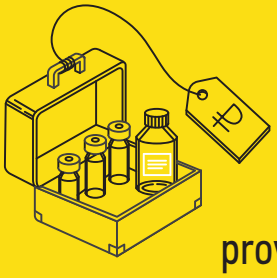

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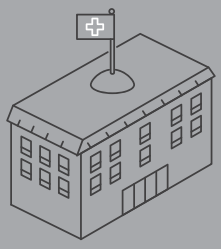

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Analytical Report
RUSSIAN Pharmaceutical Market
Results of 2016

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Summary

The main result of 2016 in the pharmaceutical market was the result that the pharmaceutical market showed in the post-crisis conditions (GDP stagnation, decrease in real disposable incomes of the population, decrease in retail trade turnover, etc.).

In 2016, the volume of the Russian pharmaceutical market reached 1,344 billion rubles, which is 7% higher than the previous year. In 2016, the volume of drug sales in physical terms remained at the level of 2015 and amounted to 5.1 billion packages. Stabilization of consumption in packages can be considered as a critical trend - in the last three years the pharmaceutical market has only declined in this indicator.

The main contribution to market growth was made by the commercial segment of drugs. The dynamics of the retail market took a positive trend in packages, and growth in rubles was mainly due to OTC drugs. An important trend of the modern market is the transition to generics, the share of which grows on the background of a decrease in the share of original drugs in value and in physical terms.

Another trend of 2016 is the higher dynamics of sales of domestic drugs. The share of Russian drugs in the market by the end of 2016 was 29% in money and 61% in packages. It should be noted that the share of imported drugs is declining, while domestic drugs increase their share in the market. The processes of import substitution became more effective in the state segment. This was facilitated by the adoption of the Decree on the restriction of public procurement of imported drugs («Two is a company, three is none»). But the change in the ratio of domestic and imported drugs is still slow. Thus, the top places in the manufacturer's ranking belong to the foreign companies: Sanofi, Novartis, Bayer.

For the distribution and pharmacy chain, the main trend of 2016 was the growing concentration.

The segment of Russian pharmaceutical distribution in the last few years has changed a lot. Over the past two years, 3 large companies of the TOP-20 ceased to exist. The largest Russian distributors occupied the free spaces, thus the share of TOP-3 companies increased from 45% to 56%. At the same time, the competition among the top three leaders increased. In 2016, distributor "Protek" returned to the first position with 21.5%. Distributor «Katren» occupied the second line with a share of 21.2%. Distributor «Pulse» closes the TOP-3 of 2016, in recent years, it has grown by an average of 40%.

Consolidation of pharmacy chains has become a key trend in 2016. Moreover, consolidation is achieved not only through the merger and absorption of some pharmacy chains by others, but also by uniting companies in various alliances and associations. As a result, such structures act as a single organization when working with the manufacturer. The Association of Independent Pharmacies «ASNA» achieved the best results in uniting pharmacies and pharmacy chains with 7.8%

of the market and representing 4,215 sales points. Among the «traditional» networks, the pharmacy chain «36.6» has the largest share (4.7%).

Changes in the pharmaceutical market not only affected the composition and performance of the distribution chain, but also the legal field. Thus, for example, a single market of drugs and medical devices, which will be freely available in the territories of the EEU member-states has been launched. In 2016 the institute of GMP-inspectors was launched in full force. Moreover, inspections were carried out not only at domestic, but also at the foreign manufacturing sites. The regulatory framework for the introduction of an automatic system for monitoring the movement of medicinal products («marking») has been developed. In 2016, the issue of legalizing the distance trade of the DP was actively discussed.

Of course, this is only a small part of the «projects» that will impact the future Russian pharmaceutical market. In the short term, the financial and economic situation in the country will remain the main factor affecting the pharmaceutical market. In 2017, the growth of the market as a whole will be about 9% in rubles.

1. Pharmaceutical Market Volume in Russia

2016 was rich in significant events for the pharmaceutical market. Some of them have a long history, while other innovations were only announced that year.

A single market of medicines and medical devices with free circulation in the territories of the EEU member-states was created. One of the main issues that prevented the final signing of the package of documents was the question of interchangeability. Russia insisted on the need for interchangeability procedures during the registration of medicines. As a result, interchangeability was not included into the main document regulating the entire single market, but a separate regulation was established according to which the procedure was left at the national level. Of course, this is only the beginning. The Ministry of Healthcare expects that it will take at least three years to bring all the documentation into line with the requirements and rules of the EEU.

In 2016, the institute of GMP inspectors started operating at full capacity, and inspections of domestic as well as foreign manufacturing sites were carried out. However it is almost impossible to inspect about 2,500 foreign manufacturing sites in a year (from April to December about 190 inspections were conducted). Therefore, it was necessary to solve the problem of the consistency of the current laws with present day conditions. According to the Federal Law FZ-61 dated January 1, 2016, during the registration of a medicinal product the manufacturer must provide a GMP certificate issued by the Ministry of Industry and Trade of the Russian Federation, and from 2017 a certificate is also required when making changes to the registration dossier. Both provisions could create a situation where a particular medicine would not have entered the market or left it. The Ministry of Industry and Trade worked on this problem during the year, and amendments to FZ-61 permitting simultaneous submission of documents for registration and inspection, and for registered drugs granting a 3-year delay of inspection, were made.

Meanwhile the drug labeling project is a «novelty» of 2016. However, back in 2015, the government was instructed to ensure the development and gradual introduction of an automatic system for monitoring of the circulation of medicinal products from the manufacturer to the end user using labeling (codification) and identification of packages. The monitoring system should ensure effective quality control of circulating drugs, and during 2016 the regulatory framework was developed and the mechanism for introducing the system to the pharmaceutical market was discussed.

The priority project «Introduction of an automatic system for monitoring of movement of medicinal products from the manufacturer to the end user to protect the public from counterfeit medicines and promptly remove counterfeit and inferior drugs from circulation» was developed and approved. This project is valid from October 25, 2016 to March 1, 2019 and consists of two stages:

- First stage (from January 1 to December 31, 2017) – conducting experiment on labeling of medicinal products on a

voluntary basis for a limited range of products;
- Second stage (from January 1 to December 31, 2018) – introduction of obligatory labeling of all medicinal products.

The experiment involved Moscow, Moscow oblast, St. Petersburg, Nizhny Novgorod oblast, Novgorod oblast, Belgorod oblast. In 2017 the labeling will apply to medicines for people with hemophilia, cystic fibrosis, pituitary dwarfism, Gaucher disease, malignant neoplasms of lymphoid, hematopoietic and related tissues, multiple sclerosis, and persons after organ and/or tissue transplantation. Thus, the pilot project will cover over 60 names of medicines, including 10 trade names of drugs for treatment of high-cost nosologies, and over 30 trade names of drugs from the VED list.

While some projects are developed and implemented, the initiatives related to additional state funding are not so lucky. The Ministry of Healthcare was due to launch a pilot project on drug insurance in 2013. But the period of its introduction is constantly postponed. At the moment the launch is planned in 2019. But without solving certain issues (introducing a system of personalized registration of insured persons and identifying sources of funding), a transition to drug insurance is impossible.

Also, the issue of pricing for cheap medicines, the share of which is decreasing each year, remains unsolved. Manufacturers insist on rejection of price regulation. The state, of course, wants to retain control over pricing. Therefore, in 2016, a program was provided for supporting domestic manufacturers of the drugs of lower price segment (up to 50 rubles) by granting subsidies to finance part of the costs associated with the production of VED. But since this plan involves the search of sources of such support, there were alternative proposals and the question of determining «cheap» drugs. It was suggested to lower the limit to 30 rubles and enable manufacturers to re-register prices if it is proved that the manufacturing of cheap drugs is associated with significant costs. It's worth noting that the share of such drugs is 3% in value terms, but about 35% in natural terms. As a result, it was decided to «leave it at that» for at least 2017.

"Also, the issue of pricing for cheap medicines, the share of which is decreasing each year, remains unsolved."

The sales permit for over-the-counter drugs outside the pharmacies was discussed. Discussions of the access to the over-the-counter drugs in the stores has been hold since 2012. In 2016, discussion of this legislative initiative disappeared from the information space. But the food retailers keep thinking about the pharmacy market. X5 Retail Group already has a rich experience of cooperation with pharmacy chains which includes the pharmacies in the cashier zone of their stores and in the trading halls of supermarkets in the shop-in-shop format. Meanwhile the retail network «Magnit» plans to develop a pharmacy chain.

Internet may become another competitor of pharmacies: in 2016, the issue of legalizing the distance trade of medicines was actively discussed. The Ministry of Healthcare of Russia has developed a draft resolution of the Government of the Russian Federation «On the procedure for remote retail trade of medicinal products for human use and medicinal products for veterinary use (with the exception of narcotic drugs and psychotropic medications) and on amending

certain acts of the Government of the Russian Federation on remote retail trade of medicinal products».

But the way out of the crisis, and the results that the pharmaceutical market showed in 2016 are the most important for the pharmaceutical market.

Recently the pharmaceutical market in Russia has grown on average by 10-12% in ruble terms. In 2016, for the first time a double-digit growth was not observed: the market volume was 1,344 billion rubles, which is 7% higher than in 2015. At the same time, the ongoing devaluation of the ruble has led to the decline in the volume of the market in dollars and euros during the past 3 years. The most noticeable decline was noted in 2015, when the ruble exchange rate against foreign currencies dropped significantly.

Chart 2 shows the dynamics of the volume of pharmaceutical market in Russia in 2015-2016 by segments.

In physical terms, consumption of medicines has been declining since 2012. During this period, the market capacity indicators in packages returned to the level of 2007. However, it is worth noting that this dynamics is associated with the decrease in the sales of cheap, so-called «traditional» drugs that cost less than 50 rubles for a package and the transition of the consumer to more effective drugs. Also, the share of more «economical» packages, that is, packages with a large number of tablets, has recently increased. In terms of this parameter, the dynamics improved by 2-3 percentage points. In 2016, the market drop in packages stopped, and consumption remained at the level of 2015.

The state share (the volume of the market provided with budget money: preferential medical supplies and hospital purchases) accounts for about 29% of the drug market (taking into account the parapharmaceuticals the share is slightly lower, 24.5%). In 2016, the share of public expenditure in the consumption of medicines declined significantly. In 2015, it was 30.4%. At the same time, the government's policy in the field of public medical assistance remains stable, and social articles do not decrease. In 2016, the amount spent for purchasing drugs remained at the level of 2015. At the same time, there was a significant reduction in the number of packages due to a decrease in purchases of such brands as «Sodium Chloride», «Cefotaxime», «Glucose», etc.

The commercial segment of drugs is the driver of the development of the pharmaceutical market, which for many years occupies a significant share and shows positive dynamics. In 2016, 4,122 million packages of drugs worth 806 billion rubles (in retail prices of pharmacies) were sold through the pharmacy network. This is 8.8% higher than in 2015 in value terms and 3.4% in physical terms. The growth of the commercial market depends on seasonal factors and the presence of a buying spree of antiviral and anti-cold drugs. In 2016, an increased demand for this group of drugs was observed at the end of the year, which allowed the market to enter a positive growth zone. Recent inflation has been the main driver for increasing the capacity of the market. It is worth noting that in 2016, the growth in drug prices slowed down and amounted to only 5% (whereas before the prices grew by 12-14%).

Market Expressed in Numbers

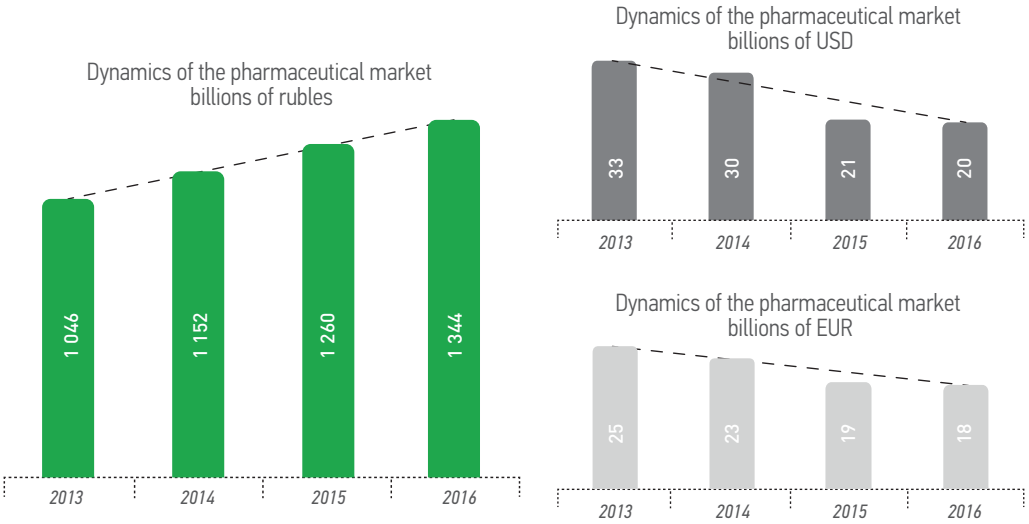
In 2016, the share of original drugs was 36% in value terms and 13% in real terms. However, relative to 2015, the share continues to decline in both parameters. Thus, the consumer switches to generic drugs, mostly branded generics.

The share of imported drugs in the overall market in the end of 2016 was 71% in money and 39% in packages. It should be noted that the share of imported drugs is declining, while domestic medicines increase their share in the market. "Import substitution" mainly started working in the segment of state procurement. In the commercial segment the results of the program are less visible, and are more related to the switching of the consumer to generic drugs.

The structure of the drug market by type of dispensing is fairly stable. About 62% in monetary terms account for prescription drugs. But due to the lower price OTC drugs prevail in the number packages, and their share is 58%. Note that the main sales volume of OTC drugs is provided through pharmacies (about 97% in rubles from the volume of OTC drugs). In the state segment, mainly the RX drugs are sold - they occupy over 96% of the volume of consumption in the tender purchases.

Chart 1

Dynamics of the Pharmaceutical Market



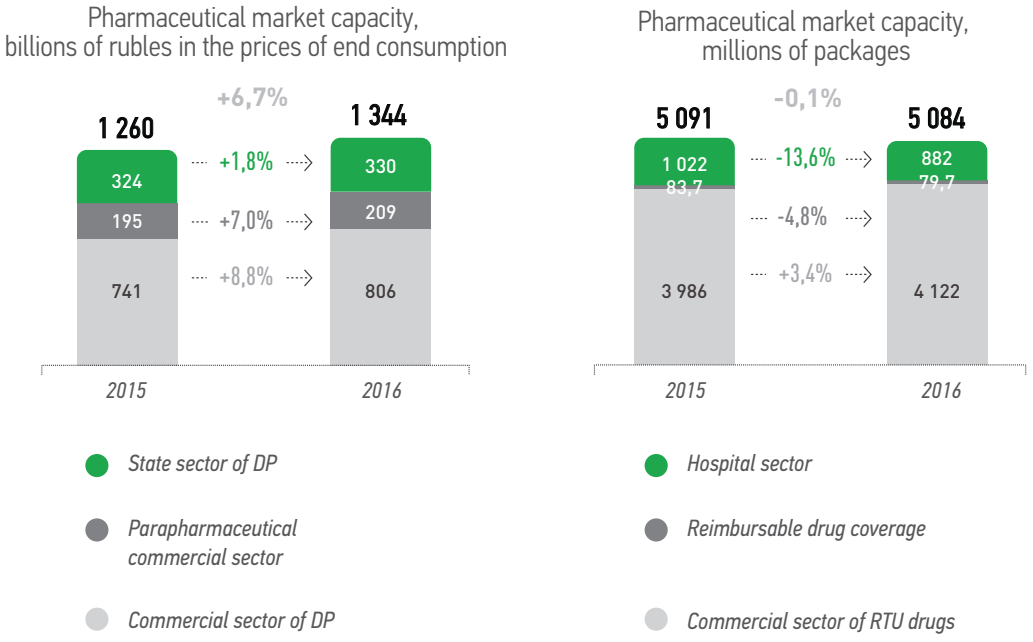


Chart 2

Pharmaceutical Market Capacity

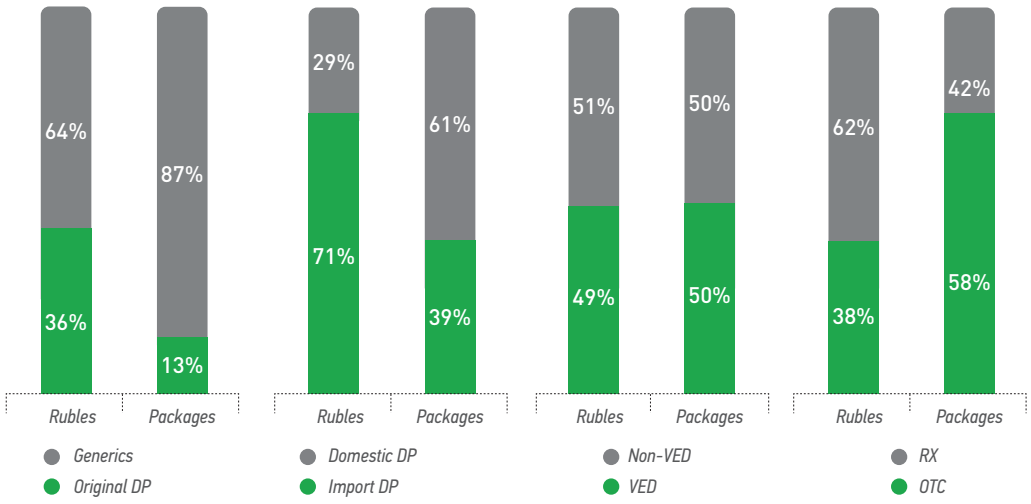


Chart 3

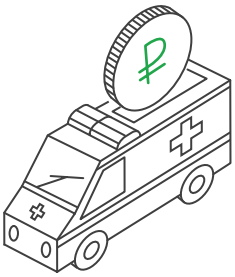
Market Structure in Various Sections, 2016

Table 1

Sales Structure of RTU drugs by ATC groups, 2016

First Level ATC-groups	Group share in sales value, %	Group share in real sale volume, %
A: Alimentary tract and metabolism	15.8%	15.3%
J: Antibacterials for systemic use	13.6%	11,1%
L: Antineoplastic and immunomodulating agents	10.6%	1.4%
N: Nervous system drugs	10.1%	15.1%
R: Respiratory system drugs	9.8%	12.8%
C: Cardiovascular system drugs	9.7%	10.6%
B: Agents affecting blood and blood forming organs	7.3%	8.4%
M: Musculoskeletal system drugs	6.0%	6,2%
G: Genitourinary system drugs and sex hormones	5.6%	1.8%
D: Dermatologicals	4.7%	10.1%
Without ATC	2.2%	3,4%
S: Agents affecting sensory organs	2.1%	2.1%
V: Various	1.4%	0.6%
H: Systemic hormonal preparations (excluding sex hormones)	0.8%	0.7%
P: Antiparasitic products, insecticides and repellents	0.2%	0.4%

2. Commercial Segment of Drug Products (DP)



The main intrigue in the pharmaceutical market during all the months was the question of the increase in the drug pharmacy segment. How the crisis affected the consumption of DP, what new trends were noted in 2016 and the main mystery: will the sales of DP continue to decrease in physical terms and will we see the market fall in ruble terms for the first time? Now we can say that everything ended up relatively well.

In 2016, 4,122 million drug packages worth 611 billion rubles were sold through the pharmacy network (in the purchase prices of the pharmacies). This is by 8.8% higher than in 2015 in value terms and by 3.4% higher in physical terms. Pharmacy sales of DP have stabilized. The market entered a positive zone, both in rubles, and in packages. Of course, it is worth noting that the increase in pharmacy sales of DP in packages was expectable, since «there was nowhere to fall». Over the past three years, pharmacy sales in physical terms declined by an average of 3%; as a result, the volume decreased from 4.5 billion packages in 2012 to just under 4 billion packages.

The 4th quarter saved the market. At the beginning of the year, in addition to external factors (worsening of social and economic indicators and decrease in the purchasing power of the population), the dynamics was affected by internal factors. Thus, the absence of a spike in sales of seasonal drugs for treatment of cold and viral diseases in February-March 2016 led to the negative trend in the market over this period. At the same time, in 2015 the sales of this group of drugs in pharmacies were high.

Since May 2016, drug sales in pharmacies have shown positive dynamics in rubles and a relatively small (within 1-2%) drop in packages. Since August, sales volume began to grow not only in value terms, but also in physical terms relative to the period of the last year. This was mainly due to the early start of sales of anti-cold and antiviral drugs, which, incidentally, was not observed at the end of 2015.

The Ministry of Healthcare periodically turns its attention to one or another group of drugs, thereby sometimes severely affecting their sales. In 2016 the focus was again on alcohol-containing preparations. Some time ago restrictions were imposed on the volume of the container in which alcohol-containing drugs can be dispensed. First of all, it concerned various tinctures (for example, tinctures of hawthorn, motherwort, calendula or valerian). In 2016, within further combat against «pharmacy alcoholism,» it was even suggested that such preparations are considered prescription drugs. As a result,

» The market entered a positive zone, both in rubles, and in packages. Of course, it is worth noting that the increase in pharmacy sales of DP in packages was expectable, since «there was nowhere to fall». «

doctors would have to give an additional 100 million prescriptions a year (just so many tinctures are sold through the pharmacy network), or pharmacies would lose 1.5 billion rubles. As a result, officials abandoned the idea of selling alcohol-containing medicines on prescriptions. But now they suggest prohibiting pharmacies selling more than two bottles of alcohol-containing drugs to one buyer.

Homeopathic drugs were also not so lucky. Scientists have considered homeopathy a pseudoscience. This is the conclusion of the memorandum «On the Pseudoscientificity of Homeopathy» published by the Anti-Pseudoscience Commission of the Presidium of the Russian Academy of Sciences (RAS). After the publication of the memorandum, the Ministry of Healthcare suggested setting up a working group to decide the future fate of homeopathy. So far, no further steps have been taken, but the sales of homeopathic medicines are declining: in 2016 they fell by 5% in rubles and by 11% in packages.

Meanwhile the increase in the volume of drug sales with INN Meldonium was promoted by the attention of the WADA Anti-Doping Agency (recall that from January 1, 2016, Meldonium was on the WADA List of Prohibited Substances). Drugs sold through the pharmacy network in 2016 cost 1.3 billion rubles (in the purchase prices of the pharmacies), which is 172% more than the year before. The leader in this group of drugs is Mildronate (Grindex), it accounts for 92% of the volume of INN Meldonium.

1. Proportion of Sales of Imported and Domestic RTU Drugs on Commercial Retail Market

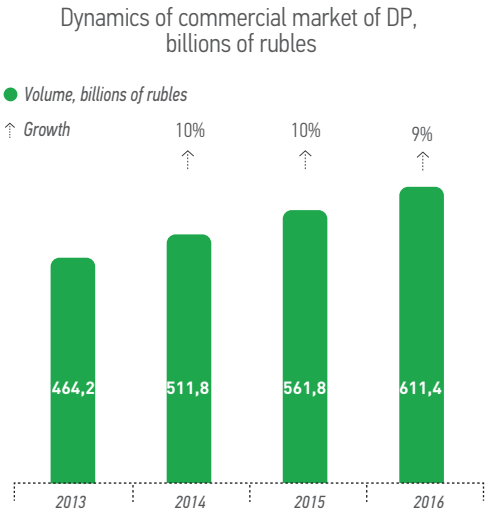
The structure of commercial market of RTU drugs by the sales volume of imported and domestic drugs is presented on Figure 1.

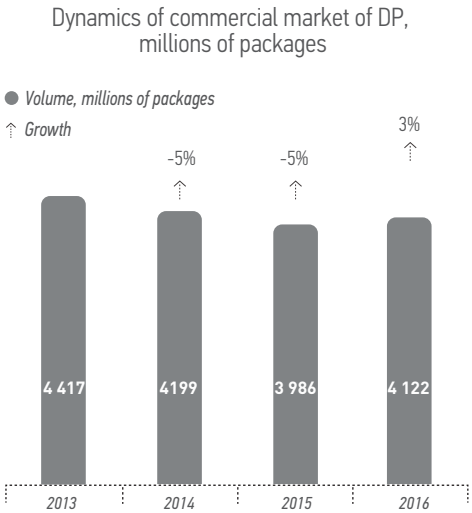
The domestic drugs traditionally cover about one fourth of the Russian commercial RTU drug market in value terms. In 2016, Russian drugs accounted for 27.3% of the market, for the first time significantly exceeding 25%. At the same time, Russian drugs predominate in pharmacy sales in physical terms - 57.4%. Note that in 2016 the share of domestic drugs increased by 2.1% in rubles, and by 0.6% in packages. This happened due to the increase in sales of such popular and relatively expensive domestic brands as «Ingavirin» (+ 68.8%

Figure 4

Dynamics of Commercial Sales of DP

Note: sales volume is in purchase prices of the pharmacies with VAT.





to the value volume and 69.5% to the physical volume), Miramistin (+ 27.2% and 23.5%, respectively), Kagocel (+ 16.8% in rubles and 15.1% in packages) etc.

In 2016, the growth in sales of the domestic drugs was significantly higher than the growth in sales of the imported drugs in sales value: +18.1% for domestics RTU drugs, +5.7% for imported RTU drugs. In physical terms the sales of domestic drugs increased by 4.4%, while the growth of imported drugs was only 2.1%.

Average price of the package of domestic drug in 2016 was 71 ruble, which is more than 3.5 times less than the price of the package of imported drug. In 2016 the average price of the foreign package was 253 rubles.

2. Proportion of Sales of RX and OTC-drugs on Commercial Retail Market

Proportion of Rx and OTC-drugs by pharmacy sales is shown in Figure 2.
According to the results of 2016, sales of both Rx and OTC-drugs increased in retail commercial drug market in monetary terms. Usually, the sales of prescription drugs are growing faster than the sales of OTC drugs. In 2016, the opposite trend was observed: the sales of OTC drugs in rubles increased by 10.8%, while the sales of Rx drugs increased by 6.7%. In physical terms the consumption of both prescription and non-prescription drugs also increased: by + 2.5% for the OTC-drugs and by + 5.5% for Rx-drugs. The share of OTC-drug products in rubles was 52.2%; in units share of OTC-drug products was also higher (69.1%).
It should be noted that in 2016, the average price of Rx drugs was 230 rubles, whereas the average price of OTC-drug products was 2 times lower, 112 rubles per unit.

3. Sales Structure of RTU Drugs on Retail Commercial Market by ATC Groups

The ratio of pharmacy sales of DPs according to level I ATC groups in Russia is presented in Table 1.
The rating of ATC groups by value in comparison with 2015 has changed insignificantly (the changes concern the improvement of the position of the ATC group [J] - «Antibacterials for systemic use»). In 2016, the drugs from the ATC group

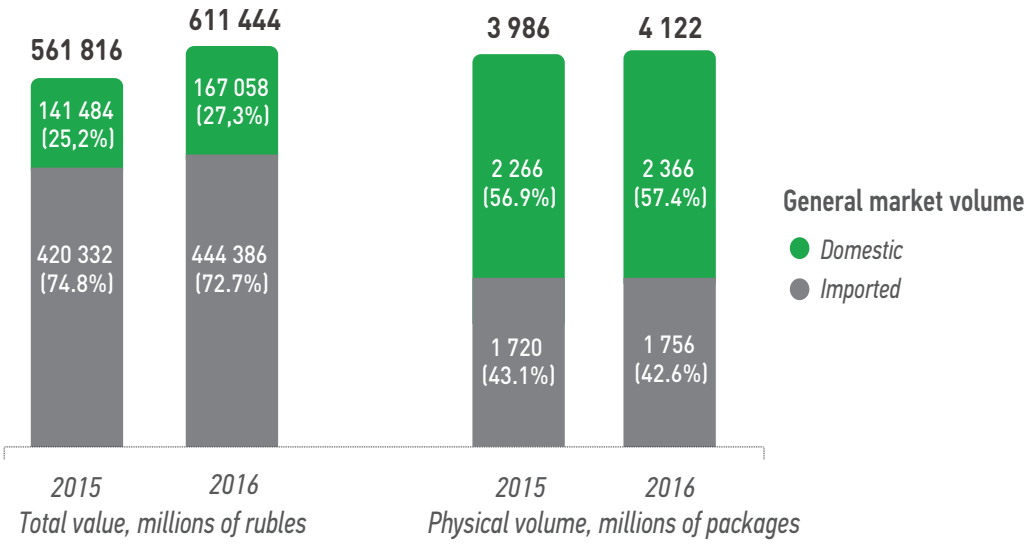


Figure 5

The Ratio of Sales Volume of Imported and Domestic DPs in the Retail Commercial Market of Russia

Note: sales volume is in purchase prices of the pharmacies with VAT.

[A]: «Alimentary tract and metabolism « (19%), retained the leading position as in previous periods. Compared to 2015, this group shows sales growth in money terms by 7.2%. The number of packages sold in this segment shows a less significant sales growth of 3.2%. Thus, we can conclude that the sales growth in rubles observed in this group is due to the increase of sales in physical terms, and the increase in average prices of the drugs.

About 17% of ATC-group [A] sales value is represented by subgroup [A11] "Vitamins". "Milgamma" occupies the first place in group [A11] by the sales volume with share of 11.6% in rubles. MAGNE and VITRUM are on the 2nd and 3rd places with shares of 11.1% and 9.8%, respectively. Low-cost mainly domestic drug product ASCORBIC ACID is the leader by the number of sold units (almost 18.6% of sales [A11]).

Antidiarrheal drug products [A07] occupy the first place by the physical volume in group [A] representing 23% of all group sales.

Group [J]: «Antibacterials for systemic use « in 2016 moved from place 6 to place 5. The fact that this group showed the highest sales growth among all ATC groups played a significant role in strengthening its positions (+ 21% to the level of sales in 2015).

The largest share of the sales value in group [J] belongs to the subgroup [J05] «Antiviral drugs for systemic use» (48% of the sales volume in group [J]). The leader of the subgroup is «Ingavirin», which accounts for about 19.8% of the sales value in 2016.

ATC Group [M]: «Musculoskeletal system drugs», ceding the fifth line in the rating to the group [J], showed a 5.4% increase in sales by 2015, but this did not help it to retain its positions.

The subgroup [M01] «Anti-inflammatory and antirheumatic drugs» is leading in group [M] with 59% of the total value. At the same time, the main sales volume in the subgroup is represented by the brands «Nurofen» and «Nise». Pharmacy sales of Nurofen grew by 7.3% during the year. The brand «Nise» showed a slight decrease in sales (-0.6%) compared to 2015.

The structure of the commercial market by ATC groups remains rather stable from year to year. The increase in the capacity and the average cost of a unit in ATC-group is shown in Figure 3.

According to the results of 2016, all ATC-groups showed an increase in sales value. In addition to the already mentioned ATC group [J], a significant increase of 11% in money terms was observed for the drugs of group [D]: «Dermatologicals» (due to the

Figure 6

Proportion of Sales of Rx and OTC-drugs on Commercial Retail Market

Note: sales volume in purchase prices of the pharmacies with VAT.

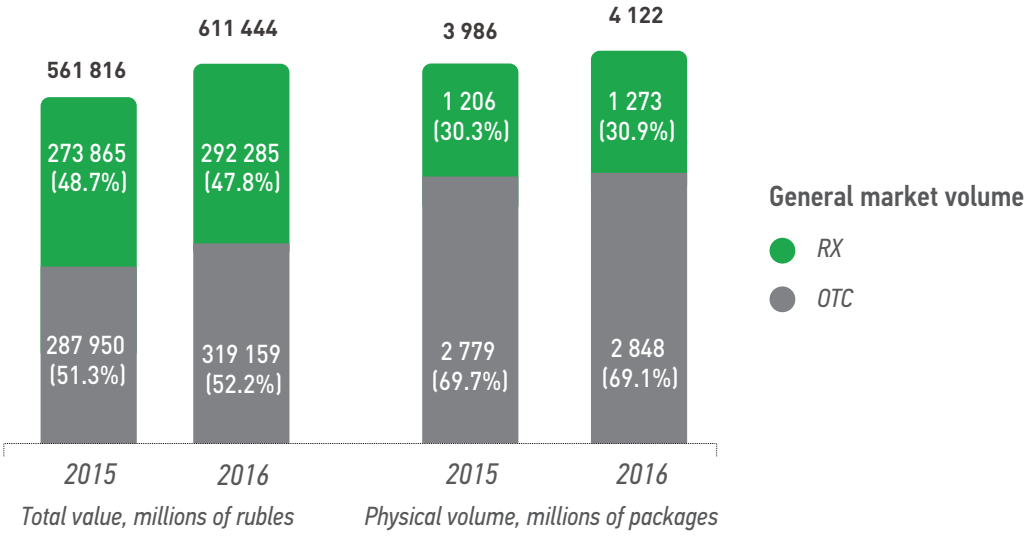


Table 2

Sales Structure of RTU drugs on Retail Commercial Market by ATC-groups

First Level ATC-groups	Sales value, mln rub.	Group share in sales value, %	First Level ATC-groups	Group share in real sale volume. %
[A]: Alimentary tract and metabolism	115 956	18.96%	695	16.87%
[C]: Cardiovascular system drugs	78 479	12.83%	469	11.37%
[R]: Respiratory system drugs	76 290	12.48%	616	14.95%
[N]: Nervous system drugs	68 717	11.24%	674	16.34%
[J]: Antibacterials for systemic use	54 018	8.83%	308	7.48%
[M]: Musculoskeletal system drugs	47 442	7.76%	292	7.07%
[G]: Genitourinary system drugs and sex hormones	46 872	7.67%	85	2.06%
[D]: Dermatologicals	38 435	6.29%	464	11.25%
[B]: Agents affecting blood and blood forming organs	24 880	4.07%	124	3.01%
[L]: Antineoplastic and immunomodulating agents	19 273	3.15%	58	1.40%
Without ATC	16 764	2.74%	172	4.17%
[S]: Agents affecting sensory organs	16 358	2.68%	103	2.51%
[V]: Various	3 252	0.53%	22	0.54%
[H]: Systemic hormonal preparations (excluding sex hormones)	3 067	0.50%	21	0.50%
[P]: Antiparasitic products, insecticides and repellents	1 639	0.27%	20	0.47%

Note: sales volume is in purchase prices of the pharmacies with VAT.

increase in sales volume of «Furacilin», «Fenistil», «Miramistin», etc.). In physical terms, increase in consumption was observed almost in all the groups. The reduction in pharmacy sales was recorded only in DPs of group [N]: «Nervous system drugs « (-2.7%) and «Without ATC» (-8.1%).

The maximal value of the weighted average package in 2016 was 553 rubles for the drugs of group [G]: «Genitourinary system drugs and sex hormones». Such a high price is explained by the fact that the unit cost of some of RTU drugs in this group reaches 10 thousand rubles and over. Also, the high price of the weighted average package is noted in the groups [L]: «Antineoplastic and immunomodulating agents» - about 335 rubles, [B]: «Agents affecting blood and blood forming organs» - about 201 rubles.
The contribution of various ATC groups to the total growth of the commercial market was estimated using a weighted average growth, an indicator that takes into account the share of the ATC group multiplied by the rate of its growth (Figure 4).

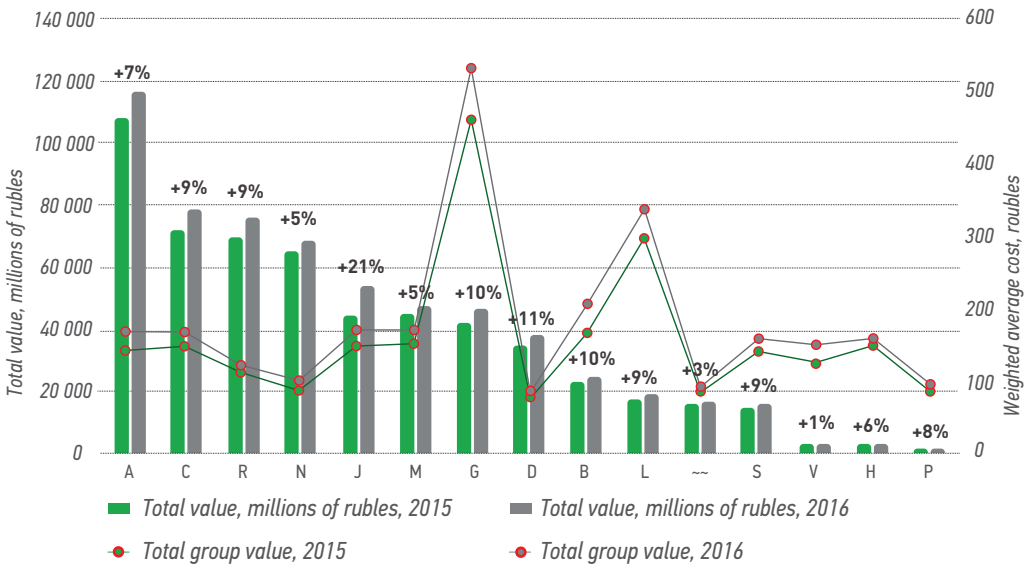
The largest contribution to the increase in the value of the commercial market of DP in 2016 was made by the groups [J]: «Antibacterials for systemic use», [A]: «Alimentary tract and metabolism» and [C]: «Cardiovascular system drugs», representing the total of 4.4% or about 50% of the market in general.

4. RTU Drugs Manufacturers on Retail Commercial Market

Table 2 shows TOP-20 manufacturing companies leading by the sales volume on Russian commercial market in 2016.
In 2016, over 1,200 companies were presented on the Russian pharmaceutical market. Totally, TOP-20 manufacturers cover 54.2% of RTU drug sales volume. Compared to 2015, the total share of the TOP-20 has decreased by 0.9%.
Due to a significant increase in sales in 2016, Bayer was able to rise to the leading position in the rating with a ruble share of 4.7%. Bayer's portfolio is quite large (78 brands sold in the commercial market). The maximum sales volume of the company is represented by the drug Xarelto - its share in the company's sales in 2016 was 8.7% in monetary terms, and during the year the sales increased by 48.2%, which was the largest increase in sales among key drugs. The brand «Supradin" occupies the second

Figure 7

Structure of Commercial RTU Drug Market in 2015-2016



place due to the increase in the volume of sales: +28.4% to the level of sales in 2015. In physical terms, such famous brands as «Aspirin», «Rennie», «Bepanthen» are leading in sales volume. These three positions account for over 30% of the sold packages, which is twice the total share of these drugs in the company's sales value.

Sanofi, which dropped to the second position in the rating, lost only 0.3% of the share in rubles to the new leader. The company's sales volume in 2016 decreased by 1.2% compared to the previous year. In the company's portfolio, the range of key drugs is quite large. Thus, the leading «Essentiale» by the results of 2016 represents 15.5% of the total sales volume of Sanofi, while the share of «Lozap» and «Magne», occupying the second and third lines, was 11.5% and 8.1%.

The third place is occupied by Novartis, a manufacturer with a share of 4.3%. The increase in sales of the company according to the results of 2016 was positive (+ 2.3%). A number of key products of the company also showed the increase in sales: Linex (+ 8.6% vs the level of sales in 2015), ACC (+13.4%), Amoxiclav (+6.6%). «Broncho-Munal» showed the most notable growth among the most popular products of the company (+60.9%). But it is also worth noting that Novartis portfolio also had a «falling» group of drugs: Exoderil (10.3% vs. 2015), Quinax (-19.9%), Persen (-12.4%), and others.

According to the results of 2016, the following companies improved their positions in the TOP-20 of the manufacturers in the commercial drug market: domestic OTCPharm (pharmacy sales of drugs increased by 28.2% due to stable growth of demand for such DPs as Arbidol, Amixin, Aphobazol, etc.); Stada (which added slightly more than 17% to the level of sales in 2015 due to increased sales of a number of brands, in particular, «Snup», «Lavomax» and «Chondroxide»). KRKA and Astellas managed to rise by one position in the ranking. In addition domestic company Valenta moved from the 20th place to the 16th due to the increase in sales of the company's medicines by more than 34% (the leaders were such drugs as Ingavirin (68.8%), Trimedat (+ 84.5%), etc.). It is worth noting that only 5 companies

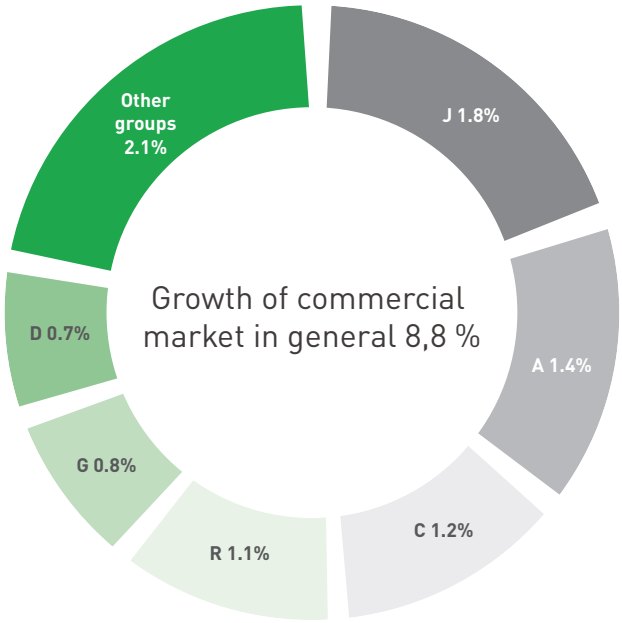


Figure 8

Weighed Increase of RTU Drugs on Retail Commercial Market by ATC groups

of the TOP-20 of the manufacturers of DP retained their positions in 2016. At the same time, most of the companies showed growth in sales. Thus, the volume of pharmaceutical sales of Teva, Johnson & Johnson and Abbott increased by 6.7%, 12.8% and 7.3% respectively.

Pharmacy sales of KRKA and Astellas grew by 12.5% and 19.4% respectively, while the French drug manufacturer Servier reported a 0.7% increase in sales compared to 2015. In real sales, Russian manufacturers are the leaders in pharmacy demand. Maximal share belongs to Pharmstandard (7.3%). STADA covers about 3.5% in pharmacy sold units. VEROPHARM occupies the third place (3.1%). Concentration by this parameter is lower than for the same parameter in value terms: TOP-20 manufacturers represent 47.9% of drug sales in physical terms.

5. 5. Drugs of Retail Commercial Market

Table 3 shows TOP-20 brands leading by the sales volume on Russian commercial market in 2016.

In total, TOP-20 leading brands represent 11% of sales value of the RTU commercial segment. The TOP-3 sales hits have slightly changed: Ingavirin significantly improved its position and moved to the first line of the rating due to increase of sales value by 68.8% (market share was 0.85%), while Kagocel and Nurofen maintained their positions.

Segment of anti-flu drugs has been one of the most dynamic segments of commercial market for the past several years. 2016 was no exception. The epidemic peak took place in autumn 2016, which led to the increase in «seasonal drugs» by 26% in rubles and by 16% in packages. Sales of recognized best-sellers in this sector grew very actively relative to the level of 2015. For example, the demand for Ingavirin increased by 68.8% in 2016, which on the background of less significant growth of the market in general, led to a jump of 7 lines up. Sales of Kagocel increased by 16.8% compared to 2015. As for «Ergoferon» and «Arbidol», the increase in pharmacy sales of these brands (by 51.2% and 25.0% respectively) allowed them to return to the TOP-20 brands of the DPs in the commercial market after losing their positions in 2015.

The most significant improvement of the positions in the ranking of 2016 was demonstrated by six drug products: Ingavirin (+7 lines), Miramistin (+8 lines), Ergoferon (+25 lines), Canephron (+11 lines), Viagra (+7 lines), Arbidol which moved from line 35 to line 19.

Low-cost drug products take the leading positions in the volume of sold units: antiseptic band-aid, citramonum and activated carbon. Among the DPs included in the TOP-20 by value terms, only 3 drugs were included in the TOP-20 rating by volume in packages: Nurofen, Kagocel and Pentalgin, which occupied place 14, 18 and 20 by physical volume respectively. It should be noted that TOP-20 in money terms almost entirely consists of so-called “traditional” drug products, i.e. the products sold only in Russia and former Soviet countries. In ruble ranking they are ranked under line 100. Weighted average price of TOP-20 in packages is about 28 rubles.

6. VITAL AND ESSENTIAL DRUGS

List of Vital and Essential Drugs is a list of the drug products approved by the Government of the Russian Federation in order to regulate the prices for drug products by the state. The aim of state regulation is an increased access to the drug products for the population and Healthcare Institutions.

Table 3

TOP-20 Manufacturing Companies by Pharmacy Sales Volume of Russian Retail Commercial Market in 2016.

2016 Reting	Changes	Manufacturer	Sales value, mln rub. 2016	Sales volume increase	Share
1	1	Bayer	**28 798**	**9.6%**	**4.7%**
2	-1	Sanofi	**26 613**	**-1.2%**	**4.4%**
3	-	Novartis	**26 556**	**2.3%**	**4.3%**
4	5	OTCPHARM	**19 839**	**28.2%**	**3.2%**
5	-1	Servier	**19 486**	**0.7%**	**3.2%**
6	-1	Glaxosmithkline	**18 390**	**2.0%**	**3.0%**
7	-	Teva	**17 918**	**6.7%**	**2.9%**
8	-2	Takeda	**17 564**	**0.0%**	**2.9%**
9	-1	Berlin-Chemie	**17 012**	**7.1%**	**2.8%**
10	-	Johnson & Johnson	**16 445**	**12.8%**	**2.7%**
11	1	Stada	**16 210**	**17.1%**	**2.7%**
12	-1	Gedeon Richter	**14 947**	**2.8%**	**2.4%**
13	-	Abbott	**14 473**	**7.3%**	**2.4%**
14	1	KRKA	**12 952**	**12.5%**	**2.1%**
15	1	Astellas	**12 378**	**19.4%**	**2.0%**
16	4	Valenta	**11 184**	**34.5%**	**1.8%**
17	-	Actavis	**10 692**	**4.1%**	**1.7%**
18	-4	Pfizer	**10 601**	**-11.2%**	**1.7%**
19	-1	PHARMSTANDARD	**10 126**	**2.1%**	**1.7%**
20	-1	Boehringer Ingelheim	**9 072**	**5.2%**	**1.5%**

At the moment, the list of VED includes 646 international non-proprietary names of medicines. Over the past two years, the state included 96 new items in the list. The VED list for 2017 remained unchanged. However, according to the government, the list of vital and essential medicines will be revised in 2017, not once a year, but as new drugs appear.

VED prices are under strict state control. As already noted by experts, the manufacture of certain drugs from the VED list is unprofitable for manufacturing companies due to the fact that they can not raise the selling price. In particular, this refers to drugs that cost less than 50 rubles.

In December 2016, the Ministry of Healthcare published a draft law proposing to change the registration rules and the methodology for calculating the maximum selling prices for VED. The resolution specifies the application and values of reduction factors to the registered prices for «reference medications for reproduced and bioanalogic medicinal products, taking into account price groups, as well as drugs produced by the member states of the Eurasian Economic Union». Now the formation of the selling price of the drug included in the VED list, directly depends on the actual selling price established by the drug manufacturer and on the size of the wholesale premiums applied by the previous wholesale organizations participating in the chain of sale of the relevant medicinal product.

According to the results of 2016, 590 INNs of the list of Vital and Essential Drugs were registered in the pharmacy sales (which accounts for 2,040 brands). Sales volume of VED was almost 217 billions of rubles or 1,691 millions of packages (figure 4).

It should be noted that in value terms the increase of the sales volume of VED was slightly more significant than for the rest of the drugs (8.9% - VED, 8.8% - non-VED). In physical terms, the situation is slightly different: in packages, VED drugs rose by 6%, while sales of drugs not included in the list increased by 1.7%.

The share of domestic drugs in unit terms was 51.2%, in money terms their share was 30.6%.

At year-end 2016, the weighted average price for Vital and Essential Drugs amounted to 128.1 rubles; the price of one unit of a domestic drug was about 77 rubles, that of an imported drug was 2.5-times higher (182 rubles).

Average cost of VED didn't exceed the weighted average price of the rest of the drugs (162.4 rubles). It signifies that in the segment of Vital and Essential Drugs the shift of sales towards expensive drugs is less evident than generally on the market, which can be explained by strict regulation of prices for the drugs on the list of Vital and Essential Drugs.

Figure 5 shows a price index for the various groups of drugs.

Over 12 months of 2016 vital drugs prices increased by 1.3%. Drugs not included in the list of Vital and Essential Drugs increased in price by 6.9% compared to December 2015. The main price growth occurred in the first half of 2016 - during this period, the price index rose by 6.7%, after that there was a sharp decrease in prices in July by 2.7%, and in August by 0.9%. Since September, the price growth again resumed. The exception was November, marked by a slight reduction in prices by 0.4%.

Table 4

TOP-20 Drug Brands by Sales Volume in Value Terms on Russian Commercial Market in 2015-2016

2016 Rating	Changes	Brand	Sales value, mln rub. 2016	Sales volume increase	Share
1	+7	INGAVIRIN	**5 174**	**68.8%**	**0.85%**
2	-	KAGOCEL	**4 999**	**16.8%**	**0.82%**
3	-	NUROPHEN	**4 439**	**6.5%**	**0.73%**
4	-	CONCOR	**4 145**	**0.6%**	**0.68%**
5	-4	ESSENTIALE	**4 134**	**-12.0%**	**0.68%**
6	-1	ACTOVEGIN	**3 702**	**-7.6%**	**0.61%**
7	-	CARDIOMAGNYL	**3 462**	**8.9%**	**0.57%**
8	+4	DETRALEX	**3 389**	**21.1%**	**0.55%**
9	+4	TERAFLU	**3 305**	**19.4%**	**0.54%**
10	+8	MIRAMISTIN	**3 188**	**27.2%**	**0.52%**
11	-2	LOZAP	**3 049**	**3.0%**	**0.50%**
12	-1	MEXIDOL	**2 955**	**2.3%**	**0.48%**
13	+1	PENTALGIN	**2 945**	**7.9%**	**0.48%**
14	-4	NISE	**2 939**	**-0.2%**	**0.48%**
15	+25	Ergoferon	**2 900**	**51.2%**	**0.47%**
16	+3	LINEX	**2 676**	**8.6%**	**0.44%**
17	+11	Canephron	**2 540**	**18.8%**	**0.42%**
18	+7	Viagra	**2 533**	**9.0%**	**0.41%**
19	+16	Arbidol	**2 533**	**25.0%**	**0.41%**
20	-3	VOLTAREN	**2 516**	**-1.2%**	**0.41%**

RTU drugs sales ranking by INN included in the list of Vital and Essential Drugs is presented in Table 4. VED rating leader by INN is Xylomethazoline. Note that in 2015 Xylometazoline was also leading. The situation in the top of the rating in general didn't change significantly: INN Ibuprofen strengthened its positions, rising by 2 lines due to a 19.6% increase in sales. This increase in sales volume was due to the growing popularity of such brands as Faspic (+ 680%), Dolgit (+ 186%), etc. Pancreatin and Bisoprolol fell one line down, due to the fact that they could not show an increase in sales, like INN Ibuprofen. In general, the sales of all INNs of the VED list in 2016 grew compared to the previous year. INN Imidazolylethanamide pentanedioic acid showed the maximum sales growth (68.8%). Ambroxol showed the minimal increase in sales volume (+ 2.8%).

The maximum increase in the average weighted price is observed for INN Tiloron (+ 6.5%) due to the rise in the price of a number of trading positions of «Tilaxin» and «Lavomax». In addition, in 2016 pharmacies began selling «Tiloram» in tablets (No. 10) of the same brand, its price exceeding 630 rubles per pack. At the same time, in 2016 the average price of the drugs with this INN reached 607 Rub / pack.

7. Price Segmentation of Drugs on Retail Commercial Market

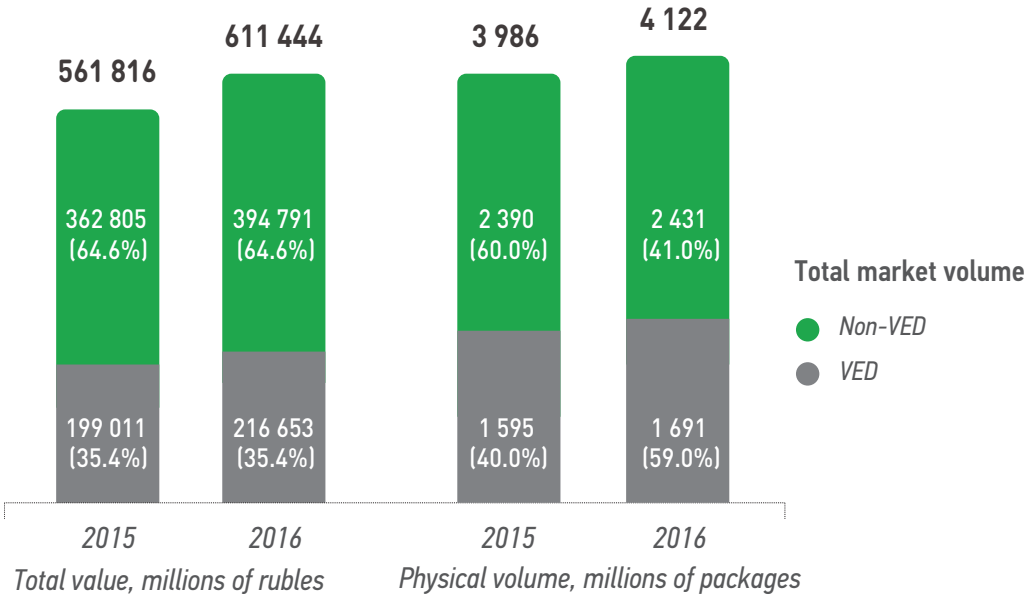
In 2016, the average unit price of RTU drugs on the commercial market increased by 5.2% and amounted to 148.3 rubles. We now consider the components of this value.

The commercial market structure and the average price per unit in different price categories in 2015-2016 are presented in Figure 9.

As seen in Figure 6, the share of drugs worth less than 50 rubles over the past year decreased by 0.4%. It is worth noting that the share of these drugs in the VED list also decreased by 0.4%. The tendency of the demand for the shift to more expensive and effective drug products has been seen on the national pharmaceutical

Figure9

Sales Ratio of Vital and Non-Vital Drugs



market for the past several years. So, the sales volume of such popular drugs as «Citramon» and «Acetylsalicylic acid» has been reduced by 14.4 million packs на 0.4%.

If we "fix" the consumer basket at the level of 2015 (regardless of drug price in 2016, it falls into the same segment, which it is in according to the results of 2015), in 2016, the share of the drugs priced less than 50 rubles was 7.6%, i.e. by 1.1% higher than in 2015. It signifies that a rather significant group of low-cost products increased in price in 2016 automatically shifting to the next price segment. Increase of the average price per unit in the drug segment prices less than 50 rubles/unit by 3.8% confirms this fact. It should be noted that if the consumer basket is «fixed» at the level of 2015, the share of the segment of medicines with the price of 50-150 rubles / package will decrease by 0.3%. Segment from 150 to 300 rubles will remain unchanged. And the specific weight of the segment of expensive drugs (that cost over 500 rubles / pack.) will decrease by 1.1%. The share of medicines that cost 300-500 rubles / pack will increase by 0.4%. Thus, we can conclude that in 2016 the market share in the price segments changed as a result of price increases and the transition of the drug from one price group to another, and by focusing the consumer on more expensive DPs.

Segment of drugs with a price of up to 50 rubles remains the most capacious in physical terms representing over 44%. However, compared to 2015, there was a decrease in the share of this price category by 2.2%.

The fastest growing price group, both in rubles (+ 26.4%) and in physical terms (+ 27.8%) is a group of drugs that cost 300 to 500 rubles, its share increased by 3% and amounted to 21.4% in rubles. In packages the share of this group is not so high, 8.5%.

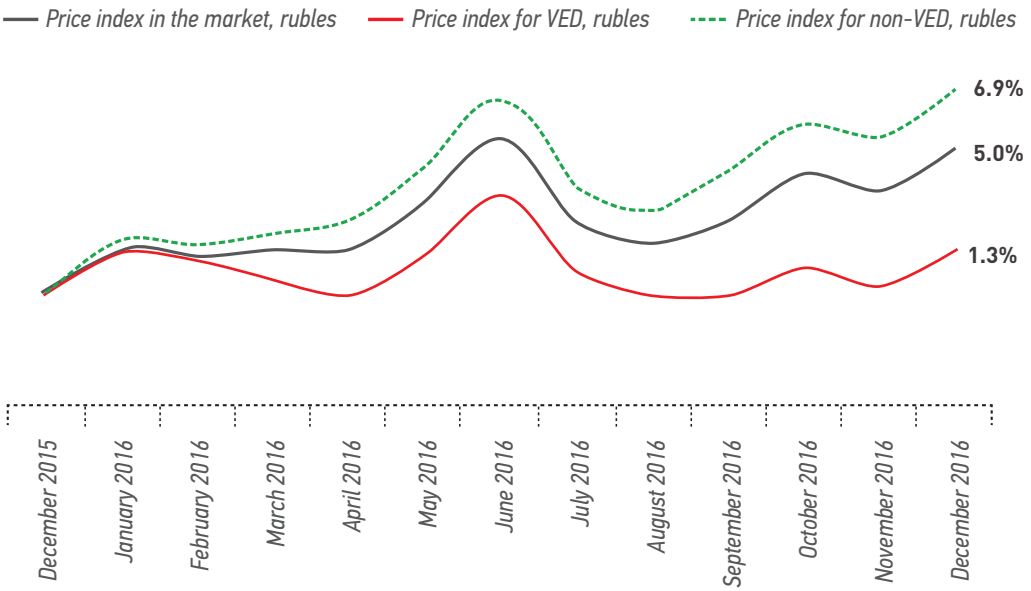


Figure 10

Price Index Dynamics On Commercial Market in 2016

Table 5

Sales Ranking of INN Included in the Vital Drugs List

2016 Rating	Changes	INN	% from vital drugs sales, rub.	Volume, millions of rubles	Brand leader within INN
1	-	XYLOMETHAZOLINE	**4.7%**	**10 129**	TTYZINE
2	+2	IBUPROFEN	**2.9%**	**6 280**	NUROPHEN
3	-1	PANCREATIN	**2.8%**	**5 958**	KREON
4	-1	BISOPROLOL	**2.6%**	**5 535**	CONCOR
5	+4	IMIDAZOLILETANAMID PENTANEDIOIC ACID	**2.4%**	**5 174**	INGAVIRIN
6	-1	AMOXICILLIN + CLAVULANIC ACID	**1.7%**	**3 775**	Amoxiclav
7	-	ATORVASTATIN	**1.6%**	**3 542**	ATORIS
8	-2	ETHYLMETHYLHYDROXYPYRI-DINE SUCCINATE	**1.6%**	**3 486**	MEXIDOL
9	+1	INTERFERON ALFA-2B	**1.6%**	**3 479**	Viferon
10	+13	Tiloron	**1.6%**	**3 410**	AMIXIN
11	-3	AZITHROMYCIN	**1.5%**	**3 226**	Sumamed
12	+2	UMIFENOVIR	**1.4%**	**3 126**	Arbidol
13	-1	LOSARTAN	**1.4%**	**3 099**	LOZAP
14	-1	OMEPRAZOLE	**1.4%**	**3 051**	OMEZ
15	-4	AMBROXOL	**1.4%**	**3 038**	Lazolvan
16	+3	ACELTYLCISTEIN	**1.3%**	**2 827**	Acc
17	-1	URSODESOXYHOLIC ACID	**1.2%**	**2 634**	Ursosan
18	+2	TAMSULOSIN	**1.2%**	**2 603**	OMNIC
19	+8	Perindopril	**1.2%**	**2 518**	PRESTARIUM A
20	+14	Rivaroxaban	**1.2%**	**2 493**	XARELTO

The group of drugs that cost over 500 rubles was the most capacious in 2016 by the sales volume in terms of value with 30.8% of the market. Sales growth in this group was +8.7% in 2016 in comparison with 2015.

8. Price Index of Drugs on Retail Commercial Market

To make an objective estimate of drug price change on the retail commercial market, price index based upon a fixed list of ready-to-use drugs was considered.

The main driver of market growth, as in previous years, was the growth of the drugs price index. In 2016, inflation for drugs (5%) was lower than the overall State Statistics Committee (SSC) consumer price index (5.4%). Thus, the increase in prices of drugs slightly fell behind the growth of prices for non-food products, but at the same time outpaced the growth in prices for food, services and gasoline.

A slightly less significant price growth was observed among the most popular drugs: the price index for TOP-100 trade names by turnover in 2016 was 1.4% (Figure 10).

Price index for imported and domestic drugs in 2016 is represented on figure 8.

In 2016, the change in prices for domestic and imported drugs differed from each other insignificantly. The parameters were 5.2% and 4.9%, respectively. Nevertheless, the growth rate of prices for drugs produced in Russia exceeded the price growth index for imported drugs.

According to the data of the Russian Statistics Committee, in 2016, drugs accounted for about 2.1% of the basic structure of consumer spending in Russia,

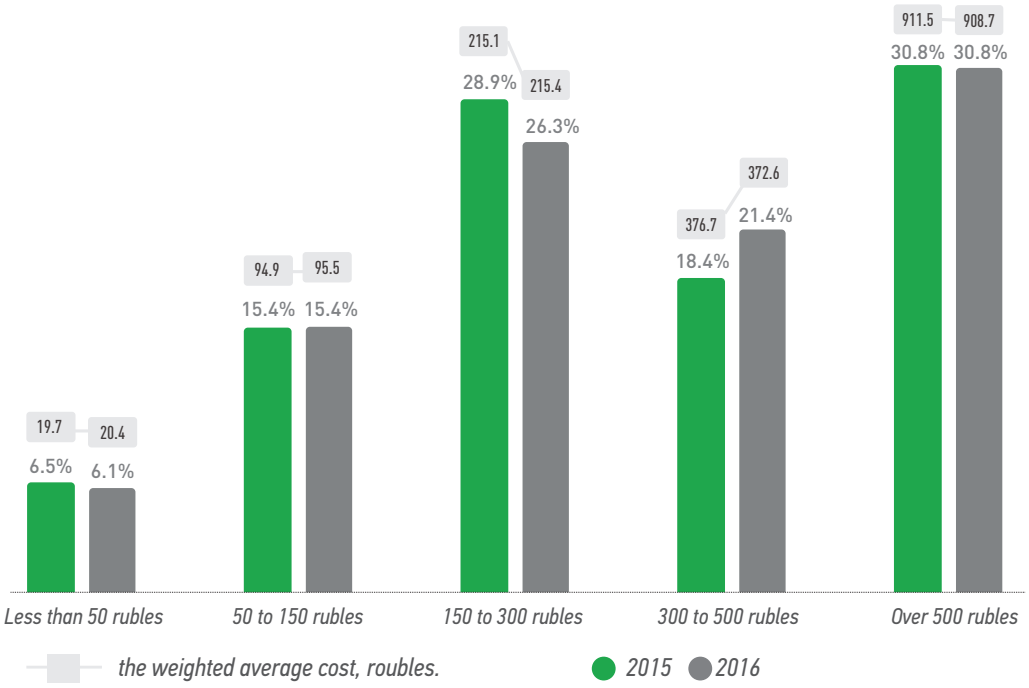


Figure 11

Value Sales Structure of Commercial Market RTU Drugs by Price Categories

as well as in 2015. Thus, Russian Statistics Committee registers the same level the importance of drugs in consumer spending.

Figure 12 shows the general consumer price index, as well as price indices for certain categories of goods and services.

In 2016, the overall consumer price index amounted to 5.4% At the same time, the largest increase in prices was observed for non-food products (6.5%). The lowest price growth was observed for gasoline (3.8%) and food (3.9%).

9. New Drugs of Retail Commercial Market

In 2016, more than 430 new brands of drug products appeared in pharmacies. Total sales volume of new drugs in 2016 exceeded 1.7 billion rubles and 9.9 million packages, which amounted to 0.22% of the value and 0.24% of the physical volume of pharmacy sales of all medicines in the retail commercial market. The weighted average price of one unit of a new drug product was about 173 rubles.

Let's take a look at the brands, which constituted the TOP-20 ranking of the new trade names on the commercial market on the Russian Federation by the end of 2016. «Xylometazolin-Solofarm» («Groteks») showed the highest sales in value and in physical terms among the drugs that entered the market in 2016. This drug belongs to the group of local vasoconstrictors with alpha-adrenomimetic activity and is used

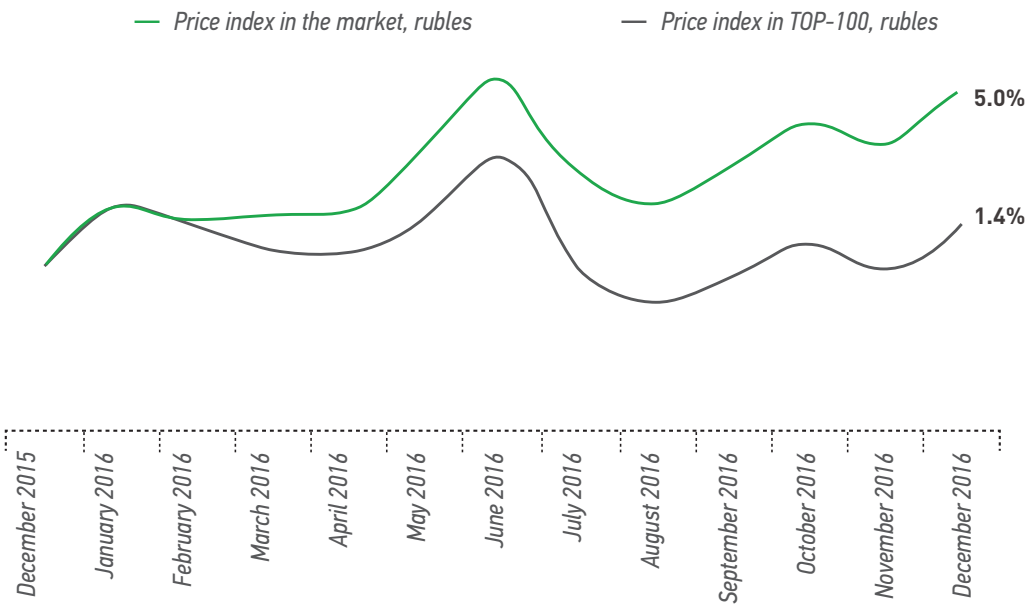


Figure 12

Изменение цен на ЛП на коммерческом рынке России в 2016 г.

in the therapy of acute respiratory diseases with rhinitis, allergic rhinitis, sinusitis and other diseases accompanied by edema and hyperemia of the nasal mucosa. Sales volume of the drug product was 152.7 million rubles.

The second line of the rating is occupied by a long-acting antihistamine drug «Nalorius» («Nanolek») in coated tablets, with a volume of 140.0 million rubles. «Nalorius» prevents the development of edema of tissues, facilitates the course of allergic reactions, has antipruritic and antiexudative action. A new domestic drug against allergy has no effect on the central nervous system, the speed of psychomotor reactions and does not cause drowsiness.

The last in the top three leaders is another novel drug of «Groteks» with a volume of 94.3 million rubles: decongestive nasal drops «Naftizin Plus». This brand was registered in April 2016 and is the first Russian Naphasoline based on sea water. Naphasoline has a rapid and prolonged vasoconstrictive effect on the vessels of the nasal mucosa, reducing its edema. Sea water, which is part of the drug, has a moisturizing effect and reduces inflammation.

At the end of 2016, the pharmacological group of «anticongestive agents» - alpha-adrenomimetics («Xylometazoline-Solofarm») was the most capacious in terms of value among the new

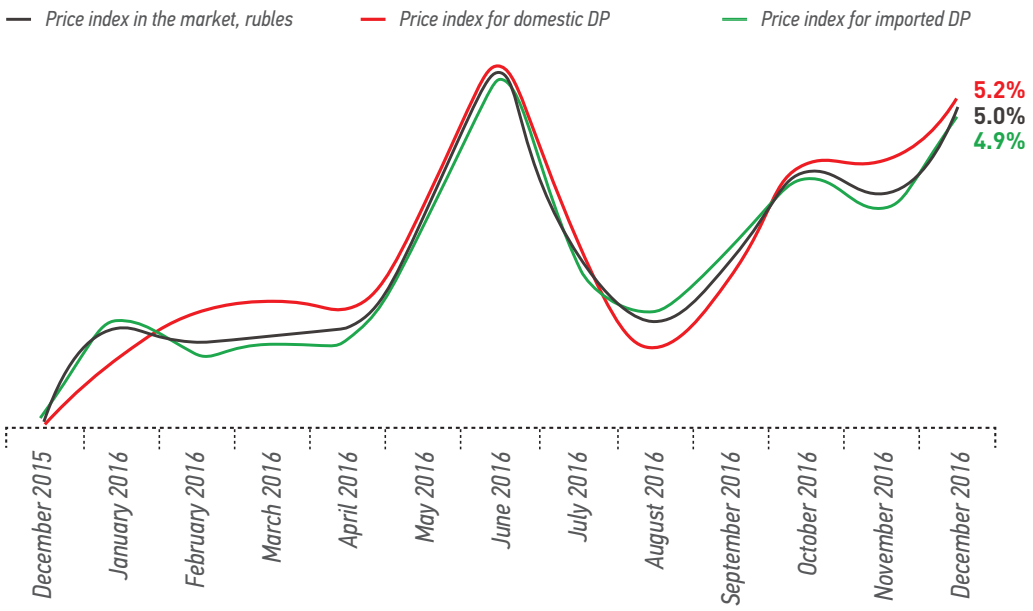


Figure 13

Price Index for Drugs of Domestic and Foreign Manufacturers on the Russian Commercial Market in 2016

preparations of the commercial market of DPs. Next comes the pharmgroup of «antiallergic agents» («Nalorius»), the third place in the ranking was taken by the group of «sleeping pills» («Reslip»). «Reslip» (Obolenskoe FP) with the active substance doxylamine in coated tablets reduces the time to fall asleep, increases the activity and quality of sleep, without changing its phase.

A new drug against obesity Goldline Plus (Izvarino Pharma) which entered the market in March 2016 showed the volume of sales of 84.5 million rubles in the reporting period. It contains a potent substance Sibutramine and Cellulose. Sibutramine helps to increase the sense of satiety and reduce the need for food, and cellulose has sorption properties and nonspecific detoxification effect.

As a conclusion, it should be said that most of the new drug products were manufactured by foreign companies. Nevertheless, in 2016, Russian companies released on the market more than 120 new brands and 10 of them were included in TOP-20 of new trade names in the value terms for the indicated period of time.

Figure 14

Index of Consumer Prices in Russia (December 2016 compared to December 2015)

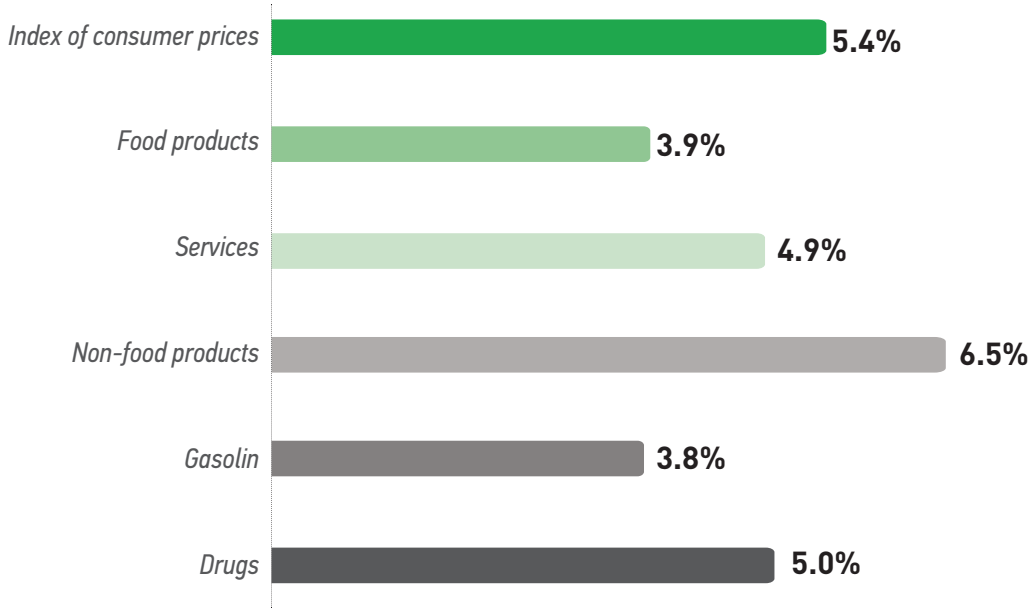


Table 6

TOP-20-new Brands on the Commercial Market of the Russian Federation in 2016

Position	Brand	Conpany	Volume, millions of rubles	Date of appearances in pharmacies
1	Xylometazolin-Solofarm	Groteks	**152.7**	**March 16**
2	Nalorius	Nanolek	**140.0**	**February 16**
3	Naftizin Plus	Groteks	**94.3**	**June 16**
4	Goldline Plus	Izvarino Pharma	**84.5**	**March 16**
5	Reslip	Obolenskoe	**79.7**	**February 16**
6	Antigrippin-Express	Sotex	**67.1**	**January 16**
7	Antareyt	Sequel Pharmaceuticals	**45.4**	**January 16**
8	Hlorofillong	Pharmacevticheskaya fabrika (Saint-Peters-burg)	**41.2**	**April 16**
9	Nomides	Pharmasintez (Irkutsk)	**41.0**	**Sep.16**
10	Recognan	Alfa Wassermann	**38.0**	**April 16**
11	Vezomni	Astellas	**35.6**	**March 16**
12	Combinil	Sentiss Pharma	**35.2**	**July 16**
13	Ramazid N	Actavis Group	**31.9**	**January 16**
14	Sustilak	Medreich Limited	**30.3**	**April 16**
15	Almont	Actavis	**29.3**	**May 16**
16	Ulkavis	KRKA	**27.4**	**April 16**
17	Clindacin B	Akrikhin	**26.2**	**February 16**
18	Razo	Dr.Reddy's Laboratories	**24.1**	**May16**
19	Urofuragin	Warsaw Pharmaceutical	**21.9**	**May 16**
20	Sustagard Artro	Sotex	**21.5**	**January 16**

3. Drug Reimbursement Program (DRP)

Regulations of the Russian Federation provide for preferential / free provision of drug products to certain categories of citizens, that is, medicines prescribed by a physician to a «beneficiary» are purchased at the expense of budget. At the moment, there are several programs that provide free drugs.

Federal Law No. 178-FZ of 17.07.1999 «On State Social Assistance» provides for a certain set of social services for privileged categories of citizens, including the provision of necessary drugs in accordance with the standards of medical care (this program is part of preferential drug provision – Population drug coverage (PDC)). The standard of monthly financial expenses for one citizen receiving state social assistance in the form of social services including provision of drugs, medical devices, as well as specialized products of therapeutic nutrition for disabled children, grew by 7% in 2016: expenditures increased from 707 to 758 rubles. In 2017, the standard will be 807.2 rubles.

Since 2007, the beneficiary has the right to choose a method of obtaining benefits: monetary compensation or prescription drugs. The number of people who can use benefits now stands at about 19 million people, but the number of beneficiaries who choose drug provision decreases every year and now amounts to about 1/5 of the total number: on January 1, 2016, their number was about 3.37 million people. In connection with the increase in the number of people eligible for preferential provision of medicines, medical devices and special nutritional products, additional subventions for the purchase of medicines were allocated during the year. Over a year the number of «privileged citizens» has increased by 403 thousand people. Thus, the volume of budget allocations for PDC amounted to 33.005 billion rubles. In 2017, the government provided over 31.6 billion rubles for drug coverage to the regions.

> ” At the same time, much more is spent on «monetization of benefits». So, according to our calculations in 2016, about 140 billion rubles were paid to beneficiaries who refused from drug provision. “

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As part of the PDC program, the order of purchasing medicines has been changed since 2017. So, from January 2017, the purchase of antiretroviral drugs (drugs for HIV treatment) will be carried out centrally.

The regions will receive drugs from the second quarter of next year.

The provision of drugs for persons with specific disease categories «7 nosologies» or high-cost nosologies (HCN) (hemophilia, cystic fibrosis, pituitary nanism, Gaucher disease, malignant neoplasms, multiple sclerosis, condition after organ or tissue transplantation) is regulated separately. The funds for financing the costs of the HCN program are provided from the federal budget. At the moment, the number of beneficiaries within this program is 132 thousand people. According to the Federal Law «On the Federal Budget for 2016», the program financing amounted to 39.25 billion rubles. In summer, it was decided to allocate an additional 4 billion rubles for the additional purchase of drugs within the «7 Nosologies» program. The budget of the program in 2017 will be 43 billion rubles.

Since March 2015, five more drugs were added to the list of drugs purchased within the HCN program: anti-inhibitor coagulant complex, moroctocog alfa, Factor VIII + Willebrand factor, Velaglucerase alfa, lenalidomide; in March 2016, another drug was purchased for «7 nosologies»: NATALIZUMAB. Thus, at the moment the list of drugs within the program consists of 24 INNs.

In addition, the law on the fundamentals of protecting the health of citizens indicates that people suffering from diseases included in the list of life-threatening and chronic progressive rare (orphan) diseases are also provided with appropriate drugs. In this case, rare diseases are diseases that have a prevalence of no more than 10 cases per 100 thousand people. As of 2017, the Ministry of Healthcare of the Russian Federation included 218 diseases in the list. Provision of citizens with medicinal products for the treatment of rare (orphan) diseases is carried out at the expense of the budgets of the subjects of the Russian Federation.

The approximate total need for financing drug therapy of orphan diseases is estimated at 15-30 billion rubles, while at the regional level the deficit is more than a third. According to the National Association of Patients with Rare Diseases «Genetics», in 2016 only a few regions could cope with the financial burden of providing medicines for orphan patients, while more than 60% of the regions required support from the federal budget over 50% of the demand. In this regard, the possibility of financing the most expensive treatments from the federal budget (so far there are 9 diseases in the list) is being considered, as well as the expansion of the HCN program.

It is also possible to receive medicines free of charge or with a 50% discount within the territorial programs of the federal entities of the Russian Federation and at the expense of the budget of the respective region. This program is fixed and regulated by the Government Decree of the Russian Federation of 30.07.1994 «On State Support of the Development of the Medical Industry and Improvement of Provision of the Population and Healthcare Facilities with Drugs and Drug Products». To some extent, this program duplicates or can be a substitute for the federal PDC program. That is, the «beneficiary» can be both federal and regional.

As a result the citizens who have the right to receive drugs at the expense of the federal budget and who refused to receive such social assistance and received cash compensation, apply for drug provision at the expense of the subject of the Russian Federation.

To eliminate duplicative power of the federal center and the federal subjects

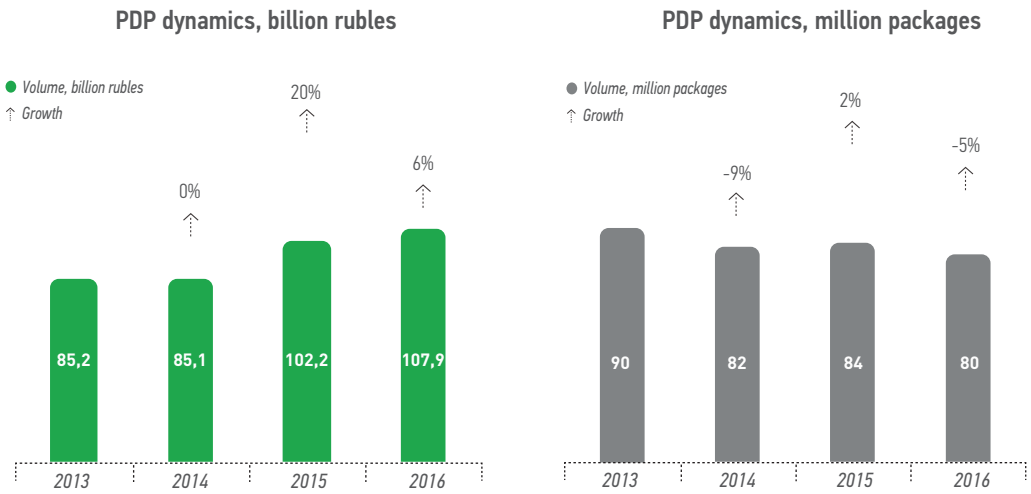
of the Russian Federation, the Ministry of Healthcare of Russia is developing an appropriate bill «On Amending Certain Legislative Acts of the Russian Federation Regarding Regulation of Providing Citizens with Drug Products for Human Use.» It is expected that the document will enter into force in February 2018.

One of the directions in the development of the system of preferential drug provision is the mechanism of drug insurance, which will allow to extend the principles of work not only to preferential categories of citizens, but also to the entire population. Discussion of the introduction of drug insurance started a long time ago. In some regions, even pilot projects have been carried out. Thus, in 2015 the results of pilot project of drug supply in Kirov oblast were discussed. The pilot project was started in 2013. The program included cardiovascular disease and had the following mechanism of financing: 90% is paid by the region, the rest 10% is paid by the patient. In 2016 pilot projects were launched in Omsk and Ulyanovsk oblasts.

At the moment, there is no clear idea of how the new system will work. One of the latest proposals of the Ministry of Healthcare is as follows: the cost of drugs will be covered by contributions to the CHI system, that is, patients will not have to pay for them. Medical insurance can already start functioning in 2019, when the planned increase in the tariff of the medical insurance fund will allow to cover such expenses. From 2019, the rate of deductions to the CHI fund will increase (from 5.1 to 5.9%), which will give the fund an additional 150-200 billion rubles. Also in 2018, the CHI fund will start receiving funds from enterprises that previously paid insurance premiums at a reduced rate.

Figure 15

Dynamics of PDP program



At the same time, existing preferential programs will undergo changes: during the reform, which can be launched in 2019, some of the drugs will be withdrawn from the public procurement system. Drugs from the «Seven Nosologies» program, as well as drugs for treatment of HIV, hepatitis, multidrug-resistant tuberculosis can stay in state purchases.

Note that the period of introduction of drug insurance is constantly postponed, so the year 2019 may not be the last date. The maximum possible period can be 2025 according to the tasks set in the «Strategy of drug provision of the population of the Russian Federation until 2025».

As can be seen from Figure 13, according to the results of 2016, 108 billion rubles were spent in order to purchase drugs for the beneficiary categories of citizens. Growth in relation to 2015 was about 6%. In physical terms, there remains a tendency to decrease in sales volumes: in 2016 DP purchase was by 5% less than in 2015, and amounted to 80 million packages.

If we talk separately about the two parts of the program, the share of the expensive drugs procurement program decreased in 2016, the volume increased by 3% in comparison with 2015.

In physical terms drug consumption volume within HCN program almost didn't change: the volume was about 3.6 million packages which is by 0.1% more than in 2015.

In 2015, 56 billion rubles was spent on PDC program, which is 8% higher than

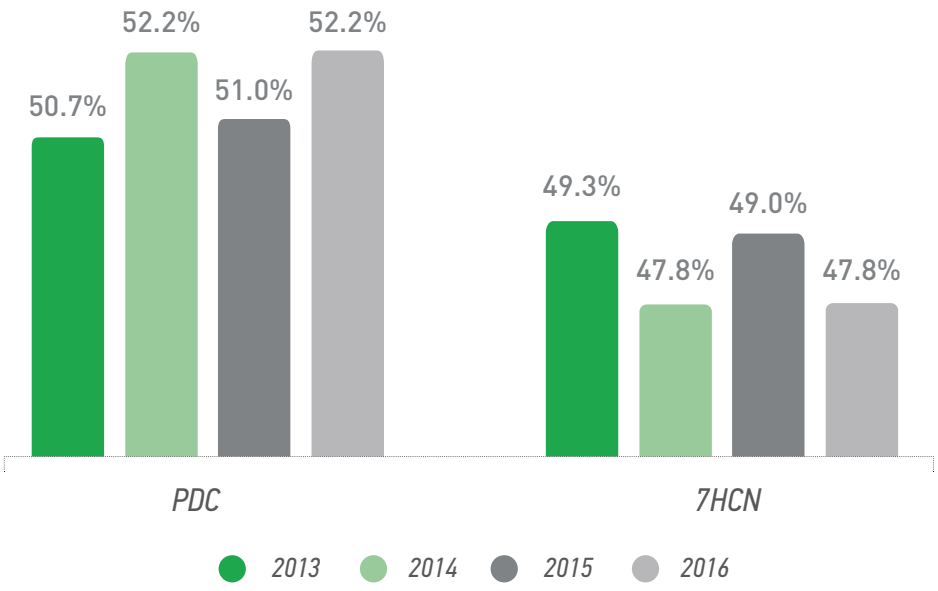


Figure 16

The Ratio of Expenses within HCN and PDC Programs in the Total Volume of Expenses within PDP in rubles

in 2015. Meanwhile the share of PDC program in the total volume of preferential drug provision grew up to 52% (fig. 14).

However in physical terms the trend to decrease of purchase volume remains: about 76.2 million packages were purchased which is by 5% less than in 2015. Thus, the weighted average price of one prescription grew by 14% and amounted to 740 rubles.
In 2016, the list of DPC drugs for certain categories of citizens was completed with 15 drug products, six of which were manufactured in Russia. The number of international non-proprietary names of drug products in this list increased from 320 to 335 names.

1 Proportion of Imported and Domestic Drugs within DRP Program

The DRP program mainly includes "imported drugs" while domestic products share in the volume of the reimbursed drugs is rather small.

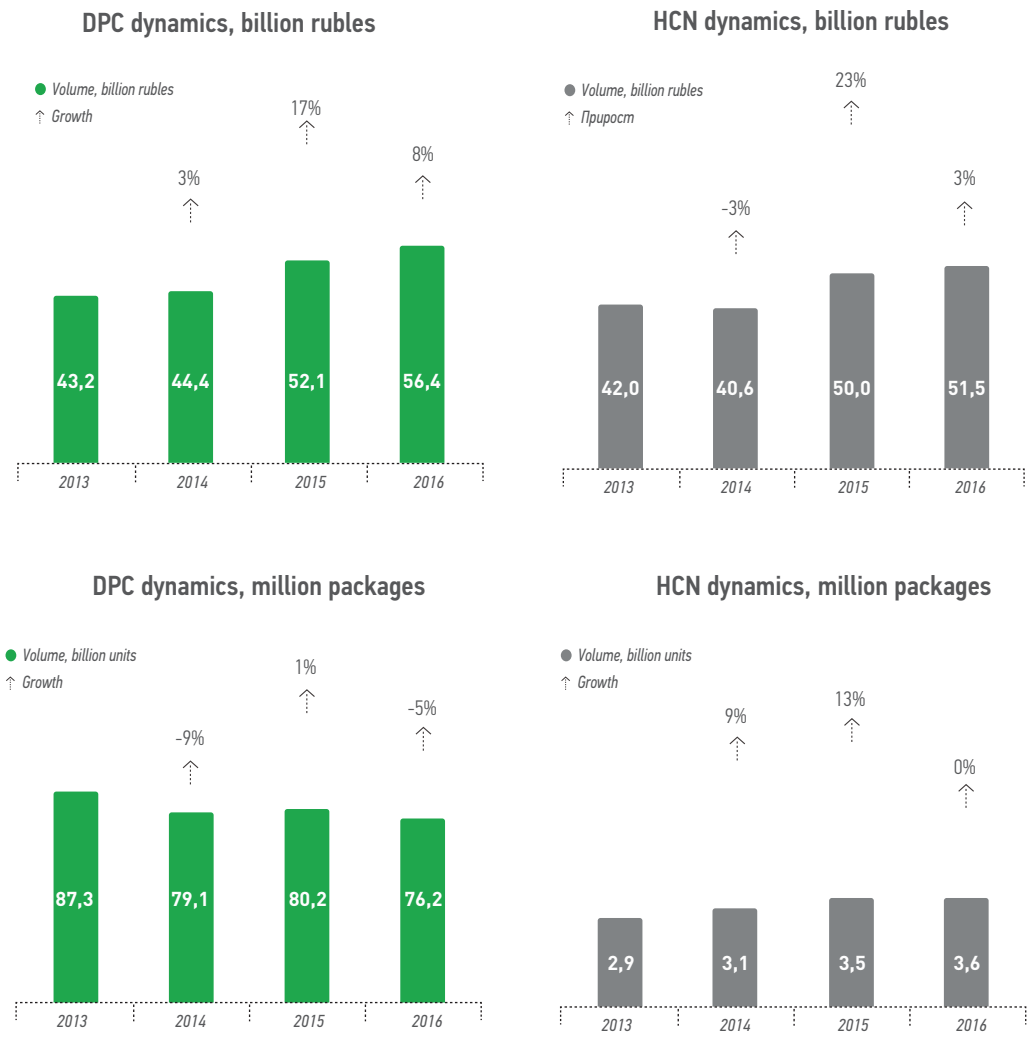


Figure 17

Dynamics of Expenses within HCN and PDC Programs in the Total Volume of Expenses within PDP Program

Import substitution of expensive drugs is the main objective of Pharma-2020 program. As a result there is a trend outlined in the market and, particularly, in the preferential drug provision program, towards a growing number of domestic drugs that can replace imported analogues.

As of 2016 the share of domestic drug increased by 3% in money terms (fig. 15). Cost of domestic drug procurement increased by 16.9%, while the consumption of the imported drugs increased only by 1.5%.

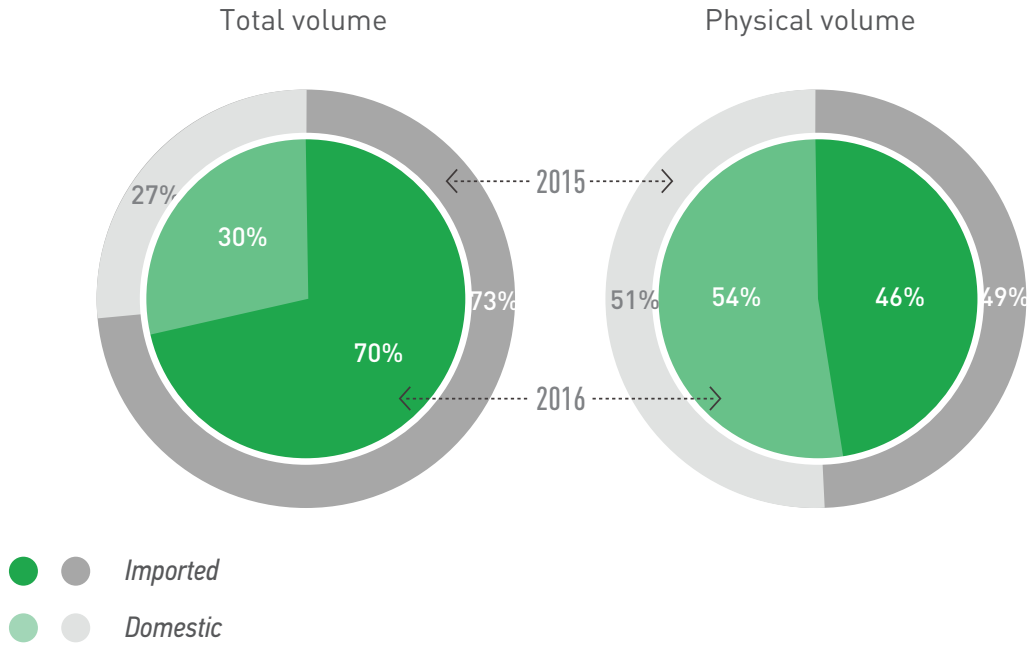


Figure 18

Proportion of Imported and Domestic Drug Sales

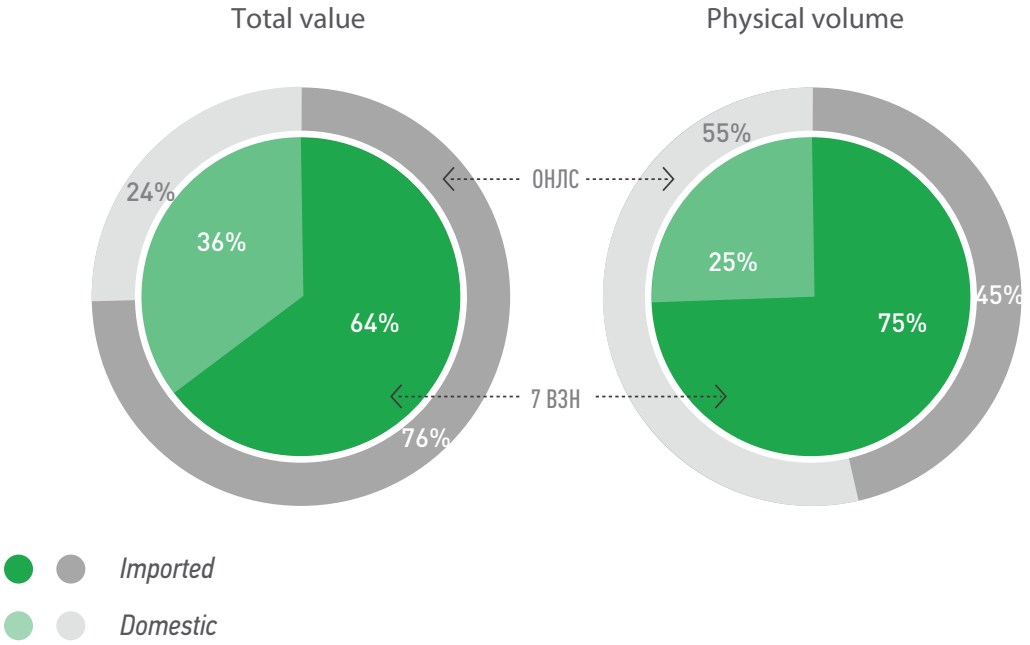


Figure 19

Proportion of Imported and Domestic Drug Sales Under "7 nosologies" and PDC programs

The main contributors to the increase of domestic drugs sales volume were Octofactor (INN MOROCTOCOG ALFA) by Generium, its sales increased almost 40 times during the year, as well as the newcomer of 2016 – Axoglatiran FS (INN GLATIRAMER ACETATE) by F-Sintez.

Thus, in spite of the stable proportion of imported and domestic drug sales in favor of imported drugs, the share of domestic drugs has significantly increased. In 2016, 70% of the sales value amounted to the imported drugs, 30% amounted to the domestic drug products.

In physical terms the share of domestic drugs also increased. At the same time, the tendency to decrease in sales volume

Table 7

TOP-10 INNs in import substitution

INN	Share of domestic DPs, rubles		Share growth	Leader, 2015	Substitution drug, 2016
	2015	2016			
GLATIRAMER ACETATE	0%	69%	69%	Copaxone-Teva (Teva)	Axograliran FS (F-Sintez)
VALGANCICLOVIR	7%	72%	66%	Valcite (F.Hoffmann-La Roche)	Civalgan (Izvarino Pharma)
FINGOLIMOD	0%	57%	57%	Gilenya (Novartis)	Neskler (Biointegrator)
DARUNAVIR	19%	71%	52%	Prezista (John-son & Johnson)	Kemeruvir (Pharmasintez (Irkutsk))
TRASTUZUMAB	0%	38%	38%	Gerceptin (F.Hoffmann-La Roche)	Gerticad (Biocad)
DOCETAXEL	60%	86%	26%	Taxoter (Sanofi)	Novotax (Biocad), Tautax (Veropharm)
BEVACIZUMAB	0%	26%	26%	Avastin (F.Hoffmann-La Roche)	Bevacizumab (Biocad)
IPRATORIUM BROMIDE+FENOTEROL	6%	30%	23%	Berodual (Boehringer Ingelheim)	Ipraterol (Nativa)
PACLITAXEL	68%	91%	23%	Various	TAXACAD (BIOCAD)
CAPECITABINE	25%	42%	17%	Xeloda (F.Hoffmann-La Roche), Tutabin (Laboratory Tuteur.)	Capecitabin (Tehnologia lekarstv)

of imported drugs in packages remains: in 2016 sales volumes decreased by 10.5%. The volume of purchases of Russian drugs in packages increased slightly (+ 0.8%).

The ratio of sales of imported and domestic DPs within 7 nosologies and PDC programs is presented on figure 16.

As for DRP for high-cost nosologies the share of domestic drugs remained at the level of 2015: in 2016 the share of domestic manufacturers was 36%, in physical terms it was 25% (6% more than in 2015).

Within the PDC program, the share of Russian drugs has increased: by about 24% in money (up from 18% in 2015) and by about 55% in packages (in 2015 they accounted for 52%).

Below is a table with the TOP-10 INNs with a noticeable «switching» from imported drugs to Russian.

2. Proportion of Rx and OTC-drugs within the DRP Program

The Rx drugs prevail in DRP program both by sales value and by real sales volume, as all these drugs are prescribed by physicians strictly according to the indications for use.

In Russia in 2016 the share of prescription drugs within DRP program almost didn't change: it was 97% by value, and 90% by items.

3. Drug Sales Structure by ATC groups within the DRP program

Proportion of 1st level ATC groups by pharmacy sales within the Russian DRP program in 2016 is shown in Table 7.

The ATC ranking by sales volume within the DRP program is rather stable.

Group [L] "Antineoplastic and immunomodulating agents" remains the most expensive item of the DRP program - about 49% of all allocated state funds were spent on its purchase in 2016. Their purchase expenses increased by 3.6% in rubles compared to 2015. In packages they decreased by 4.3%. Antineoplastic drugs ([L01] and [L02]) of last generations have proven efficacy in the treatment of patients with oncological diseases, improve the quality and duration of life. Group leader of 2016 is Revlimid (INN LENALIDOMIDE), which increased the volume of drug purchase by 173.9%. The second and third lines are represented by domestic brands Acellbia (INN Rituximab) by Biocad and Boramilan FS (INN Bortezomib) by F-Sintez. The drugs occupy approximately 9% and 6% of the sales volume of the group [L] «Antineoplastic and immunomodulating agents» respectively. Also this year the domestic brand Axoglatiran FS started participating in purchases, and immediately managed to win more than 5% of the market of drug purchases for preferential drug provision.

Group [B] "Agents affecting blood and blood forming organs" (16.1%) occupies the second place in the ranking. In 2016 this group increased the sales volume by 13.3% in value terms. However the purchases almost didn't change in packages.

Yielding over 2 %, the group of [A] «Alimentary tract and metabolism» closes the top three. Compared with 2015, group drugs sales increased by 1.6% in rubles and decreased by 6.9% in packages. About 75% of all sales in this group are represented by drug products for treatment of diabetes mellitus ([A10]). The leader of this group by sales value is the imported Lantus as in previous years. The Levemir brand took the second place in the rating, due to an increase in sales volume by 19.7%. Novorapid closes the top three.

In 2016, the structure of the DRP of top-5 by ATC-groups did not change in comparison with the previous year: the share in sales value was about 88%. In 2016, the group [H] «Systemic hormonal preparations (excluding sex hormones)» rose one line up, overhauling drugs of group [C] «Cardiovascular system drugs». ATC groups [G] and [S] went one line down.

Group [L] "Antineoplastic and immunomodulating agents" represents about 49% of DRP sales volume. This is the most expensive group of drugs in DRP - weighted average price per unit is about 13,500 rubles (in 2015 about 12,450 rubles). According to the results of 2016, almost all leading ATC-groups register an increase in sales by rubles. The only exception is group [R] "Respiratory system drugs", its purchase volume decreased by 2.4% in rubles. Negative growth was observed in all the groups of TOP-5 ATC in packages. The most significant fall was observed in group [A] "Alimentary tract and metabolism" (-6.9%).

It is interesting to look at how much money is spent within the DRP program for treatment of main disease groups. With this purpose, we correlated the drugs with the corresponding indications for use. As a result, we received the following cost ranking in DRP by diseases (Table 8).

At the end of 2016, drugs for the treatment of diseases of the immune system took the leading position in the sales ranking, overtaking anticancer drugs. The greatest increase in costs in this group is noted for drugs that have immunomodulatory and immunosuppressive action. The following changes occurred in the top three of the previous periods: the first line was occupied

Figure 20

Sales Proportion by ATC groups in the Drug Reimbursement Program

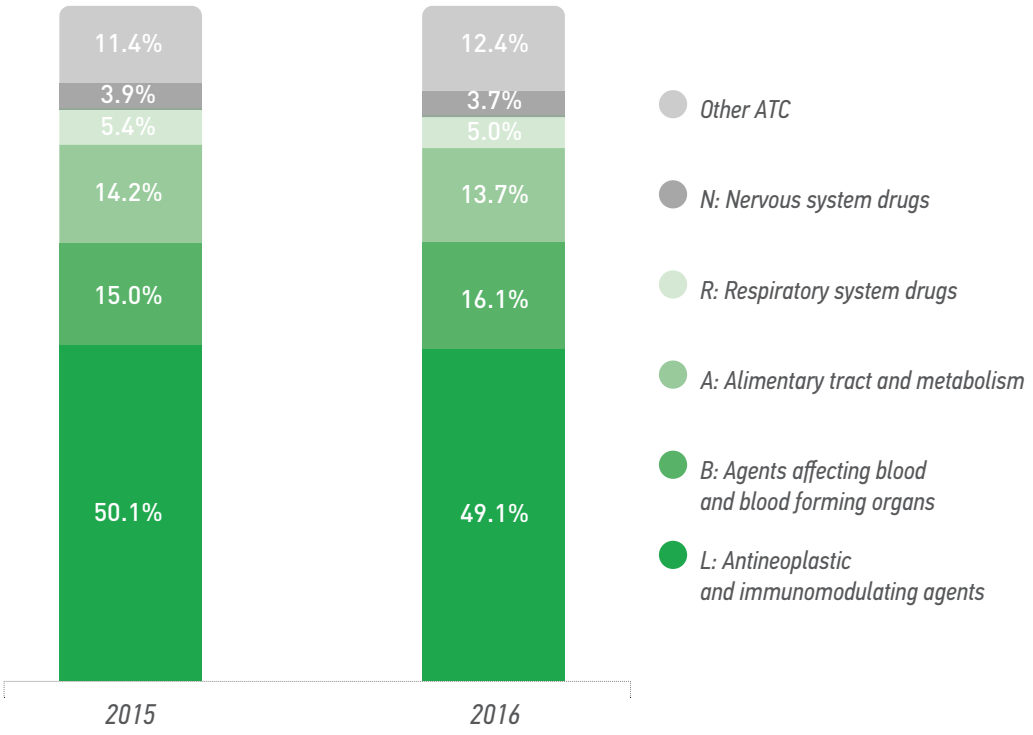


Table 8

Drug sales structure by ATC drugs on the DRP market

Note: the sales volume is shown in end user prices with VAT included

First Level ATC-groups	Sales value, mln rub.	Group share in sales value, %	First Level ATC-groups	Group share in real sale volume, %
[L] Antineoplastic and immunomodulating agents	52 985.3	49.1%	3.9	4.9%
[B]Agents affecting blood and blood forming organs	17 349.8	16.1%	5.5	6.9%
[A] Alimentary tract and metabolism	14 763.9	13.7%	18.7	23.5%
[R] Respiratory system drugs	5 412.3	5.0%	5.0	6.3%
[N] Nervous system drugs	4 034.8	3.7%	13.0	16.3%
[J] Antibacterials for systemic use	3 825.9	3,5%	1.0	1.3%
[H] Systemic hormonal preparations (excluding sex hormones)	2 620.5	2.4%	0.9	1.2%
[C] Cardiovascular system drugs	2 439.0	2.3%	26.9	33.8%
[[M] Musculoskeletal system drugs	1 710.2	1.6%	2.4	3.0%
[V] Other drugs	1 313.6	1.2%	0.4	0.5%
[~] Without allocation	889.9	0.8%	0.1	0.1%
[G] Genitourinary system drugs and sex hormones	365.4	0.3%	0.9	1.1%
[S] Agents affecting sensory organs	171.1	0.2%	0.8	1.0%
[D] Dermatologicals	17.4	0.0%	0.1	0.2%
[P] Antiparasitic products, insecticides and repellents	2.6	0.0%	0.0	0.0%

by Revlimid (+ 173.9%), replacing Copaxone-Teva. Axoglatiran FS took the second line (market share was slightly less than 10%), it did not participate in the procurement of 2015.

The second line in the ranking is occupied by the anticancer drugs, which account for 23% of the whole DRP segment value (about 25 billion rubles). The largest volume of purchases is represented by INN Rituximab (26%) and INN Bortezomib (21.7%), included in the program «7 nosologies» as treatment for patients with malignant neoplasms of lymphoid, hematopoietic and related tissues. According to the Ministry of Healthcare and Social Development of Russia, cancer is the second cause of death in Russia after cardiovascular diseases and accounts for about 15.4% of total number of deaths. In 2009, the National Cancer Program was launched, which led to increase of the number of patients with early diagnosed neoplastic diseases, and for the first time in several decades mortality from this disease started to decrease in Russia. In 2015, for the

Table 9

TOP-20 Drugs Manufacturers by the Consumption Volume in the DRP Program in 2016

Diseases	Volume, million rubles	Share
Immune system disorders	**27 946.5**	**25.90%**
Oncologic diseases	**25 038.8**	**23.21%**
Disorders of blood and hemopoietic organs	**17 344.1**	**16.07%**
Diabetes mellitus	**11 499.9**	**10.66%**
Respiratory disorders	**5 412.3**	**5.02%**
Nervous system disorders	**4 034.8**	**3.74%**
Infectious agents diseases	**3 827.4**	**3.55%**
Alimentary disorders	**3 487.9**	**3.23%**
Others	**2 635.8**	**2.44%**
Hormonal disorders	**2 620.5**	**2.43%**
Cardiovascular disorders	**2 076.4**	**1.92%**
Musculoskeletal disorders	**1 710.2**	**1.58%**
Ocular disorders	**171.0**	**0.16%**
Male and female reproductive disorders	**78.7**	**0.07%**
Skin diseases	**17.4**	**0.02%**

first time over 589,000 cases of malignant tumors were identified in Russia (270,000 in male patients and 319,000 in female patients). The growth of this indicator in comparison with the previous period was 4%. The cumulative prevalence was 2,329.8 per 100,000.

The highest sales volume among the drugs for treatment of blood and blood organs diseases still accounts for INN BLOOD COAGULATION FACTOR VIII (29%), INN EPTACOG ALPHA [activated] (13%) and INN OCTOCOG ALPHA (9%). All the three INNs are included in 7 nosologies program and as of 2016 significantly decreased total sales value: INN BLOOD COAGULATION FACTOR VIII - by 10%, INN EPTACOG ALPHA [activated - 16%], INN OCTOCOG ALPHA - 15%.

Thus, leading positions in the DRP ranking are still occupied by high-cost nosologies. The total share of expenses for purchase of drugs for these groups of diseases is about 48% of all the DRP segment or about 51.5 billion rubles.

Table 10

TOP-20 Drugs Manufacturers by the Consumption Volume in the DRP Program in 2016

2016 Rating	Changes	Manufacturer	Sales value, mln rub. 2016	Sales volume increase	Share
1	11	Selgene	**9 358.0**	**174%**	**8.7%**
2	0	F-Syntez	**7 908.4**	**-7%**	**7.3%**
3	0	Biocad	**7 418.2**	**18%**	**6.9%**
4	-3	F.Hoffmann-La Roche	**6 708.7**	**-34%**	**6.2%**
5	0	Sanofi	**5 520.3**	**-4%**	**5.1%**
6	0	Baxter Healthcare	**5 147.7**	**1%**	**4.8%**
7	0	Johnson & Johnson	**4 875.9**	**3%**	**4.5%**
8	1	Generium	**4 599.8**	**24%**	**4.3%**
9	-1	Merck	**4 188.8**	**9%**	**3.9%**
10	1	Astrazeneca	**3 894.5**	**11%**	**3.6%**
11	-1	Novo Nordisk	**3 809.5**	**6%**	**3.5%**
12	1	Novartis	**3 172.0**	**-7%**	**2.9%**
13	2	Octapharma	**2 348.6**	**5%**	**2.2%**
14	0	Laboratory Tuteur	**2 192.5**	**-29%**	**2.0%**
15	-11	Teva	**2 034.6**	**-66%**	**1.9%**
16	6	Abbvie	**2 031.5**	**104%**	**1.9%**
17	3	CSL Behring	**1 773.8**	**60%**	**1.6%**
18	6	Sotex	**1 679.7**	**78%**	**1.6%**
19	-3	Eli Lilly	**1 435.9**	**-18%**	**1.3%**
20	-3	Boehringer Ingelheim	**1 403.2**	**-13%**	**1.3%**

4. Manufacturers in the DRP Segments

Table 9 shows TOP-20 manufacturers leading in consumption volume in the DRP program in 2016.

In 2016, about 428 manufacturers took part in the DRP program.

Significant changes occurred in the ranking. The leader of the previous periods, F.Hoffmann-La Roche, gave way to the corporation Selgene due to a significant reduction in the cost of sales. In 2016, the total amount of public money spent on the purchase of this company's products amounted to more than 9 billion rubles, which is by 174% more than in 2015. The most expensive was Revlimid (about 99.8% of all sales of the company in value terms), its purchases grew by 174%. Also in 2016 another drug of this company Imnovid began to participate in purchases.

The second and third line of the rating are represented by domestic companies F-Sintez and Biocad, whose sales amounted to 7.3% and 6.9% of all government purchases, respectively.

> At the end of 2016, drugs for the treatment of diseases of the immune system took the leading position in the sales ranking, overtaking anticancer drugs. The greatest increase in costs in this group is noted for drugs that have immunomodulatory and immunosuppressive action.

Thus, as in 2015, according to the results of 2016, four Russian manufacturers entered the TOP-20 in terms of sales volumes (in 2014 there were two).

Table 9 shows the ranking of manufacturers participating in the "7 nosologies" and DCP program.

Selgene was the leader within the 7 nosologies program, while the leader of 2015 domestic company F-Sintez took the second line.

5. Drugs in the DRP Segments

Table 11 shows TOP-20 brands leading by sales volume in the DRP program in 2016.

The volume of sales among TOP-20 brands in 2016 amounted to 42.7% of the total value, which is less than in 2015 by 7.3%.

Foreign brand Revlimid having risen 3 lines up occupied the first line of the rating of sales volume, domestic Acellbia occupied the second line. The third line belongs to the leader of 2015 Boramilan FS, which reduced sales volume by 40%.

The newcomers of the rating include the immunomodulating agent Axoglatiran FS by F-Sintez (did not participate in purchases in the previous period); drugs for treatment of hemophilia, Octofactor by Generium (+267 positions in the rating) and Adwait by Baxter (+56 positions in the rating); drug for treatment of multiple sclerosis Rebif by Merck (+20 in the rating), as well as Levemir and Novorapid (+5 and +3 points, respectively)

The weighted average price for TOP-20 brands is high - about 44,300 rubles per package. In 2016, the most expensive drug in the TOP-20 was the drug for the treatment

of multiple myeloma Revlimid, its average weighted price is slightly above 440 thousand rubles, the insulin drug Novorapid was the cheapest (about 1,700 rubles.).

Most of the drugs in TOP-20 and the three leaders, in particular, belong to the group [L] "Antineoplastic and immunomodulating agents" (12 brands). The second place is the ATC group [B] "Agents affecting blood and blood forming organs" (4 brands).

Most of the drugs in the rating are the drugs included in the "7 nosologies" program (15 brands).

6. Segments by Price in the DRP Program

In 2016, the average price per unit in the DRP program increased by 10.9% and amounted to about 1,353 rubles.

Since the time when the DRP program was introduced, the price structure of this market segment was being transformed with the share of more expensive drugs increasing. According to the results of 2016, segment of drugs priced over 500 rubles and more, covered 93.1% of the sales value, in the previous year this parameter was 92.5%.

Table 11

TOP-20 Drug Manufacturing Companies by Sales Volume in DRP Segment within "7 nosologies" and DCP Program

	7 nosologies		ONLS	
2016 Rating	Manufacturer	Sales volume, rubles	Manufacturer	Sales volume, rubles
1	Selgene	**9 345.2**	Sanofi	**4 470.6**
2	F-Sintez	**6 915.1**	Astrazeneca	**3 894.5**
3	Biocad	**5 379.8**	F.Hoffmann-La Roche	**3 788.5**
4	Baxter Healthcare	**4 995.3**	Novo Nordisk	**3 641.2**
5	Generium	**4 599.8**	Johnson & Johnson	**3 331.2**
6	F.Hoffmann-La Roche	**2 920.2**	Merck	**2 387.1**
7	Octapharma	**2 293.4**	Biocad	**2 038.4**
8	Laboratory Tuteur	**2 026.2**	Novartis	**2 013.0**
9	Merck	**1 801.8**	Abbvie	**1 695.2**
10	CSL Behring	**1 610.2**	Eli Lilly	**1 435.9**
11	Johnson & Johnson	**1 544.7**	Boehringer	**1 403.2**
12	Teva	**1 444.4**	Sotex	**1 126.4**
13	Novartis	**1 159.1**	Pfizer	**1 072.2**
14	Sanofi	**1 049.7**	PHARMSTANDARD	**1 055.6**
15	Sinnagen	**847.2**	Fresenius	**1 029.4**
16	Astellas	**644.7**	F-Sintez	**993.3**
17	Talecris Biotherapeutics	**581.1**	Glaxosmithkline	**929.9**
18	Sotex	**553.3**	Pharm-Sintez (Moscow)	**929.5**
19	Vetter Pharma-Fertigung	**394.4**	Beaufour Ipsen	**810.4**
20	Kedrion	**391.3**	KRKA	**737.6**
Total:		**98.0%**		**68.8%**

The drug consumption structure within the DRP program is presented in Figure 18.

Changes in the price of a drug unit purchase within the DRP program have concerned the most "expensive" and the "cheapest" drugs. The figure shows that the average price of the package decreased in the segments "50 to 150 rubles" and "150 to 500 rubles", and increased in the segments "below 50 rubles", "500 to 10,000 rubles" and "over 10,000 rubles". The greatest price increase is observed in the most expensive segment "below 50 rubles": average package price increased by 12%.

In 2016, the drugs in the program of "High-cost Nosologies" are presented in the

Table 12

TOP-20 Brands by Sales Value in the DRP Program in 2016

2016 Rating	Changes	Brand	Manufacturer	Sales value, mln rub. 2016	Sales volume increase	Share
1	3	Revlimid	Selgene	**9 345.2**	**173.9%**	**8.7%**
2	0	Acellbia	Biocad	**4 995.5**	**-9.6%**	**4.6%**
3	-2	Boramilan FS	F-Sintez	**3 339.1**	**-40.0%**	**3.1%**
4	1	Lantus	Sanofi	**2 963.3**	**-3.6%**	**2.7%**
5	New	Axoglatiran FS	F-Sintez	**2 780.2**	**New**	**2.6%**
6	2	Coagil	Generium	**2 091.8**	**-19.2%**	**1.9%**
7	2	Genfaxon	Laboratory Tuteur	**1 886.5**	**-24.4%**	**1.7%**
8	20	Rebif	Merck	**1 801.8**	**100.3%**	**1.7%**
9	2	Remicade	Merck	**1 722.3**	**-26.1%**	**1.6%**
10	3	Octanat	Octapharma	**1 629.9**	**-1.5%**	**1.5%**
11	56	Adveit	Baxter Healthcare	**1 556.5**	**480.0%**	**1.4%**
12	-2	Velcade	Johnson & Johnson	**1 544.7**	**-35.0%**	**1.4%**
13	-7	Mabthera	F.Hoffmann-La Roche	**1 503.6**	**-46.9%**	**1.4%**
14	3	Pulmosim	F.Hoffmann-La Roche	**1 413.1**	**3.9%**	**1.3%**
15	-8	Herceptin	F.Hoffmann-La Roche	**1 356.0**	**-48.1%**	**1.3%**
16	4	Infibeta	Generium	**1 329.3**	**20.5%**	**1.2%**
17	-14	Copaxone-Teva	Teva	**1 255.7**	**-76.1%**	**1.2%**
18	5	Levemir	Novo Nordisk	**1 211.5**	**19.7%**	**1.1%**
19	3	Novorapid	Novo Nordisk	**1 208.8**	**16.4%**	**1.1%**
20	267	Octofactor	Generium	**1 178.7**	**3863.4%**	**1.1%**

segments from 50 rubles per unit. As in the previous periods, the main part of the sales volume (78%) is represented by the drugs with price over 10,000 rubles.

The drugs of DCP subprogram are mainly presented in the segment 500 to 10,000 rubles, which is about 45%. The main sales volume of 42% is in the segment of over 10,000 rubles. In the segment 500 to 10,000 rubles, the leader in sales volume is hypoglycaemic agent Lantus with weighed average price of more than 3,300 rubles per unit. Meanwhile Gerceptine, the leader in the most high-cost segment, costs 47,200 per package.

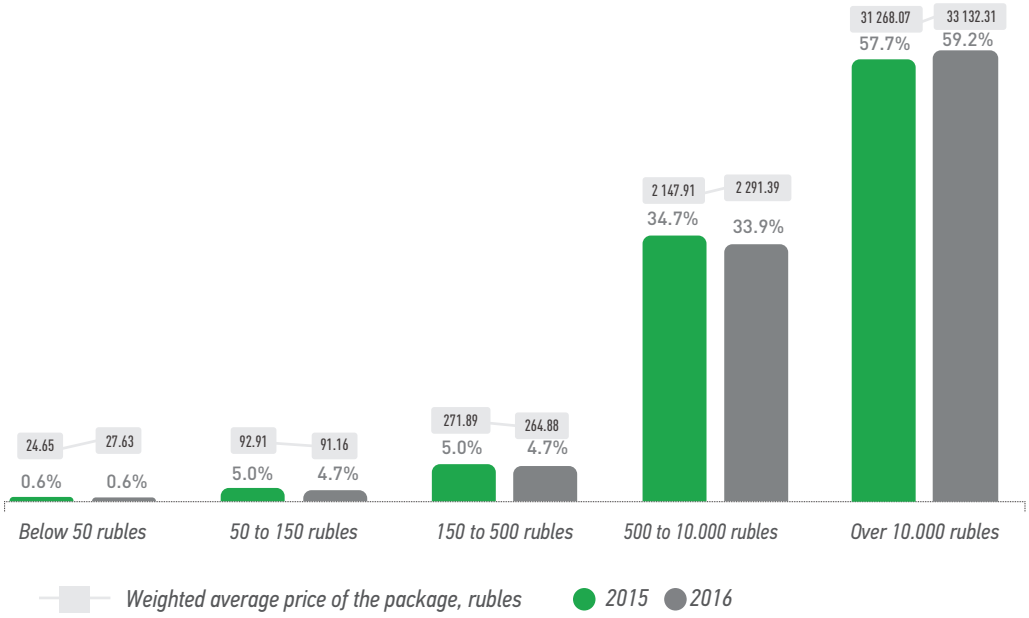
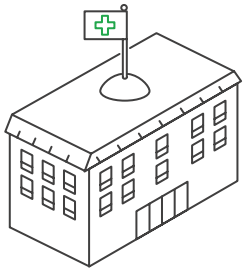


Figure 21

Sales volume within the DRP program by price segments



4. Sales Value in the Segment of Healthcare Institutions (HCI)

One of the main changes in health care financing in Russia in 2016 is that, according to the Federal Law of the Russian Federation No. 273 of 30.09.2015, the planning period of state budget formation is reduced from three years to one year. Thus, the federal budget and the budget of the Federal Fund of CHI were only approved for 2016. Subjects of the Russian Federation have the right to independently choose the planning horizon, but most regions preferred to follow federal experience and abandoned the three-year plans.

The consolidated health budget in 2016 amounted to 2 trillion 852 billion rubles, which is 7 billion more than in 2015. Planned financial support of «Healthcare» expenditures section was 490 billion rubles.

In 2016 healthcare expenditures under the state program «Healthcare Development» amounted to 354 billion rubles, or 2.2% of the total federal budget expenditures. Compared to 2015, healthcare expenditures increased by 42%.

According to the approved law, in 2016 the main growth of federal healthcare expenditures was due to financing the subprogram «Improving the provision of specialized and high-tech medical care» (158 billion rubles, 2.8 times higher than in 2015).

The second in importance is the «Prevention of diseases and promotion of healthy lifestyle. Development of primary care». It's financing accounts for 70.6 billion rubles, or 20% of healthcare costs, under the state program «Healthcare Development».

Subprogram «Development and implementation of innovative methods of diagnosis, prevention and treatment, as well as the fundamentals of personal medicine» occupies the third line by the amount of panned investments with 32.3 billion rubles.

A significant change in the structure of federal budget expenditures on healthcare in 2016 is the creation of a new subprogram «Organization of Obligatory Medical Insurance for the Citizens of Russia». Planned investments amount to 25 billion rubles, or 7% of all expenses.

Total expenditures approved in the budget of the Federal Fund for Compulsory Medical Insurance for 2016 amount to 1,688 billion rubles, which is only 1.5% higher than expenditures for 2015. Subventions to territorial CMI funds amount to 1,458 billion rubles, or 86% of the total expenditures of the fund. Compared to 2015, the volume of subventions increased by 3.2%, their share in the structure of total expenditures also slightly increased (+ 1%).

"Subjects of the Russian Federation have the right to independently choose the planning horizon, but most regions preferred to follow federal experience and abandoned the three-year plans."

The budget for healthcare will grow every year, in 2017 it will reach 3 trillion rubles, and in 2018 it will exceed this bar.

In order to increase the efficiency of expenses for patients' treatment at the end of 2016, First Vice Prime Minister Igor Shuvalov instructed the Ministry of Finance, the Ministry of Healthcare and the Ministry of Economic Development to provide funds for a pilot project to introduce risk-sharing in the federal budget for 2017-2019.

Risk sharing (or risk sharing agreement) provides for the purchase of drugs from pharmaceutical companies under certain conditions: if the treatment turns out to be ineffective, companies return money to the authorities. There is also a second version of risk-sharing, when payment is made only after successful treatment.

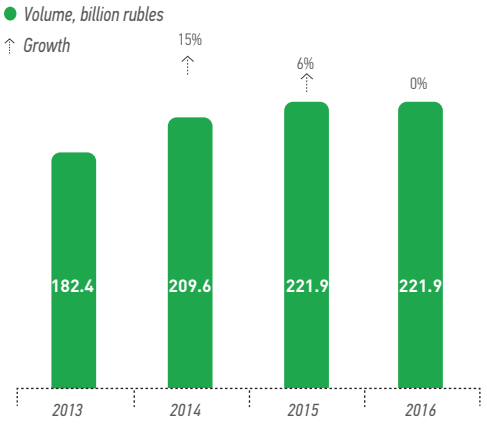
Budget money should be used for creation and operation of a special organization that will implement a risk-sharing model in Russia. The governmental agency estimated the value of such an organization at 20 million rubles. The main task of the new structure will be to evaluate the effectiveness of treatment.

At the moment the Moscow oblast already has a successful experience in organizing a system against hepatitis within the compulsory health insurance program, which is based on the risk-sharing model. In 2017, Russia should launch risk-sharing projects in Moscow, Moscow oblast and Kaluga oblast, also involving drugs against hepatitis C.

As a result of 2016, the volume of hospital purchases practically did not change in rubles (compared to 2015) and amounted to 221.9 billion rubles. In physical terms, the volume of purchased drugs amounted to 882.2 million packs in 2016, which is 13.6% lower than in 2015.

In the last few years, the main volume of the segment's purchases was provided in the last quarter of the year; hospitals are making drug stocks for the first quarter of the next year.

Dynamics of hospital DP purchases, billion rubles



Dynamics of hospital DP purchases, million packages

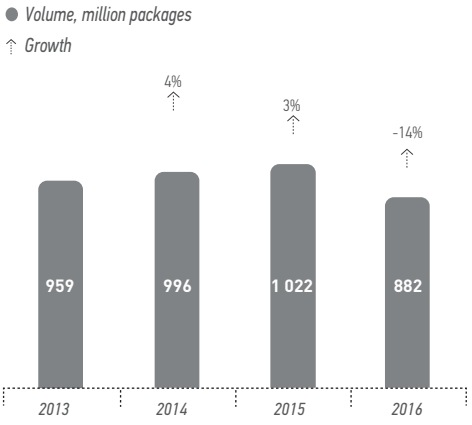


Figure 22

Dynamics of Hospital Purchases

Let's discuss the main pharmaeconomic parameters of hospital sales segment.

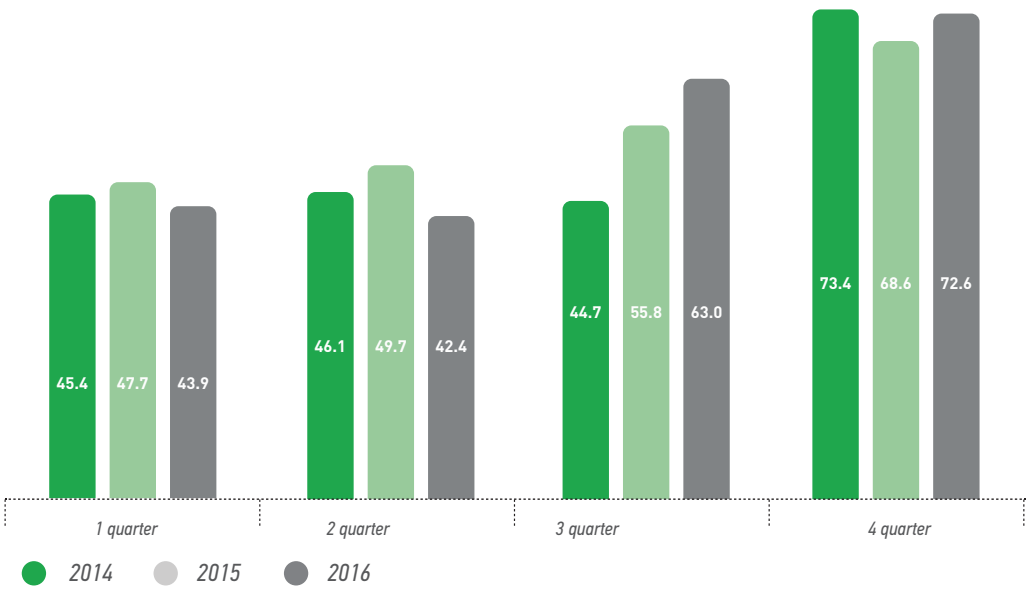
The average price of one unit of an RTU drug purchased by HCI was 252 rubles. The growth of a unit by HCI segment in comparison with 2015 increased by 16%, whereas, in 2015, in comparison with 2014, the growth was 3%.

As in the previous year, the largest share in the sales value in HCI segment is covered by imported drugs, whereas by the real sales volume domestic drugs take the leading positions. Thus, in real terms, the domestic drugs being cheaper are purchased 3 times more than the imported ones. The domestic drugs cover about 36% of the volume in money terms and about 76% in unit terms. In 2016 growth of the share of domestic drugs in money terms continued, while in physical terms it declined.

In 2016, the purchase volume of the imported drugs decreased both in rubles and in units: -4.2% and -2.7%, respectively. Meanwhile the purchase volume of domestic drugs in money terms continued to increase (8.7% growth in rubles). However, in physical terms, in 2016, there was a sharp drop in the volume of purchases: -16.6%. Such dynamics is caused by a decrease in volumes for almost all INN: in TOP-100 72 INNs demonstrate it by volume in packages. For example, domestic drugs with INN Sodium Chloride were purchased by 16% less than in 2015; And since this INN is the leader by packages in the hospital segment, it was only due to it that the volume of purchases decreased by 37 billion packs. INN drugs Cefotaxime (-14 billion pack.) and Ceftriaxone (-12 billion pack.) are in the second and third place by the decrease of domestic drug purchases.

Figure 23

Dynamics of Hospital Sales Volume by Quarters, billion rubles



The cost of one unit of an imported drug product is almost 6 times higher than the cost of one unit of a domestic drug product purchase by a HCI, although the difference in the weighted average price of a unit continues to decrease, mainly due to the increase of purchases of the domestic drugs of more expensive segment. In 2016, one imported unit of a RTU drug costed 668 rubles on the average, one domestic unit was 118 rubles. In comparison with 2015, the cost of one purchased imported unit decreased by 1.6%, the cost of one domestic unit in 2016 increased by 30.4% more.

The structure of HCI purchases by price categories is presented on figure 20.

In 2016 there were significant changes in the price structure of purchases. All price categories except for the segment of funds with a value of «more than 500 rubles» were marked by a reduction in the share of drug purchases for HCI.

In real terms, the segment of drugs priced up to 50 rubles is the one with the most capacity; its share covers 64%. However recently the purchase volume in this segment decreases: by 2% in 2016 compared to 2015. Such decrease happens due to the transition of the part of drugs into more expensive segment. As in the previous years, the most purchased drug is "Sodium Chloride" (33% of the real sales volume in the segment "less than 50 rubles").

As in the previous years, the main share among the imported drugs is covered with segment of drugs priced more than 500 rubles. (85%) (Figure 21). Domestic drugs almost in equal parts are presented in the segments of "less than 50 rubles" 15.9%) and "150 to 500 rubles" (15.5%), 12% are left in the segment of "50 to 150 rubles", and the main sales volume which was 56% is seen in the segment of "more than 500 rubles".

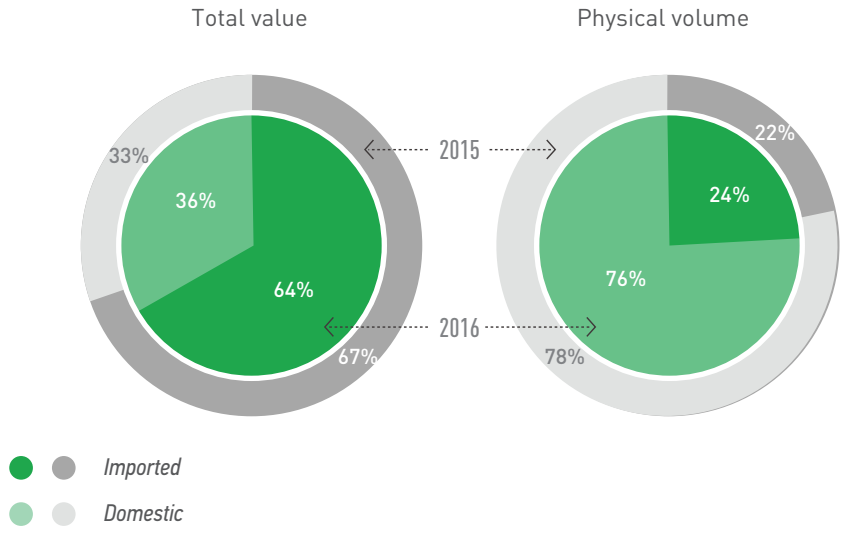


Figure 24

Proportion of Imported and Domestic Drug Sales

If in the segments with unit price up to 500 rubles, the difference between the weighted average price of imported and domestic drugs is not significant, in the segment with the most capacity "more than 500 rubles", the difference between domestic and imported drugs is still significant: approximately 2 times.

The ratio of hospital purchases of the drugs by first level ATC-groups in Russia according to the results of 2016 is presented in Table 12.

The ranking of the drugs in HCI segment by ATC-groups differs significantly from that of commercial market. Rating of ATC groups didn't change significantly compared to 2015.

In hospital purchases group [J] "Antibacterials for systemic use" remains the leader. Positive dynamics in the growth of this group has been observed since 2012 (+1% in rubles in 2016). Unlike previous years in 2016 the growth of the group in rubles was insignificant. It was mainly provided by the increase of sales volume of vaccines [J07] (+14.9%) and [J05] Antiviral drugs for systemic use (+7.4%). Increased purchases in subgroup [J07] included such drugs as Sovigripp, Ultrix, Grippol etc.

The permanent leader of the group [J] subgroup «Antiviral drugs for systemic use» [J05] increased its value volumes as in the previous year: + 7.4%. «Antibacterial drugs for systemic use» [J01], in turn, decreased in value terms by 13.8% vs 2015. The tendency of the past periods is also preserved: the sales volumes of the drugs from group «Antibacterial preparations for systemic use» [J01] in packages decreased by 17.4%. "Antiviral drugs for systemic use" [J05] preserved its growth rates increasing consumption volume by 20.9%.

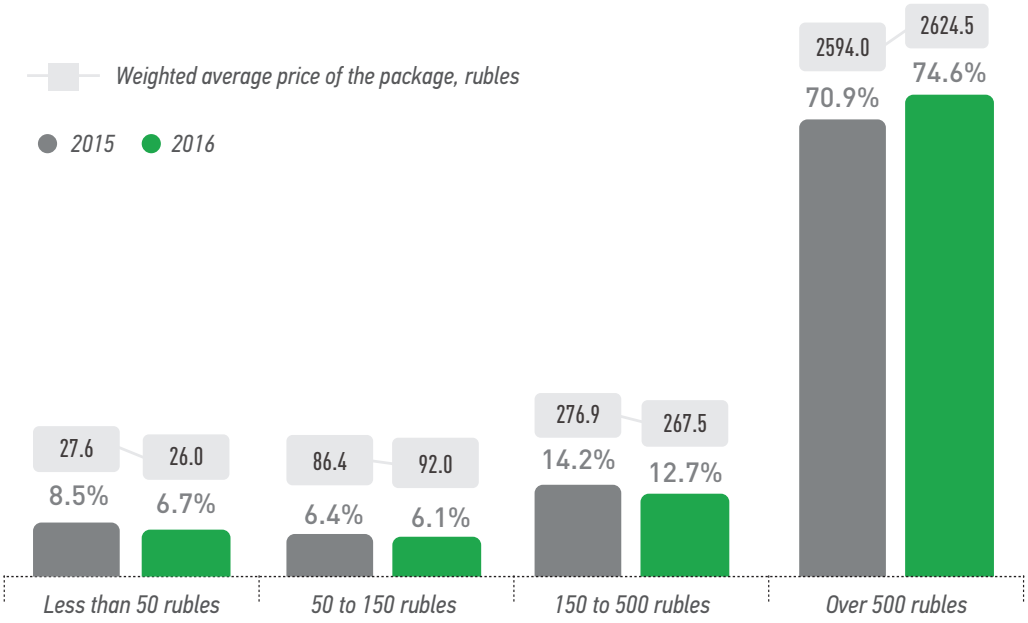


Figure 25

Structure of HCI Segment By Price Categories in 2015 and 2016

The decrease of sales volume in subgroup [J01] happened because of the decrease of real sales volumes of ten leaders: Cefotaxim (-56.2%), Cefazolin (-23.7%), Metronidazol (-15.3%) and Ceftriaxon (-6.3%). In 2016 maximal growth rates in value terms were shown by Doriprex (+37.0%) and Tigacil (+36.4%).

In the subgroup «Antiviral drugs for systemic use» [J05] Kaletra (+ 14.1% in rubles), Kemeruvir (+ 150.4% in rubles) provided growth of the group.

Unlike last year the least capacious subgroup of ATC group [J] «Antifungal drugs for systemic use» [J02] increased the volume of purchases (+ 18.6% in rubles). In the top ten brands of the subgroup «Antifungal Drugs for Systemic Use» [J02], such brands as Mycamine (+ 34.1% in rubles), Cancidas (+ 17.8%), and Ampholip (45.4%) provided for increase of the subgroup volume.

In the subgroup «Immune Serums and Immunoglobulins» [J06], the decline in sales was due to a decrease in purchases of brands «Pentaglobin» (-15.2% in rubles), «Immunoglobulin» (-18.6% in rubles) and «Octagam» (-55.2% in rubles), which are among the five most purchased brands in rubles.

In contrast to previous years, the second place in the rating of ATC-groups in the hospital segment in 2016 was occupied by the group [L] «Antineoplastic and immunomodulating agents.» Since 2013, positive trends have been observed in the subgroup: in 2016 this group increased in value of drug purchases by 14.9%, while in 2012 the volumes were declining. In physical terms, the situation is not so positive: in 2016 the number of packages purchased for HCI decreased by 7% compared to the previous year.

The increase in the sales of the group [L] was mainly due to the increase in

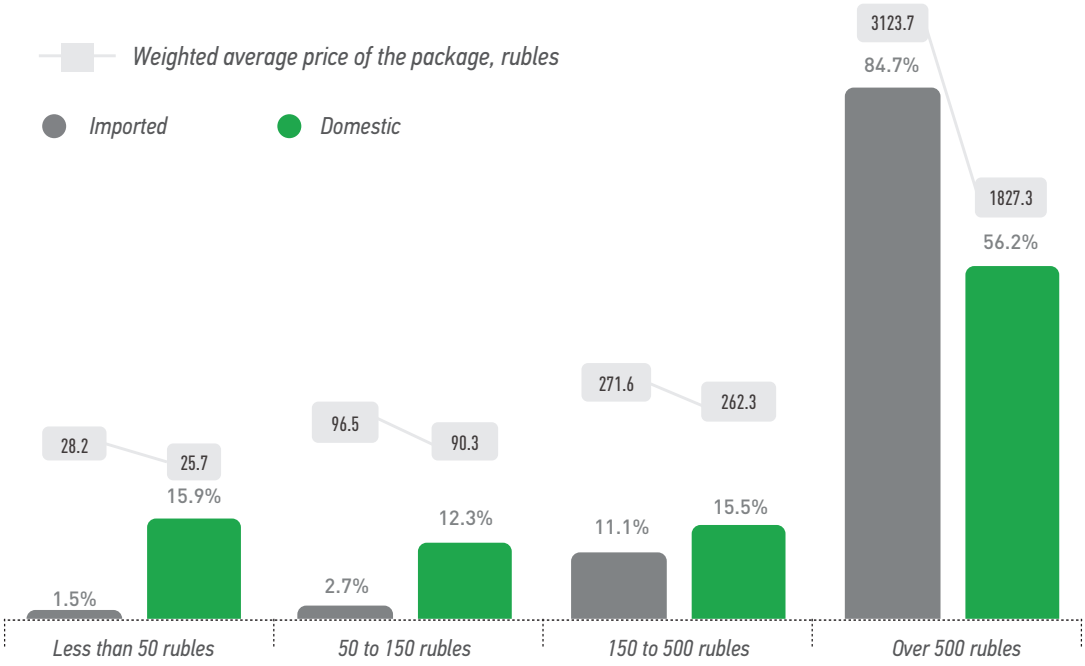


Figure 26

Structure of HCI Segment by Price Categories for Imported and Domestic Drugs in 2016

Table 13

Structure of the Hospital Purchase of RTU Drugs by ATC-Groups in 2016

First Level ATC-groups	Sales value, mln rub.	Group share in sales value, %	Real sales volume, millions of units	Group share in real sale volume, %
[J] Antibacterials for systemic use	78 704.6	35.5%	254.6	28.9%
[L] Antineoplastic and immunomodulating agents	39 417.1	17.8%	10.7	1.2%
[B] Agents affecting blood and blood forming organs	31 950.8	14.4%	297.0	33.7%
[N] Nervous system drugs	19 507.2	8.8%	81.4	9.2%
[A] Alimentary tract and metabolism	13 467.2	6.1%	65.0	7.4%
[V] Other drugs	9 870.3	4.4%	8.8	1.0%
[C] Cardiovascular system drugs	6 780.0	3.1%	41.6	4.7%
[R]Respiratory system drugs	5 794.4	2.6%	27.8	3.2%
[M] Musculoskeletal system drugs	4 531.5	2.0%	20.5	2.3%
[G] Genitourinary system drugs and sex hormones	2 934.0	1.3%	4.1	0.5%
[H] Systemic hormonal preparations (excluding sex hormones)	2 581.2	1.2%	13.0	1.5%
[S] Agents affecting sensory organs	2 402.5	1.1%	5.0	0.6%
[D] Dermatologicals	2 050.6	0.9%	50.4	5.7%
[~] Without allocation	1 844.7	0.8%	2.0	0.2%
[P] Antiparasitic products, insecticides and repellents	42.4	0.0%	0.4	0.0%

the volume of purchases in the most capacious subgroup [L01] «Antineoplastic drugs» (+ 18% in rubles). The most «purchased» drug of this subgroup is Herceptin, although in 2016 it showed a decrease of 10.7%. Brands Taxacad and Novotax significantly increased sales compared to 2015: + 139.2% and + 227.4%, respectively.

Group [B] «Agents affecting blood» fell in the rating by one position, which was accompanied by a decrease in the volume of public procurement by 8.1%. The most capacious subgroup is [B05] «Plasma-substitution and perfusion solutions», accounting for 43.9% of the group. The drugs based on INN Sodium Chloride are leading in procurement both in money terms and in units.

Table 14

TOP-20 Manufacturers in HCI Segment According to the Results of 2016

2016 Rating	Changes	Manufacturer	Sales value, mln rub.	Sales volume increase	Share
1	1	Abbvie	**11 821.6**	**30%**	**5.3%**
2	-1	Pfizer	**10 781.7**	**-7%**	**4.9%**
3	2	Merck	**8 029.0**	**-5%**	**3.6%**
4	0	F.Hoffmann-La Roche	**7 162.8**	**-17%**	**3.2%**
5	-2	Sanofi	**7 040.8**	**-21%**	**3.2%**
6	7	Pharmasyntez (Irkutsk)	**6 982.0**	**66%**	**3.1%**
7	-1	Johnson & Johnson	**6 914.8**	**-9%**	**3.1%**
8	0	Novartis	**6 238.9**	**8%**	**2.8%**
9	14	Biocad	**5 962.7**	**172%**	**2.7%**
10	-1	Takeda	**5 351.5**	**-3%**	**2.4%**
11	-1	Astrazeneca	**5 232.1**	**11%**	**2.4%**
12	3	VEROPHARM	**4 734.8**	**30%**	**2.1%**
13	-6	Glaxosmithkline	**4 449.3**	**-26%**	**2.0%**
14	-3	PH “Pharm-Center”	**4 395.3**	**3%**	**2.0%**
15	-3	Bayer	**4 057.1**	**-4%**	**1.8%**
16	0	Microgen	**3 735.9**	**7%**	**1.7%**
17	-3	Bristol-Myers Squibb	**3 500.2**	**-7%**	**1.6%**
18	-1	Boehringer Ingelheim	**3 316.5**	**1%**	**1.5%**
19	91	Petrovax	**2 941.0**	**852%**	**1.3%**
20	0	Baxter	**2 722.9**	**8%**	**1.2%**

Table 13 presents the rating of the top-20 producers in the segment of HCI facilities in 2016.

The leader of 2016 was the foreign producer AbbVie. AbbVie is a long-standing and active participant in the Russian pharmaceutical market. The company has been operating in Russia for more than 37 years, first as a division of the patented Abbott products, and then, after separation from Abbott in January 2013, as an independent global biopharmaceutical company AbbVie. In 2016, the company showed a significant increase in sales in the hospital segment: + 30.3%. It was significantly due to the increase in purchases of such drugs as «Viekira Pak» (+ 675.2%) and «Kaletra» (+ 14.1%).

The leader of the past years Pfizer in 2016 dropped one line down. This was accompanied by a decrease in the volume of purchases by 6.8%. The reason for this was a decrease in purchases of the brand-leader «Prevenar» by 12.5%.

The third line is occupied by Merck & Co, which, despite a decline in sales by 5.1%, managed to climb 2 lines up in the ranking. The largest drop in purchases was shown by brands that close TOP-10 of the most popular brands of this corporation: Tienam (-47.8%) and Pegintron (-47.1%). The leader in hospital purchases in the company's product portfolio is Isentress, a drug for the treatment of HIV infection (30% share), its volume of purchases increased by 10% compared to the previous year in rubles.

2 more companies joined the list domestic manufacturers, included in TOP-20: Biocad and Petrovax, now there are 6 companies in the rating. Biocad climbed 14 lines up and is on line 9. Such growth was provided by the increase in sales of such drugs as Taxacad and Novotax (+139.2% and +227.4% respectively). Also in 2016 state drug purchases for HCI included 5 drug products not included in the program of 2015.

Having increased the volume of sales by 851.5% Petrovax entered the rating of the best companies, taking 19th place (+91 position). Growth of the company was provided by the vaccine «Grippol», its purchase volume increased by 10 times in comparison with 2015.

Glaxosmithkline showed maximum decline in the volume of purchases compared with 2015 (-25.6%), it lost six lines in the ranking, going down to 13th place. Three brands of the top five drugs in terms of purchases in the company's hospital portfolio («Kivexa», «Telzir» and «Ziagen») showed a significant drop.

Table 14 shows TOP-20 brands in HCI segment by the end of 2016. The share of TOP-20 brands in hospital purchases is 23.1%, i.e. by 1% less, than in previous year.

In 2016, the TOP-3 did not change, but there were rearrangements. The antiviral drug for treatment of HIV-infection Kaletra got the first line of the rating: the volume of purchases grew by +14.1%. Brands «Prevenar» and «Sodium Chloride» showed a decrease in the volume of purchases (-12.5% and -16.4% in rubles, respectively) and dropped one line down.

The rating includes both expensive imported medicines and cheap domestic products («Sodium Chloride», «Ceftriaxone»).

The biggest increase was shown by the brand «Viekira Pak» (a drug for the treatment of hepatitis C), its volume of purchases increased by 675.2%, which allowed it to rise from line 231 to line 15.

Table 15

TOP-20 Brands in HCI Segment According to the Results of 2016

2016 Rating	Changes	Brand	Sales Value, mln rub. 2016	Sales Volume Increase	Share
1	2	KALETRA	**7 011.7**	**14.1%**	**3.2%**
2	-1	PREVENAR	**6 748.8**	**-12.5%**	**3.0%**
3	-1	HERCEPTIN	**6 043.6**	**-16.4%**	**2.7%**
4	3	GRIPPOL	**2 906.9**	**244.3%**	**1.3%**
5	-1	HERCEPTIN	**2 726.8**	**-10.7%**	**1.2%**
6	-1	REATAS	**2 459.6**	**-1.6%**	**1.1%**
7	2	ISENTRESS	**2 398.7**	**10.1%**	**1.1%**
8	51	SOVIGRIPP	**2 094.9**	**250.3%**	**0.9%**
9	2	KUROSURF	**1 938.5**	**-2.9%**	**0.9%**
10	37	KEMERUVIR	**1 703.9**	**150.4%**	**0.8%**
11	-1	CEFTRIAXONE	**1 690.5**	**-18.6%**	**0.8%**
12	9	INTELENS	**1 609.3**	**21.2%**	**0.7%**
13	2	CLEXAN	**1 591.0**	**-10.7%**	**0.7%**
14	3	SEVORAN	**1 575.0**	**7.6%**	**0.7%**
15	231	VIEKIRA PAK	**1 556.3**	**675.2%**	**0.7%**
16	-2	ULTRAVIST	**1 547.6**	**-14.2%**	**0.7%**
17	5	LUCENTIS	**1 531.4**	**17.3%**	**0.7%**
18	-5	AVASTIN	**1 425.9**	**-22.6%**	**0.6%**
19	0	ACTILISE	**1 415.1**	**2.0%**	**0.6%**
20	-4	GLUCOSE	**1 293.2**	**-19.5%**	**0.6%**

In 2016, number of drugs (Prezista, Kivexa, Meropenem) left the rating. Thus, in INN Darunavir which includes Prezista (Johnson & Johnson), there was a switch to the domestic Kemeruvir («Pharmasintez» (Irkutsk)). And this is one of the examples of import substitution.

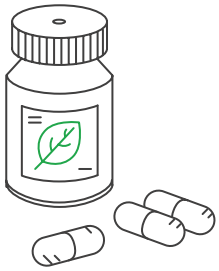
Below is the TOP-10 INN with the maximum share of «switching» to domestic drugs from the TOP-100 in terms of purchases (these INNs represent 60% of all hospital purchases in money).

Table 16

TOP-10 INN by Import Substitution

INN	Share of domestic DPs, rubles		Share growth	Leader, 2015	Substitution drug, 2016
	2015	2016			
DARUNAVIR	**22.7%**	**68.4%**	**45.7%**	Presista (Johnson & Johnson)	Kemeruvir Pharmasintez (Irkutsk))
ZIDOVUDIN+ LAMIVUDIN	**57.7%**	**92.1%**	**34.4%**	Combivir (Glaxosmithkline)	Dizaverox Pharmasintez (Irkutsk))
LINEZOLID	**19.8%**	**53.8%**	**34.0%**	Zivox (Pfizer)	Amizolid Pharmasintez (Irkutsk))
DOCETAXEL	**47.3%**	**79.7%**	**32.4%**	Taxoter (Sanofi)	Novotax (Biocad), Tautax (Veropharm)
RITUXIMAB	**13.5%**	**45.7%**	**32.2%**	Mabtera (F.Hoffmann-La Roche)	Acellbia (Biocad)
GEMCITABIN	**11.5%**	**41.6%**	**30.1%**	Gemcitabin Medac (Medac)	Gemcitar (Biocad)
OXALIPLATIN	**30.9%**	**58.6%**	**27.7%**	Eloxatin (Sanofi)	Exorum (Veropharm)
CYCLOSERIN	**55.2%**	**80.9%**	**25.7%**	Various	Kansamin Pharmasintez (Irkutsk))
LAMIVUDIN	**55.1%**	**79.4%**	**24.3%**	Kivexa (Glaxosmithkline)	Dizaverox Pharmasintez (Irkutsk))
BEVACIZUMAB	**0.0%**	**21.8%**	**21.8%**	Avastin (F.Hoffmann-La Roche)	Bevacizumab (Biocad)

5. Nutritional Supplements



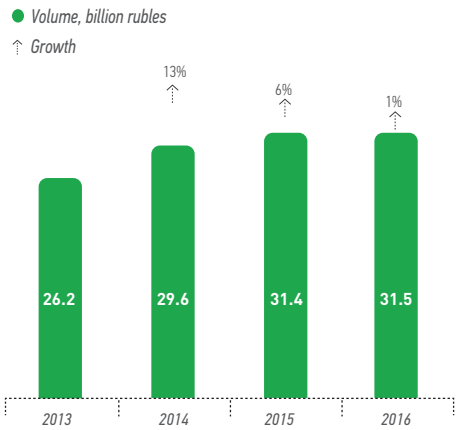
The pharmacy market of nutritional supplements has changed significantly in recent years. Moreover, both structural changes and changes related to external regulatory and economic factors took place.

The most significant legislative initiative in 2016 was the change in the rules of advertising the nutritional supplements, which is the main tool in promoting this category of products. Regulatory authorities strictly monitor the supply of information on the beneficial properties of the product so that the consumer can not perceive it as a statement of the therapeutic effect. Packaging and advertising of nutritional supplements, according to regulatory requirements, have become impersonal, and the information is reduced to such a minimum that it is not always clear for the consumer why he should purchase this product.

Also note the work of a self-regulating organization (SRO) Non-commercial partnership «Association of manufacturers of nutritional food supplements «. In order to cleanse the market of nutritional supplements from falsified products, the check of nutritional supplements for men's health begun in 2015 was continued. As a result, Rospotrebnadzor canceled the certificates of state registration of nutritional supplements «Alikaps», «Sealex Forte». This led to a decrease in sales of nutritional supplements that affect the male reproductive system: in 2016, sales decreased by 36% in value terms (one of the maximum declines among the categories of nutritional supplements of the second level).

Financial and economic factors also have a negative impact on the dynamics of pharmacy sales of nutritional supplements in the past few years. On the one hand,

Dynamics of nutritional supplements market, billion rubles



Dynamics of nutritional supplements market, million packages

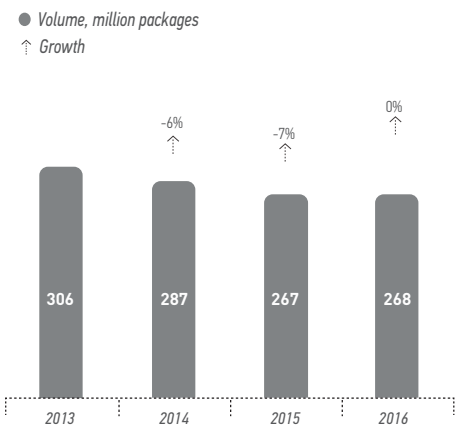


Figure 27

Nutritional Supplements Sales Volume in Russia

Note: sales volume is in purchase prices of the pharmacies with VAT included.

the level of the population's solvency has decreased, and on the other hand, nutritional supplements are not an essential commodity. Thus, nutritional supplements market doesn't grow in packages for a long period. The increase in the value of this segment is provided only by high inflation of this group of goods.

2 years ago nutritional supplements market grew relatively quickly: in average by 12-14% per year. In 2015, positive dynamics of growth is still preserved, but the growth rate decreased due to the crisis. According to data for 2015, the sales of nutritional supplements in pharmacies increased only by 6%. In 2016, the increase in money was only 1%. As a result, according to the data of the monthly retail audit of the Russian pharmaceutical market, conducted by ZAO(CJSC) DSM Group (DSM Group), in 2016, 268 million packages of nutritional supplements were sold through the pharmacy network for a total of 31.5 billion rubles (at purchase prices of pharmacies).

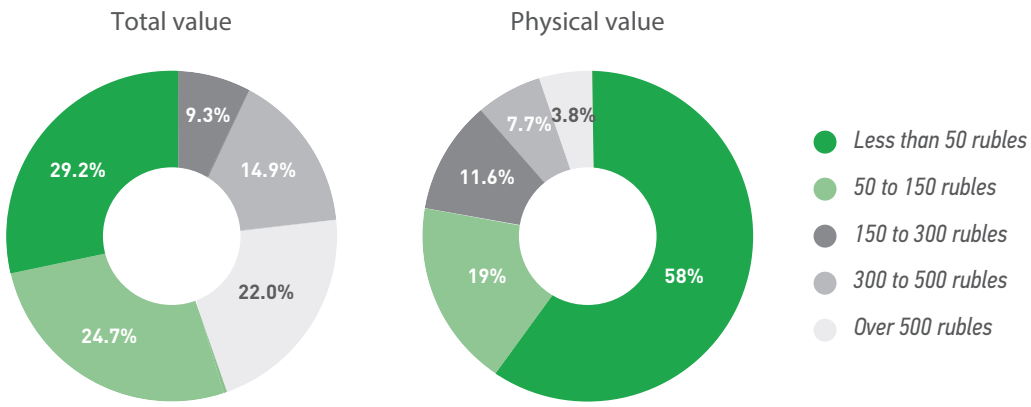
For the pharmacy, nutritional supplements remain the most important category of pharmacy non-drug assortment, accounting for 4% of total sales. In 2016 about 2,450 different brands of nutritional supplements produced by about 950 manufacturers were presented on the shelves.

On average, one pack of nutritional supplements costs 160 rubles (retail price). Note that in 2016 the weighted average price increased only by 1.9 rubles. In the purchase prices of the pharmacies the weighted average price of nutritional supplements is about 117.5 rubles. Thus, the markup for this group of pharmacy products is about 36%.

The most demanded price segment on the market is the segment of NS priced under 50 rubles. The share of this segment is about 58% of sold NS in real terms. It should be noted, however, that because of the low price the share of this segment in real terms is about 9%. The main profit is

Figure 28

Proportion of NS Sales by Price Segments



made by NS costing over 500 rubles, the share of such segment is 29% (although in units its share is about 4%).

As in drug sales, there is a trend to reduction of the share of «cheap» nutritional supplements both in value and in physical terms. Over 4 years, the share of nutritional supplements with a price of up to 50 rubles decreased from 12% to 9% in value terms and from 64% to 58% in natural terms. This trend is not due to switching the consumer to more expensive positions of dietary supplements, but is due to a price factor.

Despite a slight increase in average prices, inflation in nutritional supplements in recent years is quite high, as already mentioned above.

NS price dynamics was analyzed using the Laspeyres price index. Only in 2016 the prices increased by 10.4% in average. And inflation to the prices of 2013 was about 40%.

Manufacturers market the nutritional supplements as the means for the prevention of various diseases. It is not very convenient to use the existing official classifier to assess the NS market as many nutritional supplements used for prevention of the same diseases are in different sections of the classifier (for example, products improving vision). Therefore, DSM specialists developed their own NS classifier, which reflects the realities of today's NS market more accurately. The NS Classifier consists of 17 sections, most of which include the 2nd, and some of which have the 3rd subsection.

As in the previous periods, «V NS that affects the body in general» is the most popular. In comparison with 2015 in 2016 this group of nutritional supplements grew by 8% in rubles. Vitamishki by Pharma-Med and Femibion by Merk Selbstmedikation are the most popular in this group.

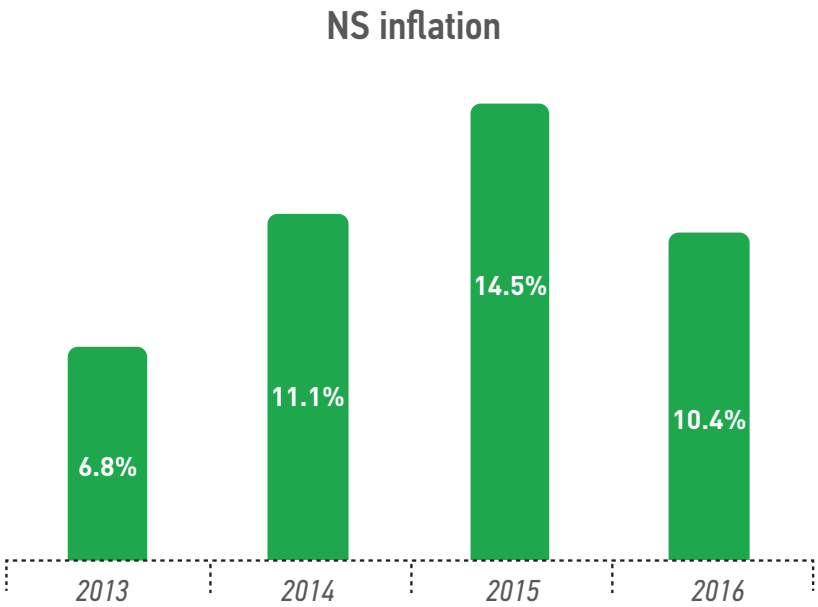


Figure 29

Change of NS Prices in the Pharmacy Market of Russia

The group «A NS that affect the digestive system» showed the maximum volume increase in monetary terms (+ 17%) and rose one line up in 2016 due to a significant decrease in the sales volume of the «G NS affecting the reproductive system» (-25%). In the group of nutritional supplements «that affect the digestive system» the most popular brands are «Phytolax» by the domestic manufacturer «Evalar» and «Maxilac» by Genexo.

In Group G, «NS that affect the Reproductive System,» despite a significant decline (a maximum drop of -25%), the brand «Sealex» and «Ali Caps» by «Ria Panda» which after the cancellation of the registration for «Sealex Forte» and «Ali Caps» issued «Sealex Forte Plus» and «Ali Caps Plus». These nutritional supplements belong to the subgroup G02 «NS that affect the male reproductive system,» due to which the group as a whole also falls. Among drugs of the subgroup G01 «NS that affect the female reproductive system» «Indinol» by «Ilmiksgroup» is still popular. The subgroup itself shows positive dynamics (+ 4%).

Figure 30

Proportion of Imported and Domestic NS Sales by Countries

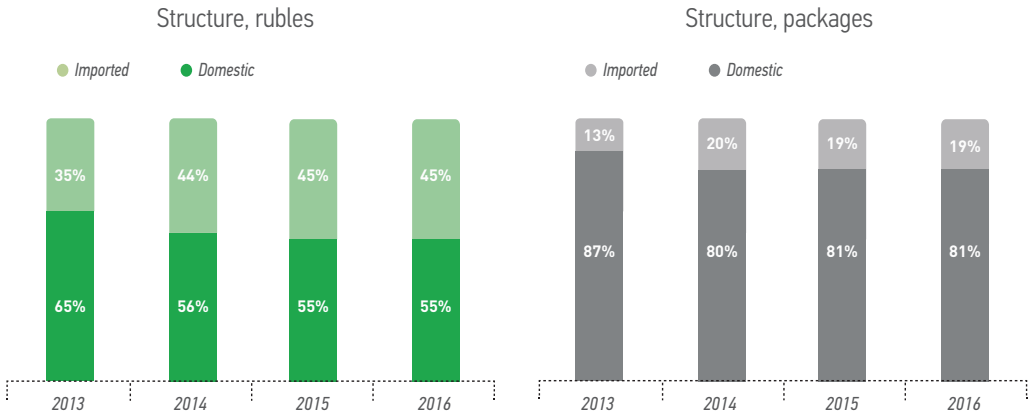
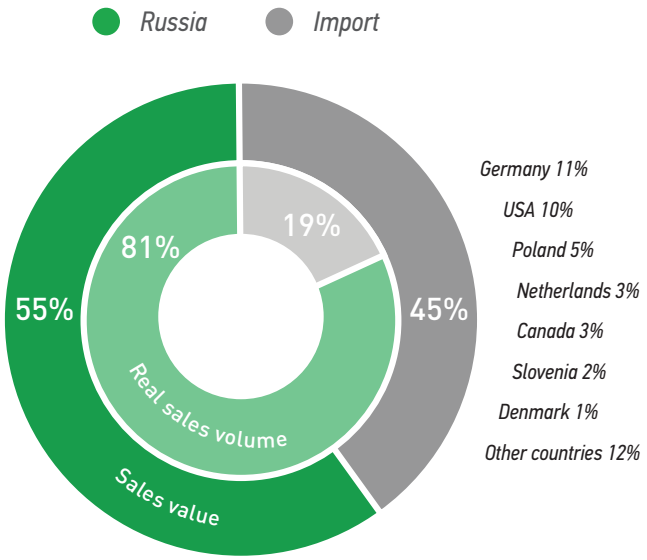


Figure 31

Proportion of Imported and Domestic NS Sales by Countries



The group R NS, «used to treat the respiratory diseases» shows positive dynamics (+ 26%). Substantial growth is provided by drugs, which are positioned as auxiliary agents used for treatment of throat diseases (tonsillitis, pharyngitis, laryngitis etc.). Lozenges «Dr. Theiss» (Dr.Theiss Naturwaren) and «Karmolis» (Dr. A. & L. Schmidgall) were the first in popularity in 2016.

TOP-20 NS Brands Leading in Sales Volume in the Russian Market

The ranking in the TOP-20 has undergone significant changes in 2016. The leader of 2015 «Sealeks» lost 7 positions in the rating, reducing sales volumes by more than 58%. Its place in the rating of 2016 was taken by the brand Solgar, which combines drugs from 12 different groups of nutritional supplements (the most capacious being «NS that affect the body in general»). Also, thanks to the change of the leader, the brands «Vitamishki» (+2 lines) and «Doppelherz» (+2 lines), which also mainly belong to the «vitamin» category, improved their position.

Significant positive changes include «+ 70%» for the brand «Maxilak» and «+ 69%» for «Glycine Forte» by Evalar «, the negative changes include "-58%" for «Sealex» and "-53%» for «Ali Caps», already mentioned in this review.

Newcomers of the rating are Univit (18th line) and Complivit (19th line). «Univit» is a range of vitamins and minerals for adults and children, which appeared on the market only in 2014. It is manufactured by Amapharm, and in Russia it is promoted by OTCpharm. «Complivit» is a range of vitamin and mineral complexes of the domestic producer OTCpharm, the main sales volume of which is concentrated in group D of nutritional supplements «to treat skin and hair problems»

Despite the high turnover of brands in the rating, the share of TOP-20 has changed insignificantly from 42% to 39%.

TOP-20 NS Manufacturers Leading by Sales Volume in the Russian Market

Significant changes are observed the structure of sales of nutritional supplements by origin. If in 2013 there were 6 domestic companies in the TOP-10 rating, in 2016 only three Russian manufacturers are included in the «top ten». And only the leader - «Evalar» - managed to retain its place in the ranking. Other manufacturers either lost in sales volumes, or were bought by foreign companies.

As a result, over 4 years the share of domestic supplements in value terms declined from 65% in 2013 to 55% in 2016. The main changes occurred in the structure in 2014. Significant mergers were not observed in the past 2 years, so the ratio between imported and Russian nutritional supplements remains stable. Domestic natural supplements continue to lead in physical terms, their share being 81% in 2016.

The average price of the package of the domestic drug in 2016 was 80 rubles (-1% to 2015), which is approximately 3.5 times lower than the price of the package of imported drugs. In the same period, the price of imported package averaged 275 rubles.

Among foreign manufacturers NS manufactured in Germany (23.5%), USA

(22.5%) and Poland (10%) take the leading positions. The list of German manufacurers is headed by Queisser Pharma GMBH & CO.KG (NS Doppelherz) and Merk Selbstmedikation (Femibion). Among American NS, products manufactured by Solgar Vitamin and Herb (NS SOLGAR) are the most popular. Genexo (NS Maxilac) and Polpharma (Normobact) are the leading Polish manufacturers.

The changes in the rating of manufacturers are smaller than in the arrangement of brands. The list of top five did not change. However, due to a significant reduction in the sales volume of RIA Panda («-48%»), Pharma-Med rose to the second line.

«Evalar» is the leader of the rating for many years. In 2016, the share of the manufacturer increased from 15% to 18%.

Table 18

TOP-20 NS Brands by Sales in Russia in 2016

2016 Rating	Changes	Brand	Sales value, mln rub. 2016	Sales volume increase	Share
1	1	SOLGAR	1 365.4	**21%**	**4.3%**
2	2	VITAMISHKI	1 049.8	**14%**	**3.3%**
3	2	DOPPELGERZ	959.4	**8%**	**3.0%**
4	3	FITOLAKS	954.8	**18%**	**3.0%**
5	1	TURBOSLIM	876.6	**1%**	**2.8%**
6	2	PHEMBION	864.1	**16%**	**2.7%**
7	4	MAKSILAK	802.5	**70%**	**2.5%**
8	-7	SEALEKS	699.2	**-58%**	**2.2%**
9	1	NORMOBACT	528.9	**10%**	**1.7%**
10	-1	ALPHAVIT	528.5	**2%**	**1.7%**
11	-8	ALI CAPS	527.7	**-53%**	**1.7%**
12	0	HEMATOGEN	499.5	**6%**	**1.6%**
13	11	GLYCIN FORTE "EVALAR"	434.6	**69%**	**1.4%**
14	4	LINEX FOR CHILDREN	358.8	**24%**	**1.1%**
15	4	MOTHERWORT	345.7	**22%**	**1.1%**
16	0	INDINOL	342.2	**-1%**	**1.1%**
17	4	OVESOL	325.6	**20%**	**1.0%**
18	21	UNIVIT	314.9	**76%**	**1.0%**
19	9	COMPLIVIT	288.0	**23%**	**0.9%**
20	0	PHITOMUCIL	286.3	**3%**	**0.9%**

Table 17

Sales Ranking by NS Classifier According to the Results of 2016

Note: sales volume is in purchase prices of the pharmacies with VAT included

2016 Rating	Changes	Group	Sales value, mln rub. 2016	Sales volume increase	Share
1	0	V NS THAT AFFECT THE BODY IN GENERAL	**9 041.8**	**8%**	**28.7%**
2	1	A NS THAT AFFECT THE DIGESTIVE SYSTEM	**6 430.5**	**17%**	**20.4%**
3	-1	G NS THAT AFFECT THE REPRODUCTIVE SYSTEM	**5 144.8**	**-25%**	**16.3%**
4	0	N NS THAT AFFECT THE FUNCTION OF THE CENTRAL NERVOUS SYSTEM	**2 452.3**	**12%**	**7.8%**
5	0	W NS FOR WEIGHT LOSS AND BODY PURIFICATION	**1 668.2**	**-13%**	**5.3%**
6	0	C NS FOR SUPPORT OF CARDIOVASCU-LAR FUNCTION	**1 439.0**	**-3%**	**4.6%**
7	0	S NS THAT AFFECT THE SENSORY ORGANS	**978.9**	**-2%**	**3.1%**
8	0	D NS USED TO TREAT DIFFERENT SKIN AND HAIR PROBLEMS	**966.9**	**2%**	**3.1%**
9	0	M NS USED TO TREAT BONE DISEASES	**939.9**	**8%**	**3.0%**
10	1	R NS USED TO TREAT RESPIRATORY DISEASES	**670.8**	**26%**	**2.1%**
11	-1	B NS THAT AFFECT HEMATOPOIESIS	**626.8**	**3%**	**2.0%**
12	0	U NS THAT AFFECT THE URINARY SYSTEM	**324.1**	**4%**	**1.0%**
13	0	H NS THAT AFFECT THE FUNCTION OF VASCULAR GRANDS	**282.2**	**13%**	**0.9%**
14	0	I NS THAT SUPPORT THE IMMUNE SYSTEM	**271.0**	**10%**	**0.9%**
15	0	T NS USED IN CASE OF POISONING AND INTOXICATION	**213.3**	**17%**	**0.7%**
16	0	O NS USED FOR TREATMENT AND PREVENTION OF CANCER (OTHER THEN TUMOURS OF REPRODUCTIVE SYSTEM)	**53.2**	**-23%**	**0.2%**
17	0	J NS USED IN CASE OF VIRAL, BACTE-RIAL AND FUNGOUS DISEASES	**20.7**	**51%**	**0.1%**

If in 2013-2015 the company demonstrated a negative dynamics in total value, in 2016 the sales volume of «Evalar» products was higher than the growth of the supplements market in general. «Phytolax», «Glycine», «Motherwort» were the drivers of growth. But the leader of the past years, the line of products for weight loss «Turboslim» in monetary terms remained at the level of 2015. At the moment, the portfolio of «Evalar» includes about 320 different names of nutritional supplements, combined in 130 lines with one trade name. Annually new products of the company appear on the market, in 2016 about 70 new nutritional supplements appeared taking into account the dosage, purpose and form of release. The most successful novelty is «Indol Forte Capsule 230 mg No. 60», which is a larger package of a drug already present on the market. Due to the expansion of the range, the volumes of «Indol Fort» have almost doubled. Note that the release of a package with a higher number of tablets, and, therefore, with greater economy for the consumer is the trend of recent years. Evalar issued the same «large» packages of «Honda», «Gold Mummy», «Ginkgo Biloba», etc. In order to sell the products, the manufacturer opens «Phytomarkets», the assortment of which includes more than one thousand names of Russian and foreign products. And also the manufacturer has the pharmacy chain of the same name, which already includes over 110 pharmacies.

Sales of Pharma-Med, which took the second line, by 48% consist of «Vitamishki», which is very popular among the population. At the moment, the line includes 10 names. It should be noted that the growth of the line is also provided by the NS in package «№60», whereas the positions of the package «№30» demonstrate negative dynamics. In 2016 in addition to the main product the range of probiotics «Bac-set» has grown significantly. Also Pharma-Med introduced a new NS - Spermaktin forte, which in the first year of sales took 5% of the manufacturer's portfolio.

Genexo represented in the Russian market with one NS Maxilac demonstrates high growth rate (+70%).

Newcomers of the rating are:

- «Aqvion» rose 7 lines up due to the growth of such positions as «Speroton» (NS, which affects the male reproductive system), «White coal» (NS binding toxic substances); new products «Dyshi» (NS used for treatment of throat diseases), «Liquid coal» and vitamins «Superum».
- Novartis rose 4 lines up due to significant increase of sales of Linex for children.
- Kraft took 19th line in the rating (+6 positions) due to the growth in sales of Bactistatin and Helinorm (NS that help maintain and restore normal intestinal microflora)
- Zeldis entered the TOP-20 on the 20th line (+8 positions) due to the two-fold growth of the Ascorbin Ka Forte line. In 2016, the range was expanded and the chewing tablets with new flavors appeared on the market.

The struggle for the last places in the TOP-20 rating is quite active. High dynamics among the «not included» companies should be noted, i.e. Stada (+45%). Its line of supplements «Vuka-Vuka», which affects the male reproductive system, demonstrates positive growth on the background of a decline in the group in general. Amapharm with a line of Univit vitamins, has also grown almost 1.5 times. These companies are close to TOP-20 and, while maintaining the existing dynamics, are candidates for a place in the rating.

Conclusions

Crisis influenced the market of nutritional supplements, to a greater extent than the drug market. At the same time, consumption and demand for this category of goods essentially depends on advertising and correct perception of nutritional supplements by the consumer. Considering the prevailing trends we should not expect a «surge» in sales of nutritional supplements in 2017 and the return of the growth rates of this category of pharmacy assortment to double-digit values.

Table 19

TOP-20 NS Manufacturers in Russia in 2016

2016 Rating	Changes	Company	Sales value, mln rub. 2016	Sales volume increase	Share
1	0	EVALAR	5 654.6	11%	17.9%
2	1	PHARMA-MED	2 167.9	14%	6.9%
3	-1	RIA "Panda"	1 753.2	-48%	5.6%
4	0	SOLGAR VITAMIN AND HERB	1 376.9	21%	4.4%
5	0	VALEANT	1 148.7	15%	3.6%
6	1	QUEISSER PHARMA	959.4	8%	3.0%
7	1	MERK SELBSTMEDIKATION	864.1	16%	2.7%
8	-2	Rusfic group	856.4	-5%	2.7%
9	7	GENEXO	802.5	70%	2.5%
10	2	OTCPHARM	709.1	25%	2.2%
11	2	POLPHARMA	584.4	11%	1.9%
12	-1	DIOD	536.8	-8%	1.7%
13	4	Ilmixgroup	459.3	-2%	1.5%
14	-5	PFIZER	432.7	-37%	1.4%
15	0	PHARM-PRO PK	414.3	-13%	1.3%
16	7	AKVION	391.3	64%	1.2%
17	4	NOVARTIS	360.4	20%	1.1%
18	1	BIOKOR	342.4	11%	1.1%
19	6	KRAFT	284.2	32%	0.9%
20	8	ZELDIS	252.7	25%	0.8%

6. Cosmetics

Recently the concept of «pharmacy cosmetics» has developed. In fact, cosmetic products sold at the pharmacy are regular and can be sold in stores. The requirement for the presence of cosmetics in the pharmacy assortment under Russian legislation includes a safety certificate and registration. Thus, any cosmetics can be sold in the pharmacy.

Producers position their products as unique, with a number of distinctive features: efficiency, therapeutic properties, etc. But in fact, most of it is the marketing component and a competent promotion policy. And in this case, the pharmacy acts as the guarantor of quality and recommendations.

Therefore, it is no coincidence that a cosmetic has become a traditional assortment of the pharmacies. Networks and single outlets constantly have to study the cosmetic brands that appear on the market to satisfy the needs of the consumer and to follow the novelties. Today in the pharmacy you can find cosmetic products with therapeutic effect, as well as products for care and beauty; there are cosmetic products for face, hair, hands, etc., and products classified by age. In total in 2016 it was possible to find about 1,500 different brands of cosmetics in the pharmacies of Russia, and over 13.5 thousand names of packages. New items were also presented: about 160 brands were offered to the consumer. The most successful brands include Mediva (a budget series of facial care products) and Qilib (lotion to stimulate hair growth), whose sales in the first year exceeded 25 million rubles and entered the TOP-200 brands by volume in value terms.

Crisis in Russian economics that started in the second half of 2014, started to affect the sales of pharmacy cosmetics by 2015. The slowdown in consumer activity caused by the decline in household incomes, as well as the increase in prices for almost all brands, led to the fact that consumption in this segment declined in rubles for the first time in five years.

2016 compensated for the «crisis» losses in the pharmacy cosmetics, sales showed a significant increase by 20%. Despite the growth of this segment in packages by 7%, the results are not outstanding. If we compare the volume with 2013, it is 25% lower.

By the end of 2016, 160 million packages of cosmetic products were sold in pharmacies of Russia. This is by 7% more than in the same period last year. In the ruble equivalent (in the purchase prices of the pharmacies), the Russian market of pharmacy cosmetics in 2016 amounted to 30.3 billion rubles. In retail prices, the volume was about 41 billion rubles.

Throughout the year, the dynamics of sales in this group was uneven. But with the revival of the drug market in Q3 2016, demand for cosmetics has grown quite noticeably, which indicates a decrease in the impact of crisis events on the sale of the cosmetic products.

The variety of cosmetics sold in pharmacies made the company DSM Group in due time conduct an analysis of all positions and

offer its classification of this group of products. At present, we distinguish three large subgroups of pharmacy cosmetics:

Active (medicinal) cosmetics are used for treatment and prevention of certain diseases, contain various biologically active substances. Medicinal cosmetics include such brands as SOFIA (creams and balms), BORO PLUS creams, etc.

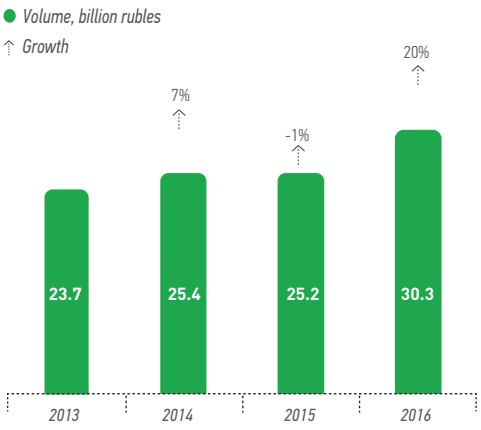
Mass market cosmetics are cosmetic products available to most consumers, designed for skin, hair and nails care. These are sold not only in the pharmacies but also in other stores. Such cosmetics usually do not include any selective preparations eliminating specific problems such as acne. Mass-market cosmetics include the goods of such manufacturers as, for example, GARNIER, NIVEA.

Selective cosmetics (Premium and Deluxe class) - cosmetics with cosmetic lines designed for certain skin or hair conditions. These products are sold mostly in pharmacies. For example, the manufacturers of selective cosmetics are Vichy, Avene, Uriage, etc.

The main growth in cosmetics in both physical and value terms is provided by increased sales of selective cosmetics. Thus, over the twelve months of 2016, the growth of this subgroup was 36% in rubles and 31% in packages. This led to an increase in the share of premium brands in rubles (from 26% in 2013 to 38% in 2016), and in packages (from 5% to 12%) in total cosmetics sales. Such dynamics is largely provided by the brand Librederm, which appeared several years ago and successfully competes with the «old-timers» of pharmacy selective cosmetics, such as Vichy and La Roche-Posay. Librederm is the only domestic brand in this category. Aggressive advertising policy of «Zeldis» promotes the sales of this brand, and attracts the consumer to the pharmacy, therefore developing the entire segment of pharmacy cosmetics in general.

In 2016 demand for one of the most stable types of pharmacy cosmetics - medical cosmetics - increased by 11% in rubles and only by 2% in packages. These are the lowest values among all groups of cosmetics. At the same time, this trend is noted for the first time (previously, medicinal cosmetics always grew faster than other groups of products). The share of products with therapeutic effect decreased in value and physical volume of the market.

Dynamics of pharmacy cosmetics market, billion rubles



Dynamics of pharmacy cosmetics market, million packages

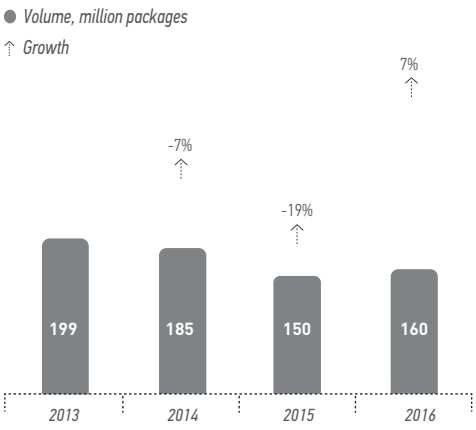


Figure 32

Cosmetics Sales Volume in Russia

Note: the sales volume is shown in pharmacy purchase prices with VAT included.

One of the factors that demonstrate the revival of the market of pharmacy cosmetics in general, is the increase in the volume of «mass market» cosmetics. Such cosmetics has a vast geography of sales, therefore it can be difficult for the pharmacy to compete, especially in price. In 2015 "mass-market" cosmetics went through tough period (a drop compared to 2014 by more than 20% in rubles). Therefore, the positive dynamics in demand for this category of assortment allows us to positively look at the prospects of the segment. In 2016, the «mass market» segment of pharmacy cosmetics grew by 15%.

In 2016 the average cost of a cosmetic package in pharmacies was 255 rubles/ package in retail prices (or 190 rubles in wholesale prices). This is by 11% more than in 2015. However, if you look at the segments, you can see that selective cosmetics has grown the least - by 3%, but the average cost of one package of medical cosmetics and products of mass market segment has increased (+ 7% and + 6% respectively).

Classification (segmentation) of cosmetics can be different. The most interesting is the classification by the area of application. Pharmacies sell a wide range of universal products (34%). But at the same time the consumer spends more money for the face products (27%). It should be noted that this segment grows the strongest in money terms (+ 32%). Practically 80% of the face products are represented by selective cosmetics.

If we consider the structure of cosmetics by age, in general the pharmacy sells «universal» cosmetics, designed for any consumer: 77% in money and 79% in packages. Cosmetics for children occupy the second place, with 8% of sales value and 15% of real sales volume. The third place is taken by cosmetics for "middle age (after 25 years)". This category has significant prevalence in terms of expensive cosmetics (if the segment share in money terms is 7%, in units it is only 3%) - almost 80% of the volume of this category accounts for the selective cosmetics. Cosmetics for people over 45 years old shows even higher rate of expensive brands and occupy the fourth line (4.6% in value terms and 1.2% in physical volume). These cosmetics demonstrate high increase in money. But the category of consumers from 14 to 25 years prefers other sales channels – sales in this segment didn't grow compared to previous year.

As shown on Figure 32, the products of Russian manufacturers are in more demand than that of the foreign ones, taking over 70% of the real sales volume. However the import cosmetics prevail in total value (about 56%).

Within the segments, the proportion of domestic and imported cosmetics is unequal.

In 2016, seventy-eight per cent of the selective cosmetics are represented by imported cosmetics. Only one brand LIBREDERM is partially manufactured in our country. However significant growth of this brand resulted that its physical volume is equal to that of the rest of selective cosmetics.

In the mass market, as in the previous year, the domestic cosmetics surpassed the imported cosmetics by the amount of sold units (70%). By the sales value, the foreign brands have the predominant share (55%).

In the segment of medicinal cosmetics domestic brands have the leadership both in the sales value (58%) and in the real sales volume (74%).

Selective Cosmetics

By the end of 2016 the sales of selective cosmetics increased by 36% in rubles and by 31% in packages. Dynamics of demand for the brands of this category was variable.

Vichy occupies the leading position in the segment of selective cosmetics, by the end of 2016 it represents 28% of the total value of the segment. At the same time, brand sales increased by 12% compared to 2015.

Librederm is in the second place, according to the results of the year, showing a 2.5-fold increase. Such an impressive growth was provided by a large-scale expansion of the assortment line. The items that entered

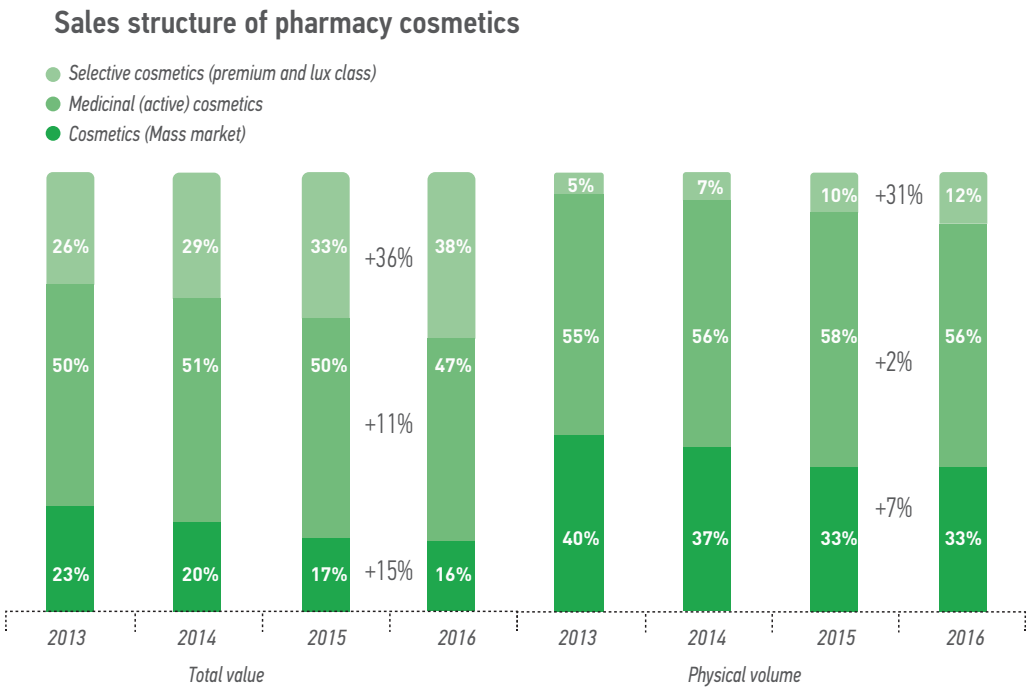


Figure 33

Ratio of Pharmacy Sales of Cosmetics Depending on the Type of Cosmetic Products

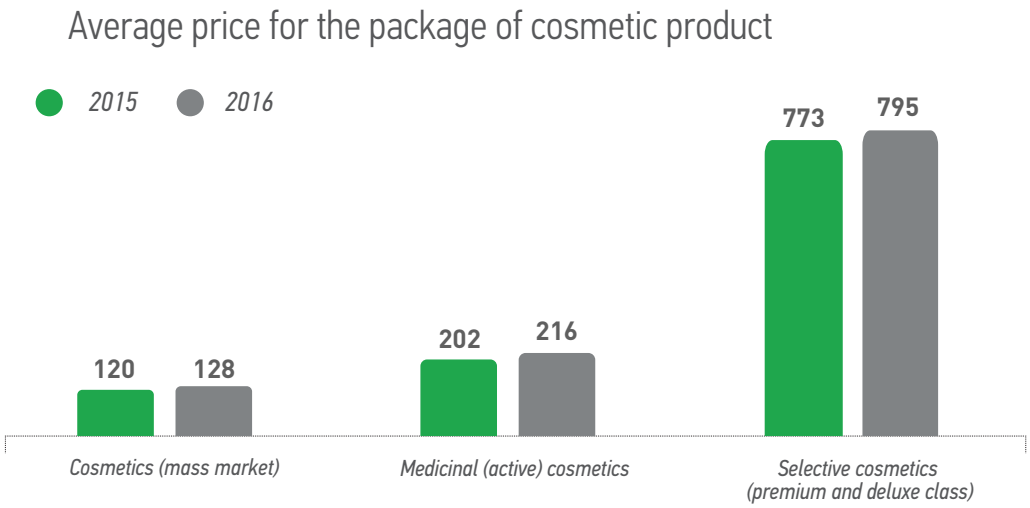


Figure 34

Average Weighted Price of Cosmetic Products

Note: the sales volume is shown in pharmacy purchase prices with VAT included.

the market have an average retail price of 500 rubles and over.

La Roche-Posay, which occupies the third line of TOP-10 brands of selective cosmetics, demonstrated a 46% increase in sales. Facial products of this brand were the driver of the growth.

In 2016 almost all leading brands of selective cosmetics showed sales growth in rubles, with the exception of Uriage (-4%).

Also note the two-fold increase in sales of Topicrem, which allowed the brand to enter the rating, rising 3 lines up.

Figure 35

Structure of Cosmetics by the Application Area

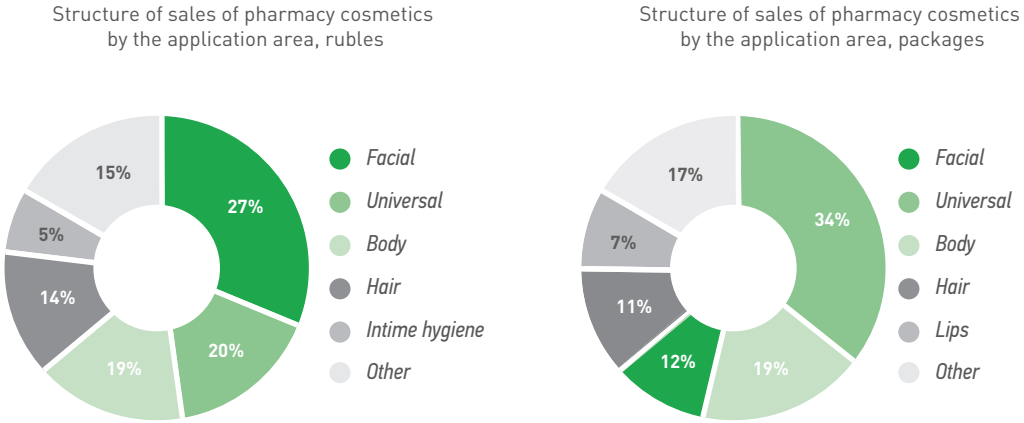


Figure 36

Proportion of Pharmacy Cosmetics Sales by Type, 2016

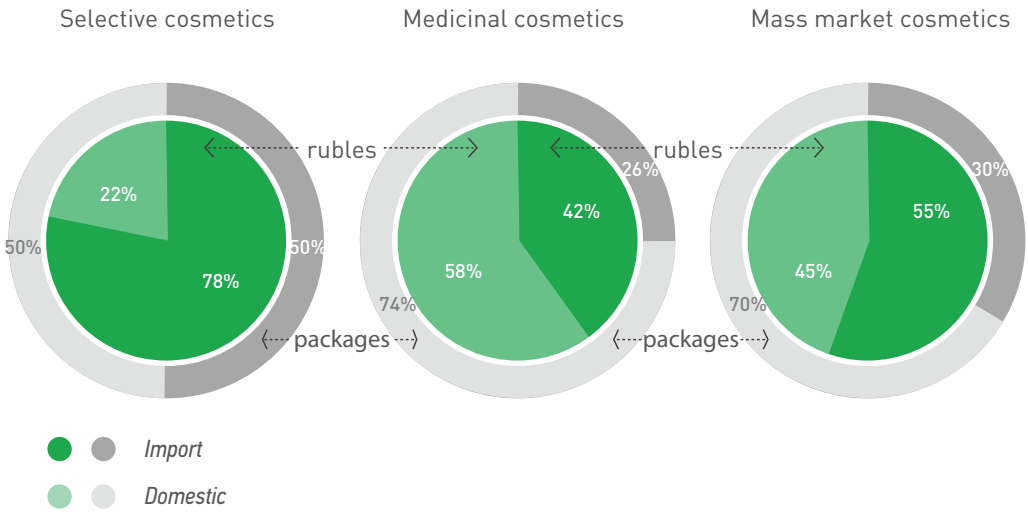


Table 20

TOP-10 Brands of Selective Cosmetics

Rating number	Rating change	Brand	Share, 2016	Growth 2016/ 2015
1	0	VICHY	28.0%	12.1%
2	1	LIBREDERM	22.2%	145.2%
3	-1	LA ROCHE-POSAY	22.2%	45.8%
4	0	AVENE	6.6%	25.8%
5	0	BIODERMA	5.5%	10.3%
6	0	URIAGE	3.4%	-3.8%
7	0	LIERAC	2.8%	2.4%
8	0	FILORGA	1.9%	23.3%
9	0	KLORANE	1.6%	3.8%
10	3	TOPICREM	1.3%	102.0%

"Medicinal" Cosmetics

In 2016 the number of packages of "medicinal" cosmetics sold in the pharmacies grew by 2%, and by 11% in rubles due to the increase in the price.

"Loshadinaya sila" remained in the first place among the brands of «medicinal» cosmetics. The dynamics of the brand is higher than the growth of the segment as a whole, by almost 2 times. The most capacious in this range of products is "Loshadinaya sila" relaxing body balm-gel 500 ml, shampoos with the same name are also popular with the consumer.

The brand «Alerana», specializing mainly in hair products, went 4 lines up and took the 2nd place in the rating. This was due to the increase in sales of brand products by 24% compared to the previous year.

Lactacyd took the third line, it is a line of products for intimate hygiene.

Emolium improved its position in the rating (+3 lines up to line 4). Boro Plus went 5 lines up. Negative changes include -5 lines for Mycosan. The sales of this product reduced by 36% in value terms and by 40% in physical terms.

Mass Market Cosmetics

Total sales of mass market cosmetics in 2016 increased by 15% in rubles (and by 7% in packages over the same period of time).

Table 21

TOP-10 Medicinal (Active) Cosmetics Brands

Rating number	Rating change	Brand	Share, 2016	Growth 2016/ 2015
1	0	LOSHADINAYA SILA	**7.8%**	**20.1%**
2	4	ALERANA	**3.3%**	**24.3%**
3	1	LACTACYD	**3.1%**	**3.3%**
4	3	EMOLIUM	**2.9%**	**18.5%**
5	-2	DRY DRY	**2.8%**	**-7.8%**
6	-1	SOFYA	**2.6%**	**-3.8%**
7	-5	MYCOSAN	**2.3%**	**-35.1%**
8	5	BORO PLUS	**2.1%**	**46.7%**
9	2	911	**1.9%**	**4.8%**
10	-2	MUSTELA	**1.8%**	**-15.0%**

Johnsons Baby is the leader among mass market cosmetics sold in the pharmacies. Sales growth by 24% in rubles resulted in the fact that the market share of this brand exceeded 11%.

Over the reporting period Kora's growth was among the most significant in mass-market cosmetics sales. It was over 57% in rubles, which allowed this brand to move from the 8th line to the 4th.

In the ranking of mass-market cosmetics there are several brands that sell products for intimate hygiene: Contex, Sico, Durex. The growth of these brands is more than 40% in rubles.

Negative growth includes a decrease in sales of Nivea cosmetics by 8%. The pharmacy is not the main sales channel for this brand, and this leads to the fact that the competitiveness of the pharmacy is falling. A similar situation can be noted for such brands as Natura Siberica, Bubchen, Clearasil, whose sales share is decreasing.

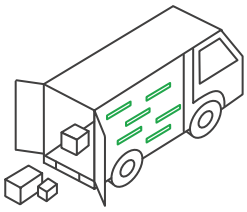
In 2016, pharmacy cosmetics demonstrated an «unprecedented» revival of sales. To a large extent this dynamics is due to the increase in selective cosmetics. This segment of the pharmacy cosmetics market is marked by high loyalty of the consumer (most part of the key brands can be bought only in pharmacy), moreover, dermatological application of the brands relates them to the drug products, and the reliability and the trust to the "medicinal" brands increases the demand stability.

Table 22

TOP-10 Brands of Mass Market Cosmetics

Rating number	Rating change	Brand	Share, 2016	Growth 2016/ 2015
1	0	JOHNSONS BABY	**11.3%**	**23.5%**
2	1	CONTEX	**6.6%**	**45.7%**
3	1	SICO	**6.2%**	**38.9%**
4	4	KORA	**4.7%**	**57.7%**
5	-3	NIVEA	**4.3%**	**-8.1%**
6	0	UMNAYA EMAL	**4.0%**	**17.2%**
7	0	NEUTROGENA NORVEZHSKAYA FORMULA	**3.4%**	**6.8%**
8	2	DUREX	**3.3%**	**42.0%**
9	4	MOYE SOLNYSHKO	**2.8%**	**37.6%**
10	2	FLORESAN	**2.8%**	**27.7%**

Most likely, it will be much more difficult to repeat the «success» of 2016 this year, but improving financial and economic situation in the country will allow the segment of pharmacy cosmetics to grow. Most likely, in 2017 we will see a change of the leader in selective cosmetics. With the improvement of the economic climate in the country, we will observe the increase in the «medicinal» segment due to the consumer's return and increase of the share of «spontaneous» purchases, which are more characteristic of the mass market segment.



7. Drug Import

A single market for the circulation of medicines and medical devices in the member-states of the Eurasian Economic Union was to be launched on January 1, 2016, so 2016 was devoted to the development of relevant documentation and its harmonization. At the moment, the compilations of legal regulations of the Eurasian Economic Union (EEA) in the sphere of drug circulation adopted by the Eurasian Economic Commission (ECE) have been created. Edition consists of six volumes, which include basic documents, considering the stages of the drug circulation of medicines, including their production, distribution, pharmacovigilance, etc. Compilations contain the key Agreement on common principles and rules of the circulation of medicines in the Union. It also included 27 documents of the «second level» developed by the Commission together with the leading experts of the five member-states. They form a system of interrelated acts regulating the requirements to the drug as a pharmaceutical product - to its safety, quality and efficiency.

The procedure for the unified registration of medicines within EEU should start in 2017. But the manufacturer will have the right to choose to apply for the national registration or for a unified registration. This opportunity will be available until December 31, 2020.

Until 2020, about 70 documents will be developed for the single drug market of EEU. This term is set for the single market to work at full force. General rules of regulation will apply to all medicines that are traded on the market of the Union: both domestic and imported. Therefore, no major changes in the structure of import of DPs and substances to Russia can be expected until 2021.

Of course some initiatives discussed at the state level can speed up these events. For instance this refers to the issue of permit for parallel import. Parallel import is import of original goods from abroad without direct consent of the trademark owner. One of the main negative consequences is the possibility that the goods of poor quality and counterfeit goods enter the market. Note that legalization of parallel market is possible within EEU and some member states of the Union.

The import substitution policy was included in the Strategy for the Development of the Pharmaceutical Industry of the Russian Federation for the period until 2020, and in the federal target program «Pharma-2020», which started in 2011. At the end of the program at least 50 percent of the national drugs must be in the domestic market, and at least 90 per cent of them in the List of Vital and Essential Drugs (VED). In a presidential decree of May 7, 2012, a new goal was set: to increase the share of domestic drugs in the VED list to 90 percent by 2018. This resulted in two government resolutions restricting the admission of drugs and a limited list of foreign medical devices to public procurement, provided that two or more manufacturers from the EEU countries participate in them; these decisions were called «three is none.»

This should lead to reduction in the volume of drugs imported to Russia. Especially on

the background of large-scale projects to localize pharmaceutical production.

Drug Import

The dynamics of import over the past 4 years actually shows negative trends in physical terms and in dollars. Thus, in 2016, 2.6 billion packs of drug products were imported. This is by 22% less than in 2013. The main decline occurred in 2015: due to currency fluctuations, importers were afraid to import large quantities of medicines and used the stocks. In 2016, the dynamics of imports in physical terms is comparable to the consumption of drugs on the market in general. In dollars, the volume of imports in 2016 amounted to 8.9 billion dollars and reduced by 40% compared to 3 years ago. But due to the significant growth of the dollar in 2015, the value of imported drugs in rubles increased. So, if in 2013 the import amounted to 474 billion rubles, in 2016 it was 26% higher, i.e. 597 billion rubles. Such dynamics completely repeats the growth of the pharmaceutical market in general over the same period (30%).

As you can see in Table 17, in 2016 about 90% of all the drug import volume is represented by two groups of importers: distributors and representative offices of foreign manufacturers. Import structure continues

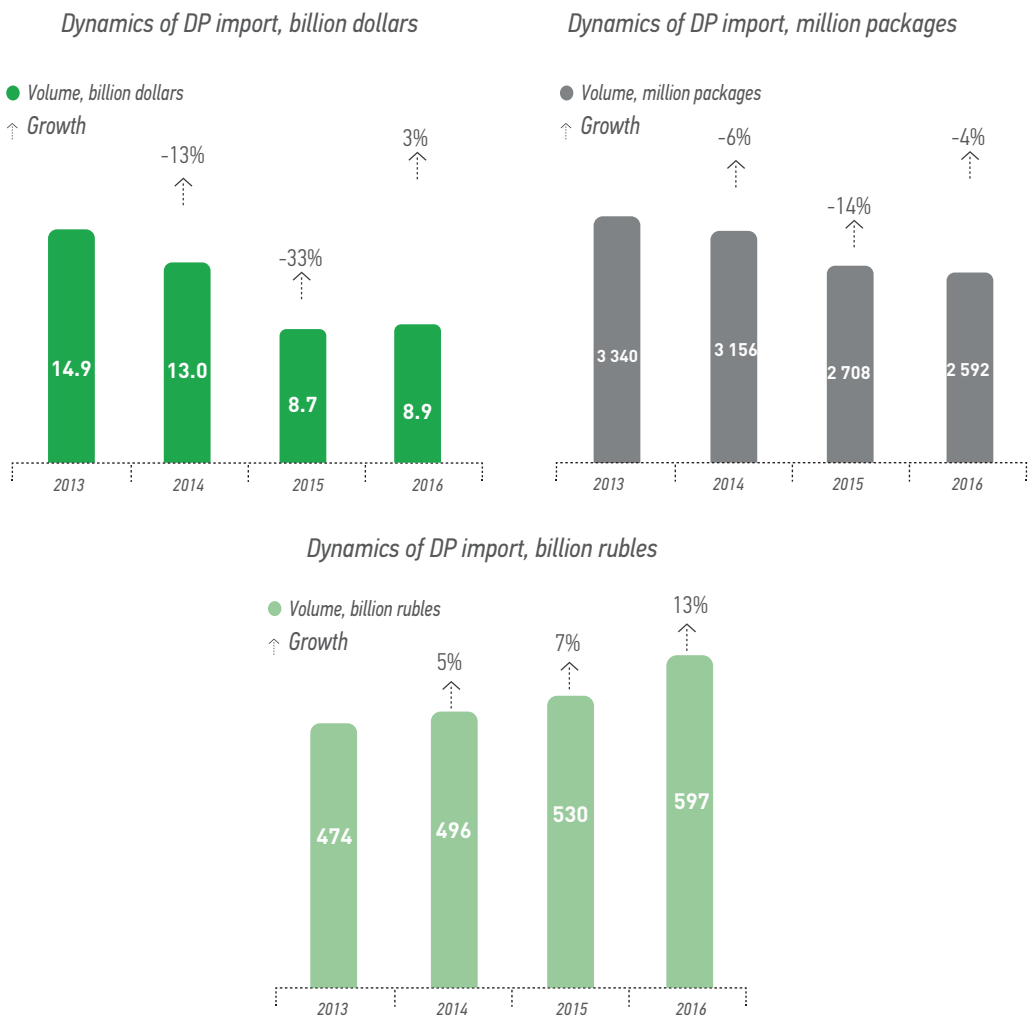


Figure 37

Volume of DP Import

Table 23

Shares of Different Groups of Drug Importers in Russia in the Volume of DP Import

Importers	Share of the import volume, %				Increase 2016/2015
	2013	2014	2015	2016	2016/2015
Distributors	21.5%	18.7%	15.5%	13.6%	-10%
Representative offices of foreign companies	70.2%	72.9%	73.1%	74.5%	4%
Direct import companies	3.3%	4.3%	5.3%	5.1%	-3%
Domestic drug manufacturers	4.9%	4.1%	6.1%	6.8%	15%

to change in favor of "Representatives of foreign manufacturers". Share of import by distribution companies continues to decline as well as the volume of goods imported by this group.

The maximal import share is covered by the representatives of foreign manufacturers (74.5%).

In 2016 the segment 'Companies specialized in direct import' showed negative dynamics and the share amounted to 5% (in the import structure). A major player in this segment is the company Pharmaceutical import, export, its share is 58%. It is followed by Orfe with its share of 12%.

The main importer among domestic drug manufacturers is Pharmstandart-Leksredstva, its share according to the results of 2016 was 26%. Almost all the companies in this segment show negative dynamics. Veropharm occupies the second line with the share of 12%. The third is Ufa Vitamin Plant with a share of 9%.

Table 18 shows TOP-10 representative offices of foreign manufacturers by import volume in 2016.

In 2016 the group «Representative offices of foreign companies» increased in dollar terms by 4%. The concentration in the group of importers «Representative offices of foreign companies» remained at the level of 2015.

Despite the decline in import volumes, Novartis remains the leader of the group of importers «Representative offices of Foreign Companies», as in previous years, although its share fell by 1%. Representation of Sanofi traditionally occupies the second place. In 2016, the volume of imported drugs of this producer grew by 21%. The third place in the reporting year was occupied by the representative office of Pfizer, its growth was 18%.

The companies that showed high growth, include the representation of Bayer and Takeda (+ 23%). Abbot demonstrated decline by 21% and went from line 3 (2015) 7 lines down.

Table 24

TOP-10 Representative Offices of Foreign Manufacturers by Import Volume

	Representative offices of foreign manufacturers	Share by import volume of the "Representative offices...", %		Increase to 2015, dollars
		2015	2016	
1	NOVARTIS	9.5%	8.4%	-8.1%
2	SANOFI	6.2%	7.1%	20.6%
3	Pfizer	4.7%	5.3%	18.4%
4	BAYER	4.4%	5.2%	23.1%
5	Teva	5.2%	4.9%	-0.6%
6	Berlin Chemie	3.6%	4.3%	22.7%
7	Johnson & Johnson	4.1%	4.3%	9.5%
8	Boehringer	3.8%	4.2%	14.6%
9	Takeda	3.4%	4.0%	23.0%
10	Abbot	5.2%	3.9%	-20.6%
	Total:	50.0%	51.6%	

The companies that didn't enter TOP-10, include the representative offices of Glaxo-Smikliain (+27% to the import in 2015), Bristol-Myers Squibb (+69%), Baxter (+76%).

Table 19 shows TOP-10 distributors by the DP import volume in Russia.

In 2016 the share of ten largest distributors-importers in all the import volume of "Distributor companies" was 90%. As shown in Table 22, three companies: Protek, R-Pharm, Katren are the largest distributors by import volume in the group Distributor companies in 2016. Despite the growth of share TOP-3 leaders shows negative dynamics in dollars. Total share of the three leading drug suppliers is 64%.

In 2016 Pulse occupies the fourth line, showing an increase of 40%. The dynamics of the distributor import corresponds to the development of the company in the pharma market in general.

The composition and position of other distributors have undergone significant changes. Such wholesalers as Alliance Healthcare (the distributor ceased to exist due to the sale to «36.6» group), the «BSS» (the volume of import decreased by 42%), the «National Distribution Company» and «Biotec» (completely stopped the import of drugs in 2016) from TOP-10 of 2015 didn't enter the rating in 2016. «SIA» moved from line 5 to 9, showing one of the strongest declines (by 75%) in the TOP-10.

Table 25

TOP-10 Distributors by DP Import Volume

	Distributor	Share in the import volume in the group "Distributor companies", %		Change vs 2015
		2015	2016	
1	Protek	22.3%	24.4%	-1.8%
2	R-Pharm	21.4%	22.8%	-4.6%
3	Katren	15.8%	17.0%	-3.2%
4	Pulse	8.2%	12.8%	39.7%
5	Euroservice	4.0%	4.5%	0.5%
6	ROSTA	5.1%	2.7%	-52.0%
7	Pharmcomplect	1.0%	1.9%	73.2%
8	Dominanta Service	1.7%	1.5%	-20.1%
9	SIA	5.0%	1.4%	-75.0%
10	Grand Capital	0.4%	1.3%	162.1%
	Total:	85.1%	90.3%	

TOP-10 includes Dominanta-Service (which is the exclusive distributor of the largest pharmaceutical plants in Bulgaria) and Grand Capital (which is actively increasing the overall turnover in the Russian pharmaceutical market).

Irvin-2 (174%) and Medintorg (123%) show high dynamics. In 2016, distributor «Godovalov" with head office in Perm independently began to supply drugs to Russia. At the moment, the geography of the company has greatly expanded, and it performs delivery to over 40 regions of the country. During the first year of work in DP import «Godovalov» delivered products worth $ 3 million, which corresponds to 0.3% of the deliveries of the segment «Distributor Companies».

Table 20 shows TOP-20 of the manufacturers by the DP import volume in Russia by all groups of importers.

The share of TOP-20 drug manufacturers by import volume in Russia in 2015 was 64%. NOVARTIS and SANOFI are the largest manufacturers by drug import volume in Russia in 2016. Celgene with Revlimid went up from line 12 to line 3. Only one foreign company of the TOP-20 manufacturers by sales volume in the pharmaceutical market (see section 10 Manufacture) doesn't enter the ranking of importers: that is STADA localized in Russia (the corporation includes the Nizhparm plant).

Table 26

TOP-20 Manufacturers by DP Import Volume in Russia by all Groups of Importers

Ranking		Manufacturer	Share of import value, %		Change vs 2015
2015	2016		2015	2016	
1	1	Novartis	5.9%	5.8%	10.1%
2	2	Sanofi	4.5%	4.9%	20.9%
12	3	Celgene	2.8%	4.1%	64.7%
9	4	Bayer	3.2%	3.9%	36.3%
3	5	Merck	3.9%	3.7%	7.4%
10	6	Pfizer	3.0%	3.5%	28.5%
6	7	Johnson & Johnson	3.3%	3.4%	15.8%
15	8	Berlin-Chemie	2.6%	3.4%	47.0%
4	9	Glaxosmithkline	3.8%	3.2%	-5.3%
7	10	Servier	3.3%	3.2%	8.8%
13	11	Takeda	2.7%	3.1%	27.4%
5	12	Teva	3.7%	3.1%	-6.5%
8	13	Krka	3.2%	3.0%	3.9%
16	14	Boehringer Ingelheim	2.6%	2.8%	20.7%
11	15	Gedeon Richter	2.8%	2.8%	9.6%
17	16	Astrazeneca	2.3%	2.6%	24.0%
14	17	F.Hoffmann-La Roche	2.6%	2.4%	3.6%
18	18	Astellas Pharma	2.2%	2.0%	-1.6%
19	19	Dr.Reddy's Laboratories	1.7%	1.6%	4.2%
24	20	Baxter Healthcare	1.2%	1.3%	28.9%
		Total:		63.7%	

Import of Substances

The main problem in drug safety is the problem of small production of substances on the territory of Russia. The drugs produced on the territory of the country are mainly based on imported substance.

At the moment, the import volume of substances is about 14.5 million kg. This equals to about 750 million dollars or 50 billion rubles. In 2016 despite the slightly negative dynamics in dollars, the volume of imported substances showed an unprecedented growth in tonnage: by almost a quarter compared with previous years.

In 2016, the substances were imported from 42 countries.

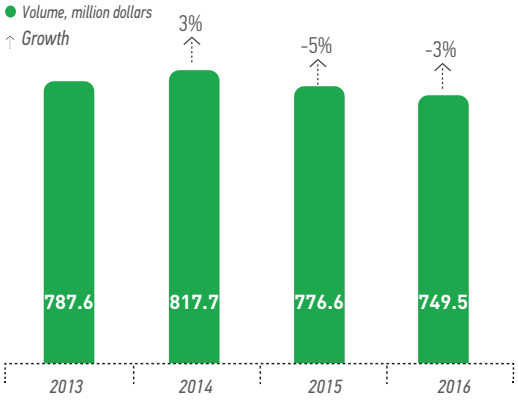
In value and physical terms, substances of Chinese production predominate (27% and 61%, respectively). Note that the dynamics of the import of substances from China is one of the most significant (+ 24%). But at the same time, the largest volume of import is from Europe, about 54% in monetary terms. France occupies the first line among European importing countries and the second in the rating in general.

In 2016, the import of the substance from Switzerland increased 5.5 times in dollars, this is due to the growth in supplies of the

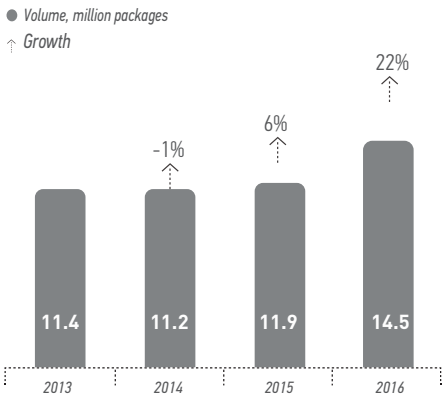
Figure 38

Substance Import Volume

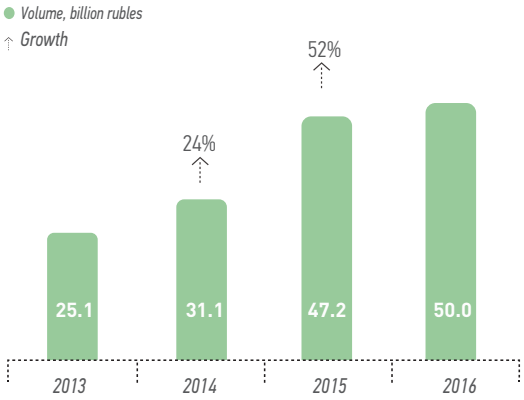
Dynamics of substance import, million dollars



Dynamics of substance import, million kg



Dynamics of DP import, billion rubles



Novartis for its own production facilities in St. Petersburg.

Also note the high dynamics of Ukrainian substances (+ 33% in money). The main supplies from Ukraine are represented by the substances Docetaxel and Doxorubicin hydrochloride for the manufacturer Veropharm.

Over 700 names of substances were imported in the reporting year. Top three substances in value terms are: Perindopril (7%), Losartan (8%), Diosmin (4%). Paracetamol (11%), acetylsalicylic acid (11%), ascorbic acid (5%) are leading in tonnage.

Table 27

TOP-10 of Substance Origin Countries

Ranking	Country	Share $. 2016	Growth, 2016/2015
1	China	**27.1%**	**24%**
2	France	**20.3%**	**-11%**
3	India	**12.8%**	**14%**
4	Italy	**8.6%**	**7%**
5	Germany	**8.3%**	**-56%**
6	Slovenia	**8.0%**	**-10%**
7	Switzerland	**3.0%**	**455%**
8	Spain	**2.2%**	**-6%**
9	Ukraine	**1.7%**	**33%**
10	Hungary	**1.5%**	**-45%**
		93.3%	

Ranking	Country	Share, kg. 2016	Growth, 2016/2015
1	China	**60.7%**	**28%**
2	India	**8.1%**	**-6%**
3	France	**7.4%**	**42%**
4	Germany	**6.8%**	**-13%**
5	Slovenia	**5.6%**	**194%**
6	Austria	**3.4%**	**497%**
7	USA	**2.3%**	**49%**
8	Poland	**1.3%**	**-67%**
9	Italy	**1.1%**	**85%**
10	Spain	**0.7%**	**29%**
		97.4%	

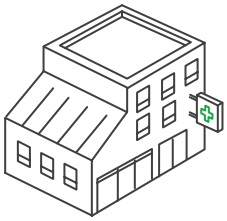
Table 28

TOP-10 Names of the Substances Imported in Russia

Ranking	Country	Share $. 2016	Growth, 2016/2015
1	Perindopril	7.1%	-10%
2	LOSARTAN	4.7%	39%
3	Diosmin	4.3%	-2%
4	Insulin	3.3%	-80%
5	Arbidol	2.9%	0%
6	Gliclazid	2.7%	10%
7	Indapamid	2.4%	-13%
8	Darunavir	2.0%	24%
9	Ceftriaxone sodium salt	2.0%	14%
10	Bismuthate tripotassium dicitrate	1.8%	16%
		33%	

Ranking	Country	Share, kg. 2016	Growth, 2016/2015
1	Paracetamol	10.8%	18%
2	Acetylsalicylic acid	10.6%	13%
3	Ascorbic acid	4.8%	41%
4	Metamizole sodium	4.7%	66%
5	Metformin	4.4%	-17%
6	Sorbitol	3.7%	39%
7	Piracetam	2.1%	86%
8	Glycine	2.1%	8%
9	Amoxicillin trihydrate	1.7%	36%
10	Manganese oxide	1.5%	22%
		46.4%	

8. Pharmacy Networks



During the past few years, the key trend in the development of pharmacy chains is consolidation. In 2016, this was a large scale process. And consolidation is not only achieved through the merger and acquisition of some pharmacy chains by others, but also by combining players in various alliances and associations.

In the end of 2015, «Pharmacy Chain 36.6» announced the acquisition of another large network of «A5», as a result, the network included about 1,100 outlets in various regions of Russia. The concentration of «36.6» efforts currently extends to Moscow and the Moscow oblast. Therefore, during 2016, the network was restructured: the merger was accompanied by a reduction in the number of outlets by almost 20%, mainly due to the sale of outlets in the regions previously owned by A5. For example, 76 pharmacies in 12 different regions now operate under the name «Aloe» (pharmacy network of the distributor «BSS»), 55 pharmacies in the Vladimir and Nizhny Novgorod oblasts now belong to «Farmani & Aptechestvo» (N. Novgorod). The new pharmacy chain «A-Mega» (distributor «SIA») opened 72 pharmacies in the outlets that in 2015 worked under the brand «A5».

In 2016 the pharmacy network Rigla changed its policy. If earlier the network grew by opening its own outlets, in the reporting year the company made several purchases, which allowed it to strengthen in the regions: it purchased 21 pharmacies «FarmbusinessAlliance» in Krasnoyarsk, 24 pharmacies «Avicenna» in Kaliningrad, 24 pharmacies «Adept-Medpharm» in Veliky Novgorod Pharmacy.

The pharmacy network «Pharmland» (Ufa) plans to expand its presence in the Sverdlovsk region up to 150 outlets. In order to achieve that, in September 2016, it purchased 45 pharmacies AS «Lekar» in Yekaterinburg. «Pharmland» also strengthens its positions in the native region by controlling 26 outlets of the networks «Vitya» and «Vashe Zdorovye». "Pervaya pomosch & Raduga" pharmacy chain (owned by the distributor Rosta) became the owner of about 40 pharmacies "Zdorovye liudi". Tula Association «Pharmakopeika & Tvoy Doctor» (Tula) actively participated in the M & A transactions in 2016. As part of the franchise agreement, the company absorbed 109 outlets of the Altai network «Helmi», 47 outlets of the «Liniya zhizni» network in Omsk. In the end of the year the pharmacy chain «Melodia zdorovya» (owned by the distributor Katren) increased due to the acquisition of 84 pharmacies "Pervaya pomosch" (Barnaul) and 56 pharmacies "Aptechny dom" (Kemerovo).

At the same time, there were not significant acquisitions in financial terms. The largest state-owned pharmacy chain was auctioned off in the summer of 2016 for 5.67 billion rubles. The buyer was the company «Mitten» - one of the structures of the developers company Capital Group. «Stolichnye apteki» included 180 outlets. One of the conditions of the auction: the profile of the activities of objects can not be changed until the end of 2018. Thus, there

is a possibility of re-profiling some or all of the premises of the acquired company starting from 2019.

Recently various associations have become quite popular in the pharmacy market. But, if previously nonprofit professional organizations representing the interests of pharmacies and pharmacy chains at the state level were playing an important role, now associations of a new type are actively developing. These are marketing alliances, associations and partnerships that unite groups of pharmacy chains and/or independent pharmacies into a single marketing structure. The main objectives of marketing alliances include improving the efficiency of business for each partner by combining efforts in various business areas. As a result, such structures act as a single organization when working with the manufacturer, which allows for additional preferences and greater efficiency.

Association of Independent Pharmacies (ASNA) is one of the largest marketing associations in the pharmaceutical market with 4,215 outlets in 2016. New members are actively joining the association, in a year the number of ASNA members increased more than 2 times (according to the results of 2015, the structure included 2,015 pharmacies). ASNA is constantly developing new services for its members, so in September 2016, plans were announced to conclude agreements on the supply of medicines directly with pharmaceutical manufacturers. Within a year the share of such contracts can make up 10% of the total sales of pharmacies within the association, and in three years it can reach one third. To fulfill this goal ASNA is launching its own logistics center in three pilot regions.

Direct contracts with manufacturers and work with logistics centers is one of the directions of development in the Russian pharmacy market. Previously, the largest pharmaceutical company Pharmacy Chain 36.6 talked on the conclusion of direct contracts with manufacturers: in February 2016 the company had about 300 such contracts. At the same time, Pharmacy Chain 36.6 has its own logistics facilities on the basis of distributor Good Distribution Partners, which currently serves the retail segment of the company.

In the spring 2016 another marketing alliance «Pharmaceutical Partnership (Good Pharmacy Partners)» appeared on the market, it united the associations of pharmacy institutions Alphega and United Marketing Group. It also included all the networks of the company «Pharmacy Chain 36.6». Thus, following the results of 2016, the «Pharmaceutical Partnership» combined 3,520 outlets.

In August 2016, the «Pharmaceutical Partnership» and the All-Russia Fellowship of Independent Pharmacies (VESNA) signed a memorandum on strategic partnership, cooperation and interaction.

Also in August the distributor «Protek» created its own marketing union of pharmacies «ProApteka», the federal labor union of independent pharmacies. Over half a year of development of the marketing union the number of its participants has reached 1,000. To date, ProApteka unites single pharmacies and small networks in 31 regions of Russia. In three years «Protek» plans to increase the number of pharmacies in the union to 5 thousand (5,000). It should be noted that Rigla (also part of the Protek group) did not become a member of the union.

There is an issue with the sales permit of over-the-counter drugs outside the pharmacies. Discussions on the access to the over-the-counter drugs in the stores have been hold since 2012. In 2016,

discussion of this legislative initiative disappeared from the information space. But the food retailers themselves keep thinking about the pharmacy market. X5 Retail Group already has a rich experience of cooperation with pharmacy chains by opening pharmacies in the cashier zone of their stores and in the trading halls of supermarkets in the shop-in-shop format.

In 2016, X5 Retail Group entered into an agreement with the distributor of SIA International, which began the development of its own pharmacy retail. Within the project it is planned to open more than 3,300 drug outlets in the stores of retail chains Pyaterochka, Perekrestok and Karusel until the end of 2020. «Sia International» opens pharmacies under two brands: «A-Mega» - in the discounter format, «Da zdorov» - for consumers with an average income. At the same time X5 Retail Group already has an option to buy a stake in the new networks «A-Mega» and «Da zdorov.»

Therefore other pharmacy chains leave the stores of X5. For example, X5 Retail Group did not renew the rental contract with the Nizhny Novgorod pharmacy network. As a result, in 2017 the network can be reduced by 40 points of sales. Recall that X5 also had agreements with the networks «Planeta zdorovye» and «Aloe».

Another large retailer, «Dixie», works with the network «36.6» in a similar format. In 2015, «Pharmacy Chain 36.6» achieved a permanent agreement with «Dixie» on the priority right of placement in the rented areas.

The second largest retail chain in Russia - Magnit - is going to open its own pharmacies. Krasnodar will be the pilot region. Pharmacy retail is not the first non-core business for Magnit. Since 2011, the company has developed a network of drogeries (cosmetics, hygiene products, household chemicals) Magnet Cosmetics.

Internet may become another competitor of the pharmacies. In 2016, the question of legalizing the distance trade of the DPs was actively discussed. The Ministry of Healthcare of Russia has developed a draft resolution of the Government of the Russian Federation «On the procedure for remote retail trade of drug products for human use and drug products for veterinary use (with the exception of narcotic drugs and psychotropic medications) and on amending certain acts of the Government of the Russian Federation on remote retail drug sales».

It is expected that only the existing pharmacy organizations can perform the online trade on their official website, and only one website is assigned to each pharmacy, while Roszdravnadzor will monitor their work.

All websites that sell drugs will be listed in a special register, which will be managed by Roszdravnadzor. And couriers with pharmaceutical education will accept the orders and perform the delivery and transfer of medicines (both prescription and over-the-counter). If the draft resolution is approved by the Cabinet of Ministers, the document will enter into force in October 2017.

Of course, pharmacy chains are preparing for the online sale of medicines. Many already have their own websites with a drug booking system in a particular pharmacy chosen by the consumer.

The website apteka.ru, developed by the distributor «Katren», has become very popular. In 2016 purchases of the pharmacy range through this system grew by 101% and amounted to 5.5 billion rubles.

According to Data Insight (a research agency specializing in the e-commerce market), this service ranks 23rd among the largest online retailers.

«Pharmacy Chain 36.6» agreed to sell drugs online through the online store Ozon.ru, which ranks 9th in the Data Insight ranking. Already in early 2017 this joint project was launched. Goods can be booked at Ozon.ru. Payment and delivery of the order is made in any of the pharmacies under the management of Pharmacy Chain 36.6.

In addition, a federal online system of drug booking in pharmacies may appear. The project is designed to combine all known pharmacy booking systems on one website. Drug search is carried out in the assortment of 5,180 pharmacies, and booking is available in half of them. The service works with such networks as Gorzdrav, Neo-Pharm and Stolichki (Moscow), Nevis and LekOptTorg (St. Petersburg), Nadezhda-Pharm (Tambov), Pharmacia (Ekaterinburg), Lipetskpharmacia (Lipetsk). The booking service is provided by Planeta Zdorovya (Perm), Pharmakopeika & Tvoy Doctor (Tula), Farmani (Nizhny Novgorod), Edelweiss (Kemerovo), Gorodskaya apteka (Stavropol), Lora Plus (Krasnodar). The official launch of the Aptekarsk system is scheduled for the second quarter of 2017.

In the Russian legislation there is no concept of «pharmacy network», there is only the concept «pharmacy organization». When making ratings, we always considered the classical meaning of the «pharmacy network» consisting of three or more pharmacy institutions, united by common rules and accounting system, trademark, general pricing and centralized purchasing policy, belonging to one legal entity.

Currently, almost none of the members of the rating "TOP-15 pharmacy chains on the Russian pharmaceutical market» meets this definition. Mainly the network includes several types of pharmacies, for example, discounters or pharmacies with open assortment, which have their own brand, different pricing system, etc. Also there is a network retail with legally independent pharmacies or small pharmacy chains, but a single owner. Consumer doesn't associate such units with one structure and perceives them as independent structures. For the manufacturer, on the contrary, such networks act as a single organization for obtaining additional bonuses and discounts.

All this leads to the need to revise the definition of the «pharmacy network».

Hereinafter the pharmacy network will mean the association of three or more pharmacies that are subject to the following business standards:

- A uniform assortment policy and management of assortments at the level of the central office;
- Unified merchandising standards;
- All the marketing events refer to all the pharmacies and are obligatory for all of them;
- Uniform approach to staff training.

In 2016, TOP-10 networks showed total growth of 37% compared to the same period in 2015. Share of TOP-10 was 33%, which is 7% higher than in 2015. Thus we see that the processes of mergers and acquisitions in the last 3 years affected the TOP-10 to a greater extent, which led to an increase in concentration by 16%.

Chart 34 shows growth of TOP-10 pharmacy networks by sales turnover and number of outlets in 2012-2016. In the last three years there has been significant growth in terms of number of outlets, since the networks started to grow rapidly due to the opening of new outlets and merging of networks. The growth in the number of TOP-10 networks is 153% to the level of 2012. In the rating

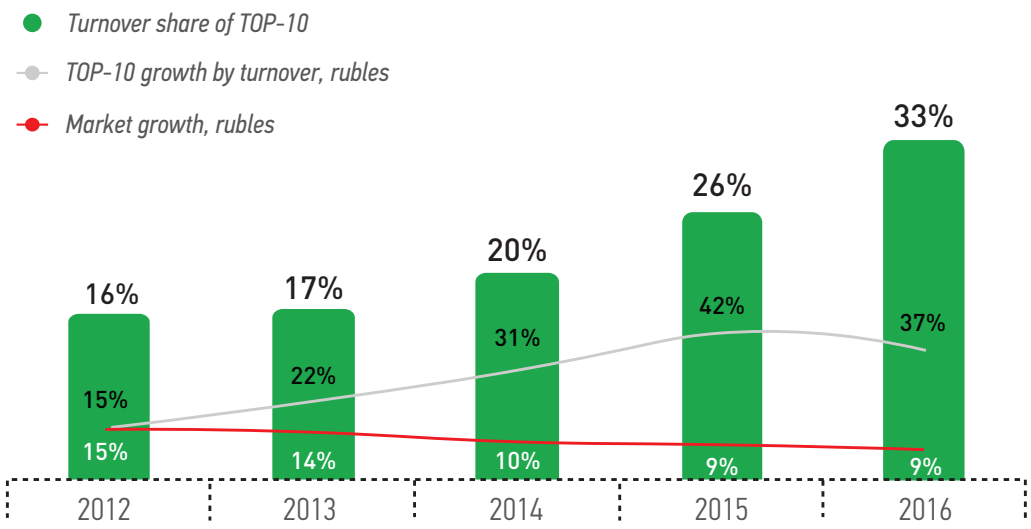


Chart 39

Concentration of TOP-10 Pharmacy Networks

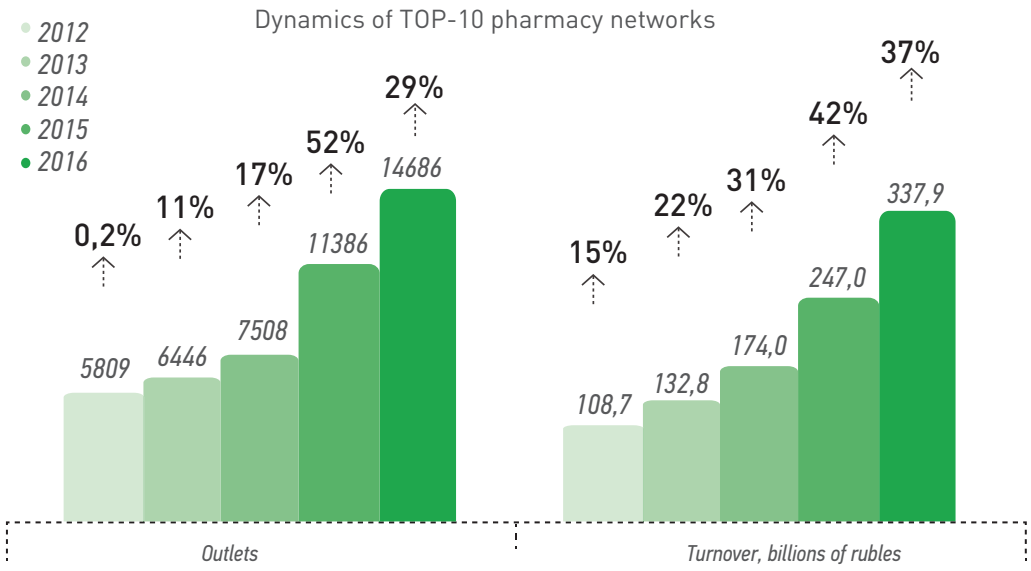


Chart 40

Dynamics of TOP-10 Pharmacy Networks Growth by Sales Turnover and Number of Outlets

Table shows the ranking of pharmacy networks in commercial sector with quantitative and value growth parameters in 2016.

Table 29

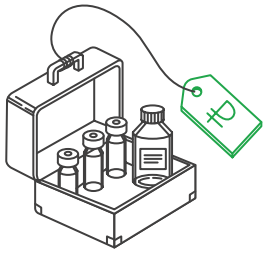
Network Ranking by Sales Turnover in 2016 on the Commercial Pharmacy Market

Ranking	Pharmacy Networks	Volume, billions of rubles	Share in commercial market 2016	Turnover increase compared to 2015	Outlets number
1	ASNA	79.0	79.5%	7.8%	4 215
2	36,6	47.9	-10.5%	4.7%	1 782
3	Rigla	45.2	32.6%	4.4%	1 768
4	Implosia	44.9	78.9%	4.4%	2 367
5	Doctor Stoletov	25.4	20.8%	2.5%	346
6	Planeta zdorovya	24.3	67.4%	2.4%	1 125
7	Raduga	20.2	14.9%	2.0%	1 181
8	Neo-pharm	17.1	97.0%	1.7%	315
9	Pharmakopeika – Tvoy doctor	16.9	47.5%	1.7%	872
10	Pharmland	15.9	23.7%	1.6%	715
11	Vita	14.5	43.6%	1.4%	700
12	Pharmaimpex	14.0	12.7%	1.4%	579
13	Melodiya zdorovya	12.2	43.0%	1.2%	912
14	Samson-pharma	11.7	13.0%	1.2%	66
15	Apteka-Timer	10.7	20.8%	1.1%	579
16	Aprel	10.6	60.0%	1.0%	517
17	Maxavit (including 36,7C)	9.6	61.8%	1.0%	287
18	Pharmaceut+	9.4	90.0%	0.9%	240
19	Classica	8.6	-8.2%	0.9%	184
20	Novaya apteka & Minicen	7.6	33.6%	0.8%	135

Since March 1, 2017 pharmacy organizations will sell drugs under the new rules. The corresponding decree No. 647н «On approval of the Rules for the good pharmacy practice of medicinal products for human use» was issued by the Ministry of Healthcare of Russia on August 31, 2016, but will enter into force only in 2017. The decree details the new requirements to the infrastructure of pharmacy organizations, their staff and managers, as well as requirements to the sale of drugs. For example, now the pharmaceutical workers will be obliged to tell the buyers about the availability of cheaper analogues, specify the cost and provide information about the drugs.

Only 2018 will show how the new standards affect the market, but we can definitely say that the consolidation in the pharmacy market will intensify: in the coming years, it will be possible to observe new transactions and alliances.

9. Distribution Segment of the Pharmaceutical Market



The segment of Russian pharmaceutical distribution in the last few years has changed quite a lot. The processes of diversification of wholesale companies and the expansion of their business sphere used to be the most important by the results of the year, and the position in the rating changed within one or two places, however at the present moment the list of the leading distributors and their share in the market is more important.

In 2016 another «wholesaler» disappeared from the rating and from the market as a whole. After the «Imperia-Pharma» and «Oriola», the Alliance Healthcare ceased to exist. As with the Finnish «Oriola», «Pharmacy Chain 36.6» was the contributor. In April 2016, the group «36.6» finished the acquisition of the pharmaceutical distributor Alliance Healthcare, the Russian division of the pharmacy giant Walgreens Boots Alliance. Alliance Healthcare ranked sixth in our 2015 rankings. Assets of the company were included in the «Good Distribution Partners» - a wholesale link of «36.6», which only serves its own retail business. Thus, there were no representatives of foreign pharmaceutical distributors left on the Russian market.

The vacant place in the market (and Alliance Healthcare's share in 2015 was about 8%) was actively shared by leading distributors and representatives of the «second echelon».

For example, «PC Grand Capital» became the owner of several regional warehouses of Alliance Healthcare. As a result, the company expanded its presence in the territory of the Russian Federation and opened 10 branches. The South, Central, Ural, Volga, Siberian and North-Western federal districts were included in the coverage area. As a result, the sales volume of the distributor grew 2.5 times in 2016, and by turnover the company took about 1.5% of the market, which allowed it to come close to the TOP-10.

Over the two years the maximum increase in the share was demonstrated by Protek (+5.6%). As a result, the distributor took 21.5% of the pharmaceutical market and regained the first line of the rating. We note that the growth rates of Protek in recent years are higher than the growth of the market in general. So, in 2016 the distributor increased its turnover by 25.5%.

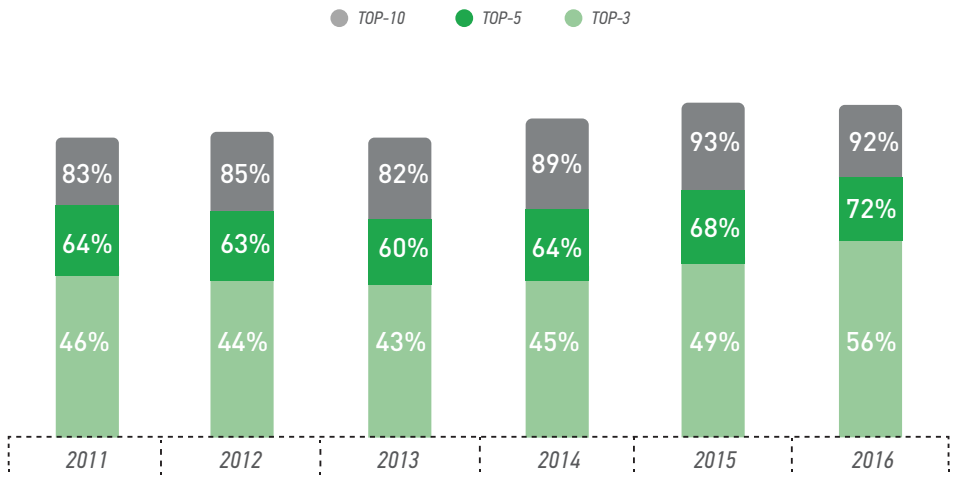
The comparable growth rate was demonstrated by Pulse. Over 2 years, the wholesaler's share increased by 5.5% and amounted to 13.1%. The increase in turnover of more than 30% per year allowed Pulse to take the third line in the rating. Thus, within 6 years the company has risen from line 10 to the leading pharmaceutical distributors.

By the end of 2016 Katren lost leading positions and took second line. But the company breakdown from the first line is minimal - 3.3 billion rubles. Therefore, the struggle for the first line of the rating will continue in 2017.

Strengthening of TOP-10 companies led to an increase in the concentration of distribution. The volume of the pharmaceutical market in Russia, in terms of distributor prices, was 1,085 billion rubles, which is 6.5% higher than in 2015. The TOP-10 companies occupied about 92%. However concentration grows only through TOP-3 distributors. Their share increased by 7% from 49% to 56%. As it was already mentioned, the share of all TOP-3 companies increased the most: Protek showed the highest growth of 3.3%, Katren showed the lowest growth of 1.3%, Pulse increased its share by 2.8% over the year.

Chart 35

Concentration in the Distribution Segment



High growth rates are also observed in the companies located of line 7-9. Pharmcomplect took the 7th line of the rating with a little more than 5%. The regional network of the company has 8 branches, 18 regional offices in large regions of Russia with a service area of 50 regions. In addition to the wholesale link, the company is actively developing the pharmacy network «Farmani». In order to expand it, Pharmcomplect acquired over 60 outlets in the Nizhny Novgorod region, which were previously part of the A5.

In general, at the moment there are no companies in TOP-10 that did not diversify their business into a retail chain.

The active development of its own pharmacy network was announced by the distributor «SIA». In the end of 2016 «Mega Pharm» and «Da Zdorov» included 172 outlets, 154 pharmacies in Moscow and in the Moscow oblast, 7 in St. Petersburg, 11 in Nizhny Novgorod. Till 2020 it is plan to increase the network up to 3,330 outlets. At the same time, X5 Retail Group and the pharmaceutical distributor concluded a partnership agreement, which provides the priority right to place pharmacies in X5 stores on the basis of market rates. Another significant event for «SIA» was the change of the owner of the company. President A1 (investment division of Alfa Group) Alexander Vinokurov first acquired a 50% stake in SIA International from the heirs of the founder of the company Igor Rudinsky, and then bought 100% of the share of the wholesale company, as well as part of the share of production assets of Sintez and Biocom. 2016 was devoted to the restructuring. For example, the regional offices management system was revised. Subsidiaries and regional representative offices of the company are grouped into 8 divisions. Therefore,

Table 30

TOP-10 Distributors in the Pharmaceutical Market

2016 Rating	Distributor	Volume, billions of rubles	Sales volume increase	Share	Pharmacy network
1	Protek	**233.3**	**26%**	21.5%	Rigla
2	Katern	**230.0**	**13%**	21.2%	Melodiya zdorovya
3	Pulse	**142.6**	**36%**	13.1%	Apteka Forte
4	ROSTA	**102.0**	**7%**	9.4%	Raduga
5	R-harm	**74.4**	**1%**	6.9%	Apteka R-Pharm
6	SIA	**64.0**	**-3%**	5.9%	Da Zdorov, Mega Pharm
7	Pharmcomplect	**55.1**	**26%**	5.1%	Farmani
8	BSS	**44.3**	**31%**	4.1%	Aloe
9	ProfitMed	**30.7**	**29%**	2.8%	PARNAS
10	Euroservice	**23.2**	**9%**	2.1%	Euroservice

the development of its own retail can also be considered as one of the stages in the return of «SIA» to the leaders of the distribution chain. In recent years, the company has demonstrated negative growth in sales volumes, which led to a decrease in the rating: according to the results of 2016, «SIA» occupied the 6th line. The company plans to return to the TOP-3 leaders of the market of pharmaceutical distribution until 2019.

«R-Pharm» was the last to open the pharmacy network. In 2016 it opened several pharmacies with the same name. In addition, a more important event is the acquisition of a 10% stake in R-Pharm by Japanese Mitsui & Co Corporation, which is scheduled to close in early summer of 2017. This transaction will allow the Russian company to expand its portfolio of Japanese drugs and increase its export potential. It should be noted that for «R-Pharm» this is not the first deal with Japanese companies. In 2015, the Japanese pharmaceutical company Kiorin Pharmaceutical began the production of the urological drug Imidafenacin at the Yaroslavl production complex of R-Pharm.

The number of public companies in the Russian pharmaceutical market is limited. At the moment, the distribution is represented by only one company - Protek. This year, the distributor «BSS» announced plans to enter the IPO. In recent years, the company has been demonstrating high growth rates, over two years the company's share grew by 1.9% and amounted to 4.1%. The first step towards the IPO was the issue of ISO 9001: 2015 certificate, which confirms

the standards of the quality management system and guarantees the quality, safety and reliability of the goods and services provided to the consumer.

Besides «BSS» is actively developing the retail network. The pharmacy network «Aloe», which is part of the BSS pharmaceutical holding, has about 230 pharmacies. Initially, the network developed within the North-West region, but now the pharmacy «Aloe» is represented in dozens of Russian cities. Also in early 2017, the company «BSS» acquired a producer of essential oils LLC «PC» Aspera «. Thus, the pharmaceutical distributor is now represented by all segments of the pharmaceutical business.

It will not be very easy to maintain high growth rates in 2017. Pharmacy chains concluding direct contracts with the manufacturers become the competitors of the distribution companies. So far, of course, this is not a systemic process. But in 2016 it was announced by ASNA (Association of Independent Pharmacies) and 36.6.

Therefore, the process of changing the distribution segment of the pharmaceutical market will continue, both in the quantitative composition and in the functional tasks that are solved by the distribution companies.

10. Manufacturing

Import substitution remains one of the key themes of 2016. The implementation of projects in the pharmaceutical industry requires huge investments and is accompanied by high risks. For this reason, the issue of improving the legislative base, which will allow Russian drugs to compete freely with imported drugs in the Russian market, was quite acute for domestic producers. Since 2016 the origin of pharmaceutical products has become the decisive factor for obtaining preferences within public procurement. Now, with at least two applications for the supply of drugs produced in the Eurasian Economic Union, all applications from manufacturing companies that are not part of the EEU are subject to rejection. A number of conditions have also been developed, which must be observed in order to classify the medicinal product as manufactured in the territory of the EEU. Previously, all the drugs registered in the territory of the Russian Federation and passed at least one stage of the production process in the territory of our state received the status of domestic.

In 2016, the transition to GMP standards was to be completed, and from 2017 GMP certificate will become an obligatory requirement for the sale of drugs on the territory of the Russian Federation, and not only Russian manufacturers but also foreign companies should receive the Russian GMP certificate. By early autumn of 2016, many companies had only applied for a GMP inspection. The Ministry of Industry and Trade received over 300 applications, by the end of the year there were more than 600. However, the main problem was the low capacity of the authorized body, as a result the queue for 2017 was formed. In general, according to the State Register, it is necessary to inspect 3,000 sites of foreign manufacturers.

In 2016, the State Institute of Medicines and Good Practices conducted inspections in 40 countries around the world in 188 production sites, 163 reports were approved, 88 GMP conclusions were issued, and 38 were refused. The plans of the inspectorate for 2017 include inspection of about 500 foreign sites.

As for the Russian companies, the picture is also not very bright. As of the end of 2016, there were 527 valid manufacturing licenses in the territory of the Russian Federation, which corresponds to 566 manufacturing sites in 71 regions. At the same time 378 (69%) sites have a license for the manufacture and packaging of finished dosage forms and substances, while 185 (31%) produce only alcohol-containing solutions, medical gases, etc. In addition, 42 sites for some reason did not participate in the manufacture of pharmaceuticals in 2016. And only 122 sites have a valid GMP license; this is 22% of all domestic production.

Of course, if we look at the picture in monetary terms, the situation is not so

sad: 64% of the sold volume of Russian drugs are already manufactured under the confirmed GMP standards. In 2015, this figure was only 27%. Thus, the positive dynamics is evident.

Since 2016, the decree to limit the state procurement of foreign drugs included in the list of vital and essential medicines (VED) was implemented. According to this decree the state acquirer should reject all the proposals of drug supply from abroad if he received at least two applications for drug supply from Eurasian Economic Union (Russia, Belarus, Armenia, Kazakhstan and Kyrgyzstan). In the market this document was unofficially called «two is a company, three is none».

The mechanism already showed its effectiveness in 2016. The share of domestic drugs in public procurements increased by 2% and amounted to 33%. At the same time, there is a noticeable change in the number of INNs.

But at the same time there are questions to the work of the mechanism. Foreign manufacturers offering the lowest prices are often not allowed to participate in the state procurement of drugs. Instead, the budget buys drugs from domestic producers at higher prices.

The second most important issue remains the depth of localization: the transfer of manufacture to Russia does not always imply the transfer of the original drug substance. The share of Russian full-cycle drugs (beginning with the manufacture of a substance) in the domestic market is low - about 2-3%, but the production of domestic substances is increasing. According to the Ministry of Industry and Trade, during 20 years (since 1992) the production of substances in Russia decreased in 18 times. And starting from 2012, according to the State Register of Medicines of the Russian Federation, domestic manufacturers increased the production of substances by 87%.

Therefore, to support the domestic pharmacological industry, the Ministry of Industry and Trade of the Russian Federation proposed to introduce a three-stage procedure for public procurement of medicines. At the same time, the manufacturer of the full cycle which uses domestic substance will receive the greatest preferences. At the second stage, the «three is none» principle will work, and at the third stage all other goods will be admitted to trading.

In 2016, a significant number of new manufacturing sites were opened, many of which will allow the implementation of the import substitution program in their areas. One of the largest projects was the construction of the plant «Veropharm» in Volginsky. The plant will produce a wide range of DPs: from solid oral forms to pre-filled syringes and lyophilized oncological preparations for injections.

About 70 manufacturing sites for the production of medicines for import substitution were opened in Russia within three years. And the process does not stop there. Localization plans were announced by many foreign companies:

- Boehringer Ingelheim is going to localize the manufacture of two drugs for treatment of cardiovascular diseases within Petrovax Pharm.
- IPSEN will launch the contract manufacture of Diphereline at the Raduga-Production plant within the pharmaceutical group ROSTA.
- Production of the Pentaxim vaccine was started in 2016 at the Nanolek site, in cooperation with Sanofi. The full cycle of production of the first domestic

Table 31 *Key Projects on Organization of New Manufactures in Pharmaceutical Market in 2016*

Initiator company	Region	Description of manufacture	Capacity	Investments
Skopinpharm LLC	Ryazan oblast	Drugs for treatment of oncological diseases, antimicrobial and antiretroviral drugs, plasmatic drugs	2 billion of drugs in coated tablets, tablets and capsules as well as injections	over 1 billion of rubles and 5 billions of rubles till 2020
CJSC Generium	Petushinsky District Vladimir oblast	Manufacture of immunobiological drugs. Main specialization – drugs for treatment of oncological and cardiovascular diseases, diagnostics of tuberculosis	1.8 millions of packages per year	1.41 billions of rubles
JSC Veropharm	Volginsky, Vladimir oblast	Manufacture of over 50 names of products: anticancer drugs, hormone drugs, antibiotics and anticold drugs	40 millions of units of sterile drugs and 40 millions of units of non-toxic drugs per year	7.4 billions of rubles
Hygiene-Service LLC	Kondrovo	Manufacture of diapers for adults. In future it is planned to start manufacture of diapers for children	180 millions of products per year. When working at full capacity the company will be able to substitute up to 50% of imported diapers for adults	1.3 billions of rubles
Organic Pharmaceuticals LLC, SPLAT	Novgorod oblast	Manufacture of toothbrushes and plastic package	7 millions of toothbrushes per year. In 2 years it is planned to produce 30 millions of units	550 millions of rubles
Nanolek LLC	Orichevsky District Kirov oblast	Manufacture of vaccines and other biotechnological drugs	42 millions of prefilled syringes, 35 millions of vials per year, 1.5 billions of tablets	4.1 billions of rubles
Velpharm LLC	Kurgan	Over 60 drug products, 37 of them are import-substituting	2.5 millions of packages with capsules, 4.5 millions of packages with solutions for injections, 20 millions of tubes with ointments and gels, 35 millions of coated and uncoated tablets	1.1 billions of rubles
Nanopharma development	Kazan	Development and manufacture of drugs for treatment of oncological diseases, complications of infections, HIV/AIDS as well as drug products for transplantology		

poliovirus vaccine is scheduled for 2018 in cooperation with the Dutch vaccine manufacturer Bilthoven Biologicals.
- Eli Lilly and R-Pharm signed an agreement on deep localization in Russia and production of drugs Humulin, Humalog and a long-acting insulin analogue.
- Ferring Pharmaceuticals and Pharmstandard announced the conclusion of an agreement on the localization of the production of a full cycle of drugs «Traktocil» (INN Atosiban) and «Pabal» (INN Carbetocin) used in obstetrics and gynecology in Russia.
- The Russian Fort company and the Serum Institute of India concluded an agreement on the localization of the combined vaccine against measles, rubella and parotitis on the basis of Fort. The full production cycle will be established in 2017.
- In 2016 MSD announced localization plans (full cycle manufacture of Simvastatin is planned at Akrikhin site).
- Indian pharmaceutical company Macleods Pharmaceuticals (official distributor in Russia: Advance Trading) will launch a plant in Belgorod in 2017 for the manufacture of drugs for treatment of tuberculosis, HIV, hepatitis and other diseases.

Foreign companies choose different strategies on localization of the manufacture of drug products in Russia but their number grows significantly each year.

2016 was relatively calm in terms of the number of M & A deals between pharmaceutical companies and their value. Some experts believe that many corporations have chosen a wait-and-see strategy, and predict that 2017 will be the year of catching up lost opportunities. As of the end of 2016, a little more than 160 M & A deals were made, while their total value exceeded $ 300 billions.

Shire (Ireland) announced the acquisition of the American Baxalta (independent subdivision BioScience of Baxter) for approximately $ 32 billion, which will allow it to implement plans to enter the leading positions in the development of medicines for the treatment of rare diseases.

A major transaction of 2016 was the purchase of the American St.Jude Medical (the company specializes in the manufacture of implants and medical devices) by a large corporation Abbott Laboratories. The deal value is $ 25 billion, and Abbott has committed to refinance St.Jude Medical's debt of about $ 5.7 billion.

In 2016, Pfizer announced the acquisition of Medivation Inc for $ 14 billion. Earlier, the French company Sanofi also expressed a desire to purchase Medivation for $ 9.3 billion. In addition, pharmaceutical companies AstraZeneca and Roche were interested in buying this company.

Stemcentrx, which develops anticancer drugs, was acquired for $ 5.8 billion by AbbVie. At the moment the main strategy of AbbVie is the development of the most promising directions in the drug market.

Sanofi and Boehringer Ingelhein completed an asset swap deal in 2016: the veterinary unit Sanofi («Merial») for the OTC division of Boehringer Ingelhein.

In general the share of imported drugs in the market is 70.6% in money and 39.5% in packages. At the same time, domestic drugs share was 2.1% higher in value terms than in 2016. As already noted above, the growth of the drug segment

in general was 6.7%, while in packs the consumption remained at the level of 2015. The low dynamics in the packages was due to a decrease in procurement of drugs for healthcare facilities, purchases of domestic drugs have decreased by 17% in packages. The growth in consumption of domestic DPs is observed in the remaining segments. In general, imported drugs increased by 1% in physical terms, while domestic ones fell by the same 1%. In ruble terms, foreign manufacturers' products grew only by 3%, while domestic products grew by 14%. In past years, «import substitution» has largely increased in the public procurement segment, and in 2016 the «switching» of the consumer to Russian medicines is also observed in pharmacies.

Foreign manufacturers represent 90% of the ranking of drug manufacturers in Russia. There are two domestic manufacturers in TOP-20: OTCPharm and Pharmstandard.

The manufacturers of the rating are stable and usually move within 1-2 lines. Total share of TOP-20 manufacturers in 2016 was 47%.

In 2016 TOP-3 didn't change as compared to 2015. The top position is occupied by corporation SANOFI, despite the fact that the sales dropped by 6%. Retail segment continues to prevail for the company (over 72% of turnover is represented by pharmacy sales). Novartis occupies the second line. However the growth of company sales is minimal. Bayer remained in the third line. Only 12% of his sales are represented by state procurement. Main sales volume is represented by commercial segment.

Note that the majority of companies of TOP-10 grow slower than the market in general, and some of them even show negative dynamics. Sales decrease by 22% resulted in the drop of F.HOFFMANN-LA ROCHE by 8 lines. This is due to decreased drug purchase from this manufacture within the program of subsidized provision of medicines by almost 23%.

Significant growth (+4 lines in the rating) is observed for OTCPharm (due to high growth of commercial segment), Stada and Astellas (the manufacturers showed stable high dynamics in all the segments).

Table 32

TOP-20 Manufacturing Companies by Sales Volume in the Russian Pharmaceutical Market in 2016

2016 Rating	Changes	Manufacturer	Sales value, mln rub. 2016	Sales volume increase	Share
1	0	SANOFI	**45 318.7**	**-6%**	4.1%
2	0	NOVARTIS	**42 183.9**	**1%**	3.9%
3	0	BAYER	**40 261.0**	**6%**	3.7%
4	0	JOHNSON & JOHNSON	**32 507.6**	**5%**	3.0%
5	0	GLAXOSMITHKLINE	**28 572.2**	**-5%**	2.6%
6	1	TAKEDA	**27 593.6**	**-2%**	2.5%
7	2	SERVIER	**26 041.3**	**-2%**	2.4%
8	-2	TEVA	**25 874.3**	**-11%**	2.4%
9	4	OTCPHARM	**25 617.0**	**25%**	2.3%
10	-2	PFIZER	**24 989.7**	**-8%**	2.3%
11	4	STADA	**22 324.2**	**15%**	2.0%
12	-1	BERLIN-CHEMIE	**22 110.4**	**2%**	2.0%
13	-3	Merck	**21 982.2**	**1%**	2.0%
14	0	GEDEON RICHTER	**20 218.6**	**1%**	1.8%
15	1	ABBOTT	**19 129.2**	**4%**	1.7%
16	4	ASTELLAS	**18 813.3**	**20%**	1.7%
17	0	KRKA	**18 628.0**	**9%**	1.7%
18	0	ASTRAZENECA	**18 182.8**	**10%**	1.7%
19	0	PHARMSTANDART	**16 867.1**	**4%**	1.5%
20	-8	F.HOFFMANN-LA ROCHE	**16 744.2**	**-22%**	1.5%