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Report on the analysis
of the single-source
drugs market in Ukraine

Kyiv 2018

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Introduction and Methodology

The objective:

is to determine the list of single source drugs purchased using the state and local budgets, as well as out-of-pockets.

In this study, a single-source drug is considered to be such medicine that contains the active substance (or a combination of them) that is registered by only one applicant in the State Register of Medicinal Products.

A single-source drug may be a result of restrictions that impose intellectual property protection legislation or due to economic (business) considerations of drug manufacturers. The study did not evaluate the reasons why the drug is a single-source one.

Methodology:

The following data were obtained for the study:

- The data of the State Register of Medicinal Products (hereinafter — SRMP) as of September 28, 2018;
- Data of centralized procurement (orders of the Ministry of Health of Ukraine on the distribution of medicines), 2016/2017, conducted by specialized international organizations.
- Data on hospital (local and centralized together) purchases and drugstore sales received from an external analytic service supplier.

The analysis consisted of two parts and was carried out as follows:

Part 1

1. Using the MOH's Orders on the distribution of medicines, an aggregated document was created with data on the procurement of medicines by areas.
2. Each position (INN) was assigned an ATC level 6 code using manual and automatic search in SRMP.
3. After this, the merging of the same positions (INN) was carried out and the total purchase volumes were determined. Different lots with the same INN were created due to the fact that the INN could be in different sub-directions or additional purchases occurred as a result of cost savings.
4. Using a manual and automatic search in SRMP, data were obtained on the number of applicants and trade names for each of the procurement items.

5. Single-source and multi-source drugs were counted, and single-source drugs were sorted according to manufacturers.
6. A rating table of single-source drugs was created, indicating their manufacturer, trade name (in Ukraine), the volume of purchases and indications for use.
7. The analysis of the largest groups of single-source drugs by ATC codes is conducted.

Part 2

1. A file containing data on hospital (incl. centralized) purchases and drugstore sales of medicines in 2017 was received from an external supplier.
2. An automatic calculation of the number of trade names and applicants available in SRMP for each position by ATC code level 6 and, separately by INN, was made.

3. “Unique” ATC codes, which were assigned to drugs, to which WHO did not assign ATC codes, were removed. Perhaps it was drugs that have market authorisation only in Ukraine and the CIS countries.
4. The database was cleared, homeopathic and herbal drugs were removed.
5. The final manual analysis of the database was carried out and only single-source drugs were kept based on the data of SRMP.
6. Each single-source drug is designated by the information regarding the manufacturer, trade name, sales volumes and the presence in the nomenclature of centralized procurement (2016/2017).
7. A rating table of manufacturers that indicates the number of single-source drugs and sales volumes was created.

8. A rating table of sales by ATC codes level 1 was created.

Each stage of the study is shown in the tables below. Information about the volume of purchases is rounded according to the rules of mathematics. Exact values and all stages of the study are provided in a separate file.

Limitations of the study:

- Information on procurement volumes may not be accurate due to the lack of a publicly available source of aggregated information about all centralized and hospital purchases.
- Data from the State Register of Medicinal Products were analyzed to determine the belonging to single-source drugs; actual presence in the market was not studied (1).
- The analysis was performed only for active substances, thus, a single-source drug form and/or dosing for certain active substances could be missed (2).
- The legal relationships between applicants were not investigated; therefore, it is possible that some of the multi-source drugs are in fact single-source ones (3).
- Data on the volume of sales were obtained from an external supplier; the contractor did not conduct a study of their verification.

Example 1.
Medicines with the active substance etanercept are registered by two applicants - Pfizer H.C.P. Corporation (USA) and JSC “Farmak” (Ukraine), however, there are no data on sales of Artrocept (“Farmak”).

Example 2.1.
Creon (Abbott Laboratories GmbH, Germany) consists of pancreatin, which is also sold by a number of other pharmaceutical companies. However, only the Abbott company has the indicated drug in the minimicrosphere dosage form. This situation limits the ability of other manufacturers to participate in bidding, because, during the hospital and centralized procurement, the MOH of Ukraine creates separate lots for pancreatin in the form of minimicrosphere.

Example 2.2.
An Amphotericin B single-source drug can be either in liposomal or deoxycholate forms.

The only liposomal form is registered in Ukraine.

Example 3.

Drugs with the active ingredient Trastuzumab are registered by two applicants F. Hoffmann-La Roche Ltd (Switzerland) and Lumiere Pharma (Ukraine), although the latter produces Trastuzumab from in bulk products of F. Hoffmann-La Roche Ltd. Thus, the specified drug de facto can be single-source one.

Example 4.

In Ukraine, there is a developed “gray market” of cytostatic and other drugs, which are resold by different individuals after their purchasing in other countries (Russia, Poland, Turkey, etc.). Some of these drugs may not be registered in Ukraine due to patent restrictions or economic reasons, however, their assessment was not carried out in the framework of this study.

Analysis of centralized procurement

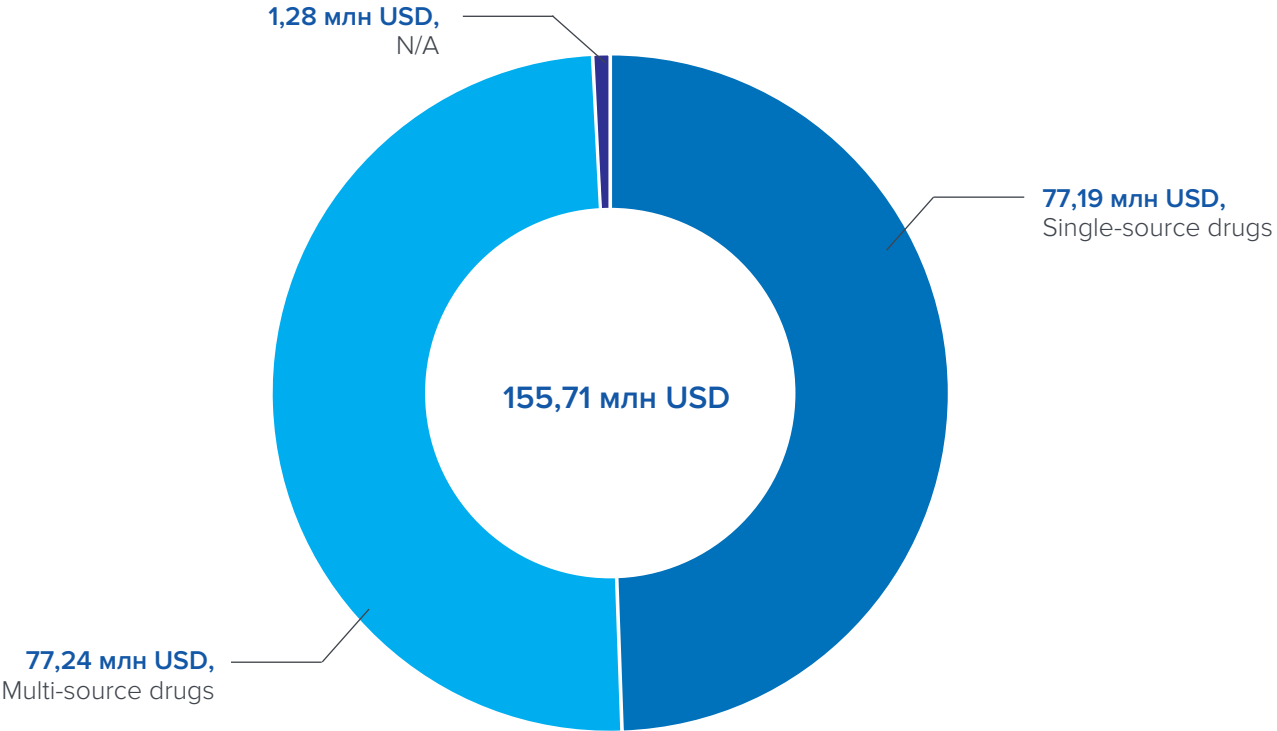
Table 1.
The distribution between single-source and multi-source drugs in centralized procurement of the MOH of Ukraine

Group	Amount, USD
Single-source drugs	≈ 77 190 000
Multi-source drugs	≈ 77 240 000
N/A	≈ 1 280 000
Total amount:	≈ 155 710 000

Almost half of all funds in the centralized procurement of the MOH of Ukraine have been spent on single-source drugs. The determination of which part of them is under patent protection and which part is

single-source for economic reasons was not carried out in the framework of this study.

Analysis of centralized procurement



The distribution between single-source and multi-source drugs in centralized procurement of the MOH of Ukraine

Analysis of centralized procurement

Table 2.
The distribution of single-source drugs among pharmaceutical companies and total sales for each manufacturer

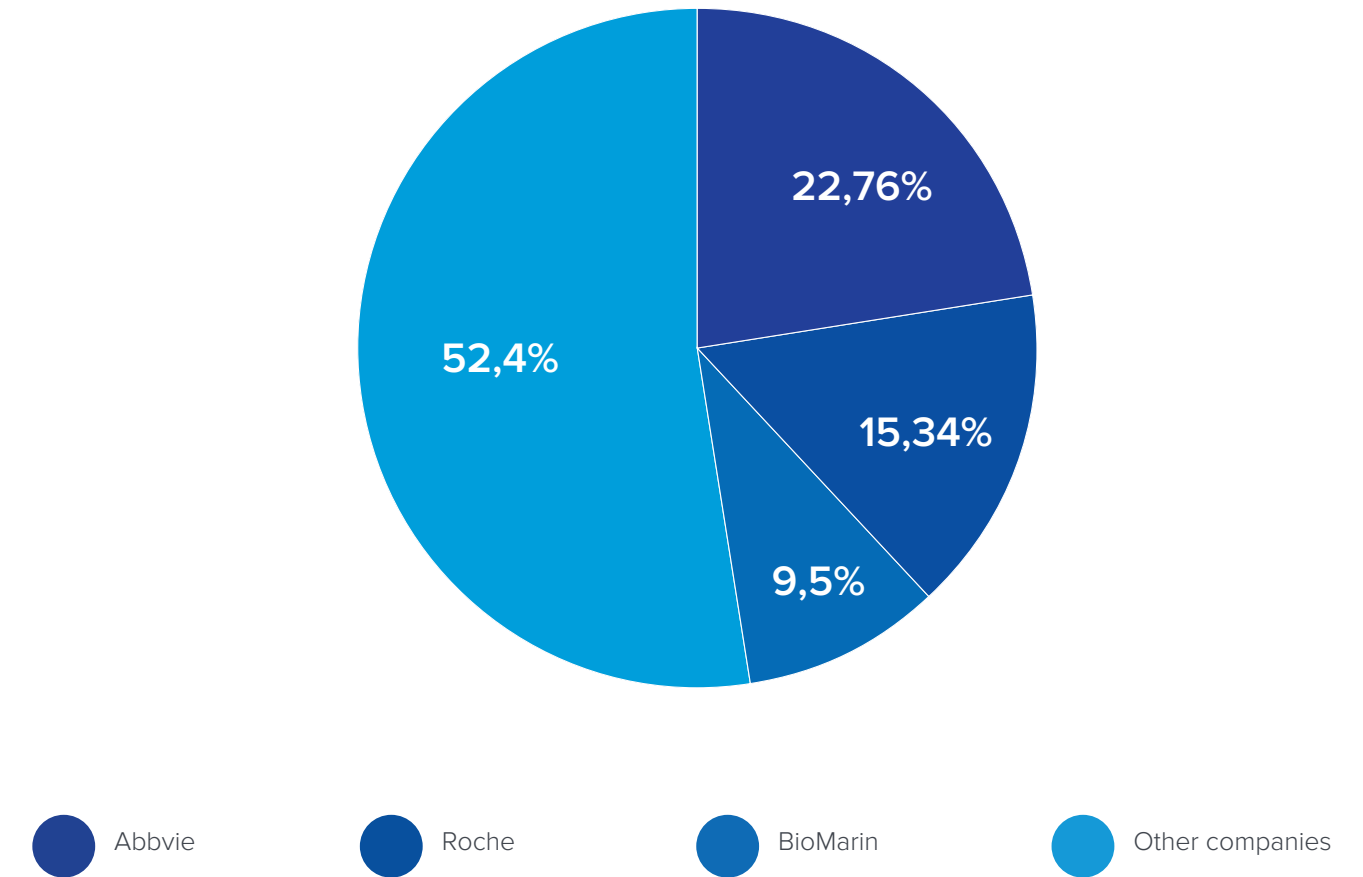
Company name	Medicines	Amount, =USD
AbbVie	Lopinavir/Ritonavir, Adalimumab, Ombitasvir/Paritaprevir/Ritonavir, Dasabuvir, Ritonavir	17 570 000
Roche	Trastuzumab, Rituximab, Dornase alfa, Tocilizumab, Peginterferon alfa-2a, Valganciclovir, Epoetin beta	11 850 000
BioMarin	Elosulfase alfa, Sapropterin, dihydrochloride	7 340 000
Novartis	Daptomycin, Basiliximab, Nilotinib, Everolimus, Basiliximab, Daptomycin	6 860 000
Genzyme (Sanofi)	Imiglucerase, Laronidase, Alglucosidasum alpha, Agalsidasum beta, Antithymocyte immunoglobulin (rabbit)	6 590 000
Shire	Idursulfase, Velaglucerase alfa	5 990 000
Baxter	Factor VIII inhibitor bypassing activity	3 940 000
Merck Sharp & Dohme	Caspofungin, Ertapenem	2 840 000

Company name	Medicines	Amount, =USD
Schering-Plough (Merck & Co)	Posaconazole, Follitropin beta, Ganirelix	2 130 000
Novo Nordisk	Recombinant factor VIIa)	1 750 000
Astellas Pharma	Micafungin	1 530 000
Boehringer Ingelheim	Alteplase, Tenecteplase	920 000
Gilead Sciences	Sofosbuvir/Velpatasvir, Sofosbuvir/Ledipasvir	810 000
Orion Corporation	Toremifene, Levosimendan	750 000
Bayer	Iloprost, Riociguat	740 000
Johnson & Johnson	Darunavir, Methylphenidate, Etavirine	720 000
Aspen Pharma	Melphalan, Fondaparinux sodium, Mercaptopurine, Chlorambucil, Tioguanine, Busulfan, Azathioprine	600 000
Baxalta (ex-Medac)	Pegaspargase	560 000
Sanofi-Aventis	Lenograstim	550 000
Pfizer	Antithymocyte immunoglobulin (equine), Sildenafil, Etanercept, Taliglucerase alfa, Tigecycline	460 000
Bristol-Myers Squibb	Dasatinib, Daclatasvir	420 000
BioPharma (Ukraine)	Pegfilgrastim	380 000
Bharat pharmaceuticals	Amphotericin B (liposomal)	370 000
Medac Pharma	Hydroxycarbamide, Treosulfan, Asparaginase, Urokinase, Lomustine	310 000
Rik Pharma (Ukraine)	Carbetocin	200 000

Company name	Medicines	Amount, =USD
Swedish Orphan Biovitrum	Nitisinone, Anakinra	190 000
National Centre for Nuclear Research	Technetium pertechnetate (99mTc), Sodium iodide Na131I	190 000
Lipomed	Thalidomide	160 000
Baxter Oncology	Mesna	140 000
AstraZeneca	Ticagrelor	100 000
Ebewe Pharma (Sandoz)	Mitoxantrone	100 000
Lupin Limited	Rifabutin	60 000
Laboratoire Aguettant	Noradrenaline	40 000
Admeda Arzneimittel GmbH	Dobutamine	40 000
Cheplapharm Arzneimittel GmbH	Tretinoin	10 000
Orphan Europe	Dactinomycin	–
GlaxoSmithKline	Ticarcillin/clavulanic acid, Eptifibatide	–
Total:		77 190 000

The pharmaceutical company Abbvie has the largest single-source drug sales of \$ 17,572 million, followed by Roche with \$ 11,845 million and BioMarin with \$ 7339 million.

Analysis of centralized procurement



The distribution of single-source drugs among pharmaceutical companies and total sales for each manufacturer

Analysis of centralized procurement

Table 3.
Single-source drugs by sales volume

International nonproprietary name	Trade name	Disease or Indications for use	ATC-code	Amount, = USD	Manufacturer
Lopinavir/Ritonavir	Алувіа	HIV/AIDS	J05AR10	12 690 000	Abbvie
Idursulfase	Елапраза	Mucopolysaccharidosis	A16AB09	5 990 000	Shire
Nilotinib	Тасігна	CML	L01XE08	5 120 000	Novartis
Trastuzumab	Герцептин	Breast cancer	L01XC03	5 100 000	Roche
Elosulfase alfa	Вімізим	Mucopolysaccharidosis	A16AB12	4 610 000	BioMarin
Imiglucerase	Церезим	Gaucher disease	A16AB02	4 140 000	Genzyme
Anti-inhibitor coagulant complex	Фейба	Haemophilia	B02BD03	3 940 000	Baxter
Adalimumab	Хуміра	JRA	L04AB04	3 360 000	Abbvie
Rituximab	Мабтера	Lymphoma	L01XC02	2 620 000	Roche
Caspofungin		Anti-fungal	J02AX04	2 580 000	MSD
Galsulfase	Наглазим	Mucopolysaccharidosis	A16AB08	2 550 000	BioMarin
Dornase alfa	Пульмозим	Mucoviscidosis	R05CB13	2 200 000	Roche
Posaconazole	Ноксафіл	Anti-fungal	J02AC04	2 050 000	Shering-Plough

International nonproprietary name	Trade name	Disease or Indications for use	ATC-code	Amount, = USD	Manufacturer
Laronidase	Альдуразим	Mucopolysaccharidosis	A16AB05	1 750 000	Genzyme
Micafungin	Мікамін	Anti-fungal	J02AX05	1 530 000	Astellas
Clofazimine	Лампрен	TB	J04BA01	1 360 000	Novartis
Ombitasvir/ Paritaprevir/Ritonavir	Вікейра Пак	Hepatitis C	J05AP52	1 340 000	Abbvie
Tocilizumab	Актемра	JRA	L04AC07	1 030 000	Roche
Recombinant factor VIIa	Ново-Севен	Haemophilia	B02BD08	1 750 000	Novo Nordisk
Iloprost	Іломедін/Вен-тавіс	Pulmonary hypertension	B01AC11	740 000	Bayer
Alteplase	Актилізе	Ischaemic stroke	B01AD02	730 000	Boeh. Ing
Darunavir	Презиста	HIV/AIDS	J05AE10	600 000	Johnson& Johnson
Sofosbuvir/Velpatasvir	Харвоні	Hepatitis C	J05AX65	560 000	Gilead
Lenograstim	Граноцит34	Neutropaenia	L03AA10	550 000	Sanofi
Toremifene	Фарестон	Breast cancer	L02BA02	550 000	Orion
Pegaspargase	Онкаспар	Cytostatic	L01XX24	560 000	Baxalta
Peginterferon alfa-2a	Пегасіс	Hepatitis C	L03AB11	430 000	Roche
Dasatinib	Спріцел	CML	L01XE06	390 000	BMS
Pegfilgrastim	Пег-Філстим	Neutropaenia	L03AA13	380 000	Biofarma
Amphotericin B lipid	Амфоліп	Anti-fungal	J02AA01	370 000	Bharat

International nonproprietary name	Trade name	Disease or Indications for use	ATC-code	Amount, ≈ USD	Manufacturer
Alglucosidasum alpha	Міюзим	Pompe disease	A16AB07	370 000	Genzyme
Valganciclovir	Вальцит	Cytomegalovirus infection	J05AB14	320 000	Roche
Ertapenem	Інванз	Antibiotic	J01DH03	260 000	MSD
Agalsidasum beta	Фабразим	Fabry disease	A16AB04	210 000	Genzyme
Melphalan	Алкеран	Cytostatic	L01AA03	210 000	Aspen
Levosimendan	Симдакс	Heart failure	C01CX08	200 000	Orion
Carbetocin	Карбетоцин	Uterotonic	H01BB03	200 000	Rik Ph.
Sofosbuvir/Ledipasvir	Харвоні	Hepatitis C	J05AX65	190 000	Gilead
Tenecteplase	Металізе	Thrombolytic	B01AD11	190 000	Boeh. Ing
Sapropterin dihydrochloride	Куван	Phenylketonuria	A16AX07	180 000	BioMarin
Epoetin beta	Бінокрит	Anaemia	B03XA01	160 000	Roche
Antithymocyte immunoglobulin (equine)	Атгам	Immunosuppressant	L04AA03	160 000	Pfizer
Thalidomide	Мірін 100	Multiple myeloma	L04AX02	160 000	Lipomed
Hydroxycarbamide	Гідроксисечовина Медак	Cytostatic	L01XX05	150 000	Medac
Nitisinone	Орфадин	Tyrosinemia	A16AX04	150 000	Swid.O.B.
Mesna	Уромітексан400 Мг	Cytostatic	V03AF01	140 000	Baxter

International nonproprietary name	Trade name	Disease or Indications for use	ATC-code	Amount, ≈ USD	Manufacturer
Sildenafil	Адамакс-100	Pulmonary hypertension	G04BE03	140 000	Pfizer
Basiliximab	Сімулект	Immunosuppressant	L04AC02	140 000	Novartis
Etanercept	Енбрел	JRA	L04AB01	130 000	Pfizer
Antithymocyte immunoglobulin (rabbit)	Тимоглобулін	Immunosuppressant	L04AA04	130 000	Genzyme
Daptomycin	Кубіцин	Antibiotic	J01XX09	130 000	Novartis
Dasabuvir	Вірелакір	Hepatitis C	J05AX16	120 000	Abbvie
Everolimus	Афінітор	Immunosuppressant	L01XE10	120 000	Novartis
Fondaparinux sodium	Арикстра	Anticoagulant	B01AX05	110 000	Aspen
Mercaptopurine	Пури-Нетол	Cytostatic	L01BB02	110 000	Aspen
Etravirine	Інтеленс	HIV/AIDS	J05AG04	110 000	Johnson & Johnson
Ticagrelor	Брилінта	Antiaggregant	B01AC24	100 000	AstraZeneca
Mitoxantrone	Мітоксантрон «Ебеве»	Cytostatic	L01DB07	100 000	Ebewe
Treosulfan	Треосульфан Медак	Cytostatic	L01AB02	100 000	Medac
Chlorambucil	Лейкеран	Cytostatic	L01AA02	90 000	Aspen
Technetium (99mTc) pertechnetate	Полтехнет	Radiopharmaceutical agent	V09FX01	90 000	NCNR
Ritonavir	Норвір	HIV/AIDS	J05AE03	70 000	Abbvie

International nonproprietary name	Trade name	Disease or Indications for use	ATC-code	Amount, ≈ USD	Manufacturer
Tioguanine	Ланвіс	Cytostatic	L01BB03	70 000	Aspen
Sodium iodide Na131I	Натрію Йодид На 131 I	Radiopharmaceutical agent	V10XA01	60 000	NCNR
Follitropin beta	Пурегон	Infertility	G03GA06	60 000	Schering-Plough
Rifabutin	Рифабутин	TB	J04AB04	60 000	Lupin
Asparaginase	Аспарагіназа Медак	Cytostatic	L01XX02	50 000	Medac
Noradrenaline	Норадреналіну Агетат	Heart failure	C01CA03	40 000	Aguettant
Dobutamine	Добутамін Адмеда	Heart failure	C01CA07	40 000	Admeda
Anakinra	Кінерет	Autoinflammatory diseases	L04AC03	40 000	Swed. O.B
Tigecycline	Тигацил	Antibiotic	J01AA12	30 000	Pfizer
Daclatasvir	Даклінза	Hepatitis C	J05AP07	20 000	BMS
Methylphenidate	Концерта	Autism	N06BA04	20 000	Johnson& Johnson
Ganirelix	Оргалутран	Infertility	H01CC01	20 000	Schering-Plough
Lomustine	Ломустин Медак	Cytostatic	L01AD02	10 000	Medac
Tretinoin	Весаноїд	Cytostatic	L01XX14	10 000	Chepla
Azathioprine	Імуран	Transplantation	L04AX01	10 000	Aspen
Busulfan	Мілеран	Cytostatic	L01AB01	10 000	Aspen

International nonproprietary name	Trade name	Disease or Indications for use	ATC-code	Amount, ≈ USD	Manufacturer
Dactinomycin	Космеген	Cytostatic	L01DA01	–	Orphan E.
Eptifibatide	Інтегрин	Thrombolytic	B01AC16	–	GSK
Riociguat	Адемпас	Pulmonary hypertension	C02KX05	–	Bayer
Taliglucerase alfa	Елелісо	Gaucher disease	A16AB11	–	Pfizer
Ticarcillin/clavulanic acid	Тиментин	Antibiotic	J01CR03	–	GSK
Urokinase	Урокіназа Медак	Thrombolytic	B01AD04	–	Medac
Velaglucerase alfa	Впрів	Gaucher disease	A16AB10	–	Shire

\$12,690 million

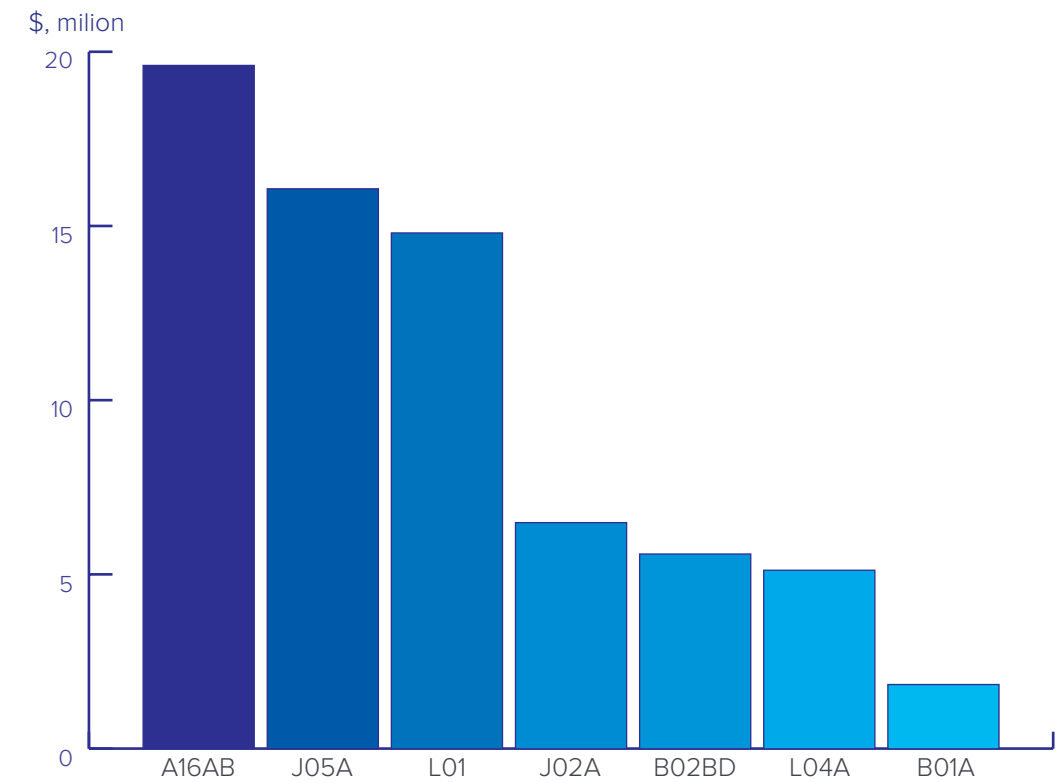
The procurement amount of the single-source drug "Aluvia" (Lopinavir / Ritonavir) for the treatment of HIV/AIDS, which is procured through the centralized procurement mechanism

Table 4.
ATC codes of single-source drugs for which the most funds are spent

ATC code	ATC name	Total amount, USD
A16AB	Other alimentary tract and metabolism products	19 612 238
J05A	Direct acting antiviral	16 065 870
L01	Antineoplastic agents	14 815 216
J02A	Antimycotics for systemic use	6 527 051
B02BD	Blood coagulations factors	5 690 488
L04A	Immunosupresants	5 135 608
B01A	Antithrombotic agents	1 876 398

The group of medicines with ATC code A16AB has the largest volume. The medicines of this group are purchased for the treatment of orphan diseases (mucopolysaccharidosis,

Gaucher disease, Fabry disease, Pompe disease, tyrosinemia type 1, phenylketonuria).



ATC codes of single-source drugs for which the most funds are spent

Analysis of summary data of hospital, centralized and pharmacy purchases/sales

Table 5.
Total sales of single-source drugs (hospital, centralized purchases and drugstore sales)

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
J05AR10	Lopinavir and ritonavir	501	Abbvie	Алувіа	●
A16AB09	Idursulfase	277	Shire	Елапраза	●
N05BA29	Gidazepamum	206	Interchem	–	
B01AF01	Rivaroxaban	171	Bayer	Ксарелто	
G03DB01	Dydrogesterone	146	Abbott	Дуфастон	
L01XE08	Nilotinib	91	Novartis	–	●
A16AB02	Imiglucerase	78	Genzyme	Церезим 400 Од	●
N01AF03	Thiopental	74	Kyivmedpreparat	Тіопентал	
A02AB03	Aluminium phosphate	69	Astellas	Фосфалюгель	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
16AB05	Ambazone	66	Sun Pharmaceuticals	Фарингосепт	
R05CB13	Caspofungin	59	MSD	Кансидаз	●
A05BA06	Fluticasone furoate	53	GSK	Авамис	
R02AA01	Adalimumab	53	Abbvie	Хуміра	●
J02AX04	Flurbiprofen	52	Reckitt Benckiser	Стрепсілс Інтенсив	
R01AD12	Dydrogesterone and estrogen	50	Abbott	Фемостон	
L04AB04	Ofloxacin and ornidazole	48	Organosyn Life Sciences	Офор	
R02AX01	Fluocinonide and antibiotics	46	Sperko	Кремген	
G03FB08	Laronidase	45	Genzyme	Альдуразим	●
J01RA09	Dornase alfa	45	Roche	Пульмозим	●
D07CC05	Ornithine oxoglurate	44	Mili	Орнітокс	
A B02BD03	Factor VIII inhibitor bypassing activity	42	Baxter	Фейба	●
G02BA03	Plastic IUD with progestogens	41	Bayer	Джайдес	
J02AX05	Micafungin	40	Astellas	Мікамін	●
A10BK01	Dapagliflozinum	40	AstraZeneca	–	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
R01AX08	Framycetin	40	Lab. Bouchara-Recordati	Ізофра	
N02AA51	Morphine, combinations	39	Zdorovie Narodu	Омнопон-3н	
G02BB03	Benzalkonium chloride	39	MonPharm	Евітекс	
B01AD02	Alteplase	37	Boehringer Ingelheim	Актилізе	●
A16AB08	Galsulfase	36	BioMarin	–	●
B01AC11	Iloprost	35	Bayer	Вентавіс/Іломедін	●
B03XA03	Methoxy polyethylene glycol-epoetin beta	34	Roche	Мирцера	
B02BD08	Coagulation factor VIIa	34	NovoNordisk	Новосевен	●
J02AC04	Posaconazole	33	Schering-Plough	Ноксафіл	●
N05BX04	Fabomotizole	33	FarmStandart	–	
J01FA07	Josamycin	33	Astellas	Вільпрафен Солютаб	
J05AP53	Ombitasvir, paritaprevir and ritonavir	32	Abbvie	Вільвіо	
J01XE01	Nitrofurantoin	32	Olainfarm	Фурадонін	
B01AE07	Dabigatran etexilate	31	Boehringer Ingelheim	Прадакса	
B01AC24	Ticagrelor	30	AstraZeneca	Брилінта	●
L04AC07	Tocilizumab	30	Roche	Актемра	●

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
A10BD07	Metformin and sitagliptin	30	MSD	Янумет	
N07BA04	Cytisine	29	Sopharma	–	
G03AB08	Dienogest and estradiol	29	Bayer	Клайра	
B01AD11	Tenecteplase	29	Boehringer Ingelheim	Металізе	●
J05AP51	Sofosbuvir and ledipasvir	29	Gilead	Харвоні	●
R03BB04	Thiotropium bromide	28	Boehringer Ingelheim	Спірива Респімат	
J01RA11	Ciprofloxacin and tinidazole	28	Dr.Reddis	–	
R01AD53	Dexamethasone, combinations	28	Lab. Bouchara-Recordati	Полідекса 3 Фенілеф-рином	
B03XA02	Darbepoetin alfa	28	Amgen	Аранесп	
B01AB12	Bemiparin	27	Menarini	Цибор	
C07AA05	Propranolol	26	Zdorovje	Анаприлін-Здоров'я	
N05AF05	Zuclopenthixol	25	Lunback	Клопиксол	
R01AA09	Tramazoline	25	Sanofi-Aventis	Лазорин	
R06AA04	Clemastine	25	Novartis	Тавегіл	
J01CA01	Ampicillin	25	Kyivmedpreparat	Ампіцилін	
L02BA02	Toremifene	24	Orion	Фарестон	●

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
S01EE05	Tafluprost	23	Santen	Тафлотан	
B01AX05	Fondaparinux	23	Aspen	Арикстра	●
C05AA01	Hydrocortizone	22	NizhPharma	–	
S02CA08	Beclometasone and antimicrobial drugs	21	–	–	
J01RA05	Levofloxacin and ornidazole	21	Iurika Pharm	Грандазол	
A02BD09	Lansoprazole, clarithromycin and tinidazole	21	Organosyn Life Sciences	Клатінол	
A03AX18	Platyphylline	21	–	–	
D07BB03	Triamcinolone and antiseptics	21	Darnitsia	Тримістин-Дарниця	
G03DB08	Dienogestum	21	Bayer	Візан	
V08AB05	Iopromide	20	Bayer	Ультравіст 300	
C08GA02	Amlodipine and diuretics	20	Servier	Арифам 1,5 Мг/10 Мг	
D06BA07	Silver sulfathiazole	20	Jelfa S.A.	–	
J05AE10	Darunavir	19	Johnson & Johnson	Презиста	●
N07CA52	Cinnarizine, combinations	19	Menarini	Арлеверт	
H02AB07	Prednisone	19	Trommsdorff	Ректодельт 100	
S01LA05	Aflibercept	19	Bayer	Айлія	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
A06AG10	Docusate sodium, incl. combinations	19	Norgine Pharma	Норгалакс	
N05AF03	Chlorprothixene	19	Lunback	Труксал	
M09AB52	Trypsin, combinations	18	Mucos Pharma	Флогензим	
B01AB11	Sulodexide	18	Alfa Wasserman	Вессел Дуге Ф	
M03BX05	Thiocolchicoside	18	World medicine	Мускомед	
N06AX05	Trazodone	18	AKRAF	Триттіко	
A11CC03	Alfacalcidol	17	Teva	Альфа ДЗ-Тева	
N05AC02	Thioridazine	17	Valeant	Сонапакс 10 Мг	
A10BD10	Metformin and saxagliptin	17	AstraZeneca	Комбогліза Хр	
N06BX16	Pramiracetam	17	Menarini	Прамістар	
A03AB18	Prifinium bromide	17	Hikma Pharmaceuticals	Ріабал	
N02BG07	Flupirtine	16	Lupin	Флугесік	
C04AX31	Bendazolum	16	Biostimulator	–	
G01AX05	Nifuratel	16	PoliChem	Макміроп	
L01XX05	Hydroxycarbamide	16	Medac	Гідроксисечовина Медак	●
C04AX07	Vincamine	16	PharmaStart	Віноксин МВ	
P01AB07	Secnidazole	15	World medicine	Секнідокс	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
B02BA01	Phytomenadione	15	BB Pharma	Канавіт	
L01XE11	Pazopanib	15	Novartis	Вотрієнт	
H01BB03	Carbetocin	15	Rik Pharma	Карбетоцин	●
D07BB01	Flumetasone and antiseptics	15	Valeant	Лоринден А	
A16AB04	Agalsidase beta	15	Genzyme	Фабразим	●
M01AB08	Etodolac	14	Nobel Ilac	Етол Sr	
R05DB18	Prenoxdiazine	14	Sanofi-Aventis	Лібексин	
R01AB08	Tuaminoheptane	14	Zambon	Ринофлуімуцил	
R06AX31	Quifenadine	13	Olainfarm	Фенкарол	
A12CC09	Magnesium orotate	13	Woerwag Pharma	Магнерот	
R06AX29	Bilastine	13	Menarini	Ніксар	
M01AE14	Dexibuprofen	13	Organosyn Life Sciences	Зотек-200	
C08CA02	Felodipine	12	Teva	Фелодип	
G04BE09	Vardenafil	12	Bayer	Левітра	
N06AX22	Agomelatine	12	Servier	Мелітор	
B01AA07	Acenocoumarol	12	Meda pharma	Синкумар	
A07AA11	Rifaximin	12	Alfa Wasserman	Альфа Нормікс	
R05DB27	Levodropropizine	12	Macleods	Ранітус	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
N07AA02	Pyridostigmine	11	Teva	Калімін 60 Н	
G03FA17	Drospirenon and estrogen	11	Bayer	Анжелік	
G04CB02	Dutasteride	11	GSK	Аводарт	
J02AA01	Amphotericin B	11	Bharat	Амфоліп	●
J01DH03	Ertapenem	11	MSD	Інванз	●
D01AC60	Bifonazole, combinations	11	Bayer	Канеспор Набір	
C01EB06	Fosfocreatine	11	Alfa Wasserman	Неотон	
L03AA10	Lenograstim	11	Sanofi-Aventis	Граноцит 34	●
G03XB02	Ulipristal	11	Gedeon Richter	–	
A02BX14	Rebamipide	10	Macleods	Мукоген	
J01AA12	Tigecycline	10	Pfizer	Тигацил	
N05AB02	Fluphenazine	10	KRKA	Модитен Депо	●
A02BC06	Dexlansoprazolum	10	Teva	Дексілант	
N05AF01	Flupentixol	10	Lunback	Флюанксол	
M01AX01	Nabumetone	10	Organosyn Life Sciences	Сінметон	
A10BD26	Glimepiride, pioglitazone and metformine	10	Micro Labs	–	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
C09BB06	Enalapril and nitrendipine	9	Ferrer	Енеас	
A03AB06	Otilonium bromide	9	Menarini	Спазмомен	
A03FA07	Itopridum	9	Abbott	Ганатон	
S03AA09	Norfloxacin	9	Alcon	–	
N06AX26	Vortioxetine	9	Lunback	Брінтеллікс	
L04AB01	Etanercept	9	Pfizer	Енбрел	●
C01CX08	Levosimendan	9	Orion	Симдакс	●
G03FB09	Levonorgestrel and estrogen	9	Alvogen	Клімонорм	
L01BC03	Tegafur	9	Grindeks	Фторафур	
S02DA08	Choline salicylate	9	Meda pharma	Отинум	
G03CA09	Promestriene	8	Teva	Колпотрофін	
L04AA18	Everolimus	8	Novartis	Сертикан	
G04CA52	Tamsulosin and dutasteride	8	GSK	Дуодарт	
A16AB07	Alglucosidase alfa	8	Genzyme	Міозим	●
B03BA05	Mecobalamin	8	Kusum	Діакобал	
P03AC55	Esdepalethin, combinations	8	–	–	
M05BX03	Strontium ranelate	8	Servier	Бівалос	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
A10BH03	Saxagliptin	8	AstraZeneca	Онглаза	
C09CA09	Azilsartan medoxomil	8	Takeda	Едарбі	
D11AH02	Pimecrolimus	8	Meda pharma	Елідел	
N01AX11	Sodium oxybate	8	Farmak	Натрію Оксibuтират	
N04AA01	Trihexyphenidyl	8	BCPP	Циклодол	
L01XX02	Asparaginase	7	Medac	Аспарагіназа 10 000 Медак	●
L01XC07	Bevacizumab	7	Roche	Авастин	
G03GB02	Clomifene	7	EGIS	Клостилбегіт	
G03DC03	Lynestrenol	7	Schering-Plough	Оргаметрил	
S01EB51	Pilocarpine, combinations	7	Santen	Фотил	
B02BA02	Menadione	7	Darnitsia	Вікасол-Дарниця	
G04BD08	Solifenacin	7	Astellas	Везикар	
A03AX58	Alverine, combinations	7	Mayoly Spindler	Метеоспазміл	
G02BB01	Vaginal ring with progestogen and estrogen	7	Schering-Plough	Новаринг	
C01EB18	Ranolazine	7	Menarini	Ранекса 1000	
R03DA11	Doxofylline	6	ABC	Аерофілін	
J05AB14	Valganciclovir	6	Roche	Вальцит	●

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
M01AH04	Parecoxib	6	Pfizer	Династат	
A10BJ02	Liraglutide	6	NovoNordisk	Віктоза	
A03DA08	Dicycloverine and analgesics	6	–	–	
C02AB01	Methyldopa (levorotatory)	6	EGIS	Допегіт	
N04BC08	Piribedil	6	Servier	Проноран	
N02CA52	Ergotamine, combinations excl. psycholeptics	6	Bosnalek	Номігрєн Босналек	
A02BD05	Omeprazole, amoxicillin and clarithromycin	6	Sun Pharmaceuticals	Пілобакт Нео	
G04CA04	Silodosin	6	Recordati	Урорек	
C01EB07	Fructose 1,6-diphosphate	6	Biomedica	Езафосфіна	
J01FA03	Midecamycin	6	KRKA	Макропен	
H01CB03	Lanreotide	6	Ipsen	Соматулін Аутожель 120 Мг	
C05CA05	Hidrosmin	5	Faes	Веносміл	
A03BB01	Butylscopolamine	5	Sanofi-Aventis	Бускопан	
R02AA06	Cetylpyridinium	5	KRKA	Септолете зі смаком лимона	
S03AA11	Ofloxacin	5	–	–	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
A07EF01	Escherichia coli, Stamm Nissle 1917	5	–	–	
R01AD59	Mometasone, combinations	5	–	–	
N05AA02	Levomepromazine	5	EGIS	Тизерцин	
J07BM02	Papillomavirus (human types 16, 18)	5	GSK	Церварікс	
S01BC10	Nepafenac	5	Novartis	Неванак	
G01AC03	Chlorquinaldol	5	Leckhim	Хінофуцин	
N06BX02	Pyritinol	5	–	–	
H01BB01	Demoxytocin	5	Grindeks	Дезаміноокситоцин	
A16AX07	Sapropterin	5	BioMarin	Куван	
P01BA02	Hydroxychloroquine	5	Ipca Laboratories	Іммард	
C09AA15	Zofenopril	5	Menarini	Зокардіс 30 мг	
G01AF12	Fenticonazole	5	Recordati	Ломексин	
L03AX03	BCG vaccine	5	Biomed Lublin	Онко Бцж 100	
V08BA02	Barium sulfate without suspending agents	5	Istok Plus	Барію сульфат	
B03AD04	Ferric oxide dextran complexes	5	Bifor	Мальтофер Фол	
A10BH01	Sitagliptin	5	MSD	Янувія	
N03AF02	Oxcarbazepine	5	Kusum	Оксапін	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
M01AB19	Amtolmetine guacil	4	–	–	
C10AB05	Fenofibrate	4	Abbott	Трайкор 145 Мг	
S01HA04	Proxymetacaine	4	Alcon	Алкаїн	
C09BA06	Quinapril and diuretics	4	Pfizer	Аккузид 10	
C09AA09	Fosinopril	4	Actavis	Фозикард	
G04BD07	Tolterodine	4	Zentiva	Уротол	
J07BM01	Papillomavirus (human types 6, 11, 16, 18)	4	MSD	Гардасил	
A10BB08	Gliquidone	4	Boehringer Ingelheim	Глюренорм	
L04AC02	Basiliximab	4	Novartis	–	●
M01AH02	Rofecoxib	4	Mili	Денебол	
D10AE01	Benzoyl peroxide	4	PharmaScience	Угресол	
C04AA01	Isoxsuprine	4	Kusum	Супрілекс	
N04BD01	Selegiline	4	Orion	Ельдеприл	
A07XA04	Racecadotril	4	Abbott	Гідрасек	
L04AA03	Antilymphocyte immunoglobulin (horse)	4	Pfizer	Атгам	●
L04AA04	Antithymocyte immunoglobulin (rabbit)	4	Genzyme	Тимоглобулін	●
A02BX62	Bismuth subnitrate, combinations	3	–	–	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
J05AR11	Lamivudine, tenofovir disoproxil and efavirenz	3	Macleods	Ламіхоп-Ет	
G03BB01	Mesterolone	3	Bayer	Провірон	
C02BC02	Hexamethonii bromide	3	–	–	
A06AG11	Sodium lauryl sulfoacetate, incl. combinations	3	MacNeil	Мікролакс	
A02BX02	Sucralfate	3	KRKA	Вентер	
R05DB31	Glaucinum	3	–	–	
V03AB15	Naloxone	3	Zdorovie Narodu	Налоксон-Зн	
P01AB06	Nimorazole	3	–	–	
N05BA25	Phenazepam	3	–	–	
D01AE54	Undecylenic acid, combinations	3	–	–	
J01CE08	Benzathine benzylpenicillin	3	Sandoz	Ретарпен	
C10AA08	Pitavastatin	3	Recordati	Лівазо	
L02AB02	Medroxyprogesterone	3	Pfizer	Депо-Провера	
V03AF01	Mesna	3	Baxter	Уромітексан 400 Мг	●
R06AX32	Sequifenadine	3	Olainfarm	Гістафен	
B02BC30	Fibrinogen, human	3	Takeda	Тахокомб	
G02AB01	Methylethergometrine	3	ChemoPharm	Метилергобревін	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
A10BF03	Voglibose	3	Kusum	Воксид	
J05AP09	Dasabuvir	3	Abbvie	Вірелакір	
C03EA01	Hydrochlorothiazide and potassium-sparing agents	3	Teva	Триампур Композитум	
J05AE03	Ritonavir	3	Abbvie	Норвір	●
A04AA03	Tropisetron	3	Biolik	Тропісетрон	
L01AA03	Melphalan	3	Aspen	Алкеран	●
L04AX02	Thalidomide	3	Lipomed	Мірин 100	●
V03AB14	Protamine	3	Indar	Протаміну сульфат	
M05BX04	Denosumab	2	Amgen	Іксджева	
D01AE04	Undecylenic acid	2	Teva	Нітрофунгін Нео	
G03AA13	Norelgestromin end ethinylestradiol	2	Johnson&Johnson	Евра	
J01XX09	Daptomycin	2	Novartis	Кубіцин	●
C01CA07	Dobutamine	2	Admeda	Добутамін Адмеда	●
R03DA74	Theophylline, combinations with psycholeptics	2	Interchem	Теофедрин Іс	
C10BX06	Atorvastatin, acetylsalicylic acid and ramipril	2	Ferrer	Триномія	
L01XE04	Sunitinib	2	Pfizer	Сутент	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
G02AD02	Dinoprostone	2	Pfizer	Простин Є2	
J07BH01	Rota virus, live attenuated	2	GSK	Ротарикс	
A02AD02	Magaldrate	2	Takeda	Ріопан	
G01AF15	Butoconazole	2	Gedeon Richter	Гінофорт	
D07CC04	Beclometasone and antibiotics	2	Glenmark	Кандідерм	
N05CM18	Dexmedetomidine	2	Orion	Дексдор	
A03FA09	Mosapride	2	Torrent	Мосид МТ	
C01BA02	Procainamide	2	Darnitsia	НовоКаїнамід-Дарниця	
S02AA30	Antiinfectives, combinations	2	Zambon	Анауран	
M01CC01	Penicillamine	2	Teva	Купреніл	
G02CA05	Hexoprenaline	2	Takeda	Гініпрал	
L01AB02	Treosulfan	2	Medac	Треосульфан Медак	●
D06BB11	Docosanol	2	Delta Medical	Приора	
C09AA06	Quinapril	2	Pfizer	Аккупро	
N06AA02	Imipramine	2	EGIS	Меліпрамін	
C02AC02	Guanfacine	2	EGIS	Естулік	
G04BE04	Yohimbin	2	Zdorovje	Йохімбіну гідрохлрид	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
J05AG04	Etravirine	2	Johnson&Johnson	Інтеленс	●
D07AC18	Prednicarbate	2	DermaPharm	Преднітоп	
C09BA09	Fosinopril and diuretics	2	Actavis	Фозикард Н	
N06AX23	Desvenlafaxine	2	Pfizer	Еліфор	
N07XX02	Riluzole	2	BCPP	Боризол	
L01DB07	Mitoxantrone	2	Ebewe	Мітоксантрон «Ебеве»	●
R05DB09	Oxeladin	2	Ipsen	Пакселадин	
A14AB01	Nandrolone	2	Gedeon Richter	Ретаболіл	
H03BB01	Carbimazole	2	Esparma	Еспа-Карб	
N05BX03	Etifoxine	2	Biocodex	Стрезам	
L01XC06	Cetuximab	2	Merck	Ербітукс	
L01XE15	Vemurafenibum	2	–	–	
J01GA01	Streptomycin	2	Kyivmedpreparat	Стрептоміцин	
S01EC54	Brinzolamide, combinations	2	Novartis	Сімбринза	
G03GA06	Follitropin beta	2	Schering-Plough	Пурегон	●
N04BA03	Levodopa, decarboxylase inhibitor and COMT inhibitor	1	Orion	Сталево	
P01BC02	Mefloquine	1	Roche	Ларіам	
P01AX08	Tenonitrozole	1	Innoteck	Атрикан 250	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
G03AC06	Medroxyprogesterone	1	Pfizer	Депо-Провера	
D03BA09	Chymotrypsin	1	BioFarma	Хімотрипсин Кристалічний	
M02AB01	Capsaicin	1	–	–	
R03AL03	Vilanterol and umecclidinium bromide	1	GSK	Аноро Елліпта	
L04AX01	Azathioprine	1	Aspen	Імуран	●
J01MA07	Lomefloxacin	1	Ipca Laboratories	Ломфлоркс	
H02AA02	Fludrocortisone	1	PFZ	Кортінефф	
N05AE03	Sertindole	1	Lunback	Сердолект	
A02BX03	Pirenzepine	1	Boehringer Ingelheim	Гастроцепін	
R01AC03	Azelastine	1	Meda pharma	Алергодил	
L01XE07	Lapatinib	1	GSK	–	
B01AC18	Triflusal	1	Uriach	Дісгрел	
D07CC02	Fluocinolone acetonide and antibiotics	1	Valeant	Флуцинар N	
D01BA01	Griseofulvin	1	BCPP	Гризеофульвін	
A11DA03	Benfotiamine	1	Woerwag Pharma	Бенфогама 300	
P02CB01	Piperazine	1	Darnitsia	Піперазину Адипінат-Дарниця	
C09BA15	Zofenopril and diuretics	1	Menarini	Зокардіс Плюс 30/12,5	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
A10AE06	Insulin degludec	1	NovoNordisk	Тресіба Флекстач	
C05BA04	Pentosan polysulfate sodium	1	Bene	Тромбоцид	
D07AB10	Alclometasone	1	Belupo	Афлодерм	
C03BA10	Xipamide	1	Artesan	–	
P01BA01	Chloroquine	1	Meda pharma	Делагіл	
M02AA01	Phenylbutazone	1	Gedeon Richter	Бутадіон	
L03AA13	Pegfilgrastim	1	BioFarma	Пег-Філстим	●
J02AX06	Anidulafungin	1	Pfizer	Ераксис	
D06BB16	Denotivir	1	Jelfa S.A.	–	
D01AC12	Fenticonazole	1	Recordati	Ломексин	
C07BB12	Nebivolol and thiazides	1	Menarini	Небілет Плюс 5/12,5	
M03BX08	Cyclobenzaprine	1	Takeda	Міорикс	
N03AE01	Clonazepam	1	Interchem	Клоназепам Іс	
C01BD07	Dronedarone	1	Sanofi-Aventis	Мультак	
L01AD02	Lomustine	1	Medac	Ломустин Медак	●
A16AX04	Nitisinone	1	Swedish Orphan Biovitrum	Орфадин	●
D05AX03	Calcitriol	1	Kusum	Форкал	
A10BD15	Metformin and dapagliflozin	1	AstraZeneca	Ксігдуо Пролонг	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
B01AA02	Phenindione	1	Zdorovje	Фенілін-Здоров'я	
G03CA53	Estradiol, combinations	1	Alvogen	Клімен	
J06BB09	Cytomegalovirus immunoglobulin	1	BioFarma	–	
H05BA01	Calcitonin (salmon synthetic)	1	Novartis	Міакальцик	
L04AC05	Ustekinumab	1	Johnson&Johnson	Стелара	
L01AA02	Chlorambucil	1	Aspen	Лейкеран	●
R03AC18	Indacaterol	1	Novartis	Онбрез Бризхайлер	
S01LA04	Ranibizumab	1	Novartis	Луцентіс	
B01AB15	Heparinoids	1	–	–	
J01XX04	Spectinomycin	1	Medochemi	Кірін	
J01MA03	Pefloxacin	1	Sandoz	Абактал	
B01AB04	Dalteparin	1	Pfizer	Фрагмін	
C10AC01	Colestyramine	1	PharmaScience	Пмс-Холестирамін	
N05AL03	Tiapride	1	Valeant	Тіапрілан	
M05BA02	Clodronic acid	1	Bayer	Бонефос	
R03AC12	Salmeterol	1	GSK	Серевент Евохалер	
B02BX19	Recombinant thrombopoietin	1	Iuria Pharm	–	
B02BX05	Eltrombopag	1	Novartis	Револад	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
D01AC20	Imidazoles/triazoles in combination with corticosteroids	1	Glenmark	Кандід-Б	
L04AB06	Golimumab	1	Johnson&Johnson	Сімпоні	
R05CA03	Guaifenesin	1	Procter & Gamble	Вікс Актив Медекспекто	
G04CA03	Terazosin	1	EGIS	Сетегис	
J01DD14	Ceftibuten	1	MSD	–	
R03AL06	Olodaterol and tiotropium bromide	1	Boehringer Ingelheim	Спіолто Респімат	
J01BA02	Thiamphenicol	1	–	–	
A16AA03	Glutamine	1	–	–	
L03AX05	Pidotimod	1	PoliChem	Імунорикс	
V10XA01	Sodium iodide (131I)	1	NCNR	Натрію Йодид Na131I Полатом	●
H01CC01	Ganirelix	1	Schering-Plough	Оргалутран	●
A06AD61	Lactulose, combinations	1	Mayoly Spindler	Трансулоза	
G04CA53	Tamsulosin and solifenacin	1	Astellas	Везомні	
J07AL52	Pneumococcus purified polysaccharides antigen and Hae	1	GSK	Синфлорикс	
G04BD12	Mirabegron	1	Astellas	Бетмига	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
V09FX01	Technetium (99mTc) pertechnetate	<1	NCNR	Полтехнет	●
J01MA15	Gemifloxacin	<1	Abdi İbrahim	Фактив	
C08CA08	Nitrendipine	<1	–	–	
D01AC11	Oxiconazole	<1	–	–	
N05AN01	Lithium	<1	BCPP	Глюталіт	
V08AB10	Iomeprol	<1	Bracco Imaging	Іомерон 300	
V08CA03	Gadodiamide	<1	GE Healthcare	Омніскан	
B01AD04	Urokinase	<1	Medac	Урокіназа Медак	●
S01AX05	Bibrocatol	<1	Ursapharm	Посиформін	
S01XA26	Azapentacene	<1	–	–	
J07AL02	Pneumococcus, purified polysaccharides antigen conjugated	<1	Pfizer	Превенар 13/	
N05AE04	Ziprasidone	<1	Pfizer	Зелдокс	
A12CD01	Sodium fluoride	<1	PharmaScience	Флюор-Е-Дей	
B01AF02	Apixaban	<1	Pfizer	Еліквіс	
R06AX02	Cyproheptadine	<1	–	–	
L02BX02	Degarelix	<1	Ferring	Фірмагон	
C01AA06	Lanatoside C	<1	GNCLS	Целанід	
J01EB03	Sulfadimidine	<1	Agropharm	Сульфадимезин	

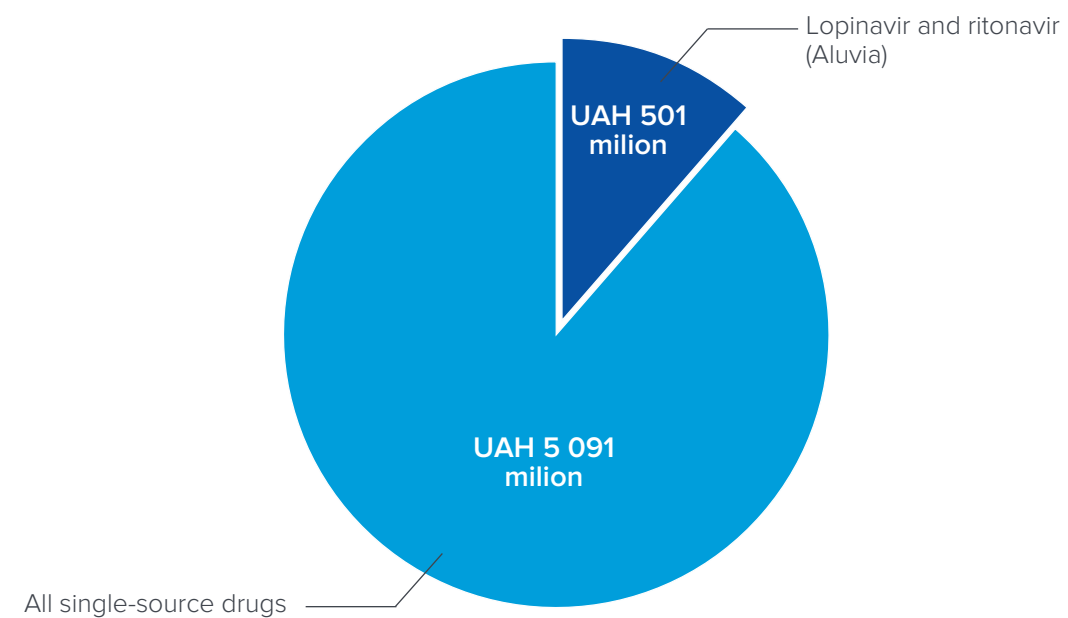
ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
G04CA01	Alfuzosin	<1	Sun Pharmaceuticals	Алфірум	
G03CB05	Hexestrol	<1	BioFarma	–	
N06DA04	Galantamine	<1	Sopharma	Нівалін	
D01AC05	Isoconazole	<1	Bayer	–	
C09BX02	Perindopril and bisoprolol	<1	Servier	Косірель 10 Мг/10 Мг	
J07AG51	Hemophilus influenzae B, combinations with toxoid	<1	–	–	
A12CC10	Magnesium oxide	<1	Alpen Pharma	Біолектра Магнезіум Форте	
N05CM11	Bromides	<1	–	–	
P02BA01	Praziquantel	<1	Bayer	–	
B03AB02	Sacharated iron oxide	<<1	Biolik	Залізне Вино	
G04BE11	Udenafil	<1	Dong A ST Co	Зидена	
C10AA02	Lovastatin	<1	–	–	
B01AC05	Ticlopidine	<1	EGIS	Іпатон	
J07AP03	Typhoid, purified polysaccharide antigen	<1	Sanofi-Aventis	Тіфім Ві	
B01AB02	Antithrombin III	<1	Octapharma	Атенатив 1000 Мо	
V03AC03	Deferasirox	<1	Novartis	Ексіджад	
V08CA09	Gadobutrol	<1	Bayer	Гадовіст 1,0	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
D06AX13	Retapamulin	<1	GSK	Альтарго	
C05BB02	Polidocanol	<1	Chemische Fabrik Kreussler	Етоксисклерол 0,5%	
L01DC03	Mitomycin	<1	NordicPharma	Мітоміцин-С Кіова	
D03BA01	Trypsin	<1	BioFarma	–	
J01CR03	Ticarcillin and beta-lactamase inhibitor	<1	GSK	Тиментин	●
L01XE05	Sorafenib	<1	Bayer	Нексавар	
N07BA03	Varenicline	<1	Pfizer	Чемпікс	
J07AH08	Meningococcus A, C, Y, W-135, tetravalent purified polysaccharides antigen conjugated	<1	Pfizer	Німенрикс	
J01RA07	Azithromycin, fluconazole and secnidazole	<1	–	–	
R03AL04	Indacaterol and glycopyrronium bromide	<1	Novartis	Ультібро Бризхайлер	
C10BA02	Simvastatin and ezetimibe	<1	MSD	–	
N05AX13	Paliperidone	<1	Johnson & Johnson	Інвега	
J01DD52	Ceftazidime and beta-lactamase inhibitor	<1	–	–	
L01XX35	Anagrelide	<1	PharmaScience	Агрелід	

ATC code	International nonproprietary name	Total sales, = mln. UAH	Company	Trade name	CR
C08CA09	Lacidipine	<1	GSK	Лаципіл	
H04AA01	Glucagon	<1	NovoNordisk	–	
L01XE10	Everolimus	<1	Novartis	Афінітор	●
C09CA02	Eprosartan	<1	Abbott	Теветен	
R02AB03	Fusafungine	<1	Servier	–	
G02CB04	Quinagolide	<1	Ferring	Норпролак	
A03AX04	Pinaverium	<1	Abbott	Дицетел	
Total:		5 091			

« ● » – The drug is also purchased using the centralized procurement mechanism
« – » – The drug is not registered in the State Register of Medicinal Products

Analysis of summary data of hospital, centralized and pharmacy purchases/sales



The leader in sales among single-source drugs in 2017 was Aluvia (Lopinavir and ritonavir) manufactured by Abbvie.

Analysis of summary data of hospital,
centralized and pharmacy purchases/sales

Table 6.
Rating of companies according to sales of single-source drugs

N°	Company	Total sales, ₴ mln UAH	Number of trade names
1	Abbvie	592	5
2	Bayer	375	16
3	Shire	277	1
4	Abbott	213	7
5	Interchem	209	3
6	Novartis	156	15
7	Astellas	150	6
8	Genzyme	149	5
9	Boehringer Ingelheim	131	7
10	Roche	124	6
11	MSD	109	7
12	Kyivmedpreparat	100	3
13	Menarini	99	9
14	AstraZeneca	96	5

N°	Company	Total sales, ₴ mln UAH	Number of trade names
15	Organosyn Life Sciences	91	4
16	GSK	85	12
17	Sun Pharmaceuticals	72	3
18	Lab. Bouchara-Recordati	68	2
19	Teva	67	8
20	Lunback	64	5
21	Sanofi-Aventis	56	6
22	Reckitt Benckiser	52	1
23	Pfizer	50	18
24	Schering-Plough	49	5
25	Mili	48	2
26	Olainfarm	48	3
27	Sperko	46	1
28	Servier	46	6
29	Baxter	45	2
30	Zdorovie Narodu	42	2
31	NovoNordisk	41	4
32	BioMarin	41	2
33	Alfa Wasserman	41	3
34	Orion	40	5
35	MonPharm	39	1

N°	Company	Total sales,= mln UAH	Number of trade names
36	Valeant	34	4
37	World medicine	34	2
38	FarmStandart	33	1
39	Darnitsia	31	4
....	Other	940	168
....	Unknown	109	27
	Total	5 091	396

In 2017, Abbvie was the leader in single-source drug sales. In general, five of Abbvie's trade name products were sold for more than UAH 591 million.

Analysis of summary data of hospital, centralized and pharmacy purchases/sales

1 **Abbvie**
5 trade names
592 mln UAH, total sales

2 **Bayer**
16 trade name
375 mln UAH, total sales

3 **Shire**
1 trade name
277 mln UAH, total sales

Rating of companies according to sales of single-source drugs

Analysis of summary data of hospital,
centralized and pharmacy purchases/sales

Table 7.
Rating of ATC codes of single-source drugs purchased for the greatest portion of money

ATC level 1	Level name	Number of single-source drugs	Total amount of sales, = mln UAH
J	Antiinfectives For Systemic Use	45	982
A	Alimentary Tract And Metabolism	52	916
N	Nervous System	41	629
B	Blood And Blood Forming Organs	30	595
G	Genito Urinary System And Sex Hormones	39	483
R	Respiratory System	30	461
L	Antineoplastic And Immunomodulating Agents	37	322
C	Cardiovascular System	42	223
D	Dermatologicals	24	145
S	Sensory Organs	14	109
M	Musculo-Skeletal System	15	105

ATC level 1	Level name	Number of single-source drugs	Total amount of sales, = mln UAH
H	Systemic Hormonal Preparations, Excl. Sex Hormones And Insulins	9	49
P	Antiparasitic Products, Insecticides And Repellents	9	37
V	Various	11	36

ATC code A, 52, represents most single-source drugs, while ATC code J has the highest sales volume – UAH 982 mln.

A 52
single-source drugs
916 mln UAH
total amount of sales

J 45
single-source drugs
982 mln UAH
total amount of sales

Conclusions and discussion

In 2017, in Ukraine, single-source drugs were sold in the amount of UAH 5 billion 91 million using centralized and hospital purchases, as well as a drugstore network. This includes only drugs with ATC code Level 6 and INN that were assigned by the World Health Organization.

In 2017, Abbvie had the largest sales of single-source drugs; the company received more than UAH 591 million from the sale of 5 drugs. This amount was received due to the sales of Aluvia (lopinavir/ritonavir).

In addition, in 2017, \$77 million, or half of all funds, were spent on the purchase of drugs through the centralized procurement mechanism of the MOH of Ukraine, involving the international organizations.

Due to the fact that such a significant amount is spent on the purchase of single-source drugs, it is necessary to conduct a further study of

the causes of this situation. In particular, it is necessary to examine the patent status of certain single-source drugs.

A situation with Aluvia illustrates the importance of the further study of this issue. According to the Public Health Center of the MOH of Ukraine, as of 1 Dec 2018, antiretroviral therapy was provided for 101,358 patients (out of 144,633 HIV-infected under control, as of 1 Oct 2018), 61,649 of them received treatment funded by the state budget, and the remaining 39,709 patients received treatment at the expense of international donor organizations. According to the regional applications within the centralized procurement program, the 100% of annual demand for antiretroviral drugs is approximately UAH 877 million and approximately UAH 403 million, for tablets of lopinavir/ritonavir. Calculation of the average cost of an annual course of treatment with antiretroviral drugs has a number of difficulties due to different ways of supplying drugs,

different costs of procurement, even within the same source of supply; besides the number of patients also varies with time. According to the passport of the budget program of the centralized procurement for 2018 regarding 90,249 patients, who receive antiretroviral therapy, and data on 100% annual need for ART drugs, the average annual cost of treatment for one patient will be approximately UAH 9725. At the same time, according to the Global Price Reporting Mechanism website, 23,843 patients received lopinavir/ritonavir in doses of 200/50 mg and 100/25 mg (the original Aluvia) in Ukraine in 2017, and the cost of the annual course of treatment was \$401.69. At the same time, the average cost of the annual course of treatment in Europe and Central Asia was \$241.03. Thus, the implementation of generic competition between lopinavir/ritonavir drugs should lead to significant savings in state budget funds and an increase in the availability of drugs purchased for the state budget.

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