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ANALYSIS OF THE PHARMACEUTICAL SUPPLY SYSTEM BASED ON THE EXAMPLE OF A SPECIALIZED MEDICAL ORGANIZATION IN ARMENIA

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Introduction

Drugs play a vital and multifaceted role in healthcare provision, serving as one of the most effective tools for curing diseases, managing symptoms, preventing complications, and improving patients' overall quality of life. When used appropriately - guided by clinical protocols, accurate diagnosis, and patient-specific considerations - drugs contribute to faster recovery, reduced morbidity, and enhanced well-being. Their widespread application across nearly all branches of medicine underscores their centrality in both individual treatment plans and broader public health strategies. Despite their therapeutic potential, the irrational use of drugs remains a persistent and serious global concern. According to the World Health Organization (WHO), more than 50% of all drugs are prescribed, dispensed, or sold inappropriately, and nearly half of all patients fail to take their drugs correctly - whether due to misunderstanding instructions, skipping doses, or discontinuing treatment prematurely [16]. These patterns undermine treatment effectiveness, raise safety risks, and strain healthcare budgets, especially in low-resource settings.

The problem is particularly acute in developing countries, where healthcare systems often face structural limitations, workforce shortages, and insufficient regulatory oversight. In many such contexts, mechanisms for monitoring and evaluating drug use are either underdeveloped or entirely absent, resulting in widespread inappropriate prescribing and dispensing practices. Addressing this challenge is essential not only for improving the quality and safety of medical care but also for ensuring the efficient use of scarce healthcare resources. As Ofori-Asenso et al. (2016) emphasize, rational drug use leads to better clinical outcomes, reduces unnecessary expenditures, and strengthens the sustainability of healthcare systems. In environments where budgets are constrained and demand for services is high, optimizing pharmaceutical practices becomes a strategic priority for both public health and economic stability [12].

Pharmaceutical spending continues to represent a substantial portion of healthcare expenditures, particularly in developing countries. In some cases, up to 70% of the total healthcare budget may be allocated to drugs, reflecting both the centrality of pharmacotherapy and the inefficiencies in procurement, distribution, and prescribing. The high cost of drugs, limited access to generics, and fragmented insurance coverage further intensify the financial burden on organizations and patients alike. In contrast, high-income countries typically spend around 10% of their healthcare budgets on pharmaceuticals, supported by robust insurance systems, widespread availability of generics, centralized purchasing mechanisms, and strong regulatory frameworks [13]. These structural differences highlight the importance of promoting rational drug use and improving accessibility as key pillars of health policy and system reform.

The urgency of this issue is further underscored by the predominance of drug therapy in clinical practice. Approximately 95% of treatment regimens rely on drugs, making pharmacotherapy the primary modality in both outpatient and inpatient care. In hospital settings, this reliance translates into a significant portion of budgets being devoted to pharmaceuticals. For inpatient medical organizations operating under limited financial resources, this creates substantial pressure on public funding and challenges the sustainability of care delivery systems [17].

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Given that existing healthcare financing often fails to fully meet the needs of hospitalized patients, the rational and efficient use of drugs becomes not only a clinical necessity but also a fiscal imperative. Optimizing pharmaceutical expenditures is essential to ensure that limited resources are used effectively and equitably. In this context, it is particularly noteworthy that no clinical and economic studies have yet been conducted in Armenia to assess drug utilization at the inpatient level. The absence of such research represents a critical gap, as evidence-based insights are essential for improving the quality of drug provision and enhancing the efficiency of healthcare services.

In this regard, the purpose of this research is to analyze the drug supply system using the example of a specialized medical organization.

Materials and Methods

The research used data covering a period of one year and is provided by a specialized medical organization operating in the Republic of Armenia. The database included the trade names, dosages, quantities, and monetary value of the drugs used.

Content analysis and segmental analysis were used during the study, as well as a number of clinical-economic methods: ABC/VEN analysis, ATC/DDD methodology, and DU90% analysis.

ABC analysis: The aim of this analysis is to introduce a systematic approach to improving the quality and cost-effectiveness of drug treatment management. It is a retrospective method used to assess the rationality of the allocation of financial resources by classifying drugs into three groups: A, B and C, according to their actually use during a given period:

- Class A – drugs that account for about 80% of total costs;
- Class B – drugs that account for about 15% of total costs;
- Class C – drugs that account for about 5% of total costs.

This approach allows for centralizing control over drugs with high cost impact and optimizing the procurement management process [2, 4, 7].

VEN analysis: This analysis assesses the effectiveness and priority of drug therapy by ranking drugs according to their degree of vital necessity.

- V (Vital) – vital drugs, life-saving or maintaining vital functions;
- E (Essential) – essential drugs, effective but not life-saving;
- N (Non-essential) – non-essential drugs, of questionable effectiveness or high cost compared to therapeutic benefit.

This method allows for the assessment of the appropriate allocation of financial resources in the treatment of various diseases. The formal method was used for the classification of VEN during the study [1, 2, 4, 7, 8, 11].

The first step in the ATC/DDD methodology is to classify drugs according to the ATC classification. For each drug that has an ATC code, the WHO Collaborating Centre for Drug Statistics Methodology defines its DDD (Defined Daily Dose). According to the WHO definition, “DDD is the estimated average daily dose used for the main indication of the drug in adults” (adult: 70 kg body weight). This method allows for a standardized assessment of the intensity of drug use over different periods of time, regardless of the dosages used. During the research, a table was created, where the ATC codes of the drugs, the corresponding DDDs were indicated, and the quantitative indicator of the use of each drug was calculated [9, 10, 14, 15].

DU90% analysis: After the ATC/DDD classification, a quantitative drug utilization analysis method, DU90%, was applied. This approach allows us to identify the drugs that account for 90% of total usage (DU90% group) and to separate those that are rarely used (DU10%).

The cost of a defined daily dose was calculated by dividing the cost of a given drug by the number of DDDs used. This indicator allows for a comparison of the cost-effectiveness of frequently and infrequently used drugs. DU90% analysis was also combined with ABC/VEN analysis, providing a combined assessment of drug utilization and financial resources [5, 6].

Results

As a result of the study, a list of drugs purchased and used by the medical organization during the year was compiled, which included the trade names, quantities, and unit prices of the drugs. The international non-proprietary names (INNs) of all drugs were identified in to form a working database.

An ATC classification of the drugs used was performed. ATC codes were identified using official lists [15]. A total of 193 drugs (by INN) were used. The largest therapeutic groups were:

- Cardiovascular drugs (C): 19.69%;
- Blood drugs (B): 17.62%;
- Alimentary system drugs (A): 16.58%.

Table 1.

Results of ABC/VEN analysis of drugs used in a specialized medical organization for 1 year

№	ATC code	INN	Costs - absolute value in AMD*	Costs: %	ABC	VEN
1	V08AB05	iopromide	82197132,00	30,03%	A	N
2	V08AB02	iohexol	14915200,00	5,45%	A	N
3	B01AB01	heparin	12718500,00	4,65%	A	V
4	V09GB02	iodine (^{125}I) human albumin	10808274,54	3,95%	A	N
5	B01AB06	nadroparin	9991610,00	3,65%	A	V
6	B05XA02	sodium bicarbonate	9392760,00	3,43%	A	E
7	B05XA03	sodium chloride	8259725,20	3,02%	A	E
8	C01CE02	milrinone	7956000,00	2,91%	A	E
9	J01CR05	piperacillin and beta-lactamase inhibitor	7761000,00	2,84%	A	E
10	V03AB14	protamine	7515239,96	2,75%	A	V
11	B01AC16	eptifibatide	6467649,60	2,6%	A	V
12	J01DC02	cefuroxime	5653091,18	2,07%	A	E
13	B05AA06	gelatin agents	5378983,40	1,97%	A	N
14	C01DA02	glyceryl trinitrate	5252832,00	1,92%	A	V
15	J01DH02	meropenem	4874580,26	1,78%	A	V
16	N02BE01	paracetamol	4650812,52	1,70%	A	E
17	B05XA01	potassium chloride	3775995,00	1,38%	A	V
18	N01AB08	sevoflurane	3587500,00	1,31%	A	V
19	J01CR02	amoxicillin and beta-lactamase inhibitor	3495898,75	1,28%	A	E
20	C02DD01	nitroprusside	2960352,00	1,08%	A	V
21	C01CA04	dopamine	2812970,00	1,03%	A	V
22	D08AG02	povidone-iodine	2651588,02	0,97%	B	N
23	J01XA01	vancomycin	2639660,94	0,96%	B	V
24	J01MA14	moxifloxacin	2203850,00	0,81%	B	E
25	A02BA03	famotidine	2116408,91	0,77%	B	E
26	C01EA01	alprostadil	2023010,00	0,74%	B	V
27	V08AB09	iodixanol	1988860,00	0,73%	B	N
28	D08AX08	ethanol	1958200,00	0,72%	B	N
29	J01MA02	ciprofloxacin	1741541,23	0,64%	B	E
30	N01BB02	lidocaine	1640709,50	0,60%	B	V
31	A02BC02	pantoprazole	1632389,01	0,60%	B	E
32	N01AX10	propofol	1600950,00	0,58%	B	V
33	V06DB	fat/carbohydrates/proteins/minerals /vitamins, combinations	1316844,00	0,48%	B	N
34	B01AB05	enoxaparin	1306350,00	0,48%	B	V
35	J01DH51	imipenem and cilastatin	1190250,00	0,43%	B	V
36	B05BC01	mannitol	1167840,00	0,43%	B	N
37	A10AB01	insulin (human)	1140000,00	0,42%	B	V
38	N05CM18	dexmedetomidine	1125300,00	0,41%	B	N
39	C01BD01	amiodarone	1110787,45	0,41%	B	V

№	ATC code	INN	Costs - absolute value in AMD*	Costs: %	ABC	VEN
40	B01AC04	clopidogrel	1087920,00	0,40%	B	V
41	A10AE04	insulin glargine	1072890,00	0,39%	B	V
42	D06BA01	silver sulfadiazine	996321,60	0,36%	B	N
43	B05CX01	glucose	972259,43	0,36%	B	V
44	J02AC01	fluconazole	945966,00	0,35%	B	E
45	C10AA05	atorvastatin	838955,05	0,31%	B	V
46	A12CC	magnesium: combinations with subtherapeutic amounts of vitamins	778960,00	0,28%	B	E
47	J01DD04	ceftriaxone	770040,00	0,28%	B	V
48	B01AX05	fondaparinux	760000,00	0,28%	B	V
49	V07AB	solvents and diluting agents	738276,00	0,27%	B	V
50	B05BB02	electrolytes with carbohydrates	700740,00	0,26%	B	E
51	B01AF01	rivaroxaban	626892,00	0,23%	B	V
52	C03CA01	furosemide	571783,50	0,21%	B	V
53	J01XX08	linezolid	550200,00	0,20%	C	V
54	A12CC02	magnesium sulfate	525189,60	0,19%	C	V
55	N01BB10	levobupivacaine	403560,00	0,15%	C	V
56	C01CA07	dobutamine	397800,00	0,15%	C	V
57	B03AC	Iron, parenteral preparations	387000,00	0,14%	C	E
...	...	...	...	...	...	...
193	A11DA01	thiamine (vit B1)	19,92	0,00001%	C	V
	Total	-	273688610,92	100,00%	-	-

** AMD is the currency of Armenia (1$ ≈ 390 AMD)*

Among cardiovascular drugs, the most frequently used were drugs for the cardiac therapy (group C01).

Then, an ABC analysis was conducted based on the costs of purchasing the drugs. The drugs were classified as follows:

- Class A: 21 drugs (10.88%), which accounted for about 80% of total costs;
- Class B: 31 drugs (16.06%), which accounted for about 15% of total costs;
- Class C: 141 drugs (73.06%), which accounted for about 5% of total costs.

The VEN classification was performed using a formal method based on the clinical guidelines for the treatment of cardiovascular diseases [3]. Of the 193 INN drugs, there were:

- Vital (V): 39.38%;
- Essential (E): 37.31%;
- Non-essential (N): 23.31% (table 1).

The percentage results of the ABC/VEN analysis are presented in tabular form (Table 2).

Table 2.

ABC/VEN analysis results of drugs in percentages

ABC \ VEN	Number of INNs	V	E	N
A	21	47,62%	33,33%	19,05%
B	31	54,84%	22,58%	22,58%
C	141	34,75%	41,14%	24,11%

In the ATC/DDD and DU90% analyses, drugs that did not have a defined daily dose (DDD) were excluded. In total, the remaining 129 drugs were included in the analysis. For each drug, the number of defined daily doses (NDDD) used and its percentage contribution to the total NDDD were calculated.

Based on the NDDD, drugs were classified into the following groups:

- DU90% group: 32 INN drugs;
- DU10% group: the remaining 97 drugs.

The cost per DDD was calculated separately for each drug, as well as for the DU90% and DU10% groups, al-

Table 3.

Results of drug DDD and DU90% analysis

№	ATC code	INN	DDD (mg)	NDDD	% in total NDDD	Cost of 1DDD	DU90% / DU10%
1	C03CA01	furosemide	40	35588,50	14,96%	16,07	
2	C10AA05	atorvastatin	20	23636,00	9,93%	35,49	
3	C01DA02	glyceryl trinitrate	5	15877,60	6,67%	330,83	
4	J01DC02	cefuroxime	500	12848,50	5,40%	439,98	
5	A02BC02	pantoprazole	40	12271,50	5,16%	133,02	
6	B01AC04	clopidogrel	75	12088,00	5,08%	90,00	
7	C09AA01	captopril	50	11587,75	4,87%	7,60	
8	C01CA24	epinephrine	0.5	7800,52	3,28%	37,09	
9	C08CA01	amlodipine	5	7252,00	3,05%	14,01	
10	C01BD01	amiodarone	200	6922,50	2,91%	160,46	
11	H02AB02	dexamethasone	1.5	6858,67	2,88%	25,44	
12	A12CC02	magnesium sulfate	3000	6045,00	2,54%	86,88	
13	J01MA02	ciprofloxacin	1000	4602,25	1,93%	8,50	
14	C01EA01	alprostadil	0.5	4480,00	1,88%	451,56	
15	A02BA03	famotidine	40	4417,00	1,86%	479,15	
16	B01AB01	heparin	10000 TU	4170,00	1,75%	3050,00	DU90% (15505,99)
17	C07AB07	bisoprolol	10	3953,44	1,66%	42,00	
18	C01CA06	phenylephrine	4	3655,00	1,54%	42,00	
19	B03BA01	cyanocobalamin	0,02	3525,00	1,48%	0,75	
20	A06AD11	lactulose	6700	2986,57	1,26%	92,41	
21	B01AB06	nadroparin	2,85 TU	2616,00	1,10%	3819,42	
22	A10BB09	gliclazide	60	2423,00	1,02%	63,33	
23	J01CR02	amoxicillin and beta-lact-amase inhibitor	1500	2172,90	0,91%	1608,86	
24	J01MA14	moxifloxacin	400	2129,50	0,90%	1034,91	
25	C03DA01	spironolactone	75	1977,50	0,83%	78,00	
26	B03BB01	folic acid	0,4	1962,50	0,82%	1,20	
27	C02AC05	moxonidine	0,3	1930,67	0,81%	137,48	
28	G04CA02	tamsulosin	0,4	1818,50	0,76%	168,00	
29	C09CA03	valsartan	80	1660,50	0,70%	53,16	
30	R05CB01	acetylcysteine	500	1587,20	0,67%	212,35	
31	B01AB05	enoxaparin	2 TU	1500,00	0,63%	870,90	
32	C01CA04	dopamine	500	1468,80	0,62%	1915,15	

№	ATC code	INN	DDD (mg)	NDDD	% in total NDDD	Cost of 1DDD	DU90% / DU10%
33	C03CA04	torasemide	15	1466,67	0,62%	155,53	DU10% (780813,28)
34	M01AE01	ibuprofen	1200	1416,33	0,60%	52,43	
35	B01AA03	warfarin	7,5	1368,60	0,58%	85,00	
36	A11CC05	colecalciferol	0,02	1036,88	0,44%	37,96	
37	A03FA01	metoclopramide	30	1022,33	0,43%	156,60	
38	N02BE01	paracetamol	3000	983,30	0,41%	4729,80	
39	A06AB02	bisacodyl	10	896,25	0,38%	41,10	
40	J01XA01	vancomycin	2000	859,00	0,36%	3072,95	
41	N02BB02	metamizole sodium	3000	822,67	0,35%	113,40	
42	C01DA08	isosorbide dinitrate	60	801,17	0,34%	67,83	
43	C03AA03	hydrochlorothiazide	25	731,50	0,31%	12,02	
44	C09AA05	ramipril	2,5	672,00	0,28%	21,28	
45	R03AC02	salbutamol	0,8	625,00	0,26%	30,75	
46	B01AF01	rivaroxaban	20	601,25	0,25%	1042,65	
47	A03BA01	atropine	1,5	598,67	0,25%	78,75	
48	A10AB01	insulin (human)	40 U	570,00	0,24%	2000,00	
49	J01DD04	ceftriaxone	2000	534,75	0,22%	1440,00	
50	J02AC01	fluconazole	200	534,63	0,22%	1769,38	
51	A10AE04	insulin glargine	40 U	455,00	0,19%	2358,00	
52	B03AA07	ferrous sulfate	200	440,00	0,18%	21,25	
53	C01AA05	digoxin	0,25	401,50	0,17%	49,95	
54	J01DH02	meropenem	3000	367,67	0,15%	13258,17	
55	C07AB12	nebivolol	5	354,00	0,15%	108,00	
56	A06AB05	castor oil	20000	345,00	0,15%	80,00	
57	C02DD01	nitroprusside	50	331,00	0,14%	8943,66	
...	...	...	...	...	...	...	
129	C01CX08	levosimendan	11	0,23	0,0001%	2115,74	
	Total			237906,80	100,00%	796319,27	-

Table 4.

Results of combining ABC/VEN and DU90% analysis

№	ATC code	INN	ABC	VEN
1	C03CA01	furosemide	B	V
2	C10AA05	atorvastatin	B	V
3	C01DA02	glyceryl trinitrate	A	V
4	J01DC02	cefuroxime	A	E
5	A02BC02	pantoprazole	B	E
6	B01AC04	clopidogrel	B	V
7	C09AA01	captopril	C	V
8	C01CA24	epinephrine	C	V
9	C08CA01	amlodipine	C	V
10	C01BD01	amiodarone	B	V
11	H02AB02	dexamethasone	C	V
12	A12CC02	magnesium sulfate	C	V
13	J01MA02	ciprofloxacin	C	E

№	ATC code	INN	ABC	VEN
14	C01EA01	alprostadil	B	V
15	A02BA03	famotidine	B	E
16	B01AB01	heparin	A	V
17	C07AB07	bisoprolol	C	V
18	C01CA06	phenylephrine	C	V
19	B03BA01	cyanocobalamin	C	E
20	A06AD11	lactulose	C	E
21	B01AB06	nadroparin	A	V
22	A10BB09	gliclazide	C	E
23	J01CR02	amoxicillin and beta-lactamase inhibitor	A	E
24	J01MA14	moxifloxacin	B	E
25	C03DA01	spironolactone	C	V
26	B03BB01	folic acid	C	E
27	C02AC05	moxonidine	C	E
28	G04CA02	tamsulosin	C	N
29	C09CA03	valsartan	C	V
30	R05CB01	acetylcysteine	C	E
31	B01AB05	enoxaparin	B	V
32	C01CA04	dopamine	A	V

lowing for comparative analysis. Full data are presented in Table 3.

At the end, a combined analysis was conducted, combining the ABC/VEN and DU90% methods. Table 4 shows the correspondence of the drugs included in the DU90% group to their ABC/VEN classification.

Discussion

The results of the research present a structural picture of drug use based on data from the specialized medical organization of Armenia. As a result of applying the ATC classification, it was found out that the therapeutic focus in the medical organization is mainly focused on drugs for the cardiovascular, hematopoietic and digestive systems, which reflects the main clinical directions and pathological structure of inpatient treatment.

ABC analysis showed that the majority of drug expenditures are concentrated on a limited number of drugs (Class A), which is consistent with international trends in terms of targeted resource allocation. Among Class A drugs, vital (47.62%) and essential (33.33%) drugs are dominated by VEN classification, but there are also non-essential (19.05%) drugs with a significant cost weight. This indicates that some non-priority drugs can have a significant financial impact without clinical necessity. Among Class B drugs, vital drugs are also dominated (54.84%), but the share of non-essential drugs (22.58%) remains significant. In Class C, where the number of drugs is large, essential (41.14%) and non-essential (24.11%) drugs are dominated by VEN classification, indicating the presence of less important but significant drugs in terms of volume.

Overall, the results of the VEN classification analysis show that the procurement structure is dominated by vital and essential drugs, but the presence of non-essential drugs in high-cost groups may affect the efficient allocation of resources. This highlights the need for periodic review and optimization of procurement policies based on clinical priorities.

DU90% analysis showed that the most frequently used drugs (DU90%) are characterized by a significantly lower single DDD value compared to the rarely used group (DU10%). This indicates a tendency to prioritize the use of clinically necessary and financially affordable drugs. Combined analysis of ABC/VEN and DU90% methods showed that most of the drugs in the DU90% group are classified as vital (V) or essential (E) groups according to the VEN classification, and have a medium or low cost weight according to the ABC classification. Only one of the 32 drugs is not classified as therapeutically justified

groups, being included in the non-essential (N) group.

Conclusions

The research is based on the methodological approaches recommended by the WHO (ATC, ABC/VEN, DU90%), allowing for a comprehensive assessment of the structure of drug selection, procurement and use, using the example of a specialized medical organization in Armenia.

ATC analysis showed that the organization's therapeutic activities are focused on cardiovascular, hematopoietic and digestive system drugs.

ABC analysis revealed that the majority of drug costs are accounted for by a limited number of drugs (Class A).

ABC/VEN analysis identified non-essential (N) VEN drugs, especially in high-cost groups, which may affect the efficient allocation of resources and require a review of the procurement strategy based on clinical need.

DU90% analysis indicates that frequently used drugs are clinically justified and financially affordable.

Combined (ABC/VEN and DU90%) analysis shows that most of the DU90% drugs are classified as vital or essential groups, ensuring efficient allocation of costs.

The applied methods made it possible to comprehensively assess the structure of drug use and create a basis for making substantiated decisions in the healthcare management system.

Recommendations

Taking into account the results of the research, it is advisable:

Introduce ABC/VEN and DU90% periodic analyses in professional medical institutions as a tool for monitoring hospital drug management.

Review procurement strategies to reduce or eliminate the presence of high-cost non-essential drugs.

Apply a procurement model based on clinical priorities, ensuring effective allocation of resources.

Organize periodic training on drug management and analytical methods.

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ԱՄՓՈՓՈՒՄ

ԴԵՂԱՅԻՆ ԱՊԱՀՈՎՄԱՆ ՀԱՄԱԿԱՐԳԻ ՎԵՐԼՈՒԾՈՒԹՅՈՒՆԸ ՀԱՅԱՍՏԱՆԻ ՄԱՍՆԱԳԻՏԱՑՎԱԾ ԲԺՇԿԱԿԱՆ ԿԱԶՄԱԿԵՐՊՈՒԹՅԱՆ ՕՐԻՆԱԿՈՎ

Չախոյան Ա.Ա., Սահակյան Ա.Ե.
ԵՊՀ ֆարմացիայի ինստիտուտ, ֆարմտեխնոլոգիայի և ֆարմացիայի էկոնոմիկայի ու կառավարման ամբիոն

Բանալի բառեր՝ *կլինիկա-տնտեսագիտական վերլուծություն, դեղերի ռացիոնալ կիրառում, ABC/VEN վերլուծություն, ATC/DDD մեթոդաբանություն, DU90% վերլուծություն:*

Այս հետազոտությամբ գնահատվել է Հայաստանի մասնագիտացված բժշկական կազմակերպություններից մեկի դեղորայքային ապահովման գործունեությունը՝ կիրառելով ԱՀԿ-ի կողմից առաջարկվող կլինիկա-տնտեսագիտական մեթոդաբանությունը (ABC/VEN, ATC/DDD և DU90% վերլուծություններ): Ստեղծվել է մեկ տարվա մատակարարման տվյալների բազա, որը ներառում է կիրառված դեղերի առևտրային և միջազգային համընդհանուր անվանումները (ՄՀԱ), քանակները և արժեքները:

ATC դասակարգմամբ բացահայտվել է 193 ՄՀԱ դեղի կիրառումը, որտեղ ամենամեծ բաժինը (19,69%) պատկանում է սրտանոթային դեղերին՝ արտացոլելով կազմակերպության կլինիկական առաջնահերթությունները: ABC վերլուծությունը ցույց է տվել, որ ծախսերը կենտրոնացված են սահմանափակ թվով դեղերին (A խումբ): Ըստ VEN դասակարգման՝ A խմբում գերակշռում են կենսական (47,62%) և հիմնական (33,33%) դեղերը, սակայն ոչ հիմնական (19,05%) դեղերի առկայությունը մեծ ծախս ունեցող խմբերում մատնանշում է գնումների ռազմավարության վերանայման անհրաժեշտությունը:

DU90% վերլուծությունը փաստել է, որ առավել հաճախ կիրառվող դեղերը ֆինանսապես մատչելի են (ցածր DDD արժեք): Համակցված ABC/VEN և DU90% վերլուծությամբ հաստատել է, որ հաճախ կիրառվող դեղերի ճնշող մեծամասնությունը (32-ից 31-ը) համապատասխանում է կլինիկական առաջնահերթություններին և ունի ցածր կամ միջին ծախսային կշիռ:

Ստացված արդյունքները հավաստում են կիրառված մեթոդների արդյունավետությունը հիվանդանոցային դեղերով ապահովված լինելը գնահատելիս: Դրանք կարող են հիմք դառնալ առողջապահական որոշումներ կայացնելու և գնումների քաղաքականությունն օպտիմալացնելու համար: Պարբերական մշտադիտարկումը նշված գործիքներով անհրաժեշտ է դեղերի ընտրության թափանցիկությունն ու ռեսուրսների արդյունավետ բաշխումն ապահովելու համար:

РЕЗЮМЕ

АНАЛИЗ СИСТЕМЫ ЛЕКАРСТВЕННОГО ОБЕСПЕЧЕНИЯ НА ПРИМЕРЕ СПЕЦИАЛИЗИРОВАННОЙ МЕДИЦИНСКОЙ ОРГАНИЗАЦИИ В АРМЕНИИ

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Ключевые слова: *клинико-экономический анализ, рациональное использование лекарств, ABC/VEN анализ, методология ATC/DDD, анализ DU90%.*

В данном исследовании проведена оценка системы лекарственного обеспечения специализированной медицинской организации в Армении с использованием клинико-экономических методов, рекомендованных ВОЗ: ABC/VEN, ATC/DDD и DU90% анализов. Сформирована база данных по закупкам за один год, включающая торговые наименования, международные непатентованные наименования (МНН), объемы потребления и стоимость препаратов.

Классификация ATC выявила использование 193 МНН, из которых наибольшая доля (19,69%) приходится на сердечно-сосудистые средства, что отражает клинические приоритеты стационара. ABC-анализ показал высокую концентрацию затрат на ограниченном числе препаратов (группа A). Согласно VEN-классификации, в группе A преобладают жизненно важные (47,62%) и основные (33,33%) лекарственные средства. Однако наличие второстепенных препаратов (19,05%) в высокозатратной группе указывает на необходимость оптимизации стратегии закупок.

DU90% анализ подтвердил финансовую доступность наиболее часто используемых лекарств (низкая стоимость за DDD). Комбинированный анализ ABC/VEN и DU90% показал, что подавляющее большинство востребованных препаратов соответствуют клиническим приоритетам и имеют низкую или среднюю стоимостную нагрузку.

Полученные результаты подтверждают эффективность данных методов для аудита больничного лекарственного обеспечения. Они могут служить основой для принятия управленческих решений и совершенствования политики закупок. Регулярный мониторинг с применением данных инструментов необходим для обеспечения прозрачности выбора лекарств и эффективного распределения ресурсов в здравоохранении.