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MONITORING AND ANALYSIS OF BEDSPACE USE IN DAY HOSPITALS

Abstract. This work provides materials on intensity of bedspace use in day hospitals of outpatient and hospital organizations. It shows the dynamics of development of hospital-replacing forms of medical care and makes estimations in accordance with the methods, generally accepted in medical statistics.

Key words: Unified national health system (UNHS), hospitalization replacement technologies, day care hospital.

The introduction of UNHS (Unified National Health System) factored into the development of hospital-replacing forms of medical care. Today healthcare development is characterized by extensive use of economic methods of management, in-depth analysis of the state of inpatient and outpatient ambulatory care and their restructure with a view of current and future needs, the introduction of modern, progressive forms and methods of diagnostics, treatment and prevention of diseases [1,2] as long as unified national health system is based on the principle of patient-orientedness and funding for the final result.

With due account of world experience, the ratio of outpatient and inpatient care, which plays a key role in the rational use of bedspace, is being reconsidered and gradually brought into line with the real needs [1].

Currently, Kazakhstan is extensively practicing an advanced form of medical care organization as a day hospital (DH), which is one of the most effective and least costly types of hospital-replacing technologies. The patients who do not need day and night surveillance, receives treatment in the Day hospitals. The operation of day hospital is governed by the order № 798 of the Minister of healthcare of the Republic of Kazakhstan dated November 26, 2009 «On approval of Rules of rendering hospital-replacing care», registered in the Register of state registration of regulatory legal acts № 5951 [3].

Hospital-replacing technologies let enhance the efficiency of bedspace saving the quality of medical care, bring specialized care to the place of residence, organize medical and social care to chronic patients, the disabled, carry out active treatment with preservation of traditional social relations and contacts of the patient [4,5].

The medical practice has accumulated a profound hospital-replacing technologies' operational experience as part of outpatient and hospital organizations. This form of medical care demonstrates high medical and socio-economic efficiency with no reduction in the quality of diagnosis and treatment while significantly reducing costs.

The trend of the growth of the number of beds in day hospital reflects the demand of hospital-replacing forms of medical care which directly indicates the active development of day hospitals in the Republic of Kazakhstan.

The aim of the research is to study the intensity of bedspace use in day hospitals of Almaty city.

Materials and methods of research

The statistical materials of Almaty city branch of the Republican State Association «Republic center of e-health» of the Ministry of Healthcare of the Republic of Kazakhstan were used as research materials.

The dynamics of the development of hospital-replacing forms of medical care to the residents of Almaty for 2010-2013 were analyzed. The analysis of growth of day hospital bedspace and the number of patients treated in outpatient and hospital organizations during the period of study was carried out. Hospital bed supply in day hospitals to 10 thousand population was calculated. The calculations are summarized in table. The extent of day hospital use per the number of hospital bed days, average length of treatment in day hospitals among adults and children were investigated. Analysis of dynamic series was carried out in accordance with generally accepted medical statistics methods.

The results of research and discussion

Monitoring and analysis of the development of hospital-replacing technologies in Almaty over the last 10 years has noted an increase in the number of day hospital patients, including the increase in the number of hospital organizations with day hospitals. According to the statistics for 2013 approximately 58 day hospitals were in operation, including 39 operating in ambulatory-polyclinic organizations, 19 in hospital organizations.

Taking into account the dynamics of day hospital growth, the bedspace grows in day hospitals of ambulatory-polyclinic and hospital organizations from 718 (2010) to 1045 (2013). In 2013 in day hospitals of ambulatory-polyclinic organizations there were 812 beds, and in hospital organizations– 233 beds.

Bedspace supply in day hospitals in 2013 was 6.9 per 10 thousand population. The analysis of the dynamics of the availability of beds in day hospitals shows that in 2010 this figure was much lower and amounted to 5.1 per 10 thousand population (table 1).

Table 1 - Bedspace growth dynamics in day hospitals in Almaty for 2010-2013

years	Organizations with day hospitals	Polyclinics	Hospitals	Number of beds in day hospitals:	Polyclinics	Hospitals	Bedspace supply in day hospitals (per 10 thousand population)
2010	52	35	17	718	612	106	5.1
2011	55	37	18	880	757	123	6.1
2012	55	36	19	904	736	168	6.1
2013	58	39	19	1045	812	233	6.9
2012	1859	1438	421	20328	13265	7063	12.0

Population coverage with day hospital treatment (per 1000 population) decreased from 39.4 (2010) to 37.1 (2013), the average duration of treatment in day hospitals among the adult population amounted to 7.4 (2013), among children– 7.8 (2013).

Over the last few years the day hospital network in hospital organizations grew more intensively till 2012 than in outpatient organizations.

According to the statistical analysis of the development process of hospital-replacing technologies in 2013 the total number of treated patients on beds in day hospitals was 55 987. Moreover, the number of treated patients in day hospitals at hospital organizations has greatly increased in recent years. It should be noted that the level of hospitalization on the beds of day hospitals at outpatient organizations were significantly higher all years than in day hospitals at hospital organizations (table 2). Thus, in 2013 day hospitals at out-patient organizations treated 41 332 patients, and day hospitals at hospital organizations treated 14 655 patients.

Table 2 - The performance indicators of day hospitals in Almaty for 2010-2013

years	The number of the patients treated in day hospitals:	Polyclinics	Hospitals	Population coverage with day hospital treatment (per 1000 population)	The average duration of treatment in day hospitals of polyclinics	
					adults	children
2010	55664	42968	12696	39.4	8	7.4
2011	55581	45146	10435	38.3	8,0	9.3
2012	52132	39614	12518	35.3	7,9	7.8
2013	55987	41332	14655	37.1	7,4	7.8
2012	844348	570634	273714	49.9	-	-

Table 3 - The performance indicators of home care in Almaty for 2010-2013

years	Home care aid organizations	The number of patients treated at home	The average duration of patient treatment at home		Population coverage with home care treatment (per 1000 population)
			adults	children	
2010	31	18587	6.9	6	13.1
2011	33	20833	12.8	7.2	14.4
2012	32	18716	16.5	5.9	12.7
2013	34	16017	12.7	5.8	10.6
2012	789	94347	-	-	5.6

The number of the patients treated at home in 2013 is 16 017, the average duration of treatment of such patients among the adult population is 12.7, among children - 5,8, population treatment coverage at home was 10.6 per 1000 population.

Table 4 - Bedspace growth dynamics in day hospitals at out-patient and hospital organizations for 2010-2013

years	t	Y t beds	Absolute accession		Growth rate %		Accession rate %	
			catenary	primary	catenary	primary	catenary	primary
2010	1	718	-	-	-	-	-	-
2011	2	880	162	162	122.56%	122.56%	22.56%	22.56%
2012	3	904	24	186	102.73%	125.91%	2.73%	25.91%
2013	4	1045	141	327	115.60%	145.54%	15.60%	45.54%

Table-4 demonstrates bedspace growth dynamics in day hospitals, in 2013 the number of beds increased to 327 in comparison with 2010, the accession rate is 45.54% (2013).

Thus, in recent years the development of day hospitals in Almaty is characterized by positive dynamics. The number of day hospitals increased during the study period, the average absolute accession for each year is equal to 109 beds, number of beds on the average increased to 8.91% for 4 years.

Analysis of the use of bedspace in day hospitals revealed a high demand for this kind of medical care. Day hospital beds in out-patient organizations are used more intensively, it is necessary to widen the practice of day hospital treatment of patients.

REFERENCES

- [1] Akanov A., Kurakbaev K.K. *Health Organisation in Kazakhstan Astana-Almaty: 2006.* - 232p. (in Russ.).
- [2] Akanov A.A., Devjatko V.N., Ahmetov U.I., Bajserkin B.S., Tulebaev K.A. *The Hospital case in Kazakhstan: status, problems and approaches to the new model.* – Almaty: 2006. -168p. (in Russ.).
- [3] Order by the Minister of Health of the Republic of Kazakhstan dated November 26, 2009 № 798 "On approval of rendering inpatient care", registered in the Register of state registration of normative legal acts of the number 5951 (in Russ.).

[4] Bulletin of the World Health Organization. Available at: <http://www.who.int/bulletin/en/> (in Eng.).

[5] Nguyen JM1, Six P, Antonioli D, Glemain P, Potel G, Lombraïl P, Le Beux P., «A simple method to optimize hospital beds capacity.», *Int J Med Inform.* 2005 Jan;74(1):39-49 (in Eng.).

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КҮНДІЗГІ СТАЦИОНАРДАҒЫ ТӨСЕК ОРЫНДАРЫНЫҢ ПАЙДАЛАНУДЫ БАҚЫЛАУ ЖӘНЕ ТАЛДАУ

Аннотация. Бұл мақалада амбулаторлы – емханалық және ауруханалық мекемелердің күндізгі стационарларындағы төсек орындарын қарқынды түрде қолдану туралы материалдар берілген. Және де медициналық көмектің стационарды алмастыру түрінің даму динамикасы көрсетілген. Медициналық статистиканың жалпылай қабылданған әдістемелеріне сай көрсеткіштердің есебі берілген.

Түйін сөздер: бірыңғай ұлттық денсаулық сақтау жүйесі, стационарды алмастыратын технологиялар, күндізгі стационар.

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МОНИТОРИНГ И АНАЛИЗ ИСПОЛЬЗОВАНИЯ КОЕЧНОГО ФОНДА ДНЕВНЫХ СТАЦИОНАРОВ

Аннотация. Представлены материалы об интенсивности использования коечного фонда в дневных стационарах при амбулаторно-поликлинических и больничных организациях. Показана динамика развития стационарозамещающих форм медицинской помощи. Проведены расчеты показателей в соответствии с общепринятыми в медицинской статистике методиками.

Ключевые слова: Единая национальная система здравоохранения (ЕНСЗ), стационарозамещающие технологий (СЗТ), дневной стационар.