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CHARACTERISTICS OF HOSPITALIZATIONS OF CHILDREN IN THE FIRST MONTH OF LIFE TO A MULTIDISCIPLINARY CHILDREN'S HOSPITAL

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ABSTRACT. Taking into account the peculiarities of the incidence of newborns' morbidity in St. Petersburg, the assessment of hospitalizations of children in the first month of life into a multidisciplinary children's hospital in a metropolis is an urgent issue for research. For this purpose, data of 267 children who were treated in a multidisciplinary children's hospital in 2020–2022 were taken from MIS "Ariadna". Statistical data processing was carried out using MS Office 2016 and STATISTICA 10.0 StatSoft Inc. software. The analysis of the data obtained revealed that the majority of patients in the first month of life were admitted through an in-hospital transfer and their treatment was financed by compulsory medical insurance funds. During the COVID-19 pandemic, most children in the first month of life were hospitalized by emergency aid (66.7%), but since 2021, hospitalization of two-thirds of patients started to be planned. The share of children rehospitalized in 2022 was 2.3%, and the highest rate of rehospitalization was observed in 2021, when its level reached 11.7%. An assessment of the distribution of hospitalized children by birth weight showed an increase in the proportion of newborns born prematurely. The largest proportion of patients in the first month of life was hospitalized in the departments of pathology beds for newborns and premature babies, intensive care beds for newborns and surgical beds for children, which had the highest average length of stay for patients. The proportion of patients hospitalized at pathology beds for newborns and premature babies, surgical beds for children, ophthalmological and pediatric beds' departments has decreased, while it has increased at the departments of intensive care beds for newborns and other beds. During the study period, the average length of stay of patients in a hospital decreased in intensive care beds for newborns, as well as surgical beds for children, and simultaneously increased in pathology beds for newborns and premature babies, ophthalmic, pediatric beds. In the structure of patients number of children with certain conditions originating from the perinatal period on and congenital malformations, deformations and chromosomal abnormalities prevailed, the proportion of them decreased during the study period. The vast majority of patients in the first month of life were discharged from the hospital, but there was a decrease in the proportion of children transferred to other hospitals and an increase in the proportion of patients who died in the hospital in the neonatal period.

KEY WORDS: children of the first month of life; hospitalization; children's multidisciplinary hospital; metropolis; structure of patients; average duration of inpatient treatment.

ХАРАКТЕРИСТИКА ГОСПИТАЛИЗАЦИЙ ДЕТЕЙ ПЕРВОГО МЕСЯЦА ЖИЗНИ В МНОГОПРОФИЛЬНОМ ДЕТСКОМ СТАЦИОНАРЕ

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РЕЗЮМЕ. Учитывая особенности заболеваемости новорожденных в Санкт-Петербурге, оценка госпитализаций детей первого месяца жизни в многопрофильном детском стационаре мегаполиса является актуальной темой для исследования. С этой целью была проведена выкопировка данных из МИС «Ариадна» 267 детей, проходивших лечение в многопрофильном детском стационаре в 2020–2022 гг. Статистическая обработка данных осуществлялась с использованием программного обеспечения MS Office 2016 и STATISTICA 10.0 (StatSoft Inc.). Анализ полученных данных выявил, что большинство пациентов первого месяца жизни поступали по внутрибольничному переводу и их лечение оплачивалось из средств ОМС. Во время пандемии COVID-19 большая часть детей на первом месяце жизни были госпитализированы экстренно (66,7%), однако начиная с 2021 г. две трети пациентов стали поступать планово. Доля детей, госпитализированных повторно в 2022 г., составила 2,3%, а наиболее высокая регоспитализация отмечалась в 2021 г., когда ее уровень достиг 11,7%. Оценка распределения госпитализированных детей по массе тела при рождении показала рост удельного веса новорожденных, родившихся недоношенными. Наибольший удельный вес пациентов первого месяца жизни были госпитализированы на койки патологии новорожденных и недоношенных детей, реанимационные для новорожденных и хирургические для детей, на которых была наиболее высокая средняя длительность пребывания пациентов. Доля больных, госпитализированных на койки патологии новорожденных и недоношенных детей, хирургические койки для детей, офтальмологические и педиатрические койки, снизилась, а на реанимационные койки для новорожденных и прочие койки — выросла. За изучаемый период средняя длительность стационарного лечения пациентов снизилась на реанимационных койках для новорожденных, а также хирургических койках для детей и одновременно выросла на койках патологии новорожденных и недоношенных детей, офтальмологических, педиатрических койках. В структуре больных преобладали дети с отдельными состояниями, возникающими в перинатальном периоде, и врожденными аномалиями (пороками развития), деформациями и хромосомными нарушениями, доля которых в изучаемый период снижалась. Преобладающее большинство пациентов первого месяца жизни были выписаны из стационара, однако наблюдалось снижение доли детей, переведенных в другие стационары, и рост удельного веса пациентов, умерших в стационаре в неонатальном периоде.

КЛЮЧЕВЫЕ СЛОВА: дети первого месяца жизни; госпитализация; детский многопрофильный стационар; мегаполис; структура больных; средняя длительность стационарного лечения.

INTRODUCTION

Currently, the demographic situation in Russia is characterized by a decrease in birth rate and an increase in mortality [2, 5]. Under these conditions, the task of paramount importance is to reduce infant morbidity and mortality [4]. Morbidity rate of newborns is equally, or even more important from the medical, social, and economic points of view, since it remains high in Russia [8]. An assessment of the dynamics of morbidity in infants of the first month of life has shown that over the last 5 years the indicators have slightly decreased in the Russian Federation (Fig. 1); nevertheless, deviations in physical and neuropsychiatric development are detected in more than 25% of infants of the first year of life [7]. Every third infant in our country is born healthy, and in some regions, including St. Petersburg, this indicator is even lower [9].

Such a high incidence of morbidity in children of the first month of life necessitates further development of specialized medical care for children of this age group [6]. According to Federal Law No. 323-FZ of 21.11.2011. "On the Basics of Health Protection of Citizens in the Russian Federation", specialized medical care is provided by specialist doctors and includes prevention, diagnosis and treatment of diseases and conditions (including periods of pregnancy, childbirth and the postpartum period). It requires the use of special methods and complex medical technologies, as well as medical rehabilitation, being provided in inpatient hospitals as well as in day care hospital departments [11]. This type of care is considered the most resource-intensive sector of health care. In modern conditions it should meet a high level of quality and accessibility, while taking into account the basic needs of patients [14]. Specialized care for infants of the first month of life is provided in neonatology inpatient units of perinatal centers and children's hospitals [10]. It has its own distinctive features, since a significant number of infants come from obstetric organizations, and the main department where this category of patients is treated is the department of pathology of newborns and premature infants [1, 3, 12, 13]. Thus, considering the peculiarities of neonatal morbidity in St. Petersburg, the assessment of newborns' hospitalizations in a multidisciplinary pediatric hospital of the metropolis is a relevant topic for research.

AIM

To assess hospitalizations of infants in the first month of life in a multidisciplinary pediatric hospital in 2020–2022.

MATERIALS AND METHODS

The site of the present research was a multidisciplinary pediatric hospital of the Federal

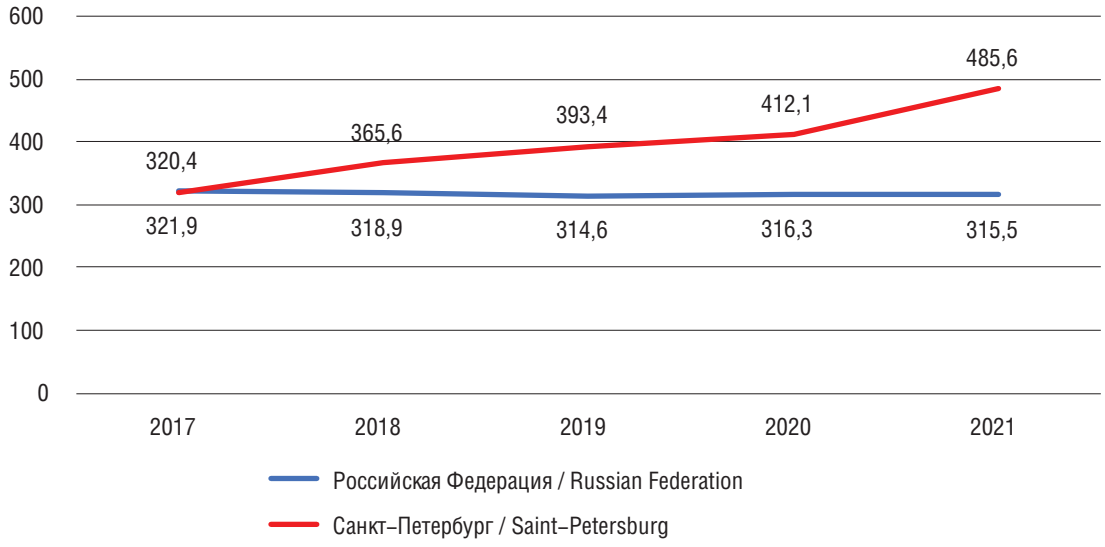

Fig. 1. The incidence of newborns in the Russian Federation and St. Petersburg in 2017–2021 (per 1000 children born alive)

Рис. 1. Заболеваемость новорожденных в Российской Федерации и Санкт-Петербурге в 2017–2021 гг. (на 1000 детей, родившихся живыми)

State Budgetary Educational Institution of Higher Professional Education "St. Petersburg State Pediatric Medical University" of the Ministry of Health of Russia, belonging to the third-level hospitals. Data obtained from the Ariadna medical information system was used for further data analysis by sampling infants who were hospitalized during the first 28 days of life, in 2020–2022. Inclusion criterion: residence of the infant's family in St. Petersburg. Thus, data from 267 children were selected for the study, including 69 newborns in 2020, 103 newborns in 2021, and 95 newborns in 2022.

Extensive and intensive indicators, arithmetic weighted mean and its error were calculated. The reliability of differences in indicators was assessed using Student's criterion. Differences were considered significant at $p < 0.05$. Statistical processing of data was performed using MS Office 2016 and STATISTICA 10.0 software (StatSoft Inc).

RESULTS AND DISCUSSION

Assessment of the distribution of patients of the first month of life by sex showed that girls predominated in 2020, and from 2021, the specific gravity of boys increased to 52.6% (Figure 2).

The majority of patients of the first month of life were admitted by intrahospital transfer from the obstetric hospital of the perinatal center, which is a structural subdivision of the multidisciplinary pediatric hospital of St. Petersburg State Pediatric Medical University (Table 1). The proportion of such infants increased by the level of 2020 and amounted to 84.2% in 2022. It was established that during the research period, the specific gravity of infants admitted by referral from the outpatient clinic and without referral decreased to 4.2%. At the same time, the specific gravity of patients transferred from other hospitals and hospitalized by ambulance increased.

The research demonstrated that the specific gravity of patients whose treatment was paid for from the compulsory medical insurance (CMI) system in 2020–2022 amounted to 89.5–93.2% (Fig. 3). The second largest source of funding was high-tech medical care, the share of which was the highest in 2022 and amounted to 10.5%. There were no children of this age who received medical care from parents' personal funds or through voluntary health insurance (VHI) in 2020 and 2022.

In 2020, during the COVID-19 pandemic, most patients were admitted as emergencies (66.7%). From 2021 onwards, the proportion decreased, and in 2022, 67.4% of infants in the first month of life were admitted in a planned basis. The majority of infants were primary patients, and their proportion in 2022 was 93.7%, while the proportion of infants admitted repeatedly was 2.3%. Rehospitalization was at its

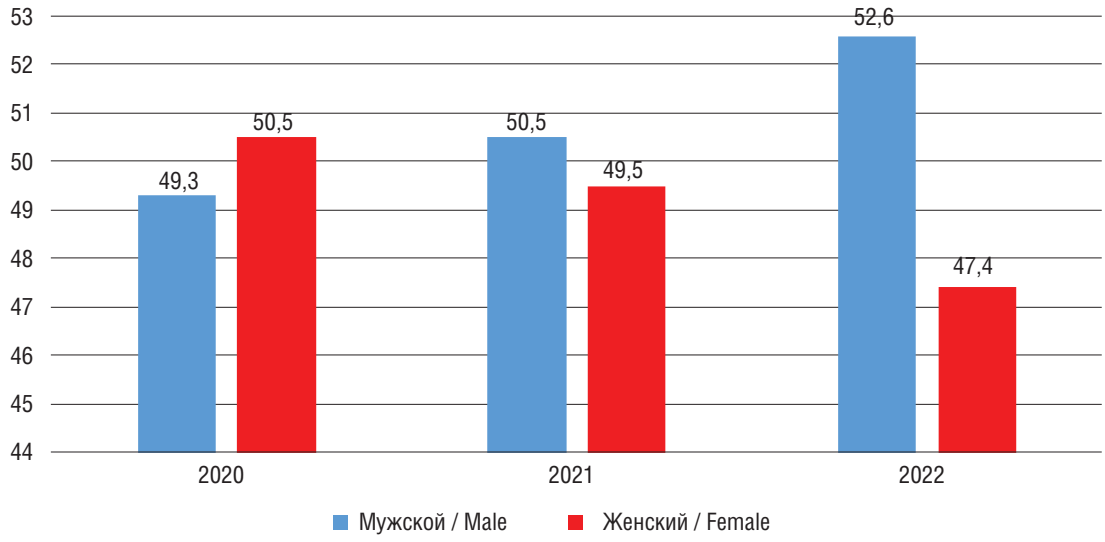

Fig. 2. Distribution of patients in the first month of life by gender in 2020–2022 (in %)

Рис. 2. Распределение пациентов первого месяца жизни по полу в 2020–2022 гг. (в %)

Table 1

Distribution of patients in the first month of life depending on the type of referral in 2020–2022 (in % and abs.)

Таблица 1

Распределение пациентов первого месяца жизни в зависимости от вида направления в 2020–2022 гг. (в % и абс.)

Вид направления / Direction type	2020 год / 2020 year		2021 год / 2021 year		2022 год / 2022 year		Динамика / Dynamics (%)
	%	абс. / abs.	%	абс. / abs.	%	абс. / abs.	
Внутрибольничный перевод / Intrahospital transfer	79,7	55	85,4	88	84,2	80	+5,3
Поликлиники / Polyclinics	8,7	6	5,8	6	4,2	4	–51,7
Без направления / No direction	11,6	8	3,9	4	4,2	4	–6,4
КДЦ / CDC	0,0	0	1,0	1	1,1	1	+100,0
Перевод из других стационаров / Transfer from other hospitals	0,0	0	1,9	2	2,1	2	+100,0
Скорая помощь / Ambulance	0,0	0	1,9	2	4,2	4	+100,0
Итого / Total	100,0	69	100,0	103	100,0	95	–

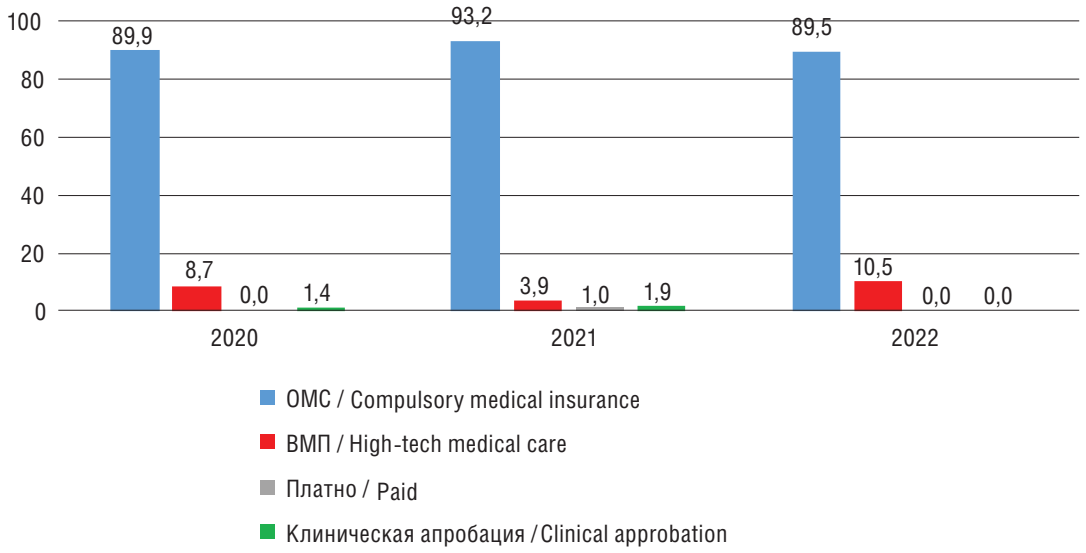

Fig. 3. Distribution of patients in the first month of life by source of funding in 2020–2022 (in %)

Рис. 3. Распределение пациентов первого месяца жизни по источнику финансирования в 2020–2022 гг. (в %)

highest in 2021, when its rate reached 11.7%. The distribution of patients by order of referral for hospitalization and their ratio of primary and repeated hospitalizations are shown in Figures 4 and 5.

Assessment of the distribution of newborns hospitalized in a multidisciplinary children's hospital by birth weight showed that the proportion of premature babies by birth weight was 17.4% in 2020, and in 2021 and 2022 it increased to 24.3 and 21.1%, respectively (Table 2). Whereas, the proportion of infants born with very low and extremely low birth weight increased annually in 2020–2022, reaching 11.6 and 6.3% by 2022, respectively. Among those hospitalized, the proportion of infants born with a birth weight of 4000 g or more in 2022 was 3.2%, and it decreased in 2022 to both 2020 and 2021 levels.

Assessment of the structure of patients depending on the profile of beds showed (Table 3) that in 2020–2022 the largest share of children

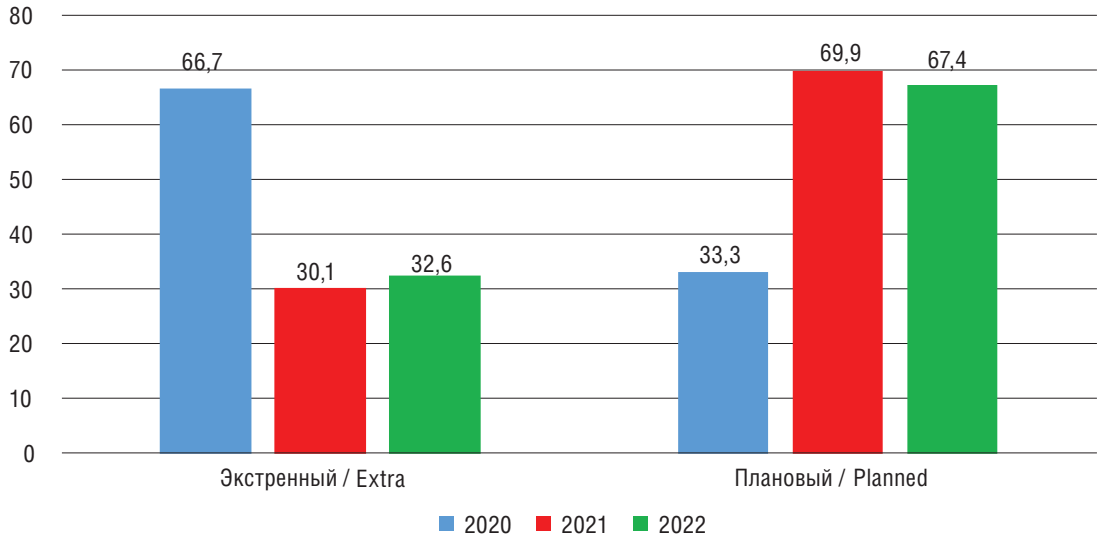

Fig. 4. Distribution of patients by order of referral to hospitalization in 2020–2022 (in %)

Рис. 4. Распределение пациентов по порядку направления на госпитализацию в 2020–2022 гг. (в %)

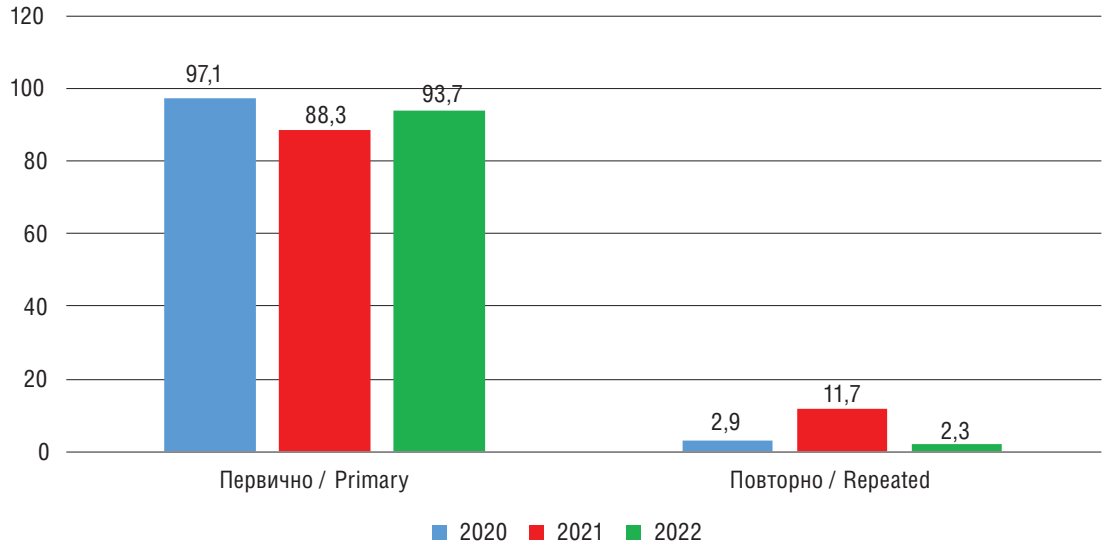

Fig. 5 The ratio of patients in the first month of life by primary and repeated hospitalizations in 2020–2022 (in %)

Рис. 5. Соотношение пациентов первого месяца жизни по первичным и повторным госпитализациям в 2020–2022 гг. (в %)

was hospitalized in the beds of pathology of newborns and premature babies, resuscitation beds for newborns and surgical beds for newborns. Evaluation of the dynamics of indicators revealed that the share of patients hospitalized in newborn and premature babies' pathology beds, surgical beds for children, ophthalmology and pediatric beds in 2022 decreased to the level of 2020. At the same time, the number of resuscitation beds for newborns and other beds increased.

According to Table 3, the highest average duration of inpatient treatment in 2020–2022 was for patients hospitalized in neonatal intensive care, surgical, pathology of newborns and premature infants' beds. The assessment of the average duration dynamics of inpatient treatment showed a decrease in the stay of patients in neonatal intensive care beds and surgical beds, and an increase in the stay of patients in neonatal and premature babies' pathology, ophthalmology, pediatric and other beds.

The assessment of the structure of the treated patients admitted in the neonatal period indicated (Table 4) that during the research period the majority of children were treated for individual

Table 2

Birth weight of children in the first month of life hospitalized in a multidisciplinary children's hospital in 2020–2022 (in % and abs.)

Таблица 2

Масса тела при рождении детей первого месяца жизни, госпитализированных в многопрофильный детский стационар в 2020–2022 гг. (в % и абс.)

Масса тела, г / Body weight, g	2020 год / 2020 year		2021 год / 2021 year		2022 год / 2022 year		Динамика / Dynamics (%)
	%	абс. / abs.	%	абс. / abs.	%	абс. / abs.	
До 2500 / Up to 2500	17,4	12	24,3	25	21,1	20	+17,5
До 1000 / Up to 1000	0,0	0	3,9	4	6,3	6	+100,0
До 1500 / Up to 1500	1,4	1	11,7	12	11,6	11	+87,9
2500–3999	76,8	53	51,4	53	57,8	55	–24,7
4000 и более / 4000 or more	4,3	3	8,7	9	3,2	3	–25,6
Итого / Total	100,0	69	100,0	103	100,0	95	–

conditions arising in the perinatal period (P00–P96) and congenital anomalies (malformations), deformations and chromosomal abnormalities (Q00-Q99), the share of which decreased by 5.2 and 27.3% in 2022 compared to 2020, respectively.

The current research established that the predominant majority of infants in the first month of life were discharged from hospital in 2020–2022 (Figure 6). The highest specific gravity of those discharged was in 2022, when it amounted to 94.7%. During the studied period, there was a decrease in the share of patients transferred to other hospitals and an increase in the specific gravity of infants who died in the neonatal period in the hospital.

CONCLUSION

1. The majority of patients in the first month of life are admitted by intrahospital transfer and their treatment is funded by the CMI. During the COVID-19 pandemic, the majority of patients were hospitalized as emergencies (66.7%), however, starting from 2021, two-thirds of first-month-of-life infants began to be admitted on a planned basis. The repeated hospitalization rate in 2022 was 2.3%, and the highest values were observed in 2021, when the re-hospitalization rate reached 11.7%.

2. Assessment of the distribution of patients hospitalized in a multidisciplinary children's hospital in the first month of life by birth weight showed an increase in the specific gravity of infants born prematurely, with low, very low and extremely low birth weight. The proportion of infants born with a birth weight of 4000 g and more decreased during the reported period.

3. In 2020–2022, the largest specific gravity of patients were treated in the beds of pathology of newborns and premature babies, resuscitation for newborns beds and surgical beds. The share of children hospitalized in newborn and premature babies' pathology beds, surgical beds for children, ophthalmology and pediatric beds decreased, while the share of children hospitalized in resuscitation beds for newborns and other beds increased.

4. The longest average duration of hospital treatment is observed in patients hospitalized in resuscitation for newborns beds, surgical beds for children, and newborn and premature infant pathology beds. During the studied period, the average length of stay of children decreased in neonatal intensive care beds and surgical beds for children, while it increased in newborn and premature babies' pathology, ophthalmology, pediatric and other beds.

5. The majority of children were treated for individual conditions arising in the perinatal period as well as for congenital anomalies (malformations), deformations and chromosomal abnormalities, the share of which decreased by 2022.

6. During the studied period, the predominant majority of children of the first month of life were discharged from the hospital. There was a

Table 3

The structure of patients and the average duration of inpatient treatment of children in the first month of life, depending on the profile of beds in 2020–2022 (in % and M±m)

Таблица 3

Структура больных и средняя длительность стационарного лечения детей первого месяца жизни в зависимости от профиля коек в 2020–2022 гг. (в % и M±m)

Профиль коек / Bed profile	2020 год / 2020 year		2021 год / 2021 year		2022 год / 2022 year		Динамика удельного веса / Specific gravity dynamics (%)	Динамика средней длительности / Average duration dynamics (%)
	Удельный вес / Specific gravity (%)	Средняя длительность (в днях) / Average duration (in days)	Удельный вес / Specific gravity (%)	Средняя длительность (в днях) / Average duration (in days)	Удельный вес / Specific gravity (%)	Средняя длительность (в днях) / Average duration (in days)		
Реанимационные для новорожденных / Resuscitation for newborns	7,3 (5)	26,0±16,83*	12,6 (13)	9,7±2,27	15,8 (15)	18,2±3,75*	+54,4	–30,0
Хирургические для детей (в т.ч. кардиохирургические, нейрохирургические) / Surgical for children (including cardiac surgery, neurosurgery)	26,1 (18)	18,3±6,31*	10,7 (11)	13,8±2,75	20,0 (19)	15,2±6,58*	–23,4	–16,9
Патологии новорожденных и недоношенных детей / Pathologies of newborns and premature babies	58,0 (40)	14,6±1,67*	63,1 (65)	15,6±1,47	49,5 (47)	18,3±2,72*	–14,7	+20,2
Офтальмологические / Ophthalmic	0,0 (0)	0,0±0,00	1,9 (2)	4,5±0,50	3,2 (3)	8,7±6,22	+100,0	+100,0
Педиатрические (в т.ч. пульмонологические, кардиологические) / Pediatric (including pulmonological, cardiological)	7,2 (5)	2,0±1,00*	6,8 (7)	14,1±7,53	5,3 (5)	5,6±4,60*	–24,4	+64,3
Прочие / Other	1,4 (1)	20,0±3,25*	4,9 (5)	12,7±2,37	6,2 (6)	9,8±1,03*	+77,8	–51,0
Итого / Total	100,0 (69)	13,5±4, 84	100,0 (103)	11,7±2,82	100,0 (95)	12,6±4,15	–	–

* Статистически значимая разница между показателями 2020 и 2022 гг. (p <0,05).
* Statistically significant difference between 2020 and 2022 figures (p<0.05).

decrease in the specific gravity of patients transferred to other hospitals and an increase in the proportion of children who died in the hospital in the neonatal period.

Thus, the research demonstrated that patients hospitalized in the neonatal period, in most cases, are admitted by intra-hospital transfer in a planned manner to the beds of pathology of newborns and premature babies, resuscitation beds for newborns and surgical beds for children, where the average duration of inpatient treatment is the longest, which is mainly paid for with CMI

Table 4

Structure of patients in the first month of life by ICD-10 classes in 2020–2022 (in %)

Таблица 4

Структура пациентов первого месяца жизни по классам МКБ-10 в 2020–2022 гг. (в %)

Класс заболеваний по МКБ-10 / Class of diseases according to ICD-10	**2020 год / 2020 year**		**2021 год / 2021 year**		**2022 год / 2022 year**		**Динамика / Dynamics (%)**
	%	**абс. / abs.**	**%**	**абс. / abs.**	**%**	**абс. / abs.**	
Болезни крови, кроветворных органов и отдельные нарушения, вовлекающие иммунный механизм / Diseases of blood and blood-forming organs and certain disorders involving the immune mechanism	1,4	1	3,9	4	4,2	4	+66,7
Болезни органов дыхания / Diseases of the respiratory system	0,0	0	3,9	4	3,2	3	+100,0
Болезни мочеполовой системы / Diseases of the genitourinary system	0,0	0	2,9	3	5,3	5	+100,0
Отдельные состояния, возникающие в перинатальном периоде / Certain conditions originating in the perinatal period	47,8	33	57,3	59	45,3	43	–5,2
Врожденные аномалии (пороки развития), деформации и хромосомные нарушения / Congenital malformations, deformations and chromosomal abnormalities	33,4	23	23,3	24	24,2	23	–27,3
Факторы, влияющие на состояние здоровья / Health affecting factors	1,4	1	2,9	3	2,1	2	+33,3
Прочие / Other	16,0	11	5,8	6	15,7	15	–1,9
Итого / Total	100,0	69	100,0	103	100,0	95	–

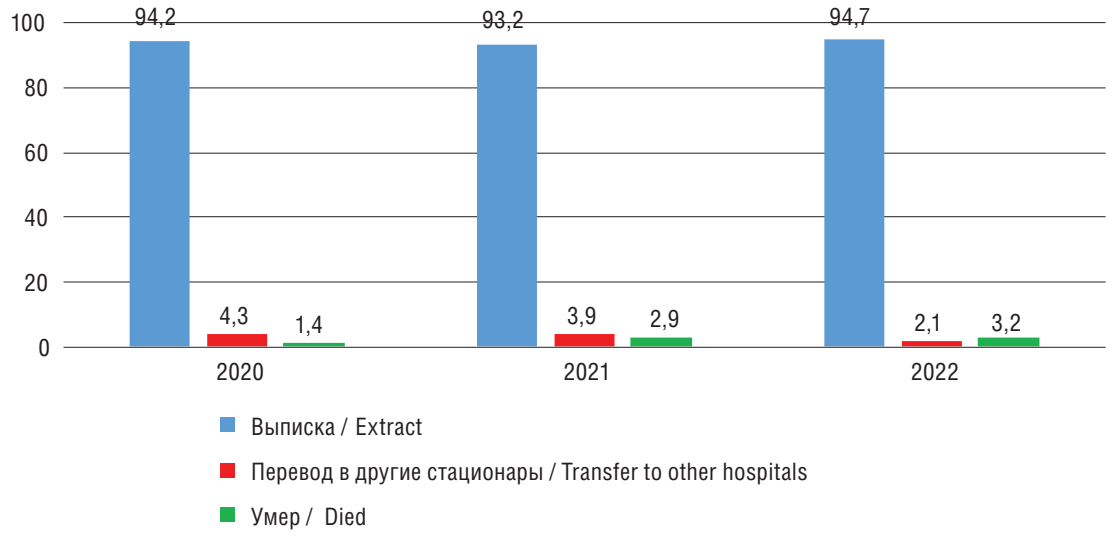

Fig. 6. Distribution of patients in the first month of life by type of dropout in 2020–2022 (in %)

Рис. 6. Распределение пациентов первого месяца жизни по типу выбывания в 2020–2022 гг. (в %)

funds, and in the majority of cases children are discharged after treatment.

ADDITIONAL INFORMATION

Author contribution. Thereby, all authors made a substantial contribution to the conception of the study, acquisition, analysis, interpretation of data for the work, drafting and revising the article, final approval of the version to be published and agree to be accountable for all aspects of the study.

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Конфликт интересов. Авторы декларируют отсутствие явных и потенциальных конфликтов интересов, связанных с публикацией настоящей статьи.

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REFERENCES

1. Alekseyenko L.A., Kolmakov I.V., Shinkarenko Ye.N. i dr. Vykhazhivaniye novorozhdennykh ot sverkhrannikh rodov v perinatal'nom tsentre okruzhnoy klinicheskoy bol'nitsy: rezul'taty i perspektivy. [Nursing of newborns from very early births in the perinatal center of the district clinical hospital: results and prospects]. Zdravookhraneniye Yugry: opyt i innovatsii. 2017; 3: 4–9. (in Russian).
2. Alimova I.L., Kalandiya M.R., Stunzhas O.S. i dr. Analiz dinamiki rozhdayemosti, prezhdevremennykh rodov i perinatal'nykh iskhodov za 2012–2015 gg. [Analysis of the dynamics of fertility, preterm birth and perinatal outcomes for 2012–2015. in the Smolensk region]. V Smolenskoy oblasti. Vestnik Smolenskoy gosudarstvennoy meditsinskoy akademii. 2016; 4: 51–7. (in Russian).
3. Gorbacheva M.M., Bezmel'nitsyna L.Yu., Meshkov D.O. i dr. Sistema okazaniya meditsinskoy pomoshchi detyam s perinatal'nymi porazheniyami v g. Moskve. [The system of medical care for children with perinatal lesions in Moscow]. Byulleten' Natsional'nogo nauchno-issledovatel'skogo instituta obshchestvennogo zdorov'ya imeni N.A. Semashko. 2015; 6: 6–12. (in Russian).
4. Ivanov D.O., Moiseyeva K.Ye., Alekseyeva A.V. i dr. Otsenka organizatsii meditsinskoy pomoshchi novorozhdennym v usloviyakh federal'nogo Perinatal'nogo tsentra. Sotsial'nyye aspekty zdorov'ya naseleniya. [Evaluation of the organization of medical care for newborns in a federal Perinatal Center]. Sotsial'nyye aspekty zdorov'ya naseleniya. 2020; 2(66): 9. (in Russian).
5. Ivanov D.O., Yur'yev V.K., Moiseyeva K.Ye. i dr. Dinamika i prognoz smertnosti novorozhdennykh v organizatsiyakh rodovspomozheniya Rossiyskoy Federatsii. [Dynamics and prognosis of neonatal mortality in obstetric organizations of the Russian Federation]. Medicine and healthcare organization. 2021; 6(3): 4–19. (in Russian).
6. Il'yenko L.I., Lopukhin V.O., Kachalova O.V. i dr. Sistema okazaniya meditsinskoy pomoshchi detyam v pediatricheskom otdelenii s koykami dlya reabilitatsii detey rannego vozrasta. [The system of providing medical care to children in the pediatric department with beds for the rehabilitation of young children]. Byulleten' Natsional'nogo nauchno-issledovatel'skogo instituta obshchestvennogo zdorov'ya imeni N. A. Semashko. 2015; 4–5: 143–55. (in Russian).
7. Krom I.L., Yerugina M.V., Shigayev N.N. i dr. Dostupnost' meditsinskoy pomoshchi v kontekste sotsial'nykh prediktorov zdorov'ya detskogo naseleniya. [Availability of medical care in the context of social predictors of the health of the child population]. Zdorov'ye i obrazovaniye v XXI veke. 2017; 7. Available at: https://cyberleninka.ru/article/n/dostupnost-meditsinskoy-pomoschi-v-kontekste-sotsialnyh-prediktorov-zdorovya-detskogo-naseleniya (accessed: 17.03.2023). (in Russian).
8. Moiseyeva K.Ye. Nekotoryye rezul'taty otsenki dinamiki zabolevayemosti novorozhdennykh v organizatsiyakh rodovspomozheniya. [Some results of assessing the dynamics of the incidence of newborns in obstetric organizations]. Medicine and healthcare organization. 2019; 4(3): 40–7. (in Russian).
9. Moiseyeva K.Ye. Sostoyaniye i puti sovershenstvovaniya organizatsii meditsinskoy pomoshchi novorozhdennym v organizatsiyakh rodovspomozheniya. [State and ways of improving the organization of medical care for newborns in obstetric organization]: dis. ... d-ra. med. nauk. Sankt-Peterburg; 2021. (in Russian).
10. Prikaz Ministerstva zdravookhraneniya RF ot 15 noyabrya 2012 g. № 921n “Ob utverzhdenii Poryadka okazaniya meditsinskoy pomoshchi po profilyu «neonatologiya»”. [On approval of the Procedure for the provision of medical care in the neonatology profile]. Available at: https://base.garant.ru/70293290/?ysclid=lfcznz97rx964656046 (accessed: 17.03.2023). (in Russian).

11. Federal'nyj zakon Rossijskoj Federacii ot 21.11.2011 g. № 323-FZ. Ob osnovah ohrany zdorov'ya grazhdan v Rossijskoj Federacii. [About the basics of public health protection in the Russian Federation]. Available at: https:// www.consultant.ru/document/cons_doc_LAW_121895/ (accessed: 17.03.2023). (in Russian).
12. Chernenkov Yu.V., Nechayev V.N. Organizatsiya i rabota otdeleniya katamneza klinicheskogo perinatal'nogo tsentra Saratovskoy oblasti. [Organization and work of the catamnesis department of the clinical perinatal center of the Saratov region]. Saratovskiy nauchno-meditsinskiy zhurnal. 2018; 2: 226–223. (in Russian).
13. Shuvalova M.P., Pis'menskaya T.V., Grebennik T.K. Rezul'tativnost' tret'yego urovnya sistemy regionalizatsii perinatal'noy pomoshchi v Rossiyskoy Federatsii. [The effectiveness of the third level of the system of regionalization of perinatal care in the Russian Federation]. Sotsial'nyye aspekty zdorov'ya naseleniya. 2017; 3(55): 2. (in Russian).
14. Yur'yev V.K., Moiseyeva K.Ye., Glushchenko V.A. i dr. Organizatsiya spetsializirovannoy meditsinskoy pomoshchi v usloviyakh statsionara. [Organization of specialized medical care in a hospital setting]. Sankt-Peterburg: SPbGPMU Publ.; 2019. (in Russian).

ЛИТЕРАТУРА

1. Алексеенко Л.А., Колмаков И.В., Шинкаренко Е.Н. и др. Выхаживание новорожденных от сверхранних родов в перинатальном центре окружной клинической больницы: результаты и перспективы. Здравоохранение Югры: опыт и инновации. 2017; 3: 4–9.
2. Алимова И.Л., Каландия М.Р., Стунжас О.С. и др. Анализ динамики рождаемости, преждевременных родов и перинатальных исходов за 2012–2015 гг. в Смоленской области. Вестник Смоленской государственной медицинской академии. 2016; 4: 51–7.
3. Горбачева М.М., Безмельницына Л.Ю., Мешков Д.О. и др. Система оказания медицинской помощи детям с перинатальными поражениями в г. Москве. Бюллетень Национального научно-исследовательского института общественного здоровья имени Н.А. Семашко. 2015; 6: 6–12.
4. Иванов Д.О., Моисеева К.Е., Алексеева А.В. и др. Оценка организации медицинской помощи новорожденным в условиях федерального Перинатального центра. Социальные аспекты здоровья населения. Социальные аспекты здоровья населения. 2020; 2(66): 9.
5. Иванов Д.О., Юрьев В.К., Моисеева К.Е. и др. Динамика и прогноз смертности новорожденных в организациях родовспоможения Российской Федерации. Медицина и организация здравоохранения. 2021; 6(3): 4–19.
6. Ильенко Л.И., Лопухин В.О., Качалова О.В. и др. Система оказания медицинской помощи детям в педиатрическом отделении с койками для реабилитации детей раннего возраста. Бюллетень Национального научно-исследовательского института общественного здоровья имени Н. А. Семашко. 2015; 4–5: 143–55.
7. Кром И.Л., Еругина М.В., Шигаев Н.Н. и др. Доступность медицинской помощи в контексте социальных предикторов здоровья детского населения. Здоровье и образование в XXI веке. 2017; 7. Доступен по: https://cyberleninka.ru/article/n/dostupnost-meditsinskoy-pomoschi-v-kontekste-sotsialnyh-prediktorov-zdorovya-detskogo-naseleniya (дата обращения: 17.03.2023).
8. Моисеева К.Е. Некоторые результаты оценки динамики заболеваемости новорожденных в организациях родовспоможения. Медицина и организация здравоохранения. 2019; 4(3): 40–7.
9. Моисеева К.Е. Состояние и пути совершенствования организации медицинской помощи новорожденным в организациях родовспоможения: дис. ... д-ра. мед. наук. СПб.; 2021.
10. Приказ Министерства здравоохранения РФ от 15 ноября 2012 г. № 921н «Об утверждении Порядка оказания медицинской помощи по профилю «неонатология». Доступен по: https://base.garant.ru/70293290/?ysclid=lfcznz97rx964656046 (дата обращения: 17.03.2023).
11. Федеральный закон от 21.11.2011 № 323-ФЗ «Об основах охраны здоровья граждан в Российской Федерации». Доступен по: http://www.consultant.ru/document/cons_doc (дата обращения: 17.03.2023).
12. Черненков Ю.В., Нечаев В.Н. Организация и работа отделения катамнеза клинического перинатального центра Саратовской области. Саратовский научно-медицинский журнал. 2018; 2: 226–223.
13. Шувалова М.П., Письменская Т.В., Гребенник Т.К. Результативность третьего уровня системы регионализации перинатальной помощи в Российской Федерации. Социальные аспекты здоровья населения. 2017; 3(55): 2.
14. Юрьев В.К., Моисеева К.Е., Глущенко В.А. и др. Организация специализированной медицинской помощи в условиях стационара. СПб.: СПбГПМУ; 2019.