

EPIDEMIOLOGY

COVID-19 PANDEMIC IMPACT ON PEDIATRIC HOSPITALIZATION DYNAMICS FOR ACUTE INTESTINAL INFECTIONS (INCLUDING ROTAVIRUS) IN CHITA

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ABSTRACT

Background. The COVID-19 pandemic and the associated non-pharmaceutical interventions (NPIs) significantly altered the global epidemiology of various infectious diseases. Studying the dynamics of hospitalizations for acute intestinal infections in a specific region during different periods of the pandemic allows for assessment of the effect of these measures and identification of patterns in the recovery of the epidemic process.

Aim. To evaluate the impact of the COVID-19 pandemic on the dynamics and structure of hospitalizations of children with acute intestinal infections (All), including rotavirus infection (RVI), in Chita over the period 2014–2023.

Materials and Methods. A retrospective analysis of statistical reporting data from the Regional Clinical Infectious Diseases Hospital in Chita was conducted. A total of 11,520 hospitalization cases of children aged 0–17 years with All over a 10-year period were analyzed. Descriptive and non-parametric statistical methods were used, including time series analysis, the χ^2 test, the ϕ -coefficient, and Spearman's correlation analysis. Data processing was performed using IBM SPSS Statistics 26.

Results. During the peak pandemic period (2020–2021), the number of hospitalizations for All decreased 1.6-fold ($\chi^2 = 9.680$; $p = 0.002$), and for RVI – 1.4-fold ($\chi^2 = 23.955$; $p < 0.001$) compared to the pre-pandemic period. The etiological structure of All did not change significantly: the proportion of RVI among all cases was 24.48 % (pre-pandemic), 23.68 % (peak pandemic), and 22.87 % (post-pandemic) ($p > 0.05$). A strong positive correlation was found between the total number of All hospitalizations and RVI cases ($r = 0.789$; $p = 0.008$). In the post-restriction period (2022–2023), an increase in hospitalizations was observed.

Conclusions. The anti-epidemic measures during the COVID-19 pandemic led to a significant reduction in hospitalizations for All and RVI without affecting their etiological structure. The subsequent increase in incidence following the lifting of restrictions confirms the restoration of the epidemic process, which underscores the need for ongoing epidemiological surveillance and the expansion of vaccination programs.

Keywords: acute intestinal infections, rotavirus infection, COVID-19 pandemic, children, hospitalization, epidemiology, Zabaykalsky Krai, retrospective study, SARS-CoV-2

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ВЛИЯНИЕ ПАНДЕМИИ COVID-19 НА ДИНАМИКУ ГОСПИТАЛИЗАЦИЙ ДЕТЕЙ В ЧИТЕ С ОСТРЫМИ КИШЕЧНЫМИ ИНФЕКЦИЯМИ, В ТОМ ЧИСЛЕ С РОТАВИРУСНОЙ ИНФЕКЦИЕЙ

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РЕЗЮМЕ

Обоснование. Пандемия COVID-19 и сопутствующие противоэпидемические меры оказали глобальное влияние на циркуляцию респираторных и кишечных вирусов. Изучение динамики госпитализаций с острыми кишечными инфекциями (ОКИ) в конкретном регионе в разные периоды пандемии позволяет оценить эффект этих мер и выявить особенности восстановления эпидпроцесса.

Цель. Оценить влияние пандемии COVID-19 на динамику и структуру госпитализаций детей с ОКИ, в том числе с ротавирусной инфекцией (РВИ), в Чите за 2014–2023 гг.

Методы. Проведён ретроспективный анализ данных статистической отчётности Краевой клинической инфекционной больницы г. Читы. Проанализированы 11520 случаев госпитализации детей 0–17 лет с ОКИ за 10-летний период. Использовались методы описательной и непараметрической статистики, анализ динамических рядов, критерий χ^2 , коэффициент ϕ , корреляционный анализ Спирмена. Обработка данных выполнена в IBM SPSS Statistics 26.

Результаты. В период разгара пандемии (2020–2021 гг.) число госпитализаций с ОКИ снизилось в 1,6 раза ($\chi^2 = 9,680$; $p = 0,002$), с РВИ – в 1,4 раза ($\chi^2 = 23,955$; $p < 0,001$) относительно допандемийного периода. Структура ОКИ значительно не изменилась: доля РВИ от всех случаев составила 24,48 % (до), 23,68 % (разгар) и 22,87 % (после) ($p > 0,05$). Выявлена прямая тесная связь между общим числом госпитализаций с ОКИ и РВИ ($r = 0,789$; $p = 0,008$). После отмены ограничений в 2022–2023 гг. наблюдался рост госпитализаций.

Заключение. Противоэпидемические меры в период пандемии COVID-19 привели к значимому снижению числа госпитализаций с ОКИ и РВИ, не повлияв на их этиологическую структуру. Последующий рост заболеваемости после отмены ограничений подтверждает восстановление эпидемиологического процесса, что подчеркивает необходимость постоянного эпидемиологического мониторинга и расширения программ вакцинопрофилактики.

Ключевые слова: острые кишечные инфекции, ротавирусная инфекция, пандемия COVID-19, дети, госпитализация, эпидемиология, Забайкальский край, ретроспективное исследование, SARS-CoV-2

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BACKGROUND

Acute intestinal infections (All), particularly rotavirus infection (RVI), despite significant advances in vaccine prophylaxis and the improvement of epidemiological surveillance methods, remain one of the leading causes of morbidity and hospitalization in children worldwide [1, 2]. According to the World Health Organization (WHO, 2023), rotaviruses occupy a leading position among the etiological agents of severe gastroenteritis in young children, accounting for a substantial proportion of hospitalizations and deaths, especially in low-income and middle-income countries. Global estimates indicate that vaccination programs are being actively implemented worldwide, with coverage of the target cohort who completed vaccination reaching 59 % in 2024 [3], leading to a reduction in mortality and hospitalizations. However, the incidence of RVI remains high, and the economic burden associated with rotavirus diarrhea in Russia in 2024 ranks fifth among infectious diseases according to the State Report (2025).

In recent years, the COVID-19 pandemic has had a significant impact on the epidemiology of rotavirus infection worldwide [4, 5]. The introduction of restrictive measures, closure of educational institutions, and enhanced sanitary requirements led to a sharp decline in hospitalizations for All, including rotavirus-induced gastroenteritis [6, 7]. However, in the post-COVID period, following the lifting of strict restrictive measures, a recovery and even an increase in rotavirus infection incidence to pre-pandemic levels has been observed, as confirmed by both international and Russian data [8, 9].

In the Russian Federation, RVI occupies a leading position in the structure of acute intestinal infections of established etiology in children, accounting for 33.3–78.8 % [10, 11]. However, the actual number of cases may be significantly higher due to insufficient laboratory confirmation, registration peculiarities, and laboratory diagnostic capabilities. The introduction of routine rotavirus vaccination with high coverage of the target cohort in several regions of Russia (State Report, 2025), such as Sakhalin Oblast (coverage 88.3 %), Yamalo-Nenets Autonomous Okrug (82.0 %), and the Republic of Buryatia (69.1 %), has made it possible to reduce the incidence and severity of infection. However, vaccination coverage across the Russian Federation remains low, amounting to 15.09 % in 2024.

Of particular importance are the epidemiological features of rotavirus infection in the Far East, where the structure and dynamics of incidence differ from national averages due to geographical, climatic, and demographic factors [12]. According to regional studies, rotavirus infection in Chita, the capital of the Trans-Baikal Territory, occupies a leading position among viral All in children, with RVI accounting for 60–70 % of viral diarrheas [13]. In Chita, rotavirus vaccination is administered only for epidemic indications or on a commercial basis, with extremely low coverage, which does not

allow for the formation of herd immunity and contributes to the persistence of high incidence rates.

Over the past decade, significant variability in the structure of morbidity has been observed, which is associated both with changes in virus circulation, the organization of laboratory diagnostics, and the coronavirus pandemic. The dynamics of COVID-19 spread in Russia included four distinct epidemic waves. Following the identification of the first cases on January 31, 2020, the country experienced an initial surge by May of the same year, peaking at 11,656 infections per day. However, the autumn wave of the same year demonstrated a more intensive increase, exceeding the spring peaks. A third wave followed, peaking in July 2021, and by the autumn of that year, a fourth wave began. The final step in the easing of anti-COVID policies was the lifting of some restrictive measures, officially announced on July 2, 2022 [14]. Analysis of the structure and dynamics of All hospitalizations, as well as the patterns of rotavirus-induced gastroenteritis spread during different epidemiological periods, including the pre-pandemic, pandemic, and post-pandemic stages, allows not only the identification of regional epidemiological features but also the assessment of the effectiveness of anti-epidemic measures, as well as highlighting the relevance of introducing and expanding vaccination programs.

AIM

To evaluate the impact of the COVID-19 pandemic and associated anti-epidemic measures on the dynamics and structure of hospitalizations of children with acute intestinal infections (All), including rotavirus infection (RVI), in a large infectious disease hospital in Chita over a 10-year period (2014–2023).

MATERIALS AND METHODS

A retrospective cohort study was conducted based on the analysis of inpatient records (Fig. 1).

Inclusion criteria. All hospitalization cases of patients aged 0 to 17 years with a confirmed diagnosis of acute intestinal infection (regardless of etiology) at the Regional Clinical Infectious Diseases Hospital (RCH) in Chita between January 1, 2014, and December 31, 2023.

Non-inclusion criteria. Absence of data required for analysis (age, diagnosis, date of hospitalization) in the statistical records.

Exclusion criteria. Duplicate records of hospitalization for the same patient within a single disease episode.

Study setting. The study was conducted at the Regional Clinical Infectious Diseases Hospital (RCH) in Chita, which is a specialized inpatient facility for the hospitalization of children with All within the city district. The low rotavirus vaccination coverage in the region

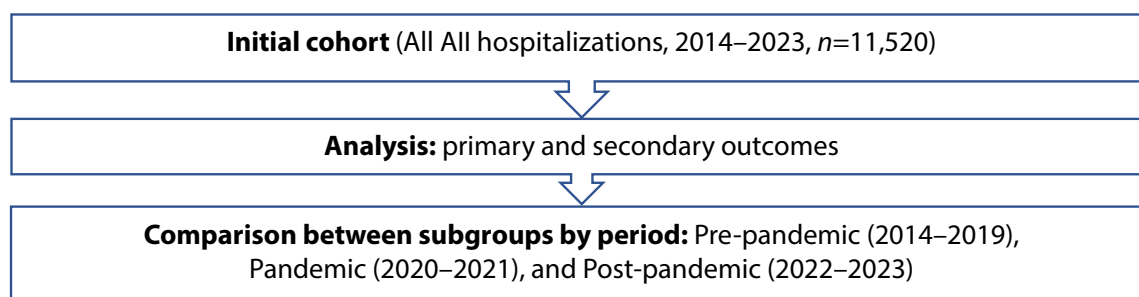


FIG. 1.
Study design

may limit the generalizability of the findings to populations with high vaccine coverage.

Study duration. The enrollment period for the study was 10 years (from January 1, 2014, to December 31, 2023). The observation period covered the entire duration of each patient's hospitalization. The analysis was performed across three time periods: pre-pandemic (2014–2019), pandemic peak (2020–2021), and post-pandemic (2022–2023). No shifts in the planned time intervals occurred.

Description of the medical intervention. No medical intervention was planned or applied within the framework of this observational study. The “exposure” under investigation was the introduction and subsequent lifting of state-imposed anti-epidemic measures during the COVID-19 pandemic (isolation measures, closure of educational institutions, and mandatory mask wearing).

Study outcomes. Primary outcome: dynamics of the absolute number of hospitalizations of children with All and RVI during different periods of the COVID-19 pandemic. *Secondary outcomes:* 1) etiological structure of All (viral, bacterial, rotaviral, unspecified); 2) statistical strength of association between the pandemic period and hospitalization indicators; 3) correlation between the number of hospitalizations for RVI and the total number of All hospitalizations.

Subgroup analysis. Additional analysis was performed in subgroups defined by COVID-19 pandemic periods: pre-pandemic, pandemic peak, and post-pandemic.

Outcome registration methods. Outcomes were recorded through a retrospective analysis of aggregated data from official inpatient records (Form No. 14). Laboratory diagnosis of All etiology was performed using standard methods (ELISA and PCR) as specified for the facility.

Ethical approval. Due to the retrospective nature of the study and the use of anonymized data, informed consent from patients was not required.

Statistical analysis. The sample size was not calculated a priori. The entire population of hospitalization cases for the specified period was analyzed ($n = 11,520$). Analysis was performed using IBM SPSS Statistics 26.

Quantitative data are presented as absolute numbers and percentages. The χ^2 test was used to compare proportions between subgroups. The strength of association was assessed using the ϕ coefficient. For time series analysis, chain and baseline absolute increases, growth rates, and growth increments were calculated. Spearman's rank correlation coefficient (r) was used to assess correlations. Statistical significance was set at $p < 0.05$.

RESULTS

The retrospective analysis included data from 11,520 hospitalization cases of children aged 0 to 17 years with a diagnosis of acute intestinal infection at the Regional Clinical Infectious Diseases Hospital (RCH) in Chita from 2014 to 2023. All cases meeting the inclusion criteria were analyzed. No subsampling was performed. The baseline characteristic of the study objects was aggregated inpatient record data.

Figure 2 shows the dynamics of hospitalizations relative to the multi-year average (MYA) (1,152, 100 %). In 2023, compared to 2022, hospitalizations increased by 45 cases (4.5 %). The maximum increase was observed in 2017 (234 patients, 18.22 %), while the minimum increase was recorded in 2020 (-439 children, -34.98 %). The overall trend was increasing, indicating a rise in hospitalizations by 2023.

On average, the growth rate decreased by 0.7 % annually. The mean annual number of hospitalizations declined by 7.78 cases, reaching nearly 2014 levels by 2023.

Over the 10-year observation period (Fig. 3), among confirmed acute intestinal infections, viral infections ranked first, accounting for an average of 35 %; rotavirus infection accounted for 24 % of all All cases, while a substantial proportion (59 %) was attributed to acute intestinal infections of unspecified etiology (AIUE).

Previously, **in the pre-pandemic period**, we conducted a study of the long-term dynamics of hospitalizations of children aged 0–17 years at the RCH for All from 2014 to 2019 [13]. Analysis showed that the MYA of hospitalizations of children aged 0–17 years

with acute diarrhea during this period was 1,306 cases. On average, the number of hospitalizations of children with AI in the pre-pandemic period increased by 2.3 % annually (Fig. 4). A one-year forecast was made using the absolute increase indicator, yielding a predicted number of 1,282.4 hospitalizations in 2020. However, the COVID-19 pandemic resulted in a deviation from the forecasted values.

The growth rate of RVI in the pre-pandemic period shows that the number of hospitalizations increased annually by an average of 11.7 % (Fig. 4). A one-year forecast using the absolute increase indicator predicted 365.6 cases. Hospitalizations for AI and rotavirus infection demonstrated steady growth, with viral diarrheas accounting for the majority, of which RVI constituted the main part.

In the period from 2014 to 2019, the structure of acute diarrheal diseases was dominated by acute intestinal infections of unspecified etiology (AIUE) – 59.07 ± 7.44 %;

viral diarrheas ranked second – 33.92 ± 9.78 %; and bacterial AI were recorded less frequently – 6.9 ± 3.01 %. RVI accounted for 24.47 ± 5.33 % of all AI cases.

During the pandemic peak period from 2020 to 2021 (Table 1), the lowest hospitalization rates for children with AI were recorded in 2020 and 2021. These were 29 % below the multi-year average (Fig. 2).

In 2020 and 2021, compared to 2014, hospitalizations decreased by 27 %. The mean growth rate during the pandemic peak period was low (17.61 %).

On average, during the pandemic peak years, the percentage of hospitalizations for AI decreased 1.6-fold relative to the pre-pandemic period ($\chi^2 = 9.680$; $p = 0.002$). To assess the strength of association between the pandemic factor and the mean AI hospitalization rate, the ϕ coefficient and Pearson's contingency coefficient (C) were used. The calculated values indicated a moderate strength of association ($\phi = 0.220$; $C = 0.215$). The results are presented in Table 2.

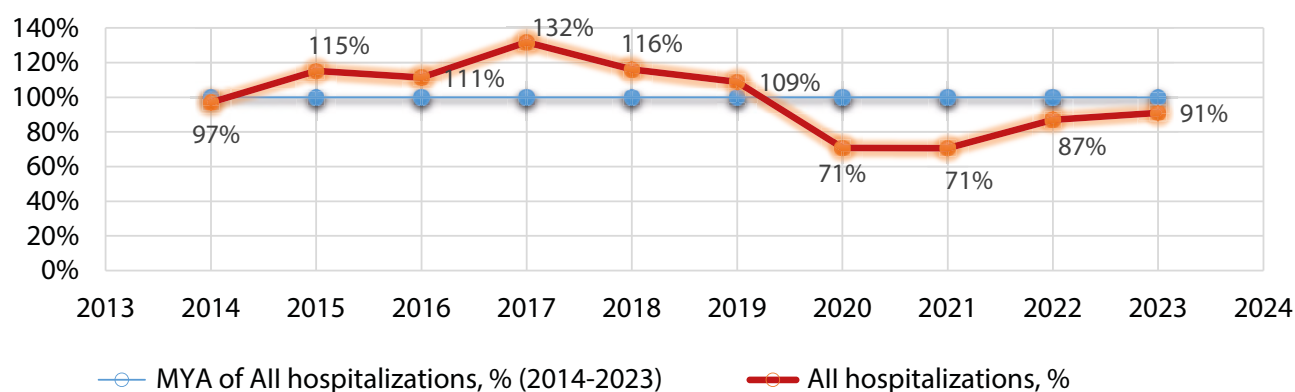


FIG. 2.

Dynamics of hospitalizations for acute intestinal infections among children aged 0-17 years, 2014-2023

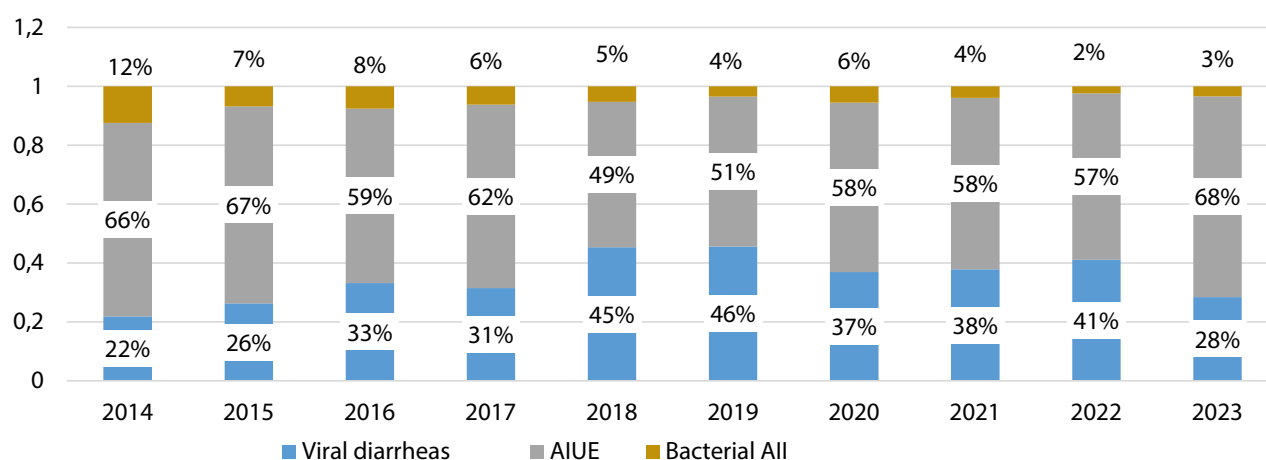


FIG. 3.

Etiological structure of acute intestinal infections (AI) in hospitalized children aged 0-17 years, 2014-2023

In 2020 compared to 2014, hospitalizations decreased by 7 %. Notably, 2014 was the lowest pre-pandemic value. In 2021 compared to 2020, an increase of 14.4 % was observed. The maximum increase during this period was in 2021 (26 cases), while the minimum (-157 cases) was recorded in 2020. On average, the rate of increase declined by 16.07 % annually during 2020–2021.

On average (Fig. 5), during the pandemic peak years, the percentage of hospitalizations for RVI

decreased 1.4-fold relative to the pre-pandemic period ($\chi^2 = 23.955$; $p < 0.001$). To assess the strength of association between the pandemic factor and the mean RVI hospitalization rate, the ϕ coefficient and Pearson's contingency coefficient (C) were used. According to Rea and Parker's recommendations, the strength of association was moderate ($\phi = 0.346$; $C = 0.327$).

The introduction of strict anti-epidemic measures (isolation, closure of schools and kindergartens, and mandatory mask wearing) led to a sharp decline

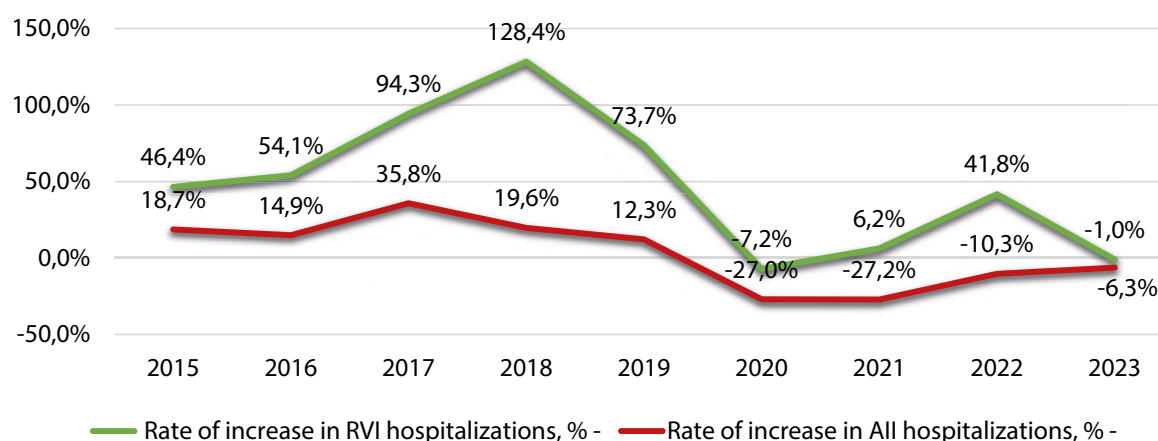


FIG. 4.

Rate of change in hospitalizations for acute intestinal infections and rotavirus infection among children aged 0–17 years, 2014–2023

TABLE 1

HOSPITALIZATION DYNAMICS INDICATORS FOR CHILDREN WITH ACUTE INTESTINAL INFECTIONS, 2019-2021

Year	Number of All hospitalizations, abs.	Absolute increase		Growth rate		Rate of increase		Absolute value of 1% increase
		chain	baseline	chain	baseline	chain	baseline	
2019	1255	-82	137	93.87	112.25	-6.13	12.25	13.37
2020	816	-439	-302	65.02	72.99	-34.98	-27.01	12.55
2021	814	-2	-304	99.75	72.81	-0.25	-27.19	8.16

TABLE 2

HOSPITALIZATION DYNAMICS INDICATORS FOR CHILDREN WITH ROTAVIRUS INFECTION, 2019-2021

Year	Number of RVI hospitalizations, abs.	Absolute increase		Growth rate		Rate of increase		Absolute value of 1% increase
		chain	baseline	chain	baseline	chain	baseline	
2019	337	-106	143	76.07	173.71	-23.93	73.71	4.43
2020	180	-157	-14	53.41	92.78	-46.59	-7.22	3.37
2021	206	26	12	114.44	106.19	14.44	6.19	1.8

in hospitalizations below the multi-year average for All by 29 % (Fig. 2) and for RVI by 35 % (Fig. 5).

During this period, the etiological structure of All showed no significant differences compared to the previous period: AIUE accounted for $57.91 \% \pm 0.45$ ($\chi^2 = 0.021$; $p > 0.05$), viral diarrheas – $37.36 \% \pm 0.67$ ($\chi^2 = 0.197$; $p > 0.05$), bacterial – $4.72 \% \pm 1.12$ ($\chi^2 = 0.355$; $p > 0.05$), and rotavirus diarrhea among all All – 23.68% ($\chi^2 = 0.027$; $p > 0.05$).

Subgroup analysis stratified by pandemic periods did not reveal statistically significant differences in the proportion of bacterial All or in the ratios of other etiological forms. During the pandemic peak period, a tendency toward a decrease in the proportion of bacterial All to 4.7 % was observed compared to 6.6 % in the pre-pandemic period. However, the differences did not reach statistical significance ($\chi^2 = 0.355$; $p = 0.552$), with a negligible strength of association ($\phi = 0.042$). The prevalence of RVI in the structure of All also showed no statistically significant differences ($\chi^2 = 0.559$; $p = 0.212$), with a negligible strength of association ($\phi = 0.027$).

In the post-pandemic period, the following changes were observed (Table 3).

In 2022–2023, following the lifting of strict anti-epidemic restrictions, the number of reported All cases increased significantly worldwide.

Compared to 2021, the number of hospitalizations of children with All increased in 2022–2023, with the largest increase recorded in 2022. The mean annual number of hospitalizations increased by 117 cases, although the growth rate in 2023 compared to 2014 was low at 6.26 %. Similar changes were observed for rotavirus infection (Table 4).

The number of hospitalizations increased by 41.75 % in 2022 compared to 2014, and by 52.3 % compared to 2020.

On average, in the post-pandemic period, the period of lifting restrictive measures, the percentage of hospitalizations for RVI increased 1.3-fold relative to the pandemic period ($\chi^2 = 10.125$; $p = 0.002$). To assess the strength of association between the pandemic factor and the mean RVI hospitalization rate, the ϕ coefficient was used. According to Rea and Parker's recommendations, the strength of association was moderate ($\phi = 0.225$; $C = 0.220$).

Correlation analysis revealed a strong direct correlation between the total number of All hospitalizations

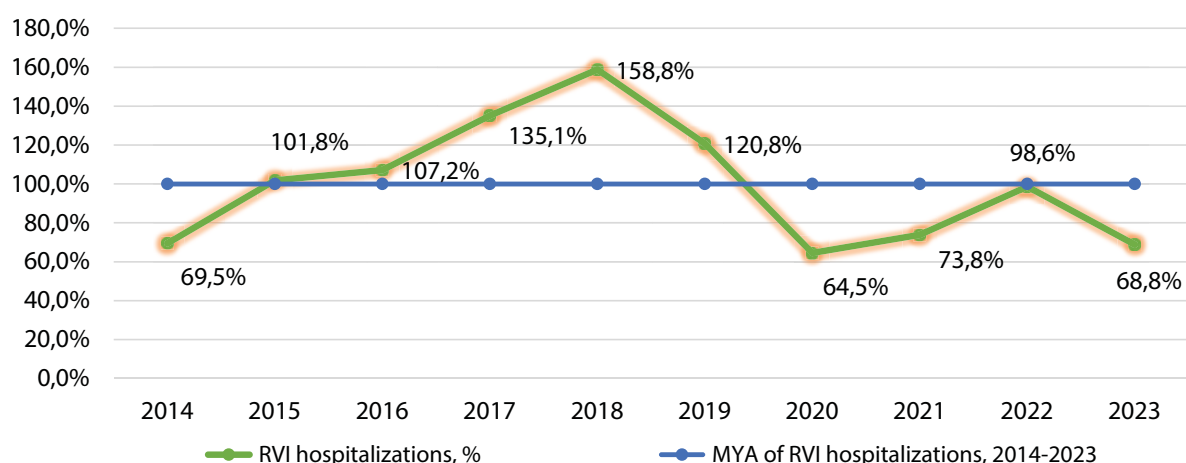


FIG. 5.

Dynamics of hospitalizations for rotavirus infection among children aged 0–17 years, 2014–2023

TABLE 3

HOSPITALIZATION DYNAMICS INDICATORS FOR CHILDREN AGED 0-17 WITH ACUTE INTESTINAL INFECTIONS, 2021-2023

Year	Number of All hospitalizations, abs.	Absolute increase		Growth rate		Rate of increase		Absolute value of 1% increase
		chain	baseline	chain	baseline	chain	baseline	
2021	814	-2	-304	99.75	72.81	-0.25	-27.19	8.16
2022	1003	189	-115	123.22	89.71	23.22	-10.29	8.14
2023	1048	45	-70	104.49	93.74	4.49	-6.26	10.03

TABLE 4

HOSPITALIZATION DYNAMICS INDICATORS FOR CHILDREN AGED 0-17 WITH ROTAVIRUS INFECTION, 2021-2023

Year	Number of RVI hospitalizations, abs.	Absolute increase		Growth rate		Rate of increase		Absolute value of 1% increase
		chain	baseline	chain	baseline	chain	baseline	
2021	206	26	12	114.44	106.19	14.44	6.19	1.8
2022	275	69	81	133.5	141.75	33.5	41.75	2.06
2023	192	-83	-2	69.82	98.97	-30.18	-1.03	2.75

and the number of RVI hospitalizations ($r = 0.789$; $p = 0.008$).

This study demonstrates that the introduction of anti-epidemic measures during the COVID-19 pandemic led to a statistically significant reduction in hospitalizations of children with All and RVI in Chita. At the same time, the etiological structure of All remained stable across all three analyzed periods. In the post-pandemic period, a marked increase in hospitalizations was recorded, indicating restoration of the epidemic process. AIUE accounted for $62.33 \% \pm 8.2$, viral diarrheas – $34.76 \% \pm 8.93$, bacterial – $2.91 \% \pm 0.74$, and RVI among all All – $22.87 \% \pm 6.43$. No statistically significant differences in pathogen detection were found across the different periods ($p < 0.05$).

Comparing the rates of confirmed All across different pandemic periods, it was noted that the level of laboratory diagnostics of diseases did not change over the 10-year period. According to the Clinical Infectious Diseases Hospital, no decline in the level of laboratory diagnostics was recorded, which is likely due to the fact that the priorities of laboratory diagnostics at this facility did not change during the pandemic. This fact excludes the influence of diagnostic shifts on the structure of detected infections. This consistent approach of the RCH allows the use of data from this facility for objective long-term monitoring of All pathogens. Intestinal infections of unspecified etiology were recorded at their lowest levels in 2018–2019, parallel to the maximum increase in viral infections. As viral diarrhea incidence decreased, the number of unspecified diarrheas increased, reaching 2015 levels by 2023, with viral diarrhea rates similarly declining to 2015 levels.

Among All cases of established etiology, as in many other regions of Russia, viruses predominate (rota-, noro-, and astroviruses), with rotaviruses being the leading cause [15].

DISCUSSION

The data obtained on the sharp decline in hospitalizations for All and RVI in 2020–2021 are fully consistent with the results of studies conducted in other regions of Russia and worldwide [6, 16]. This supports

the hypothesis that non-pharmaceutical interventions (social distancing, mask wearing, and closure of schools and kindergartens) effectively limit the transmission not only of SARS-CoV-2, but also of other respiratory and enteric pathogens transmitted via the contact-household and fecal-oral routes.

A key finding of our study is the stability of the etiological structure of All. Despite a significant reduction in absolute numbers, the proportion of RVI among all All hospitalizations did not undergo statistically significant changes and retains its leading role. This suggests that the anti-epidemic measures had a universal, non-specific effect on the entire group of All, proportionally reducing the circulation of all pathogens rather than selectively suppressing rotavirus transmission. The strong positive correlation ($r = 0.789$; $p = 0.008$) between the dynamics of All and RVI hospitalizations further supports this conclusion, indicating their shared dependence on environmental factors and population behavior.

The subsequent increase in hospitalizations in the post-pandemic period, particularly pronounced in 2022, is consistent with the concept of epidemic rebound. The accumulation of a cohort of susceptible children who had no contact with the virus during the period of restrictions naturally led to a surge in incidence following the resumption of social activity, which has also been observed in other studies [8, 17].

Study limitations. This study has several limitations. First, its retrospective design and the use of aggregated data from official records do not allow for in-depth analysis of individual cases, such as disease severity, presence of comorbidities, or vaccination status. Second, the substantial proportion of cases classified as AIUE may have influenced the accuracy of the All structure assessment, although the stable level of laboratory diagnostics at the facility minimizes this risk. Third, the study was conducted at a single hospital in a specific region with unique climatic, geographical, and socio-demographic conditions, as well as extremely low rotavirus vaccination coverage, which limits the generalizability of the findings to populations with different characteristics. Finally, other unaccounted factors, such as changes in healthcare-seeking behavior, may have also influenced hospitalization dynamics.

The conducted study demonstrates that the introduction of anti-epidemic measures during the COVID-19 pandemic led to a statistically significant reduction in hospitalizations of children with All and RVI in Chita. At the same time, the etiological structure of All remained stable across all three analyzed periods. Following the lifting of restrictions, a marked increase in hospitalizations was recorded, indicating restoration of the epidemic process.

CONCLUSION

Based on a decade-long monitoring study conducted at a large infectious disease hospital in the Trans-Baikal Territory, this research deepens our understanding of the regional consequences of the COVID-19 pandemic. It documents not only the marked but transient nature of the reduction in hospital burden associated with All and rotavirus infection during the period of restrictions, but also reveals a key feature: the persistent preservation of the established etiological structure, in which rotavirus gastroenteritis maintains its dominant position despite fluctuations in absolute indicators. In the context of persistently low rotavirus vaccination coverage, the data obtained convincingly demonstrate that long-term control of RVI in the region requires a combination of continuous epidemiological surveillance and the implementation of specific prophylaxis.

Conflicts of interest

The authors declare no conflicts of interest.

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