

1. RESULTS AND DIRECTIONS OF ACTIVITIES TO ENSURE THE EPIDEMIOLOGICAL SAFETY OF THE POPULATION IN MODERN CONDITIONS

1.1 doi: 10.15789/2220-7619-2018-4-1.1

FEATURES OF HIV EPIDEMIC SITUATION AMONG CHILDREN AND TEENAGERS OF THE FAR EASTERN FEDERAL DISTRICT

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The objective of the research was to evaluate the fraction of children and teenagers in the structure of the HIV-positive people subjected to regular medical check-ups in the Far Eastern Federal District (FEFD) during 2013–2017.

Three age groups were analyzed during the study: 0–7 years old, 8–14 years old, teenagers (15–17 years of age). The data of the official reporting form No. 61 was utilized.

An increase in the fraction of HIV-infected teenagers by 6.5 times from 0.04±0.02% in 2013 to 0.3±0.05% in 2017 ($p = 10^{-6}$) was detected. The percent of children aged 0–7 years rose by 38.29% from 0.47±0.07 to 0.65±0.07% ($p = 0.07$). A decline of the index by 45.9% was registered in children aged 8–14 years from 0.61±0.08 to 0.33±0.05% ($p = 0.003$). A statistically significant decline of the index by 43.21% from 0.81±0.12% down to 0.46±0.08% ($p = 0.014$) in the age group of 8–14 years as well as an increase of the fraction of HIV-positive teenagers by 4.8 times from 0.05±0.03% up to 0.29±0.06% ($p = 0.0007$) in 2013–2017 was registered only in the Primorsky Region. In 2017, the Magadan Region children and teenagers were free of HIV-infection. No cases of HIV-positive children aged 8–14 years were registered in Jewish Autonomous District and Kamchatka Region while in the Chukotka Autonomous District children aged 8–14 years and teenagers were free of HIV. That said HIV-positive children aged 0–7 years were registered almost in all constituent entities of the FEFD. The fraction of specified HIV-positive children was higher compared to the mean rate in the FEFD (0.65±0.07%) in Amur Region (2.4±0.79, $p = 0.011$) and Republic Sakha (Yakutia) (1.65±0.37%, $p = 0.03$).

The increase of the fraction of HIV-positive children aged 0–7 years necessitates strengthening of preventive measures against mother-to-child transmission of HIV. The rise of the teenagers' proportion in total structure of HIV-positive people can indicate on their low HIV awareness and highlights the need to improve the preventive measures against HIV in this age group.

1.2 doi: 10.15789/2220-7619-2018-4-1.2

MODERN CHARACTERISTICS AND TENDENCIES OF DIARRHEAL INFECTIONS EPIDEMIC PROCESS IN RUSSIA

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In recent years diarrheal infections enhance their leading role in the structure of population infectious diseases.

The global trend towards the expansion of viral pathogens range and laboratory diagnostics development have changed the etiological structure of pathogens. At present nearly 70% of the reported diarrheal infections cases with identified etiology in Russia caused by viral pathogens. The results of molecular-genetic and epidemiological analysis indicated an increase of circulating pathogens genetic diversity, as well as strengthening of norovirus infection etiological significance. Since the implementation of registration system norovirus incidence rate has increased by 15 times. In Moscow, noro — and rotavirus infections outbreak incidence was 34% (2011) and 38% (2016). The maximum number of infection cases (414 people) was detected in outbreaks caused by norovirus.

Every fourth etiologically identified case of diarrhoeal infection in Russia belongs to food zoonoses. Among them, salmonellosis holds the leading positions. In recent years its incidence rate has a weak decrease tendency with 25–36 cases per 100 000. Salmonellosis outbreaks are second by registration frequency only to viral etiology outbreaks and are recorded among adults mainly. In Moscow, the share of children in the salmonellosis outbreak structure was 18.6%.

Despite the evident decrease in shigellosis incidence in Russia (with an average annual rate of 17.2%), this infection remains relevant for several regions. Among them are not only regions with water supply quality problems (Republics of Tuva, Dagestan, Khakassia, Karachay-Cherkessia, Astrakhan region, etc.), but also megacities. In Moscow, where incidence rate doesn't exceed 5 cases per 100 000, shigellosis leads by the focal index (27.3). Shigellosis keeps the second place in terms of the outbreak morbidity, having a large proportion of children (76%) in its structure.

Finally, one of the significant trends is a comorbidity growth, which reveals itself by the increase in the number of outbreaks with multiple etiology.

1.3 doi: 10.15789/2220-7619-2018-4-1.3

ON THE TIMELINESS OF VACCINATION IN CHILDREN'S OUTPATIENT DEPARTMENT

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Vaccination is an effective preventive measure, aimed at reducing the morbidity, lethality and mortality from many infectious diseases. However, the full effect of vaccination is provided only when the immunization is high, at least 95% of population.

The purpose of this study was to assess the completeness and timeliness of children immunization in children's outpatient department within the time frames regulated by National calendar of preventive vaccination.

During the study, the history of development (f.112/y) and preventive vaccination records (f.063/y) were analyzed for 631 children under the age of 18 months.

It was found that vaccination coverage of children in decreed age groups for any vaccination regulated by