

# МЕДИЦИНА, ПЕДАГОГИКА И ТЕХНОЛОГИЯ: ТЕОРИЯ И ПРАКТИКА

Researchbib Impact factor: 13.14/2024

SJIF 2024 = 5.444

Том 3, Выпуск 02, февраль

## MEASLES INCIDENCE AND ITS COMPLICATIONS AMONG CHILDREN

**Rajabaliyeva Mohruhsor Amandullo qizi**

Termez University of Economics and Service,

Faculty of Medicine,

Email: [mohruhsorrajabaliyeva@gmail.com](mailto:mohruhsorrajabaliyeva@gmail.com)

**Abstract:** This article examines cases of measles among 1- to 3-year-old pediatric patients treated at the Surkhandarya Regional Epidemiology Center in 2023. Our study was conducted in the center's "Polyclinic Reception Department," analyzing data from 90 children who sought medical attention. Based on the results of the examination, a control group of 40 healthy children and a primary group of 50 children diagnosed with measles were identified. However, since almost all cases were of mild measles, hospitalization was not required.

**Keywords:** mortality cases, vaccine, infection, incubation period, symptoms, exanthema, subsequent stage, complications.

## РАСПРОСТРАНЕННОСТЬ КОРЬЮ СРЕДИ ДЕТЕЙ И ЕЕ ОСЛОЖНЕНИЯ

Раджабалиева Мохрухсор Амандулло кизи

Термезский университет экономики и сервиса,

Студент-медик

Электронная почта: : [mohruhsorrajabaliyeva@gmail.com](mailto:mohruhsorrajabaliyeva@gmail.com)

**Аннотация:** В данной статье проведено обследование детей в возрасте 1-3 лет, которые лечились от кори в 2023 году в Сурхандарьинском областном эпидемиологическом центре. В нашем исследовании по результатам обследования 90 детей, поступивших в «Приемное отделение поликлиники» эпидемиологического центра, были сформированы контрольная группа: 40 здоровых детей и основная группа: 50 детей, больных корью. Однако, поскольку почти у всех из них была легкая форма кори, случаев стационарного лечения не наблюдалось.

# МЕДИЦИНА, ПЕДАГОГИКА И ТЕХНОЛОГИЯ: ТЕОРИЯ И ПРАКТИКА

Researchbib Impact factor: 13.14/2024

SJIF 2024 = 5.444

Том 3, Выпуск 02, февраль

**Ключевые слова:** случаи смерти, вакцина, инфекция, инкубационный период, симптомы, экзантема, последующий период, осложнения.

**RELEVANCE OF THE PROBLEM:** According to the World Health Organization (WHO), measles remains widespread, particularly in Africa, the Middle East, and Asia. Measles is an acute infectious viral disease that is highly contagious. The majority of measles-related deaths occur in low-income countries or those with weak healthcare infrastructure, where vaccinating all children remains a challenge. This disease claims the lives of approximately 150,000 people annually worldwide, most of whom are children under 10 years old.

To ensure children's immunity, they must receive two doses of the vaccine. The first dose is usually administered at 9 months in countries where measles is widespread, while in other countries, it is given at 12–15 months. The second dose is administered later in childhood, typically at 15–18 months. The measles vaccine is often combined with vaccines against mumps, rubella, or varicella. It has been used for approximately 60 years and costs less than \$1 per child. In 2023, 74% of children worldwide received both doses of the measles vaccine, while approximately 83% received the first dose on their first birthday. According to WHO, measles vaccination prevented 57 million deaths globally between 2000 and 2022.

In the first 10 months of 2023, 1,936 children in Surkhandarya region were vaccinated against measles based on epidemiological indications. During this period, 735 cases of measles were confirmed through laboratory testing, with no reported fatalities. Of those infected, 62% were children under one year old, while 25% were between the ages of 1 and 3.

It is worth noting that in 2017 and 2018, the Republic of Uzbekistan received an international certificate from WHO confirming the elimination of measles and rubella, meaning the local transmission of these diseases had been halted. However, measles cases tend to rise seasonally from October to April, as people spend more time indoors during this period. Children often contract the infection in kindergartens. Due to the virus's low resistance to external conditions, transmission through third parties is extremely rare. The pathogen spreads from an infected person to a healthy individual via airborne droplets. The virus begins spreading actively 3–4 days before the appearance of the measles rash (during the incubation period), when clinical symptoms are not yet visible. This lack of symptoms may lead to a failure in taking preventive

# МЕДИЦИНА, ПЕДАГОГИКА И ТЕХНОЛОГИЯ: ТЕОРИЯ И ПРАКТИКА

Researchbib Impact factor: 13.14/2024

SJIF 2024 = 5.444

Том 3, Выпуск 02, февраль

measures. In general, an infected person remains contagious for 7–10 days. Unvaccinated individuals who come into close contact with a measles patient have an almost 100% risk of infection. The virus can also travel long distances through air circulation, such as via stairwells and ventilation shafts in multi-story buildings.

The measles virus enters the human body through the mucous membranes of the respiratory tract and eyes. Three days after infection, it enters the bloodstream, spreads through the lymph nodes, and settles in the spleen, where it multiplies actively during the incubation period (7–17 days). Once the incubation period ends, newly formed viral particles spread throughout the body, affecting the skin, conjunctiva, gastrointestinal tract, respiratory system, and nervous system.

Symptoms of measles include hyperthermia, psychomotor agitation, sleep disturbances, hypersensitivity to external stimuli, irritability, rhinitis, sore throat, redness and swelling of the mucous membranes, cough, conjunctivitis, photophobia, and swelling. Specific signs include: Measles enanthem (red spots up to 0.5 cm in diameter on the soft palate, appearing on days 2–4 of the illness).

Koplik spots (Velsky-Filatov-Koplik spots) (small white dots with red borders on the buccal mucosa, near the molars, appearing on days 3–5).

## **Gastrointestinal involvement.**

Following the catarrhal phase, the characteristic measles rash appears, typically 3–4 days after the onset of symptoms. The rash first emerges on the face, then spreads to the neck, upper torso, and eventually covers the entire body, including the limbs. The rash, known as maculopapular exanthema, consists of pink papules surrounded by red spots that tend to merge. This stage is marked by general intoxication, headaches, fever, worsening cough, and runny nose. The rash persists for 4–5 days before fading, changing color, and shrinking in size. During this period, the patient's condition improves, and the virus's contagiousness decreases.

The next phase of measles involves skin pigmentation changes, epidermal peeling, and overall recovery. A person typically contracts measles only once in their lifetime, but in cases of weakened immunity, reinfection may occur, often with severe complications or even fatal outcomes.

Measles is dangerous due to its complications, which may include pancreatitis, meningitis, encephalitis, obstructive bronchitis, and laryngostenosis. Contrary to popular belief, measles is not just a rash and fever; it can significantly affect internal

# МЕДИЦИНА, ПЕДАГОГИКА И ТЕХНОЛОГИЯ: ТЕОРИЯ И ПРАКТИКА

Researchbib Impact factor: 13.14/2024

SJIF 2024 = 5.444

Том 3, Выпуск 02, февраль

organs and require prolonged rehabilitation. Severe complications can lead to disability or death.

**Conclusion.** Measles remains a serious public health concern among infectious viral diseases. Vaccination plays a crucial role in preventing the spread of measles among children. According to WHO recommendations, children should receive the first dose of the measles vaccine at 12–15 months and a booster dose between 4–6 years of age. Vaccination not only helps develop immunity against the disease but also reduces the risk of severe complications. Additionally, widespread vaccination contributes to overall community immunity, preventing measles outbreaks. Effective immunization programs and increased public awareness about vaccination are essential steps in eliminating measles. Through vaccination and preventive measures, measles can be completely eradicated.

## References:

1. Katta R. Cutaneous sarcoidosis; a dermatologic masquarader. *Am Fam Physician*. 2002; 65; 1581-1584.
2. Caputto R., Germetti C., Annessi G. Mastocytosis. In; *Pediatric Dermatology and dermopotology*. Vol 3, Philadelphia; William and Wilkins eds. 321-329, 1995.
3. Сферруцци-Перри А.Н., Воган О.Р., Форхед А.Дж., Фоуден А.Л. Гормональные факторы и факторы питания внутриутробного развития. *Curr Opin Clin Nutr Metab Care*. 2013. 16 (3): 298–309.
4. Abu Bakr ar – Roziy; Chechak va qizamiq haqida kitob. O'zbek tili imkoniyatlaridan amaliy foydalanish masalalari konfirensiya materiallari.
5. Атлас редких болезней / Науч. Центр здоровья детей [и др]; под ред. А.А Баранова, Л.С. Намазовой-Барановой. 2-е изд., испр. И доп. – М. Педиатр, 2016. – 420 с.
6. . World Health Organization (WHO). Measles vaccines: WHO position paper – April 2017. *Weekly Epidemiological Record*. 2017;92(17):205-228. <https://www.who.int>.
7. UNICEF. Global and regional measles statistics. UNICEF, 2023. <https://data.unicef.org/topic/child-health/immunization/measles/>.