



IMMUNIZATION AGAINST ROTAVIRUS IN SHIVRAM NATHUJI TAK GOVERNMENT SATELITE HOSPITAL, MANDORE, JODHPUR.

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ABSTRACT

Background: Immunization is one of the most well-known and effective methods of preventing childhood diseases. With the implementation of the Universal Immunization Programme (UIP) by the Government of India, significant achievements have been made in preventing and controlling vaccine-preventable diseases (VPDs). In India, Rota-virus Vaccine (RVV) has been included in UIP in the year 2016.

Aims & Objectives: The present study was undertaken:-

1. To know immunization of children against Rota Virus diseases under Universal Immunization Programme.
2. To know month-wise trend of Rota Virus immunization.

Materials and methods: This is an Institutional based study and have been conducted in Shri Shivram Nathuji Tak Government Satellite Hospital Mandore, Jodhpur, Rajasthan from 1st January 01, 2020 to 31st December 2020. All the children who have been immunized against Rota Virus during this period are included in the study.

Results: During our study period of 12 months, a total of 769 children between the age of 0-1 year have been immunized for Rota Virus Vaccine -I dose, 709 for Rota Virus Vaccine -II dose and 705 for Rota Virus Vaccine -III dose.

KEYWORDS : Vaccine Preventable Diseases, Rotavirus Immunization.

INTRODUCTION:

Routine Immunization is one of the most cost effective public health interventions and was first introduced in India in 1978. Yet, despite the concerted efforts of the government and other health agencies, a large proportion of vulnerable infants and children in India remain unimmunized^[1].

One of the most important cause of Diarrhoea in under five children is Rota Virus. Rotavirus belongs to the viral family *Reoviridae*, which was named as "rota" virus due to its wheel-like shape as visible under an electron microscope. Apart from infection in humans, Rotavirus infection has also been detected in many species of domestic animals, and wild mammals and birds, but animal-to-human transmission appears to be rare. The clinical spectrum of Rotavirus illness is wide, ranging from transient loose stools to severe diarrhoea with vomiting that may result in dehydration, electrolyte imbalance, shock and death if not treated adequately. Following an incubation period of 1-3 days, the illness can begin abruptly, with vomiting often preceding the onset of diarrhoea. Up to one-third of patients may have fever. Rotavirus vaccine is a live attenuated, oral liquid vaccine and is available under UIP, in 5 dose vial and does not require reconstitution.

National Family Health Survey (2005-06) reports that only 43.5% of children in India received all of their primary vaccines by 12 months of age. There is a wide variation among states, and states with poorer immunization coverage have higher child mortality rates^[2].

AIMS & OBJECTIVES:

The present study was undertaken:-

1. To know immunization of children against Rota Virus diseases under Universal Immunization Programme.
2. To know month-wise trend of Rota Virus immunization.

Study design and setting:

This is an Institutional based study and has been conducted in

Shri Shivram Nathuji Tak Government Satellite Hospital, Mandore region of Jodhpur District of Rajasthan from 1st January 2020 to 31st December 2020.

Study Population:

All the children upto and below the age of 1 years who have visited Shri Shivram Nathuji Tak Government Satellite Hospital Mandore region of Jodhpur District of Rajasthan for immunization purpose during this period.

RESULT:

Shri Shivram Nathuji Tak Government Satellite Hospital Mandore is situated in Jodhpur district of Rajasthan. Data of the present study was collected from this hospital. During our study period of 12 months, a total of 769 children between the age of 0-1 year have been immunized for Rota Virus Vaccine -I dose, 709 for Rota Virus Vaccine -II dose and 705 for Rota Virus Vaccine -III dose. For Rota Virus dose -I, maximum number of children (97) have been immunized in the month of December 2020 and minimum number of children (48) have been immunized in the month of February and March 2020. For Rota Virus dose -II, maximum number of children (82) have been immunized in the month of May 2020 and minimum number of children (43) have been immunized in the month of October 2020. For Rota Virus dose -III, maximum number of children (75) have been immunized in the month of July 2020 and minimum number of children (23) have been immunized in the month of April 2020.

Table No. 1

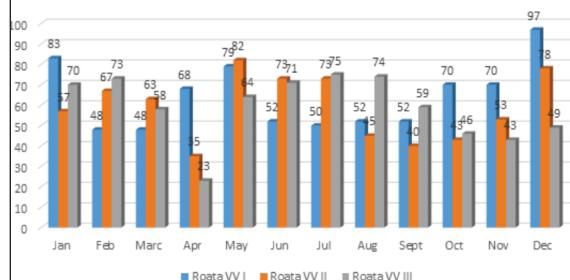
No. of Children Immunized against Rotavirus in Shri Shivram Nathuji Tak Government Satellite Hospital Mandore, Jodhpur

| S. No. | Month | Rota VV I | Rota VV II | Rota VV III |
|--------|-------|-----------|------------|-------------|
| 1 | Jan | 83 | 57 | 70 |
| 2 | Feb | 48 | 67 | 73 |
| 3 | Marc | 48 | 63 | 58 |
| 4 | Apr | 68 | 35 | 23 |
| 5 | May | 79 | 82 | 64 |

| | | | | |
|----|-------|-----|-----|-----|
| 6 | Jun | 52 | 73 | 71 |
| 7 | Jul | 50 | 73 | 75 |
| 8 | Aug | 52 | 45 | 74 |
| 9 | Sept | 52 | 40 | 59 |
| 10 | Oct | 70 | 43 | 46 |
| 11 | Nov | 70 | 53 | 43 |
| 12 | Dec | 97 | 78 | 49 |
| | Total | 769 | 709 | 705 |

Figure no. 1

No. of Children Immunized against Rotavirus in Shri Shivram Nathuji Tak Government Satellite Hospital Mandore, Jodhpur



DISCUSSION:

Immunization against common childhood diseases has been an integral component of mother and child health services in India since the adoption of the primary health care approach in 1978. The UIP was introduced by the Government of India in 1985-86 to cover at least 85 per cent of the infants against the six vaccine-preventable diseases by 1990^[1]. Since the launch of National Rural Health Mission in 2005, Universal Immunization Programme has always been an integral part of it^[4].

To expand the basket of vaccines under the immunization program, Government of India had introduced a number of new vaccines in the UIP in the past few years including Rotavirus Vaccine (RVV) in 2016. The RVV has been rolled out in 11 states (including Rajasthan) in a phased manner, and it is being expanded to the remaining 25 states and union territories^[7]. It is well known that diarrhoeal diseases are one of the most common causes for morbidity and mortality in children under 5 years of age. Among the diarrhoeal diseases, rota-virus infection is one of the most common causes for moderate to severe diarrhoea in children. The specific intervention strategy for protection from Rotavirus infection is vaccination^[7].

CONCLUSION:

While Routine Immunization has played a significant role in preventing childhood deaths and disability, thousands of children in India continue to die from vaccine preventable diseases each year. Because of the inclusion of Rotavirus vaccination in the routine immunization programme, this will decrease long term diarrhoeal diseases morbidity and mortality in children under 5 years of age.

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