

For the use of a Registered Medical Practitioner or Hospital or a Laboratory only.

ROTAVAC®

Live Attenuated Human Rotavirus (116E Strain) NLT $10^{5.0}$ FFU

1. NAME AND DESCRIPTION OF THE ACTIVE IMMUNISING AGENT

Rotavirus Vaccine (Live, Oral) is a monovalent vaccine containing suspension of live attenuated human rotavirus 116E prepared in Vero cells. Rotaviruses are double-stranded RNA virus of the genus Reoviridae. Rotaviruses are classified in a dual classification system based on two proteins on the surface of the virus into G and P types. Based on this nomenclature, Rotavirus 116E is classified as G9P [11]. A single human dose of ROTAVAC® is 0.5 ml containing not less than [NLT] $10^{5.0}$ FFU [Focus Forming Unit] of live rotavirus 116E.

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

List of ingredients and quantities

2.1 Composition of ROTAVAC®

Each dose of 0.5ml (5 Drops) contains.

| Ingredients | Quantity / 0.5 mL |
|--|------------------------|
| Live Attenuated Human Rotavirus (116E Strain) | NLT $10^{5.0}$ FFU |
| Sucrose | 37.31 mg |
| Monopotassium Glutamate | 1.0 mg |
| Potassium phosphate monobasic | 0.258 mg |
| Dibasic potassium phosphate | 0.625 mg |
| Neomycin Sulfate | 15 μ g |
| Kanamycin Sulfate | 15 μ g |
| Combination DMEM Low Glucose with L-Glutamine without sodium bicarbonate with sodium pyruvate | 4.487 mg |
| Water for Injection | q.s.to bring to volume |
| pH range: 7.2 to 8.0 | |

3. PHARMACEUTICAL FORM

ROTAVAC® is a liquid in frozen form.

In liquid form, the vaccine is generally pink in colour and may sometimes change to orange (or light yellow) in colour. This change in colour does not impact the quality of vaccine.

4. CLINICAL PARTICULARS

4.1 Therapeutic Indication

ROTAVAC® is indicated for active immunization of infants from the age of 6 weeks for the prevention of gastroenteritis due to rotavirus infection when administered as a 3-dose series.

4.2 Dosage and method of administration

Dosage

ROTAVAC® should be administered as a 3-dose regimen, 4 weeks apart, beginning at 6 weeks of age. ROTAVAC® may be co-administered with other routine childhood immunizations (i.e., Diphtheria, Tetanus and Pertussis [DTwP], Haemophilus Influenzae Type b, Hepatitis B vaccine and Oral Polio Vaccine [OPV]). Based on recommendations from the World Health Organization (Rotavirus vaccines WHO Position Paper, January 2013 in Weekly Epidemiological Report No.5, 2013, 88, 49-64), if the routine childhood immunizations are initiated later than 6 weeks of age and/or at a longer dose interval than 4-weeks, ROTAVAC® can still be co-administered with DTwP.

ROTAVAC® VIAL SHOULD BE FULLY THAWED (TILL LIQUID) PRIOR TO ADMINISTRATION.

It is recommended that infants who receive ROTAVAC® as the first dose should complete the 3 dose regimen with ROTAVAC®. There is no data on safety, immunogenicity or efficacy when ROTAVAC® is administered interchangeably with other rotavirus vaccines.

Paediatric Population

The upper age limit for the 3 dose primary schedule of Rotavirus vaccine should be administered to children by the age of 8 months (34 weeks) with the first dose given at 6 weeks of age and no later than 9 weeks of age.

Method of administration

ROTAVAC® is for oral use only and **SHOULD NOT BE INJECTED**.

Care should be taken not to contaminate the multi-dose dropper of the vaccine with saliva of the babies.

In case, an incomplete dose is administered (the baby spits up or regurgitates most of the vaccine), a single replacement dose may be administered at the same vaccination visit*. The baby may continue to receive the remaining doses as per schedule. However, in clinical trials, the reported incidence of spitting or vomiting is <0.5%.

*Physician's discretion is advised.

4.3 Contraindication

- Hypersensitivity to any component of the vaccine. Individuals who develop symptoms suggestive of hypersensitivity after receiving a dose of ROTAVAC® should not receive further doses of ROTAVAC®.
- Individuals with Severe Combined Immunodeficiency Disease (SCID). Cases of gastroenteritis associated with live rotavirus vaccines have been reported in infants with SCID.
- History of intussusception (IS).

4.4 Special warning/Precaution

No safety or efficacy data are available from clinical trials regarding the administration of ROTAVAC® to immunocompromised infants, infants infected with HIV or infants with chronic gastroenteritis. Administration of ROTAVAC® may be considered with caution in immunocompromised infants and infants in close contact with immunodeficient persons, if in the opinion of the physician, withholding the vaccine entails a greater risk. Similarly, acute infection or febrile illness may be reason for delaying the administration of ROTAVAC®, unless in the opinion of the physician, withholding the vaccine entails a greater risk. Low-grade fever and mild upper respiratory tract infection are not contraindications to ROTAVAC®.

Available published data shows a small increased incidence of intussusception (IS) following the first dose of Rotavirus vaccines especially after the first dose (WHO position paper, January 2013, <http://www.who.int/wer/2013/wer8805.pdf?ua=1>). The safety data from the clinical trials of ROTAVAC® did not show an increased risk of IS for ROTAVAC® when compared to placebo. However, it is advised that health care providers follow-up on any symptoms suggestive of IS e.g., continuous vomiting, blood in stools and abdominal lump or distension of the abdomen. Parents/caregivers should be advised to promptly inform such symptoms to healthcare providers.

Rotavirus Gastroenteritis (RVGE) with Genotype of Vaccine strain, G9P [11]:

Twenty-two G9P [11] rotavirus gastroenteritis cases occurred following 13,296 administrations of ROTAVAC® (approximately 1 event in 600 doses); 20 occurred after the first dose, 2 after the second dose, and none after the third dose throughout the duration of follow-up. No severe cases of rotavirus gastroenteritis were associated with G9P[11]. There can be two possible explanations for these findings: the vaccine causes rare, and mostly mild gastroenteritis; or shedding of G9P[11] was detected in cases of gastroenteritis caused by other non-identified pathogens. Similar to other vaccines, vaccination with ROTAVAC® may not result in complete protection against rotavirus induced gastroenteritis or gastroenteritis due to other pathogens.

There is no data to support use of ROTAVAC® for post exposure-prophylaxis.

4.5 Interaction with other medicinal product/active immunising agents and other forms of interaction

The analysis of the immune response for the 3 OPV serotypes was performed by analysing geometric mean titre (GMT) and the proportion of subjects meeting the accepted protective titre (neutralizing antibody \geq 1:8) for recipients of OPV plus ROTAVAC® and OPV plus placebo. Post-vaccination GMTs were comparable between the two groups. Similarly, the proportion of subjects with titre \geq 1:8 was comparable between ROTAVAC® and placebo groups. In summary, the analysis of post immunization revealed that subjects receiving OPV concurrently with ROTAVAC® generated comparable immune responses to all three polio serotypes compared to those receiving OPV without ROTAVAC®. The trial design did not permit an evaluation of the impact of OPV on the immune responses to ROTAVAC®.

In phase III clinical trial, subjects received 3 doses of ROTAVAC® or placebo concomitantly with childhood vaccines DTwP, Haemophilus Influenzae Type b, Hepatitis B vaccine and OPV. Vaccines were administered at 6-7 weeks, \geq 10 weeks and \geq 14 weeks of age. There was no significant difference in immediate or follow-up adverse events in the ROTAVAC® or the placebo group.

No interaction studies have been performed in infants with other medicinal products. For use with other vaccines, see Section 4.2.

4.6 Pregnancy and lactation

ROTAVAC® is a paediatric vaccine and should not be administered to adults including pregnant women. Breast-feeding of infants was permitted in clinical studies. There was no evidence to

suggest that breast-feeding reduced the protection against rotavirus gastroenteritis conferred by ROTAVAC®. There are no restrictions on the infant's liquid consumption including breast-milk, either before or after vaccination with ROTAVAC®.

4.7 Effect on ability to drive and use machines

Not applicable.

4.8 Adverse Reactions

Clinical Trial Experience

Safety data from phase I-III trials of ROTAVAC® is discussed below. Overall the events reported are similar to those reported in other rotavirus vaccine clinical trials.

In the phase Ib/IIa dose escalation study conducted on Oral Rotavirus Vaccine (ORV) 116E in India with 369 infants of 6-8weeks age, no significant adverse events were demonstrated to be associated with the ORV 116E. Commonly reported adverse events included fever, vomiting, and diarrhea. In the larger phase III efficacy study conducted in India with 6,799 infants of 6-7weeks of age, prevalence of immediate, solicited and serious adverse events was similar in the vaccine and placebo groups. Analyses for solicited adverse events showed a similar prevalence of fever, vomiting, diarrhea , cough, runny nose, irritability and rash. Commonly observed immediate adverse event within 30 minutes of administration are vomiting, and spitting up (<0.5%).

In the phase III trial, no differences were detected between ROTAVAC® and placebo groups in the post-vaccination reactogenicity observations. The modest and inconsistent imbalances in fever, diarrhea and vomiting noted in the phase Ib/IIa trial were not confirmed in the much larger phase III trial. The overall lower incidence of reactogenicity noted in the phase Ib/IIa trial, is likely due to the separation of the childhood vaccines from the administration of ROTAVAC®/placebo. There were higher rates of fever reported in the phase III trial when subjects received routine childhood vaccines concomitantly with ROTAVAC®/placebo; however, the frequency of fever was similar between the ROTAVAC® and placebo groups.

In the phase IV trial in India 900 infants of 6-7 weeks of age showed a similar prevalence of adverse events in all three groups. Fever, diarrhea, vomiting, cough, cold and irritability were the most commonly reported adverse events. The distribution of adverse events was equal amongst all three treatment groups.

No vaccine-related SAEs were reported in the phase Ib/Ia trial. In the phase III trial, 925 of the 4,531 subjects receiving ROTAVAC® (20.4%) and 499 of 2,265 subjects receiving placebo (22.0%) reported an SAE. All but 3 were considered not related to ROTAVAC®/placebo; the 3 possibly related SAEs were sepsis and gastroenteritis (GE) in two placebo recipients, and urticaria in one ROTAVAC® recipient.

No vaccine related SAEs were observed/reported.

No deaths were observed among the 369 subjects in the phase Ib/Ia trial, and 42 deaths occurred among the subjects in the phase III; 25 of them among the 4,531 subjects (0.55%) in the ROTAVAC® group and 17 among 2,265 subjects (0.75%) in the placebo group ($p=0.3279$). None of the deaths were deemed to be related to administration of ROTAVAC®/placebo.

There was one death reported in the phase IV trial unrelated to vaccine administration.

No cases of IS were observed in the phase Ib/Ia trial. In the phase III trial, there were six confirmed cases of IS observed among the 4,532 ROTAVAC® recipients (0.13%), and two among the 2,267 placebo recipients (0.09%). The minor difference in number of subjects with IS was not statistically significant ($p=0.7267$), There were no reports of IS in the 14 day period following vaccination; the first case identified occurred in a placebo subject, 36 days after the third dose. The first case reported among ROTAVAC® recipients occurred 112 days after the third dose. G1 P (8) was identified in the stool from this subject. All IS events were resolved after pneumatic reduction or barium enema; none required surgical intervention and none fatal.

No cases of intussusception were reported in the phase IV trial.

Preterm infants and infants with human immunodeficiency virus (HIV) infection

Clinical studies have not been conducted in these groups of population and data is not available

Post marketing surveillance data

Post Marketing Surveillance is ongoing. The interim analysis of the data received for ROTAVAC® has shown fever, irritability and vomiting as common AEs followed by diarrhea and rash, and rare allergic reaction due to antibiotics like kanamycin or neomycin. There were no SAEs and no cases of intussusception reported.

Integrated Safety profile

The safety profile presented below is based on the data from the clinical trials conducted with ROTAVAC®. In a total of eight clinical trials approximately 30000 doses of ROTAVAC® were administered to approximately 10000 infants. In the pooled analysis from all the clinical trials in which ROTAVAC® was co-administered with routine paediatric vaccines, the following adverse

reactions (collected 28 days post vaccination) like fever, diarrhea, vomiting, loss of appetite, irritability and cough were observed and considered as possibly related to ROTAVAC® or could be due to concomitantly administered vaccines.

List of adverse reactions

Adverse reactions reported are listed according to the following frequency:

Frequency is defined as:

| | |
|-------------|-----------------------|
| Very common | : (≥1/10) |
| Common | : (≥1/100, <1/10) |
| Uncommon | : (≥1/1000, <1/100) |
| Rare | : (≥1/10000, <1/1000) |

Clinical trial data

| | |
|-------------|---|
| Very common | : Fever, Diarrhea and Cough |
| Common | : Vomiting, irritability, Crying and Rash |
| Uncommon | : Loss of appetite/Refusal to feed |

4.9 Overdose

In the phase III trial, one subject received a double dose of ROTAVAC®. This subject was followed daily with home visits for 14 days and no adverse events were identified or reported.

5. PHARMACOLOGICAL PROPERTIES

Pharmaco-therapeutic group: rotavirus diarrhea vaccines.

5.1. Pharmacodynamic properties

Protective efficacy

5.1.1. Efficacy

Multi-centre clinical study was conducted in India to evaluate the efficacy of ROTAVAC® to prevent severe rotavirus gastroenteritis. Data for vaccine efficacy has been presented for the first year and second year of life. The results of these two analyses were similar, suggesting that the vaccine efficacy persists into second year of life.

Vaccine efficacy (VE) for severe non-vaccine RVGE was 57.2% [95% CI 38.9, 70.1] and 35.3 [95% CI 21.5, 46.6] for non-vaccine RVGE of any severity, during the first year of life. In the same study, the

VE against severe non-vaccine RVGE in the second year of life was 49% (95% CI 17.5, 68.4) and 35.0% [95% CI 19.1, 47.7) against non-vaccine RVGE of any severity.

Vaccine efficacy for severe non-vaccine RVGE 55.1 percent [95% CI 39.9, 66.4], Vaccine efficacy for non-vaccine RVGE any severity 36.4 percent [95 % CI 26.0, 45.3].

Non-vaccine RVGE requiring hospitalisation and of any cause

| Endpoints | n | | VE | CI | P-value |
|--|--------------------------------------|--------------------------------------|------|---------------|---------|
| | ROTAVAC® PP N= 4354 ITT N=4532 | Placebo PP N= 2187 ITT N= 2267 | | | |
| Severe non-vaccine RV GE | | | | | |
| PP | 57 | 65 | 56.3 | (36.7, 69.9) | <0.0001 |
| ITT | 61 | 71 | 57.2 | (38.9, 70.1) | <0.0001 |
| Non-vaccine RV GE of any severity | | | | | |
| PP | 228 | 172 | 35.0 | (20.2, 46.9) | <0.0001 |
| ITT | 251 | 192 | 35.3 | (21.5, 46.6) | <0.0001 |
| GE of any etiology and severity | | | | | |
| PP | 2065 | 1019 | -2.0 | (-10.0, 5.5) | 0.6277 |
| ITT | 2500 | 1287 | -2.0 | (-9.1, 4.7) | 0.5791 |
| Severe GE of any etiology | | | | | |
| PP | 223 | 147 | 24.5 | (6.3, 38.9) | 0.0104 |
| ITT | 271 | 172 | 21.5 | (4.4, 35.4) | 0.0161 |
| Non-vaccine RV GE of any severity requiring hospitalization or supervised rehydration therapy | | | | | |
| PP | 218 | 162 | 33.3 | (17.8, 45.8) | 0.0001 |
| ITT | 241 | 179 | 33.3 | (18.6, 45.2) | <0.0001 |
| Severe non-vaccine RV GE requiring hospitalization or supervised rehydration therapy | | | | | |
| PP | 57 | 65 | 56.3 | (36.7, 69.9) | <0.0001 |
| ITT | 61 | 71 | 57.2 | (38.9, 70.1) | <0.0001 |
| Severe GE of any etiology requiring hospitalization or supervised rehydration therapy | | | | | |
| PP | 222 | 146 | 24.3 | (6.0, 38.8) | 0.0113 |
| ITT | 270 | 171 | 21.3 | (4.1, 35.2) | 0.0173 |
| GE requiring hospitalization or supervised rehydration therapy regardless of etiology or severity | | | | | |
| PP | 1933 | 957 | -1.5 | (-9.8, 6.1) | 0.7208 |
| ITT | 2461 | 1225 | -1.6 | (-8.9, 5.2) | 0.6624 |
| Very Severe non-vaccine RV GE | | | | | |
| PP | 9 | 9 | 49.8 | (-42.8, 82.4) | 0.2178 |
| ITT | 9 | 11 | 50.0 | (-8.8, 85.0) | 0.0758 |
| Non-vaccine RV GE requiring hospitalization for >24 hr | | | | | |
| PP | 53 | 52 | 49.1 | (23.9, 65.9) | 0.0009 |
| ITT | 58 | 58 | 50.1 | (26.9, 65.9) | 0.0003 |
| Non-vaccine RV GE requiring hospitalization for >6 hr | | | | | |
| PP | 58 | 56 | 48.3 | (24.0, 64.8) | 0.0007 |
| ITT | 63 | 62 | 49.3 | (26.8, 64.9) | 0.0002 |
| Severe Non-vaccine RV GE requiring hospitalization for >24 hr | | | | | |
| PP | 44 | 47 | 53.2 | (27.9, 69.7) | 0.0005 |
| ITT | 48 | 52 | 53.9 | (30.4, 69.5) | 0.0002 |
| Severe Non-vaccine RV GE requiring hospitalization for >6 hr | | | | | |
| PP | 47 | 50 | 53.0 | (28.6, 69.2) | 0.0003 |
| ITT | 51 | 55 | 53.7 | (31.0, 69.0) | 0.0001 |

n = Number of subjects in the category. N = Total number of subjects in each treatment group. Severe GE Episode: Subjects with a Total Vesikari Score \geq 11. Very Severe GE Episode: Subjects with a Total Vesikari Score \geq 16. Non-vaccine RV GE Episode: all genotypes except G9P[11]; Per Protocol: Subjects who received all three doses of ROTAVAC®/Placebo within the prescribed windows and follow up period defined as the period starting on day 15 relative to dose 3; ITT: Subjects who received any number of doses of ROTAVAC®/Placebo regardless of the treatment group or timing of doses and follow up period defined as period starting after dose 1.

| Endpoints | n | | VE | CI | P-value |
|--|--------------------------------------|--------------------------------------|------|---------------|---------|
| | ROTAVAC® PP N= 4339 ITT N=4477 | Placebo PP N= 2177 ITT N= 2242 | | | |
| Severe non-vaccine RV GE | | | | | |
| PP | 38 | 37 | 48.9 | (17.4, 68.4) | 0.0056 |
| ITT | 38 | 37 | 49.0 | (17.5, 68.4) | 0.0055 |
| Non-vaccine RV GE of any severity | | | | | |
| PP | 194 | 150 | 36.2 | (20.5, 48.7) | <0.0001 |
| ITT | 198 | 150 | 35.0 | (19.1, 47.7) | 0.0001 |
| GE of any etiology and severity | | | | | |
| PP | 1657 | 797 | -6.7 | (-16.2, 2.0) | 0.1376 |
| ITT | 1680 | 803 | -7.3 | (-16.8, 1.4) | 0.1052 |
| Severe GE of any etiology | | | | | |
| PP | 157 | 88 | 10.9 | (-17.0, 31.8) | 0.4210 |
| ITT | 159 | 88 | 10.0 | (-18.2, 31.0) | 0.4679 |
| Non-vaccine RV GE of any severity requiring hospitalization or supervised rehydration therapy | | | | | |
| PP | 178 | 134 | 34.3 | (17.2, 47.8) | 0.0004 |
| ITT | 181 | 134 | 33.3 | (16.0, 46.9) | 0.0006 |
| Severe non-vaccine RV GE requiring hospitalization or supervised rehydration therapy | | | | | |
| PP | 37 | 37 | 50.2 | (19.3, 69.3) | 0.0042 |
| ITT | 37 | 37 | 50.3 | (19.5, 69.4) | 0.0041 |
| Severe GE of any etiology requiring hospitalization or supervised rehydration therapy | | | | | |
| PP | 154 | 88 | 12.7 | (-14.8, 33.2) | 0.3440 |
| ITT | 156 | 88 | 11.7 | (-16.0, 32.4) | 0.3862 |
| GE requiring hospitalization or supervised rehydration therapy regardless of etiology or severity | | | | | |
| PP | 1480 | 713 | -6.0 | (-16.1, 3.1) | 0.2060 |
| ITT | 1501 | 717 | -6.9 | (-17.0, 2.3) | 0.1476 |
| Very Severe non-vaccine RV GE | | | | | |
| PP | 3 | 5 | 70.1 | (-53.9, 95.4) | 0.1750 |
| ITT | 3 | 5 | 70.1 | (-53.6, 95.4) | 0.1740 |
| Non-vaccine RV GE requiring hospitalization for >24 hr | | | | | |
| PP | 29 | 25 | 42.2 | (-2.9, 67.3) | 0.0632 |
| ITT | 29 | 25 | 42.3 | (-2.7, 67.4) | 0.0622 |
| Non-vaccine RV GE requiring hospitalization for >6 hr | | | | | |
| PP | 36 | 28 | 35.9 | (-9.1, 62.0) | 0.1030 |
| ITT | 36 | 28 | 36.0 | (-8.8, 62.0) | 0.1022 |
| Severe Non-vaccine RV GE requiring hospitalization for >24 hr | | | | | |
| PP | 28 | 22 | 36.5 | (-16.4, 65.0) | 0.1488 |
| ITT | 28 | 22 | 36.6 | (-16.2, 65.0) | 0.1468 |
| Severe Non-vaccine RV GE requiring hospitalization for >6 hr | | | | | |
| PP | 32 | 25 | 36.2 | (-12.4, 63.3) | 0.1242 |
| ITT | 32 | 25 | 36.3 | (-12.1, 63.4) | 0.1224 |

n = Number of subjects in the category. N = Total number of subjects in each treatment group. Severe GE Episode: Subjects with a Total Vesikari Score ≥ 11 . Very Severe GE Episode: Subjects with a Total Vesikari Score ≥ 16 . Non-vaccine RV GE Episode: all genotypes except G9P[11]; Per Protocol: Subjects who received all three doses of ROTAVAC®/Placebo within the prescribed windows and follow up period defined as the period starting on 1 year of age; ITT: Subjects who received any number of doses of ROTAVAC®/Placebo regardless of the treatment group or timing of doses and follow up period defined as period starting after dose 1

Immune response

The immunogenicity of ROTAVAC® was assessed by serum anti-rotavirus IgA ELISA. In the phase Ib/IIa trial a serological response (≥ 4 -fold increase) was seen in 89.7% of ROTAVAC® 10^5 FFU compared to 28.1% of placebo recipients). In the phase III trial, the observed serological response rate after the third dose of ROTAVAC® was 40.3% in comparison to 18.4% in the placebo group.

Summary: In the phase III Efficacy clinical trial in infants, ROTAVAC®

- Is efficacious in the prevention of severe non-vaccine RVGE (primary end point)

- Is efficacious in the prevention of severe non-vaccine RVGE during the first year and second year of life.
- Is efficacious in the prevention of non-vaccine RVGE of any severity during the first and second year of life. Offers broad protection against the most commonly circulating RV genotypes in India.
- Reduced hospitalisations and supervised rehydration therapy due to severe GE of any aetiology.

Seroconversion was comparable in all 3 groups in the phase IV trial.

5.1.2. Phase III-EPI Non interference trial

In a phase III placebo controlled trial, lot to lot consistency was determined in 3 production lots as well non interference with EPI antigens in 1356 infants aged 6-7 weeks at enrollment.

In this clinical trial trivalent OPV (types 1,2 & 3) as well as Pentavalent (DTwP, Hep B and Hib) vaccine were administered concurrently with ROTAVAC® with buffer.

Fever, vomiting, diarrhea, cough, listlessness, runny nose, irritability and rash were the most commonly reported AEs. No vaccine related SAEs were reported. There was no case of intussusception was observed/reported in this trial.

Statistical clinical equivalence was established across all three production lots.

Three doses of ROTAVAC® can be safely administered with three doses of pentavalent vaccine and three doses of OPV without diminishing the antibody response of to each component of these vaccines. It is well tolerated when administered with routine childhood vaccines. There was no statistical difference in rotavirus serum IgA seroconversion and GMTs amongst the three lots

5.1.3. Phase IV clinical trial

In Phase IV open label comparator study ROTAVAC® vaccine was compared with ROTARIX vaccine in infants aged 6-8 weeks. The GMT was found to be similar at Pre and post time points in both the groups. ROTAVAC® is non-inferior to ROTARIX®, therefore based on all the NI calculations ROTAVAC® is as effective as ROTARIX® even with two doses.

In this clinical trial OPV and Pentavalent vaccines were administered concomitantly. There was no significant difference in immediate or follow up adverse events between the groups. Fever,

diarrhea, vomiting, cough, cold and irritability were the most commonly reported adverse events.

The distribution of adverse events was equal amongst all three treatment groups.

No vaccine related SAEs were observed/reported.

There was one death reported in the phase IV trial unrelated to vaccine administration.

No cases of intussusception were reported in the phase IV trial

Serum samples were analysed on day 0 and 84 pre and post vaccination to check for number of subjects who had titres less than 20 and ≥ 20 . As per seroconversion definition, for rotavirus specific IgA, titres of ≥ 20 are considered to be seroconverted.

In this clinical trial there is no statistically significant difference among the three groups for the following parameters:

- seroconversion
- geometric mean titres
- 4fold seroconversion

5.2. Pharmacokinetic properties

Evaluation of pharmacokinetic properties is not required for vaccines.

5.3. Pre-clinical safety data

A 28 day repeated dose non-clinical toxicity study on oral rotavirus candidate vaccine 116E live strain was carried out in rats and rabbits. The non-clinical toxicity studies with formulations containing virus titre higher than that in single human dose proved that the Rota virus 116E live candidate vaccine is safe and induced no toxicity in rats and rabbits.

6. PHARMACEUTICAL PARTICULARS

6.1. List of Excipients

Sucrose

Monopotassium Glutamate

Potassium phosphate monobasic

Dibasic potassium phosphate

Neomycin Sulfate
Kanamycin Sulfate
Combination DMEM Low Glucose with L-Glutamine without sodium bicarbonate with sodium pyruvate
Water for Injection

6.2. Incompatibilities

This product should not be mixed with any other medicinal products/active immunizing agents.

6.3. Storage of ROTAVAC®

The expiry date of the vaccine is indicated on the label and packaging.

The Vaccine should be stored at -20 °C. It can be stored for up to six months between 2-8 °C.

ROTAVAC® can be subjected to 6 freeze- thaw cycles.

The Vaccine should be used within 28 days after opening.

It is absolutely critical to ensure that the storage conditions specified above are complied with.

Bharat Biotech assumes no liability in the event of ROTAVAC® has not been stored in compliance with the storage instructions.

7. Presentation

ROTAVAC® is presented in USP type I glass vials.

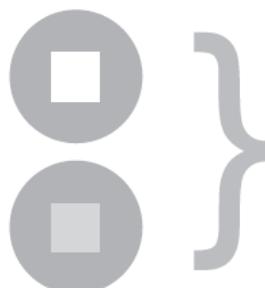
Box, 1 vial @ 0.5 mL (1 dose) + 1 Dropper

Box, 25 vial @ 2.5 mL (5 doses) + Box, 25 Dropper

Box, 30 vial @ 5 mL (10 doses) + Box, 30 Dropper

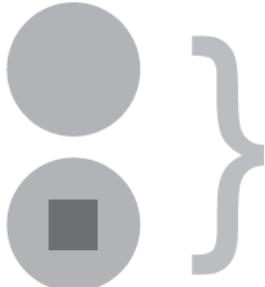
8. The Vaccine Vial Monitor2

ROTAVAC® can be used as long as :



Square is lighter than the circle.
USE the vaccine if Expiry date has not passed.

ROTAVAC® must be discarded if :



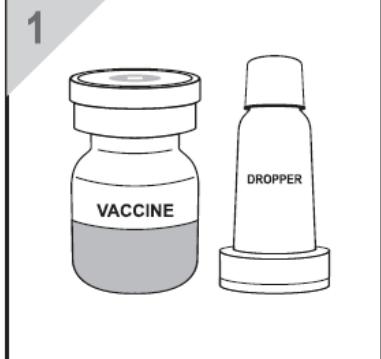
Square is of the same colour or darker than the circle.
DO NOT USE the vaccine. Inform your supervisor.

Vaccine Vial Monitor2 (VVM2) dot is on the label of the ROTAVAC® vials supplied through Bharat Biotech. This is a time -temperature sensitive dot that provides an indication of the cumulative heat to which the vial has been exposed. It warns the end user when exposure to heat is likely to have degraded the vaccine beyond an acceptable level.

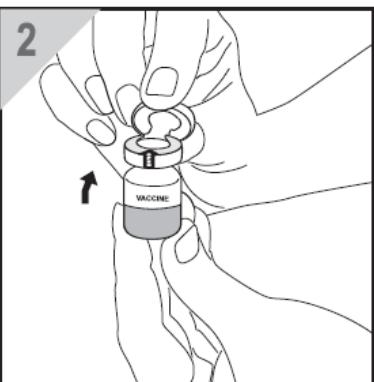
The interpretation of VVM2 is simple. Focus on the central square. Its colour will change progressively. As long as the colour of this square is lighter than the colour of the ring, the vaccine can be used. As soon as the colour of the central square is the same colour as the ring or of a darker colour than the ring, the vial should be discarded.

9. Administration of ROTAVAC® Vaccine

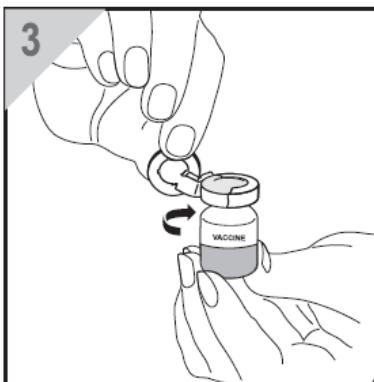
ROTAVAC® Vaccine



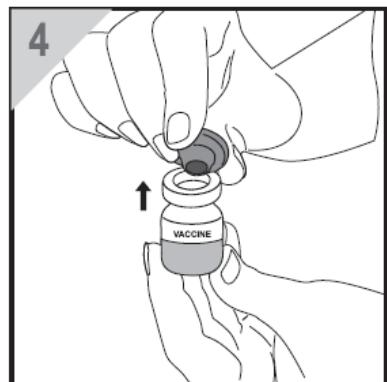
Vaccine vial & dropper (s)



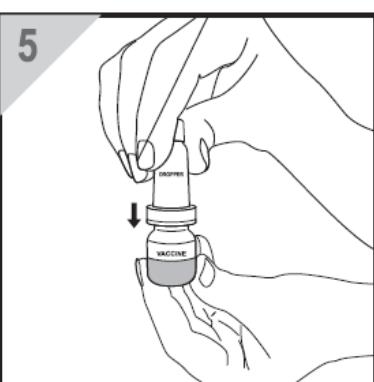
Pull out the aluminum seal along the indicated mark



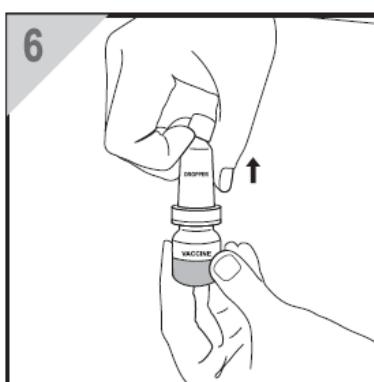
Tear off as shown to remove aluminum seal



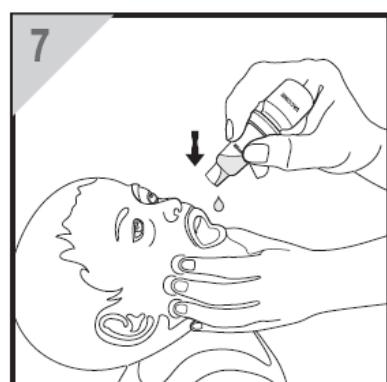
Pull out the rubber stopper



Connect the dropper firmly to the vial



Open the dropper tip



Keep dropper at 45° angle
Administer 5 drops into the mouth of the baby

Manufactured by

Bharat Biotech International Ltd.,

Genome Valley, Shameerpet Mandal,

Medchal District - 500 078 Telangana, India.

e-mail : feedback@bharatbiotech.com www.bharatbiotech.com

Imported by

PT Bio Farma (Persero)

Jl. Pasteur no. 28, Bandung 40161,
Indonesia

Reg. No.:

HARUS DENGAN RESEP DOKTER



INFORMASI PRODUK UNTUK PASIEN

VAKSIN ROTAVIRUS (HIDUP, ORAL) BP

ROTAVAC®

DESKRIPSI

Vaksin Rotavirus (Hidup, Oral) adalah vaksin monovalen yang mengandung suspensi dari rotavirus 116E hidup yang dilemahkan.

BENTUK SEDIAAN DAN PEMERIAN

ROTAVAC® merupakan sediaan cair dalam bentuk beku.

Dalam bentuk beku, vaksin ini umumnya berwarna merah muda dan terkadang berubah warna menjadi oranye (atau kuning muda). Perubahan warna tersebut tidak mempengaruhi kualitas vaksin.

KOMPOSISI

Tiap 0,5ml (5 tetes) berisi :

| | |
|--|----------------------------------|
| Human Rotavirus Hidup Dilemahkan (116E Strain) | Tidak kurang dari $10^{5.0}$ FFU |
| Sukrosa | 37.31 mg |
| Monokalium glutamat | 1.0 mg |
| Kalium fosfat monobasa | 0.258 mg |
| Kalium fosfat dibasa | 0.625 mg |
| Neomisin sulfat | 15 μ g |
| Kanamisin sulfat | 15 μ g |
| Kombinasi DMEM glukosa rendah dengan L-Glutamine tanpa | 4.487 mg |
| Natrium bikarbonat dengan natrium piruvat | |
| Air untuk injeksi | q.s. sampai volume |

Kisaran pH : 7.2 – 8.0

INDIKASI

ROTAVAC® merupakan vaksin yang digunakan untuk mencegah radang usus (gastroenteritis) karena rotavirus. ROTAVAC® diberikan pada bayi usia 6 minggu.

POSOLOGI DAN CARA PEMBERIAN

ROTAVAC® diberikan secara oral (diteteskan ke mulut) sebanyak 3 kali pemberian dengan jarak 4 minggu, dimulai pada usia bayi 6 minggu.

ROTAVAC® dapat diberikan bersamaan dengan imunisasi rutin anak lainnya (Difteri, Tetanus, dan Pertussis [DTwP], Haemophilus Influenzae Tipe B, vaksin Hepatitis B, dan vaksin Polio Oral [OPV]).

Pemberian pertama ROTAVAC® selambat-lambatnya pada usia 9 minggu, dan pemberian ketiga selambat-lambatnya pada usia 8 bulan (34 minggu).

ROTAVAC® hanya untuk diteteskan ke mulut dan TIDAK BOLEH DISUNTIKKAN.

KONTRAINDIKASI

Alergi terhadap vaksin atau komponennya, gangguan kekebalan tubuh yang parah, kelainan pada usus yang disebut intususepsi.

PERINGATAN DAN PERHATIAN

Pemberian ROTAVAC® dapat dipertimbangkan dengan hati-hati pada bayi dengan gangguan sistem imun dan bayi yang kontak dekat dengan penderita defisiensi imun, apabila menurut pendapat dokter, menangguhkan vaksin akan memiliki risiko yang lebih besar. Sama halnya dengan infeksi akut atau penyakit demam mungkin menjadi alasan untuk menunda pemberian ROTAVAC®, kecuali menurut pendapat dokter, menangguhkan vaksin akan memiliki risiko yang lebih besar. Demam ringan dan infeksi saluran pernapasan atas ringan bukan merupakan kontraindikasi dari ROTAVAC®.

Sama seperti vaksin lainnya, vaksinasi dengan ROTAVAC® mungkin tidak memberikan perlindungan penuh terhadap gastroenteritis yang diinduksi rotavirus atau gastroenteritis karena patogen lainnya.

INTERAKSI OBAT

ROTAVAC® dapat diberikan bersama dengan vaksinasi rutin anak seperti Difteri, Tetanus, dan Pertussis [DTwP], Haemophilus Influenzae Tipe B, vaksin Hepatitis B, dan vaksin Polio Oral [OPV]).

KEHAMILAN DAN MENYUSUI

ROTAVAC® merupakan vaksin untuk bayi dan tidak boleh diberikan kepada orang dewasa termasuk wanita hamil. Tidak terdapat bukti yang menunjukkan bahwa menyusui dapat mengurangi perlindungan terhadap gastroenteritis rotavirus yang diberikan oleh ROTAVAC®. Tidak terdapat batasan konsumsi air minum bayi termasuk ASI, baik sebelum maupun sesudah vaksinasi dengan ROTAVAC®

EFEK SAMPING

| | |
|-------------|---|
| Sangat umum | : Demam, diare, dan batuk |
| Umum | : Muntah, iritabilitas, menangis, dan ruam |
| Tidak umum | : Kehilangan nafsu makan/ menolak untuk makan |

Bayi prematur dan bayi yang terinfeksi *Human Immunodeficiensy Virus (HIV)*

Uji klinis tidak dilakukan pada populasi ini dan data tidak tersedia.

PENYIMPANAN

ROTAVAC® harus disimpan pada suhu -20°C. Vaksin ini dapat disimpan hingga enam bulan pada suhu 2 hingga 8°C.

ROTAVAC® dapat mengalami 6 siklus beku-cair.

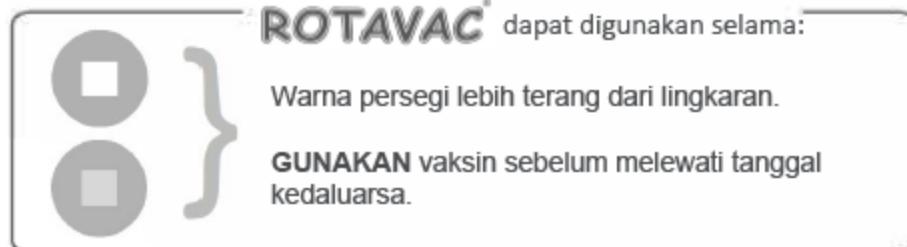
Vaksin harus digunakan dalam waktu 6 jam setelah dibuka.

KEMASAN

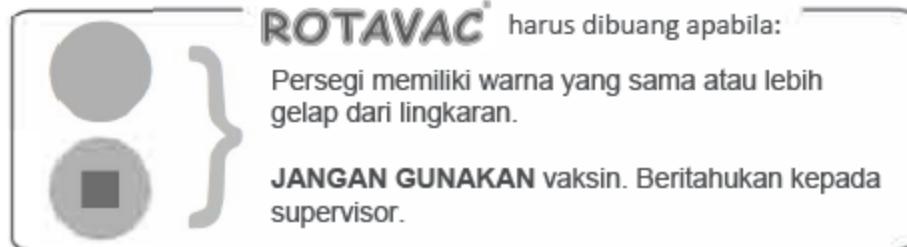
Dus, 1 vial @ 0,5 mL (1 dosis) + 1 Dropper

Dus, 25 vial @ 2,5 mL (5 dosis) + Dus, 25 Dropper

Dus, 30 vial @ 5 mL (10 dosis) + Dus, 30 Dropper



GUNAKAN vaksin sebelum melewati tanggal kedaluarsa.



JANGAN GUNAKAN vaksin. Beritahukan kepada supervisor.

Diproduksi oleh :

Bharat Biotech International Ltd.
Genome Balley, Shameerpet Mandal,
Medchal District – 500 078
Telangana, India
Website : www.bharatbiotech.com

Diimpor oleh :

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