Rotavirus vaccine introduction - A historic moment in India’s Universal Immunization Programme

On 26th March 2016, India became the first country in Asia to launch indigenous Rotavirus vaccine in the Universal Immunization Program (UIP). Ministry of Health and Family welfare (MoHFW), Government of India introduced Rotavirus vaccine in 4 states (Haryana, Himachal Pradesh, Odisha and Andhra Pradesh) of the country in phase-I in 2016 as part of country’s Universal Immunization Programme. In phase-II, MOHFW has expanded the vaccine in 5 more states (Assam, Rajasthan, Madhya Pradesh, Tamil Nadu and Tripura) and it is planned to further expand the vaccine in Uttar Pradesh in phase-III.

Rotavirus vaccines should be included in all national immunization programmes and considered a priority, particularly in countries with high Rotavirus Gastroenteritis (RVGE)-associated fatality rates, such as in south and south-eastern Asia and sub-Saharan Africa’
WHO Position paper, 2013

April 2016 to May 2017
6 million doses
Only 1 intussusception case reported
Vaccine introduced in 9 states

PHASE 1 States
~9% of Annual Birth Cohort

PHASE 2 States
~22% of Annual Birth Cohort

PHASE 3 States
~22% of Annual Birth Cohort
Rotavirus Vaccine Phase-II Introduction

STRATEGY

- **Trainings**

Operational guidelines, frequently asked questions (FAQs) for Medical Officers and Health workers and Pamphlets for mobilizers were updated, translated in regional language and printed. National and State training workshops were done which were followed by district and block level trainings in a cascade manner.

**Training Status**

<table>
<thead>
<tr>
<th>Medical Officers</th>
<th>ANMs</th>
<th>ASHAs</th>
</tr>
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<tbody>
<tr>
<td>6200</td>
<td>46500</td>
<td>85000</td>
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</table>

<table>
<thead>
<tr>
<th>AWWs</th>
<th>Cold Chain Handlers</th>
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<tr>
<td>109000</td>
<td>3000</td>
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- **Cold Chain & Vaccine Management**

Cold chain assessment completed for 3775 cold chain points in four states (except Tamil Nadu) in Jan-Feb 2017. Data from NCCMIS and Electronic Vaccine Intelligence Network (eVIN) was triangulated to get a comprehensive picture of cold chain status in three states only (Assam, Rajasthan and Madhya Pradesh). District/Block vaccine distribution plan were prepared to ensure every session site has at least one vial of RVV.

- **Adverse Events Following Immunization (AEFI)**

District preparedness on AEFI was assessed
before introducing Rotavirus vaccine. This allowed strengthening of existing AEFI surveillance system and training of State and District AEFI committee on RVV. Standardized case definition for intussusception was developed and shared during the training workshops and AEFI committee meetings.

• **Communication**

Posters, banners, leaflets and info kits for RVV introduction were developed. District communication plans developed and media workshops done at state and district levels. Extensive coverage done by media to generate awareness on RVV among the community. Social media platforms like Twitter, Facebook and WhatsApp were also engaged actively.

• **Recording & Reporting**

Revision of recording and reporting formats (Due list, tally sheet, MCP cards, Stock registers etc.) with inclusion of Rotavirus vaccine was done at each level.

<table>
<thead>
<tr>
<th>State for Phase II RVV Introduction</th>
<th>Launch Date</th>
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<tbody>
<tr>
<td>Tripura</td>
<td>18th February 2017</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>23rd March 2017</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>2nd April 2017</td>
</tr>
<tr>
<td>Assam</td>
<td>14th June 2017</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>7th July 2017 (planned)</td>
</tr>
</tbody>
</table>

Rotavirus vaccine expanded in 5 more states in phase-II by Hon’ble Minister of Health, Government of India, Shri JP Nadda

<table>
<thead>
<tr>
<th>Districts &gt; 80% RVV1 coverage</th>
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<tbody>
<tr>
<td>Bhopal (MP)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Districts &lt; 10% drop outs</th>
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<tbody>
<tr>
<td>Hanumangarh &amp; Sikar (RAJ.)</td>
</tr>
</tbody>
</table>

% Annualized Coverage of Phase 2 States till 31st May 2017

![Graph showing annualized coverage]
Unleashing the power of Health workers towards immunization

After the introduction of Rotavirus vaccine in the district, I am not only maintaining the vaccine stock but also the droppers stock separately for Rotavirus vaccine to ensure there is no mismatch between vials and droppers and the vaccine is available at each session site along with dropper.

Rekha Khatik, working as ANM in district Bhilwara of Rajasthan expressed that she is getting full acceptance from the field for Rotavirus vaccine.

“Diarrhoea is a very common and a known disease among the community and everyone wants to protect their children from diarrhea. This has made my task easy to communicate the message for this new vaccine. There is also a significant increase in demand for the other RI vaccines because of Rotavirus vaccine introduction” said Rekha.

Insight from Programme leaders

Dr. SK Garg has a long and storied history of working in the health sector in Rajasthan. He is currently State Immunization Officer, Rajasthan which is the largest state of the country. He has a vast experience in the field of immunization and has contributed immensely in introduction of new vaccines in the state like Pentavalent vaccine, Inactivated Polio Vaccine (IPV) and recently introduced Rotavirus vaccine. The experience of Rotavirus vaccine introduction has been quite enriching for him and he is hopeful, Rotavirus vaccine will reduce under-5 mortality and will also increase demand generation of immunization services among the community.

We travel along road to success throughout our lives by overcoming barriers. Similarly Rotavirus vaccine introduction also became a success story by overcoming various barriers like trainings, AEFI strengthening, cold chain space availability etc. It could not have been possible without strong coordination between government and development partners.

Jagdish Chandra Prajapat has been working as a cold chain handler in Shegao block in Khargaon district of Madhya Pradesh for seven years. His primary responsibility is managing the cold chain and vaccine logistics management of the block. Additionally, he also has the responsibility of supervising the immunization programme at the field and makes sure that he visits all immunization session sites every month. He also has a lot of documentation work related to vaccine and logistics stock maintenance which compels him to work in many odd hours and holidays. However, this does not prevent him in giving his best and ensure that all UIP guidelines and policies are implemented on the field.
Paediatrician’s view

Hospitalization or death due to severe Rotaviral diarrhea contributes huge amount of disease burden in India and is also a major contributor of under 5 mortality rate. Rotavirus diarrhea is also difficult to diagnose & expensive laboratory investigations are required for prompt diagnosis.

Most important and specific tool for prevention is Rotavirus vaccine. I congratulate the government for introducing Rotavirus vaccine free of cost for general public especially poor, underserved and marginalized population. It would definitely help to reduce severe Rotavirus diarrheal deaths & hospitalizations in the country. It is a great initiative by Government of India.

Dr. Himanshu Kelkar is a Senior Paediatrician at Medanta Hospital, Indore.

FIELD INNOVATIONS

Use of ‘RVV stickers’ in Rajasthan

Introduction of RVV meant that the old MCP cards needed to be updated to record RVV vaccination as well as to remind the parents for the next date of vaccination.

Due to adequate availability of old MCP cards and in order to prevent their wastage, Rajasthan has made an innovative arrangement in the form of stickers for recording Rotavirus vaccine administration details in existing MCP cards. The stickers have been printed using NHM funds and distributed till each sub centre for use till the new MCP cards are printed by the state.

Training resource material developed for Integrated Management of diarrhea in Tamil Nadu

A comprehensive training module in vernacular language (Tamil) was prepared for health workers and medical officers to build their capacity for diarrhea prevention and control by Tamil Nadu government. In addition to Rotavirus vaccine, this module also details about the multi-pronged strategy of prevention and control of diarrhea such as Intensified Diarrhea Control Fortnight (IDCF)-promotion of use of ORS and Zinc, Mothers Absolute Affection (MAA) – for promotion of exclusive breastfeeding, Swachh Bharat Abhiyan, use of safe water and Vitamin A supplementation. This innovation is a significant step in advocating and generating demand for Rotavirus vaccination among the community and at the same time focusing on existing measures already in place to improve the sanitation, hygiene and overall growth and development of the children.

Rota quick facts

Do you know?

- ✔️ 92 countries have introduced Rotavirus vaccines in their immunization programme.
- ✔️ Rotaviral diarrhea is most common in infants and young children, but adults and older children can also become infected with Rotavirus.
- ✔️ People can spread the virus both before and after they become sick.
Mind Power Games

Immuzzle: Crossword

Complete this crossword puzzle to refresh your knowledge about UIP.

ACROSS
3 Test used to check for frozen vaccine vials of Pentavalent/DPT
6 Number of drops of Rotavirus vaccine in each dose
8 Name of the mission for improving immunization coverage in the most high priority districts and block in India
12 Color of Dropper of Rotavirus vaccine vial
13 Route of administration of RVV
15 Number of doses of Rotavirus vaccine in UIP schedule
16 Should be given in all cases of diarrhoea to prevent dehydration
17 First dose of Rotavirus vaccine to be given at _ weeks

DOWN
1 Maximum age in months up to which RVV can be started as per UIP schedule
2 Family of viruses to which Rotavirus belongs to
4 Ice packs need to be checked for this before placing them in the vaccine carrier
5 Number of hours after which the vaccines not following Open vial Policy are not to be used
7 Used to indicate effect of temperature with time on a vaccine
9 Most common cause of diarrhoea in infants
10 Most freeze sensitive vaccine used under UIP
11 Number of doses of RVV in each RVV vial
14 Bag used for disposing used syringes at an immunization session

Answers:-
Please scan the QR Code

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