ISSN 2175-5361 DOI: 10.9789/2175-5361.2013v5n2p3717

RESEARCH

SCENARIO ORAL ROTAVIRUS VACCINE IN HUMAN PERIPHERAL REGION OF RIO DE JANEIRO

CENÁRIO DA VACINA ORAL DE ROTAVÍRUS HUMANO EM REGIÃO PERIFÉRICA DO RIO DE JANEIRO

ESCENARIO DE LA VACUNA ORAL CONTRA EL ROTAVIRUS HUMANA EN LA REGIÓN PERIFÉRICA DE RÍO DE JANEIRO

Viviane da Silva Magalhães[1], Inês Maria Meneses dos Santos[2], Isis Vanessa Nazareth[3], Maria Aparecida de Luca Nascimento[4], Maria Elisa Badolati[5]

ABSTRACT

Objective: To evaluate the coverage of oral Rotavirus vaccine in human infants between January 2006 and December 2009. **Method:** Documentary and descriptive study with quantitative approach. Data were collected through the records of the book mirrors the childhood immunization. The Ethics Committee in Research of SMS-RJ approved research on CAAE Nº 0015.0.314.000-10. **Results:** The highest rate of coverage was in 2006 (83,2%) compared to other years. In 2007 it was found that 125 (10,6%) of the book mirrors vaccination not included notes on the human rotavirus oral vaccine, only 120 (9,9%) children were the first dose in 2008, those who underwent the two doses between the years 2006 to 2009 totaled 3833 (80,6%). **Conclusion:** The challenge of ensuring 100% immunization coverage for the pediatric population requires everyone involved in this process an intersectoral commitment. **Descriptores:** Child health, Vaccination, Rotavirus vaccine.

RESUMO

Objetivo: Avaliar a cobertura da vacina oral do Rotavírus humano em lactentes entre janeiro de 2006 a dezembro de 2009. **Método:** Estudo documental e descritivo com abordagem quantitativa. Os dados foram coletados através das fichas espelhos da caderneta de vacinação infantil. O Comitê de Ética em Pesquisa da SMS-RJ aprovou a pesquisa sobre CAAE nº 0015.0.314.000-10. **Resultados:** O maior índice de cobertura vacinal foi em 2006 (83,2%) em relação aos outros anos. Em 2007 constata-se que 125 (10,6%) espelhos da caderneta de vacinação não constavam anotações sobre a vacina oral do Rotavírus humano; somente 120 (9,9%) crianças realizaram a primeira dose em 2008; as que realizaram as duas doses entre os anos de 2006 a 2009 somaram 3.833 (80,6%). **Conclusão:** O desafio de garantir cobertura vacinal de 100% para a população infantil requer de todos os envolvidos nesse processo um empenho intersetorial. **Descritores:** Saúde da criança, Vacinação, Vacinas contra Rotavírus.

RESUMEN

Objetivo: Evaluar la cobertura de la vacuna oral contra el rotavirus en los bebés humanos entre enero de 2006 y diciembre de 2009. **Método:** Estudio descriptivo y documental con enfoque cuantitativo. Los datos fueron recolectados a través de los registros del libro refleja la inmunización en la infancia. El Comité de Ética en Investigación de la investigación de SMS-RJ aprobado el CAAE Nº 0015.0.314.000-10. **Resultados:** La mayor tasa de cobertura fue en 2006 (83,2%) en comparación con otros años. En 2007 se encontró que 125 (10,6%) del libro refleja la vacunación no notas incluidas en la vacuna oral contra el rotavirus humano, sólo 120 (9,9%) eran niños de la primera dosis en el año 2008, quienes se sometieron a los dos dosis entre los años 2006 a 2009 ascendieron a 3.833 (80,6%). **Conclusión:** El reto de garantizar 100% la cobertura de vacunación para la población pediátrica requiere de todos los involucrados en este proceso un compromiso intersectorial. **Descriptores:** Salud del niño, Vaccination, Vacunas contra Rotavirus.

[1]Nurse. Resident Fernandes Figueira Institute / FIOCRUZ. E-mail: virisadinha@hotmail.com. [2]Nurse. PhD in Nursing. Professor, Department of Maternal-Child Nursing, Federal University of the State of Rio de Janeiro / Unirio. E-mail: inesmeneses@gmail.com. [3]Nurse. Graduate Course Master in Nursing, Federal University of the State of Rio de Janeiro / Unirio. CAPES Scholarship. E-mail: isisenfermagem@yahoo.com.br.[4]Nurse. PhD in Nursing. Associate Professor, Department of Maternal-Child Nursing, School of Nursing Alfredo Pinto. Professor of the Graduate Program Masters in Nursing; Doctorate in Nursing and Life Sciences, Federal University of the State of Rio de Janeiro. E-mail: gemeas@centroin.com.br.[5]Nurse. Master of Nursing. Specialist in Health Law, Nursing Labour and Member of the Research and Experimentation in Studies on the Health of Women and Children (NuPEEMC). Coordinating Unit and Epidemiological Surveillance Supervisor, Pre-Natal Municipality of Miguel Pereira. E-mail: elisa.farma@hotmail.com.

INTRODUCTION

The theme for rotavirus immunization is justified by its relevance for public health, and to be a significant field of nursing work scope for the National Immunization Program. The interest arises because it is a disease easily transmitted disease that affects mainly children aged 6 months to 2 years, resulting in high rates of hospitalization and mortality. [1]

Given that viral gastroenteritis caused by rotavirus affects people in good and bad sanitary conditions, regardless of social differences, some studies show that rotavirus is the most common cause of severe acute diarrhea in children in developed and developing countries. About 125 million episodes of diarrhea Rotavirus occur globally each year, resulting in 500,000 to 600,000 deaths. Epidemiological surveys worldwide observed the incidence of 12 to 71% (average 34%) identification of rotavirus in children under three years of age with acute diarrhea. [2-3]

In Brazil, observing the record of diarrhea in 2004 were reported to the Ministry of Health 2,395,485 cases whose sampling by region of origin, totaled: 321,141 in the north; 995,055 in the Northeast; 212,328 in the South, Southeast and 586,191 279,770 in the Midwest - were investigated 76.3% of reported outbreaks. [2]

Thus, it confirms the need for infant immunization coverage for this condition, in order to protect against moderate and severe cases, prevent deaths, reduce morbidity, and mitigate the severity and decrease the number of hospitalizations. Spending in Brazil with hospitalizations for this condition totaled R $ 173.245.567.85 in the period from 1995 to 2004. [2,4]

Given this perspective it is important to not only epidemiological importance of this disease in the world scene, but also the nascent productions of studies that address this issue on the national scene.

Shows up well, the importance of this research in terms of their contribution to teaching and research, fostering discussions about the strategic actions within this epidemiological profile.

Objective: to evaluate the coverage of oral human rotavirus in infants from January 2006 to December 2009 in a healthcare center in the city of Rio de Janeiro.

METHODOLOGY

This is a documentary research and descriptive quantitative approach, performed by collecting data from the records of enrollment of children vaccinated in a Municipal Health Center (MHC), located in the northern part of the municipality of Rio de Janeiro, between January 2006 and December 2009.

It was asked to approve that CMS subsequently submitted and approved by the Ethics in Research of SMS-RJ CAAE No 0015.0.314.000-10. Only after the assent is that began the stage of data collection that took place in April and May 2010, in compliance with Resolution 196/96 of the National Health.

The time frame from January 2006 due to the fact that immunization records to the CMS VORH this period, but the date of inclusion to the Brazilian vaccination schedule is March 2006.

RESULTS AND DISCUSSION

Table I: Vaccine situation for Rotavirus per year

Year/	2006		2007		2008		2009		TOTAL	
Vaccine situation Rotavirus	*fi*	*f%*	*fi*	*f%*	*fi*	*f%*	*fi*	*f%*	*fi*	*f%*
Complete (2 dosis)	969	83,2	954	80,6	942	77,6	968	81,1	3833	80,6
Incomplete (1 dosis)	88	7,6	63	5,3	120	9,9	108	9,1	379	8,0
Non constated	62	5,3	125	10,6	83	6,8	28	2,3	289	6,2
Abandon CMS	46	3,9	42	3,5	69	5,7	89	7,5	255	5,2
TOTAL	1165	100	1184	100	1214	100	1193	100	4756	100

Source: Records of vaccination of a CMS in RJ, collected in 2010.

Through the data shows that in the year 2006 from the 1165 book mirrors the childhood vaccination observed, there was an 83.2% coverage of immunization for VORH. It is considered complete vaccination status those children who took the first dose between 1 month and 15 days and 3 months and 7 days old, with the second dose at 4 months of age or considering minimum age at 3 months and 7 days and maximum at 5 months and 15 days.

One relevant fact is that in 2007 the 1184 book mirrors the childhood immunization surveyed, 125 children, or 10.6% had no records on VORH.

It is also important to note that in 2008, when analyzing the book mirrors the vaccination of children, it was found that children of 1214, approximately 10% had incomplete immunization for the VORH.

In 2009 it was noted that the 1193 documents analyzed, 89 (7.5%) of children abandoned in monitoring CMS.

Over the four years analyzed, 3.833 million children between 6 and 24 weeks of age received two doses of the vaccine, which corresponds to a coverage of only 80.6% of the target population.

In 2006 it was observed that 83.2% of the chips mirrors the booklet contained vaccinating children vaccination schedule full of VORH held in two doses. The relevance of this finding to the detriment of the decline in other years (2007 to 2009) may have occurred because the year 2006 has been the year of the effective implementation of the vaccine in Brazil and its inclusion in the calendar of the National Immunization Program. Thus, in order to consolidate this action with families in the same year there was enough publicity about the vaccine into the national grid, the Ministry of Health, and health professionals, including nurses, were encouraged to base their promotion and education in health and in encouraging awareness of the importance of immunization coverage for VORH within their community, which probably has not happened in the following years. [5]

It is important to notice that there is time for the administration of VORH and treat carelessly basic calendar of vaccinating children can cause various types of damage that can be reversed in serious public health problems, which increases the risk of both children and the families to acquire vaccine-preventable diseases, making real the risk of epidemics arise in community. [6]

It was found through this study that in 2007 a large demand for chips mirrors the booklet vaccination of children (10.6%) contained nothing about VORH. The relevance of this data requires interdisciplinary team a close eye on this issue with performing activities which are a cornerstone in the construction of knowledge in the community, because it is understood that, for the most part, the lack of clarification and fears about vaccination actions arise as a hindrance to develop a good vaccine coverage in the community, knowing that some portion of the population continues to believe that the vaccine, instead of providing protection, offers risk. [7]

It is not easy to change that is rooted decades ago, but it is necessary to carry out a serious work of public awareness. This should start with families, demonstrating the importance and necessity of immunization, and work directly with the primary professional nursing. [8]

A fact of great relevance shown in 2008 is that approximately 10% of the documents were analyzed with incomplete immunization. Data available in the same year, the Situation Room of the Ministry of Health show that 47,223 deaths occurred due to infectious and parasitic diseases in our population. Of this total, 3,737 passed from diarrhea and gastroenteritis of presumed infectious origin and 1128 of diarrhea in children

under 5 years. It is estimated that 40% of deaths from diarrheal disease in children under five are due to rotavirus, which still represents an alarming that need effective strategies to combat neglect and abandonment of schedule recommended by the National Immunization Program. [9-10]

Studies indicate that the justification presented by mothers for not having met the vaccination schedule for their children may help elucidate problems encountered in the practice of immunization. One of the reasons most frequently mentioned was the fact of the child being sick (showing flu, diarrhea) at the time scheduled for vaccination. Given that children under one year have constantly cooled and liquid stools, should seek to know the exact orientation that is being given to mothers by health services. One point for investigation is whether the orientation of not vaccinating a child because she was sick of the health services or a social community itself. Anyway, this question should be crafted in population since studies in children and malnourished patients, to evaluate the benefits and risks of immunizations resulted in directions favorable to the application of vaccines. [8,11]

It is important to note that 7.5% of children who were following the immunization schedule in the CMS study abandoned the site in 2009. This does not mean that the child is not being followed in relation to its vaccination schedule in another health facility public or private, but it is imperative the role of healthcare professionals in dialogue with these users in termination or changing situations health centers, regardless of the reason. Moreover, this professional is the guy responsible for consolidating the links community-health unit. [12]

In the present study, despite the undoubted importance the VORH have in preventing disease, many children had delayed vaccine schedule and most do not have access to this vaccine due own time factor as a constraint. Inside this issue is important to take into account the difficulties of families to have access to health services. It is common understanding that is simply providing health services to concurrently access the same happens as a result. However, this does not always occur, since access to these services in Brazil are strongly linked to geographic and economic problems, the latter does not mean only natural topographical difficulties as the distance between home and the place where health services are provided, add here the supply of transport, in their various options and times, as well as costs and travel time. [13]

Thus, it is clear that the challenge of ensuring a coverage of 100% for the pediatric population is still in effect and requires all those involved in this process an intersectoral commitment towards it.[14]

CONCLUSION

Considering the above, the challenge of ensuring coverage for 100% of the child population is still in effect and requires all those involved in this process an intersectoral commitment towards it. This problem requires the multidisciplinary team, especially the nurses, a link with the population in order to enable the knowledge of the local cultural context, values and beliefs that interfere with the achievement of the vaccine, and from this fact, play in educational health by encouraging adherence to immunization and consequently improving the quality of life of children. [15]

Moreover, in most cases, at the level of primary care, the nurse is responsible for the operation of the National Immunization Program in your community and health unit, which reinforces the need for this work to develop a new look, attentive and qualified on the theme, becoming aware of the creation of strategies that involve

the immunization process and thus cooperating to reduce morbidity and mortality due to rotavirus infection.

REFERENCES

1. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Vigilância Epidemiológica. Doença diarréica por Rotavírus: vigilância epidemiológica e prevenção pela vacina oral de Rotavírus humano – VORH. Brasília: Ministério da Saúde; 2006.

2. Salvador PTCO, Almeida TJ, Alves KYA, Dantas CN. A rotavirose e a vacina oral de Rotavírus humano no cenário brasileiro: revisão integrativa da literatura. Ciênc saúde coletiva [periódico na Internet]. 2011 jun [acesso em 2012 aug 01];16(2):[aproximadamente 3 p.]. Disponível em: http://www.scielosp.org/pdf/csc/v16n2/v16n2a20.pdf

3. Bricks LF. Rotavírus: atualização sobre doenças e vacinas. Pediatria (São Paulo) [periódico na Internet]. 2005 mar [acesso em 2010 feb 20];27(4):[aproximadamente 8 p.]. Disponível em: http://www.pediatriasaopaulo.usp.br/upload/pdf/1146.pdf

4. Linhares AC. Epidemiologia das infecções por rotavírus no Brasil e os desafios para o seu controle. Cad saúde pública [periódico na Internet]. 2000 july-sept [acesso em 2012 apr 04];16(3):[aproximadamente 17 p.]. Disponível em: http://www.scielo.br/pdf/csp/v16n3/2949.pdf

5. Carmo EH. Doença diarréica por rotavirus: magnitude, introdução da vacina e desafios para a vigilância epidemiológica. Cad saúde pública [periódico na Internet] 2006 mar [acesso em 2010 feb 20];22(11):[aproximadamente 6 p.]. Disponível em: http://www.scielo.br/pdf/csp/v22n11/01.pdf

6. Vranjac A. Vacina contra rotavírus. Rev saúde pública [periódico na Internet] 2006 apr [acesso em 2010 feb 20];40(2):[aproximadamente 2 p.]. Disponível em: http://www.scielo.br/pdf/rsp/v40n2/28545.pdf

7. Moraes JC, Barata RCB, Ribeiro MCSA e Castro PC. Cobertura vacinal no primeiro ano de vida em quatro cidades do Estado de São Paulo, Brasil. Rev panam salud pública [periódico na Internet]. 2000 mar [acesso em 2010 sept 18];8(5):[aproximadamente 10 p.]. Disponível em: www.scielosp.org/pdf/rpsp/v8n5/3626.pdf.

8. Esparza-Aguilar M, Bautista-Márquez A, González-Andrade MC, Richardson-López-Collada VL.Mortalidad por enfermedad diarreica en menores, antes y después de la introducción de la vacuna contra el rotavirus. Salud pública Méx [periódico na Internet]. 2009 july-aug [acesso em 2010 feb 20];51(4):[aproximadamente 6 p.]. Disponível em: http://bvs.insp.mx/rsp/_files/File/2009/Julio%20Agosto/2-mortalidad.pdf

9. Miranda AS de, Scheibel IM, Tavares MRG,Takeda SMR. Avaliação da cobertura vacinal do esquema básico para o primeiro ano de vida. Rev saúde publica [periódico na Internet]. 1995 june [acesso em 2010 july 05];29(3):[aproximadamente 8 p.] Disponível em: http://www.scielo.br/pdf/rsp/v29n3/08.pdf

10. Nieto Guevara J, López O, González G. Impacto de la introducción de la vacuna contra el rotavirus en la hospitalización por gastroenteritis aguda grave en el Hospital del Niño de la Ciudad de Panamá. Rev panam salud pública [periódico na Internet]. 2008 mai [acesso em 2010 feb 20];24(3):[aproximadamente 6 p.]. Disponível em: http://www.scielosp.org/pdf/rpsp/v24n3/a05v24n3.pdf

11. Feijó RB, Sáfadi MAP. Imunizações: três séculos de uma história de sucessos e constantes desafios. J pediatr (Rio J) [periódico na Internet]. 2006 july [acesso em 2009 july 17];82(3):[aproximadamente 3 p.].Disponível em: http://www.scielo.br/pdf/jped/v82n3s0/v82n3sa01.pdf

12. Monteiro AI, Ferriani MGC. Atenção à saúde da criança: perspectiva da prática de enfermagem comunitária. Rev latinoam enferm [periódico na Internet]. 2000 jan [acesso em 2009 feb 20];8(1):[aproximadamente 7 p.].Disponível em: http://www.scielo.br/pdf/rlae/v8n1/12440.pdf

13. Travassos C, Oliveira EXG, Viacava F. Desigualdades geográficas e sociais no acesso aos serviços de saúde no Brasil: 1998 e 2003. Ciênc saúde coletiva [periódico na Internet]. 2006 dec [acesso em 2012 july 10];11(4):[aproximadamente 11 p.].Disponível em: http://www.scielosp.org/pdf/csc/v11n4/32334.pdf

14. Soares SG, Viana IRMN, Ferreira ALC, Veríssimo RCSS, Lisboa CB. Atuação do enfermeiro na assistência a criança na Estratégia Saúde da Família. Rev enferm UFPE on line [periódico na Internet]. 2012 feb [acesso em 2012 mar 12];6(2):[aproximadamente 7 p.]. Disponível em: http://www.ufpe.br/revistaenfermagem/index.php/revista/article/view/2194/pdf_821

15. Casarin ST, Ceolin T, Hernandes FB, Siqueira HCH de, Novello MP, Bandeira AG. Vacina contra Influenza sazonal- opinião dos idosos. Rev pesqui cuid fundam (Online) [periódico na internet]. 2011 apr [acesso em 2012 aug 30];3(2):[aproximadamente 10 p.]. Disponível em: http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/1314/pdf_380

Received on: 11/09/2012
Required for review: No
Approved on: 27/02/2013
Published on: 01/04/2013