Rotavirus vaccine impact in Latin America: an acknowledgment to Ruth Bishop

Twelfth International Rotavirus Symposium
Melbourne – Australia
September 7-9, 2016

Irene Pérez Schael
The history of rotavirus vaccine is a tribute to freedom of scientific creation, risk-taking efforts and a constant and disciplined work of many actors pursuing the wellness and social justice for worldwide children.

This work started with the discovery of rotavirus up to achieve the vaccine
A new virus was discovered!
The discovery of rotavirus by Ruth Bishop and colleagues had a significant impact because it causes the most severe diarrhea illness and death during infancy, worldwide.

“It was like pressing a whole lot of light bulbs on the world map” said Bishop.
Immunity developed after neonatal rotavirus infection protects children

RV3-BB vaccine: rotavirus neonatal strain

Ruth Bishop and Graeme Barnes
April 18th, 1998

Ruth Bishop, Geoffrey Davidson, Ian Holmes and Brian Ruck on April 18th, 1998

“\textbf{It is a discovery that has now ended in the success of a vaccine that should reduce disease and death due to this virus}”

25\textsuperscript{th} Anniversary of Rotavirus Discovery
RotaShield® was the first rotavirus vaccine licensed. August 31, 1998
Rotarix® and RotaTeq® comprise the second-generation rotavirus vaccines.

Rotarix ® was highly efficacious and safe in a massive phase III trial carried out in 11 Latin American countries and Finland.

Latin America has been a pioneer in licensing, introduction, and in the conduction of post-licensure studies of RV vaccines to evaluate vaccine safety, effectiveness and its impact on death and hospitalization due to gastroenteritis in children.
81 countries have introduced rotavirus vaccines into their national immunization programs

41% of countries

18 countries in Latin America
Impact of Rotarix® and RotaTeq® vaccines in Latin America (LA)

• Safety and effectiveness studies in LA show that vaccines are safe and efficacious in the real world
• Rotavirus vaccines have reduced significantly hospitalization due to rotavirus gastroenteritis (12-79%) in children <5 years of age
• Rotavirus vaccines have reduced significantly deaths associated with gastroenteritis (20-64%) in children <5 years of age
• Rotavirus vaccines have also impacted unvaccinated children (heared immunity)
This huge impact is thanks to Ruth Bishop

Legacy of Rotavirus Vaccine:
Simultaneous conduction of clinical trials and introduction of vaccines into immunization programs in developed and developing countries. Clinical trial studies with rotavirus vaccines were conducted in Africa and Asia as well as its incorporation into vaccination programs was fast. Improvements in post-licensure strategies to detect adverse events and incorporation of cost–benefit analysis.
Thanks Ruth Bishop