Findings and Conclusions of the 11th International Rotavirus Symposium

Over 650 delegates from 56 countries

- Rotavirus is the leading cause of severe diarrhea in children under 5 all over the world.
- Several countries presented effectiveness data after implementation of rotavirus vaccines. There is now robust data to conclude that the available rotavirus vaccines have significantly reduced the disease burden from rotavirus-specific and all-cause diarrhea.
- Multiple economic analyses have documented the cost-effectiveness of rotavirus vaccines at the current prices.
- 69 countries around the world have thus far introduced rotavirus vaccines in their universal immunization programs (UIP) and have demonstrated dramatic impact. However, except for the Philippines, no Asian country has thus far introduced the vaccine nationally.
- Two rotavirus vaccines (Rotarix and Rotateq) have been administered to over 150 million children worldwide. Both vaccines:
  - Have dramatically reduced disease and hospitalization globally.
  - Provide cross protection against serotypes that are not contained in the vaccine.
  - Have been associated with a slight increase in intussusception. However, it has been shown that the benefits far outweigh the risks.
  - Have also been shown to reduce rotavirus mortality in Mexico, Brazil, Bolivia, El Salvador, Panama, Nicaragua, Venezuela, and Honduras.
  - In general have shown effectiveness to be higher in high income countries (80 to 90%) compared to low income countries (45 to 60%). However, because of the high disease burden in poor countries, the impact of the vaccine is much higher in low income countries.
  - Have demonstrated through several studies the ability to induce “herd immunity” i.e. protection of children who are not immunized with the rotavirus vaccine but live in the same community as immunized infants.
- Recently an indigenously developed Indian vaccine (Rotavac) was licensed in India based on an efficacy trial which demonstrated 56.3% efficacy in the first year and 48.9% efficacy up to 2 years of age against severe rotavirus.
  - There were no safety concerns detected in the Rotavac trial, although the study was not powered to detect rare side effects.
- Several other candidate vaccines including parenteral vaccines are under development in India and several other countries.
- In India each year, rotavirus results in approximately:
  - 78,000 deaths
  - 870,000 hospitalizations
  - 3 million outpatient visits
  - 11 million cases
- The delegates strongly endorse the implementation of rotavirus vaccines in the UIP of all countries especially in South Asia where there is high disease burden.
- Introduction of rotavirus vaccine in countries like India should be high priority and is expected to have substantial impact on deaths and hospitalization.
- It is exciting to know that India has taken the lead in implementing this powerful intervention which will benefit all of India’s children.