Poliomyelitis Eradication Endgame strategies

tOPV-bOPV Switch

Epidemiology Unit
Ministry of Health
Sri Lanka
Background for polio Endgame

• World Health Assembly resolution [65.5] (May 2012)

• Declared polio eradication a programmatic emergency for global public health

• developed and finalized polio endgame plans

• informed Member States - the potential timing of a switch (April 2016) from trivalent to bivalent OPV in routine immunization programmes
• Detect and interrupt all poliovirus transmission

• Strengthen immunization systems and withdraw oral polio vaccine

• Contain poliovirus and certify interruption of transmission

• Plan polio’s legacy
Rationale for switch

• tOPV.....risks associated with the type 2 component - outweigh benefits

Why?
Children paralyzed by polio

Type 2 polio eradicated (WPV)

Source WHO
Monthly Distribution of Wild Poliovirus Cases\(^1\), 2011-2015

\(^1\)By date of onset of paralysis. WPV type 1 includes 1 case in 2012 with a mixture of W1W3 virus. Cases with onset in October 2015 will be reflected in the next update. \(^2\)No WPV3 case reported in 2013 - 2015.
Why?

• Since 1999, type 2 wild poliovirus has not been detected: global eradication has been verified in 2015

• type 2 component of tOPV
  • >90% of vaccine-derived polio viruses (VDPVs)
  • Nearly 40% of vaccine associated paralytic polio (VAPP) cases
  • Interferes with the immune response to poliovirus types 1 and 3 in tOPV
What is Switch? & Why?
• **Switch**: refers to replacement of all tOPV with bOPV (Routine Immunization, SIA in all OPV using countries)

• **Switch within 2 week time frame**

• **All tOPV stocks to be removed after switch within 2 weeks of switch day**
  – Globally coordinated synchronized process

• **National validation starts in 2 weeks after switch**

• **If use tOPV after switch**: risk of cVDPV: *Why.....?*
April 2016 in a country

30\textsuperscript{th} April 2016

e.g. National Switch Day: stop tOPV use

e.g. National Validation Day: all tOPV disposed

Global switch
2-week window

Global validation
2-week window

The country selects a ‘National Switch Day’ from this window

Source WHO
• Total tOPV stocks have been received

• tOPV Stock inventories
  – 1\textsuperscript{st} : 31\textsuperscript{st} August 2015
  – 2\textsuperscript{nd} : 31\textsuperscript{st} December 2015
  – 3\textsuperscript{rd} : 31\textsuperscript{st} March 2016

  Regional Epidemiologists’ responsibility excel sheet format will be sending
tOPV withdrawal and validation

• National Switch coordination Committee:
  • Epidemiology Unit,
  • Family Health Bureau,
  • Health Education Bureau,
  • Director/Private Health Sector Development,
  • National Medicinal Drug Regulatory Authority,
  • Medical Supplies Division
  • State Pharmaceutical Cooperation

• District switch committee
District switch committee [DSC]
District Operation Centre : RDHS office

– Provincial Director of Health Services
– Regional Director of Health Services
– Provincial Consultant Community Physician
– Regional Epidemiologist (coordinating officer)
– Medical Officer/ Maternal and Child Health (MO/MCH)
– Medical Officer/Planning
– OIC/RMSD
– FDI
– SPHID, RSPHNO

What do you do as the DSC?
• Chairperson and a Secretary: appoint for each DSC
• Frequency of meeting: Monthly in Jan, Feb, 2weekly in March, more frequently in April
• **Responsible:**
  – **coordinate with NSCC:** implementation of switch at district level until assuring the district is free of the use of tOPV and continue polio vaccination with bOPV
  – follow, supervise and monitor guidelines issued by the NSCC on switch
  – **Responsible to coordinate and monitor private sector health care institutions** in the district & all hospitals
• tOPV collection with the switch date from all centres involved in vaccine storage

• temporarily store at RMSD until stocks will be collected by the Epidemiology Unit
• 2 weeks after switch day: Switch Validation

• National Switch Validation Committee (National Certification committee for Polio Eradication and Measles, Rubella, CRS elimination will function as NSVC)

• District Switch Validation Committee [should be an independent committee: switch monitors]
  • Microbiologists
  • Community Physicians
  • Paediatricians
• RMSD and 10% of MOH offices & 10% of vaccine storing hospitals: include in validation procedure

• If any remaining tOPV identified during validation an additional 10% to be reviewed
Laboratory containment of type 2

• After 2 months of validation: Lab containment procedure
  – All hazardous materials for Sabin type 2, will be identified and destroyed
  – Verification by July 2016

  – REE need to assist in coordinating this at district level