Change of the Polio vaccination schedule: injectable Inactivated Polio Vaccine (IPV): Introduction of fractional dose IPV (fIPV)

Polio virus type 2 withdrawal activities are continuing as an important strategy in Global Polio Eradication. Injectable Inactivated Polio Vaccine (IPV) has been introduced in 2015 as an initial measure to ensure polio type 2 immunity, before Polio Switch over from trivalent OPV (which contained Sabin polio vaccine virus 1,2 & 3) to bivalent OPV (which contains Sabin polio vaccine virus 1 & 3).

There is a global scarcity of IPV production and Polio low risk countries such as Sri Lanka will receive the next stocks of IPV only in late 2017. The IPV has been introduced as a full dose IPV, in which 0.5 ml is given intramuscularly at the age of 4 months together with the 2nd dose of Oral Polio Vaccine and Pentavalent vaccine. Other recommended dose schedule with the same efficacy is fractional dose IPV (fIPV), which is recommended to be given as a lower dose of 0.1 ml, intradermally (ID) as 2 doses. Considering this situation, the Advisory Committee on
Communicable Diseases (ACCD) has decided to change the full dose IPV schedule (0.5 ml single dose) to a fractional dose IPV schedule (0.1 ml, 2 doses).

Regional Epidemiologists are already advised to arrange district level refresher training of Public Health Midwives on intradermal administration of the vaccines.

This change in the fIPV schedule will be effective from 15th July 2016. Relevant instructions for fIPV schedule are given below and all health care staff should adhere to the guidelines and instructions given herewith.

- Available IPV 5-dose vials will be used and only the administering schedule will be changed

- Doses, route and site of administration will be as follows:
  - 0.1 ml of IPV given intradermal is referred as fractional dose IPV (fIPV)
  - fIPV should be given as 2 doses at the age of 2 months and 4 months, together with other 2 recommended vaccines of Oral Polio Vaccine and Pentavalent vaccine at 2 and 4 months
  - fIPV should be administered to the left arm (below the BCG scar)
  - Sequence of vaccination of infant at 2 and 4 months of age at the visit of vaccination should be as follows
    - Step 1: Give OPV first
    - Step 2: Give Pentavalent vaccine to Left thigh
    - Step 3: Give fIPV to Left arm

- This fIPV, 2 doses at 2 and 4 months intradermal (ID) schedule change is applied to infants
  - born on or after 14th May 2016 for those who would complete 2 months of age by 15th July 2016 and visit the clinic for Pentavalent 1, OPV 1 vaccination (2 months vaccination).
  - born before 14th May 2016 but delayed 2 months vaccination of Pentavalent 1 and OPV 1

- Infants who were born before 14th May 2016 (completed 2 months) and if already completed the 2 month vaccination (Penta 1 and OPV 1), continue with the past schedule of single dose of IPV which is 0.5ml IM dose intramuscularly (IM) at 4 months of age

- This IPV schedule change is not applicable for infants who have already received 0.5ml IPV dose IM at 4 months of age

- IPV vaccine contraindications, side effects, vaccine safety and vaccine storage, injection safety and accountability will continue as the same
- IPV vaccine will continue to be used in open vial policy, taking all measures to minimize wastage
- Records and returns will continue same as for the existing IPV but advice specific changes essential to be done in the following documents for fIPV schedule as follows:
  - CHDR:
    - Year, month and the date of the fIPV immunization along with the batch number of the fIPV vaccine doses should be recorded in the 2 rows mentioned under ‘other’ vaccines for 2 month and 4 month fIPV doses (until updated CHDR will be available) and it should be entered as ‘fIPV 1’ for 2-month dose and ‘fIPV 2’ for 4-month dose. It is mandatory to fill both A and B portions.
  - Clinic Immunization Register – H-1216: divide the IPV column and mention as fIPV 1 and fIPV 2

<table>
<thead>
<tr>
<th>Infant Immunization</th>
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<tbody>
<tr>
<td>BCG</td>
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- Clinic Summary –RH- MIS518 : divide the IPV column and mention as fIPV 1 and fIPV 2

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<thead>
<tr>
<th>Immunization</th>
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<tbody>
<tr>
<td>Below 5 years</td>
</tr>
<tr>
<td>BCG</td>
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- Birth and Immunization Register – EPI/03/79 (Revised 2014) : divide the IPV column and mention as fIPV 1 and fIPV 2

<table>
<thead>
<tr>
<th>10. Date of immunization</th>
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<tbody>
<tr>
<td>a</td>
</tr>
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<td>BCG</td>
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385, Rev. Baddegama Wimalawansa Thero Mawatha, Colombo 10, Sri Lanka.
 Quarterly EPI Return: WEBIIS data entering will be changed for fIPV 1 and fIPV 2 and requested to enter relevant data separately in relevant cages

- IPV vaccine stock management
  - In the clinic and MOH office Vaccine movement registers, make sure proper documentation of the number of 0.5 doses as number of full doses (IPV) and 0.1 ml doses as number of fractional doses (fIPV) for a 2-month period
  - After 2 months, only fIPV will be continued and all MOOH and REE should make sure proper documentation and maintenance of vaccine balance
  - Vaccine stock requests in “Vaccine stock return” needs to be adjusted by IPV 5-dose vials (2.5 ml - 0.5 x 5 doses) considering for 25-dose vials (2.5 ml - 0.1 x 25 doses)
  - Already existing vaccine stocks should be adjusted to minimize wastage

If you need further clarifications or additional information, please contact the Epidemiology Unit (Tel. 0112695112, e mail: epidunit@slt.net.lk).

Please bring this to the notice of all health care staff in your province, district and institutions and make arrangements for effective functioning of fIPV schedule change.

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