



A guide for investigation of
Sabin Like 2 (SL2) poliovirus in
a human or in the environment

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Detection of SABIN-like type 2 (SL2) poliovirus post-switch: investigation + report

Since September 1, 2016, all type 2 polioviruses, including Sabin 2 and Sabin-like 2, must be reported under the IHR (2005), except in areas where mOPV2 has been used recently; in such areas, the IHR reporting requirement for PV2 isolates begins at 4 months following the last mOPV2 use. This form is intended to guide the investigation and reporting of any isolation of SL2 poliovirus. According to global guidelines, detailed investigations should be initiated within 48 hours of detection of the SL2.

1 Background and context

- 1.1 **Location:** where was SL2 detected (place of collection of stool sample / location of env. sampling site and map; pls indicate admin 1 and admin 2 levels, name of ES site, if applicable and GIS reading if possible)
- 1.2 **Details of AFP case / contact / healthy person:** age, gender, vaccination status, last OPV dose etc., as well as EPID number of AFP case / contact¹
- 1.3 **Date of collection of SL2-positive stool or env. sample:**
- 1.4 **Lab results and genetic sequencing data on SL2 isolate:** note if type 1 and 3 SL virus were isolated in addition to SL2 (pointer to tOPV use, as opposed to circulation / mOPV2 use); utilize sequencing results to assess extent of deviation from SABIN2, i.e. the risk of emergence of a new type 2 circulating vaccine-derived poliovirus (VDPV2s)
- 1.5 **Date and scope of most recent tOPV and, if applicable, most recent mOPV2 SIA (NID? SNIDs?)** conducted in the location of detection, and/or in the area where P2-positive person stayed in case of recent travel
- 1.6 **IPV use in location:** current routine IPV policy, reported / assessed routine IPV coverage, date and scope of any recent IPV SIA
- 1.7 **History of tOPV to bOPV switch in the location:** interview local staff involved in switch on their experience during the activity; review switch validation reports for the area; practices for tOPV handling /destruction

2 Elements and findings of field investigation

- 2.1 **Field investigation of SL2-positive individual (AFP case, contact, healthy child):** family, vaccination history, travel history; utilize case investigation form¹ for AFP cases;
- 2.2 **Investigation of community of SL2-positive individual / of ES sampling site:** reported / assessed coverage of RI / last SIA, AFP surveillance quality, population movement to and from location, presence of high risk groups, at an appropriate admin. level (2nd admin. / district level in large and province level in small countries)
- 2.3 **Activities to be considered for both SL2 from individual or from ES:** consult with MOH central level and WHO whether or not community samples should be taken to exclude circulation, and whether a 30-household community coverage survey should be conducted
- 2.4 **Search for any possible source of tOPV in community of SL2-positive individual / ES site:**

¹ Please attach AFP case investigation form

- Search for remaining tOPV vials, in health facilities in and near location of SL2 detection, with particular emphasis on listing, visiting and searching relevant private facilities in the area, including private clinics, private vaccine retailers or distributors, as well as laboratories handling PV.
- If vials are found in a location, trace back its source and timing of supply; comment on expiry date, and on whether vial was unopened, or opened / partially used.
- For isolates found in ES sample, the search should cover at least the known 'catchment area' drained by the ES site; if there is uncertainty about the catchment area, the search should be extended to the level of the district, or whatever admin. level the 'switch' was organized.
- For isolates from individuals, the extent of search should be decided in consultation with central MoH and WHO, but at least include the places / possible health facilities from which the AFP case received vaccine, or if unclear, the village / town in which the individual resides.
- In case Sabin-like type 2 virus is detected in more than one AFP or ES sample from different districts / admin. areas, a search throughout the next admin. level (province, state, depending on country) will be reasonable.
- **Of note, search activities should be expanded to also look for mOPV2 vials (in addition to tOPV vials) in areas where mOPV2 campaigns were completed at least four months earlier.** (Pls. also note the published guideline on tOPV/mOPV2 tracking and disposal²).

2.5 Assessment of knowledge / practices on tOPV/bOPV switch of health workers in location: have any health workers used tOPV since April 2016? How alert are health workers, particularly in the private sector, of the fact that tOPV use should have ceased in April 2016, that no tOPV (or mOPV2 in areas where this has been used) should be in cold chain storage anywhere, and of the urgency of reporting tOPV should they find any.

2.6 Search for any remaining tOPV in vaccine storage facilities at national, 1st and 2nd sub-national level: the need, timing and scope for this search should be decided once the initial local investigation and laboratory investigation have been concluded.

2.7 Has a monetary incentive for submission of tOPV / mOPV vials been considered in country / province (NOTE: the national immunization may consider to offer two doses of bOPV to compensate for each documented dose of tOPV disposed).

3 Summary of main findings: provide bullet list of main findings.

4 Conclusions: provide bullet list of main conclusions, i.e. what can be learned, deducted and concluded by considering the key findings.

5 Recommendations and next steps: the presence of tOPV or mOPV2 suggests problems with how the tOPV withdrawal and its monitoring were organized, so if there's evidence that there might have been widespread problems with the withdrawal, searches should ideally be conducted in all of the areas that might have been affected. Thus, recommendations may include to extend the search for tOPV/mOPV2 to neighboring areas or districts, if tOPV or mOPV2 is found in multiple locations in a district, or on action to be taken for destroying any identified remaining tOPV / mOPV2. Another possible next step may be to continue to reach out and communicate to health workers in the public and private sector to discourage use and encourage identification of tOPV or mOPV2.

²http://www.who.int/immunization/diseases/poliomyelitis/endgame_objective2/oral_polio_vaccine/SOPs_tOPV_found_after_the_switch_July2016.pdf?ua=1



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