

Poliovirus Laboratory Containment Activities - Belgian Experience

Joint Containment - Polio Labnet WHO/EURO Meeting

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1. Phase I of Containment activities

a. Survey and inventory



3

a. Survey and inventory

I. Political endorsement and support (1):

- Under the responsibility of the Division of Biosafety and Biotechnology (SBB), IPH, Fed. Public Service of Health
- Legal instrument in place since 1994 for containment in the labs
 - ✓ Compulsory authorization (bound to conditions)
 - ✓ For all contained uses of pathogens and GMO's
 - ✓ Multi-sector
 - ✓ Risk assessment on a case-by-case basis



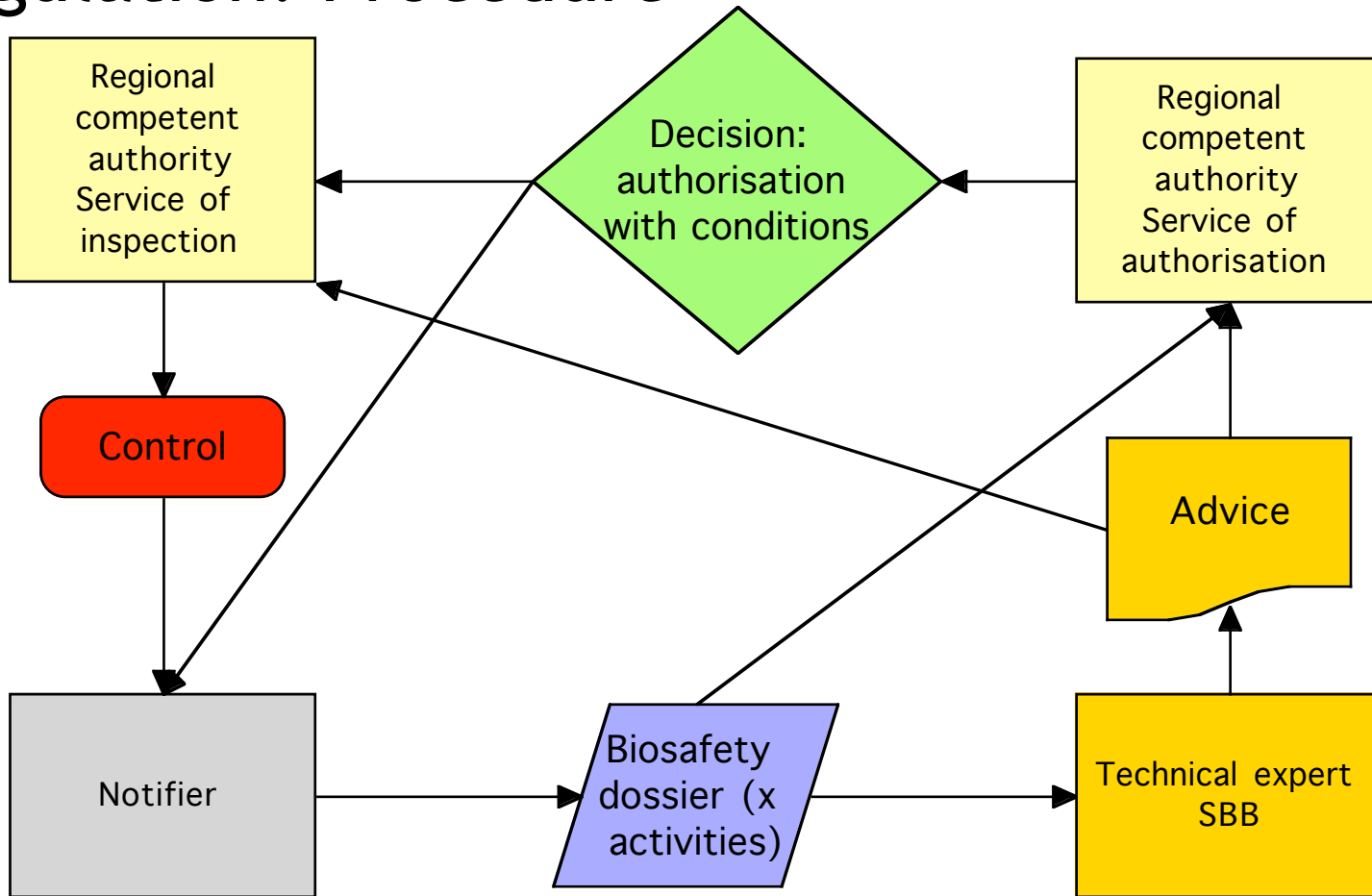
a. Survey and inventory

I. Political endorsement and support (2):

- ✓ Appropriate containment measures
- ✓ Common science-based biosafety advisory system: SBB
- ✓ High level of coordination (regional-federal levels)
- ✓ Register of installations with contained uses of pathogens and GMO's
 - Decentralization but cooperation (agreement)



5 Regulation: Procedure



a. Survey and inventory

II. The National Plan of Action:

- Help of WHO
- Plan produced by the containment coordinator
- Plan agreed by NCC in December 2001
- Clear timelines and milestones
- Timelines once revised (updated plan)
- Personal and funding resource allocation from the SBB



a. Survey and inventory

III. The National Containment Coordinator:

- Biosafety expert of the SBB
- Permanent senior scientist government employee
- Administrative and scientific support from the SBB
- Coordination with NCC
- Full time on biosafety matters, but not only in the frame of the polio eradication program



a. Survey and inventory

IV. The National Laboratory List:

- Use of 3 existing lists:
 - ✓ Register of installations with contained uses of pathogens and GMO's
 - ✓ Register of medical diagnostic laboratories (IPH)
 - ✓ Register of BBA
- Merge list of 411 institutions (database)
- Exploitants legally responsible for all labs in the institution



a. Survey and inventory

V. The Laboratory Survey:

- Performed from June 2002 to November 2002
- Main mailing (411 institutions) + 1st reminder (153 institutions) + 2nd reminder (33 institutions)
- Final response rate: 97,3%
- 11 non-responding institutions: very low probability of retaining wild poliovirus
- Doubtful responses <1% (resolved by direct phone)
- Achievement of a final 100 % response rate
- Inventory questionnaire included in the survey questionnaire



a. Survey and inventory

VI. The National Laboratory Inventory:

- 8 laboratories/institutions holding wild poliovirus materials (March 2003)
 - ✓ Research: 5
 - ✓ Diagnostic (and education): 2
 - ✓ Production: 1
- Recorded in a database
- List sent to the Regional Competent Authorities (for control and inspection)



1. Phase I of Containment activities

b. Updates of the national inventory of laboratories that retain and wish to retain wild poliovirus strains and/or potentially infectious material

- 8 laboratories/institutions to 4 (Update 2007)
 - ✓ Research: 5 to 2 (3 stop) (1 university, 1 industry)
 - ✓ Diagnostic (and teaching): 1 (university hospital)
 - ✓ Production: 1 (industry)



1. Phase I of Containment activities

b. Updates of the national inventory of laboratories

- ✓ Continuous process of updates of National Laboratory and Inventory Lists
- ✓ In case of new operation, end of operation, any other significant change, laboratories/institutions must legally warn the authorities/SBB



1. Phase I of Containment activities

c. BSL-2/polio status of laboratories working with wild poliovirus infectious materials

- 4 laboratories/institutions (Update 2007)
 - ✓ all authorized
 - ✓ all inspected
 - ✓ all with minimum BSL-2 containment
 - ✓ Production facilities of inactivated polio vaccine: at least BSL-3 containment (large scale production units)



1. Phase I of Containment activities: conclusion

Completion of Phase 1 of Laboratory Containment of wild polioviruses

Waiting to begin Phase 2



2. Advocacy/Promotion of the containment program in the country

- Regulations on contained uses of pathogens
- Web site:
 - ✓ Belgian Biosafety Server (<http://www.biosafety.be>)
 - ✓ Pages dedicated to Polio Eradication and Laboratory Containment in Belgium



3. Problems specific to the country and need for assistance from WHO

- No specific problems encountered for the survey, the inventory and its updates, the control/inspection of facilities
- Need of explanation from WHO for the future actions to lead
- When does the Phase II have to begin, when does the plan for phase II have to be prepared?
- Need of well coordinated work with WHO concerning the (future) containment in vaccine production units

