The Role of OIE Reference Laboratories and Collaborating Centres in Disease Reporting

Dr Karim Ben Jebara
Head, Animal Health Information Department
OIE

Second Global Conference of OIE Reference Laboratories and Collaborating Centres
Paris, France, 21–23 June 2010
Contents

1. Introduction
2. Objectives
3. Notification of Animal Diseases, including Zoonoses
4. Role of OIE RL and CC in Disease Reporting
5. Laboratories’ sharing information with the OIE
6. Analysis of responses by OIE Reference Laboratories to the questionnaire
7. Problems and Solutions
8. Diagnostic tests for wildlife diseases surveillance
9. Conclusion
INTRODUCTION

General mandate of the OIE: 

*to improve animal health worldwide*

---

One of the OIE’s objectives

To ensure **transparency** in the global animal disease situation including zoonoses
OBJECTIVES

OIE and its network of expertise (Reference Laboratories and Collaborating Centres) must:

improve **early warning** in the event of outbreaks of **animal disease**, including **zoonoses** and the knowledge of the **animal health situation** in the **World**, with regard to OIE-listed disease and to **emerging** and **re-emerging** disease that are not listed.
Notification of Animal Diseases, including Zoonoses

Legal obligations by Members

- Since its creation in 1924 both the OIE and its Members have unconditional duties to disclose all relevant information about animal diseases
- These obligations are stated in the OIE Organic Statutes
Notification of Animal Diseases including Zoonoses

- The General Assembly Decision of 2004 determined that OIE Reference Laboratories must immediately communicate positive findings of a reportable disease to the veterinary authority of the respective Member Country and to the OIE.

- Prior to publishing these results and if the biological sample is provided by a country other than that in which the RL is located, OIE needs the agreement by the respective Member Country and a precise identification of the origin of the samples.

  Requirements for confirmations prevent a premature or erroneous report from a laboratory.

- A Delegate who does not share information about the possible occurrence of a disease has no grounds for objection if the OIE informs other Members (Art. 4 and 9 of the Organic Statutes).

- The OIE may also report unofficial (but reliable) information of global health concern.
Mandate

Reference Laboratories

Expertise and Laboratory infrastructure to

- work on validation of laboratory tests
- conduct tests on samples received from other Members
- share reagents
- participate to OIE twinning activities

MOREOVER

in the event of positive findings RLs are required to immediately inform the OIE Delegate of the Member Country or Territory from which the samples originated as well as the OIE Headquarters
Mandate

Collaborating Centre

Capacity-building activities

- Organising seminars
- Training of veterinarians (national Veterinary Services)
- Training focal points (disease notification, wildlife, aquatic animals, etc.)
Laboratories’ sharing information with the OIE

Positive finding by an OIE-RL

OIE Delegate

Exceptional epidemiological event
  - OIE Delegate
  - Immediate notification

Non Exceptional epidemiological event
  - OIE Delegate
  - Six-monthly report

OIE - Animal Health Information Department

OIE analyses the animal health situation in the country on a risk analysis basis
Laudatories’ sharing information with the OIE

Out of 187 OIE Reference laboratories only 5 Reference Laboratories since 2006 have fulfilled their mandate by informing the OIE of the occurrence of listed disease

<table>
<thead>
<tr>
<th>LABORATORY</th>
<th>DISEASE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinary Laboratories Agency (VLA) Weybridge, Surrey United Kingdom</td>
<td>•Highly pathogenic avian influenza</td>
</tr>
<tr>
<td>Institute for Animal Health, Pirbright, Surrey, United Kingdom</td>
<td>•Foot and mouth Disease</td>
</tr>
<tr>
<td></td>
<td>•Bluetongue</td>
</tr>
<tr>
<td></td>
<td>•African Horse Sickness</td>
</tr>
<tr>
<td>Istituto Zooprofilattico Sperimentale delle Venezie, Padova, Italy</td>
<td>•Highly pathogenic avian influenza</td>
</tr>
<tr>
<td></td>
<td>•Newcastle disease</td>
</tr>
<tr>
<td>Onderstepoort Veterinary Institute, Onderstepoort, South Africa</td>
<td>•African Swine Fever</td>
</tr>
<tr>
<td></td>
<td>•African Horse Sickness</td>
</tr>
<tr>
<td>Agence Française de Sécurité Sanitaire des Aliments (AFSSA) Sophia Antipolis, Unité Pathologie de l’abeille, Nice, France</td>
<td>•Bee diseases</td>
</tr>
</tbody>
</table>
Laboratories’ sharing information with the OIE

Why inform the OIE Headquarters?

To increase the effectiveness of the OIE’s early warning system

Give countries the necessary time and information to conduct their own risk analysis and take any necessary precautionary measures

Avoid threats to biosecurity of one or more countries
Analysis of responses by RL to the questionnaire

The questions on laboratory-confirmed positive results were:

Q30. In the case of confirmed positive results for diseases that are notifiable to OIE, do you inform the OIE Delegate of the Member Country or Territory from which the samples originated?

Q31. In the case of confirmed positive results for diseases that are notifiable to OIE, do you also inform the OIE Headquarters?

Q32. If your reply is “never” or “sometimes” either for question 30 or question 31, please state reasons (e.g. perceived problems) for not reporting these confirmed positive results to the OIE Delegate and/or the OIE Headquarters

**Discrepancy** between the answers to the questionnaire and the actual situation with regard to the sharing of positive laboratory findings
Table 2: Information sharing by OIE Reference Laboratories (RLs) for terrestrial animal diseases with the OIE Delegate concerned and the OIE Headquarters

<table>
<thead>
<tr>
<th>Informs OIE Delegate (Q30)</th>
<th>Informs OIE Headquarters (Q31)</th>
<th>n° RLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>not answered</td>
<td>not answered</td>
<td>12</td>
</tr>
<tr>
<td>always</td>
<td>always</td>
<td>36</td>
</tr>
<tr>
<td>never</td>
<td>never</td>
<td>18</td>
</tr>
<tr>
<td>always</td>
<td>never</td>
<td>7</td>
</tr>
<tr>
<td>never</td>
<td>always</td>
<td>1</td>
</tr>
<tr>
<td>always</td>
<td>sometimes</td>
<td>8</td>
</tr>
<tr>
<td>sometimes</td>
<td>always</td>
<td>1</td>
</tr>
<tr>
<td>sometimes</td>
<td>sometimes</td>
<td>6</td>
</tr>
<tr>
<td>not answered</td>
<td>sometimes</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
</tr>
</tbody>
</table>
Analysis of responses by RL to the questionnaire

Reasons given in responding to Q32 by OIE Reference Laboratories for terrestrial animal diseases for answering Q30 and Q31 with ‘never’ or ‘sometimes’:

- 16 out of 40 RL: someone else has to report positive results (Submitting laboratories/Institute/Country; OIE Delegate)
- 2 RL out of 40 RL: clients results are confidential
- 22 out of 40 RL: the duty no longer applies
  - the disease is not any more an OIE-listed disease;
  - never receive samples;
  - the samples received never gave positive results.
### Analysis of responses by RL to the questionnaire

Table 2: Information sharing by OIE Reference Laboratories (RLs) for aquatic animal diseases with the OIE Delegate concerned and the OIE Headquarters

<table>
<thead>
<tr>
<th>Informs OIE Delegate (Q30)</th>
<th>Informs OIE Headquarters (Q31)</th>
<th>n° RLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>not answered</td>
<td>not answered</td>
<td>1</td>
</tr>
<tr>
<td>always</td>
<td>always</td>
<td>9</td>
</tr>
<tr>
<td>never</td>
<td>never</td>
<td>2</td>
</tr>
<tr>
<td>always</td>
<td>sometimes</td>
<td>4</td>
</tr>
<tr>
<td>sometimes</td>
<td>always</td>
<td>1</td>
</tr>
<tr>
<td>sometimes</td>
<td>sometimes</td>
<td>1</td>
</tr>
<tr>
<td>not answered</td>
<td>sometimes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>
Analysis of responses by RL to the questionnaire

Reason given in Q32 by OIE Reference Laboratories for aquatic animals diseases for answering Q30 and Q31 with ‘never’ or ‘sometimes’:

- 7 out of 10 aquatic RL: someone else has to report positive results (Submitting laboratories/Institute/Country; OIE Delegate)
- 1 out of 10 aquatic RL: clients results are confidential
- 1 out of 10 aquatic RL: the duty no longer applies
  - the disease is no more an OIE-listed disease;
  - never receive samples;
  - the samples received never gave positive results.
Problems

- Contradiction between the mandate of OIE RLs that are also ISO 17025 accredited

  - Some RLs do not immediately inform the OIE Headquarters and the Delegate concerned because the ISO 17025 standard requires them to protect the confidentiality of their customers
“4.7 Service to the customer

The laboratory shall be willing to cooperate with customers or their representatives in clarifying the customer's request and in monitoring the laboratory’s performance in relation to the work performed, provided that the laboratory ensures confidentiality to other customers.

[...]

4.13 Control of records

All records shall be held secure and in confidence.

[...]

5.4 Test and calibration methods and method validation

5.4.7 Control of data
5.4.7.2 When computers or automated equipment are used for the acquisition, processing, recording, reporting, storage or retrieval of test or calibration data, the laboratory shall ensure that:

b) procedures are established and implemented for protecting the data; such procedures shall include, but not be limited to, integrity and confidentiality of data entry or collection, data storage, data transmission and data processing”

The problem appears to be ‘commercial’ rather than ‘legal’
Other Problems

- Information disseminated by the OIE are trade sensitive

- Some Member Countries don’t support OIE tracking activities

- OIE RLs inform the country concerned and other regional or international partners without informing the OIE and ask the country to notify to the OIE

- Laboratories not receiving samples
Possible Solutions

- The **contract** between an ISO 17025 accredited OIE RLs and the customer could **mention the obligation** on the part of the laboratory (RLs mandate) to report relevant results to the Delegate of the country concerned and to the OIE Headquarters without being incompatible with the ISO standard.
Possible Solutions

- The OIE is looking forward improving communication channels with its RLs so to overcome these situations.

- The OIE should develop a strategy to encourage countries to submit samples, especially on specific OIE-listed diseases.
Diagnostic tests for wildlife diseases surveillance

OIE is currently improving its worldwide information system on wildlife diseases by collecting more detailed data on affected wildlife species.

In consultation with OIE Reference Laboratories, the OIE needs to:

- determine the suitability of current diagnostic tests for OIE-listed diseases for wildlife
- determine the diagnostic tests for wildlife species available for a given disease
- determine which tests would be suitable for use in wildlife species
- identify any known problems of sensitivity and specificity when each test is applied to species for which it has not been validated
- develop a strategy for further test validations
Conclusion

- Transparency and Knowledge
- Early Detection and Warning
- Capacity Building
- Avoid Threats to Biosecurity

otherwise official recognition as “OIE RL” by the OIE could be questioned
Thank you for your attention
World Organisation for Animal Health

12 rue de Prony
75017 Paris, France
Tel: 33 (0)1 44 15 18 88
Fax: 33 (0)1 42 67 09 87
Email: oie@oie.int
http://www.oie.int