

The Role of the Office International des Epizooties (OIE) in Health Improvement of Aquatic Animals

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History of OIE in Aquatic Animal Health

The World Organisation for Animal Health (OIE) is an inter-governmental organization that was established in 1924 in order to promote world animal health. OIE missions that have become increasingly important and its mandate that has been expanded to meet requirements from the world are strongly supported by the Member Countries now reaching 167. OIE Regional Offices have been established in Tokyo, Buenos Aires, Beirut, Sofia and Bamako covering Asia and the Pacific, the Americas, the Middle East, Eastern Europe and Africa.

The main objectives of the OIE are:

- 1) To ensure transparency in the global animal disease situation;
- 2) To collect, analysis and disseminate scientific veterinary information;
- 3) To contribute expertise and encourage international solidarity in the control of animal diseases;
- 4) Within its mandate under the WTO SPS Agreement, to safeguard world trade by publishing health standards for international trade in animals and animal products;
- 5) To improve the legal framework and resources of Veterinary Services; and
- 6) To provide a better guarantee of the safety of food of animal origin and to promote animal welfare through a science-based approach.

Previously, aquatic animals were included in the category of terrestrial animals. The initial body of the current OIE Aquatic Animal Standards Commission was established in 1960 under the name of “Commission for the Study of Diseases of Fishes” and since then the Commission has organized scientific symposia regularly (in Turin in 1962, in Munich in 1965, in Stockholm in 1968, and in Paris in 1991, 1995 and 2000). The symposia

have been held under the auspices of the OIE on the most important aspects of aquatic animal health, notably on fish diseases and their control.

In 2000, OIE published for the first time the Aquatic Animal Health Code and the Manual separately from those for terrestrial animals. Diagnostic procedures for some aquatic animal diseases used to be included in the OIE International Animal Health Code starting from the 1986 edition, but it became clear that separate publications specific to Aquatic Animal Health would be needed for reasons that the conditions, problems and requirements in this field are different from those encountered in other animals, and that international trade in aquatic animals and their products has become increasingly important.

Aquatic Animal Health Standards Commission

Presently, the OIE Aquatic Animal Health Standards Commission is in operation in Paris as one of the Specialist Commissions. This Commission, which consists of five elected members (presently from Australia, the United Kingdom, Chili, France and Uganda) experienced in methods for surveillance, diagnosis, control and prevention of infectious aquatic animal diseases, meets twice yearly to address its work program. The Aquatic Animal Health Standards Commission also collaborates closely with the OIE Terrestrial Animal Health Standards Commission on issues requiring harmonized approach, and with the Biological Standards Commission and the Scientific Commission to ensure that the Aquatic Animal Health Standards Commission is using the latest scientific information in its work.

Disease Notification

Once an infectious animal disease occurs in a country, many people including producers, government officials, policy makers, exporters, importers and consumers require accurate information as quickly as possible.

The OIE has worked to secure transparency in the global animal disease situation, and collection, analysis and dissemination of scientific information. To accomplish this purpose, OIE Member Countries have obligations for disease notification, by fax or e-mail, within 24 hours, of the suspected or confirmed first occurrence or re-occurrence of the OIE list A diseases. Every Member Country of the OIE recognizes the right of the OIE to communicate directly with the Veterinary Administration of its territory.

In 2003, 61 emergency alert messages from 46 Member Countries were sent by e-mail to the Delegates of Member Countries, OIE Regional Representatives and other interested international organizations, or by fax to Member Countries without an e-mail address. This information was also disseminated via the OIE public access Web-site, the messages being systematically published in the “Alert Messages” section, and through the open access “OIE Info” mailing list.

When a serious infectious disease occurs, sometimes various rumors circulate and unconfirmed reports are accepted as facts. Therefore, people ask

for official information provided by responsible source. OIE receives official disease notification with the signature of the OIE Delegate directly from the relevant Member Country. Furthermore, OIE collects animal health information based on the active search policy, which is enhanced by exchanges of relevant information with OIE Reference Laboratories, Collaborating Centres and other international organizations. The information thus collected, including non-official information, is systematically evaluated before deciding whether to verify it with the Delegate of the relevant Member Country.

OIE information is recognized and used as official information in the world. Therefore, during the Avian Influenza crisis, more than 40,000 people visited the OIE Web-site in only one week. The OIE collaborates with the Food and Agriculture Organization of the United Nations (FAO), and the World Health Organization (WHO) with the design of a joint global early warning system. The OIE world animal health situation, lists of disease free countries, etc. are commonly used in Web-sites of these organizations as official information.

Disease Free Status

Official reporting is made by a Member Country not only when an infectious disease breaks out, but also when the disease is eradicated. If the country or a zone in the country was previously considered to be free from the particular disease, the Delegate will, with necessary documents including results of monitoring and surveillance, apply to the OIE to declare freedom from the disease.

So far, to meet the demand of the Member Countries, the OIE has been publishing the “Disease Free Country List” for Foot and Mouth Disease, Rinderpest, Bovine Pleuropneumonia, and now for Bovine Spongiform Encephalopathy (BSE).

In recent years, many Member Countries submitted formal applications for BSE free status to the Director General of the OIE. Those applications were evaluated by an ad hoc group of experts on BSE that has been set up, and also by the Scientific Commission. During the 72nd OIE General Session held in May 2004, the Director General established a list of BSE provisionally-free countries or zones in accordance with the chapters of the Terrestrial Code. The first countries listed as provisionally-free countries included Argentina, Uruguay, Iceland and Singapore.

Surveillance and Monitoring

So far, only OIE’s procedures about “disease notification” and “recognition of disease free status” using examples of some terrestrial animal diseases have been introduced. In both procedures, the official information as the result of monitoring and surveillance in accordance with the OIE Code and Manual are indispensable. Then, what kind of surveillance and monitoring are needed? According to the OIE definitions:

“Surveillance” means the continuous investigation of a given population to detect the occurrence of disease for control purposes, which may involve

testing of a part of population; and “Monitoring” constitutes on-going program directed at the detection of changes in the prevalence of disease in a given population and in its environment.

The ability of the animal health authorities to substantiate elements of the reports on the animal health situation in their country by surveillance data, results of monitoring program and details of disease history is highly relevant to the procedures of risk analysis. The science of epidemiology provides the foundation for surveillance and monitoring. A national epidemiological system should incorporate agent surveillance and monitoring, description of host population characteristics, and environmental assessment. An effective infrastructure is necessary to support this epidemiological system. Agent surveillance and monitoring may involve the clinical pathological examination of animals, the identification of pathogens, and the detection of immunological or other evidence of previous exposure of animals to pathogen.

The first step is early investigation of clinical diseases. Investigating the suspicious cases of animal diseases is one of the most important means of agent surveillance. Investigation may focus on exotic or new and emerging diseases within the country.

The next step is detection of agent and confirmation of disease prevalence. A complete epidemiological system may also require the screening of animals for OIE listed diseases having the major economic impact on trade in animals and animal products, as appropriate to the animal health situation of the country.

Now, the Asia-Pacific region is producing approximately 79% in value and 88% in volume of aquaculture worldwide. Nevertheless, the aquatic animal sector in the region is not as well provided with professional health services. It appears that, while aquaculture has been growing rapidly in many countries, there has been no matching expansion of the supporting aquatic animal health infrastructure. However, there is a relatively good coverage of aquatic animal health at international conferences, hands-on trainings, seminars and timely symposia on particular diseases organized by SEAFDEC, OIE, FAO and other organizations.

Recently, the following Conferences and Training course were held:

- OIE International Conference on Risk Analysis in Aquatic Animal Health, held in Paris in 2000;
- SEAFDEC Hands-on Training for Important Viral Diseases of Shrimps and Marine Fish, held in Iloilo, 2002 and 2003; and
- SEAFDEC/OIE/FRA/MAFF Japan International Symposium on Koi Herpesvirus Disease, held in Yokohama in 2004.

Reference Laboratory

With the aim to diagnose each OIE listed diseases, 15 fish disease institutes, 4 mollusc disease institutes and 2 crustacean disease institutes have been given the qualification as OIE Reference Laboratories in the world. The list includes 3 fish disease institutes located in the Asian region.

OIE Aquatic Code

The International Aquatic Animal Health Code contains health recommendations relative to international trade in aquatic animals and aquatic animal products. The practical application of OIE recommendations relating to international trade requires, in particular, the importing country to conduct risk analysis, preferably in liaison with the exporting country.

The aim of the Aquatic Animal Health Code is to assure the sanitary safety of international trade in aquatic animals (fish, molluscs and crustaceans) and their products. This is achieved through the detailing of health measures to be used by the Veterinary Administrations and Competent Authorities in the importing and exporting countries to avoid the transfer of agents pathogenic for animals or humans, while avoiding unjustified sanitary barriers.

The health measures in the Aquatic Code (in the form of standards, guidelines and recommendations) have been formally adopted by the OIE International Committee and the General Assembly of all Delegates of OIE Member Countries, which constitute the organization's highest decision-making body.

The development of these standards, guidelines and recommendations is the result of the continuous work of the OIE Aquatic Animal Health Standard Commission. This Commission draws upon the expertise of internationally renowned specialists to prepare draft texts for new chapters of the Aquatic Animal Health Code or revise existing chapters in light of advances in veterinary science. The views of the Delegates of Member Countries are systematically sought through the circulation of draft and revised texts. The value of the Aquatic Animal Health Code lies in the fact that measures published in it are the result of consensus among the OIE Member Countries.

OIE Aquatic Manual

The purpose of the Manual of Diagnostic Tests for Aquatic Animals is to provide a uniform approach to diagnosis of diseases listed in the OIE Aquatic Animal Health Code so that the requirements for health certification, in connection with trade in aquatic animals and their products, can be met. Also many publications exist on the diagnosis and control of aquatic animal diseases. The Aquatic Manual is a key document describing the methods that can be applied to the OIE listed diseases in aquatic animal health laboratories all over the world, thus increasing efficiency and promoting improvements in aquatic animal health worldwide.

OIE as an International Standard Setting Organization

The World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) conferred on the OIE new responsibilities under international law by specifying "the

standards, guidelines and recommendations developed under the auspices of the OIE” as the international standards for animal health and zoonoses. The SPS Agreement is aimed at establishing a multilateral framework of rules and disciplines to guide development, adoption and enforcement of sanitary measures in order to minimize their negative effects on international trade. Guidelines for conducting risk analyses are described in the Aquatic Animal Health Code. The Code thus forms an integral part of the regulatory reference system established by the WTO.

Conclusion

Effective realization of disease control needs to be based on accurate disease information resulting from well-designed surveillance and monitoring schemes. Especially with reference to trans-boundary animal diseases, a single country could not necessarily accomplish to prevent and control of such diseases. In order to carefully plan surveillance and monitoring schemes which would be acceptable worldwide, the OIE Aquatic Code and Manual should be referred to as the global standards. The OIE Regional Representation based in Tokyo will work with the Member Countries, SEAFDEC and relevant organizations for aquatic animal disease control.