

# 我が国における動物由来感染症対策

## Countermeasures in Japan for Preventing Zoonoses

厚生労働省 健康局結核感染症課 課長補佐・森田 剛史

Takeshi MORITA, DVM, Deputy Director,

Tuberculosis and Infectious Disease Division, Health Service Bureau, Ministry of Health, Labor and Welfare



(Slide 1)

Hello, everybody. I am Takeshi Morita.

I am the final presenter in this symposium. The theme I have been given to talk about is “Countermeasures in Japan for Preventing Zoonoses”. There are two main domestic laws that govern such matters, namely the Infectious Diseases Control Law and the Rabies Prevention Law. I intend to center my talk on these two laws.

(Slide 2)

Firstly, I would like to talk about “infectious diseases of animal origin”. We use the term “zoonoses” as the name of our study group. These two descriptive names share the same meaning, but because the Ministry of Health, Labour and Welfare (MHLW) sees things from a viewpoint of protecting human health, it prefers talking about “infectious diseases of animal origin”. So I want to start by confirming that these two terms have the same meaning.

(Slide 3)

This figure shows details that the process of countermeasures in Japan for preventing zoonoses has developed. In 1950, the Rabies Prevention Law came into effect. The aim of the law is to prevent the infection of rabies in humans. The countermeasures of the law were aimed mainly at dogs. Then in 1999, a number of species was added to the list of animals, cats, raccoon, foxes, etc., subject to quarantine provisions under the law. In 2004, the Ministry of Agriculture, Forestry and Fisheries (MAFF) strengthened animal quarantine by revising the quarantine methods under ministerial regulation.

On the other hand, the Infectious Diseases Control Law came into effect in April 1999. At the beginning, the measures for animals was to prohibit the importation of monkeys. But since that time, whenever zoonoses have become a problem, the list of prohibited animals has been expanded to include such species as the prairie dog, the masked palm civet cat, various bats, the Natal multimammate mouse, etc..

In 2003 the responsibilities of veterinarians and animal traders, the notification system for the importation of animals were introduced by revising the law. With this revision mammals and birds which are not the subject of animal quarantines are required the notification in case of the animal importation. Moreover, in this revision additional measures were put in place to deal with animals that were sources of infection.

(Slide 4)

Now, let me talk about rabies. The Japanese word for rabies is “kyokenbyo”, which contains the character for “dog”.

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However it is a well-known fact that all mammals can be infected by the rabies virus. Usually, an animal develops the disease after receiving a rabid animal bite through the saliva. The disease develops in humans in many cases following a comparatively long incubation period of one to two months, while dogs exhibit a slightly shorter incubation period of between three and eight weeks. Also, once the symptoms have appeared, it is virtually impossible to save the infected person and animal. However, when humans are infected, although there is some risk of the infection spreading

from one person to another, such cases are very rare in practice. And when a rabid animal bites a person, the development of the disease can be prevented by means of a timely vaccination.

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Let us look at the situation with regards to rabies in Japan. In 1949-50, there were comparatively large outbreaks of rabies in both humans and dogs. In response to this increased number of cases the Rabies Prevention Law was enacted in 1950. This contained strengthened measures to eradicate rabies in dogs and, as a result, no cases of rabies have been confirmed in Japan since 1957.

However, there have been cases of people who have been infected by rabies overseas and developed symptoms after returning to Japan. Such cases occurred in 1970 and in 2006.

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Now, let us look at the measures taken based on the Rabies Prevention Law and how these measures are implemented. MHLW has responsibilities for management of the Rabies Prevention Law and local governments (prefectural and municipal level) carry out the actual measures to prevent infections in domestic animals. Under the law, dog owners are required to register their dogs with the local authority and to ensure that their animals receive a rabies vaccination, and required to put tabs on their dog. The prefectural authority carries out dog control activities. These activities include capturing and impounding stray dogs and returning them to their owners if the owners are identified, or, if the owners cannot be found, transferring them to an animal welfare organization if they are suitable for re-homing, etc. It is the prefectural authority that destroys those dogs whose owners cannot be found and that are deemed unsuitable for transfer.

Rabies controls are also implemented when dogs, cats and various other animals are imported into Japan. The animals are only allowed into the country after a period of quarantine which is carried out by

the Animal Quarantine Service of the MAFF. This system is designed to ensure that only animals not at risk of carrying rabies are imported into Japan. However, if a case of rabies does occur in Japan, it is the responsibility of the local authorities to deal with it. The local authority can take a series of quite powerful measures such as ordering the isolation or confinement of animals that are infected or suspected of being infected by rabies. These are some of the countermeasures taken when rabies occurs in Japan.

(Slide 8)

This slide shows the rabies situation around the world. Japan is colored in blue because there haven't been any cases of rabies occurring here since 1957. But worldwide, rabies occurs in almost all countries, and there have been quite a lot of cases of people becoming infected, especially in such countries as China, the Philippines and India. As the current international distribution of commodities including animals is so active, we should be aware that there is always a risk of rabies entering Japan at any time.

(Slide 9)

As for preventing rabies from spreading, control of animals is important. In Asia, dogs are considered to be the most important animal. If wild animals that seldom come into contact with humans are infected with rabies, the risk of people becoming infected is comparatively small. But in the case that animals such as dogs, which live at close quarters with people, there is a considerable risk to people. Therefore dog owners are obliged by law to ensure that their animals receive a rabies vaccination injection. In this way, the authorities hope to prevent rabies outbreaks from occurring at all or at least prevent them from developing into an epidemic if the disease does re-enter the country.

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This brings us on to border control measures. How are the applicable laws and regulations applied to rabies?

In the previously mentioned Rabies Prevention Law, provision is made for conducting inspection concerning these animals. Approximately 7,200 dogs and

approximately 1,800 cats were imported into Japan in 2010.

Moreover, under the Law Concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infection (Infectious Diseases Control Law), bats, monkeys and some other species of animals are prohibited from being imported.

Importers of mammals other than animals which are not the subject of animal quarantines are required to submit a health certificate that the animals being imported are not infected with rabies. According to these records, approximately 450,000 mammals were imported into Japan in 2010. However, many of these were rodents, a class of animals that is not at high risk of contracting rabies.

(Slide 11)

The MHLW has produced guidelines in order to mount an effective response in the event that rabies does occur. These guidelines were drawn up in 2001. They give a detailed outline of the steps required to move from suspicion to definite diagnosis in the event that an animal or person is suspected of being infected by rabies. We are now conducting research to formulate more advanced guidelines that will explain, for example, how to conduct an epidemiological investigation in cases where an owned dog in Japan is diagnosed with rabies.

(Slide 12)

This is a poster that we produced. In it, you can see part of an image of an old record. As the poster shows, rabies definitely used to exist in Japan and some people were infected. We should not forget that. We need to keep in mind that there might be an outbreak at any time, even after so many years.

(Slide 13)

This is what the MHLW says on its website about preventing rabies. Firstly, as rabies occasionally infects Japanese travelers abroad, it tells Japanese traveling overseas not to touch animals without reason. If you are bitten by a dog, etc., wash the wound and

surrounding area with soapy water, have the wound inspected at a clinic or hospital and obtain treatment if required. Also, the Quarantine Stations can provide consultation in such cases, so please come forward and get a consultation upon your return to Japan.

(Slide 14)

Secondly, this is for dog owners. In the context of rabies prevention, dogs are important. We request owners to ensure that their dogs receive a rabies vaccination and that they register their dogs. We have to appeal to dog owners continuously to do these things.

(Slide 15)

So let me talk next about the broader subject of preventing infectious diseases. We commonly refer to the Infectious Disease Control Law by this, its simplified name.

(Slide 16)

The purpose of this law is to prevent the occurrence of infectious diseases and from spreading them. Regarding the measures employed to realize this aim, the government carries out the tasks written here. Firstly, the national government lays down the basic policy and the prefectural authorities draw up their own prevention plans based on this policy and implement measures accordingly.

So, how do we obtain a picture of the overall infectious disease occurrence situation? Medical doctors and veterinarians report cases of infectious diseases, which allow the authorities to grasp the situation and make official announcements if required. What sort of response do the authorities make to the information they receive? For example, if necessary, the authorities may ask patients to restrict their work or recommend hospitalization. Also, they carry out research in order to ascertain the actual cause of the infection. If the source of the infection is identified then they will take countermeasures against it. What is required may differ according to the type of disease, so the measures to be taken need be decided accordingly. I will explain more about this.

Regarding the provision of appropriate medical care for patients, in the case of diseases such as Ebola hemorrhagic fever (EHF), the patients are treated at a special hospital. Furthermore, animal import regulations are enforced.

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The system carried out under the Infectious Disease Control Law consists of the measures listed here.

The main diseases are categorized into Category I to V infectious diseases and “Pandemic influenza and relevant infections”. This circle shows the measures that can be taken for each disease type under the law.

Rabies, which I talked about earlier, and parrot disease (psittacosis) are both classified as Category IV infectious diseases. Let us see what countermeasures can be taken against these diseases under the law. We can sterilize the goods that may be sources of the infection as well as the places contaminated by the disease agents. But unlike EHF, these are not diseases that are transmitted from human-to-human. So restricting patients from working or recommending hospitalization cannot be enforced.

On the other hand, in the case of serious diseases that can be transmitted from human-to-human, such as Ebola, you can see many circles indicating what measures can be taken according to the law. There are a number of fairly strong measures that can be taken, including not only restricting patients from work or recommending their hospitalization, but also restricting their entering buildings or using public transport.

(Slide 18)

This figure shows how to grasp the occurrence of infectious diseases. I talked about the classification of infectious diseases in the previous slide. All cases of Category I to IV infectious diseases have to be reported. What this means is that the doctors who diagnose patients with these diseases are required to report each case to the health center. In turn, the health center reports the information to the local authority and from there it is passed on to the MHLW.

In practice, once the information is placed in the computer system at the local authority it can be viewed virtually instantaneously at the MHLW. Then the situation of the occurrence of the infectious diseases obtained in this way is shared with the public and with medical care institutions.

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As for the animal import measures, I have already mentioned that there are import prohibitions and import notification obligations based on the Infectious Diseases Control Law. Among the import prohibitions, there are two patterns. The first pattern is not allowed without obtaining special permission of the MHLW and the MAFF. The second pattern is allowed in compliance with certain conditions, such as if the animal, which is limited to the monkey in the designated area, is placed in quarantine. The import notification obligations are aimed at mammals and birds. The notification of the animal importation is submitted together with the health certificate. This notification system has become a preventative measure against infectious diseases.

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In implementing measures against infectious diseases of animal origin it is important for to cooperate with the organizations concerned, for example, the MAFF, the Ministry of the Environment (MOE), the Ministry of Economy, Trade and Industry, and the Ministry of Finance for animal importation matters. If an infectious disease outbreak occurs domestically, our Ministry takes steps to coordinate and cooperate with local authorities, and at concerned ministries such as the MAFF and the MOE, and we also cooperate with the relevant medical associations, and relevant veterinary associations if needed.

This slide shows the flow of cooperation using the real example of avian influenza. There is a committee called the Liaison Committee Among Ministries and Agencies. So when an actual outbreak of highly pathogenic avian influenza occurs the ministries concerned gather at the Cabinet Secretariat, share information, and decide on the countermeasures policy.

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In order to take appropriate measures against infectious diseases it is necessary to gather scientific knowledge. So our Ministry is promoting research into such diseases by MHLW Grants.

This example takes infectious diseases of animal origin as its theme. A wide variety of studies are conducted and the scientific knowledge of infectious diseases of animal origin (such as capnocytophaga) is developed on the results of such research.

(Slide 22)

Guidelines are also developed as one of the results of the research. Regarding individual diseases we have developed guidelines on rabies, West Nile fever, chikungunya fever and so on. Other guidelines shown here are guidelines for zoonotic diseases for use in facilities that exhibit animals (such as zoos) and there are hygiene management guidelines for securing the hygiene of assistance dogs also.

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Moreover, we introduce information about these and other cases in the style of a Q&A form about rabies, West Nile fever, capnocytophaga, tick-borne encephalitis, etc. In the Q&A we explain what kind of disease it is, how it is diagnosed, how it can be prevented, etc.

(Slide 24)

The handbook is produced for the general public and introduces general points that people should pay attention regarding infectious diseases of animal origin.

They are written here: -

- Wash your hands after touching an animal and wash your hands after touching the sand in a sandpit, or the soil in a park, or when gardening.
- Keep your contact with animals within reasonable bounds.
- Keep your surroundings clean. And since animal waste may contain agents of infectious diseases, dispose of it quickly.

-If you are keeping a bird indoors, be sure to ventilate the room sufficiently.

-As for wild animals, you should always assume that wild animals carry agents of infectious diseases so we should not touch them if at all possible.

-As for rabies, people are requested to respond by following the law.

(Slide 25)

There are many kinds of infectious diseases of animal origin and it is rather difficult to get a full grasp of them. For further information, there is a website under the National Institute of Infectious Diseases Infectious Disease Surveillance Center. This contains a variety of information on infectious diseases of animal origin. It may seem very academic but it will give you an idea of what the diseases are.

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For people traveling overseas, we produce leaflets like this middle one which is available within departure lounges. While abroad, even if you think a certain animal is really cute, and want to buy it, you will not be allowed to bring it back home. These pamphlets and posters have also been made to help people avoid unexpected infection of infectious diseases of animal origin.

(Slide 28)

Today I have tried to give you a rough explanation about the measures against infectious diseases of animal origin that the MHLW deals with, and the research and information services we are involved in.

Thank you very much for your attention.

## 我が国における動物由来感染症対策

厚生労働省健康局  
結核感染症課  
森田 剛史

【Slide1】

## 狂犬病の特徴

- すべての哺乳類の動物が感染する、狂犬病ウイルスを原因とする感染症。
- 通常は、罹患動物による咬傷の部位から、唾液に含まれるウイルスが侵入して感染する。
- ヒトでは、多くは1~2ヶ月の潜伏期の後、発病する。(犬では、通常3~8週間)  
発病後の有効な治療法がないため、発病すれば、ほぼ100%死亡する。  
通常、ヒトからヒトに感染することはない。
- 罹患動物に咬まれた場合の治療として、ワクチン接種等により発症を阻止する。

【Slide5】

## 動物由来感染症とは

・Any disease or infection that is naturally transmissible from vertebrate animals to humans and vice-versa is classified as a **zoonosis** ……

(出典: WHO HP Zoonoses and veterinary public health (VPH))

- ・人獣共通感染症
- ・人と動物の共通感染症

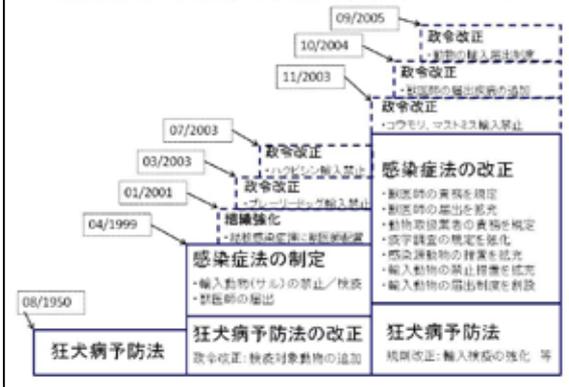
【Slide2】

## 日本での狂犬病発生の状況



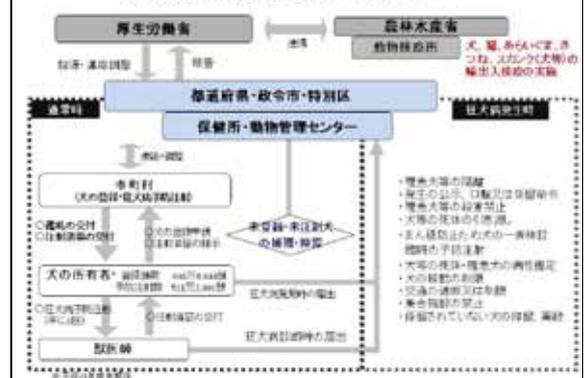
【Slide6】

## 動物由来感染症対策の強化について



【Slide3】

## 狂犬病予防法に基づく対応



【Slide7】

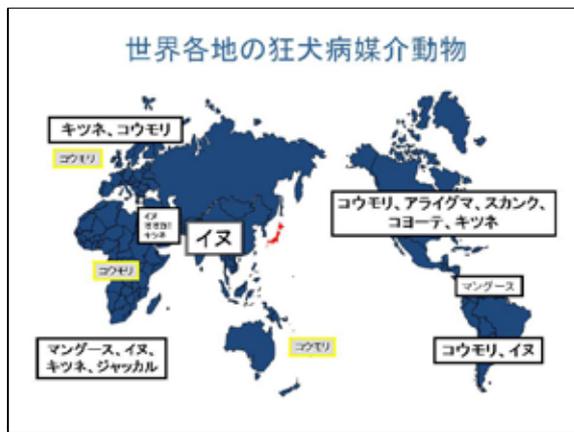
## 狂犬病対策について

【Slide4】

## 狂犬病の発生状況



【Slide8】



【Slide9】

### 狂犬病の予防のために①

○ 狂犬病流行地域に渡航される方へ  
渡航中に狂犬病に感染しないよう注意！

- ・ 滞在中にむやみに動物に手を出さないようにする
- ・ 万が一、滞在中に犬等に咬まれた場合には、
  - (1) すぐに傷口を石けんと水でよく洗う
  - (2) 現地医療機関を受診し、傷の手当てと狂犬病のワクチン接種を受ける
  - (3) 帰国時に検疫所(健康相談室)に申し出る

【Slide13】

### 水際対策 ～海外からの狂犬病侵入防止～

**狂犬病予防法**  
 輸入検査 犬、猫、アライグマ、キツネ、スカンク  
 輸入実績(平成22年:動物検疫所計): 犬 7,199頭、猫 1,755頭  
 その他 0頭

**感染症法**  
 輸入禁止 コウモリなど  
 輸入検査 サル(指定地域からのもの)  
 輸入届出 輸入禁止・輸入検査以外の哺乳類の動物  
 (輸入検査実績(平成22年:動物検疫所計): サル 約6千頭)  
 輸入届出実績(平成22年:輸入動物届出届受理システム):  
 哺乳類の動物 約452千頭(多くは畜畜目)

**家畜伝染病予防法**  
 輸入検査 牛、馬、豚等  
 輸入実績(平成22年:動物検疫所計):  
 牛・馬・豚等 約22千頭、(羊 約4千頭)

【Slide10】

### 狂犬病の予防のために②

○ 犬を飼っている方へ  
以下は、犬の飼い主の義務となっています

- ・ 市町村に犬を登録する
- ・ 犬に狂犬病の予防注射を受けさせる(年1回)  
毎年4月から6月は狂犬病予防注射期間
- ・ 犬に鑑札と注射済票を付ける

詳しくは、お住まいの市町村の窓口にお問い合わせ下さい。

【Slide14】

### 狂犬病発生時のガイドライン

【Slide11】

### 感染症法に基づく対策等について

【Slide15】

### 私たちは君を忘れない

狂犬病は人から人に伝染する恐れがある病気です。大切な命を守るために、狂犬病を予防しましょう。

狂犬病予防法に基づき、狂犬病予防注射を受けさせましょう。

狂犬病予防法に基づき、狂犬病予防注射を受けさせましょう。

狂犬病予防法に基づき、狂犬病予防注射を受けさせましょう。

【Slide12】

### 感染症の予防及び感染症の患者に対する医療に関する法律(感染症法)

**【目的】**  
感染症の発生を予防し、そのまん延の防止を図る

**【手段】**

- (1) 基本指針(国)、予防計画(都道府県)の策定
- (2) 感染症発生状況・動向の把握、公表
- (3) 感染症発生時の適切な措置(就業制限、入院、調査、ねずみ族、昆虫等の駆除等※)  
※: 疾病の分類等に応じて、とりうる措置が規定
- (4) 適切な医療の提供(感染症指定医療機関)
- (5) 動物の輸入規制

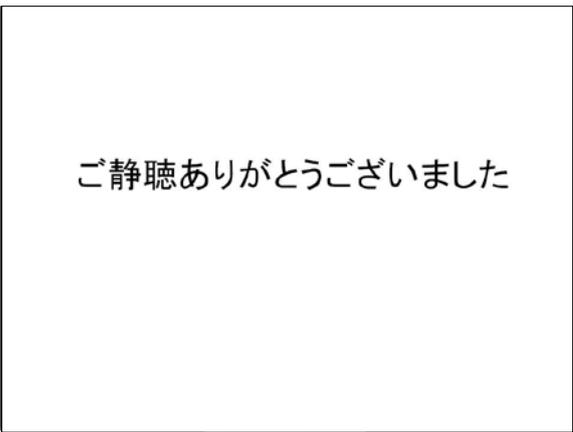
等

【Slide16】





【Slide24】



【Slide28】



【Slide25】



【Slide26】



【Slide27】