

Introduction to Rakuno Gakuen University Veterinary Teaching Hospital

History

Rakuno Gakuen University Veterinary Hospital (currently, Veterinary Teaching Hospital) was established in 1968 mainly as an institution for training, clinical education and research for veterinarians involved in the medical care of large animals such as cows and horses, who at the time were scarce in Hokkaido. To date, there have been approximately 3,900 people who received clinical education through this Hospital and are now active in society. The total head count for medical care provision has increased wherein the total count in 2003 was more than 14,700 with 6,700 large animals such as cows and 8,000 small animals such as dogs and cats.

Background of veterinary medicine

With significant changes in lifestyle, the desire to live along with animals has become stronger and consequently the demand has increased for sophisticated medical services for small animals. Furthermore in the livestock industry, multi-breeding has become more advanced and much effort has been poured into the provision of safe and reliable livestock food products. This must be backed up by medical care for large animals focusing on preventive medicine. There is a big expectation for veterinary medicine supporting medical care for animals, to not limit itself to medical care for animals but to play a role in the development of life science to solve environmental and public health issues surrounding man and animals. Veterinary medicine is now a constantly advancing field and the importance of training veterinarians to a world-class level and their post-graduate education cannot be overlooked.

Characteristics of the Veterinary Teaching Hospital

The Veterinary Hospital is provided with numerous functions in order to address several issues involving animals. The group of facilities supporting the medical care, education and research in both departments of clinical science of small animals and large animals, are all established based on international standards. The Veterinary Hospital hopes to collaborate with the community through medical care, education and research and thus serve as the communication center both domestically and internationally. The Control Center of the Environmental Pollutants and Infectious Diseases in Domestic Animal and Wild Animal Medical Center are on the property so that various information can be collected and analyzed from environmental pollutants and samples derived from animals. They play the role of communicating valuable environmental information to society.

Description of the facilities

The Veterinary Teaching Hospital is composed of a group of buildings: Veterinary Hospital Main Building, Clinical Lecture Wing, Training Wing, Hospital Wing, Infected Animal Control Wing, Wild Animal Medical Center, Animal Disposal Wing,

Carbonization Plant, Wastewater Treatment Facility, Compost Area and Hay Shed. The total area of the buildings is 8700 sq. meters that, as of 2004, makes this Hospital the largest institution amongst all training universities for veterinarians in Japan.

- **Veterinary Hospital Main Building**

On the 1st floor, facing the Veterinary Hospital Main Building is the clinic for the Dept. of Small Animal Clinical Sciences on the left and the clinic for the Dept. of Large Animal Clinical Sciences on the right. Surgery and hospital rooms of the Dept. of Small Animal Clinical Sciences, rooms for interns, graduate and international students and a room for visiting professors are found on the 2nd floor. There is large lecture room that can be utilized for lectures and continuing education classes. In the salon next to it, a wonderful view of nature can be seen through a wide window depicting greenery in the summer and silvery whiteness in the winter. The Control Center of the Environmental Pollutants and Infectious Diseases in Domestic Animal is found on the 3rd floor. There is a chemical laboratory for organic and inorganic analysis connected with the Dept. of Environmental Pollutants and a diagnostic laboratory for pathology of infectious diseases connected with the Dept. of Infectious Diseases.

- **Clinical Lecture Wing**

The Clinical Lecture Wing is on the east side of the Main Building connected to each other by a bridge. A clinical lecture room for both small animal and large animal clinical sciences is on the 2nd floor while a training room for cow and horse studies is on the 1st floor.

- **Feeding Facility for Large Animals (Hospital Wing, Infected Animal Control Wing, Training Wing)**

The Hospital Wing for cows and horses and the Infected Animal Control Wing for calves extend out from the Dept. of Large Animal Clinical Sciences in the Main Building as separate wings. The Training Wing with tethered cows extends out from the 1st floor of the Clinical Lecture Wing. These 3 wings are connected by bridges and are set up with a Hay Shed and Compost Area.

- **Wild Animal Medical Center**

The Wild Animal Medical Center is located in a separate wing. Disease research and analysis of environmental pollution are conducted here by bringing in wild animals that are used as specimens.

- **Disposal System**

Specimens and wastewater generated within the facilities are disposed at the Animal Disposal Wing, Carbonization Plant and Wastewater Treatment Facility. The goal of the disposal is to detoxify the source of infection and to reuse the disposed matter as much as possible, adopting the concept of symbiosis and recycling.

Department of Small Animal Clinical Sciences

A place where visitors and animals can feel comfortable –

In addition to a spacious, brightly lit waiting area, experts in the fields of internal medicine, orthopedics, oncology, ophthalmology, anesthesiology, cardiovascular diseases, diagnostic imaging and behavioral treatment are available to discuss your problems. With the introduction of a magnetic resonance imaging (MRI) system provided by a grant from the Ministry of Education, Culture, Sports, Science and Technology, the latest X-ray CT, endoscope, ultrasound technology and automatic blood analyzer, the department's diagnostic precision has improved. Appropriate treatment is provided in the treatment room and the intensive-care unit at the end of the examination room. Surgery with a high level of expertise is made possible by using 4 surgical rooms including a positive pressure surgical room that has a high cleanliness level. Everything is explained in a comprehensible way to the owner of the animal.

The best practical training for the students –

Education is carried out in a practical manner by having the students participate in highly specialized medical care. The facility is designed to be spacious with consideration of this training style of involving students in medical care.

The veterinary hospital that is utilized through collaboration with the community –

We strive for a community-based veterinary hospital by maximizing the expertise of secondary medical care as well as medical care and training of external veterinarians.

Department of Large Animal Clinical Sciences

A tradition made by the proven training of veterinarians specializing in large animals –
Our training facility has the best quality of all veterinary schools in Japan in reflection to our tradition of training veterinarians specializing in large animals. There are 2 medical vans that continuously ensure off-campus house calls, providing support to medical care and education.

Clean medical and hospital facilities –

Individual medical care is supported by a clean prep room, 2 exam rooms for cows, a surgical unit for cows, an anesthesia induction room for horses and surgical unit for horses. Hygiene management and production activity of cows are supported by a common examination room, bacterial cultivation room and an embryo transplant room. The cow chamber of the hospital wing is spacious and has an observation hallway while the horse chamber utilizes wood from Hokkaido, which is gentle to the horse's body.

Aiming for a clinical service that is in tandem with project research to achieve business solutions –

Data that is useful for group management is accumulated through the combination of detailed individual medical care and production information. Samples obtained during medical care are used to generate new information with the collaboration of basic research scientists.

Bringing the production site to training –

The training facility is appropriately equipped for practical sciences. The training wing provides 4 spacious cow chambers where cow beds with pillows can even accommodate cows that are unable to stand, and stalls for 16 tethered cows. Simultaneous display of 5 cows is made possible in the training room developing a training environment that is close to that of an actual production site.

A place open to the local community –

A big lecture room and a salon for relaxation are provided for post-graduate studies of veterinarians and continuing education courses for the public.

Control Center of the Environmental Pollutants and Infectious Diseases in Domestic Animal (EPID)

We monitor the migration of any environmental pollutants to animals and agricultural products. Our goal is the technical development of detoxification and toxicity reduction of these pollutants as well as the development of prognosis of infectious diseases in livestock and the framework for epidemic control. This facility and the Wild Animal Medical Center are supported by a grant from the Ministry of Education, Culture, Sports, Science and Technology as a center for advanced research.

Wild Animal Medical Center

At the Animal Disposal Wing, animals infected with dangerous diseases such as BSE (bovine spongiform encephalopathy) are kept in absolute quarantine, examined and incinerated at 1200 degrees Celsius within the building. At the Carbonization Plant, non-infectious waste products are carbonized at 800 degrees Celsius and detoxified. Efforts are made to recycle them into soil conditioners, for example. At the Wastewater Treatment Facility, sanitization is carried out up to the level of E. coli removal by the membrane filtration method.

Reducing the burden on the environment is also a major concern at Rakuno Gakuen University Veterinary Teaching Hospital.