

**"KLINICAL ROTATON YEAR" AS A FACTOR OF IMPROVING
CLINICAL TRAINING IN VETERINARY GERMAN UNIVERSITIES**

Abstract. *This paper considers aspects of the introduction of "Clinical Rotation Year" in Veterinary German Universities. In April 2005, a clinical rotation was introduced in the Faculty of Veterinary Medicine at Ludwig Maximilians University of Munich to improve quality of clinical education. The eighth and ninth semesters were merged into one semester, and the prescribed semester breaks were abandoned. The clinical year was divided into 14 rotations of 3,5 weeks each 1 Ludwig-Maximilians and included a 3-week break over Christmas and New Year's. Each Universität München, Medizinische Kleintierklinik, München, Deutschland clinic offers a range of different rotations among which students have to choose six. Because of the general nature of Germany's veterinary license, which includes all species and clinical disciplines, students are required to follow certain guidelines while selecting their preferred rotations. For each student, a mandatory 7-week rotation is required in which pathology, food hygiene, and animal welfare is taught. Due to various constraints, the numbers of students admitted to different rotations varies, and therefore not all requests for rotations can be fulfilled. To this end, students are not only asked to indicate their favourite six rotations but also to rank these in order of preference during registration. If demand turns out to exceed the rotations offered, then an alternative rotation is assigned to a student depending on ranked preferences. In an attempt to control quality of new curriculum, student performance is evaluated after each block in nearly all of their rotations. In addition, students are invited to evaluate teachers as well as facilities.*

Keywords: *veterinary education, curriculum, clinical rotation*

Introduction and general definition of problem.

The current stage of development of higher veterinary education as a whole and the entire higher education in Ukraine is characterized by educational innovations aimed at preserving the achievements of the past and to modernize the education system as required according to the latest achievements of science, culture and social practices. Nowadays characteristic features of higher veterinary education is search for new content, forms, methods and means of teaching and management, study best practices of European countries, the deployment of a broad experimental work aimed at implementing educational innovations. Modern Ukrainian veterinary universities study the experience of European universities and practice implementing the principles of construction of high-tech flexible education systems through the application of modern information and communication technologies, do not aimed at simultaneous implementation of all the principles of the Bologna process but better to use the experience of foreign colleagues to adopt the best to help increase the effectiveness of teaching and thus the competitiveness of its graduates. Training programs for professional veterinary medicine in Germany are characterized by the following features: they are clearly professionally-oriented, graduates make career in the narrow field of professional, technology education at German universities are focused on the practical application of the gained knowledge. Taking into account an innovative educational experience of European countries, such as Germany, where the system of higher education is characterized by harmonious combination of old university traditions and innovative management education, fundamental theoretical education and scientific-research activity, accessibility and high quality of education one can conclude that it is one of the ways to solve educational problems of higher veterinary education in Ukraine.

The purpose of the article is to consider aspects of the introduction of "Clinical Rotation Year" as a factor of increasing the clinical training of specialists in veterinary medicine in Veterinary German Universities.

Analysis of recent research and publications on the topic

The issue of education in Germany has been the subject of research of many Ukrainian and foreign researchers. The dual system of vocational training have researched such scholars such as N. Abashkina, I. Akimov, S. Romanov, D. Toropov, G. Fedotova, K. Hyufner etc. Comparative analysis of higher veterinary education in Germany and other countries is presented in the papers of German scientists-comparativistics, namely: a comparative analysis of higher veterinary education in Spain and Germany – Zina Francis Marion Fris; comparative analysis of higher veterinary education of the European Union (Czech Republic, Hungary, the Netherlands, Austria, Switzerland) and the United States– Barbara Susanna Strobel ; comparative analysis of higher veterinary education of France and Germany of Petra Andrea Buck; comparative analysis of higher veterinary education Austria and Germany – Murauer Karin, comparative analysis of higher veterinary education of England and Germany – Paul Oliver. The historical development of veterinary education is presented by example of history of the Institute of Food Hygiene Faculty of Veterinary Medicine University of Leipzig by scientist Cindy Krueger, the role of women in the establishment of veterinary education in the period (1950–1952) and the (1958–1989) was studied by Bettina Adela Maurer. In keeping with this theme the work of Eyfler Bettina should be also mentioned. She considered female medical assistant role of veterinary medicine in the history of veterinary medicine in Germany for the period 1951–2006 years.

Basic material of the research

Nowadays specialists of Veterinary Medicine in Germany are training at four faculties: Berlin, Munich, in Giessen, in Leipzig and the University of Veterinary Medicine Hannover.

Faculty of Veterinary Medicine of University of Munich Ludwig-Maximilians currently consists of 15 institutes and clinics, research management in the municipality Obershlyayshaym (Bavaria). Faculty has 14 full-time professors, 14 visiting professors, one honorary professor, 18 associate professors and 24 assistants. Currently 1864 students are studying at the Faculty, 1/7 first-year

students are among them. Period of study at the veterinary faculty of Munich LMU is 5,5 years (11 semesters), which is divided into preclinical and clinical specialists training of veterinary affairs. Students at 4,5 years of study at the Faculty of Veterinary Medicine 3850 learning hours of normative and selective disciplines of the scientific-theoretical, professional and practical training of veterinarians. Study of practical and clinical training (practice) has 1170 hours: 70 hours in agriculture, livestock and cattle, 150 hours for medical practice of veterinarian, 75 hours in institutions of hygienic control and inspection of food, 100 hours at school of veterinary-sanitary examination of meat, 75 hours in institutions of the State Veterinary Service, 700 hours of veterinary practice optional [4].

In April 2002 the Faculty of Veterinary Medicine of the University of Munich Ludwig-Maximilians was inspected by Commission of the European Association Establishments for Veterinary Education (EAEVE)[3]. Clinical training of students, vets has experienced considerable criticism at that time. It was concluded that no imitation of operations in the audience cannot give students the ability to think clinically, examine the patient, establish a diagnosis, conduct of operations and others. In order to obtain by veterinarian students on the basis of previously acquired knowledge of clinical experience in the practice, deepening professional knowledge, enhance skills and abilities of veterinarian. During the summer term 2005 at the Veterinary Faculty of the University of Munich Ludwig-Maximilian was introduced so-called "Clinical Rotation Year". During this year the student is in those conditions in which he will work after graduation. Thus, the total theoretical training veterinarians of the past 3,5 years (7 semesters), providing lectures and seminars, independent literature work, participation in conferences, consultations, seminars, forums finds its practical expression in the effective students work in different schools of veterinary industry. If during the first seven semesters clinical practice was held in spare time lectures, during the "Clinical Rotation Year" when students do not attend lectures, they are able constantly to have in clinical training skills at the workplace. "Clinical Rotation Year" brings the 8th and 9th semesters, in the time dimension it is divided into 14 blocks, length of

each account including Christmas and New Year holidays is 3,5 weeks. Each clinic at the university offers six courses, in addition to these units is introduced 7 weeks of paraclinical unit (Veterinary Pathological Physiology, fundamentals of prevention and treatment of animals in collective and own farms, veterinary and sanitary inspection of food of animal origin) [1].

Justus Liebig University Giessen has also joined to innovative learning processes in the German veterinary universities. It was founded in 1607 by landgrave Ludwig V as well as Gissen Academy. The University is located in a small town in the center of Giessen in Germany (federal state of Gissen). Gissen is known primarily as a university city that lives under the motto "Wissen schafft die Stadt" ("Science creates the city"). By 1945 the University was named after Louis University (Ludwigsuniversität). Part of the University, which remained intact until the end of World War II, was transformed into the Institute of Agriculture and Veterinary Medicine named after Justus von Liebig (Justus-Liebig-Hochschule für Bodenkultur und Veterinärmedizin), who in 1957 (350 years after establishment) received university status again [1].

Justus Liebig University Giessen in the 9th and 10th semesters "cyclic year" ("Rotationsjahr") has 25 student groups of veterinarians, each of which has about 8 students, have practice in the following order: at a veterinary facility for horses (4 weeks), at a veterinary clinic for small animals (8 weeks), at the veterinary facility for ruminants (2 weeks), at the veterinary facility for obstetrics (4 weeks), at the veterinary facility for birds (1 week), at the veterinary facility for pigs (1 week), at the veterinary department of parasitology, pathology, virology and bacteriology (1 week each). This distribution of practices on species of animals does not exist in Ukraine, although this type of practice has significant advantages, as well as each representative of the animal world has a special structure of the body and many species of animals are sick only by characteristic diseases [1].

Name of Block	Name of Institution	Duration of the practice (weeks)
Block 1	Clinic for Horses (Surgery)	2
Block 2	Clinic for Horses (internal diseases)	2
Block 3	Clinic for Small Animals (Surgery)	2

Block 4	Clinic for Small Animals (Surgery)	2
Block 5	Clinic for Small Animals (internal diseases)	2
Block 6	Clinic for Small Animals (internal diseases)	2
Block 7	Department of Obstetrics, Gynecology and Reproductive Sciences	2
Block 8	Department of Obstetrics, Gynecology and Reproductive Sciences	2
Block 9	Clinic for Birds, Reptiles, Amphibians and Fish	2
Block 10	Clinic for Ruminants	2
Block 11	Clinic for Pigs	2
Block 12	Bacteriology/Virology and Pathology per week	2
Slaughterhouse	Slaughterhouse	3
The establishment institution of the State Veterinary Service	The establishment institution of the State Veterinary Service	2
The Hygienic Control Institution and Food Inspection	The Hygienic Control Institution and Food Inspection	2
Practice	700 hours = 4 months	16
Holidays	Christmas	5

Conclusions

Perfect clinical training will allow graduates of German university start to work immediately without hesitation and a long period of adaptation. Practical training of veterinary doctors in Germany is achieved by systematic and active participation in their diagnostic and therapeutic work, clinical analysis and other types of practice. Clinics at German universities ensure qualitative multifaceted veterinary practice, help to establish contacts with professional environment, gain an experience of professional work. Clinical Year is the highest form of vets training. Taking into account positive experience of implementing "Clinical Rotation Year" in Veterinary Universities of Germany one offers to develop a program of application such an innovation in the learning process of the Veterinary Higher Establishments of Ukraine.

References

1. Fischer M. Studie über die Ausbildung von Tierärzten in den Lebensmittelfächern–ein europäischer Vergleich: Inaugural-Dissertation zur Erlangung des Grades eines Doctor medicinae veterinariae (Dr.med.vet.) Durch die Veterinärmedizinische Fakultät der Universität Leipzig – [electronic resource] – Access mode: <http://www.qucosa.de/fileadmin/data/qucosa/documents/3607/druckexemplar.pdf>
2. The University of Giessen – [electronic resource] – Access mode: <http://www.uni-giessen.de/cms/fbz/fb10>
3. Verordnung zur Approbation von Tierärztinnen und Tierärzten (TAppV) [electronic resource] – Access mode: <http://www.gesetze-im-internet.de/tappv/BJNR182700006.html>
4. University of Munich Ludwig-Maximilians – [electronic resource] – Access mode: <http://www.vetmed.uni-muenchen.de/index.html>