

Lithuanian University of Health Science

Veterinary Academy Veterinary Faculty

Kaunas, 2014

REPORT ON THE CHANGES MADE TO ELIMINATE THE MAJOR DEFICIENCIES

The list of major deficiencies reported by the expert group headed by prof. Ana Bravo del Moral (Lugo, Spain) on the visit to the Veterinary Academy, Lithuanian University of Health Sciences (Kaunas, Lithuania) on 1 – 5 October, 2012 (ECOVE decision: non approval):

- I. The extent, nature and form of practical clinical training, as laid down in Annex I of the SOP, are not met;
- II. The requirements regarding student care and safety, as laid down in Annex I of the SOP, are not met;
- III. The requirements regarding Physical Facilities in general and with respect to safety and health procedures, as laid down in Annex I of the SOP, are not met;
- IV. The Clinical facilities are inadequate and not conducive to a good learning and working environment;
- V. The isolation facilities (both small and large animals) are lacking.

Pictures and additional documents are attached on separate file (Annexes)

IMPLEMENTED CHANGES ELIMINATING THE MAJOR DEFICIENCIES STATED BY THE EXPERT GROUP:

I. The extent, nature and form of practical clinical training, as laid down in Annex I of the SOP, are not met;

1. The clinical caseload in small animal clinic was improved to assure an efficient patient flow to the benefit of the students:

	Clinical caseload number					
	2012	Average per month	2013	Average per month	Till 2014.09.30.	Average per month
Small animal clinic	5503	458,6	6011	500,9	5766	576,6

2. Standard Operating Procedures (SOP's) and general treatment protocols (algorithms) are developed in clinics and followed by veterinary surgeons and students on every day basis (*Annex I*).
3. The use of clinical records system was revised. Students have access to clinical records and use these records for studies. On the demand students have possibility to analyze clinical records any time (twenty four hours service). All patient data of anamnesis, treatment, diagnostic or laboratory examination are registered using the computer based clinic patient registration software. The data are set up by the responsible for the treatment veterinarian. All clinical records of the patients are kept in the clinic computers and as printed records according the requirements of the State Food and Veterinary Service of Lithuania. The number of clinical records and other documentation is defined by the decisions and orders of the Government of Lithuanian Republic and the requirements of State Food and Veterinary Service for the operating veterinary clinics.

4. The number of the theoretical hours was reduced in all subject according “Regulation of the Studies at the Lithuanian University of Health Sciences” (*approved by the Decree No. 32-03 of the Senate of the LUHS on June 07, 2013 and by the Decree No. 47-05 of the Senate of the LUHS on June 20, 2014.*)
5. The number of the contact hours was reduced especially in basic subjects and sciences: Physics, Biomathematics, Epidemiology and Anatomy, Histology and Embryology (**table 4.2. and 4.1.6**)
6. The number of practical hands-on hours in clinical subjects was increased (**table 4.2. and 4.1.6**)
7. The number of self-directed learning hours was increased (**table 4.2. and 4.1.6**)
8. The number of electives clinical subjects was increased (*Noninfectious Fish Diseases and Principles of Pond Fishery, Treatment of Exotic and Wild animals; etc.*)

Table 4.2. CURRICULUM HOURS IN THE EU-LISTED SUBJECTS TAKEN BY EACH STUDENT (2014-2015 study year)

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures A	Seminars B	Self-directed learning C	Laboratory and desk based work D	Non-clinical animal work E	Clinical work F		
1. Basic Subjects								
a) Physics	24		27	48			8	107
b) Chemistry	17		29	34				80
c) Animal biology	14		16	30			7	67
d) Plant biology	14		16	30			7	67
e) Biomathematics	22		52	27			6	107
<i>1 – Total number of hours</i>	<i>91</i>	<i>0</i>	<i>140</i>	<i>169</i>	<i>0</i>	<i>0</i>	<i>28</i>	<i>428</i>
2. Basic Sciences								
a) Anatomy (incl. histology and embryology)	85		335	219				639
b) Physiology	40		129	74	24			267
c) Biochemistry, cellular and molecular biology	62	18	76	66			18	240
d) Genetics (including molecular genetics)	20		32	18			10	80
e) Pharmacology and pharmacy	60		94	60				214
f) Toxicology (including environmental pollution)	18		34	28				80
g) Microbiology (including virology, bacteriology and mycology)	70	8	141	88				307
h) Immunology	22		62	36				120
i) Epidemiology (including scientific and technical information and documentation methods)	20	2	48	16	10			96
j) Professional ethics	10	9	21					40
<i>2 – Total number of hours</i>	<i>407</i>	<i>37</i>	<i>972</i>	<i>605</i>	<i>34</i>	<i>0</i>	<i>28</i>	<i>2083</i>
3. Clinical Sciences								
a) obstetrics	36		50		12	40		138
b) pathology (including pathological anatomy)	136	3	167	103	98			507
c) parasitology	46		85	18	44	20		213
d) clinical medicine and a surgery (including anaesthetics)	30		181		12	73	10	306
e) clinical lectures on various domestic	48	6	37		17	53	6	167

animal, poultry and other animal species including								
f) Field veterinary medicine (ambulatory clinics)	19		20		13	50	4	106
g) preventive Medicine	68	2	137	40	12	35	10	304
h) Diagnostic imaging (including radiology)	16		32	22	10			80
i) Reproduction and reproductive disorders	30		55	5	14			104
j) Veterinary state medicine and public health	22		51	36				109
k) Veterinary legislation and forensic medicine	20		85	16	36			157
l) Therapeutics	50		137	8		77		272
m) Propaedeutics (including laboratory diagnostic methods)	48	12	92		20	96		268
n) Practical skills 1 (small animal medicine, large animal medicine, laboratory and exotic animal medicine)						80		80
o) Practical skills 2 (small animal medicine, large animal medicine, laboratory and exotic animal medicine)						80		80
p) Practical skills 3 (small animal medicine, large animal medicine)						80		80
q) Practical skills 4 (small animal medicine, large animal medicine)						80		80
r) Practice (laboratory)					80			80
s) Clinical practice						400		400
<i>3 – Total number of hours</i>	<i>569</i>	<i>23</i>	<i>1129</i>	<i>248</i>	<i>354</i>	<i>1178</i>	<i>30</i>	<i>3531</i>
4. Animal Production								
a) Animal production	24		51	28			4	107
b) Animal nutrition	16		50	38			3	107
c) Agronomy	18		67	42			6	133
d) Rural economics	12		12	12			4	40
e) Animal husbandry	24		30		26			80
f) Veterinary hygiene	35		72	61			6	174
g) Animal ethology and protection	46	12	70		12		6	146
<i>4 – Total number of hours</i>	<i>175</i>	<i>12</i>	<i>352</i>	<i>181</i>	<i>38</i>	<i>0</i>	<i>29</i>	<i>827</i>
5. Food Hygiene / Public Health								
a) Inspection, and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit	40	9	147	40			20	256
b) Food hygiene and technology	44	4	51	83	14		10	206
c) Food science including legislation		19	18		4		5	46
d) Practical work (including practical work in places where slaughtering and processing of foodstuffs takes place)					64		14	78
<i>5 – Total number of hours</i>	<i>84</i>	<i>32</i>	<i>216</i>	<i>123</i>	<i>82</i>	<i>0</i>	<i>49</i>	<i>586</i>
6. Professional Knowledge								
a) Practice management	12		14	14				40
b) Veterinary certification and report writing	12		28	14				54
c) Career planning and opportunities	10	9	21					40
<i>6 – Total number of hours</i>	<i>34</i>	<i>9</i>	<i>63</i>	<i>28</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>134</i>
Total	1360	113	2872	1354	508	1178	135	7520

NOTE: separate clinical subjects (n-s) are alternative to clinical subjects indicated in the EU-list (a-m) as their integrate parts.

4.1.6 RATIOS

Ratio (Budapest June 2012 denominators)	2012		2014		Established range of denominators
	Numerator/ Denominator	1/Denominator (2012)	Numerator/ Denominator	1/Denominator (2014)	
R6 p44 SER	5445/3515	1/0.65	4343/3040*	1/0.700	0.602 (LL)**
R7 p44 SER	1015/2500	1/2.46	1178/1862*	1/1.581	1.809 (UL)**
R8 p44 SER	3543/8960	1/2.53	2872/7520*	1/2.618	2.576-103.746 (Range)

* The values for ratios R6, R7 and R8 are calculated according to the data given in Table 4.2 (according SER Annex III 4.1.2.1)

** established range of denominators (November 2013.)

All indicators were improved and fulfill particular requirements and exceed them.

9. The number of students in groups is decreasing. Also practical work is supervised by two teachers.
10. The procedure of clinical rotation scheme in the clinics was updated and improved:
 - a. The attendance to practical and clinical work is compulsory for all students.
 - b. All students develop clinical rotation at the clinics of Veterinary Academy under supervision of Veterinary faculty teachers of clinical subjects or veterinary surgeons.
 - c. At the beginning of clinical rotation students are introduced with the plans of formation of practical skills and descriptions of particular work tasks prepared for each study year (2-3-4 and 5) students. Students have to report about developed skills to the supervisor (teacher) on each day basis. At the end of the study year students have to pass examination on developed clinical practical skills during particular study year.
 - d. Students of each study years have different tasks for the development of clinical practical skills and clinical rotation are supervised by individual mentor. This ensures that students from different study years are not grouped together.
 - e. For the development of clinical practical skills students visit Lithuanian Zoo, LUHS Veterinary academy Continuing Education and Consultation Centre (large animals) and Vivarium, Practical Training and Testing Centre. Students visit the outside veterinary establishments (private veterinary clinics, animal farms) for the development of particular practical skills. The list of these establishments is approved by the Council of the Veterinary Faculty. The bilateral agreements of cooperation are signed with these establishments. The progress of the development of practical skills is registered in the daybooks and reporting is organized as described above (section b). Development of the practical skills at outside establishments is effectively monitored by the veterinary surgeon having contract with Veterinary Faculty or teacher from the faculty. In such way it is ensured that students gain practical skills working with all different types of animals.

- f. All teachers of clinical subjects have licenses of the veterinary surgeon practitioner and are involved in the clinical work. Veterinary surgeons from the clinics are also involved in the pedagogical work.
11. Each student leaving for the clinical practice signs a trilateral practical training agreement among student, university and clinic and a competent supervisor from the clinic is appointed. The practice supervisor at the clinic (or clinic) is paid by the LUHS for giving service to perform clinical practice. In addition, clinical practice is supervised by the teachers of the Veterinary Faculty.
 12. In addition two veterinarians from Small Animal Clinic have started PhD studies since September of 2014. One more veterinarian holding PhD degree was employed at the Large Animal Clinic. The number of veterinary doctors and clinical subjects teachers have increased
 13. Since September of 2012 Open Access Centre “Animal Health and Quality of Animal Raw Material” of studies, science and business valey “Nemunas” is functioning at the Veterinary Academy. There are 7 scientific laboratories within Open Access Centre equipped with a new scientific equipment where students can prepare their final master thesis under supervision of teachers and scientists from the Veterinary Faculty.
 14. Majority of students (58 proc.) prepare the final master thesis under supervision by teachers of clinical subjects and veterinary surgeons from the university veterinary clinics.
 15. Since 2013 Veterinary Faculty receives funding which is allocated among faculty units and used to ensure the study process, to support preparation of students final master thesis and to update the infrastructure.

II. The requirements regarding student care and safety, as laid down in Annex I of the SOP, are not met;

1. All students undertaking training have accident insurance (*Veterinary faculty insures all students*). Insurance contract No. 770-2214784, insurance company „ERGO Insurance SE“, *Geležinio vilko str. 6A, LT-03507, Vilnius, Tel. +370852683000 (Contact person: Dovile, +370 69938245)*. Insurance covers accidental injuries, loss of ability to work, death eg.:
 - Small injuries, poisoning, tick encephalitis, Lyme disease
 - Bone fractures.
 - Injuries of soft tissues.
 - Loss of hearing, loss of sight and other accidental injury of organs or loss of functions.
 - Accidental injury of brain or other parts of central nerve system.
 - Accidental death.
 - Insurance is valid around the world and 24 hours per day during lectures, practical training, during transition from/back living to study places, practice or practical training places.
2. **Vaccination against rabies and tetanus**

- Rabies vaccination

In Lithuania constantly is performed oral vaccination of wildlife, education of public. State Food and Veterinary Service is responsible for this issue. All patients arriving into University veterinary clinics are checked (documents) for rabies vaccination.

Epidemiological situation of rabies in Lithuania is very good at the moment. In 2013 there was no cases of rabies in wildlife and only one in domestic dog.

Preventive vaccination against rabies is available and recommended for students and veterinary surgeons. Preventive vaccination is not compulsory for students and veterinary personnel according to legal requirements of the order of the minister of Health 2004 10 14 No. V-716 „ Regarding approval of a list of occupations who are vaccinated by an employer“. The veterinary faculty compensate all expenses related to vaccination and students are informed about this opportunity via intranet in the beginning of each semester.

Rabies contact vaccination is started immediately after contact if there is any risk of rabies. This is done free of charge. Information about this issue is placed in every place where contacts with animals or material of animal origin happen i.e. Veterinary Faculty clinics and laboratories, pathology center and others (*Annex 2*).

- Tetanus vaccination

In Lithuania babies are vaccinated against tetanus jointly with diphtheria and pertussis, or other multivalent vaccines. Teenagers (15-16 years) are vaccinated compulsory against tetanus jointly with diphtheria vaccine.

Revaccination is recommended every 10 years for adults. Students at LUHS Veterinary Academy are 19-25 years old, therefore they are properly vaccinated against tetanus.

In case of contact with risk materials vaccination is done immediately. Information about this issue is placed in every place where contacts with animals or material of animal origin happen i.e. Veterinary Faculty clinics and laboratories, pathology center and others.

III. The requirements regarding Physical Facilities in general and with respect to safety and health procedures, as laid down in Annex I of the SOP, are not met;

Implemented changes according to the proposed recommendations:

1. At the University there is Occupational Safety and Health Service – which has executive power:
 - a. Provide consultations for rector and staff on occupational safety and health and its improvement
 - b. To organize training of personnel in occupational safety and health, first aid and fire safety matters.
 - c. To organize and supervise mandatory health checks for employers of the University
 - d. To organize, coordinate and implement occupational risk assessment
 - e. To investigate accidents at work, or other cases related to occupational safety and health, make an account of such events
 - f. To prepare orders for University on occupational safety and health, and fire safety matters
 - g. To participate in University occupational safety and health committee work, provide information on occupational safety and health, fire safety situations, and results of internal control.
 - h. To control how requirements of occupational safety and health, and fire safety are met by University employees and students at University units.
 - i. To participate in outside audits and to provide information for rector or other competent authority.

- j. To inform rector and other competent authorities about the outcome of such the audits.
 - k. To provide instructions for newly employed staff.
- 2. Students are instructed (must sign) in every University unit where teaching is taking place. After instruction students should sign in the registration form. Heads of the faculty units are responsible for this.
- 3. There were equipped disinfection measures for footwear disinfection at the Pathology centre (*Annex 3*) There is instruction and necessary means available for students and personnel for hands disinfection in risk zones (autopsy room, contacts with animals zones, etc. (*Annex 4*).
- 4. Laboratories and clinics where work is done with chemicals are equipped with eye wash showers. These places are specially marked. Personnel is trained on how to use this equipment (*Annex 5*).
- 5. In risk areas (e.g. autopsy room, vivarium, clinics, etc.) information is posted in Lithuanian and English on preventive and emergency measures in case of rabies and tetanus risk (bite from an animal or contact of soil in wounds (*Annex 2*).
- 6. Students are informed via intranet in the beginning of each semester about possibility to get vaccination against rabies and tetanus.
- 7. Every building or floor is equipped with proper emergency evacuation plans and signs. Evacuation paths are available and properly maintained.
- 8. LUHS VA buildings are supplied with proper number of fire extinguishers and fire hose according to requirements of existing national legislation. Periodically, according to national regulations, LUHS is examined by fire safety inspectors (last check in 2013).
- 9. Every 3 years the University staff is trained fire safety according to fire safety programme.
- 10. First year students living in student hostels are given training on fire safety issues (DSST and Student Association initiative).
- 11. Heads of Large and Small animal clinics and University responsible staff have 8 hours training programme on fire safety according to training programme for administrative staff. After the training they must pass the exam and get a certificate. Last training was in 2014.
- 13. All students before formation of practical skills at Veterinary clinics and other teaching places are introduced (must sign that are introduced) with the safety instruction Safety and health instructions for work with animals in Small animals clinic and Large animals clinic and have to sign in registration book "Students practical training safety and health instructions register"
- 14. All veterinary radiologists have personal dose measurement equipment, which are inspected every 3 months. This process is under responsibility of LUHS Civil protection service (head Mr. S. Zelionka) and Assoc. Prof. A. Stepaniukas is appointed as the responsible person at the Veterinary Academy.
- 15. For disabled people there are created all possibilities to get into VA buildings. In the renovated buildings for this purpose there are adapted lifts (*Annex 6, 7 and 8*). There is trained personnel which provide service how to use equipment for disabled people (stairclimbers) and to provide them other help if necessary (*Annex 9*).

IV. The Clinical facilities are inadequate and not conducive to a good learning and working environment;

- 1. To ensure successful students training related to clinical procedures the equipment of the small and large animal clinics is updated constantly. Below there is the list of the new

equipment and tools purchased within period from 2012 till 2014.06. *(same pictures attached: (Annex 10)-Small animal clinic and (Annex 11)-Large animal clinic:*

DR. L. KRIAUCELIUNAS SMALL ANIMAL CLINIC
Newly purchased equipments

Seq. nr.	Object name	Purpose of use
1.	Diagnostic equipment	
1.1.	Digital Ultrasonic Diagnostic Imaging System „Mindray DP-7“	Ultrasonography
1.2.	Video Gastroscope „SHINOVA Gastrix-92V“	Examination of proximal gastrointestinal tract and upper respiratory tract. Removal of some foreign bodies. Brush cytology
1.3.	Microscope „MicrosDaffodil MCX100“ with energy efficient LED fluorescence attachment and integrated video camera	Microscopic examination of body fluids, skin, urinal and fecal specimens
1.4.	Video otoscope „UB Cam“	Investigation of ear canal and diagnosis of ear diseases
2.	Laboratory equipment	
2.1.	Blood biochemistry analyzer „Spotchem EZ“	Blood biochemistry
2.2.	Compact Urine Analyzer „PocketChem UA“	Urinary tests
2.3.	„IDEXX VetLab UA“ analyzer	Urinary tests
2.4.	„AlereINRatio® 2 PT/INR Monitoring Systems“ analyzer for anticoagulation management	Blood clotting measure
2.5.	„VetScan VS2“ analyzer	State-of-the- art chemistry, electrolyte, immunoassay and blood gas analyzer
3.	Devices and equipment for ophthalmic examination	
3.1.	Handy slit lamp „SHIN-NIPPON XL-1“	Ophthalmic examination
3.2.	Ophthalmoscope (2 Units)	Ophthalmic examination
3.3.	Combi lamp „HeineMINI 3000“	Ophthalmic examination
3.4.	Binocular magnifying glass C 2,3x340	Ophthalmic examination
3.5.	Gonioscope„G-4 Mirror NF L“	Ophthalmic examination
3.6.	Diagnostic penlight (20Units)	Ophthalmic examination
3.7.	Tonometer „Tono Vet“	Ophthalmic examination
4.	Operating room equipment	
4.1.	Operation lamp with integrated video camera and image review software „Mindray HyLite 6 series“	Used in operating room also for recording operation video. Both private data and for student learning.

4.2.	Electro cautery device (2 Units)	Used in almost every surgery where excessive tissue bleeding is expected. Also used for tissue dissection
4.3.	„Mindray WATO EX-35“ anesthesia machine	Used for anesthesia maintenance
4.4.	„Mindray MEC-1200 Vet“ portable veterinary monitor	Monitoring of physiological parameters during anesthesia
5.	Surgical instruments	
5.1.	Surgical toolkit	Surgical procedures
5.2.	Orthopedic surgical toolkit	Orthopedic procedures
6.	Teaching materials	
6.1.	Computers and Software (2 Units)	Student learning
7.	Safety measures	
7.1.	Bite protection sleeve (3 Units)	Protection from dog bites
8.	Another important inventory	
8.1.	Personal dosimeters	To estimate individual radiation dose
8.2.	Stretcher „SaverS-2108“	To carry animals which are unable to move
8.3.	Refrigerators in hospital (5 Units)	To store reagents, vaccines, food and pharmaceuticals.
8.4.	Liquid soap and disinfectant dispensers (16 Units)	Hand washing and disinfection
9.	PURCHASING IS IN PROGRESS	
9.1	Digital X ray machine	Digital rentgenography
9.2.	Monitors	Monitors to analyze Digital x-ray photos
9.3.	X-Ray protective clothing for radiation users	To protect from x-rays
9.4	Optical digital multipurpose medical camera	that provides retinal, anterior eye, otoscopic and dermatoscopic imaging with one hand-held device
9.5.	Heterogeneous immunoassay device	offers a new alternative for POC testing utilizing the unique and patented magnet immuno assay (MIA) technique.
9.6.	<i>Bench top Immunoassay Analyser</i>	Hormones analyzer
9.7.	Surgical tool set for eyes	For surgical operations.
9.8.	Mindray MEC-1200 Vet“ portable veterinary monitor	Physiological parameters monitoring during surgery
9.9.	Measures for animal fixation (dog grasper, injection box)	Protection from the bites, animal fixation

LARGE ANIMAL CLINIC

Newly purchased equipments

Number	Name	Purpose:
1.	Ultrasound scanner „Easi scan“	to determine the optimal time for insemination, early/late pregnancy and sex.

2.	Steam Sterilizer „INCANCLAVE STE-B23T“	for sterilization of re-useable surgical instruments and material. It operates automatically with 134 and 121 °C temperatures.
3.	Endoscope „Olympus videomed“	for portable veterinary. For a visual examination of internal organs and body parts without invasive exploratory surgery.
4.	Equine Haler	used to treat horses with respiratory disorders.
5.	Veterinary pulse oximeter VE-H100B	intensive care, operating, recovery, emergency.
6.	Shaving machine for large animal „RODEO“	for the preparation of the operation field/area.
7.	Set for horse dental care	
8.	X-ray protective apron „CAWO FLEX“	for safe work with X-ray diagnostic equipment.
9.	X-ray protective gloves „Medical index“	for safe work with X-ray diagnostic equipment.

2. In the strategic development plan of LUHS for 2014-2020 period renovation and updating of the infrastructure of Small animal and Large animal Clinics are described as priority areas.
3. Currently negotiations are in progress with the Ministry of Studies and Science and the Ministry of Agriculture of the Republic of Lithuania regarding implementation of two projects „Development of infrastructure for animal healthcare and implementation of innovations in veterinary practice” and „Establishment of infrastructure for study programme of Veterinary Medicine”. These projects will be implement during 2014-2020 year period. This will result in creation of the new Large Animal Clinic at Veterinary Faculty outside city, and in expanded and renovated with new facilities Small Animal Clinic. Both clinics will be provided with new and up-to-date specialized equipment (*Annex 12 and 13*)

V. The isolation facilities (both small and large animals) are lacking.

1. Faculty equiped isolation facilities (*both small (Annex 14) and large (Annex 15) animals.*)



Dean of Veterinary faculty

Prof., dr. Vita Riškevičienė