



RE-VISITATION REPORT

To

Faculty of Veterinary Medicine - Trakia University, Stara Zagora, Bulgaria

On

3 - 6 April 2022

By the Re-visitation Team

Maria Peleteiro, Lisbon, Portugal: Chairperson

Hans Henrik Dietz, Copenhagen, Denmark: ESEVT Coordinator

Contents of the Re-visitation Report

Introduction

- 1. Correction of the Major Deficiencies**
- 2. Correction of the Minor Deficiencies**
- 3. ESEVT Indicators**
- 4. Conclusions**

Introduction

The EAEVE Visitation (FV) to the Faculty of Veterinary Medicine, Trakia University, Stara Zagora, Bulgaria took place 13 - 17 May, 2019. During the visitation the Visitation Team identified some deficiencies. Based on the visitation report, ECOVE considered five (5) of them major, and three (3) minor, thus the VEE was not accredited (December 2019).

Following the acknowledgement of the ECOVE decision in January 2020, the VEE established a working group with the participation of external experts from Bulgaria and abroad.

The R-SER describing in detail the amendments and corrections done in order to make up for the deficiencies was received 2nd February 2022. Relevant material for the Team was also present at the VEE website. Additional material was requested during the visitation and immediately provided for by the VEE.

The Re-Visitation took place in a professional and cordial manner and the general meetings were attended by several teachers.

The ESEVT SOP 2016 was valid for this visitation.

1. Correction of the Major Deficiencies

1.1. Major Deficiency 1: Non-compliance with Substandard 3.5 because there is no acknowledgement of Day One Competences in all groups of subjects

1.1.1. Findings

The VEE has established measures at various levels to develop a Students Logbook, including the Day One Competences (D-1-Cs). The competences considered to be included in the Logbook were discussed by the departments, the Clinical Committee, the Dean's Office, the Education Committee and the Faculty Council.

The content of the Curriculum Book, containing description of each subject, its objective and learning outcomes, was revised to integrate information necessary to establish the competences to insert in the Logbook.

A meeting of the Clinical Committee with representatives of undergraduate and PhD students and non academic staff was organised to discuss the D-1-C Logbook, which was approved 13 December 2021 of the Faculty Council, to be implemented from 2022 onwards.

The Students D-1-Cs Logbook shall guarantee that students have acquired specific knowledge and skills during the entire period of training. Its correct filling, and authentication by teachers is based

on student's achievements and performance during demonstrations and practical training, shifts, summer practical training and in-class and extramural training.

The methods for authentication and grading include different approaches – evidence of taught material and student performance observed under the supervision of the instructor. The completion of the Logbook ensures that all clinical procedures, the theoretical and practical training included in the curriculum, have been 100% followed by every student.

The Students D-1-Cs Logbook contains 287 competences and activities grouped into 27 subject categories. Also, modules where the activity is taught and competence level achieved is mentioned are also included. The entries of each subject and associated skills or competencies identifies the time, place, mode and site of acquisition reflecting the relationship between the curriculum, the study plan, the subjects and skills/competences acquired by students. Furthermore, the revised Curriculum book has been approved by the Faculty Council. The Academic Affairs Unit of the Dean's Office and the instructors are responsible for the quality control of Logbooks guaranteeing that all clinical procedures and practical training included in the curriculum are completed by each student.

1.1.2. Comments

A Students Logbook including D-1-Cs has been implemented following a discussion involving the Departments, the Clinical Committee, the Dean's Office, the Education Committee and the Faculty Council. Students and non academic staff were also involved in the discussion. Full implementation is due to start in the academic year 2022/2023, although the students already have their Logbook and have had it signed whenever possible. Logbooks in use were presented to the Team, including a full English translation.

The Logbook includes all information needed for the students to know what is necessary for it to be considered properly filled in: 75% of all procedures and skills described in each table and when the number of activities in a section is less than four, all such activities have to have been completed. The final control of the correct and complete filling of the Logbooks is made by the Student Affairs Office at the end of the academic programme.

Furthermore, the acquisition of D-1-Cs is strongly supported while students are on EPT although the VEE according to Bulgarian law is not allowed to register the training procedures seen/trained/performed during the EPT with larger companies or in smaller private practices.

Recording of skills registration in the university is under the jurisdiction of the Ministry of Education and Research while the control and working procedures in private practices are controlled by the Ministry of Agriculture.

1.1.3. Suggestions

It would be beneficial for the veterinary students if legislation procedures regarding registration of acquiring skills and D-1-Cs could be aligned between the different ministries.

1.1.4. Decision of the Visitation Team The VEE has rectified the Major Deficiency and is compliant with Substandard 3.5.

1.2. Major Deficiency 2: Non-compliance with Substandard 4.6 because of insufficient adherence to biosecurity, safety and animal welfare legislation in some facilities

1.2.1. Findings

Two permanent committees have been established (the Central Biosafety and Work Safety Committee, with 7 persons, and the Central Animal Welfare Committee, also with 7 persons). Deficiencies in academic and support staff training, in systems and facilities, lack of biosecurity

signage and laboratory safety levels signage and lacking documentation and operating protocols with live animals have been rectified.

Examples of codes of good biosecurity practices in VEEs in Europe were evaluated, adapted to and introduced as effective biosecurity systems and formal rules for working with animals at the VEE. As a result an exhaustive guide for “Biosafety of FVMSZ” including specific biosecurity signage and identification of restricted areas was presented to the Team. The trailer for transportation of live animals has undergone an overhaul. In the Biobase premises, refurbishing of the floor, walls, including additional safety systems has been executed. Three new entrance rooms to the Biobase for students, teachers and employees entering the facilities with live animals have been established. All drivers, facility workers and newly appointed Assistant Professors have been included in Animal welfare training programs (in 2020 and 2021).

In facilities for live animals, microclimatic indicators, living area in square meters per animal, and dietary regimen are registered. The study programme after the second year includes a formal mandatory schedule for daily duties of students in the Biobase. The students, together with the manager, check the microclimatic parameters in all the premises, safety and biosecurity measures, the condition and feeding of animals, cleaning and housing conditions.

New yards for horses, sheep and goats have been built, and a new outdoor electrically fenced area for ruminants is in process. The construction of an 80 m² outdoor yard for dogs is under construction. The horse riding area has been supplied with an automatic water system. The contract for delivery and storage of hay, straw, fodder, as well as dietary norms for the different animal species were updated. An English-speaking manager of the Biobase has been appointed. For security reasons video monitoring has been installed on the Biobase and the VTH. A new room for healthy cats has been established. A modern facility for laying hens in line with the latest EU requirements of 2021 for welfare has been planned, and construction is planned for 2022-2023 of premises for broilers and pigs over 40-110 kg.

Until the end of 2022, a new 14 m² (-20°C) freezer chamber is placed to close the gap between the current refrigerator chamber (16m² at +4°C), the necropsy room for students and the entrance area for incinerator lorries. This restricted area is under the umbrella of the biosafety rules. In 2021, all written rules pertaining to each subject were revised, and in addition to the safe work and protective clothing instructions, new instructions for biosafety for work with biological material, microorganisms and live animals (laboratory, production animals, pets) has been developed. These rules were harmonised with the current EU and national legislations and as from 2022, new biosafety and bioprotection protocols have been developed. Currently manuals with instructions and guidelines describing working rules with biological material, microorganisms and live animals for every VEE unit (departments, VTH, the Biobase) have been made.

Rules for biosecurity briefings with the staff and the students are implemented. New workplace first aid kits and eye washers have been installed. All relevant information on biosafety, good laboratory and clinical practices is printed and posted in Bulgarian and English. Work clothing and special personal protective equipment are provided where necessary in each department, clinic, necropsy room and in the Biobase. Contact with animals wearing personal clothing is not allowed. A personal protective clothing design is currently being developed for students working on farms during the extramural training.

Currently, the chemistry, biochemistry, microbiology labs are re-equipped and storage and working procedures for chemicals have been changed. Work is underway to improve the premises, the ventilation and construction of storage rooms.

Consumption of food and beverages in laboratories or rooms for storage of reagents, samples, etc. is prohibited. All laboratory glassware and containers are labelled; the access to them is limited.

In 2020, contracts for the disposal of hazardous chemical substances ("ECOMA" company) and disposal of biological samples and carcasses ("Ekarisazh Shumen - Bramas-95 AD") have been signed and are operational. The contracts are renewed every year.

Medicines are stored in special cabinets in the pharmacy, where there is limited access. All drugs are labelled. The web based patient recording software "VetManager" of the VTH monitors expiry date of all drugs. A pharmacist has been appointed in the summer of 2021.

Fire extinguishers are installed in all laboratories and other fire-hazardous zones. New fire safety equipment has been installed in the animal facilities and feed storage sectors. A new smoke and fire alarm system has been installed in 6 floors in Building # 7.

In 2021, the VEE applied for and received a permit for registration of vaccinated animals in the national system of the BFSA, with passwords and user profiles. Five instructors from the Department of Infectious and Parasitic Diseases were trained.

1.2.2. Comments

In 2022, an SOP "Biosafety and safe work in VEE units" has been published comprising about 250 pages with relevant, local biosafety regulations including illustrations of all pictograms and biosafety levels and symbols. Likewise, an SOP for animal welfare, incl. laboratory and experimental animals in the VEE has been published. The Team noticed adherence to the regulations laid down in the new Biosafety SOP in all relevant premises including e.g. a new facility for automatic spray disinfection of vehicles used for transportation of live animals.

The VEE offers official Bulgarian training courses directed towards e.g. lorry drivers and animal caretakers for animal husbandry welfare, transportation of animals for slaughter, and humane slaughter of all species of animals (e.g. to be able to be certified to transport live animals according to the EU Transport Directive). The major part of this training in Bulgaria is conducted at the VEE. It is commendable that the study programme after the second year includes a formal mandatory schedule for daily duties of students in the Biobase. The students, together with the manager, check and register the microclimatic parameters in all the premises, safety and biosecurity measures, the condition and feeding of animals, cleaning and housing conditions.

1.2.3. Suggestions

None.

1.2.4. Decision of the Visitation Team The VEE has rectified the Major Deficiency and is compliant with Substandard 4.6.

1.3. Major Deficiency 3: Non-compliance with Substandard 4.8 because the VTH does not provide 24/7 emergency services for companion animals and equines

1.3.1. Findings

From April 2021 onwards, a new 24/7 hours emergency service was established in a renovated and newly equipped Veterinary Teaching Hospital. The VEE staff was increased with eight new veterinarians and a 24/7 emergency service has been introduced.

The new Veterinary Teaching Hospital with Clinics includes three main units:

- The Small Animal Hospital
- The Farm Animal Hospital
- The Equine Hospital

There are also auxiliary units such as the Registration Office and the Laboratory and Diagnostic Centre, which includes:

- Clinical pathology laboratory
- Microbiology and virology laboratory
- Histopathology and cytopathology laboratory
- Infectious and parasitic diseases laboratory
- Diagnostic Imaging Unit with X-ray and CT
- Isolation Unit for infectious and parasitic diseases, with separate premises for different species
- Animal reproduction and reproductive health control unit
- Rehabilitation centre with physiotherapy unit
- Necropsy room
- Veterinary pharmacy
- Biobase - animal reference centre
- Mobile service unit
- VetsiM educational Skills lab centre with telemedicine
- Technical Support unit, including vehicle assistance

Existing equipment has been renovated and new equipment acquired, such as X-ray and a CT. New rooms have been established for ultrasound examination and laboratory analysis.

A new software “Vet Manager”, developed by a Bulgarian IT company for private practices and redeveloped in 2020 for the needs of the VEE, has been introduced for patient registration in all species and in all branches of the VEE. Undergraduate and postgraduate students are being trained to have access to the patient’s records. Each patient is registered in the database, and by means of individual chip-cards each veterinarian has access to the clinical information. Each owner receives a detailed printout of the activities carried out, and medication applied in the hospital followed by the price calculation. Students are trained in using real data from patient records during all types of clinical work made under the supervision of veterinarians and academic staff.

A formal mandatory rotation schedule has been introduced for 24-hour duties at the VTH with 5th and 4th year students, starting in September 2021. The schedule is for daytime training and nighttime shifts, and is mandatory. During the night shifts, the clinical pathology diagnostic service is carried out in a mini-lab (blood and urine) in the Small Animal Hospital.

Since March 2021, the management of the VTH consists of a manager, who works together with the Board of Directors (3 members) and the Clinical Board (17 members). Every week the VTH academic staff, the clinicians and the students have a common meeting (rounds) where all the patients from the past week are discussed.

Clinicians hired for the 8 vacant positions have been intensively trained at the beginning of their contract in various clinical subjects and they have an opportunity to pursue an academic career if they wish.

Each student makes at least 2 night shifts.

1.3.2. Comments

Eight new veterinarians have been employed and a mandatory rotation schedule has been implemented for 4th and 5th year students. There is not another 24/7-opportunity for clients within a 100 kms from the VEE.

1.3.3. Suggestions

None.

1.3.4. Decision of the Visitation Team The VEE has rectified the Major Deficiency and is compliant with Substandard 4.8.

1.4. Major Deficiency 4: Non-compliance with Substandard 5.2 because of insufficient clinical training in several species

1.4.1. Findings

The basic clinical training of students with the different animal species is done in the Small Animal Clinic, the Equine Clinic, the Farm Animal Clinic, with patients or animals owned by the Trakia University or the Biobase.

The VEE has established several measures at different levels to increase the number of animal patients for hands-on training, establishment of a new structure for the VTH and the Biobase), and the new software “Vet Manager”.

Horses have generally been serviced by the VEE outside of the VEE clinics, but without being entered in the patient registry system, because the registration procedures were paper based instead of electronic. Further to that there was no operational equine 24/7-service.

For further information the Team refers to the extensive SER Tables 1, 2, 3, 4 and 5.

The Trakia University has restored partnership with private practitioners through modernization of the Study Farm (140,000 m²), and restoration and modernization of the Horse Base (240,000 m²). A project “Intelligent Animal Husbandry” funded with 4,500,000 BGN has been signed to serve as a training site of the University. In 2020 and 2021, 120 Simmental cows and 94 Galloway cows were purchased, as well as 300 sheep. Further to this, a decision to establish a “Rehabilitation Centre for Horses” in the University Horse Base and at the site of a business partner with 120 sport horses and 30 horses for amateur riding and walking, has been made.

Undergraduate students have the opportunity to acquire new knowledge and skills through direct work and procedures with different species both on campus and extramurally. However, to reduce the number of live animals used for basic training the VEE has initiated a shift in the focus from live intramural animals and patients to 3D models, organs, virtual simulators, digital technologies and case study reports. This procedure has been accelerated by the Covid 19 pandemic. The students also receive basic training in healthy animals during their visits to the 23 partner farms where diagnostic work and treatment is done on patients.

The VEE has purchased Virtual Reality (VR) for the training of students. Access to a web-based software application for “3D dog anatomy” for teachers and students has been purchased. The plans for 2022 include user account access to the software application "Diagnostic Imaging Atlas" for all animal species in the Skills lab centre and "Visio Care Services" software for students in the VTH patient examination room.

Training of students is outlined with a smooth transition during the study programme, initiated with increased work with models, dummies, slaughterhouse material and organs, carcasses in pathology, demonstration of skills and handiness, progressively followed by work with live animals and real patients for more advanced students.

The Skills lab centre (VetsiM) is equipped with dummies, simulators, clinical equipment, devices, instruments and consumables and located in a separate building. Students are trained to perform basic practical, clinical skills in e.g. surgery, anaesthesiology, ultrasonography, laboratory analyses, urinary bladder catheterization, etc. It is managed by a veterinarian with specialisations in the field of management and personal development and a second English-speaking veterinarian, responsible for the development of the centre and the Telemedicine module, has been employed. Every week, the

centre announces a “Topic of the Week” on its Facebook page which is presented in detail in specific hours of weekdays to a group of students (group training). Students have free access to the Skills lab and they may choose an independent form of training with or without an instructor, who functions as a coach and gives advice in case of questions. Registration of an hour for training in the centre is done at least 2 days in advance through an online form available in Bulgarian and English at the Facebook page.

In 2021, a 3D printer was purchased for the Department of Anatomy. The technology for making artificial organs, details, parts, tools and other aids used in veterinary practice is currently being developed by connecting a new Siemens CT to the 3D printer.

The work with slaughterhouse material and mannequins is performed mainly in association with training in anatomy, animal reproduction, and general surgery. The different departments and clinics receive slaughterhouse materials for training of the students – internal organs, horns, hooves etc. The Re-SER Table 1 presents the number of hours spent in practical training with slaughterhouse preparations, cadavers, and patients.

The main activities of the clinics with participation of students are in several areas: triage, diagnosis, outpatient and inpatient treatment of sick animals. This is closely related to providing farm animal patients for conducting clinical training classes on the VEE campus. Within the framework of their activity, the instructors, specialists and the staff assist in the organisation and implementation of scientific projects, seminars and training carried out. Teachers also provide veterinary services and expert advice on issues related to animal husbandry in the field.

In 2021, a contract with the “Ko-Ko” laying hens farm in Stara Zagora was signed for the provision of laying hens for students training. The farm has a capacity of 7,258 laying hens. Due to the emergency situation with HPAI in Bulgaria, from 2020 visitors are not allowed into poultry facilities. Under the contract with the farm, a minimum of 100 birds per year is delivered to the Biobase for training of 3rd to 5th year students, for examination and application of different procedures.

The VEE has established partnerships with 14 cattle farms, 7 sheep farms, 1 pig farm, and 2 equine establishments (Re-SER Table 4). The VEE visits these farms/establishments on a weekly basis doing relevant veterinary work when they are there. Patients being treated are entered into the VEE electronic register as patients. In these specific farms the VEE does not do 24/7 which is covered by local practitioners.

Furthermore, contracts have been signed with shelters for dogs and cats, as well as with the local Stara Zagora Zoo. Regularly, students visit these sites under the supervision of a staff member. Patients being treated are entered into the VEE electronic register as patients.

For the extramural training students perform examinations, including ultrasound, various medical and diagnostic treatments, pregnancy detection, collection of blood and faecal samples for diagnostic purposes. At the same time, the skills related to conducting a physical examination, approach, actions, services, procedures with animals and handling are trained on the healthy animals (which are not registered as patients in the electronic file). Students also participate in operations, mostly skin surgery and castrations.

The performed training at the farms is of several types.

1. Practical training with 1st, 2nd, 3rd and 4th year students. At farms, students perform practical training in “Genetics and Breeding”, “Animal Breeding“, “Animal Hygiene and Technologies”, “Epidemiology and Preventive Medicine”. Students are transported by a university bus to the farm and are brought back after the classes. One instructor supervises a study group of 7-10 students.

Generally, veterinary activities, treatment, diagnostics and related training in farm animals are carried out on the above-mentioned farms that provide the largest possible number of patients for students to work with. The Farm Animal Clinic, together with responsible staff from the clinical departments,

organises the extramural training in Farm Animal Diseases, Mobile Clinic, and Herd Health Management (9th and 10th semester). During the last year of study, approximately 150 visits to farms are performed for training in obstetrics, internal diseases, surgery, parasitic and infectious diseases.

2. Practical training in non-infectious diseases of farm animals – obstetrics, internal diseases, and surgery. A total of 5 visits to farms, each with a duration of 6 academic hours, are performed by all students. Three to four student groups are transported to farms, with rotation among the different subjects. One instructor is in charge of 7-10 students. During their work with patients, the students take notes in diaries and consequently, help with registration of patients in the electronic system.

3. Practical training in “Mobile Clinic” and “Herd Health Management” is carried out in partner external farms for years.

During the 5th year of studies, students visit farms and work with animals with the Mobile Clinic - obstetrics, internal diseases, surgery, infectious and parasitic diseases. The training duration is 4 academic hours **for each visit to the farm**. One instructor is in charge of 7-10 students.

The practical training in Herd Health Management is carried out in large and modern cattle farms. During the classes, students are acquainted on the spot with rearing technology, nutrition, relevant diseases, care for animals, and other management and technical issues. This subject unites and summarises knowledge in all clinical areas. Students conduct two practical training sessions of 4 academic hours during the 10th semester.

Students are trained to communicate with owners, animal farmers under practice conditions.

The subject Herd Health Management is taught by the end of the 10th semester. This subject gives a general framework of all the knowledge gained so far from a number of other previous study subjects. "Herd Health Management" skills are also trained in the Mobile Clinic, as students travel to farms, and for the most part the thematic units allow acquisition of skills and hands-on training within diagnostics, treatment and prevention at the herd level. Information on this is given in the Re-SER, Table 5.

Working with animals, communicating with the vets and staff on the farms, students get acquainted with management decisions and economic indicators related to production animal health.

The treatment performed by the students during the visits to the farms are free of charge. This is done in order to ensure continued access to the farms.

During the 8th and 9th semester there are shifts in the “Clinic of Production Animals”, “Horse Clinic” and the Department of Infectious and Parasitic Diseases which are obligatory and are carried out with each student in each department for 2 days.

During the 10th semester, the study plan includes practical training in equine medicine. The distribution of study hours is 6 hours in obstetrics, 10 hours in internal non-infectious diseases, 15 hours in surgery and 10 hours in infectious diseases. During the 8th and the 9th semester, students are also trained in parasitology.

In 2021, contracts were signed with two horse breeding establishments. Together with a teacher the students regularly visit these sites and perform extramural practical treatment related to the examination of horses.

The “Horse Clinic” has pursued several action points to increase the number of horses available for teaching/training purposes:

- The range of patients’ diagnoses at the Horse Clinic is constantly expanding. Those with parasitological and infectious diseases are also included. Animals are regularly brought for diagnostic tests, for example - diagnosis of pregnancy.
- Signing of contracts for cooperation with horse breeding bases and farms and private practitioners with commitments for conducting student internships and joint veterinary services cooperation.

The number of companion animals, including exotic animals referred to the Small Animal Clinic has increased remarkably. Students spend a significant number of hours not only during the classes, but

also during summer practical training and specialisations. The VEE reckons that the major reason for the increased number of companion animal patients is due to the fact that owners now make appointments for their animals, significantly reducing the waiting time; an increased level of service; the establishment of a 24/7-service, and improved diagnostic modalities.

Mobile services. As of April 2021, the structure of the VTH includes an Animal Mobile Service Unit with 3 cars and places for students. Every week the mobile service works on farms in different regions of Bulgaria. Currently 4 sites are serviced regularly and there is a serious interest from more farmers. Every month the Mobile Service Unit registers 350 animal patients through "Vet Manager". Resigning contracts with farmers and offering more extensive services from the VEE is a continuous process. The Mobile Service Unit employs a veterinarian, a zoo engineer and a laboratory assistant, who, on the basis of contracts with farms, perform on-site hoof trimming and care in large ruminants, and collect blood samples for assay at the VEE. The work must be strictly in accordance with the Bulgarian Veterinary Act to avoid serious conflicts with local veterinarians. The VEE owns a new minibus for transportation of students and in addition there are four buses for student transportation. Due to transnational restrictions, the pigs and poultry issues with respect to animal numbers will not be solved easily. A short term decision in this situation is the periodic purchase (at least once per year), delivery and housing of poultry (at least n=100) (incl. laying hens; ducks) and pigs (at least n=80) in the Biobase at the VEE Study Farm.

The development of the VEE in the last two years is in accordance with the operating plan for short-term impact, derived from the SWOT analysis. An annual monitoring plan has been developed in the PDCA-cycle for VTH development with a strategy for building an education-science-business link. On site new modern modalities have been acquired - ultrasound devices, a new CT, digital x-ray, equipment for biochemical analysis, blood gas analysis, hormone analysis, semen analysis system, cell culture, LC-MS, and PCR equipment.

Data delivered to the Team during the RV showed a huge increase in the number of patients since the above mentioned changes have been implemented.

Tab. 1. Number of individual ruminants and pig patients seen extra-murally
Period 01.04.2021-31.03.2022

Department	Large ruminants	Small ruminants & Pigs	Total
Obstetrics	189	364	553
Internal non-infection diseases	374	10	384
Surgery	172	103	275
Infectious diseases	102	2995	3097
Parasitology	1	151	152
Mobile service	2637	-	2637
Total for the period	3475	3623	7098

Tab. 2. Number of ruminant and pig patients seen intramurally
Period 01.04.2021-31.03.2022

Department	Large ruminants	Small ruminants & Pigs	Total
Obstetrics	40	39	79
Internal non-infection diseases	34	11	45
Surgery	9	39	48
Infectious diseases	-	-	-
Parasitology	-	19	19
Total for the period	83	108	191

1.4.2. Comments

Over the last decade, the number of farm animals and horses in Bulgaria has decreased substantially, but the number of companion animals (dogs, and cats) has increased.

The VEE has established partnerships with 14 cattle farms, 7 sheep farms, 1 pig farm, and 2 equine establishments.

The work of students with animal patients is guaranteed. The additional contracts with horse establishments and dog shelters ensure an additional increase in extramural patients for these species. The number of equine patients seen intramurally as well as extramurally is still low when calculated as an average of the last three years. However, correctional measures (collaborative agreements with external horse owners/companies, improved clinical modalities, additional staff members, 24/7 service, highly qualified staff members, accepting many referrals, and establishment of the patient register system) have been taken during the Covid19-pandemic following the 2019 EAEVE-report. The correctional measures are already reflected in a substantially increased number of equine cases both intra-/extramurally.

Government regulations for ASF and HPAI in 2019-2021 have dramatically limited the access of students to pig and poultry farms in the region around the VEE and generally in Bulgaria. Further to this the COVID-19 pandemic has caused a breakdown in the system of provision of pig and poultry patients from commercial farms.

The VEE has supported the Ministry of Agriculture and Food with practical work, training or on-site biosecurity measures on farms in eradicating disease outbreaks in 2020 in poultry, pigs, sheep and cattle farms for which the ministry has sent compliment notes for this help.

Establishment of the patient register system has been the most important issue because the VEE realised that the number of patients in all species was underestimated.

The VEE established collaboration with the Plovdiv SA shelter where students are allowed to do all clinical tasks under supervision of the responsible vet and a teacher that accompanies the students.

The VEE established a collaboration with the Stara Zagora Zoo.

The VEE proudly mentions that the referral cases have increased due to staff members' expertise valued by referring private practitioners in the small animal area - orthopaedia, ophthalmology, dentistry, diagnostic imaging, endoscopy, and abdominal surgery. And for the equine area the referring practitioners especially appreciate the expertise in colic surgery, endoscopy (gastro/broncho), lameness (arthroscopic surgery), ultrasound.

The LA Mobile Service is doing all the practical work in the field (e.g. hoof trimming). Owners are not willing to send the animals to the VTH because it is difficult and expensive. So they compensate by doing this work for free. Only farmers with an agreement (Table 4 in the SER) benefit from the free treatment agreement.

See also Comments under section 3.2. in this report.

1.4.3. Suggestions

None.

1.4.4. Decision of the Visitation Team The VEE has rectified the Major Deficiency and is compliant with Substandard 5.2.

1.5. Major Deficiency 5: Non-compliance with Substandard 8.9 because of absence of knowledge of Day One Competences affecting the overall process of assessment

1.5.1. Findings

By introducing the Student Logbook, the VEE initiated a new approach to the students' assessment. The Logbook includes a foreword explaining the reasoning behind its development, a list of the D-1-Cs and the general rules for filling it, followed by a detailed list of competencies and skills in all groups of subjects to be acquired by the students. Additional competencies have been added including soft skills, digitalization and communication skills. The responsibility for the Logbook quality control and improvement is under the supervision of the Academic Affairs Office, as part of the Dean's Office, and involves individual teachers, in order to guarantee that all planned procedures and practical training in the curriculum is being completed by each student. Its accurate completion and authentication by teacher is based on what has been achieved during all forms of education.

The methods for authentication and assessment include different approaches - proof of attendance of lectures, practical lectures, demonstration/observation by the students, as well as technical procedures performed by the students themselves under the supervision of teacher.

The control of the Students' Logbooks ensures that all clinical procedures, theoretical and practical training planned in the curriculum are carried out or demonstrated. Emphasis has been placed on the possibility of direct assessment of clinical skills and knowledge listed in D-1-Cs.

The VEE has for a long time controlled Objectives and Learning Outcomes including D-1-Cs and other skills.

1.5.2. Comments

The Logbook has already been implemented, but the academic year 2021-2022 is considered as a "training period" for students and teachers. The Logbook will be fully introduced in a paper version and also electronically at the beginning of the academic year 2022-2023 (15th Sept. 2022). Currently the Beta-version of the Logbook is also being negotiated with the external companies (providing EPT), please refer to Major Deficiency 1.

1.5.3. Suggestions

None.

1.5.4. Decision of the Visitation Team The VEE has rectified the Major Deficiency and is compliant with Substandard 8.9.

2. Correction of the Minor Deficiencies

2.1. Minor Deficiency 1: Partial compliance with Substandard 3.8 because standardised evaluation by the EPT providers of the performance of the students is insufficient and no formal mechanism to provide feedback to the Establishment on the EPT programme is in place

2.1.1. Findings

According to the national legal requirements set up in 2016, the 720 EPT hours are divided into three parts: after the 6th semester (80 hours), after the 8th semester (160 hours) and pre-graduation training (internship) after the 10th semester (480 hours). Students are divided into small groups of 4-8 students and acquire specific skills under the supervision of experienced veterinarians. EPT can take place in any of the 28 regions in Bulgaria.

Guidelines for each EPT period were prepared in ~~2021~~ 2020 and they are available at the VEE Website, both in Bulgarian and in English. The Guidelines contain detailed information regarding how to apply for a specific emplacement and what to provide the VEE with when the EPT is completed.

EPTs are mandatory, and after each EPT students have to deliver a daily logbook and an individual report. They also have to provide a letter of confirmation stating the student's attendance for the period in question, signed and stamped by the institution authorities, and also a reference letter issued by the host describing the student's qualities, skills and capabilities as a trainee. The complete documentation is finally submitted to a Committee appointed by the Dean, which discusses with the student the contents of the report and the outcome of the training. Finally, approval is necessary for the student to be allowed to enroll in the following year or, in the case of the 10th semester EPT, to be admitted to the state exams.

The procedures are similar for all EPTs, with some adaptations considering the major subject in each period of training.

The VEE makes lists of students to be distributed in all 28 regions of Bulgaria. The distribution is coordinated with the Bulgarian Food Safety Agency (BFSA) which controls the compliance of the practice to state requirements, particularly with respect to Food Quality and Safety institutions. The state BFSA informs the regional BFSA about the presence of undergraduate students in the area.

Also the Bulgarian Veterinary Union (BVU) is helping the VEE by providing lists of quality rated farms (guaranteeing full compliance with the veterinary legislation) that could be made available for the students to make their choices.

For a student failing to succeed in the discussion of his/her EPT report and outcome, that particular EPT has to be repeated and enrolment in the following year suspended, or admission to the State Exam refused in case of the final EPT. Students in such a condition are helped by the VEE to overcome this problem, repeating the EPT at his/her best interest (holiday time, etc.).

In case the students report an unsuccessful EPT due to problems arising with the person in charge, whether he/she is, or is not, a veterinarian, the Commission in charge hears arguments from both parts and if the complaint is considered justifiable, other students are advised not to choose that particular farm or clinic for EPTs.

2.1.2. Comments

The new system of providing the VEE with formal feedback from the EPT providers was put in place from ~~2021~~ 2020, with all students having to present a reference letter form the person that was responsible for their EPT and a letter of confirmation that the EPT took place between certain dates

in a specific institution. These documents provided by whoever was in charge of the EPT are considered in the final report discussion and are obligatory for the EPT approval.

2.1.3. Suggestions

None.

2.2. Minor Deficiency 2: Partial compliance with Substandard 4.7 because best husbandry, welfare and management practices are not fully promoted in the Biobase facility

2.2.1. Findings

"Good Practices with Biosafety from Germany" has been introduced at all levels. Norms for animal housing (specific to animal species) in terms of m² area, ambient temperature, ventilation, air humidity, feed, etc. have been established in all relevant places. Projects for modern facilities for pigs, poultry and cats were developed. An Animal Welfare Committee (7 people), charged with the control, surveillance, and assurance of the welfare principles during the work with animals involved in the training process, research experiments, and patients has been established (see also major deficiency 2 in this report). A position for an English-speaking manager of the Biobase has been appointed. All staff and general workers engaged in animal care have been through and passed a short education in animal welfare.

The majority of the animals used in training for 3rd, 4th and 5th year students in a number of clinical subjects, research experiments as well as for laboratories at the VEE, are housed in the Biobase (healthy animals) and VTH hospitals (patients of clinics). The Biobase has the status of an independent livestock farm, registered in the BFSA.

A new model for the daily work and control of activities including video control and internet connection has been established with special focus on avoiding excessive workload of animals involved in the learning process.

A logbook of conducted treatment and prevention measures at the Biobase - vaccinations, antiparasitic treatments etc. has been established with a strong focus on disease prevention and control.

The following issues have been addressed during the refurbishment of the Biobase

- The walls of animal boxes have been tiled for easier and more effective cleaning and disinfection
- The animal yards, fences, flooring have been reconstructed
- A room for free housing of 8-14 cats with the necessary equipment has been established
- The premises for animals, including sheep, were improved, the hygiene and the distribution of animals in separate premises were also improved.

2.2.2. Comments

The team was informed that Bulgarian national legislation is harmonised with EU legislation. Accordingly, EU regulations and directives are mandatory for livestock farms, and for housing both healthy and sick animals. The Biobase and the animal hospitals have the status of VEE livestock farms and meet the national requirements. The maintenance and provision of the required animal welfare conditions for kept animals is carried out in compliance with the legal norms for humane breeding. A new system for visualisation of the norms by animal species, was introduced in each of these sites.

2.2.3. Suggestions

None.

2.3. Minor Deficiency 3: Partial compliance with Substandard 5.6 because insufficiently completed medical records do not fully allow an effective retrieval system to efficiently support the teaching, research, and service programmes of the Establishment

2.3.1. Findings

From March 2021 onwards, the new “Vet Manager” electronic patient record system has been introduced. More than 20 chipcard-reader workstations with decoders, screens connected to an internal server and a printer have been established. Patients are registered in the VEE, with detailed description of the clinical case, attachment of laboratory result files, diagnostic imaging (using a PACS), record keeping and prescribed drugs and interaction between units. The issue of a detailed and precise recording of each case, along with a financial report is now possible. The programming, development and adaptation of the “Vet Manager” system to the VEE took almost 14 months. The software is cloud-based and allows access from any computer, phone or tablet. Departments and students have access to it. An important stage in this process has been the updating of the price list of all services provided by the clinics, which took place at the end of 2021. The electronic system is not only a tracking system for financial income, but is also a source that gives detailed information intended for student training, as well as for research publications, and exchange of experience with colleagues from other universities.

The “Vet Manager” system was successfully demonstrated in detail to the Team under real life conditions on a busy morning in the VTH.

2.3.2. Comments

A new software “Vet Manager”, developed by a Bulgarian IT company in 2020 for the needs of the VEE was introduced in the VTH for patient registration. Undergraduate and postgraduate students are being trained to have access to the patient’s records. At the VTH Registration Office, each patient is registered in the database, and by means of individual chip-cards all clinicians have access to the medical information. Each owner receives a detailed printout of the performed activities, exams performed and medication applied in the hospital and their price. Students are allowed to enter data in the system (under supervision of staff members) and are trained in using real data from patient records during clinical procedures applied under the supervision of teacher and staff.

The “VetManager” is a system also used by private clinics, which means that students in training opportunities and young veterinarians in their first jobs will be using a system to which they are already acquainted.

2.3.3. Suggestions

None.

3. ESEVT Indicators

3.1. Findings

The indicator’s spreadsheet has been updated by the VEE.

3.2. Comments

The number of equine patients seen intramurally as well as extramurally is still low when calculated as an average of the last three years. However, correctional measures (collaborative agreements with external horse owners/companies, improved clinical modalities, additional staff members, 24/7 service, highly qualified staff members, many referral cases and establishment of the patient register system) have been taken during the Covid19-pandemic following the 2019 EAEVE-report. These correctional measures are already reflected in a substantially increased number of equine cases both

intra-/extramurally for 2021 and for the first 3 months of 2022. General comments to the number of clinical cases are given in the body of the report text.

3.3. Suggestions

Follow the situation carefully and continue the efforts to increase the number of primary patients also.

	Name of the Establishment:	Faculty of Veterinary Medicine - Stara Zagora				
	Name & mail of the Head:	Prof. Todor Stoyanchev & todir.stoyanchev@trakia-uni.bg				
	Date of the form filling:	1 Februar 2022				
	Raw data from the last 3 full academic years	2021	2020	2019	Mean	
1	n° of FTE academic staff involved in veterinary training	118,25	117,25	119	118,17	
2	n° of undergraduate students	932	870	871	891,00	
3	n° of FTE veterinarians involved in veterinary training	106,75	105,75	107,5	106,67	
4	n° of students graduating annually	87	87	95	89,67	
5	n° of FTE support staff involved in veterinary training	108	94	94	98,67	
6	n° of hours of practical (non-clinical) training	851	851	851	851	
7	n° of hours of clinical training	712	712	712	712	
8	n° of hours of FSQ & VPH training	223	223	223	223	
9	n° of hours of extra-mural practical training in FSQ & VPH	36	36	36	36	
10	n° of companion animal patients seen intra-murally	8622	4166	5070	5953	
11	n° of ruminant and pig patients seen intra-murally	213	229	346	263	
12	n° of equine patients seen intra-murally	206	62	51	106	
13	n° of rabbit, rodent, bird and exotic patients seen intra-mur	215	164	282	220	
14	n° of companion animal patients seen extra-murally	35	21	68	41,3	
15	n° of individual ruminants and pig patients seen extra-mura	4612	4465	3604	4227	
16	n° of equine patients seen extra-murally	95	35	18	49,3	
17	n° of visits to ruminant and pig herds	284	96	285	222	
18	n° of visits of poultry and farmed rabbit units	6	3	5	4,7	
19	n° of companion animal necropsies	139	125	131	132	
20	n° of ruminant and pig necropsies	85	121	72	93	
21	n° of equine necropsies	9	11	6	8,7	
22	n° of rabbit, rodent, bird and exotic pet necropsies	208	143	223	191	
23	n° of FTE specialised veterinarians involved in veterinary tr	5	4,5	4	4,5	
24	n° of PhD graduating annually	4	4	5	4,3	

The boxes within the red frames must be filled in by the Establishment (the other values will be automatically calculated)

Name of the Establishment:	Faculty of Veterinary Medicine - Stara Zagora				
Date of the form filling:	1 Februar 2022				
Calculated Indicators from raw data		FVMSZ	Median	Minimal	Balance³
		values	values¹	values²	
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0,133	0,16	0,13	0,007
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	1,190	0,87	0,59	0,600
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	1,100	0,94	0,57	0,534
I4	n° of hours of practical (non-clinical) training	851,000	905,67	595,00	256,000
I5	n° of hours of clinical training	712,000	932,92	670,00	42,000
I6	n° of hours of FSQ & VPH training	223,000	287,00	174,40	48,600
I7	n° of hours of extra-mural practical training in FSQ & VPH	36,000	68,00	28,80	7,200
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	66,387	70,48	42,01	24,377
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	2,929	2,69	0,46	2,466
I10	n° of equine patients seen intra-murally / n° of students graduating annually	1,186	5,05	1,30	-0,112
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	2,457	3,35	1,55	0,912
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0,461	6,80	0,22	0,238
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating ann	47,141	15,95	6,29	40,847
I14	n° of equine patients seen extra-murally / n° of students graduating annually	0,550	2,11	0,60	-0,045
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	2,472	1,33	0,55	1,925
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0,052	0,12	0,04	0,007
I17	n° of companion animal necropsies / n° of students graduating annually	1,468	2,07	1,40	0,068
I18	n° of ruminant and pig necropsies / n° of students graduating annually	1,033	2,32	0,97	0,063
I19	n° of equine necropsies / n° of students graduating annually	0,097	0,30	0,09	0,004
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	2,134	2,05	0,69	1,441
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduatins	0,050	0,20	0,06	-0,013
I22*	n° of PhD graduating annually / n° of students graduating annually	0,048	0,15	0,09	-0,040
¹	Median values defined by data from Establishments with Approval status in April 2016				
²	Recommended minimal values calculated as the 20th percentile of data from Establishments with Approval status in April 2016				
³	A negative balance indicates that the Indicator is below the recommended minimal value				
*	Indicators used only for statistical purpose				

4. Conclusions

The Team recommends to ECOVE that the VEE has fully corrected the Major Deficiencies identified during the 2019 FV and that the VEE has proved that an on-going process is in place in order to correct the Minor Deficiencies.

Glossary

ASF	-	African Swine Fever
BFSA	-	Bulgarian Food Safety Agency
BVU	-	Bulgarian Veterinary Union
CT	-	Computerised Tomography
D-1-Cs	-	Day One Competencies
ECOVE	-	European Committee of Veterinary Education
FV	-	Full Visitation
FVMSZ	-	Faculty of Veterinary Medicine, Stara Zagora
HPAI	-	Highly Pathogenic Avian Influenza
HPAI	-	Highly Pathogenic Avian Influenza
LA	-	Large Animals
LC-MS	-	Liquid Chromatography-Mass Spectrometry
PACS	-	Picture Archiving and Communication Systems
PPE	-	Personal Protective Equipment
SA	-	Small Animals
VEE	-	Veterinary Education Establishment
VTH	-	Veterinary Teaching Hospital