

**European Association
of Establishments for Veterinary Education**

**Association Européenne
des Etablissements d'Enseignement Vétérinaire**



**REPORT on the STAGE 1 VISITATION
to the Veterinary Faculty of the Lisbon Lusofona University**

20-24/02/2017

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INTRODUCTION

The Universidade Lusófona de Humanidades e Tecnologias, Lusófona (ULHT) was created in 1998 as a non-profit charity in the educational sector. Its main mission includes the promotion of educational and research activities that contribute to the scientific, cultural and economic enrichment of all the countries that share the Portuguese language as a common heritage. It includes education institutions in Portugal, Cape Verde, Mozambique, Angola and Brazil.

The Faculty of Veterinary Medicine (FMV-ULHT) (called the Establishment in this report) is located in Lisbon and is one of the 10 academic units of the ULHT, the others being the School of Health Sciences and Technologies, School of Economical Sciences and Organisations, School of Communication, Architecture, Arts and Information Technology, School of Psychology and Health Sciences, Institute of Social Service, Faculty of Social Sciences, Education and Administration, Faculty of Law, Faculty of Physical Education and Sports and Faculty of Engineering. ULHT currently offers 43 undergraduate courses, 3 integrated master's degrees, 45 master's degree courses, 10 doctoral courses, as well as several free courses, postgraduate courses, MBA's and continuing education.

The Integrated Master Degree in Veterinary Medicine (IMVM) of the ULHT was approved by the Portuguese National authority in 2004 and was first included in the Department of Health Sciences. The Department of Veterinary Medicine and the FMV were created in 2007 and 2013 respectively. In 2016, the IMVM was accredited by the Portuguese Quality Agency for the Assessment and Accreditation of the Higher Education (A3ES). The current Visitation is the first one completed by the European System of Evaluation of Veterinary Training (ESEVT).

The main peculiarities of the Establishment are:

-) a private institution which is funded by the fees paid by the students;
-) many teaching activities organised extramurally in collaboration with the private and public sectors;
-) a high proportion of part-time teachers.

Although the SER was written in agreement with the Uppsala SOP (2016), the current ESEVT Stage 1 Visitation is performed in agreement with the Budapest SOP (2012), as stated by the official agreement between the Establishment and EAEVE.

1 OBJECTIVES & STRATEGY

1.1 Findings

A SWOT analysis and a summary of the strategic plan and operational plan are provided in the SER. The University's Strategic Plan was completed by its Rector and its Administrative Board. The Establishment's Strategic Plan was completed by its Dean and its Scientific Council.

This vision of the Establishment is to be regarded as a valuable partner and as an institution that nourishes innovation and promotes societal development.

The mission is to benefit the society by improving the health and welfare of animals and humans, based on the respect of all beings, through the provision of education programmes aimed to prepare veterinarians in animal protection and welfare, human and environment health.

The objectives are to provide the students the knowledge, skills and attitudes that will allow them to achieve Day One Competences when starting their professional activity at various recognised areas of the Veterinary profession and understanding the importance of lifelong learning.

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In order to achieve it, the Establishment plans for the near future:

-) to be in agreement with the last EU directives ;
-) to promote the satisfaction of both staff and students ;
-) to attract more undergraduate veterinary students;
-) to strengthen the hiring of full time qualified academic staff (with PhD and specialists degrees) and senior researchers ;
-) to allow more time dedicated to research for academic staff;
-) to develop EBVS residency programmes and other veterinary third cycle programmes;
-) to improve its existing facilities and equipment ;
-) to enhance the implementation of a Quality Assurance culture;
-) to be accredited by ESEVT.

These objectives are considered as priorities and are planned to be completed before the end of the current Strategic Plan (2020). The proposed indicators of achievement should be the recognition of the proposed programmes by DGES, A3ES, EBVS and ESEVT/EAEVE.

1.2 Comment

The vision, mission and objectives are described in the strategic plan and available on the Establishment's website.

The strategic plan was designed by the Rectorship and Deanship. Teaching staff, students and stakeholders were not closely associated with its development (see also chapter 2).

The Establishment has proposed a detailed SWOT analysis, is aware of some of its weaknesses and is willing to correct them.

Although an operational plan is proposed in the SER, there is little information about the timeframe and indicators of achievement of the objectives planned in the 2017-2020 strategic plan.

Based on the objectives of the Establishment and the last year admission data, the number of undergraduate veterinary students is increasing. Therefore, a structured and credible operational plan should be available in order to accordingly adapt the facilities, the number of qualified academic and support staff and the caseload of patients in the different species.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are met.

1.3 Suggestions

It is suggested to develop an operational plan with timeframe to adapt the facilities, specialised staff and patients' caseload to the increasing number of students.

2 ORGANISATION

2.1 Findings

The ULHT, a private non-profit university, is placed under the authority of the Ministry of Science Technology and Higher Education (MCTES), through the General Directorate of Higher Education (DGES). It is assessed by the national Agency for Assessment and Accreditation of Higher Education (A3ES). The Integrated Master of Veterinary Medicine (IMVM) was assessed in 2016.

At the university level, supporting the Rector and the administrator, there are different Councils (General Strategic Council, University Council, Scientific Council and Pedagogical Council). The

Dean of the FMV, who is appointed by the Rector and the administrator, is a member of the University Council, which defines the University's general guidelines and ensures overall coordination. As to the facts, the FMV is not defined by the term "Faculty", but is considered as a "Unit" delivering the IMVM, among the other Units. However, the FMV (hereafter called "Establishment") has its own Councils (scientific and pedagogic).

The Establishment's Scientific Council (up to 13 people) deals with internal regulations, scientific activities, creation and supervision of study cycles, allocation of staff proposed to the rector etc. There is no representative of the external stakeholders. The Pedagogical Council defines pedagogical guidelines, teaching methods and evaluation. There are only six members: the Dean, who presides, two academics and three elected students. These councils meet every year on a regular basis (2 to 3 meetings per year).

In the SER, the Establishment's organigram shows four academic Departments (or "Divisions") (Animal Health, Public Health, Animal Production and Welfare, and Basic Sciences). The Animal Health Department is split into three divisions: Companion Animals and Exotics, Equine and Farm Animals. The heads of the four departments are supposed to form the Academic Board, which is in charge of the facilities organisation, both intra- and extramural, and to ensure appropriate animal resources and teaching material. In fact, the expert team could not obtain evidence that the organisation in Departments or Divisions is really well-defined, headed by a unique person from the academic staff, neither elected nor clearly appointed by the Dean for these responsibilities. Inside these four divisions, there are no formal regular meetings designed to check and validate the "Fica de Unidade Curricular" (FUC, translation: Curricular Unit Form), proposed by the teachers, ensure that the programme is delivered accordingly and to correct any possible deviation. The "Academic board" is not really operational.

Lastly, the Administrative Board is in charge of all administrative functions, in close collaboration with the university staff. The ULHT provides efficient support when needed (building maintenance or renovation, library, IT resources, etc., see chapters 6 and 8).

The FMV also has an independent Ethics and Animal Welfare Commission.

2.2 Comments

The Establishment's internal organisation is too centralized, leading to two paradoxical consequences:

- the Dean and her assistant are overloaded with work, the Dean being the only person who has all information, sometimes leading to a feeling of lack of transparency among staff;
- conversely, the degree of independence afforded the academic staff in the design and management of teaching, according to their FUCs, is excessive (see also chapter 4).

Despite of these observations, the team wants to outline the obvious commitment and dedication of all staff (academic and support) to optimize teaching and student experience. In the VTH-CA, in spite of any well-defined head, two persons act as coordinators in a very efficient way with strong collaboration with all involved staff.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are met.

2.3 Suggestions

The team suggests the correction of the following minor deficiencies:

- absence of well-defined tiered structure for the organisation of the Establishment;

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- insufficient involvement of staff, students and stakeholders in the decision-making process;
- lack of identified subject leaders and formal exchanges between them in order to harmonise the curriculum.

To deal with these minor deficiencies, the expert team suggests that the Establishment consider any solution that:

- creates a position/responsibility of “Vice-Dean for Student affairs”, at least part-time, that helps the Dean in coordinating the curriculum, organising timetables and room allocation and promoting internal quality assurance in collaboration with the relevant university staff;
- helps structure the Establishment in four real operational divisions, which Head is an elected/appointed academic teacher who organises periodic meetings of the corresponding staff (at least full-time equivalent teachers, each meeting having a written agenda and leading to the writing of minutes that are sent to the Dean and the Vice-Dean in charge of the curriculum;
- creates of real “Academic Board”, with the head of the divisions, in charge of helping the Dean and the Vice-Dean to coordinate the transversal questions and to prepare the agenda of the scientific and pedagogic councils;
- enhances the autonomy of the Establishment to use the funding allocated by ULHT (see also chapter 3).

3 FINANCES

3.1 Findings

The main source of income is the student’s fee (7205€/student/year in 2016-2017). It represents an average of 98% of the total revenues. Other sources are represented by clinical services (0,81%), diagnostic services (0,32%), research grants (0,56%), continuing education (0,7%) and other services (0,01%). The amount of these sources varies in large limits from a year to another.

The establishment is coordinated by a private non-profit organisation (COFAC). Decisions of the operational budget are taken by the “board of managers” and discussed with the “board of the Faculty” based on a yearly plan and budget. It is discussed with the scientific and consultation council.

The yearly budget of the establishment is produced by each unit in the university, based on an analytical accountancy model and implemented under the supervision of the internal cost control office.

The expenses are divided in 4 areas: personnel (87%), operating costs (approx.12%), maintenance costs (0,3%) and equipment (0,64%).

There is no correlation between annual revenue generated by the Establishment and its funding from the ULHT.

There is a positive balance between expenses and revenues and between allocation directed to the Establishment and total costs.

There are no research funds directed to the Establishment from the ULHT.

3.2 Comments

Data provided in the SER (tab .2.1.3. P 10) on balance for 2013 and total revenues for 2014 are not accurate and need to be corrected.

Research grants are very low for 2013 and 2014 and absent in 2015. The actual funding can’t support adequate research activities in the Establishment.

Most expenses are directed in the area of personnel. The allocation directed to the Establishment constantly decreased during the last 3 academic years and were not correlated with the total revenues.

There is a lack of autonomy of the Establishment in spending resources allocated by the ULHT.

Additional resources provided by clinical activities are not used for enhancing the teaching staff and the clinical facilities.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are not met because of absence of funding for research activities, with as a result a negative impact on research-based teaching and education to research.

3.3 Suggestions

More consistent financial resources allocated in research area are a necessity to assure a research based veterinary training.

The yearly budget allocated to the establishment must be proportional with the number of enrolled students.

The establishment should have more autonomy in using the allocated funding.

4 CURRICULUM

4.1 GENERAL ASPECTS

4.1.1 Findings

There is no obligatory national curriculum for Veterinary studies in Portugal, except of a requirement to comply with the Portuguese and European legal frameworks, and specifically EU Directives 2005/36/EC and 2013/55/EU. The programme has been the subject of review by the national authority on two occasions.

The awarded registrable qualification is the Integrated Master in Veterinary Medicine, which provides the post-nominals IMVM. The course is completed over 5.5 years, which is divided into 11 semesters. The award process is divided into two cycles. The first cycle is of three years duration, and results in the award of a Bachelor's degree in Basic Studies in Veterinary Science. The second cycle is of a further 2.5 years' duration leading to the award of the IMVN.

The Course is structured according to the European Credit Transfer System (ECTS) as defined by the Decree-Law 42/2005 by which the Portuguese State consolidated aspects of the Bologna process. The Establishment operates on the basis that 1 ECTS equals to 28 hours of workload for the student and the number of credits corresponding to 2 semesters of 30 ECTS each so that the work of one full-time academic year is 60 ECTS. Students may register to a maximum of 45 ECTS per semester.

The teaching at the Establishment is organised in 2 two semesters. Each semester has 15 weeks' duration where teaching and evaluation occur.

A total of 330 ECTS is required to obtain an Integrated Master in Veterinary Medicine. These credits are split over the 2 cycles with 180 ECTS associated with the 1st cycle Bachelor degree, and 150 ECTS associated with the 2nd cycle Master's degree. It is possible for students to transfer into the course, and students may also transfer to other programmes.

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From the 330 ECTS required to complete the IMVM, 18 ECTS are assigned to elective or optional curricular units. The electives are offered in the 1st, 4th and 5th years of study. The electives encompass a range of topics and allow students to delve deeper into specialised topics.

The core curriculum is defined by the Dean and the Pedagogical Council. Any changes to the core curriculum must gain the approval of the statutorily competent bodies of the higher education Establishment in Portugal. The BSc/IMVM programme is delivered in Portuguese, although the learning outcomes for every course are available in both Portuguese and English.

The 5.5-year veterinary degree programme includes the EU directive listed subjects. Basic sciences, as described in the Budapest SOP, are largely completed in years 1-3, while the clinical sciences are primarily studied in the subsequent years. Clinical material is introduced from the earlier stages, and certain basic sciences, i.e. microbiology, continue into the later years.

Under Portuguese law, external (non-veterinary) students may access courses in the Bachelor programme.

In the 2nd cycle and final semester of the Master degree, the students have an obligatory extramural traineeship equivalent to 30 ECTS. The extramural practical training consists of a minimum of 600 hours of practical work, corresponding to a minimum of 21 weeks in one or more areas chosen by the student and includes a requirement to complete a research dissertation that culminates with a public defence. The Establishment states that a high percentage of students take more than the expected time to complete the course, and that this is due to the time taken to present their final EPT dissertation.

Over the course of the degree, a certain degree of flexibility is given to students who are in paid employment during their studies. This flexibility includes choosing the number of credits that the student enrolled on, flexibility in timetabling, as well as flexibility in course assessment.

In clinical training, practical classes are mandatory, and the students must attend 2/3 of practical classes to be considered for examination.

4.1.2 Comments

Overall the balance of practical training, both pre-clinical and clinical, versus theory, is commendable. The staff are clearly enthusiastic, dedicated and committed to enhancing the student educational experience. Stakeholders consider the graduates of the course to be well prepared to communicate with clients, and to carry out clinical tasks particularly in companion animals.

There is a lack of identified subject leaders to provide continuity, mentorship and oversight of defined areas of the curriculum. In absence of subject leadership, the constant staff changes have an impact on the organisation and development of the curriculum.

The curriculum does not apply a prerequisite system, with the result that a student may commence a course without having acquired the foundations of knowledge to understand the material- for example it is possible for a student to commence a surgical course without having completed anatomy. A student may commence courses from the Master's programme without having completed the modules in the Bachelor's degree. The Team noted that external students were taking veterinary science courses from Bachelor programme.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are met.

4.1.3 Suggestions

The Visitation Team suggests that the Establishment should set up the roles of subject heads to provide academic leadership.

The team proposes to develop a prerequisites' system, as it is essential that prerequisites are completed to ensure that students are not permitted to enter a new subject area without having the foundation knowledge to prepare them for the new material. There should be a clear demarcation between the Bachelor programme and the Master's, and the Visitation Team recommend that a mechanism be found so that students would be required to complete all components of the Bachelor before commencing the Master's degree.

The team also advises that the Establishment should ensure that external students who are not enrolled in a course of veterinary medicine are not trained to carry out acts that are restricted to veterinarians only (i.e. prescription writing, surgery).

4.2 BASIC SUBJECTS & BASIC SCIENCES

4.2.1 Findings

In general, there are specific, well-equipped laboratories where the practical elements of these courses are taught.

The admissions process is described in section 9 of this report. All admitted students must have completed the Diploma of Secondary Education before entry, and this education is considered to fulfil the chemistry and plant biology requirements. The basic subjects animal biology, medical physics and bio-mathematics are taught in the Establishment as part of the core curriculum.

Physiology is taught over 2 modules, and comprises 120 hours of contact time, of which 60 is lecture/seminar-based, and 60 hours laboratory or desk-based work.

Biochemical teaching comprises 105 hours of teaching, again approximately 50:50 didactic versus practical teaching. Biochemistry practicals take place in two rooms, each of which seats 20 students at a time.

Anatomy teaching, including histology and embryology, comprises 480 hours, of which the greater proportion, 300 hours, is practically-focussed. Histology is taught using binocular microscopes, in a recently-built teaching laboratory which holds 30 students at a time. Students are trained in microscope use. There is a large collection of histology slides, and 15 different slides are used per class. These are set up by the staff and the students rotate through the room to review the slides.

Anatomical teaching specimens include fresh cadavers of dogs or cats, preserved complete cadavers and fixed specimens, complete skeletons of dog, equine, swine, sheep, and several exotic species, and a collection of dry bones from dogs, cats, cattle, small ruminants and horses.

Dog and cat cadavers are obtained from public kennels. Fish cadavers are obtained from local markets, and other specimens are obtained from slaughterhouses on the basis of agreements. Both are transported to the University by an enterprise specialised in hospital waste management. Whole large animal specimens are not used for teaching, nor are there models of the larger species.

Bagged, frozen dog and cat cadavers are stored in chest freezers located in the anatomy room. Fixed specimens are stored in specific lidded containers in a larger standing freezer. Specimens are disposed of by incineration, using a commercial facility which specialises in hospital waste management. Portions of the larger species, i.e. reproductive tracts, are sourced from slaughter houses and brought in as required for certain practical classes. There are no facilities for dissection or storage of whole specimens of the larger veterinary species.

Sixty lecture hours are devoted to pharmacology, pharmacy and pharmacotherapy. Practical aspects are linked to therapeutics.

Microbiology (including virology, bacteriology and mycology) content consists of 60 hours in total. Virology is primarily introduced in the “immunology” course. Microbiology I is a very basic microbiological course, while Microbiology II focuses on food microbiology. The microbiological pathobiology, including zoonotic disease, is taught in “Patologia e Clinica das Doenças Infecciosas I & II”. The microbiological content is approximately 50:50 didactic vs practical coursework. Microbiological practical teaching takes place in a shared laboratory.

Toxicology is taught over 60 contact hours, including didactic, laboratory, desk and clinical work.

4.2.2 Comments

The course offers a complete suite of didactic subject material appropriate to pre-clinical veterinary education. The staff involved in basic veterinary science teaching are enthusiastic and dedicated to improving the student educational experience. Staff make a commendable effort to apply the basic material to clinical situations.

There is room for improvement in the hazard signage in some of the newer laboratories.

There is a lack of practical dissection of whole ovine, bovine and equine specimens, and the facilities that exist are not suitable for handling such specimens.

There are no anatomical models to aid teaching. There are no plastinated or other permanently fixed specimens available. There were no anatomical posters, prosected specimens, dental charts, nor were there presentations either on boards or in poster format on the dental eruption sequence in the different species.

In the Visitation team’s opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.2.3 Suggestions

The Visitation Team is of the view that the anatomy dissection must be expanded to include practical teaching of the whole animal in the larger species, including ruminants and equidae.

In addition, the anatomical specimen and model collection should be expanded substantially.

4.3 ANIMAL PRODUCTION

4.3.1 Findings

The Establishment does not own a teaching farm. Practical training in animal production subjects is performed outside the campus. There are a number of so-called “Veterinary Establishment Associates” designed to cover equine medicine (6), dairy cattle (10), beef cattle (5), swine (5), poultry (1) and one mixed farm (bovine, small ruminants and pigs). These facilities are used under contractual arrangements on a regular basis. The owners and the veterinary responsible are considered as Establishment’s staff member.

There is a preclinical exposure to handling farm animals both in the core curriculum and in elective animal production subjects, i.e. 37,5h from a total of 112,5h (33,3%).

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There are numerous healthy live animals used for preclinical training as follow: 92 cattle, 358 small ruminants, 134 pigs, 72 companion animals, 7 horses.

On the other hand, there is no exposure in other subjects as animal nutrition, animal welfare and animal ethology. In those subjects, only lectures, seminars and laboratory/desk-based work are available for student's instruction.

Animal production subjects are well covered in the general curriculum. 98h are designated for animal work out of 406h for (24,14%). Agronomy is taught in the second semester "General Agriculture and Agrarian Economy" and Animal Nutrition is taught in 3rd and 4th semester "Nutrition and Animal Feed". Animal Production and Breeding together with Animal Husbandry and Herd Health Management are not subjects of there on. Zootechnics and Animal Improvement I and II, taught in 9th and 10th semester have similar content. Deontology, Legal Medicine and Veterinary Legislation is a particular subject taught in the 10th semester as compulsory.

Principles of animal welfare are respected in the Establishment. Medical procedures are allowed only if they bring some benefit to the animal. Forensic and state veterinary medicine covers the principles of ethics of veterinary certification. All aspects of animal welfare are taught and respected. Biosafety and biosecurity issues are presented in all area of laboratories and facilities.

4.3.2 Comments

There is no laboratory and related facilities devoted to Animal Production in the Establishment but there are many "Veterinary Establishment Associates" previously described where the students may complete the hands-on training in Animal Production subjects.

Students' transportation is arranged on a continuous manner using contractual arrangement with a specialised company in all this farms, some of them being far away.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.3.3 Suggestions

None

4.4 CLINICAL SCIENCES

4.4.1 Findings

All theoretical background in clinical sciences is covered, the core curriculum being taught in the mandatory courses and the complements in a large panel of electives.

The students are involved in clinical activities mostly during their 4th and 5th year. They are all covered by specific liability insurance during all their activities, in Campo Grande and outside.

In companion animals, the clinical rotations are well balanced and organised, the students being divided in small (4-5) groups. All rotations are mandatory, including participation to the 24/7 emergency service (4th and 5th year). The total student exposure in the small animal clinics is 5 weeks during the 4th year and 3,5 during the 5th. During the extra scholar periods, the VTH remains open and the students are encouraged to participate on a volunteer basis.

The students are involved in all cases presented to the VTH-CA. Students are involved in case management through all clinical work under the direct supervision of teachers and hospital supporting staff. Each student in a group has clear well-defined responsibilities. All staff has a strong

commitment in organising the teaching activities. In addition to transmitting the clinical knowledge, attitudes and skills, they allow students to develop a lot of interactions with animal owners and inside the group, so that the Lusofona students are known to have very good team-working and communication skills. Report writing is mandatory in the 5th year for clinical cases. The team had access to some examples of student logbooks, which are of good quality.

The main location where equine clinical sciences are covered is the private equine clinic in San Estevao. The expert team, upon request, had access to the contract between COFAC and the practitioner who owns this clinic. According to this contract, the content of its articles, the weekly presence of the students during both semesters, the presence of a specific changing room for students, the existence and quality of rooms that are dedicated to students at the first floor, and to the direct investments that the ULHT was allowed to make in modifying the facilities, the team agree to consider the VTH-E as “intramural”. This facility will be hereafter called the veterinary teaching hospital for equines (VTH-E). In the VTH-E, the students spend 1,5 week during the 4th year and two weeks in the 5th. Since September 2016, they have a mandatory nightshift duty inside the VTH-E. Things are organised in the same way than in the VTH-CA, although the students do not have a systematic access to some information about the patient for confidentiality reasons. Due to the economic crisis and some other reasons, the caseload in this clinic is lower than 10 years ago before the construction of this quite new VTH-E. Some rooms are not finished/functional and all necessary equipment was not bought (see also chapter 6). Horses with colic, for example, are fewer in number than before so that some students are not exposed to these cases. During the time of the visit, there was no adapted isolation facility. Some space was allocated to this, however comprising a one-horse box and a changing room. A separation wall has been built, but the box was not operational. Additionally, there is no equine necropsy facility and the students have no access to any other place to deal with large animal necropsy.

In addition to the VTH-E, the students have access, with a teacher, to other good facilities for complementary activity, in reproduction (Naturasin [donkey milk production], Embriovet), and physiotherapy and rehabilitation medicine (Hidrovet). Protocols have also been established with these partners.

In food-producing animals, the students rotate for 2,5 weeks (4th year) and 1,5 week (5th). The Establishment has set up several contracts with different production animal farms (mostly cattle and pigs). One of the main farms is the “Herdade dos Coelhos” dairy cattle farm. Once again, because of the nature of the contract, the content of its articles, the weekly presence of the students during both semesters, the presence of specific changing room for students (one for males, one for females), the fact that the owner is a veterinarian that is also appointed as teacher, and to the direct investments that the ULHT was allowed to make in modifying the facilities, the team agree to consider the “Herdade dos Coelhos” farm as “intramural”. This 280-head high-yielding dairy farm offers very good teaching facilities. The students are directly involved in manipulating the cows (except milking) and calves, participate to gestation diagnosis (ultrasound), dehorning, hoof trimming etc. However, even if some cows can develop mastitis or metritis, there is no real obstetrical activity, neither other surgical procedures: C-sections are rare (once every other year), and the same applies to abomasal displacement, etc. The hands-on exposure of the students on these healthy animals is excellent. All individual activities that are performed by any student are registered and controlled by a teacher.

Due to the excellent sanitary status of the farm, it is on “lockdown” since the seventies, with no new animal introduction coming from outside. It is thus considered by the team as a farm, not as a bovine clinic. There is of course no isolation facility, nor a necropsy room. When necropsies are necessary (rarely), they are performed under field conditions.

In addition to these ‘intramural’ rotations, the students spend 2,5 and 2 weeks in ambulatory equine and farm animal activities, respectively. By arrangement with local practitioners, a small group of students is following the vet in his daily visits. A teacher is always present with the students but in most of the cases, the students are passive and watching the vet on its normal duty. They although are sometimes allowed to participate. This ambulatory clinic cannot be considered as a mobile clinic run by the Establishment.

Lastly, the students can choose some rotations as electives, for 5.25, 0.5 and 0.5 weeks in small animal, equine and farms, respectively.

4.4.2 Comments

The VTH-CA is not fully opened to the public. The caseload mostly comes from arrangements with local shelters (around 60% of the cases), and from animals owned by the ULHT student and staff families or referred by vets (40%). The prices are low, due to a strong ULHT social commitment. This restricted opening is also grounded by other reasons that were not clearly exposed to the team. The small animal caseload is considered by the experts as sufficient from a quantitative point of view. However, it has to be outlined that: (i) this will not be the case if the number of students enrolled in the fourth and fifth year is increasing, (ii) it is not optimal from a qualitative point of view. The number of “routine” first line cases remains low, as well as the amount of “specialised” cases. Emergency cases are rare and the intensive care unit is not crowded. The students are not sufficiently exposed to the reality of life in the intramural hospital (broad type of cases, cost estimates, invoicing and rebates, billing, etc.), so that they often complete their learning process by additional external practical training.

The equine caseload, as well as the level of equipment in the VTH-E is borderline and must be a concern for the near future. Students’ exposure to farm animal sick animals has to be increased, as well as corresponding medical and surgical procedures (parturition handling, obstetrics, C-section, abomasal displacement surgery and so on). Students must also be trained to post-mortem diagnosis in adequate facilities.

In addition, the students’ rotations (especially in the fourth year) can be considered as “fragmented”, in a sense that the students are never a whole week in the same facility. The timetables could be optimized in order to allow a more prolonged immersion in the three different activities (companion animals, equine and farm animals) with, by consequence, a better cognitive consolidation and a better follow-up (from A to Z) of the cases that a student is taking in charge.

In the Visitation team’s opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are not met because of insufficient caseload of ‘real’ patients and cadavers from sick patients in large animals.

4.4.3 Suggestions

The team recommends to the Establishment to consider to quickly open the VTH-CA to all public owners, with prices that are comparable to those charged by private practitioners. This remains compatible with the non-profit regimen of ULHT, provided that it is clearly expressed that it is for teaching and clinical research purposes and that the potential benefit is re-invested in dedicated staff and equipment. This decision is also important for the strategic objective concerning the launch of European specialisation residency programmes.

The team also suggests enhancing the exposure of students to emergency cases in all species.

4.5 FOOD SAFETY & QUALITY AND VETERINARY PUBLIC HEALTH

4.5.1 Findings

The curriculum concerning Food Safety and Quality, and Veterinary Public Health (FSQ&VPH) area includes in total 36 ECTS (1008 total hours) of core subjects: Microbiology II (total 4 ECTS; 112 h), Food technology I and II (total 9 ECTS; 252 h), Hygiene, Safety and Health I and II (total 9 ECTS; 252 h), Sanitary Inspection I and II (total 9,5 ECTS; 266 h) and Veterinary Public Health (4.5 ECTS; 126 h). Microbiology II (which includes Food microbiology) is taught in the 2nd year (4th semester). Food technology and Hygiene, Safety and Health are taught in the 3rd year (5th and 6th semesters). Sanitary Inspection and Veterinary Public Health are taught in the 5th year (Sanitary Inspection I in the 9th semester, Sanitary Inspection II and Veterinary Public Health in the 10th semester). The extent of FSQ&VPH training is 11% (36/330 ECTS). The courses are taught in the same years of basic and clinical courses. Overall compulsory FSQ&VPH studies include 255.5 h of theory (lectures, seminars and supervised self-learning) and 277 h of practical work (Laboratory and desk based work, and no-clinical animal work) which means 475.5 h (47.2%) of student self-learning. Additionally, students can choose up to 5 extra ECTS from elective subjects including Food Chemistry (1st year, 1st semester) and Food Industry Audits (5th year, 9th semester) and extramural practical training in FSQ&VPH for a minimum of 600 h (equivalent to a maximum of 30 ECTS).

The teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin is organised as visits to external sites. During the 3rd year students visit premises for transformation of food from animal origin for approximately 2 h for each visit. Each student visited the following facilities once (in 2015/2016) for a total of ~18 h: cooked ham and sausages, dry ham, cheese production, fresh fish and shellfish processing, honey production, yogurt and fermented milk. A pilot technology plant for meat and meat products, and one for milk and dairy products are available for student activities during two visits per student within the Food Technology course at the National Institute of Agrarian and Veterinary Research (INIAV). During the visit the students follow the different steps of the production of meat and dairy products performing group ad hoc activities.

In the 5th year in Sanitary Inspection I course students visit twice (6 h each) a slaughterhouse for pig and ruminants (small ruminants and bovine) and related premises. During the visits, there is no contact between the students and the official veterinary inspectors of the slaughterhouse. A part observation of the work done from the local personnel in small groups of 9 – 12 students for teachers, students are invited to perform practical post-mortem inspection on rejected carcasses of pigs and/or small ruminants and to observe transportation documents during ante-mortem inspection. No other practical activities are planned. During Sanitary Inspection II, in total each student performs 6 hours visit in 6 different establishments (a red meat slaughterhouse, a meat-cutting room, a poultry slaughterhouse, a rabbit slaughterhouse, dock and an egg classification centre) for a total of 36 h. The total number of hours dedicated to EPT are ~ 54 corresponding to ~ 6 % of the total FSQ&VPH time. In addition, 46 extra hours are reported to be “no-clinical animal work” and are dedicated to practical inspection of rejected organs (mainly pig) from slaughterhouse in the intramural necropsy room. The remaining 147 h of practical work correspond to laboratory and desk based activities which are mainly held intramural.

The staff of the FSQ&VPH includes 10 teachers. With the exception of one, all the teachers in the FSQ&VPH subjects are paid according to the number of hours of face-to-face teaching. Seven teachers have a PhD and one is a National Specialist.

Animal Welfare is taught within Sanitary Inspection I and II.

4.5.2 Comments

The contents of the courses in FQS&VPH and the ratios between theoretical and practical components are adequate. FQS&VPH courses are not clearly linked to animal production, pathology, pharmacology and toxicology which is a consequence of the absence of an efficient organisational structure within the Establishment. The training is mostly internal, a part the 54 h of visits in few external premises. Students are exposed to inspection experience in milk, fish, red meat, poultry, egg and rabbit, which is very good, but the practical training in meat inspection (both ante- and post-mortem) is scarce and mainly focused in pig (with limited exposure to bovine and small-ruminants). The exposure of the student to official food control personnel during real life activities (veterinary inspectors and food control specialists) is absent. Nevertheless, the possibility that students might decide on elective courses and the compulsory EPT during the last semester in FSQ&VPH enlarges the opportunity to improve the knowledge in the area.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.5.3 Suggestions

It is suggested that the practical training in meat inspection (both ante- and post-mortem) be extended during the visits of the slaughterhouses to guarantee a correct exposure to all students to bovine processing during meat inspection activities. It is also suggested that the Establishment ensure an adequate exposure of all the students to veterinary officers during official food control activities.

4.6 ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS

4.6.1 Findings

On average electives correspond to 70 hours of student work in the 1st year, 28 hours in the 4th year and 168 hours in the 5th year. Students choose a range of elective subjects to comply with achieving the needed ECTS credits in the relevant year.

The list of optional / elective subjects per semester is available in the beginning of each academic year. Once the process of student enrolment is finalized the Administration of the University with the Dean authorizes the opening of the elective subjects according to minimum number of students for the required staff: student ratio for each elective subject.

- Option I in the 1st year, 1st semester, 5 ECTS;

Introduction to Conservative Medicine
Education and Training of Companion Animals
Basic Practices in Veterinary Medicine
Equine Podiatry and Farriery
Natural and Veterinary Medicine History
Food Chemistry

- Option II in the 4th year, 8th semester, 2 ECTS;

Clinical Pathology
Physiotherapy and Rehabilitation in Veterinary Medicine
Clinical Dermahistopathology
Equine Neonatology
Behavior Studies, Animal Welfare and Ethics
Bovine Health
Management, Communication and Marketing in Veterinary Medicine
Animal Behaviour Medicine

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Laboratory Animal Medicine
Applied Epidemiology 2
Introduction to Statistical Models in Health
Applied Clinical Antibiotherapy

- Option III in the 5th year, 9th semester, 7 ECTS;

Conservation Medicine
Introduction to Acupuncture, Homeopathy and Phytotherapy in Veterinary Medicine
Equine Emergencies and Intensive Care
Introduction to Clinical Oncology
Food Industry Audits
Hoof Pathology
Aquaculture
Measurement Techniques in Veterinary
Epidemiology and Preventive Medicine
Surgical Clinics I

- Option IV in the 5th year, 10th semester, 4ECTS

Pathology and Clinics of Exotic, Wild and Zoo Animals
Equine Sports Medicine
Farm Management Challenges
Clinical Ophthalmology
Applied Clinical Neurology
Clinical Cytological Diagnosis
Veterinary Dentistry
Veterinary Cardiology
Surgical Clinics II
Endoscopy and Endosurgery
Experimental Design: How do I plan my dissertation?
Equine Biomechanics

The Establishment does not operate a “tracking system” at present.

4.6.2 Comments

The Establishment is to be commended on the broad range of electives on offer.

The Visitation team expressed concern that some material that might be considered “core” is only taught in the electives e.g. Hoof pathology.

In the Visitation team’s opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.6.3 Suggestions

The Team suggest that the Subject Leader (see section 4.1.3) should review the core and elective subject content within their subject area to ensure that the core material is included in the core curriculum.

5 TEACHING QUALITY & EVALUATION

5.1 TEACHING METHODOLOGY

5.1.1 Findings

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Teaching methods include the traditional lecturing model, field classes, hands-on activities, laboratory classes, group discussion work and case studies, interpretation of results of diagnostic tests and solving practical problems. Clinical cases are exposed to stimulate the use of problem-solving-based teaching. Problem-solving approaches are especially applied during the 4th and 5th year. Students are encouraged to be engaged into group discussions and to elaborate group or individual reports. This is also facilitated by the subdivision of the students in small groups (maximum of 5 students for teacher in clinical subjects; 10-12 for student in FSQ&VPH). Problem-solving and group-based teaching is especially designed for clinical training. Students are encouraged to participate in research activities.

The teaching material is delivered online and supported via open-source learning platform Moodle both desktop and mobile versions. The Establishment developed its own mobile application for stimulating the communication between students and teachers. Students mainly use moodle provided staff notes, and pdf of PowerPoint presentations. Specific text books are recommended for additional reading. Live video (especially for helping in attending surgeries) and video recording is used and shared in the intranet. Clinical data from the small-animal hospital is available as electronic patient records using the Portuguese platform BoomMed. Students have access all clinical data using specific secure credentials. Anonymous horse clinical data are available for consultation at the horse clinics. Students have VPN access which allow them to enter the university intranet from home.

The programme of each course is summarized in the Curricular Unit Form (FUC) available in Moodle. FUC includes learning goals and outcomes, syllabus, teaching methodologies, and evaluation methods. At the end of the semester the responsible teacher elaborates the so called Curricular Unit Report (RUC) which includes a SWOT analysis and an improving plan for the course. RUCs are evaluated by the dean and discussed in the Pedagogical Council. Students participate in the Pedagogical Council.

Contact with animals start in the first cycle with Exognosis and Animal Identification, and in the elective course Equine Podology and Farriery (EPF). The students are exposed to clinical situations in the 1st year in Basic Practices in Veterinary Medicine (BPVM). As from the 3rd curricular year, students are taught in observation of the patients, taking a medical history, physical examination and decision, specific clinical procedures, nursing care, pharmacotherapy, administration routes and handling of large animals, anaesthesia (Medical Propaedeutics I and II; Hospital and Field Activities II and IV; Pharmacology and Therapeutics I and II; Surgical Propaedeutics I and II). Before the clinical rotations start students attend orientation classes, and relevant knowledge is also reviewed.

Practical clinical procedures are performed in all curricular units that take place at small-animal clinic, equine clinic and farms during the 4th and 5th years. Students in the 4th and 5th year are enrolled in an emergency rotation in small-animal clinic supervised by DVM working in the clinics and by the teachers who participate to the emergency shifts. Emergency service includes consultations, hospitalisation and surgery. The 5th year students are enrolled in an emergency rotation in the Equine hospital. Group of 5 students are on duty one day per semester (Monday nights). Students are voluntarily enrolled in cattle, pig and horse emergencies.

The 4th and 5th year students have a contact time of 21 hours divided in three shifts in small-animal hospital. Students are welcome to join teachers and staff for case-rounds in the morning and evening. For surgery cases the students participate in the surgical procedures and anaesthesia. The 4th year students rotate between farm animals and equine classes during Mondays and Tuesdays. The 5th year students follow same rotation as 4th year student in the first semester, while in the second semesters they also participate to large animal ambulatory practice, visiting pig, beef and small ruminant farms.

In companion animals, students are expected to collect anamnesis, perform clinical examinations and establish major differentials, major complementary exams and procedures, suggest a treatment plan and prognosis on individual basis. Students are encouraged to follow individual cases from presentation to discharge and are involved in case management through all clinical work under the direct supervision of teachers and hospital supporting staff. Report writing is mandatory in the continuous evaluation of students during the 5th for clinical cases that attend consultations during small animal medicine classes.

In large animals, under continuous evaluation, students prepare a case log of the clinical cases observed during the semester and a complete report for one clinical case in equine hospital. The students are asked to write a skills diary in which they record the practical procedures performed signed by the teacher supervising the procedure.

Only practical classes are mandatory and non-working students must participate in at least $\frac{2}{3}$ of practical classes.

A full pedagogical survey about the subjects and teaching is conducted every semester on a voluntary basis. The survey is not limited to the Establishment but is a general evaluation for all the ULHT.

5.1.2 Comments

Teaching is case and problem-oriented and there is an excellent practical versus theoretical ratio. The teaching methodologies used in the laboratory classes in the basic and FSQ&VPH courses are adequate. Communications between students and teachers are well supported with mobile applications, well-developed intranet (accessible from outside using VPN protocol) and mobile network. Students are exposed to core clinical situations in several curricular units starting as early as the 1st year and pre-clinical teaching is adequate. However, in the team's opinion, the clinical rotations, as organised, do not allow the student to follow cases from admission to discharge (especially for large animals), restraining effective learning.

In clinical teaching, case logs, detailed clinical reports and skill diaries are good practices. The access to all clinical data using specific secure credentials in small-animal clinic, give the student the opportunity to monitor and reflect on the cases and partially compensates the problem associated to the clinical rotations. However, in the team opinion, the type of accessible clinical data recorded at the horse hospital, does not give the students the opportunity to perform retrospective studies on cases, hampering an effective learning.

The official survey for evaluating the teaching, available at ULHT and implemented within the Establishment activities, is not compulsory and the results are not public or submitted to teachers and students. During the visitation, it was clear for the team that in addition to the official survey, students and teaching of the Establishment have a continuous informal evaluation of the courses. However, in the team opinion this activity does not compensate efficiently the absence of a transparent pedagogical survey.

Finally, there is a clear difference between students for what concerns the mandatory activities within each course, depending on the student status (i.e. working student versus non-working student) and the type of assessment methodology decided by the student at the beginning of the course.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

5.1.3 Suggestions

It is suggested that the Establishment organises a transparent (i.e. results must be publicly available for students and teachers), compulsory and effective pedagogical surveys specific for the IMVM. In addition, the team suggests that clear and equal criteria must be applied to all students for what concerns mandatory activities within each course.

5.2 EXAMINATIONS

5.2.1 Findings

Students are assessed by continuous evaluation or by a final exam. Each year of teaching is organised in two semesters each consisted of 15 weeks of teaching following by specific time dedicated to the final exams. Continuous evaluation took place during the 15 weeks of teaching. In term of duration and content the final exam is equivalent to the continuous evaluation. The theoretical component of the final exam is a written evaluation (multiple choice, essays, reports). In continuous evaluation, the theory is assessed individually or in small groups written or orally.

The practical component of the final exam is aligned with the hands-on practices used in the classes: oral and clinical evaluation, interpretation of results of diagnostic tests, solving problems. In addition to the clinical reports, skills diary and logs used for evaluating Day One Competences, clinical skills (develop of clinical protocols, solve clinical cases, organise case log) assessment is performed through the exposure to clinical cases throughout hospital activities, during which also general skills as communication, team work, proactivity are assessed. During the EPT Day One Competences are assessed by external supervisors. Students who have not obtained approval of the continuous evaluation must perform a final exam.

During the exam period, students who elected to not be assessed with or who failed the continuous evaluation have one opportunity for a final exam. In case of failing, students have a second chance and no further retakes are organised. A third evaluation is available at the end of the first and second cycles for students with no more than 30 ECTS to finish or for students who work, students participating in the Councils and as competition athletes.

Students are informed about the assessment procedures at the beginning of each course through Moodle (by consulting the FUC). Students pass the exam with at least 9.5/20 in both components (theoretical and practical). Students have the right to appeal and ask for a revision of the evaluation within 5 working days. Grades are made available online.

As final examination, students must elaborate and publicly defend a dissertation based on their activities during EPT.

5.2.2 Comments

The examination strategy is overall adequate. The continuous evaluation is a very good strategy for an effective feedback to students. However, there is not a clear hierarchy of the examinations which affects teaching and student working load. The team were unable to verify how much the final exams and the continuous evaluation can assess equally the practical component and, especially, the Day one competences in all disciplines.

The appeal time is rather short and the number of exam retakes is clearly insufficient. There is not an established a clear and transparent quality evaluation of the examination procedure. External evaluators do not participate to the assessment of the students.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

5.2.3 Suggestions

It is suggested that the Establishment organise more exam retakes throughout the two semesters.

5.3 STUDENT WELFARE

5.3.1 Findings

There are academic, administrative and IT support services for students. Student with special needs are supported by *ad hoc* office. A Student Counselling Office aims to promote the well-being of the students and to support them in the educational process. In addition, the University offers social support, scholarship and emergency aid, for equal access of higher education. In case of conflicts students can appeal to an Ombudsman. International mobility (Erasmus+, Overseas exchange) is encouraged and supported by a dedicated office.

Students can access all the facilities of the campus and the intranet inside the campus and outside by using a VPN connection.

Students have representatives at the Pedagogical Council.

Biosecurity is implemented in the Establishment and is taught throughout the curriculum. Specific modules and information are available in Moodle. All the laboratories are equipped correctly. An insurance policy covers students both in intramural and extramural activities in all health-related issues.

5.3.2 Comments

There is well-developed student support at the Establishment.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

5.3.3 Suggestions

None.

6 PHYSICAL FACILITIES & EQUIPMENT

6.1 GENERAL ASPECTS

6.1.1 Findings

The main ULHT campus (four hectares) is located downtown in Lisbon (*Campo grande*), so that there is an easy access for students and staff, either by car, bus or subway. The Establishment is spread in seven out of 22 buildings in the University Campus in Campo Grande, one of them including the VTH-CA. The campus is a former military barracks, but the old buildings were renovated and adapted to teaching purposes. The overall quality of the refurbishment that has been done is good, although unequal among buildings. Some buildings are new, offering very good working conditions. Some teaching rooms are easily accessible to persons with reduced mobility, some are not, especially in the laboratories.

As to be expected, the Establishment shares some facilities with the other ULHT units, such as auditoriums, library, laboratory rooms, computer rooms and bars.

Most classrooms are quite small (30 to 60 square meters), with a small number of seats, so that the classrooms are divided in groups (for example, three groups of around 30 students or six of 15). The laboratory available equipment is good and its number is adequate according to the size of the

student's groups. The students only complain about organisation: rooms not available although initially scheduled in the timetable, recurrent loss of time to find the proper door key, and so on. The university has full Wi-Fi coverage and all relevant rooms are equipped with a functional video projector.

All facilities fulfil the national requirements in terms of security, biosafety and biosecurity. Security equipment (showers, eye washers, extinguishers etc.) is present when needed everywhere. Chemicals and dangerous drugs are stored in appropriate secured shelves or cupboards.

A general biosecurity manual has been written (in both Portuguese and English), with biosecurity procedures being displayed in the relevant rooms. Waste management is operational, with specific bins for the different types of residues. Rooms or areas with restricted access or needing special dressing (gloves, face masks, hairnets and/or overshoes) are identified by coloured tape on the floor, respectively yellow and red. The Establishment has a yearly-renewed contract with two dedicated companies for hazard material waste management and residues from animal origin (Ambimed and Zoomed, both companies from the Stericycle group).

The anatomy/necropsy room has been recently renovated. It is easily cleanable. The stainless-steel tables are in very good condition. The chest freezers are placed on stainless-steel trolleys with castors, so that they can be pulled out for cleaning. A changing room for students is available at the entrance. The fixator that is used for organ preparation and conservation is a formalin-free ethanol-based water solution (FineFIX®). This room is obviously suitable for its current use: anatomy dissections or observations of fixed organ preparations, or necropsies of non-contagious dogs/cats, mostly coming from shelters. However, the room's cleaning, scouring and disinfection effluents are cannot be collected in case of serious contamination.

Vehicles for student transfer to outside activities (buses and minibuses) are available. If the students have to go outside in very small groups (2-3), they are asked to use their own vehicle, but they are refunded on a per kilometre basis.

6.1.2 Comments

The team was convinced that some of the biosecurity procedures, displays, floor tapes and bins were recent, especially managed for the visitation. According to the fact that the job has been done, it is not a concern, provided that the Establishment ensures a permanent biosecurity culture and that everything will not vanish in a few weeks.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are not met because of absence of relevant dissection and necropsy rooms for large animals and inadequate necropsy room for small animals.

6.1.3 Suggestions

The anatomy/necropsy room has to be modified in order to clearly separate the clean/dirty people circulation in the changing room and to be able to collect effluents in case of serious contamination.

6.2 CLINICAL FACILITIES & ORGANISATION

6.2.1 Findings

The VTH-CA is small (around 400 square meters), but recent and adapted to the current caseload and organisation. The facility is of good standard and the patient and people circuit is well organised. The medical equipment is basic but functional. The surgery rooms, although not on positive pressure, are

clean and under restricted access. All basic surgical accessories are recent. The isolation facility is operational and allows separate animal access if needed. The X-ray machine (latest and computerized) is located in a specific room with sliding leaded doors designed to optimize the available space. Personal protective equipment is present, including gloves, thyroid shields and leaded glasses. All staff have a personal dosimeter and a room dosimeter is used in order follow-up student's exposure. The VTH-CA is compliant with the Portuguese legislation and the X-ray equipment is yearly inspected. Diagnostic imaging at the moment is limited to X-rays, ultrasound (two good machines) and a Storz video endoscope column. The VTH-CA makes arrangements with a private practitioner, who is ECVN specialist, when a MRI is needed and the students are welcome. A room is used for dental care with a dedicated X-ray machine and equipment for surgery. Another room is devoted to chemotherapy with specific security procedures.

Due to appointment of an ECVD specialist and a nearly ECVIM-CA/Oncology specialist, a referral activity is emerging. There is no European specialist in other major areas like internal medicine, surgery etc. Trained and highly motivated staff is however present in these disciplines. One member of the staff is taking care of exotic animals. The assistants (full-time DVM) and the four nurses also are highly involved.

The medical software in the VTH-CA (BoomMed) is sold by a private company with which there is a special agreement to adapt it to the VTH needs. Modern, full web and cloud-oriented, the software is appropriate for a private clinic. An adaptation is therefore necessary to be able to use it for teaching and research purposes. At the moment, retrospective and multi-criteria searches are possible but need an additional software for which access is limited to some people. Management of student activity and case logs is performed separately with Excel files.

The small animal emergency service is operational with a mandatory nightshift: one DVM and students are present every night and during weekends. In the basement, there are rooms with lockers for student changing, showers, a dining room with sofas and duvets for students. A separate changing room with a working space and also with sofa/duvet is available for the staff.

In the basement floor of the VTH-CA, there is a well-equipped diagnostic lab, performing biochemistry and cyto/haematology analyses. This lab is run by a motivated ECVCP specialist, but is not overloaded.

Besides these facilities own by ULHT, the Establishment has arranged 'protocols' with premises outside the Campus to cover the needs in Farm Animals, Equine and Food Technology. Among these facilities, two can be considered as 'intramural' (see also chapter 4.4): the VTH-E (an equine clinic in San Estevao), and the 'Herdade dos Coelhos' dairy cattle farm.

The VTH-E is a recent building. In the ground floor of the main building, there is a large changing room for students, and all clinical facilities *sensu stricto*: examination rooms (one of them containing a Storz endoscope with two gastrointestinal tubes), two rooms for anaesthesia/recovery, one of them never being finished, communicating via a hoist to the large surgery room. The gas anaesthesia machine is good but needs maintenance. The X-Ray machine is outdated and needs replacement. All rooms are large enough and can be easily cleaned. In a separate building, there are boxes for horse hospitalisations and treatment. None of them is equipped with a hoist allowing to hang a horse needing to be maintained in the upright position. An isolation facility is envisaged but is not operational. At the moment, neither the changing room nor the horse box are finished. Furthermore, a communication with the adjacent pen is possible for effluents as the swale is common and passes through the wall. There is no necropsy room. At the first floor, a large apartment is available to host the students and the staff. Up to six people can stay overnight in very nice conditions. In the VTH-E, all student activities are recorded in a logbook and supervised by the staff. At the moment, there is no medical record software that is available for the students.

The dairy cattle farm is large (280 cows among them 230 in lactation), of very good standard and has been fitted out to host the students. Two prefab modules have been bought and placed in the ward. They are used as a changing and dining area. Besides the pens, a shelter has been built by the Establishment in order to train the students in better conditions. Boxes are dedicated to calves and the students have easy access to all facilities except the milking area, where they are only accepted in specific situations. There is always two or three DVM from academic staff (including the veterinarian who owns the farm, and who is also partly paid by the Establishment) with the students, so that the group can divide into separate activities. All student activities are recorded in a logbook and supervised by the staff. There is no dormitory, so that the students have to leave at the end of the day. As the farm doesn't welcome sick animals from outside, and is of very good sanitary status, this facility cannot be considered as a bovine clinic. Furthermore, there is no isolation facility (not needed in this case), and no necropsy facility.

6.2.2 Comments

The VTH-CA can be considered as a very good tool, provided that the caseload is adapted to any increase in the number of students and the development of residency programmes. If such a development occurs, the Establishment should quickly schedule an extension scheme with a multiyear timeframe, as additional facilities will be necessary (for example, CT-scan, physiotherapy etc.).

In the large surgery room, some ingress of water occurred near the large window and in the bottom of the opposite wall. The consecutive blistering paint needs some repair in order to be able to clean the room to avoid contamination. During the visit, only one mobile surgical light was available for the three tables. In case for simultaneous surgical procedures, all tables must have adequate lights. Ketamine, opioids and other dangerous drugs are stored in a safe, as required by law. However, the code is very simple and seems to be known by everybody. It has to be changed on a regular basis.

The Establishment must consider any solution to ensure sustainability of the access to the private VTH-E and to maintain/increase the caseload, in case of worsening of the economic situation of the clinic, to finish the buildings and to invest in the necessary equipment.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are not met because of absence of adequate isolation boxes for large animals.

6.2.3 Suggestions

The Visitation team suggests developing adequate isolation boxes for large animals and ad hoc equipment in the equine teaching hospital.

7 ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN

7.1 Findings

No live animals are used for majority of the preclinical work unless it brings benefits for the animal. The Establishment has contracts with a lot of farms, shelters, animal welfare associations so that the preconditions for the one-day-competences can be met.

The students participate in the internal clinical work and have also access to external farms. According to the SER in the framework of the internal work the students meet first of all dogs, cats, and horses, but in reality horses and bovines are seen in framework of extramural activity. Majority of the external work is made with food producing animals. Dairy and beef cattle, poultry and rabbit farms are visited. Horses can be examined in the framework of the outpatient clinical work on the equine hospital

(VTH-E). The VTH-E is owned by third party, and hired by the university, while VTH-CA (companion animals) is owned by the university. The VTH-E sometimes buys limbs from the slaughterhouse and the students are allowed to work with them, but for example not even a nerve block is allowed to be made by students on live animal. Presence of students related to caseload and the real (commercial) patients in the VTH-E doesn't make hands on work possible for students.

Dogs on voluntary basis and two resident horses are used for teaching examination methods; no invasive interventions are applied on these animals, and their wellbeing is constantly monitored. Cadavers, fresh and preserved complete and part cadavers of small animals are used for anatomical and pathology trainings. The anatomy and pathology education is made in the same room, on the same cadavers. No register on the necropsies exists. Students in small groups (15) get fresh bodies of dogs and cats, fixed bodies and body parts from both pet and farm animals. Full bodies of pet animals and piglets, a very few specimens/organs from ruminants and horse, fore-and hind limbs of horses are at the disposal of the students. Establishment has a bone collection from dogs, cats, cattle, small ruminants and horses, but this bone collection is insufficient.

According to the SER cattle necropsies are performed extramurally in a special enterprise. The Establishment has a lot of contracts with hospitals, public kennels, animal shelters, private clinics and slaughterhouses, and they also obtain fresh cadavers from the local markets. Transport, storage and destruction of the bodies are organised according to the operative law. Students get a safety and health education from the first day of these courses. The content of this education is not documented.

As far as ratios clinical case load (extramural work)/ students graduating are considered, vast majority of these ratios are met according to the SER. Based on the team's visits the number of large animal cases (number of ill animal patients treated/handled by students) is insufficient. No. of rabbit, rodent, bird and exotics seen intramurally/no. of students graduating is a little bit below limit. Companion animals are seen intramurally, so ratio of CA seen extramurally/students graduating is below limit also. Due to the low caseload of rabbits, rodents, birds and exotic animals, ratio of necropsies of these species / students graduating is also below limit.

The number of small animal cadavers/specimens used in the practical trainings is in accordance with the number of students participating in these lessons; it's an issue that anatomy and anatomic pathology is not really separate; poultry/rabbit cases are lower than it would be preferable. Large animal specimens/bodies are completely missing.

Students work with outpatients and inpatients in small groups of 4,5,7, in clinical rotations.

Every student visits slaughterhouses (ruminants, swine, poultry) and their related premises twice each year.

Number of clinical material is adequate in the small animal hospital to enable staff to maintain and improve skills. The low number of horse cases (slightly above the limit determined in the SOP) is explained by the economic situation of Portugal, and that of the Portuguese horse owners. Number of poultry and rabbit cases is a little bit low to maintain skills of the staff. The dairy farm considered as "intramural" does not provide enough possibility (enough diseased animals) neither to maintain/improve skills of the staff and nor for hands on possibilities for the students.

7.2 Comments

The number of animals and teaching material of animal origin are not correctly registered, and records of the VTH-E are completely separate from the student logbooks, as for confidentiality reasons students do not have name/number of the horse to be examined. Thus, retrospective studies cannot be

carried out. The bodies coming from the shelters for anatomy and/or necropsy are not properly recorded although based on current information obtained from the shelters all their animals have microchips/transponders. No central recording for ill small and large animal patients exists. There is no on-paper biosafety and biosecurity training.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are not met because of insufficient caseload of 'real' patients and cadavers from sick patients in large animals.

7.3 Suggestions

As ratios of poultry/rabbit/exotic cases/no of graduating students are a little bit below the limits, number of cases should be improved in these fields. Also number of extramural companion animal visits should be raised. Cases necropsied should be carefully recorded.

The number of large animal dissections, necropsies, ill large animal treatments/follow-ups should be raised in any case. Optimisation of material of animal origin used for teaching anatomy is strongly suggested.

8 LIBRARY & EDUCATIONAL RESOURCES

8.1 Findings

The library is located in the main campus in a dedicated building. Staff includes 7 qualified librarians and 2 library assistants. Library is open 6 days/week from 10.00 to 22.00 except Saturday when the programme ends at 18.00. There are 2 reading areas (415 and 180 m²) and 3 study rooms, 18m² each. Portuguese software is available for bibliographical search (DocBase). Database includes paper and digital resources, which can be accessed from the campus or at home via VPN. Institutional collections of Grupo Lusofona, master/doctoral theses, journal publications, and conference proceedings are accessible for staff and students.

In the veterinary area, the Establishment offers 206 books, 9 periodicals in paper, 9 DVD, 132 e-periodicals and 25 e-books. The online databases are Proquest (100.367 articles and 1.202 abstracts) and EBSCO SPORTDiscus (668 articles and 515 abstracts). The library is managed in collaboration with all the Grupo Lusofona libraries located in Portugal, Africa and Brazil (14 libraries) and provides full access to the students to these respective libraries.

Online services (via a Moodle platform) are well developed including admission (on line application), teaching materials (PDF, PowerPoint, movies), communication between students and Establishment, video technology in clinics and hospital, assessment via digital questionnaires, two mobile applications for academic activities.

Training of users (staff/students) occurs for specific groups and for individuals when necessary. The e-library provides a wide range of e-books and e-periodicals for both staff and students. Some printed books are insufficient.

Departmental libraries are also available for the students. E-books and e-articles are the most used for student/staff preparations.

Exchanges with others libraries occur, mostly with the Lusofona group network libraries.

8.2 Comments

The number of paper books frequently used by students should be increased when they are not available as e-books.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are met.

8.3 Suggestions

None.

9 ADMISSION & ENROLMENT

9.1 Findings

There is a rather sophisticated selection procedure. As this is a private university, applications depend on nature and provenance of the candidates, i.e. students with a secondary school or equal qualification and those who have passed the entrance examinations and have obtained a grade of at least 95/200. The final application calculation is based on the secondary school results and the entrance examination according to a certain formula.

There are possibilities for special applications for holders of different courses and students over the age of 23 who had no access to higher education after their secondary school studies. Also students who had previously attended another course of higher education have a possibility to prove the approval of their other entrance examination.

It is possible for external students to attend separate studies of a higher education course, and credits can be accepted for a later admission based on an operative law.

There exists a Statute that guarantees the integration of students with special needs.

The admission procedure highly depends on the vacancy at the ULHT determined by special bodies based on existence of the suitable human resources. An ULHT body validates the admission results, and for the + 23 year old students a special Jury is set up appointed by the director of the given course and approved by the Rector. Appeals should be submitted to the Rector.

Criteria and admission results are public due to the operative legislation.

A complete curricular year corresponds to the completion of 60 ECTS, but the student may transit to the next year with 15 ECTS pending. Entrance to the 6th year and external practical training has special ECTS-preconditions, with some exceptions which have to be accepted by the director of the IMVM. From information supplied by the students, those who cannot afford paying all credits in one semester may postpone some studies for the further years, thus theoretically it may happen that anatomy is learned together with surgery on the fourth year.

Main causes of attrition: Number of evaluations and adequacy of school calendar to the students' needs. The students spend too much time before they submit their final EPT dissertation; there is attrition during this process too; some measures have already been introduced (application of an additional fee in case of failure to present the thesis within a given time frame). Also, being a private university, students have the urge to transfer to public institutions in the first years in order to avoid the fees. Based on the students' information apart from these causes main cause of attrition is the price of the courses and lack of money.

According to the SER, international relationships are limited to the Erasmus programmes, and overseas exchange programmes.

Establishment doesn't plan to open the admission procedure for foreign students.

9.2 Comments

The Establishment has already realised that for a subset of the students it takes too long to complete the course, mainly due to the late submission of their thesis. The Establishment has introduced measures against this problem. They also try to make the education quality level very high so that the courses can be even more attractive. During the most recent years an improvement in the situation could also be observed thanks to their hard work on this field.

The student progression with the subjects postponed, due to either inability to pay 60 credits of failing the exam, is an issue because it may happen that foundational knowledge is lacking while learning clinical subjects. It can be acceptable until the third year, but not after.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are met.

9.3 Suggestions

Students should propose the topic of their thesis at the end of the ninth semester at the latest.

Strict regulations should be established to limit student's ability to postpone a basic subject until after commencement of the Master level.

10 ACADEMIC TEACHING & SUPPORT STAFF

10.1 Findings

The structure of the Establishment's academic staff is: Assistant Lecturer: 5, Clinical Lecturer: 11; Auxiliary Professor: 25; Invited Auxiliary Professor: 27; Associate Professor: 11; Full Professor: 5. Honorary/invited Professors were not considered for the FTE calculation.

Staff appointments are decided by the Dean, according to the number of students enrolled, type of class, teaching hours, and other specific needs. Relevance of background, scientific production and professional experience of the candidate are evaluated by the Scientific Council of the Establishment. The final decision is the responsibility of the Rector, the Administrator and the Human Resources Department of ULHT.

There are difficulties in recruiting staff members because of the low salaries and the lack of specialised veterinarians in Portugal. The Establishment's strategy to overcome this weakness is to hire invited professors with PhD and EBVS board-certified degrees.

Academic Staff are motivated to attend post-graduation/continuing education programmes organised by the Establishment. Staff must seek financial support from external sources to attend scientific meetings. Staff may also attend mobility programmes. 82% of the academic staff are Veterinarians.

Academic staff have a variety of teaching and administrative responsibilities, some of these are not clearly closely related to the subject competence of the individual.

Most staff complain about an overload of both teaching and administrative duties.

There is no evidence of international advertising in searching for professor position. There are no specific search criteria for employment of senior level teaching staff. The Establishment experiences real difficulties in employment of new staff in case of vacancies which are frequent because of the

continual changes of staff. The Dean and the Administrator decide staffing level and salary without clearly-defined and well-advertised criteria.

10.2 Comments

The team experienced real difficulties in evaluating the accuracy of some ESEVT indicators due to inconsistencies of data provided by the Establishment. For instance, some staff registered as full time in the SER told the Team that they were employed only part-time.

The number of full time academic teachers is too low for providing an optimal training and is not correlated with the current increasing number of students enrolled. As a consequence most academic staff experience an overloaded teaching programme (some of them with 40-50 teaching hours per week), and administrative work, which gives no real time for self-preparation, research activities and CPD.

There is a lack of real promotion criteria and clear career progression. Also, some staff do not have the relevant qualifications for the area that they teach. There is a high turnover in staff members and an inconsistency in identifying subject leaders in some subjects.

The evaluation of staff by student is organised yearly by the Establishment but is not compulsory. Staff complain about the lack of student feed-back given to them, while a negative evaluation may be associated with a reduction in their salary.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are not met because of lack of clearly defined career progression pathways, especially for teaching staff, and insufficient number of full-time academic teachers to ensure research-based education.

10.3 Suggestions

Additional efforts should be made in recruitment of new qualified staff in permanent position according both to their level of teaching and administrative tasks and the increasing number of students enrolled in the establishment.

Clear promotion criteria and well-defined academic career should be developed for teaching staff in order to encourage their professional/academic progression and reduce the current turn-over.

It is suggested to introduce a formal and continuous training on modern pedagogical methods for all staff involved in teaching/assessment in order to improve their didactic skills.

Teaching staff should have more time available for courses' preparation, research and CPD activities.

11 CONTINUING EDUCATION

11.1 Findings

CPE programmes are listed in the SER objectives. FMV-ULHT was the first university in Portugal which introduced a consistent continuing training. They have 1-year, week-end, two-weekly and monthly programmes. There are more than 200 short courses available theoretically, mainly with invited lecturers. In reality the number of courses has been decreased during the last years. According to the information received from the academic staff the organisers announce the different courses based on their own fields as demands of the practitioners cannot be surveyed. This is somewhat in contradiction to the SER. The CPE courses are meant mainly for the practitioners, both in pet animal, and farm animal fields.

A couple of valuable conferences were organised during the past academic years. OMV doesn't plan to make CPE mandatory for the private practitioners and does not participate in grading the courses. Lecturers invited to deliver CPE courses are also asked to present to the undergraduate students. The two programmes go in parallel.

Teachers don't get extra salary for their CPE organising activity, only if they have personally delivered the CPD presentation.

Income of the CPE programmes – if there is any – goes to the University's central office and does not come back to the Establishment.

The OMV does not participate in the continuing education programmes. There is no preliminary grading/assessment for the different courses, as there is no credit system for the practising veterinarians that must be met.

11.2 Comment

Teachers organising and designing the courses do not get extra money for it, only if they have delivered the talk.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are met.

11.3 Suggestion

A possible closer communication with OMV so that the CPE courses organised can really meet the demands of the veterinarians. Paying money for extra work should be included into the Establishment's budget.

12 POSTGRADUATE EDUCATION

12.1 Findings

At the moment, no postgraduate research based programmes and no residency programmes certified by the European Board of Veterinary Specialisations are offered. There is a possibility for clinical training internships on three different fields.

There is an internship programme in cooperation with the University of Alcalá Henares (Spain). The Establishment cooperates with several research institutes and private clinics but these programmes don't set up a formal rotating internship programme.

According to the SER, actually no definite Master of Sciences or PhD programmes exists.

12.2 Comment

Real postgraduate research-based programmes do not exist which may be linked to the low number of board certified specialists in the Establishment.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the Budapest 2012 SOP are met.

12.3 Suggestion

A steady formal rotating internship programme should be set up and introduced. A precondition is to raise the number of EBVS specialists.

13 RESEARCH

13.1 Findings

The Establishment has identified the level of research as an area of weakness, and that current academic staff have limited time to dedicate to research, and there are no research-dedicated staff. Included in the strategic plan is the aim to increase the hiring of full time Academic staff/ Researchers and PhDs in Veterinary Sciences to improve research output.

A number of Establishment' academic staff are integrated with the Research Centre for Biosciences & Health Technologies (CBIOS).

The Establishment does not yet offer a Postgraduate research-based or PhD programme. Student access to research is primarily through interaction with invited speakers, and via student on and off-site final year dissertations. These final year dissertations consist of a mix of original bench-based and clinically-based projects. By Portuguese law it is a requirement that dissertations must be supervised by persons holding a PhD and as a result many must be supervised off-site. The Establishment does not provide specific funding for consumables use in the dissertations.

The Establishment has been successful in obtaining one funded research grant in the past 10 years.

In the view of the staff, approximately 40% of academic staff are research active. Many of the staff carry out their research off-site at other institutions.

Research collaborators include:

- Science and Animal Studies Department at University of Porto
- Interdisciplinary Research in Animal Health (CIISA) at the University of Lisbon
- National Institute of Health Dr Ricardo Jorge
- Institute of Tropical Medicine and Hygiene of the University Nova of Lisbon,
- Genomics and Biotechnology Centre at University of Tras-os-Montes and Alto Douro
- Institute Gulbenkian of Science
- Institute of Molecular Pathology and Immunology of the University of Porto
- 3B's Research Group at the University of Minho.

There is evidence provided of a rising trajectory in international peer-reviewed scientific research publications, from 22 papers published in 2013 rising to 40 in 2016.

13.2 Comments

The staff who are continuing to publish in international peer-reviewed journals are to be commended on their efforts to maintain their research profile.

The Visiting Team notes that some of these publications listed in the SER do not include the Establishment in the affiliations.

Research effort in the Establishment is highly fragmented, and there is no research strategy presented.

Academic staff in general are not provided with protected time to carry out research, and are not given incentive to carry out research. No specific funding is provided for the consumables and bench-work associated with student dissertations, and many of the dissertations are carried out off-site. The absence of funding and available time for research activities, with a resulting negative impact on research-based teaching and education towards a research career

The Visitation Team note that under the Budapest SOP Annex I, section 1.13, "the Establishment should assign an appropriate number of academic and technical posts specifically to research" and

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“the Establishment should also allocate adequate facilities, equipment and operating funds to research.”

In the Visitation team’s opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are not met because of absence of funding and available time for research activities, with as a result a negative impact on research-based teaching and education to research.

13.3 Suggestions

The Establishment should develop a strategy which would include the provision of specific supports to academic staff to develop the research profile of the Establishment. Staff should have adequate funded time to carry out research to ensure that the curriculum is research-led.

A member of the Establishment could be identified to provide leadership in research and to aid in the development of internal and external research collaborative opportunities for staff.

EXECUTIVE SUMMARY

The Faculty of Veterinary Medicine (FVM-ULHT) (called the Establishment in this report) is located in Lisbon and is one of the 10 academic units of the Universidade Lusófona de Humanidades e Tecnologias, Lusófona (ULHT), a private institution devoted to higher education.

The Integrated Master Degree in Veterinary Medicine (IMVM) of ULHT was approved by the Portuguese National authority and by the Portuguese Quality Agency for the Assessment and Accreditation of the Higher Education in 2004 and 2016 respectively. The current Visitation is the first one completed by the European System of Evaluation of Veterinary Training (ESEVT).

Although the ESEVT Visitation was performed in agreement with the Budapest SOP (2012) (stage 1 Visitation), the SER was written in agreement with the Uppsala SOP (2016). The SER and the Visitation programme were provided later than expected to the Visiting team, i.e. 30 days and 4 days before the start of the Visitation respectively. The SER included inaccuracies and lack of some key data. However, corrections of most inaccuracies and most complementary information requested by the experts were provided during the Visitation.

The Visitation was well organised and the Liaison Officer did a great job to adapt the schedule of the Visitation, to search for the requested information and to organise the relevant meetings.

The Visitation Team has identified several areas worthy of praise (i.e. commendations), e.g.:

- excellent practical versus theoretical teaching ratio;
- curriculum grounded and developed around real life veterinary scenarios;
- close attention to student welfare;
- broad range of electives;
- commitment and dedication of all staff to enhancing the student experience;
- accessibility of teaching staff to ensure the students' educational needs;
- IT facilities and services.

The Visitation team has also identified several areas of concern (i.e. Minor Deficiencies):

- absence of an operational plan with timeframe to adapt the facilities, staff and patients' caseload to the increasing number of students;
- absence of well-defined tiered structure for the organisation of the Establishment;
- insufficient involvement of staff, students and stakeholders in the decision-making process;
- absence of correlation between the number of enrolled veterinary students and the funding allocated to the Establishment by the ULHT;
- insufficient autonomy of the Establishment to use the funding allocated by ULHT;
- lack of continuity in subjects oversight due to continual changes of staff;
- lack of identified subjects leaders and formal exchanges between them in order to harmonise the curriculum;
- insufficient practical dissection of large animals;
- insufficient exposure of students to emergency cases in all species;
- lack of prerequisites for accessing the courses at the master level;
- insufficient equipment in the equine teaching hospital;
- insufficient formal training in modern pedagogical methods for all staff involved with teaching;
- overload of staff with teaching and administrative duties, with as a result not enough time for research and continuous professional development activities;
- insufficient operational plan for the recruitment of recognised clinical specialists and the development of residency programmes.

Additional suggestions of improvement are listed in the Visitation report.

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The potential Major Deficiencies suggested by the Visitation team are:

- absence of funding and available time for research activities, with as a result a negative impact on research-based teaching and education to research;
- absence of relevant dissection and necropsy rooms for large animals and inadequate necropsy room for small animals;
- absence of adequate isolation boxes for large animals;
- insufficient caseload of 'real' patients and cadavers from sick patients in large animals;
- lack of clearly defined career progression pathways, especially for teaching staff;
- insufficient number of full-time academic teachers to ensure research-based education.

Therefore, the Visitation Team recommends to ECOVE the status of Non Approval for the FVM-ULHT.

Annex 1: Indicators calculated with the ESEVT Excel table



ESEVT Indicators

Calculated Indicators from raw data		Establishment values	Median values ²	Minimal values ^{2a}	Balance ³
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	0,648	0,87	0,59	0,059
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0,470	0,94	0,57	-0,096
I4	n° of hours of practical (non-clinical) training	1853,0	905,67	595,00	1258,0
I5	n° of hours of clinical training	1244,0	932,92	670,00	574,0
I6	n° of hours of FSQ & VPH training	472,5	287,00	174,40	298,1
I7	n° of hours of extra-mural practical training in FSQ & VPH	158,3	68,00	28,80	129,53
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	34,37	70,48	42,01	-7,641
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	23,66	2,69	0,46	23,20
I10	n° of equine patients seen intra-murally / n° of students graduating annually	2,263	5,05	1,30	0,965
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	1,871	3,35	1,55	0,326
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0,000	6,80	0,22	-0,223
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	20,18	15,95	6,29	13,88
I14	n° of equine patients seen extra-murally / n° of students graduating annually	0,092	2,11	0,60	-0,503
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	0,742	1,33	0,55	0,195
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0,037	0,12	0,04	-0,008
I17	n° of companion animal necropsies / n° of students graduating annually	1,014	2,07	1,40	-0,386
I18	n° of ruminant and pig necropsies / n° of students graduating annually	0,479	2,32	0,97	-0,491
I19	n° of equine necropsies / n° of students graduating annually	0,046	0,30	0,09	-0,047
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	1,949	2,05	0,69	1,257

Annex 2: Decision of ECOVE

The Committee concluded that the following Major Deficiencies had been identified:

-) Absence of funding and available time for research activities, with as a result a negative impact on research-based teaching and education to research;
-) Absence of relevant dissection and necropsy rooms for large animals and inadequate necropsy room for small animals;
-) Absence of adequate isolation boxes for large animals;
-) Insufficient caseload of 'real' patients;
-) Insufficient cadavers from sick patients in large animals;
-) Lack of clearly defined career progression pathways, especially for teaching staff;
-) Insufficient number of full-time academic teachers and insufficient training of all the staff involved in teaching including practitioners to ensure research-based education.

The 'Veterinary Faculty of the Lisbon Lusofona University' is classified after Stage 1 Evaluation as holding the status of: **NON-APPROVAL**.