

**European Association
of Establishments for Veterinary Education**

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



VISITATION REPORT

To the Faculty of Veterinary Medicine of the Complutense University of Madrid

27-31/03/2017

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Introduction

Veterinary training began in Madrid at the end of the 18th century, in 1792. The current Veterinary Faculty (called ‘the Establishment’ in this report) has been part of the Complutense University of Madrid (UCM) since 1943 and moved to the current campus in 1968. The Veterinary Teaching Hospital (VTH) is strategically located in order to attract an adequate caseload of patients, especially in companion animals. The VTH maintains close relationship with the Official College of Veterinarians of Madrid (COLVEMA) and with Private Professional Associations and Public Entities.

Since 2010, the Establishment, with other local universities and research centres, has been an active member of ‘Moncloa Campus of International Excellence’ and particularly of its ‘Agro-food industry and health’ cluster.

The Establishment is proud of its presence in the Top 50 of the QS World University Ranking by Subject (Veterinary Science) (2015).

It has already been positively evaluated by ESEVT twice. The last Visitation was performed in 2006 and the Establishment was approved by a decision of ECOVE. Since then, and despite the negative impact of the economic crisis on the funding of Higher Education in Spain, the Establishment has worked hard in to implement the opportunities for improvement suggested by the 2006 Visitation team, to implement the ‘One-Health’ concept and the ‘Day One Competences’ proposed by ESEVT and by OIE, to apply the new National and EU regulations related to veterinary education and to meet the requirements of society.

As a result, new committees have been created (Quality Assurance, Biosecurity, Animal Ethics and Welfare, VTH management), a new curriculum has been developed, a graduation thesis has been introduced and self-directed learning encouraged. In addition, teaching, clinical, research and administrative facilities have been built, acquired or renovated (e.g. Pilot Food Processing Unit, MRI Unit, isolation areas, riding area, spaces for learning in small groups, spaces and equipment for animal and students welfare, system for waste management, Health and Surveillance Centre).

The new study programme was approved in 2010 by the Spanish Agency for Quality Assessment and Accreditation (ANECA).

The current ESEVT Visitation is performed in agreement with the Uppsala SOP (2016).

1. Objectives and Organisation (see Standards 1.1 to 1.6)

1.1. Findings

1.1.1. Brief description of the Strategic Plan

The current Strategic Plan (2017-2020) was approved by the Faculty Council in December 2016. It is fully available for the public on the Establishment’s website, both in Spanish and in English. It contains the mission statement, vision and values, a complete SWOT analysis, a description of the objectives and a timetable for its implementation.

The mission of the Establishment is to train professionals of quality and prestige, who seek to preserve the health of animals and the population, and the conservation of the environment.

Its vision is to guide Veterinary Education to society demands, by providing effective teaching, developing advanced research and offering quality community assistance.

The objectives are focused on teaching, research, services, management and social impact. A Strategic Plan specifically devoted to the Veterinary Teaching Hospital (VTH) has also been developed and is available on the Establishment's website.

1.1.2. Brief description of the Operating Plan

The timeframes and indicators of achievement of the Strategic Plan are described in both the Strategic Plan and the SER. A table on 'Prioritisation of strategies for implementation' is available and proposes milestones for the main objectives. A Deming wheel is also proposed to describe the Operational Plan.

1.1.3. Brief description of the organisation of the Establishment

The Establishment is one of the 26 Faculties of UCM, which is a public university dependent on both the Spanish Ministry of Education, Culture and Sport, and on the Government of the Autonomous Community of Madrid.

The decision-making bodies of the Establishment, as defined in the UCM Statutes, are the Faculty Council, the Permanent Committee of the Faculty Council and the Dean.

The Faculty Council is the governing body of the Establishment. It is chaired by the Dean and renewed every four years. The core members of the Council are the Dean's Office, the Heads of the different Departments and the Director of the Library; the elected members include representatives of the tenured academic staff (58% of the Council), representatives of hired teaching, research staff and research scholars (12%), representatives of the support staff (5%) and representatives of undergraduate students (25%).

The Permanent Committee, nominated by the Faculty Council, deals with day-to-day matters. Its main role is to implement the decisions of the Faculty Council.

The Dean represents the Establishment and acts as Director and day-to-day Manager. The Dean is elected by the Faculty Council from the tenured academic staff for a period of 4 years and may be re-elected once.

The Dean's Office is the management body of the Establishment which mainly focuses on academic affairs. It includes five Vice-Deans with delegated functions related to specific academic activity areas, the Academic Secretary and the Manager responsible for the administrative and financial services. Vice-Deans and Academic Secretary are nominated by the Dean for his term. There are also four Dean-Delegates in charge of the coordination of the IT-Services, the Food Science and Technology Degree, Mobility, and Coordination with VTH and Teaching Farm.

The Establishment has currently eight departments which are mainly responsible for the coordination of the teaching and research activities, i.e. Anatomy and Compared Pathology, Animal Health, Animal Medicine and Surgery, Animal Physiology, Animal Production, Biochemistry and Molecular Biology, Food Science and Technology, and Toxicology and Pharmacology.

The Department Council is made up of all the academic staff of the department plus a representation of the rest of the teaching and research staff, of the students (25% of the total) and of the support staff (5% of the total). The department's Head is elected by the Departmental Council for a four-year term and can only be re-elected once.

The other committees of the Establishment are: Research Committee, Mobility Committee, Committee for Transfer and Credit Recognition, Biosecurity Committee, Postgraduate Committee, Financial Committee, Library Committee, Veterinary Museum Committee, Teaching Farm Committee, Ethics and Animal Welfare Committee, Quality Committee, and Committee for Assessment and Improvement of the Veterinary Degree Curriculum.

The VTH is governed by its own General Regulations. A VTH Director chairs the VTH Council which is composed of 23 *Ex officio* members (including the Dean, VTH Director, VTH manager, Heads of clinical Departments, Heads of the VTH Services) and 6 elected members (including representatives of support staff, undergraduate students and interns/residents). The Dean and the VTH Director hold a veterinary degree.

The UCM is currently involved with a reorganisation of the Faculties, which could reduce the number of the Establishment's departments in the near future from eight to five, i.e. Basic Sciences, Clinical Sciences, Animal Health, Animal Production and Food Safety and Quality.

The Establishment considers that more autonomy should be provided by the UCM (e.g. for staff hiring and financial management) in order to enhance the efficiency of its management and the implementation of its Strategic Plan.

1.1.4. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the Strategic Plan and organisation of the Establishment

- The procedures for the revision of the strategic plan and the organisation of the Establishment involve the following steps:
- Evaluation and identification of priority objectives (interviews to students, staff, stakeholders)
- Construction of strategic themes (Responsibility: Dean's Office and Faculty Council)
- Definition, communication and approval of strategic themes (Responsibility: Faculty Council)
- Connection with other improvement plans (University, Autonomous Community, Country)
- Assignment of committees to assess improvements (Responsibility: QA Committee)
- Assessment of improvements (Responsibility: QA Committee)
- Implementation, plan adjustment: communication of results (Responsibility: QA Committee and Faculty Council)
- Reports to/from QA external agencies (Responsibility: QA Committee and Faculty Council)
- Implementation and plan adjustment: reassessment and redefinition of objectives (Responsibility: Dean's Office and Faculty Council)
- Over the whole process, communication via email, web, social networks (Responsibility: Dean's Office).

Staff, students and stakeholders are represented in several committees of both the UCM and the Establishment.

1.2. Comments

The mission statement and the objectives of the Establishment, which is part of a university, are in agreement with EU directives, ESG 2015 and ESEVT SOP.

Staff, students and stakeholders are involved in the organisational structure of the Establishment and its cyclical revision.

The current Strategic Plan (2017-2020) has been written in collaboration with staff, students and stakeholders. It includes a SWOT analysis, objectives, an operational plan, milestones and indicators of achievement.

The planned reduction in the number of departments should be an opportunity to enhance the cohesion of the study programme and its transversal/collaborative approach.

1.3. Suggestions for improvement

None.

1.4. Decision of the Visitation Team

The Establishment is compliant with Standard 1.

2. Finances (see Standards 2.1 to 2.5)

2.1. Findings

2.1.1. Brief description of the global financial process of the Establishment and its autonomy on it

UCM Central Services (Rectorate) manages and pays the most important expenditure for Establishment, namely staff costs (including VTH), services and work contracted out to external companies, maintenance services and waste collection (mean € 22,100,448.79).

Expenditure directly managed by the Establishment/VTH is funded with revenues derived from VTH and diagnostic services, continuing and post graduating education, research and the renting out of facilities.

UCM withholds 15-21% of the income derived from the abovementioned activities.

2.1.2. Brief description of the budget (expenditures, revenues, balance) of the last 3 years

The mean revenue in the last 3 years was €38,289,621.31 (including the percentage withheld by UCM). It covers all the expenditures with a positive balance. The reduction of the total revenue during the last 3 years is mainly linked to the research grants (from €15.5m to €10.9m).

2.1.3. Brief description of the projected budget (expenditures, revenues, balance) of the next 3 years

A plan for the projected budget (expenditures, revenues, balance) for the next 3 years has not been reported. Due to the severe national economic crisis there is a continuous cutback of the UCM endowment since 2011.

2.1.4. Brief description of the planned or on-going investments

A short-term investment for over €300,000, funded by the Rectorate, has been planned for the next year. The main works concern the Teaching Farm, classrooms, the VTH and renovation of IT facilities.

2.1.5. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the budget of the Establishment

The Establishment Financial Committee makes a proposal for the distribution of the ordinary budget and evaluates any other source of income, expenditures or investment proposed by the Departments. The Faculty Council approves the budget which is then to be implemented. The Departments and the Faculty Council are responsible for communication to staff and students, as well as for the implementation and supervision of the budget, which is managed by the administrative units and the Financial Affairs Section of the Establishment.

The VTH has a Financial Committee which decides, communicates and evaluates how the budget will be distributed.

Any expenditure that exceeds the ordinary budget must be requested extraordinarily to the Financial Committee of the UCM to be approved.

2.2. Comments

In allocating annual funds to the Establishment the UCM should recognise that veterinary education is amongst the most expensive studies. The total average costs of training undergraduate veterinary students are known to be the highest of all undergraduate courses in Europe.

However, the distribution of public funds does not fully recognise the high cost of the training.

The funding of the Establishment is too low to fully cover teaching, maintenance of building and facilities and insufficient for the investments needed to preserve the current good standard reached by the Establishment in both research and teaching activities.

Moreover, additional budget is required to implement extra-mural clinical work in food-producing animals.

It is difficult to define a long-term financial plan (3 year) because revenues are managed by UCM, but expenditure priorities must be identified.

2.3. Suggestions for improvement

UCM should consider an increase in the funds destined to the Establishment starting by a reduction in withholding percentage, especially for revenue from VTH activity and research. This reduction would produce additional revenue which could be used for maintenance of current facilities and expenditures related to teaching activities.

A revision of Departmental organisation is desirable in order to reduce administrative costs and optimise the use of funds and facilities.

Revenues from Establishment and VTH services could be partially used to fund additional clinical rotations.

2.4. Decision of the Visitation Team

The Establishment is partly compliant with Standard 2 because of insufficient resources for maintenance of current facilities and purchase of new equipment.

3. Curriculum (see Standards 3.1 to 3.10)

3.1. General curriculum

3.1.1. Findings

3.1.1.1. Brief description of the educational aims and strategy in order to propose a cohesive framework and to achieve the learning outcome

The degree in veterinary medicine provided by UCM is, according to the national authorities, a Master's level degree (Spanish Framework for Qualification for Higher Education, MECES, and level 3). It has a five-year curriculum consisting of 300 ECTS.

The curriculum is not divided into Bachelor and Master Levels as in programmes following Bologna Declaration (1999) for European higher education. There is no tracking in the curriculum but the Spanish Conference of Veterinary Faculties has applied to the government (Ministry of Education, Culture and Sport) to increase the duration of all Spanish Veterinary higher education units up to 5.5 years. If an additional semester is added to the programme, the plan is to apply tracking at that time.

The programme was renovated in 2010/2011 and has been run until 2016/2017 without major changes. Recently, it has been re-evaluated with the intention of introducing updates for the academic year 2017/2018.

The Quality Office of the UCM assesses a self-evaluation report of the programme annually. The programme has also been re-assessed by external evaluators several times.

Faculty Council approves teaching plans for the up-coming teaching periods. The Vice-Dean for Coordination runs the planning cycle and serves as a chair of the Committee for Assessment and Improvement of the Veterinary Degree Curriculum, which prepares the plan for Faculty Council. Subject coordinators, accompanied by student representatives, establish the specific teaching requirements according to the approved Degree document.

3.1.1.2. Brief statement if all EU-listed subjects are taught in the core curriculum to each student (independently of the tracking system)

The new curriculum includes the subjects listed in Annex V.4.1 of EU Directive 2005/36/EC. It has been accepted by ANECA, the Spanish Agency for Quality assessment and Accreditation (2010) with the aim to fulfilling EU and national requirements. The Degree is included in the Registry of Universities, Centres and Titles (RUCT) of the Ministry of Education, Vocational Training and Universities.

3.1.1.3. Brief description of how curricular overlaps, redundancies, omissions and lack of consistency, transversality and/or integration of the curriculum are identified and corrected

The Committee for Assessment and improvement of the Curriculum has the responsibility to recognise failures in the Curriculum and suggesting corrections to the teaching plan which will be approved by the Faculty Council.

3.1.1.4. Description of the selection procedures of the Electives by the students and the degree of freedom in their choice

Volume of elective studies in the total curriculum is only 2% (6 ECTS). In table 3.1.3, fourteen Elective subjects are listed. If an Elective subject is full, the selection criterion applied is the average grade of the student's academic record.

3.1.1.5. A brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the curriculum

The Committee for Assessment and improvement of the Curriculum collects information from students and staff. Student representatives serve as co-ordinators of students concerns and suggestions. Teaching meetings and satisfaction surveys are used to identify programme developmental areas.

3.1.2. Comments

While the curriculum is a five-year one, most of the students are unable to pass it in this given time (table 7.1.4b and Table 7.1.4a).

While learning outcomes form a functional entity they are often written with more emphasis on knowledge and remembering than analysing or decision-making.

All subjects are covered in new curriculum but not in the depth needed. Although clinical rotations have been implemented in the new curriculum, the quantity of clinical hands-on training on real patients is considered by the Visitation team to be insufficient to allow each individual student to fully achieve Day One Competences.

When relative volumes are analysed, the Visitation team considers that there is a misbalance between basic and clinical studies. However, this indicates more a lack of volume of clinical hands-on training than an overload of basic subjects in the curriculum.

The order of teaching subjects is suboptimal; some disciplines are too early in curriculum and some too late. Co-operation and integration between subjects is mostly utilised, but could be improved. Better vertical integration would give students a more complete understanding of the use of basic science in applied subjects and also teaching material would be better used. For example, if meat inspection works more together with anatomy, learning skills on carcass and offal inspection could be learnt already in the anatomy practical class which gives depth both to the anatomy studies but also provides the skills needed in food hygiene teaching and covers the lack of material in meat hygiene for meat inspection practicals. Diagnostic images and anatomy could also both benefit if more co-operation is developed.

3.1.3. Suggestions of improvement

The Visitation team suggests to:

- revise the order of the subjects in the curriculum,
- increase the integration between subjects in studying and teaching,
- revise or extend the curriculum to find more time for clinical rotations.

3.1.4. Decision of the Visitation Team

The Establishment is partly compliant with Standard 3 for General curriculum because of insufficient transversal and collaborative approach between disciplines in some areas of the curriculum and imbalance in the curriculum between theoretical, practical and clinical training to the detriment of the latter.

3.2. Basic sciences

3.2.1. Findings

3.2.1.1. Brief description of the theoretical and practical education in basic sciences

Basic veterinary sciences SER of UCM includes: physics, biostatistics, chemistry, zoology and botany, biochemistry and genetics, anatomy, embryology and physiology, microbiology, immunology, epidemiology, pharmacology and toxicology. The volume of basic sciences is 88 ECTS which is 29 % of the total curriculum; clinical part is approximately 48% (143 ECTS) food and veterinary public health 21% (63 ECTS) and the elective subjects and graduation thesis 4% (6+6 ECTS).

The curriculum hours for obligatory and electives studies, together gives for basic subjects and basic sciences, together add up to 2,935 hours which is app 32% of total hours 7,825. This is in line to the ratio calculated from evaluated ECTS units. The most frequently used learning method is supervised self-learning 50% followed by lectures 26% and laboratory work 13%. In Pathology students have 32h necropsy room experience (4 days).

3.2.2. Comments

Table 3.1.2 gives different volumes of subjects than those listed in 3.1.1. Pathology is listed in Table 3.1.2 as basic sciences (as stated in the annex V.4.1 of the EU directive) but is considered as clinical sciences for the Spanish legislation. There is a discrepancy in self-learning hours between table 3.1.2. and appendix 2.a.

3.2.3. Suggestions of improvement

None.

3.2.4. Decision of the Visitation Team

The Establishment is compliant with Standard 3 for Basic sciences.

3.3. Clinical Sciences in companion animals (including equine and exotic pets)

3.3.1. Findings

3.3.1.1. Brief description of the theoretical, practical and clinical education in Clinical Sciences in companion animals

The curriculum in clinical science covers the following subjects; clinical sciences, obstetrics, reproduction and reproductive disorders, diagnostic pathology, medicine and surgery, including anaesthesiology, clinical practical training in all common domestic animals, preventive medicine, diagnostic imaging, state veterinary services and public health, veterinary legislation, forensic medicine and certification, therapy in all common domestic animal species and propraedeutics of all common domestic animal species.

Each student has 2,890 hours in clinical subjects (including self-learning): 879 hours of lectures, 145 hours of seminars, 666 hours of animal clinical work, 1090 hours of supervised self learning, 2 hours of laboratory and desk based work and 108 hours of other activities. Problem-solving teaching strategy is frequently used, especially in diagnostics oriented to decision-making in the area of animal medicine and surgery, through clinical exercises and seminars. Moreover, clinical training with healthy animals, cadavers, animal models and computer simulation are frequently used in different disciplines.

3.3.1.2. Description of the core clinical exercises/practicals/seminars in companion animals prior to the start of the clinical rotations

Clinical Rotations have been implemented in the new curriculum during the academic course 2014/2015. Clinical subjects are focusing on the preparation for clinical rotations and practical training. Clinical learning is staggered and distributed from the first to the fifth year of the Degree. During first year students learn about veterinary legislation, forensic medicine and certification includes specific training in writing expert reports and other legal documents related to professional activities.

In the second year, students learn how to perform physical examinations in healthy animals and in some animal models. Moreover practical clinical pathology laboratory work is allocated in the second year, in order to perform and interpret several laboratory diagnostic tests, with subsequent discussion of clinical cases in seminars. During classes in general pathology, students receive practical training in necropsy techniques and histopathology.

In the third year the subjects allocated are clinical pharmacology and therapeutics, obstetrics and reproduction I, radiology and diagnostic imaging.

Later in the fourth year students learn about Special Pathology through seminars about necropsy cases, together with necropsy and histopathology practical training. General Surgery and Anaesthesia teaching includes applied seminars, and students also practice with cadavers/animal models for learning different surgical techniques, and use a simulator for Anaesthesia. The subject of Food Animal Internal Medicine also includes specific seminars and clinical sessions. The subjects Infectious Diseases and Parasitic Diseases include laboratory work and seminars. Obstetrics and

Reproduction II offers a laboratory training, virtual-assisted learning for dystocias and visits to centres specialised in reproduction and animal production.

During fifth year the subject Small Animal Internal Medicine includes seminars for solving clinical cases. Preventive Medicine, Animal Health Policy, Zoonosis and Public Health is taught using computer-assisted learning, and employing preventive and epidemiology programmes commonly used in Animal Health and Public Health. Special Surgery includes clinical sessions, and practical training, on different techniques using animal models/cadavers. It also includes practical training of orchiectomy/ovariohysterectomy.

3.3.1.3. Description of the core clinical rotations and emergency services in companion animals and the direct involvement of undergraduate students in it

Clinical Rotations are scheduled in fifth year of the Degree during the 10th Semester and comprise 12 weeks per student. Students are required to have passed 70% of the Degree ECTS before commencing this part of the course. The curriculum assigns 15 ECTS to the Clinical Rotations, with 80% on-site learning. Students are distributed into 16 groups and usually the number of students per group is not higher than 4. The size of the groups is slightly variable depending on the total number of enrolled students (3-6 students). Most intramural activities take place from 9 a.m. to 3 p.m. Students are directly involved in each activity under the supervision of academic staff. Students write a summary of their hands-on activities, responsibilities, and report writing developed during the Clinical Rotations.

The services included in the Clinical Rotations are: Small animal medicine, Critical care and emergency, Infectious and parasitic diseases, Small animal surgery and reproduction (General Surgery/First-opinion, Orthopaedics, Dentistry, Neurosurgery, Reproduction, and Rehabilitation-Physiotherapy), Small animal anaesthesia, Diagnostic imaging (Radiology, Ultrasound, Computed Tomography and Magnetic Resonance Imaging), Pathology, Large animal intramural activities (include Reproduction of equines and ruminants, Medicine of hospitalised animals, Surgery and anaesthesia of equines and ruminants, and Equine rehabilitation and physiotherapy, Large animal extramural activities (include Ambulatory clinic of horses, Ambulatory clinic of ruminants, and Ambulatory clinic of reproduction), Herd health extramural activities (include Small ruminant farms, Dairy cattle, Beef cattle, Egg layer hens, Meat chickens and Porcine production).

At the present time there are 9 Associate Teachers in charge of the ambulatory clinic: 4 working in Equines, 4 working in Ruminants and one specialised in Ruminant and Equine Reproduction (mostly focused in Ruminant Reproduction).

All teachers participated in ambulatory clinic are part-time teaching staff and are hired directly by the university and are subject to the same requirements than the rest of teachers (including the evaluation of their activity by the students). Their activities are coordinated and supervised by the Department Council. The number of students per teacher is 2-3. Students are picked-up by the clinician at the Establishment or in other meeting points in the rural area that they have to reach by themselves. The vehicles used by the teachers are their own private vehicles. Each student rotates in equines and in ruminants. Students accompany the teacher attending the scheduled cases and emergencies in equine or ruminant patients, on demand. They actively attend medical, surgical and obstetrics cases and they also take a multidisciplinary approach to herd health.

With regard to the specific visits of Herd Health, each student visits at least 6 farms (sometimes 7-8) of different species for Preventive Medicine and Herd Medicine training: 1-2 farms of beef cattle or 1-2 feedlots, 1 farm of dairy cows, 1 farm of small ruminants, 1 farm of layer hens, 1-2 farms of

poultry and 1 farm of swine, which is visited twice to provide a complete knowledge of all production stages.

Students actively participate in the Emergency Service. Emergency Service is available for all animals having a medical record at the VTH, and also for all dogs coming from institutions with specific agreements with the VTH, such as the National and the Local Police Departments. Life-threatening emergencies are always admitted. The interns on duty are responsible for evaluating emergencies and calling the emergency surgeon/anaesthetist/specialist, if necessary. This ER Service is available 7 days a week, 24 hours a day during the entire year, except in August. There are always at least two interns at site between 3pm and next morning 9am. Students are able to participate during the afternoon and evening hours as Collaborative Students (i.e. students, usually, in year 3, 4 or 5/1 of their studies, who have not entered in clinical rotation (Year 5/2), but can apply for additional practical training in an area/clinic of their interest). In the Large Animal Area, the Emergency Service receives medical and surgical emergencies 24 hours, 365 days a year. The interns on duty receive the emergency patient (or emergency phone call) and, if necessary, call in the rest of the clinical team.

3.3.2. Comments

In Clinical Sciences, all relevant subjects are presented and regularly distributed. The curriculum includes the subjects listed in Annex V.4.1 of EU Directive 2005/36/EC.

The clinical rotation is designed as 48 days of rotation intramural and 12 days extramurally. Intramural rotation is short in time and students, through the core curriculum, don't have access to many cases for hands-on training. Only Collaborative Students have an adequate opportunity for hands-on work with animals, but it is not part of core curriculum in clinical rotation (15 ECTS). Although the quality of the clinical teaching is compliant with the standards and the Indicators are within the ranges, it is the opinion of the Visitation team that the hands-on clinical training on real patients is insufficient at a quantitative point of view for each individual student.

Emergency service for small animals is closed in August every year and the Establishment must ensure that clients have access to an alternative that can replace their service.

External Practical Training (EPT) is well organised outside the Establishment, the student being under the direct supervision of a non-academic person.

3.3.3. Suggestions of improvement

The establishment should significantly extend the clinical rotation during the fifth year and not limit the teaching opportunity to 60 days.

The rotation of core curriculum students through the emergency service 24/7 should be increased.

3.3.4. Decision of the Visitation Team

The Establishment is not compliant with Standard 3 for clinical sciences in companion animals because of insufficient number of hours of hands-on clinical training on real patients under the supervision of academic staff in order to achieve Day One Competences for each individual student.

3.4. Clinical Sciences in food-producing animals (including Animal Production)

3.4.1. Findings

3.4.1.1. Brief description of the theoretical, practical and clinical education in Clinical Sciences in food-producing animals

Clinical subjects regarding food-producing animals are taught from Year 1 to Year 5 of the Degree, as well as subjects concerning Animal Production. The units of study of the core veterinary programme and their distribution are described in the SER (Appendix 2.a.).

The subjects relating to the Clinical Science in food-producing animals are: Deontology, Legal Medicine and Legislation, Clinical Propaedeutics, Clinical Pharmacology and Pharmacotherapeutics, Obstetrics and Reproduction I, Obstetrics and Reproduction II, Radiology and Diagnostic Imaging, General Surgery and Anaesthesia, Infectious Diseases, Parasitic Diseases, Special Veterinary Pathology, Large Animal Internal Medicine, Special Surgery, Preventive Medicine, Animal Health Policy, Zoonosis and Public Health, Clinical Veterinary Practicum, External Practice

3.4.1.2. Description of the core clinical exercises/practicals/seminars in food-producing animals prior to the start of the clinical rotations

The curriculum includes clinical subjects focused on preparation of students for the Clinical rotation. Problem-solving teaching strategy is used, especially in the area of animal medicine and surgery, through clinical work and seminars. Moreover, clinical training with healthy animals, cadavers, animal models and computer simulation is frequently used across the different disciplines.

Veterinary legislation, forensic medicine and certification disciplines include specific training in writing expert reports and other legal documents related to professional activities. In Propaedeutic, students perform physical examinations on healthy animals and use some animal models. Clinical Pharmacology and Therapeutics provides students with the necessary knowledge of medical treatments. Obstetrics and Reproduction I provides seminars and practical training with healthy animals and models, concerning collection, preservation and analysis of biological samples (semen analysis, vaginal cytology, etc.). The subject Radiology and Diagnostic Imaging includes basic physics of diagnostic radiology, ultrasound, computed tomography (CT) and magnetic resonance imaging (MRI).

During Special Pathology the students write necropsy reports, with the description and an accurate interpretation of the lesions. General Surgery and Anaesthesia provides knowledge on techniques and products used in veterinary anaesthesia and analgesia. The subject Large Animal Internal Medicine prepares the student for diagnosis, therapy and prognosis of principal problems including emergency. Skills on communication are also acquired. The subjects Infectious Diseases and Parasitic Diseases include laboratory practical and clinical case-solving on specific diseases.

Obstetrics and Reproduction II offer the student laboratory practical (including in vitro fecundation techniques), virtual-assisted learning for dystocia and visits to centres specialised in reproduction and animal production. During Year 5, prior to Clinical Rotations, the subject Preventive Medicine, Animal Health Policy, Zoonosis and Public Health is taught with programmes commonly used in Animal Health and Public Health. Finally, Special Surgery covers the study of the surgical diseases in bovine, swine and small ruminants' surgery.

3.4.1.3. Description of the core clinical rotations, emergency services (both intramural VTH and ambulatory clinics) and herd health visits in food-producing animals (i.e. ruminants, pigs and poultry) and the direct involvement of undergraduate students in it (responsibilities, hands-on versus observation, report writing)

Clinical Rotations are scheduled in Semester 10, Year 5 of the Degree, and last 12 weeks per student (for details SER - table 3.1.5. Clinical Rotations under academic staff supervision – page 26). The students are required to have passed 70% of the Degree ECTS. The curriculum assigns 15 ECTS to the Clinical Rotations, with 80% on-site learning.

The intra-mural services in the Clinical Rotations are:

- Infectious and Parasitic Diseases. It includes rotation through Clinic and through the Diagnosis Laboratory.
- Diagnostic Imaging. It includes Radiology, Ultrasound, and Computed Tomography and Magnetic Resonance Imaging.
- Pathology: necropsies.
- Large Animal Intra-mural Activities, which include Reproduction of equines and ruminants, Medicine of hospitalised animals (occasionally, ambulatory clinic), Surgery and anaesthesia of equines and ruminants.

The core of clinical rotation on food-producing animals is reserved to extra-mural activities, based on Large Animal Ambulatory Clinics and Herd Health Management. Five Associate Teachers (practitioners) are in charge for ambulatory clinic: 4 specialised in Ruminants and one specialised in Reproduction (mostly focused in Ruminant Reproduction). Each student rotates for 2-3 days (Ambulatory clinics for ruminants and reproduction). Students attend the teacher operating on the scheduled cases and emergencies in ruminant patients. They actively participate to the clinical examination and apply a multidisciplinary approach to herd health.

For Herd Health subject, each student visits at least 6 farms (sometimes 7-8): 1-2 farms of beef cattle or 1-2 feedlots, 1 farm of dairy cows, 1 farm of small ruminants, 1 farm of layer hens, 1-2 farms of poultry and 1 farm of swine, which is visited twice for a complete knowledge of all production stages). All the information about the Clinical Rotations, including the schedules, ethical and student behaviour standards, biosecurity and welfare rules, and responsibilities, is published and can be downloaded from the Virtual Campus.

Students are directly involved in hands-on activities under the supervision of academic staff. At the end of Clinical Rotation, the student has to present a clinical report describing personal participation and a critical discussion based on available literature.

In the Large Animal Area, the Emergency Service receives patients 24/7. There are Collaborative Students and a team composed by an internal medicine clinician, a surgeon and an anaesthetist on call.

3.4.1.4. Brief description of the theoretical and practical education in Animal Production

The subjects concerning Animal Production are: Animal Production Bases I: Ethnology, Ethology, Animal Welfare and Veterinary Hygiene, Animal Production Basis II: Agronomy, Economics and Veterinary Business Management, Animal Breeding in species of Veterinary Interest, Breeding and Animal Science I, Breeding and Animal Science II, Animal Science Practicum.

Teaching Farm and Ambulatory clinic support practical activities in Animal Production.

3.4.2. Comments

All subject related to Clinical Sciences in food-producing animals (including Animal Production) are taught respecting Annex V.4.1 of EU Directive 2005/36/EC. Extra-mural activities are mainly based on Ambulatory clinic with 'Associate Teachers' who are practitioners working part-time for the Establishment. The Establishment has a Teaching Farm for pre-clinical activities and Animal production training (see chapter 4.1.2) well managed and mainly used for practical activity on Animal Production and Preclinical training. Agreements with more than 60 organisations guarantee an External Practical Training (EPT) on other topics related to food-producing Animals.

During Ambulatory Clinics, students are transported using private cars, but are adequately covered

by insurance.

The professional competences of practitioners involved in extramural work for both Large Animal Ambulatory Clinics and Herd Health Management are high as well as the active involvement of the students in practical work.

The quality of the clinical training and the global caseload of live patients in food-producing animals are in agreement with the standards and indicators respectively. However, in the opinion of the Visitation team, the number of hours spent by each individual student for the hands-on clinical training with real patients is considered to be insufficient for the acquisition of Day One Competences. The ambulatory clinic for ruminants, which represent the core of the hands-on clinical work, is supervised by non-academic staff and involves students only during the 2d semester of the 5th year for 2-3 days.

3.4.3. Suggestions of improvement

The Visitation team suggests to:

- better integrate programmes and activities among teachers involved in Animal Production, Herd Health Management and Clinics on Food Production Animal subjects,
- focus the attention primarily on the effects of Management, Nutrition, Genetics and Prevention on animal health, production and welfare,
- implement a compulsory training on teaching and assessment for practitioners devoted to ambulatory clinics,
- increase the involvement of permanent Academic Staff in ambulatory clinics,
- increase the clinical Rotation time for food-producing Animals. Considering the relative low number of animals seen at VTH, the time (days) for ambulatory clinics should be increased and internal rotation in Large Animal Service reduced. The ambulatory clinics and clinical rotation should be included in more semesters.

3.4.4. Decision of the Visitation Team

The Establishment is not compliant with Standard 3 for clinical sciences in food-producing animals because of insufficient number of hours of hands-on clinical training on real patients under the supervision of academic staff in order to achieve Day One Competences for each individual student.

3.5. Food Safety and Quality (FSQ)

3.5.1. Findings

3.5.1.1. Brief description of the theoretical and practical education in FSQ

The subjects on the curriculum that provide specific training on Food Hygiene/Public Health are:

- Food Technology, semesters 5 and 6, year 3;
- Food Hygiene, Inspection and Safety, semesters 7 and 8, year 4;
- Sanitary Policy, Preventive Medicine, Zoonoses and Public Health, semester 9, year 5;
- Rotation in Food Hygiene and Technology, semester 10, year 5;
- Clinical rotation, semester 10, year 5.

-) Food Technology

Practical training is carried out within the Departments own facilities, Food Processing Unit (FPU) and laboratories. Students receive training on manufacture of foods of animal origin, e.g. burgers, yogurt,

and use of techniques used for quality analysis and process control. The Establishment has its own food sensory analysis facility.

-) Food Hygiene, Inspection and Safety

Practical training in laboratory techniques e.g. PCR and ELISA for food authenticity, and HACCP Visits to slaughterhouses, food premises, official reference laboratories, kitchens and catering premises are mandatory for all students. Practical training and valuable insights are provided by Official Veterinarians of the local Competent Authority and Quality Control staff of the operator. The slaughterhouse observed, which is used for some of the training, is large, multi-species (including ostrich occasionally) well equipped with knowledgeable and enthusiastic Inspectors. However, the students receive no hands-on experience.

-) Sanitary Policy, Preventive Medicine, Zoonoses and Public Health

Students receive training in current Public Health Programmes and their evaluation, current systems of Veterinary Public Health Surveillance, monitoring of zoonoses in the EU and outbreak investigation. Guest lectures are given by Officials from the National Agencies with competency in Public Health.

Training carried out within the Establishment's computer room, provides students with knowledge about the main National and International organisations with competence in current Health Programmes and their evaluation, current systems for Veterinary Public Health surveillance, monitoring of zoonoses in the European Union and outbreak investigation.

There is good collaboration with external food laboratories, with the agri-food industry, the local and national Competent Authority and with the University through co-operation in the delivery of other food and nutrition degrees. A Master's degree in Food Safety is produced and offered for the use of the local professional Chamber. There is an intention to develop a Master's degree programme in Food Science and Technology and this is strongly recommended.

Practical training is provided by the Animal Health Department, including specific references to the control of conditions considered zoonotic, the application of current Official Sanitary Programmes e.g. tuberculosis in cattle, salmonella in chickens, mastitis control, of sanitary parameters related to the quality of food obtained from animals.

-) Rotation in Food Hygiene and Technology

Training carried out within the Departments own facilities, Food Processing Unit and laboratories. Building upon the knowledge and skills from previous semesters each student carries out on a pilot scale, the production and preservation techniques utilised by the food industries.

The module includes visits to industrial establishments and lectures from industry professionals.

-) Clinical rotation

An elective is available on the discipline of Veterinary Sciences and the environment, taught both within Animal Production and Food Safety and Quality. This results in a good opportunity to examine in some detail the concept of 'One Health' as it relates to animal health, human health and the environment.

3.5.1.2. Description (timing, group size per teacher, ..) of the teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

Visitations to slaughterhouses and premises of food production last 3-4 hours with groups of 2-15 students.

A comprehensive list of sanitary processes and controls are provided to all students at a slaughterhouse, to groups of 6 students, duration 4 hours with two supervisors, one of which is an

Official Veterinary Inspector or technical personnel from the establishment while the other is a member of the teaching staff. The professionals from the establishment are recognised as External Collaborators in Practical Teaching. One of the veterinarians in one of the slaughterhouses visited is an Associate Teacher.

All students receive on site practical training in fish, meat and fruit in central markets (groups of 20 students, duration 4 hours, 4 supervisors).

All students receive also on site practical training in meat processing and sanitary controls, cutting, processing including curing, smoking, cooking, refrigeration (groups of 20 students, duration 4 hours, 3 supervisors).

All students receive on site practical training at the reference laboratories of the Spanish Ministry of Health, where microbiological, physio-chemical, genetic and immunochemical techniques are deployed (groups of 10-50 students, duration 4 hours, 4-7 supervisors).

All students receive on site practical training in catering and hospital central kitchens in hygiene and quality control (groups of approximately 20 students, duration 4 hours, 4 supervisors).

3.5.2. Comments

The quality of training observed at the Central market in fish and food inspection was exceptional.

The Food Processing Unit is well equipped for meat and milk processing but the teaching of students could be enhanced by the provision of raw materials, ingredients and some additional equipment to replicate under pilot conditions, commercial sausage production.

In addition, the hygiene facilities associated with the FPU are not of a standard which would be required by an approved commercial establishment. This is due to lack of space with the use of a corridor, which is also used for storage, for this purpose.

While there are good examples of collaborative working between Departments and disciplines, for example, Animal Health and FSQ, further synergies could be utilised.

The intention to develop a Master's degree in Food Science and Technology is strongly supported.

The system which delivers the exposure of all students to the slaughterhouse environment does not ensure that all students experience the slaughter and inspection of the main food species. Only a limited number of students are able to experience poultry slaughter, 2 groups of approximately 10 during 2015/16. However, these students will only have experienced poultry slaughter with potentially no exposure to other species.

3.5.3. Suggestions of improvement

While the FPU and associated laboratories are well maintained and adequately equipped for the use to which they are put, the teaching experience could be enhanced if additional resource was available for the equipment and raw materials necessary to produce more complex products such as 'Spanish sausage'. This would provide a better and more relevant example for the practical application of HACCP.

The current layout of the hygiene facilities at the FPU should be improved in order that the students experience best practice of hygiene and to protect the safety and microbiological integrity of the food

products produced. This should include a clear separation of clean from dirty areas and adequate hand washing facilities.

Further collaborative work could be considered between Animal Health and FSQ Departments, for example utilising the output of the faculty farm, e.g. eggs and honey for food safety and quality analysis. Closer collaboration with necropsy and pathology may provide a means by which adequate Day One Competences in traditional post-mortem inspection could be achieved for all students.

The intention to develop a Master's degree in Food Science and Technology is strongly supported.

Teaching of traditional post-mortem inspection of the main food species could also be augmented by practical demonstration of carcase parts or by the use of videos. Videos demonstrating minor species post-mortem, e.g. deer and rabbits, are also available.

The Establishment is very dependent on the good will of the staff of the local Competent Authority for practical external training. Those Official Veterinarians who make a significant and sustained contribution to this training, for example the individual currently delivering exception training in food and fish Official Controls at the central market, should have their work recognised through the award of Associate Teacher ('Profesor Asociado') status by the Establishment.

3.5.4. Decision of the Visitation Team

The Establishment is partly compliant with Standard 3 for Food safety and quality because of insufficient hands-on training in post-mortem examination for FSQ.

3.6. Professional knowledge

3.6.1. Findings

3.6.1.1. Brief description of the theoretical and practical education in professional Knowledge

Education in professional knowledge, consisting of subjects such as ethics, veterinary legislation, communication, veterinary certification and report writing, management of veterinary practice, scientific terminology and information technologies, are part of the core curriculum.

Each student is given the opportunity to build up their professional qualifications and skills, starting with theoretical training in the first semesters and continuing throughout the whole period of study until their graduation. Elective courses (6 ECTS) to enhance professional knowledge are provided optionally (Veterinary History, Aquaculture, Laboratory Animals).

The skills acquired during the first 9 semesters will be applied in the 10th semester through supervised practical practice (EPT and Clinical rotations). Clinical rotations bring students to the reality of the professional practice, including indoor (21 ECTS) as well as outdoor practical training (3 ECTS) in the private veterinary sector, public agencies, R&D laboratories, consulting, etc.

3.6.1.2. Brief description of the organisation, selection procedures and supervision of the EPT

EPT is an obligatory Core Subject in 10th semester of 3 ECTS (i.e. 60 hours) of practicals in external entities, such as veterinary clinics, veterinary hospitals, companies, academic institutions, scientific centres, administration institutes, etc. in any of the areas linked to Veterinary Science.

Students have to successfully complete 70% of the curriculum ECTS, in order to proceed with EPT. Each student can select among preclinical training in production and/or companion animals, clinical training in production and/or companion animals, food-safety and quality, veterinary public health or other subjects in collaboration with the EPT Committee.

A dedicated Committee is fully responsible for EPT of each student. The EPT Committee consists of the Dean, the Vice-Dean responsible for the EPT, a representative of each Department, a representative of the Committee for Assessment and Improvement of the Curriculum, and a student representative.

The EPT Committee:

- plans the student needs, offering a wide possibility of collaborating entities;
- authorises the EPT of each student;
- takes part in the evaluation process of the EPT for each student;
- mediates and solves possible conflicts related to the EPT;
- confirms that the external entities have sufficient quality to guarantee a correct learning process.

The Professional Orientation Office, attended by COLVEMA (Official College of Veterinary Surgeons in Madrid) in coordination with the Establishment, collaborates with the EPT Committee in managing agreements with entities represented by members of COLVEMA, such as veterinary hospitals, zoological parks, wildlife rehabilitation centres, research centres, food industries, livestock farming and industries, animal food producers, etc.

Each year, students can apply for a specific discipline until January. Students can also propose new disciplines that are not included in the list, if they have a particular interest. In this case, the Committee evaluates the proposal and, if appropriate, facilitates the approval of an agreement for the EPT.

Each student has an internal tutor (who is always a teacher from the Establishment) and an external tutor at the discipline.

If interested, the students may also carry out voluntary extracurricular practical training during the Degree. The management of this training also depends on the same Committee. Voluntary EPT is also included in the European Supplement to the Degree.

3.6.1.3. Description of the procedures (e.g. logbooks) used to ascertain the achievement of each core practical/clinical activity (pre-clinical, clinical, ambulatory clinics, EPT) and professional knowledge by each student (independently of the tracking system)

The evaluation procedures depend on the subject. Pre-clinical practical skills are primarily evaluated through continuing assessment, written reports, supervised work evaluation, oral presentations and exams. Practical exams are sometimes carried out on healthy animals, organs, cadavers, patients, or in the laboratory, depending on the subject.

With regard to the assessment of skills related to practical/clinical activities, the following tools are used:

- a document of compliance of the curriculum with the Day One Competences approach;
- a personal Logbook for the students. The students receive a schedule with the activity to be carried out every day, which must be signed by the teacher;
- a questionnaire evaluating the knowledge and technical skills acquired by the student, including attitude and behaviour;
- a written report at the end of each Clinical Rotation. Each student must present 12 written reports in total.

Teachers are requested to evaluate/certify those documents which demonstrate that the students have acquired specific skills during the rotations.

With regard to EPT, evaluation depends on the specific Committee, and it is based on the internal and external tutor reports, and any other relevant information about the placement. At the end of the process, the Committee also requests QA satisfaction surveys to students, external entities and internal tutors.

3.6.2. Comments

The Establishment has made significant efforts to comply with the recommendations made during the previous ESEVT visitation in 2005. Practical training has been increased as well as self-directed learning.

The Visitation Team considers it important that subjects like deontology, legislation and ethics are taught in the first years of the curriculum as this approach conveys from the very beginning to the students the responsibility and accountability that each veterinarian bears within the society.

The specific tools, like logbooks, written reports, etc. as mentioned above, are used for the assessment of the students' skills and quality assure the teaching process and the acquired learning outcomes of each student.

Additionally, the Visitation Team sees that the knowledge of a foreign language, especially of English, is of benefit to the students. Knowledge of an international language other than Spanish, allows the students and graduates to access a wider range of literature sources for scientific information and facilitates their involvement in international activities and projects. The Establishment is highly commended for organising seminars in English language for the students and staff interested in advancing their language skills.

Nevertheless, there are some issues of concern for which additional efforts should be made in order to improve the learning outcomes and professional knowledge of the graduates.

- The rotation period is too short and does not allow for core curriculum students to get adequately involved in hands-on procedures in the clinics and build up their confidence with regard to Day One competences. Although it is unanimously recognised that the so-called 'Collaborative Students' have the opportunity to enhance their skills in their area of interest, Day One Competences must be ensured for all students. EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herds visits, practical training in FSQ).
- Graduate veterinarians must be able to advise on, and implement, preventative programmes appropriate to the species and in line with accepted animal health, welfare and public health standards. Although preventive medicine is part of the curriculum and core curriculum students receive training on health planning including vaccination schemes for different species, the Visitation Team has identified an absence of the implementation of vaccination programmes within the curriculum. Given the fact that the Establishment keeps an important number of animals of different species in its premises, the Visitation Team sees that the Establishment could easily organise that the students take care of the vaccination and implementation of overall prevention plans of the Establishment's animals.
- Understanding of the ethical and legal responsibilities of the veterinarian in relation to patients, clients, society and the environment must be clearly ensured in the core curriculum in both theory and practice.
- The Visitation Team considers that the Establishment doesn't fully comply with demonstrating knowledge of the organisation, management and legislation related to a veterinary business, such as thorough implementation of biosecurity rules and noting the dates

of opening of medicinal products on the containers in order to ensure respect of expiration life of the product after opening (see also chapter 4).

3.6.3. Suggestions of improvement

The Visitation Team suggests to:

- organise the rotation period in a way that students will be involved in the VTH, ambulatory and other practical activities throughout the whole year;
- use the Establishment's animals for training students on vaccination;
- enhance the training on biosecurity in the curriculum.

3.6.4. Decision of the Visitation Team

The Establishment is compliant with Standard 3 for Professional knowledge.

4. Facilities and equipment (see Standards 4.1 to 4.15)

4.1. Findings

4.1.1. Brief description of the location and organisation of the facilities used for the veterinary curriculum

The Establishment is located in the Moncloa Campus of the UCM, in the Northwest area of Madrid, very close to the city centre (Moncloa-Aravaca district) and to the main ring highway M-30 and the A-6 highway. Vehicular access is very easy, either from outside the city or the city centre. The area is well served by public transportation (more than 20 bus lines), and also near the metro stations "Ciudad Universitaria" (Line 6) and "Moncloa" (Lines 3 and 6). The Establishment occupies a total area of 90,528 m², and includes twelve different buildings and three fenced areas for cattle and horses.

4.1.2. Description of the adequacy for the veterinary training of the premises for:

-) Lecturing

There are 12 premises for lecturing, with 1,501 total number of places in the lecture halls. All halls are equipped with air conditioning, media equipment and Wi-Fi coverage. Eleven out of twelve halls are wheelchair accessible.

-) Group work

Nine premises are available for group work with 491 places in rooms. All rooms are equipped with air conditioning, media equipment and Wi-Fi coverage. Five out of nine rooms are wheelchair accessible.

-) Practical work

The Establishment has more than forty facilities for practical training. The total number of places in rooms for practical work is 806. There are several certified laboratories according to ISO standards, one EU Reference Laboratory (for Bovine Tuberculosis), and two OIE Reference Laboratories (for African Horse Sickness and African Swine Fever).

-) Healthy animals housing

Three main premises housing healthy animals: Physiology Premises, VTH Premises and Teaching Farm with maximum capacity for 58 for horses, 55 for cattle and 110 dogs. The number of allocated animals is variable and can go up to 10 for horses, 33 for cattle and 32 for dogs. Additionally animals are held in Animal production, Animal health and VISAVET.

-) Hospitalised animals housing

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For regular hospitalisation, the Establishment provides 6 individual boxes and 2 calf hutches for cattle, 30 places for horses (10 in VTH-Room no. 1 (Medicine), 10 in VTH-Room no. 2 (Surgery), 8 in VTH-Room no. 3 (Reproduction) and 2 places in IC. Small ruminants have 10 places in 2 fenced areas in the ruminant room in the VTH. There are 6 pig cages. Dogs can be hospitalised in 20 cages, 4 in large dog boxes, 1 in VTH Hospitalisation (large dog fenced area). For exotic animals there are 8 terrariums + 5 aquariums for reptiles, 16 bird cages, 18 cages for rabbits, guinea-pigs, ferrets, and hamsters.

-) Isolated animals housing

A facility for isolation contains 2 places for horses and 2 places farm animals and 5 places for dogs and 6 places for cats.

-) Clinical activities

These activities are developed in the VTH. In Small Animal Area there is a lobby, large waiting rooms for dogs and cats, 14-22 consulting rooms: one room for special procedures and another for exotic animals, 5 surgery rooms and area for regular hospitalisation and intensive care. Other rooms for specific procedures are retinography and electromyography, oncology, and isolation area for small animals.

The Small Animal Internal Medicine Service includes first-opinion consultations (two rooms) and specialty consultations: ophthalmology, dermatology, neurology, oncology, hepatic diseases, nephrology and urology, cardiology, gastrointestinal diseases, infectious diseases, haematology, endocrinology and nutrition.

The Small Animal Surgery Service includes consultations and surgery procedures of soft tissue surgery, orthopaedics, neurosurgery, dentistry, stem cells unit and physiotherapy and rehabilitation.

The Large Animal Area comprises four box rooms, one radiology room, two surgery rooms, three rooms for examination and specific clinical procedures, and an area for intensive care.

The Anaesthesiology Service performs sedations and anaesthetic procedures required by the patients (exotic, small and large animals). It is equipped with four Anaesthesia Units in the Small Animal Operating Rooms, two in the Large Animal Operating Room, one in the Magnetic Resonance Facility, and in the Mobile Anaesthesia Units.

The Diagnostic Imaging Service performs radiographic, ultrasound and MRI diagnosis for the VTH patients and also receives referrals from private practices. This service facility includes two X-ray rooms for small animals and exotic pets, one X-ray room for large animals, one ultrasound room for small animals and one MRI unit for small and large animals.

The Pharmacy Service/Store serves as the control of all medicines and drugs, materials which might grow moulds/fungi, instruments, laboratory equipment, sutures and other orders required by the different services of the VTH.

-) Diagnostic services including necropsy

The Pathology Service carries out pathological diagnostics of necropsies and biopsies. This service is equipped with two Necropsy rooms, a Histopathology Laboratory and one Pathology Diagnostic Room. The following equipment is available: Microscopes, including multi-head microscope with digital photography system, paraffin embedding system, tissue processing system, paraffin block

preparation system, microtome, autostainer, cryostat, immunostainer, storage system for paraffin blocks and stained sections.

The Clinical Pathology Service carries out haematological, biochemical analysis and cytological studies, and coordinates the activity of the VTH emergency laboratory. It has three different laboratories: one for routine tests, another one for more complex techniques, and the emergency laboratory. The laboratory is equipped with haematological and biochemical analysers, ion-selective electrode analyser, gasometer, ELISA reader, spectrophotometers, centrifuges, cytocentrifuge, microscopes and refractometers.

The laboratory of Microbiology and Parasitology is intended for the diagnosis of infectious and parasitic diseases (bacteriology, mycology, virology, parasitology and immunology). The following equipment is available: microscopes (light, inverted and fluorescence microscopes), centrifuges, laminar vertical and linear flow hoods, incubators set at different temperatures, with and without CO₂, Real Time thermocycler, electrophoretic devices, fluorimeter, a system for automatised microbial identification (i.e. Vitek, BioMérieux), autoclaves and purified and distilled water devices.

The Reproduction Facility offers a full range of techniques to improve the reproductive performance of the VTH, ranging from artificial insemination or embryo transfer to in vitro fertilisation in companion and farm animals. The facility is equipped with imaging systems (microscopes, magnifying glasses), computer sperm analyser, incubators, embryo-freezer, basic molecular biology equipment and ELISA microplate reader.

-) *FSQ & VPH*

The food-producing Unit (FPU) of the Establishment is equipped with a complete line for cheese production (cheese vat, moulds, steel curd knives, brine vat, pneumatic press, and ripening chamber). The equipment for Spanish sausage production is incomplete. The FPU is also equipped with a butter churner machine, burger moulding, incubation chambers, freeze dryer, vacuum/modified atmosphere packaging equipment, gas analyser for modified atmosphere packages, convection/steam oven, autoclaves, and general equipment such as baths, working tables, washing machine, freezers and refrigerators. Moreover, the laboratories are equipped with instruments and reagents for the evaluation of quality and safety of food products, and for testing the microbiological/chemical characteristics of the food handling environment (rapid methods for microbiological analysis of foods; rapid methods for hygiene testing of food handling surfaces equipment, water and air).

Students also carry out extra-mural practical training in different slaughterhouses, food markets, food industries and reference official laboratories and catering facilities.

-) *Study and self-learning*

The library has 208 places divided among seven rooms of varying capacity. Not all of the places have access to a charge-point for the laptops.

-) *Catering*

The Establishment has a large cafeteria with 200 seats and an outdoor terrace. Vending machines are also available in the lobby and rest area of the VTH, as well as in the hall of the Establishment Main Building. There are also two dining rooms for staff and two microwave areas (in the Establishment and in the VTH).

-) *Locker rooms*

There are two locker rooms at the Establishment, other two at the VTH, and another one at the

Teaching Farm, including shower rooms.

-) Accommodation for on call students

The student on call accommodation consists of one room used by male and female students, next to the emergency room in the small animal clinic, with two double beds (= bunks) and no space to eat. There are also at the VTH five apartments (with a kitchen) and two bedrooms with a total of thirteen beds for students and nine for interns/residents.

-) Leisure

The sport facilities of the UCM are integrated in 5 complexes, which offer a complete infrastructure for the practice of different sports, such as rugby, football, volleyball, beach volleyball, handball, basketball, indoor football, tennis, paddle, gyms, and indoor and outdoor swimming pools. The Establishment also counts with some facilities for cultural activities (Auditorium, Graduates Lecture Room, Meeting Room, etc.), student association rooms and some indoor and outdoor rest areas.

4.1.3. Description of the adequacy for the veterinary training of the vehicles used for students transportation, ambulatory clinic, live animals and cadavers transportation

For students' transportation are available in three vans, each with eight seats. One VTH vehicle and animal trailer is available for the ambulatory clinic, one vehicle for live animals and a vehicle for cadavers' transportation

4.1.4. Description of the adequacy for the veterinary training of the equipment used for teaching purposes and clinical services

All classrooms and seminars have appropriate audio-visual equipment; videoconferencing, video recording and streaming equipment are additionally available. There is also a seminar room equipped with a digital whiteboard, and the necessary software is available in the computer classrooms. Clinical and diagnostic equipment are listed at 4.1.2 together with its allocation.

4.1.5. Description of the adequacy of the biosecurity rules in the Establishment

The UCM has a Unit for Labour Risk Prevention, which is in charge of managing all the aspects of risk prevention, (Health and Safety) including training for staff and students, and the removal of biosanitary waste and hazardous chemicals. Moreover, the Establishment has approved its own waste disposal protocol that complements that service.

4.1.6. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of facilities, equipment and biosecurity rules of the Establishment

There is a Biosecurity Committee in the Establishment, which is responsible for the production of specific protocols, including a document of teaching-related risk prevention. First-year students receive specific mandatory training on basic risk prevention through a programme given by the supervisors of this issue both in the Establishment and in the University. In addition, students are trained on biosecurity procedures prior to any practical activity that requires it.

4.2. Comments

Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces are adequate in number, size and equipped for the instructional purposes. However, some large lecture rooms were not equipped with fire extinguishers. The facilities are well adapted for the number of students enrolled. Students have access to library, recreation units, locker, sanitary and food services facilities. The isolation unit for large animals is still under construction.

The isolation unit for large animal needs immediately to be finished, brick walls are not adequate for effective disinfection, sealed windows are not installed and the water unit is not yet operational.

In the small animal isolation unit the boxes are not adequate for disinfection and access to the isolated animals is limited. The isolation unit for ruminants has no ventilation system and better isolation signs are required for the clinic.

An upgrade of clinical equipment in emergency service is recommended (e.g. ventilator machine).

There are inadequate storage procedures for drugs in some clinical rooms (e.g. storage of narcotics in a locked cupboard and marking of opening date on multi-dose vials).

The two necropsy rooms have a very small changing room, making the achievement of adequate biosecurity difficult. Large animal necropsy table is too low to provide comfortable working position. Storage facilities for cadavers are limited.

No written procedure for infected cases in necropsy room was available on the site. The Visitation team had concerns in relation to biosecurity within necropsy facility.

The hygiene area associated with the Food Processing Unit does not meet all standards that would be required in commercial processing establishment.

The vans are not optimal for ambulatory clinic. Private cars using by teachers in ambulatory clinic must be used with caution when traveling between farms concerning biosecurity risk.

The student on-call room needs privacy between male and female students including more space to drop personal belongings and food storage and preparation equipment.

Biosecurity procedures are not systematically implemented in some teaching, clinical and research facilities.

The maintenance plan for some buildings and equipment must be adequately financed and implemented.

The isolation unit kennel for teaching and experimental animal could have better ventilation and air conditioning system.

4.3 Suggestions for improvement

The Visitation team strongly suggests to:

- provide fire extinguishers in all lecture rooms,
- finalise the equipment of large animals isolation facilities,
- ensure appropriate ventilation in the kennel facilities,
- implement the Good Clinical Practices for the storage of drugs in all clinical rooms,
- systematically implement biosecurity procedures in laboratories, VTH and teaching farm,
- improve the accommodation for on-call students.

4.4. Decision of the Visitation Team

The Establishment is partly compliant with Standard 4 because of absence of fire extinguishers within some large lecture rooms, unfinished isolation facilities and procedures for large animals, inadequate

procedures for the storage of drugs in some clinical rooms, and non-systematic implementation of biosecurity procedures in laboratories, VTH and teaching farm.

5. Animal resources and teaching material of animal origin (see Standards 5.1 to 5.6)

5.1. Findings

5.1.1. Brief description of the global strategy of the Establishment about the use of animals and material of animal origin for the acquisition by each student of Day One Competences

The Establishment provides the students with hands-on training with animals and material of animal origin for clinical and preclinical training.

With regard to clinical training, the first goal is to maintain or increase the regular work of the VTH, in the areas of both small animals and equine. Agreements with the two Police Departments provide regular access to some horses and dogs.

To assist in providing acceptable training on food-producing animals the Establishment has hired teachers with a multidisciplinary clinical profile who work as consultants or practitioners in different food-producing animal species (small ruminants, cows, swine and poultry). This strategy also results in an increase of hospitalised referral cases. Animals and material of animal origin also derives from external organisations.

The Teaching Farm has been provided with three new facilities (a new Rabbit Unit, a Farm Laboratory and a Farm Classroom). Considering the difficulties of housing farm animals, due to economic and geographical reasons, the Establishment has enhanced the student training by providing access to many external farms and other animal production facilities.

Moreover, a kennel with beagles guarantees a good amount of animals for pre-clinical training in dog and for supporting of research activities.

The acquisition of animal dummies and simulators provides additional materials for practical training.

5.1.2. Description of the adequacy for the veterinary training of the enrolled students of:

-) the number and diversity of cadavers and material of animal origin used in anatomy, necropsy and FSQ;

-) the number and diversity of healthy live animals used for pre-clinical training;

-) the number of visits in herds/flocks/units of food-producing animals;

-) the number and diversity of patients examined/treated by each student;

-) the balance between species, between clinical disciplines, between first opinion and referral cases, between acute and chronic cases, between consultations and hospitalisations, between individual medicine and population medicine

Data are reported in table 12.1. Factual information (Indicators - SER page 67) indicates a general adequacy of number and diversity of animals and material of animal origin available for veterinary training.

Cadavers and material of animal origin used for anatomy, necropsy and FSQ derive from animal protection centres, regional slaughterhouse, farms, private clinics, recovery centres, VTH and zoo.

The number of necropsies on ruminants and pigs is below the acceptable level.

Ambulatory Clinic supplement the relatively low number of food-producing animals visited at VTH.

Data reported in chapter 5 - from table 5.1.1 to table 5.1.8 - (SER – pages 41, 42, 43 and 44) confirm

the adequacy of animals and diversity of patient, and the number of farms visited (cattle, pig, poultry).

With regard to cattle, small ruminants and pigs, 100% of the cases used for clinical training are first-opinion patients. This value decreases to 80% in exotic pets, 70% in companion animals, and 5% in equine.

The balance between acute and chronic cases differs between species. For companion animals, the percentage of chronic cases is about 85%, where 65% of cases are acute in horses.

With regard to the balance between consultations (one-day clinic) and hospitalisations, 92% of small animals are attended in consultations and 8% of cases remain hospitalised. 65% of horses need to be hospitalised, while 35% are attended on a one-day clinic basis.

12.5% of clinical activities are focused on population medicine, while 87.5% rely on individual medicine.

5.1.3. Description of the organisation and management of the teaching farm(s) and the involvement of students in its running

The Teaching Farm is managed by a Committee that always prioritises teaching over research. This Committee proposes and approves the use of the Farm facilities for teaching and research. Students receive staggered practical training in a number of subjects (in years 1, 2, 3 and 5). They are involved at the Teaching Farm in the Sheep Unit, Rabbit Unit and Poultry Unit. To complete their training in food-producing animals, students work in different external farms and other animal production facilities through agreements with more than 60 organisations. In addition, the Ruminant Mobile Clinic also deals with Production Medicine.

5.1.4. Description of the organisation and management of the VTH and ambulatory clinics

In the Small Animal Area, the Emergency Service is available for all animals having a medical record at the VTH or coming from institutions with specific agreements with the VTH, such as the National and the Local Police Departments. Life-threatening emergencies are always admitted. This ER Service is available 24 hours a day during the entire year, except in August.

Moreover, an agreement is in place with SEVEMUR, the Official Emergency Veterinary Service of the City of Madrid.

In the Large Animal Area, the Emergency Service receives medical and surgical emergencies 24 hours, 365 days a year. There is always an Internal medicine clinician, a surgeon and an anaesthetist on call; the interns on duty receive the emergency.

The timetable of the different VTH Services, where the students practice intra-mural practical/clinical work, is shown in the table 5.1.4 “Description of the organisation and management of the VTH and ambulatory clinics” (SER - page 37).

Specialist services are offered for both small and large animals usually 2-4 days/week (time 10:00 - 14:00 or 16:00 - 18:00).

The ambulatory clinic is carried out by part-time Associate Teachers that are private practitioners of recognised standing. There are nine teachers participating in the Mobile Clinic, including four belonging to the Equine and five from the Ruminant Mobile Clinic. Clinicians perform their functions in their own private vehicles (nine cars). Large animals requiring immediate attention must be brought

to the VTH, either in private vehicles or in the VTH vehicles. The Mobile Clinic usually visits around 108 studs of different size including Equine Centres and stables, and farms with bovine, small ruminants, pigs, and poultry or rabbits. (See Annex 5.1.4).

5.1.5. Description of the group size for the different types of clinical training and of the hands-on involvement of students in clinical procedures in the different species

The number of students in a group can vary from 3-4 to 5-6 depending on the number of enrolled students. Groups are usually subdivided into different simultaneous intra-mural activities (Specialist clinics or other activities from the same Service) supervised by different teachers, in order to reduce the student/teacher ratio, that is never higher than four. The maximum number of students per professor in the Mobile Clinic is 2-3. Extra-mural activities of Preventive Medicine and Population Medicine include the complete group. The group size for each activity planned in clinical rotation is reported in the table present in SER page 39. The competences acquired by hands-on involvement are reported in the personal logbook (SER - Annex 3.1.9. Logbook of practical skills acquired during the Rotations).

5.1.6. Description of the patient record system and how it is used to efficiently support the teaching, research, and service programmes of the Establishment

Qvet® software is used as client and patient database in VTH. Staff and students have open access to the software, which is installed on computers located in the administration service and in all the clinical services of the VTH, including consulting rooms. Qvet® is also used to record all the clinical activities. Additionally, each patient has a hard copy record used by students and clinicians to register additional information not included in Qvet®. Use of the software is not included in examinations and it is not possible to search data using key words. Students have to be authorised for Qvet® utilisation by a teacher.

5.1.7. Description of the procedures developed to ensure the welfare of animals used for educational and research activities

An Ethics and Animal Welfare Committee (CEA) evaluates, advises and approves procedures to ensure the welfare of animals for educational and research activities.

The use of animals for experimental and educational purposes is regulated by the Spanish transposition of the Directive 2010/63/EU on the Protection of Animals used for Scientific Purposes. Therefore, all procedures must be approved by the institutional CEA.

The animal facilities at the Establishment are under the institution administrative responsibilities. Qualified animal facility directors manage the aspects of husbandry related to animal welfare. An animal welfare officer and a veterinarian supervise the welfare and health of animals, following the European and Spanish regulations. The Establishment has six facilities officially approved for animal research.

5.1.8. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the number and variety of animals and material of animal origin for pre-clinical and clinical training, and the clinical services provided by the Establishment

The teachers propose the number and variety of animals and animal materials to be used for optimal training. The Department Council, the VTH Board and the Faculty Council approve the requests. These schedules are public on the Establishment website. The Committee for Assessment and Improvement of the Curriculum evaluates if the number and variety of animals employed are satisfactory each year. All the Faculty peer groups (academic staff, support staff and students) are

represented in the governing bodies.

5.2. Comments

The number and variety for animals for pre-clinical, clinical and post-mortem are appropriate for the implementing the curriculum, except for the number of necropsies in ruminants and pigs.

A good balance between first opinion and referral cases is maintained. However, some basic activity, such as pet vaccination, is not performed due to the Establishment decision to not compete with the private sector in this activity.

At the time of the Visitation, the air conditioning unit in the kennel area did not work properly, which could affect the welfare of the dogs.

Emergency services, outside core opening hours, involve only the Collaborative Students.

5.3. Suggestions for improvement

The number of cadavers from diseased ruminants and pigs should be increased. Furthermore, cadavers from healthy animals should be used by more disciplines.

The students could vaccinate healthy dogs in the kennel.

Software for the registration of data should be implemented and all information and laboratory results regarding clinical cases recorded. Computer work-stations should be present in all relevant rooms and the consultation data (excluding personal data) should be possible for both staff and students.

5.4. Decision of the Visitation Team

The Establishment is partly compliant with Standard 5 because of insufficient number of ruminants and pigs necropsy.

6. Learning resources (see Standards 6.1 to 6.4)

6.1 Finding

6.1.1. Brief description of the main library (facilities, equipment, staff, (e)books and (e)periodicals, software for databases)

UCM has an integrated Library (BUC), of which the Establishment Library is one part. BUC has purchased access to the main international databases. The Establishment Library has eight full time employees, there are sufficient numbers of IT equipment for students use. A plethora of books and electronic material are reported to be available. In addition, a university repository (E-PRINTS) is available. Departmental libraries are also maintained.

6.1.2. Description of the available electronic information and e-learning courses, and their role in supporting student learning and teaching in the core curriculum

UCM has a learning interface called Virtual Campus where all the under- and postgraduate subjects are on the Moodle platform. The first Massive Open Online Course (MOOC) has been initiated with international co-operation (Alfort, France).

6.1.3. Description of the accessibility for staff and students to electronic learning resources both on and off campus

Besides computers available in library there is also across the campus a wireless net and off campus students and staff can have VPN access to get onto Virtual Campus and electronic library resources.

6.1.4. Description of how the procedures for access to and use of learning resources are taught to students

The library offers introductory courses for new students and, in addition, library staff offer a service to postgraduate and continuing education courses.

6.1.5. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of learning resources

The Library Committee is in responsibility for development of library services, both students and staff are represented in the Committee. There is a close connection with the academic staff of the Establishment.

6.2. Comments

Although there is good digital material available there are insufficient computer resources provided by UCM. Consequently, access to IT learning sources is mainly based on privately own computers with students and staff using personal or research funds to purchase the computers they need.

Qvet® cannot be fully used in learning due to limited availability of computers in VTH and students restricted access to programme. Also Qvet® does not have all patient in house laboratory data automatically filled in. This complicates both use of the data in clinical work and research and learning.

6.3. Suggestions for improvement

The Visitation team suggests to:

- improve the patient's digital data base,
- provide enough computers to staff and analyse coverage of students access with their privately owned computers.

6.4. Decision of the Visitation Team

The Establishment is compliant with Standard 6.

7. Student admission, progression and welfare (see Standards 7.1 to 7.15)

7.1. Finding

7.1.1. Brief description of the admission procedures for standard and for full-fee students

The admission procedure and criteria are established by the Ministry of Education, Culture and Sport and the Autonomous Government of Madrid and are common for all the UCM studies. Students must pass the University Access Exam (PAU), which is the same test for all Public Universities in Madrid. To enter the Establishment, the PAU includes two phases: a general phase (maximum of 10 points) and a specific phase (maximum of extra 4 points) with Veterinary-related subjects. The final grade (maximum of 14 points) include weighting coefficients for subject-specific phase, in AY 2016/2017 the average grade was 11.436.

7.1.2. Description of how the Establishment adapts the number of admitted students to the available educational resources and the biosecurity and welfare requirements

The number of admitted applicants is based on the official document approved by ANECA (ENQA member) mainly based on teaching capacity and the estimated number for the next 3 academic years will be similar to the current one (165); the number is evaluated and approved by the Faculty Council.

7.1.3. Description of the progression criteria and procedures, the available remediation and

supports, the rate and main causes of attrition

Students have to pass at least one of the course subjects at the end of the first year. The student must have passed a minimum of 70% of ECTS to be enrolled in EPT, Rotations and Graduation Thesis.

Students have two ordinary and two additional exam sittings per year for each subject. If a student fails 4 ordinary sittings, he has the right to be evaluated by an Examining Board for the fifth and sixth examinations. Students who have failed all six regular examinations of a subject can apply to the Rectorate for an extraordinary exam (7th sitting).

All teachers offer orientation and advice and have a specific tutoring schedule (minimum six hours per week each). Tutorial sessions are offered to students in order to provide personalised guidance.

The average attrition rate in the last three years was 10.4%, the reasons reported for drop out of student is the rise in tuition fees and academic results that did not met the expectations.

The global percentage of students that passed exams in the first two regular sitting during the last academic course was 81.73.

7.1.4. Brief description of the services available for students

Services for students rely on different UCM offices with their activities coordinated in the VCM by the Vice-Dean for Students. A specific VCM Mobility office works for guidance and advice of outgoing and incoming students.

A pilot project of Mentoring, performed by Establishment students previously trained by specialised staff of the Faculty of Psychology, commenced in 2012/2013.

Twelve students clubs are active at Establishment.

7.1.5. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the admission procedures, the admission criteria, the number of admitted students and the services to students

Each year, the Establishment proposes the number of places to be offered to the UCM based on the available facilities and staff and the demand for Veterinary graduates in the labour market. The Ministry of Education, Culture and Sport, which is empowered to decide, usually accepts the Establishment's proposal. In addition, the number of new-admission students should comply with that established in the official document of the UCM Veterinary Degree approved by ANECA (ENQA member), i.e. 165 admissions. The Establishment has reduced the number of students admitted in the recent years.

There is an electronic mechanism for complaints and suggestions that can be used anonymously:

<https://veterinaria.ucm.es/buzon-sugerencias>. The complaint and suggestions mailbox is visible in all pages of the Establishment website.

7.2. Comments

National law regulates the admission to the programme but the Establishment asks for a critical analysis of the total number of student admitted in all the Spanish Veterinary Faculties, with a document published on the website "VETERINARIA 2030" – 'Libro blanco sobre el futuro de la profesión veterinaria'. The Visitation Team detects an insufficient autonomy of the Establishment to adapt to the number of students.

All the information needed by enrolling and accepting students are published on the website. The Establishment pays particular attention to students with special situations, places are reserved for

them and a guide for teachers, specific for each (more common) disability, was demonstrated to the Visitation Team on site. The 2017 Self Evaluation Report is public on the website.

Care is taken to make the students aware of all the resources and their future professional opportunities in an international context. The significant number of international students within the Establishment significantly benefits the diversity of student experience in the Establishment.

Numerous, diverse and highly active students' associations with evidence of many activities were seen on site. Veterinary students take part actively to the UCM mentoring programme, and students evaluated their activities with a high satisfaction rate. Students also take advantage of a Student Orientation Office, run by student's representative.

A strong commitment and dedication of students, teaching and support staff was perceived during the visitation with teaching staff actively involved in improving the teaching methods by means of innovation. The formal and informal atmosphere between administration, staff and students is notifiable. All the students can ask directly for the support of the teachers and the Vice-Dean for Students.

Drop-out is actively monitored by the QA activity and it is reduced, as reported in the annual academic follow up report of the Degree.

The possibility for students to chose only some subjects for each year makes it really hard for the Establishment to organise teaching groups and rotations (e.g. number of students enrolled in different subjects of the first year in the last academic year varied between 180 to 281) and to control their progression along the curriculum.

Moreover Collaborative Students occupy spots in the clinics on a voluntary basis, but this activity is not formally included into the curriculum.

7.3. Suggestions for improvement

The Visitation Team suggests a reduction in the number of enrolled students or, if this is not feasible due to national regulation, the introduction of curriculum rules (e. g. a semester single examination) able to control the attrition rate in the first, second and third year and to reduce the possible overlaps of scheduled teaching activities for students that do not pass their examinations.

A control on the progression of students during the curriculum from the first and second year is recommended.

7.4. Decision of the Visitation Team

The Establishment is partly compliant with Standard 7 because of insufficient autonomy of the Establishment to adapt the number of students to the available resources and to control their progression.

8. Student assessment (see Standards 8.1 to 8.9)

8.1. Findings

8.1.1. Brief description of the student's assessment strategy of the Establishment

The global student assessment is decided by the same Boards involved in teaching planning and it is annually approved by the Faculty Council. The time required for assessment is expressed as ECTS and included in the syllabus. Most subjects combine different forms of assessment, but continuing

assessment is an important one. Written exams are used for the evaluation of theoretical knowledge. The assessment criteria/procedures are published in the subject description guides.

8.1.2. Description of the assessment methodology to ensure that every graduate has achieved the minimum level of competence, as prescribed in the ESEVT Day One Competences

The subject coordinators define the specific Day One competences acquired after passing each compulsory subject. This information is summarised in the document presented as Appendix 2.b. Personal logbook, schedules and daily questionnaires on knowledge and technical skills are used to certify the skills acquisition.

8.1.3. Description of the processes for providing to students a feedback post-assessment and a guidance for requested improvement

Teachers perform a follow-up of the student progress by tutorials either online or on-site, both individualised and in small groups. All academic staff have a specific tutoring schedule that must be observed (minimum six hours per week).

Mentoring programme and the Students orientation office offer additional guidance.

8.1.4. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the student's assessment strategy

The evaluation procedures are proposed by the Department Councils, discussed in the coordination meetings and subsequently approved by the Faculty Council. A representative of the Committee for Assessment and Improvement of the Curriculum, together with academic staff and student representatives elaborate the examination calendar. This procedure complies with the official document of the Degree in Veterinary approved by ANECA and the QA system of the Establishment.

Evaluation of competences is based on different methodologies, including a Logbook for practical skills and is aligned with the Day One Competences.

There are many on-going projects to assess the quality of the education, one developed by the Establishment, has the objective of improving the competences evaluation using rubrics.

8.2. Comments

The Establishment has a clear line of responsibility for the outcomes assessment and grading criteria are identified and available to students, maximum the 5% of students can obtain the “matricula de honor” mention.

The Establishment takes part to a project “Veterinaria es calidad: evaluacion continua y autoevaluacion” aimed to improve the evaluation methodology but the rules of assessment are not clearly communicated to students for “partial exams”.

8.3. Suggestions for improvement

The rules for assessment and the grading methodology must be clearly communicated to students also for “partial exams”, this point must be followed-up by the Committee for Assessment and Improvement of the Veterinary Degree Curriculum.

8.4. Decision of the Visitation Team

The Establishment is compliant with Standard 8.

9. Academic and support staff (see Standards 9.1 to 9.6)

9.1. Findings

9.1.1. Brief description of the global strategy in order to ensure that all requested competences for the veterinary programme are covered for both academic and support and that they are properly qualified and prepared for their roles

Competences are linked to the subjects that make up the curriculum. All teachers involved in the different subjects must be accredited by ANECA (or regional agencies) in the corresponding subject areas, including training and research activities. In each subject of the programme, the lessons are assigned to the teachers that are specialised in the different topics. Each academic year, the QA System reviews the subject description guides and elaborates an annual report. The UCM evaluates the activity of its teachers through the *DOCENTIA programme*, developed by ANECA and managed in the UCM by the Vice-Rectorate for QA. All the academic staff of the Establishment obtained a positive evaluation in the DOCENTIA-UCM programme in the last academic year. The teachers that achieve at least 95 points over 100 in this programme receive the “Excellence teaching mention”.

To be promoted to a new position, University teachers must be accredited and, afterwards, get through a competitive examination. The research activity of the staff is also externally evaluated by the National QA Agency for Research by 6-year periods. The total number of positive 6-year period evaluations in the Establishment is 523, with a mean of 2.7 positive evaluations per permanent teacher. The teaching merits are also evaluated every 5 years by the UCM. If the result is positive, it is reflected in the teacher’s promotion.

The number of European Board of Veterinary Specialisation (EBVS) Diplomates among teachers at VTH is 14. Two European residency programmes have been established at the Establishment: one programme from the European College of Veterinary Anaesthesia and Analgesia (ECVAA) one programme from the European College of Veterinary Pathologists (ECVP).

A significant number of teachers are members of different National Expert Committees and Agencies, i.e. AEMPS, AECOSAN, R&D&I Secretariat of State, etc.

Concerning teaching and research training, the teachers can attend courses on the use of different bibliographic tools and online teaching tools, such as the management and applications of the Virtual Campus (development of teaching material for students, evaluation, subject management, etc.). Recently, the UCM Permanent Training Service is implementing a new plan, including English teaching for the internationalisation of the UCM programmes.

UCM programme “Innovation and Improvement of Teaching Quality projects” offers to the teachers an opportunity to apply for funding for new initiatives to improve and set up innovative teaching techniques, and to increase the quality of the programmes at different levels. In the last three academic years, the Dean’s Office has developed three innovative projects, while the academic staff has conducted other 32 projects and has participated in different teaching innovation strategies.

9.1.2. Description of the adequacy of the number of academic and support staff in the different departments/units with the number of students to be taught

Total number of academic staff is 257. Support staff is distributed through the departments as 43 and rest of support staff are employed in administration 45 and in VTH is 54.

9.1.3. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the strategy for allocating, recruiting, promoting, supporting and assessing academic and support staff

The UCM Rector’s office draws an annual plan of actions for the recruitment, stabilisation and promotion of staff. The UCM establishes the personnel needs based on the number of students, subject

credits and the type of teaching and support activities corresponding to each Department, and it serves as a general guidance for the action plan, which is approved by the UCM Council. Every year, the staff needs are determined by the Departments, which present to the Faculty Council their requests for positions. The Council evaluates them and, if approved, they are submitted to the Rector's office. Finally, the University approves or rejects the proposals attending to the above-mentioned criteria.

VTH can propose hiring clinical, technical and administration staff from its own budget. Also, the directors of the research projects can hire research staff from their budgets. At the Establishment level, the assessment of the staff activity is conducted and approved yearly by the Faculty Council through reports of the Dean's Office, the Vice-Deans for Academic Organisation and Quality, the Establishment QA System, and the Establishment Staff Management Service. At the UCM level, the assessment of the staff is carried out by the Vice-Rectorate for Quality and the Vice-Rectorate for Academic Affairs.

9.2. Comments

All staff are qualified and prepared for their roles in agreement with the national and EU regulations. The Establishment and UCM provide formal training for academic staff in good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures.

Promotion criteria for academic and support staff are clear and explicit. Promotions for teaching staff are regulated. However, there is a lack of support and recognition of teaching and clinical performances for progression in the career which is mainly linked to scientific production.

Academic staff who participate in teaching receive regularly relevant training and qualifications and show competence and effective teaching skills in all relevant aspects of the curriculum. However there is an insufficient formal training 'to teach and to assess' for practitioners involved with extra-mural clinical training.

9.3. Suggestions for improvement

The Visitation team suggests to:

- increase the number of support staff in clinical services;
- hire more academic teachers in a number of clinical disciplines;
- formalise the training of practitioners involved with extra-mural teaching;
- increase the number of residency programmes in clinical disciplines.

9.4. Decision of the Visitation Team

The Establishment is partly compliant with Standard 9 because of insufficient number of teaching staff specialised in clinical disciplines and services, insufficient formal training 'to teach and to assess' for practitioners involved with extra-mural clinical training, lack of support and recognition of teaching and clinical performances for progression in the career, insufficient number and qualification of support staff, especially in clinical services, and insufficient personal development opportunities for staff.

10. Research programmes, continuing and postgraduate education (see Standards 10.1 to 10.4)

10.1. Findings

10.1.1. Brief description of how the research activities of the Establishment and the implication of most academic staff in it contribute to research-based undergraduate veterinary education

Introducing undergraduate students to scientific research is a traditional part of the teaching strategy

at the Establishment. This is demonstrated through students participating in Collaborative scholarships, five per year; External Practical Training in external research Institutes, 11 during the last three courses; by recognising research as an elective ECTS, 34 students/year and by requiring a Graduation Thesis from each student.

Students participate in an annual ‘Veterinary and bio-medical Sciences Congress’, 50% of oral presentations being given by undergraduate students of the Establishment.

10.1.2. Description of how the postgraduate clinical trainings of the Establishment contribute positively to undergraduate veterinary education and how potential conflicts in relation to case management between post- and undergraduate students are avoided

Postgraduate training of teaching staff and postgraduates is stated not to generate any conflicts but rather to contribute to and expand the knowledge of the students.

10.1.3. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of research, continuing and postgraduate education programmes organised by the Establishment

There is an active programme of continuing veterinary education initiatives between the local veterinary representative organisation, COLVEMA, and the Establishment. These include Professional Master’s courses in Food Safety and another in Swine Health.

10.2. Comments

Postgraduate research, particularly amongst recent graduates, is strong.

10.3. Suggestions for improvement

The Visitation team strongly supports the proposals to further develop:

- the Master courses in Food Science,
- the courses for veterinary practitioners,
- the EBVS Residency programmes.

10.4. Decision of the Visitation Team

The Establishment is compliant with Standard 10.

11. Outcome Assessment and Quality Assurance (see Standards 11.1 to 11.10)

11.1. Findings

11.1.1. Description of the global strategy of the Establishment for outcome assessment and Quality Assurance (QA), in order to demonstrate that the Establishment:

-) *has a culture of QA and continued enhancement of quality;*
-) *operates ad hoc, cyclical, sustainable and transparent outcome assessment, QA and quality enhancement mechanisms;*
-) *collect, analyse and use relevant information from internal and external sources for the effective management of their programmes and activities (teaching, research, services);*
-) *informs regularly staff, students and stakeholders and involves them in the QA processes;*
-) *closes the loop of the QA Plan-Do-Check-Act (PDCA) cycle;*
-) *is compliant with ESG Standards.*

The Committee for Assessment and Improvement of the Veterinary Degree Curriculum is in charge of gathering information and evidence on the implementation of quality procedures established in the ANECA document, it also collects data and receives suggestions, which are used to make

improvement proposals. This Committee is responsible for the preparation of an annual self-evaluation report. The Quality Commission receives information and provides an integrated QA coordination within the Establishment. Finally the Faculty Council evaluates the improvement proposals, which, if approved, are implemented in the programmes.

The annual report is presented to UCM Quality Office that submits it to external regional and national QA Agencies.

11.1.2. Brief description of the specific QA processes for each ESEVT Standards

A list of procedures is included in the SER:

-) Academic follow-up report of the Degree
-) Two types of Teaching follow-up meetings
-) Direct input from student representatives
-) Complaint and suggestion mailbox
-) Satisfaction surveys
-) DOCENTIA-UCM Programme
-) External QA Agencies.
-) Annual Self-Evaluation Report ('Memoria de Seguimiento del Grado'):
 - Communication and transparency
 - Structure and functioning of the QA
 - Performance indicators
 - Implementation of systems for quality improvement
 - Implementation of the recommendations by QA Agencies in previous evaluations
 - Modification of the syllabus
 - Evaluation of the strengths and weaknesses of the programme.

11.1.3. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the QA strategy of the Establishment

The committees involved in QA at Establishment are composed of representatives of academic staff, support staff, students and external stakeholders (President of COLVEMA and a representative of the Spanish Conference of Veterinary Faculties). In relation to the participation of students in the QA system, not only Establishment undergraduates, but also students from other UCM Faculties and other Universities, take part in assessment, mainly in relation to communication, transparency, evaluation and support.

11.2. Comments

The Establishment has a public policy for quality assurance that involves internal and external stakeholders. The indicated procedures cover all the aspects of ESEVT standards but the details of each specific procedure are not reported in the SER. During the on-site visitation examples of documents related to each procedure have been checked for the effectiveness of PDCA quality cycle.

An effective QA system is implemented to ensure the monitoring and enhancement of the study programme.

The QA committee of UCM makes a yearly report about the control of Standard 11 of the ESEVT SOP certifying an accurate monitoring of accomplishment of this part of the process.

The performance indicators reported in the Annual SER show a continuous improvement as a consequence of a full QA system in place.

11.3. Suggestions for improvement

The extension of QA monitoring to the other activities of the Establishment (e.g. into the VTH) could be of benefit for clinical and practical teaching results.

Increasing the number of undergraduate students involved in the different committees related to teaching activities could enhance the QA activities.

11.4. Decision of the Visitation Team

The Establishment is compliant with Standard 11.

12. ESEVT Indicators

Calculated Indicators from raw data		Calculation*	FVM	Minimal	Balance
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	238.63 / 1,162	0.205	0.13	0.079
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	194.6 / 161.666	1.204	0.59	0.614
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	142.4 / 161.666	0.881	0.57	0.314
I4	n° of hours of practical (non-clinical) training	725	725	595	130
I5	n° of hours of clinical training	743	743	670	73
I6	n° of hours of FSQ & VPH training	643	643	174.4	468.6
I7	n° of hours of extra-mural practical training in FSQ & VPH	36	36	28.8	7.2
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	7156 / 161.666	44.264	42.01	2.255
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	101.333 / 161.666	0.627	0.46	0.163
I10	n° of equine patients seen intra-murally / n° of students graduating annually	247.666 / 161.666	1.532	1.30	0.234
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	343.3 / 161.666	2.124	1.55	0.579
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	-	-	0.22	-
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	3,279.5 / 161.666	20.286	6.29	13.991
I14	n° of equine patients seen extra-murally / n° of students graduating annually	460.5 / 161.666	2.848	0.60	2.253
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	397 / 161.666	2.456	0.55	1.908
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	46.7 / 161.666	0.289	0.04	0.244
I17	n° of companion animal necropsies / n° of students graduating annually	227.5 / 161.666	1.407	1.40	0.007
I18	n° of ruminant and pig necropsies / n° of students graduating annually	139.5 / 161.666	0.863	0.97	-0.107
I19	n° of equine necropsies / n° of students graduating annually	19 / 161.666	0.118	0.09	0.025
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	136.5 / 161.666	0.844	0.69	0.152

*Average of the last three academic years

13. ESEVT Rubrics (summary of the decision of the Visitation Team of the Establishment for each ESEVT Standard, i.e. (total or substantial) compliance (C), partial compliance (PC) (Minor Deficiency) or non-compliance (NC) (Major Deficiency))

Standard 1: Objectives and Organisation	C	PC	NC
1.1. The Establishment must have as its main objective to provide, in agreement with the EU Directives and ESG recommendations, adequate, ethical, research-based, evidence-based veterinary training that enables the new graduate to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession and to be aware of the importance of lifelong learning.	x		
1.2. The Establishment must develop and follow its mission statement which must embrace all the ESEVT standards.	x		
1.3. The Establishment must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country.	x		
1.4. The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree.	x		
1.5. The organisational structure must allow input not only from staff and students but also from external stakeholders.	x		
1.6. The Establishment must have a strategic plan, which includes a SWOT analysis of its current activities, a list of objectives, and an operating plan with timeframe and indicators for its implementation.	x		
Standard 2: Finances			
2.1. Finances must be demonstrably adequate to sustain the requirements for the Establishment to meet its mission and to achieve its objectives for education, research and services.		x	
2.2. The finance report must include both expenditures and revenues and must separate personnel costs, operating costs, maintenance costs and equipment.	x		
2.3. Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.	x		
2.4. Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations. Clinics must be run as efficiently as possible.	x		
2.5. The Establishment must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.		x	
Standard 3: Curriculum			
3.1. The curriculum must be designed, resourced and managed to ensure all graduates have achieved the graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC as amended by directive 2013/55/EU and its Annex V.4.1.	x		
3.2. The learning outcomes for the programme must be explicitly articulated to form a cohesive framework.		x	
3.3. Programme learning outcomes must be communicated to staff and students and: -) underpin and ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme; -) form the basis for explicit statements of the objectives and learning outcomes of individual units of study; -) be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.	x		
3.4. The Establishment must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must: -) determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum, -) oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes, -) review the curriculum at least every seven years by involving staff, students and stakeholders, -) identify and meet training needs for all types of staff, maintaining and enhancing their competence for the on-going curriculum development.	x		
3.5. The curriculum must include the subjects (input) listed in Annex V of EU Directive 2005/36/EC and must allow the acquisition of the Day One Competences (output) (see Annex 2). This must concern all groups of subjects, i.e. Basic Sciences, Clinical Sciences, Animal Production, Food Safety and Quality, and Professional Knowledge.			x
3.6. External Practical Training (EPT) are training activities organised outside the Establishment, the student being under the direct supervision of a non academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herds visits, practical training in FSQ).	x		
3.7. Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education by enhancing for the student the handling of all common domestic animals, the understanding of the economics and management of animal units and veterinary practices, the communication skills for all aspects of veterinary work, the hands-on practical and clinical training, the real-life experience, and the employability of the prospective graduate.	x		
3.8. The EPT providers must have an agreement with the Establishment and the student (in order to fix their respective rights and duties, including insurance matters), provide a standardised evaluation of the performance of the student during their EPT and be allowed to provide feedback to the Establishment on the EPT programme.	x		
3.9. There must be a member of the academic staff responsible for the overall supervision of the EPT, including liaison with EPT providers.	x		
3.10. Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the Establishment and evaluating the EPT. Students must be allowed to complain officially or anonymously about issues occurring during EPT.	x		
Standard 4: Facilities and equipment			
4.1. All aspects of the physical facilities must provide an environment conducive to learning.	x		

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4.2. The veterinary Establishment must have a clear strategy and programme for maintaining and upgrading its buildings and equipment.	x		
4.3. Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities must be adapted for the number of students enrolled.		x	
4.4. Students must have ready access to adequate and sufficient study, self-learning, recreation, locker, sanitary and food services facilities.	x		
4.5. Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.	x		
4.6. Facilities must comply with all relevant legislation including health, safety, biosecurity and EU animal welfare and care standards.	x		
4.7. The Establishment's livestock facilities, animal housing, core clinical teaching facilities and equipment must: -) be sufficient in capacity and adapted for the number of students enrolled in order to allow hands-on training for all students -) be of a high standard, well maintained and fit for purpose -) promote best husbandry, welfare and management practices -) ensure relevant biosecurity and bio-containment -) be designed to enhance learning.		x	
4.8. Core clinical teaching facilities must be provided in a VTH with 24/7 emergency services at least for companion animals and equines, where the Establishment can unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures. For ruminants and pigs, on-call service must be available if emergency services do not exist for those species in a VTH. The Establishment must ensure state-of-the-art standards of teaching clinics which remain comparable with the best available in the private sector.	x		
4.9. The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.	x		
4.10. All core teaching sites must provide dedicated learning spaces including adequate internet access.	x		
4.11. The Establishment must ensure students have access to a broad range of diagnostic and therapeutic facilities, including but not limited to: pharmacy, diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries and treatment facilities, ambulatory services and necropsy facilities.	x		
4.12. Operational policies and procedures (including biosecurity, good laboratory practice and good clinical practice) must be taught and posted for students, staff and visitors.		x	
4.13. Appropriate isolation facilities must be provided to meet the need for the isolation and containment of animals with communicable diseases. Such isolation facilities must be properly constructed, ventilated, maintained and operated to provide for animal care in accordance with updated methods for prevention of spread of infectious agents. They must be adapted to all animal types commonly handled in the VTH.		x	
4.14. The Establishment must have an ambulatory clinic for production animals or equivalent facilities so that students can practise field veterinary medicine and Herd Health Management under academic supervision.	x		
4.15. The transport of students, live animals, cadavers, materials from animal origin and other teaching materials must be done in agreement with national and EU standards, to ensure the safety of students and staff and to prevent the spread of infectious agents.	x		
Standard 5: Animal resources and teaching material of animal origin			
5.1. The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical training (in the area of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled.		x	
5.2. It is essential that a diverse and sufficient number of surgical and medical cases in all common domestic animals and exotic pets be available for the students' clinical educational experience and hands-on training.	x		
5.3. In addition to the training provided in the Establishment, experience can include practical training at external sites, provided this training is organised under direct academic supervision and at the same standards as those applied in the Establishment.	x		
5.4. The VTH must provide nursing care skills and instruction in nursing procedures.		x	
5.5. Under all situations students must be active participants in the workup of patients, including physical diagnosis and diagnostic problem oriented decision making.	x		
5.6. Medical records must be comprehensive and maintained in an effective retrieval system (preferably an electronic patient record system) to efficiently support the teaching, research, and service programmes of the Establishment.	x		
Standard 6: Learning resources			
6.1. State-of-the-art learning resources must be available to support veterinary education, research, services and continuing education. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to undergraduate students.	x		
6.2. Staff and students must have full access on site to an academic library, which is administered by a qualified librarian, an Information Technology (IT) unit, which is managed by an IT expert, an e-learning platform, and the relevant human and physical resources necessary for development by the staff and use by the students of instructional materials.	x		
6.3. The Establishment must provide students with unimpeded access to learning resources which include scientific and other relevant literature, internet and internal study resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the programme, and have mechanisms in place to evaluate the teaching value of innovations in learning resources.	x		
6.4. The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the Establishment's core facilities via wireless connection (Wi-Fi) and from outside the Establishment via Virtual Private Network (VPN).	x		

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Standard 7: Student admission, progression and welfare			
7.1. The selection criteria for admission to the programme must be consistent with the mission of the Establishment. The number of students admitted must be consistent with the resources available at the Establishment for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin.		x	
7.2. In relation to enrolment, the Establishment must provide accurate information in all advertisements regarding the educational programme by providing clear and current information for prospective students. Further, printed catalogue and electronic information must state the purpose and goals of the programme, provide admission requirements, criteria and procedures, state degree requirements, present Establishment descriptions, clearly state information on tuition and fees along with procedures for withdrawal, give necessary information for financial aid programmes, and provide an accurate academic calendar.	x		
7.3. The Establishment's website must mention the ESEVT Establishment's status and its last Self Evaluation Report and Visitation Report must be easily available for the public. Not applicable.	x		
7.4. The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take account of the fact that students are admitted with a view to their entry to the veterinary profession in due course.	x		
7.5. The Establishment must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the programme successfully, including consideration of their potential to meet all the ESEVT Day One Competences in all common domestic species (see Annex 2).	x		
7.6. Adequate training (including periodic refresher training) must be provided for those involved in the selection process to ensure applicants are evaluated fairly and consistently.	x		
7.7. There must be clear policies and procedures on how applicants with disabilities or illnesses will be considered and, if appropriate, accommodated in the programme, taking into account the requirement that all students must be capable of meeting the ESEVT Day One Competences by the time they graduate.	x		
7.8. The basis for decisions on progression (including academic progression and professional fitness to practise) must be explicit and readily available to the students. The Establishment must provide evidence that it has mechanisms in place to identify and provide remediation and appropriate support (including termination) for students who are not performing adequately.	x		
7.9. The Establishment must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or university law) and student support if required.	x		
7.10. Mechanisms for the exclusion of students from the programme for any reason must be explicit.	x		
7.11. Establishment policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.	x		
7.12. Provisions must be made by the Establishment to support the physical, emotional and welfare needs of students. This includes, but is not limited to, learning support and counselling services, careers advice, and fair and transparent mechanisms for dealing with student illness, impairment and disability during the programme. This shall include provision of reasonable accommodations/adjustments for disabled students, consistent with all relevant equality and/or human rights legislation.	x		
7.13. There must be effective mechanisms for resolution of student grievances (e.g. interpersonal conflict or harassment).	x		
7.14. Mechanisms must be in place by which students can convey their needs and wants to the Establishment.	x		
7.15. The Establishment must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the Establishment with the ESEVT standards.	x		
Standard 8: Student assessment			
8.1. The Establishment must ensure that there is a clearly identified structure within the Establishment showing lines of responsibility for the assessment strategy to ensure coherence of the overall assessment regime and to allow the demonstration of progressive development across the programme towards entry level competence.	x		
8.2. The assessment tasks and grading criteria for each unit of study in the programme must be clearly identified and available to students in a timely manner well in advance of the assessment.	x		
8.3. Requirements to pass must be explicit.	x		
8.4. Mechanisms for students to appeal against assessment outcomes must be explicit.	x		
8.5. The Establishment must have a process in place to review assessment outcomes and to change assessment strategies when required.	x		
8.6. Programme learning outcomes covering the full range of professional knowledge, skills, competences and attributes must form the basis for assessment design and underpin decisions on progression.	x		
8.7. Students must receive timely feedback on their assessments.	x		
8.8. Assessment strategies must allow the Establishment to certify student achievement of learning objectives at the level of the programme and individual units of study.	x		
8.9. Methods of formative and summative assessment must be valid and reliable and comprise a variety of approaches. Direct assessment of clinical skills and Day One Competences (some of which may be on simulated patients), must form a significant component of the overall process of assessment. It must also include the quality control of the students logbooks in order to ensure that all clinical procedures, practical and hands-on training planned in the study programme have been fully completed by each individual student.	x		
Standard 9: Academic and support staff			
9.1. The Establishment must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with the national and EU regulations. A formal training (including good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching. Most FTE academic staff involved in veterinary training must be veterinarians. It is expected that greater than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.	x		
9.2. The total number, qualifications and skills of all staff involved with the programme, including teaching staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational programme and fulfil the Establishment's mission.		x	
9.3. Staff who participate in teaching must have received the relevant training and qualifications and must display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of		x	

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whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.			
9.4. Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. Academic staff should have a balanced workload of teaching, research and service depending on their role; and should have reasonable opportunity and resources for participation in scholarly activities.	x		
9.5. The Establishment must provide evidence that it utilises a well-defined, comprehensive and publicised programme for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures. Staff must have the opportunity to contribute to the Establishment's direction and decision making processes.	x		
9.6. Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of teaching (including clinical teaching), research, service and other scholarly activities.		x	
Standard 10: Research programmes, continuing and postgraduate education			
10.1. The Establishment must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree programme through research-based teaching.	x		
10.2. All students must be trained in scientific method and research techniques relevant to evidence-based veterinary medicine.	x		
10.3. All students must have opportunities to participate in research programmes.	x		
10.4. The Establishment must provide advanced postgraduate degree programmes, e.g. PhD, internships, residencies and continuing education programmes that complement and strengthen the veterinary degree programme and are relevant to the needs of the profession and society.	x		
Standard 11: Outcome Assessment and Quality Assurance			
11.1. The Establishment must have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders must develop and implement this policy through appropriate structures and processes, while involving external stakeholders.	x		
11.2. The Establishment must have processes for the design and approval of their programmes. The programmes must be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.			
11.3. The Establishment must ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.	x		
11.4. The Establishment must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression, recognition and certification.	x		
11.5. The Establishment must assure themselves of the competence of their teachers. They must apply fair and transparent processes for the recruitment and development of staff.	x		
11.6. The Establishment must have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.	x		
11.7. The Establishment must ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.	x		
11.8. The Establishment must publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.	x		
11.9. The Establishment must monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews must lead to continuous improvement of the programme. Any action planned or taken as a result must be communicated to all those concerned.	x		
11.10. The Establishment must undergo external quality assurance in line with the ESG on a cyclical basis.	x		
<i>C: (total or substantial) compliance; PC: partial compliance (Minor Deficiency); NC: non-compliance (Major Deficiency)</i>			

Executive Summary

Although veterinary training started in Madrid in 1792, the current Faculty of Veterinary Medicine (called 'the Establishment' in this report) is part of the Complutense University of Madrid (UCM) since 1943 and moved to the current campus in 1968. Since 2010 and together with other Madrid universities and research centres, the Establishment is an active member of 'Moncloa Campus of International Excellence' and particularly of its cluster 'Agro-food industry and health'.

The Establishment has already been positively evaluated by ESEVT several times. The last Visitation was performed in 2006 and the Establishment was approved by a decision of ECOVE. Since that period and despite the negative impact of the economic crisis on the funding of higher education in Spain, the Establishment has worked hard in order to implement the opportunities for improvement suggested by the 2006 Visitation team, to implement the one-health concept and the Day One Competences proposed by ESEVT and by OIE, to apply the new National and EU regulations related to veterinary education and to meet the requirements of the society.

The SER was provided on time and written in full agreement with the Uppsala SOP (2016). Detailed and relevant replies to the pre-Visitation questions from the experts were provided before the start of the Visitation.

The Visitation was perfectly 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.:

- commitment and dedication of students, teaching and support staff
- exceptional performance of some clinicians and scientists
- widespread pride in the Establishment and in teaching excellence
- good working atmosphere between administration, staff and students
- numerous, diverse and highly active students' associations
- high number of international students either in full undergraduate and postgraduate programmes and in Erasmus exchanges
- practical on-site training provided in the Food-Processing Unit and at central market
- interdisciplinary research activities and successful PhD programmes
- effective Quality Assurance system implemented to ensure the monitoring and enhancement of the study programme.

The Visitation team has also identified several items of partial compliance (i.e. Minor Deficiencies):

- partial compliance with standard 2.1 and 4.3 because of insufficient resources for maintenance of current facilities and purchase of new equipment
- partial compliance with standard 3.2 because of insufficient transversal and collaborative approach between disciplines in some areas of the curriculum
- partial compliance with standard 3.5 because of imbalance in the curriculum between theoretical, practical and clinical training to the detriment of the latter, because of insufficient exposure of core curriculum undergraduate students to 24/7 emergency cases, and because of insufficient hands-on training in post-mortem examination for FSQ
- partial compliance with standard 4.7 because of absence of extinguishers within some large lecture rooms
- partial compliance with standard 4.12 because of inadequate procedures for the storage of drugs in some clinical rooms and because of non systematic implementation of biosecurity procedures in laboratories, VTH and teaching farm

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- partial compliance with standard 4.13 because of not adequate isolation facilities and procedures for large animals
- partial compliance with standard 5.1 because of insufficient number of ruminants and pigs necropsy
- partial compliance with standard 7.1 and 2.5 because of insufficient autonomy of the Establishment to adapt the number of students to the available resources and to control their progression
- partial compliance with standard 9.2 because of insufficient number of teaching staff specialised in clinical disciplines and services
- partial compliance with standard 9.2 and 5.4 because of insufficient number and qualification of support staff, especially in clinical services.
- partial compliance with standard 9.3 because of insufficient formal training 'to teach and to assess' for practitioners involved with extra-mural clinical training
- partial compliance with standard 9.6 because of lack of support and recognition of teaching and clinical performances for progression in the career and because of insufficient personal development opportunities for staff.

The Visitation team has also identified 1 item of non compliance (i.e. Major Deficiency):

- non-compliance with Standard 3.5 because of insufficient number of hours of hands-on clinical training with real patients under the supervision of academic staff in both companion and food-producing animals in order to achieve Day One Competences for each individual student.

Therefore, the Visitation Team recommends to ECOVE the status of Conditional Accreditation for the FVM of the Complutense University of Madrid.

Glossary

Abbreviations

ANECA: Spanish Agency for Quality Assessment and Accreditation
EAEVE: European Association of Establishments for Veterinary Education
EBVS: European Board of Veterinary Specialisation
ECOVE: European Committee on Veterinary Education
ECTS: European Credits Transfer System
ENQA: European Network for Quality Assurance in Higher Education
EPT: External Practical Training
ESEVT: European System of Evaluation of Veterinary Training
ESG: European Standards and Guidelines
FMV: Faculty of Veterinary Medicine
FPU: food-producing Unit
FSQ: Food Safety and Quality
FTE: Full-Time Equivalent
FVE: Federation of Veterinarians of Europe
HACCP: Hazard Analysis Critical Control Point
IT: Information Technology
QA: Quality Assurance
SER: Self Evaluation Report
SOP: Standard Operating Procedure
SWOT: Strengths, Weaknesses, Opportunities, Threats
VPH: Veterinary Public Health
VTH: Veterinary Teaching Hospital
UCM: Complutense University of Madrid

Standardised terminology

Accreditation: status of an Establishment that is considered by ECOVE as compliant with the ESEVT Standards normally for a 7 years period starting at the date of the last (full) Visitation;
Establishment: the official and legal unit that organise the veterinary degree as a whole, either a university, faculty, school, department, institute;
Ambulatory clinic: clinical training done extra-murally and fully supervised by academic trained teachers;
Establishment's Head: the person who officially chairs the above described Establishment, i.e. Rector, Dean, Director, Head of Department, President, Principal, ...;
External Practical Training: clinical and practical training done extra-murally and fully supervised by non academic staff (e.g. practitioners);
Major Deficiency: a deficiency that significantly affects the quality of education and the Establishment's compliance with the ESEVT Standards;
Minor Deficiency: a deficiency that does not significantly affect the quality of education or the Establishment's compliance with the ESEVT Standards;
Visitation: a full visitation organised on-site in agreement with the ESEVT SOP in order to evaluate if the veterinary degree provided by the visited Establishment is compliant with all ESEVT Standards; any chronological reference to 'the Visitation' means the first day of the full on-site visitation;
Visitation Report: a document prepared by the Visitation Team, corrected for factual errors and finally issued by ECOVE; it contains, for each ESEVT Standard, findings, comments, suggestions and identified deficiencies.

Decision of ECOVE

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

-) Non-compliance with Standard 3.5 because of insufficient number of hours of hands-on clinical training with real patients under the supervision of academic staff in both companion and food-producing animals in order to achieve Day One Competences for each individual student.

The 'Faculty of Veterinary Medicine of the Complutense University of Madrid' is therefore classified as holding the status of: **CONDITIONAL ACCREDITATION**.