FINAL REPORT AS ISSUED BY ECOVE ON 7 JUNE 2023

RE-VISITATION REPORT

To the Department of Veterinary Sciences of the University of Pisa, Pisa, Italy

On 20 – 22 March 2023

By the Re-visitation Team:

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Contents of the Re-visitation Report

Introduction

The Department of Veterinary Sciences University of Pisa, Italy (called the Veterinary Education Establishment (VEE) in this Report) was evaluated by the ESEVT on April 4-8, 2022.

The previous Full Visitation (FV) team considered that there was insufficient clinical training under academic staff supervision in individual food producing animals, combined with an unsystematic implementation of biosecurity measures at the VTH, necropsy area, the (Veterinary Teaching Farm) VTF and equine reproduction unit.

These findings led to the identification of two Major Deficiencies:
Major Deficiency 1: Non-compliance with Standard 3.1.4 because of insufficient clinical training in individual medicine of food producing animals under the supervision of academic staff, which may affect the acquisition by all students of Day One Competences in these species.

Major Deficiency 2: Non-compliance with Standard 4.3 because biosecurity and biosafety measures are not systematically implemented in the Veterinary Teaching Hospital (VTH), necropsy room, Teaching Farm and Equine Reproduction Unit.

Additionally, areas of concern (Minor Deficiencies) were identified by the team:

1. Partial compliance with 3.1.3 because of suboptimal clinical training in exotic pets.
2. Partial compliance with 4.7 because of suboptimal ambulatory clinic for ruminants.
3. Partial compliance with 4.9 because of suboptimal Good Pharmacy Practice (GPP).
4. Partial compliance with Standard 5.1 because of suboptimal diversity of cadavers for anatomical dissections and suboptimal caseload in necropsy.

The decision by ECOVE, who met on June 8, 2022, was Pending Accreditation status.

The Re-visitation Self-Evaluation Report was provided to the Re-visitation Team on time and contained pertinent information, being informative and also including a list of annexes relevant to the identified deficiencies.

The Re-visitation was well prepared and well organised by the VEE. It was performed in a cordial working atmosphere, in agreement with the ESEVT 2019 SOP, as amended in September 2021.

1. Correction of the Major Deficiencies

1.1. Major Deficiency 1: Non-compliance with Standard 3.1.4 because of insufficient clinical training in individual medicine of food producing animals under the supervision of academic staff, which may affect the acquisition by all students of Day One Competences in these species.

1.1.1. Findings

Prior to the 2022 FV, in the academic year 2017-2018, the VEE revised its professional practical training, thus starting with the student cohort of the next academic year 2018-2019, devoting 25 hours (1 ECTS) to food producing animals' medicine, which was mainly clinical training on individual ruminant animal medicine. Following the FV in 2022 in order to improve the clinical knowledge of students in ruminant medicine, electronic repositories of teaching material on sick animals, including ruminants (VetPro, dedicated to bovine; eClinic including clinical cases on companion animals, non-conventional species, equines, and ruminants) were made accessible to students of 3rd, 4th and 5th years as well as 4th and 5th year clinical rotations, respectively. Thus, integration of theoretical training with clinical cases, stimulation of student self-learning and problem-oriented approach in individual ruminant medicine was enhanced.
Furthermore, the distribution of hours dedicated to Internal Medicine 3 (Year 4) was changed. The 10 hours previously dedicated to discuss clinical cases were split in 5 hours/student devoted to equids and food producing animals' (eClinic) and 5 hours/student of academic staff supervised exposure to individual clinical cases of food producing animals during the ambulatory clinic.
In Year 5, the VEE has contracted a private practitioner (beginning of 1st of March 2023) so that now all students spend an additional 9 compulsory hours of training in individual animal medicine in small groups of 2 students, during the professional practical training allowing students to acquire D1C. The VEE is in the process of recruiting a second private practitioner to work in the ambulatory clinic to support Internal Medicine 3 clinical rotations and thus further enhance the practical training in individual production animals.
At the end of 2022, a project of the VEE, called Open Science in Co-creative Animal Research (OSCAR) was approved, and through this, the VEE plans to buy simulators for bovine obstetrics and for laparoscopy, to improve practical teaching using mannequins.
To further strengthen the postgraduate training in ruminants, three additional PhD scholarships were allocated to the ruminant welfare and health area funded by the National Recovery and Resilience Plan.

1.1.2. Comments

The VEE is to be commended for the speed and diligence of the changes they have made to address this major deficiency.
The VEE involved a multi-directional approach to improve their students' clinical training of individual food producing animals, increasing the curriculum number of hours from 80 to 100 in those species. The VEE gave access to students of 3rd, 4th and 5th years to the electronic repositories of clinical cases (eClinic and VetPro), as well as increased their access to clinical practice through the cases seen with the contracted practitioner and the compulsory ambulatory clinic to complete the students practical professional training. Students reported that they had each visited approximately 5 farms on the clinic day they had spent with the new practitioner and had seen a wide variety of cases (5-8/student). The caseload seen in the first four months of the academic year 2022/2023 is equivalent to the caseload seen in the previous 12-month period.

Nutrition is now taught by a veterinarian to provide a better perspective on nutrition effect on animal health.
The VEE is committed to close the QA loop for the training in individual food producing animal medicine, by subjecting the changes implemented so far (the increase in the number and variety of cases to which the students have been exposed to and the students' higher degree of involvement in their management) in 2023 to an assessment by the Department Joint Faculty Students Committee (D-JFSC) and subsequently improve, by taking the appropriate measures.

1.1.3. Suggestions
The VEE is encouraged to continue broadening the scope of the ambulatory practice.

1.1.4. Decision
The Major Deficiency 1 ("Non-compliance with Standard 3.1.4 because of insufficient clinical training in individual medicine of food producing animals under the supervision of academic staff, which may affect the acquisition by all students of Day One Competences in these species.") has been fully corrected.

1.2. Major Deficiency 2: **Non-compliance with Standard 4.3 because biosecurity and biosafety measures are not systematically implemented in the Veterinary Teaching Hospital (VTH), necropsy room, Teaching Farm and Equine Reproduction Unit.**

1.2.1. Findings
The VEE addressed the issue of biosecurity and biosafety identified by the visitation team by increasing the academic community's awareness towards its importance through a formative educational day involving speakers on the topic from accredited VEEs and making the recording available through the DVS YouTube channel. The Security/Biosecurity Committee organised a training day in biosecurity to update the general/specific knowledge in the field with involvement of academic staff, support staff and PhD students in December 2022.

The changes in the necropsy area are as follows:

- there is clear signage on how students and staff should enter and use the facility
- the clean and dirty areas in the necropsy have been separated
- the protective equipment which must be worn is now defined and advertised
- there is appropriate disinfection of the equipment left behind by the students at the end of the class
- foot-baths have been put in place and
- personal lockers to storage student belongings before the class are provided to students.

At the VTH, a clear separation of the working areas has been in place, and colour dress codes for personnel and students involved in the activities have been identified. Lockers separated by gender were provided to the students. There is now a strict 'clean below the elbow' policy which is monitored.

At the teaching farm CIRAA (Centro di Ricerche Agro-Ambientali "Enrico Avanzi"), appropriate fencing and gate secures the dairy farm perimeter. Specific paths and procedures have been defined for animal activities, a locker/changing room with a sink has been provided for the students, and a foot-bath is set in place. Specific personal protection equipment to be worn is advertised.

In the Reproduction Unit, specific personal protection equipment to be worn is advertised and available in the Unit. Biosecurity and biosafety measures were presented to staff and students during the activities organised by the VEE Security/Biosecurity Committee.

1.2.2. Comments

The VEE is commended for its 'fit for purpose' signage regarding PPE re-categorising of the VTH areas. The reorganisation of the necropsy room now meets modern standards. Adequate PPE is now available at Equine Reproduction Unit. The fencing of the VTF contributes to a better biosecurity status.
The measures taken by the VEE to complete the necessary biosecurity and biosafety requirements, including dress codes and personal protection equipment, as well as advertising all the measures both physically and theoretically, by the educational days, contribute to the upgrading of the student and staff biosecurity/biosafety culture.

1.2.3. Suggestions

The VEE should continue upholding the applied changes in the area of biosecurity/biosafety. Further, the VEE should maintain the communication with their staff and students on enhancing the biosecurity and biosafety culture in all its areas.

1.2.4. Decision

The Major Deficiency 2 ("Non-compliance with Standard 4.3 because biosecurity and biosafety measures are not systematically implemented in the Veterinary Teaching Hospital (VTH), necropsy room, Teaching Farm and Equine Reproduction Unit.") has been fully corrected.

2. Correction of the Minor Deficiencies

2.1. Minor Deficiency 1: 3.1.3: Suboptimal clinical training in exotic pets.

2.1.1. Findings

To the already existing 34 hours of training (29 theoretical, 5 practical) in exotic pets at the time of the FV, the VEE added 10 hours of theoretical and technical training. The contracted veterinarian continues to perform 5 hours /student of practical training in exotic pets. The eClinic that students from 3rd Year have access to, gives them information on clinical cases in a variety of exotic species.

2.1.2. Comments

The increase in the number of hours and clinical cases seen at the VTH led to an improvement of the I11 status. The contracted veterinarian is looking to further diversify and increase the caseload.

2.1.3. Suggestions

The VEE is encouraged to continue broadening the diversity and number of their exotic animal cases.

2.2. Minor Deficiency 2: 4.7: Suboptimal ambulatory clinic for ruminants

2.2.1. Findings

To some extent, this Minor Deficiency is overlapping the Major Deficiency 1. Contracting a private practitioner has led to a compulsory 9-hour ambulatory clinic activity per student, in groups of two students. The students also benefit from a dedicated car, which has been specifically equipped for the use of the ambulatory clinic service. The VEE is in the process of contracting a second practitioner (see above). An assistant professor has been employed to teach students on the VTF.

2.2.2. Comments
Setting in place a continuous compulsory training in the ambulatory clinic service, there was a substantial improvement in the number of cases relating to ruminants. Those students participating in the meetings with the RV team reported positive experiences during their PPT.

2.2.3. Suggestions
See 1.1.3.

2.3. Minor Deficiency 3: 4.9: Suboptimal Good Pharmacy Practice (GPP)

2.3.1. Findings
The Pharmacy of the VEE is managed by the dedicated staff, including the VTH director for emergencies/control purposes. The activity is carried out during the week from 07:30 to 18:30. For night shifts and the weekend, the controlled cupboard of the Intensive Care Unit is loaded, based on the presumption of an average caseload, to serve the purposes of treatment, under the supervision of the veterinarian on duty.
The movement of psychotropic drugs is closely followed and recorded in a register locked in a cupboard.
For all medicines, compliance with the national law is assured, medication being stored in locked units, while used quantities are regularly discharged within 48h from use.

2.3.2. Comments
The drugs ledger is routinely checked by the appropriate hospital staff. Two technicians hold the key of the pharmacy during the day, for general medication. At night the key is held by the on-duty vet.
There is a periodical certification of the VTH pharmacy by UNI EN ISO 9001:2015 and is by the NAS (Nuclei Antisofisticazione e Sanità, unit of the Italian army body “Carabinieri”), the status and the procedures applied in the pharmacy being continuously inspected by the state.

2.3.3. Suggestions
None.

2.4. Minor Deficiency 4: 5.1: Suboptimal diversity of cadavers for anatomical dissections and suboptimal caseload in necropsy

2.4.1. Findings
The VEE increased the number of cadavers available for the anatomy by an agreement with the VTH to provide cadavers for the student work. After the COVID-19 pandemic ended, the numbers of companion animal and equine cadavers have returned to values recorded before. Despite the increase in numbers of ruminants and pigs cadavers, those still remain below the minimal expected value. Therefore, the necropsy service plans to use the cadavers provided by

the VTH specifically for the students' practical activities (a minimum of 84 cadavers during the AY 2022-2023, including ruminants and pigs).
The VEE obtains organs from farm animals provided by the slaughterhouse once a week during the teaching period, which further improves students' access to normal and abnormal (pathologically changed) material.
The VEE now offers free transport and free necropsy for cadavers from the farms to encourage farmers to use the service.
The ambulatory clinic may also identify some cases when necropsy results would be helpful for the farmers involved, increasing the material load in ruminants and pigs.
Another aid to improve the necropsy caseload will be provided by agreement, with the recently opened necropsy service of the Experimental Zoo-prophylactic Institute of the area.

2.4.2. Comments
The increase in material for anatomy and necropsy has positively impacted on the respective indicators.

2.4.3. Suggestions
None.

3. ESEVT Indicators

The FV of 2022 revealed that some of the indicators were below the minimal requirements indicated in the 2019 SOP as amended in September 2021. The RV team observed that the number of FTE staff has increased and a continuous increase in case numbers has been recorded, excluding the necropsy caseload. Subsequently, an increase in almost all indicators was observed. The strategy in place to continue increasing the caseloads within all species of animals, along with the balanced numbers of students will ensure that the VEE meets the requirements outlined in the SOP.

4. Conclusions
The VEE is to be commended for significant improvements which were noticed by the team in all areas of concern. The VEE is committed to continue the process of improvement in all fields of their activity.

The Major Deficiencies identified during the Visitation done on April 4-8, 2022 (1:"Non-compliance with Standard 3.1.4 because of insufficient clinical training in individual medicine of food producing animals under the supervision of academic staff, which may affect the acquisition by all students of Day One Competences in these species." and 2: "Non-compliance with Standard 4.3 because biosecurity and biosafety measures are not systematically implemented in the Veterinary Teaching Hospital (VTH), necropsy room, Teaching Farm and Equine Reproduction Unit.") have been addressed and fully corrected by the VEE.

Advancements were observed in all areas related to all Minor Deficiencies, some of them being entirely corrected. The VEE is encouraged to continue on their improvement journey.

Decision of ECOVE

The Committee concluded that the Major Deficiencies identified after the Full Visitation on 04 – 08 April 2022 had been corrected.

The Veterinary Education Establishment (VEE) of the University of Pisa is therefore classified as holding the status of: **ACCREDITATION**.