RE-VISITATION REPORT

To the University of Porto, Instituto De Ciências Biomédicas Abel Salazar, Porto, Portugal

On 12 - 14 July 2021

By the Re-visitation Team:

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Introduction

The Integrated Master Degree in Veterinary Medicine (IMVM) of the Institute of Biomedical Sciences Abel Salazar (ICBAS) (referred to as Veterinary Education Establishment /VEE/ in this report) of the University of Porto (UPorto) was subjected to an EAEVE-FVE Full Visitation on May 23-27, 2016, utilising the Budapest 2012 SOP.

The IMVM is part of ICBAS, which is a multidisciplinary college within the University of Porto with administrative, financial, pedagogical and scientific autonomy, although its statutes have to conform to the University statutes which, in turn, have to conform to the corresponding national legislation.

During the Visitation, the ESEVT Visitation Team identified a number of deficiencies. Based on this Visitation the European Committee of Veterinary Education (ECOVE), who met on November 23, 2016, identified the following Major Deficiencies:

1. Absence of a real strategic plan specifically devoted to the IMVM and its veterinary specific subjects
2. Insufficient practical training in large animal necropsies
3. Insufficient clinical training in equine medicine and surgery
4. Insufficient formal pedagogical training of the practitioners involved in core curriculum clinical training
5. Absence of adequate clinical data retrieval system to allow retrospective cases study (including necropsy) in all species and insufficient involvement of undergraduate students in the completion of these records in large animal clinics and in necropsy.

The Final Report of the site visit team also identified “several areas of concern” as potential Minor Deficiencies:

1. Insufficient visibility and autonomy of the veterinary part of ICBAS
2. Non-optimal biosecurity and safety measures in necropsy and in some isolation units
3. Absence of formal involvement of all undergraduate students in emergency services for ruminants
4. Absence of emergency services for horses
5. Insufficient documentation on the acquisition by all students of D1C.

The Re-visitation Self-Evaluation Report (RSER) was a mixture of text and visual evidence and fully covered all the necessary information required for the Team to assess the changes introduced by the VEE in response to the five Major Deficiencies.
The overall atmosphere during the Re-visitation was very friendly and constructive, and the whole visit was conducted in an open and professional way. The schedule for the assessment of the Major and Minor Deficiencies was achieved by several meetings as well as a series of visits to the relevant teaching facilities. The short presentations by the academic staff in the beginning of the meetings were informative, and all the relevant persons involved in the five Major Deficiencies participated in them.

Commendations (areas worthy of praise identified by the Team)

- High-quality RSER
- Clear vision of the future and awareness of weak points
- Highly motivated and committed staff at all levels
- The Institute of Biomedical Sciences Abel Salazar (ICBAS) of the University of Porto (UPorto), a combination of higher education which is unusual in European Higher Education.

1. Correction of the Major Deficiencies

1.1 Major Deficiency 1: Absence of a real strategic plan specifically devoted to the IMVM and its veterinary specific subject

1.1.1. Findings

The IMVM at ICBAS has developed a course-specific Strategic Plan (see Appendix 1 of the RSER) which includes: i. Mission, Vision and Values; ii. a complete SWOT analysis; iii. Strategic goals; iv. An operational plan with ten different actions with implementation timing priorities. The new Strategic Plan has been built with the involvement of the students.

A public version of the Strategic Plan is also available for download on ICBAS website.

1.1.2. Comments

The VEE has corrected the Major Deficiency. However, the responsibilities for the different actions expected in the Strategic Plan were not fully identified in the RSER. The involvement of external stakeholders was also not clear.

Following meetings with senior members of the IMVM, it became apparent that individuals had been appointed to take responsibility for the delivery of key objectives, but this was not documented within the RSER.

Similarly, although there was involvement of external stakeholders in the development of the strategic plan and the SWOT analysis, this was also not documented within the RSER.

1.1.3. Suggestions

None.

1.1.4. Decision

This Major Deficiency has been fully corrected.
1.2. Major Deficiency 2: *Insufficient practical training in large animal necropsies*

1.2.1. Findings
To overcome this Major Deficiency, the VEE has developed a large animal necropsy service (LabPatVet) open to all vets. The service, supplied by an ambulatory team composed of two veterinary pathologists and assisted by two pathology-qualified technicians, provides a practical training in ruminant and horse necropsies.

The activities of LabPatVet are coordinated with practical classes of Pathological Anatomy I and II, and/or with organized student groups (when necropsies occur outside class schedule or out of the academic year), so that any livestock or equine necropsy is used for student education.

In the case of bovines, the training is provided *in loco* in the farms. In the case of equines, cadavers are transported to INIAV, whenever possible.

Although the ambulatory necropsy service for large animals is being increasingly acknowledged among practitioners of the region, the steady progression in the number of equine and bovine caseload was actually compromised in 2020 due to the COVID-19 pandemic and associated confinement and movement restrictions.

1.2.2. Comments
Meetings with both the newly appointed veterinary pathologists and then separately with students participating in such necropsies, confirmed the success of these developments.

1.2.3. Suggestions
None.

1.2.4. Decision
This Major Deficiency has been fully corrected.

1.3. Major Deficiency 3: *Insufficient clinical training in equine medicine and surgery*

1.3.1. Findings
ICBAS has initiated an action plan to implement measures to correct the weaknesses identified by ECOVE by both implementing an extramural ambulatory clinical service for horses as well as upgrading the intramural capacity for horse surgery and medicine.

**Extramural equine ambulatory clinic**
Two experienced and local veterinary practitioners in horse medicine and surgery have been appointed by ICBAS, to teach equine ambulatory clinical work as a component of the practical classes of Farm Animals and Equine Medicine and Surgery. Using one of ICBAS fully equipped vans, these teachers, accompanied by 2 to 3 students, carry out clinical visits to equestrian centres, privately-owned horses and stud farms.

This ambulatory clinic provides a minimum of 8 hours of practical training per student per semester.
Upgrade of the Equine Clinical Centre at Vairão

This upgrade has been achieved by:

- Reinforcement of the veterinary staff specialized in horse medicine and surgery
- Modernization of equipment
- Improvement of the facilities

Two teachers, one of whom is a board eligible surgeon of the European College of Veterinary Surgeons (ECVS), were recently hired to reinforce intramural (and some extramural) equine teaching.

One of the recently hired teachers was also assigned to assist in the upgrading of the surgical facilities and of the surgical equipment of the centre. More recently, a meeting of equine practitioners was held at the Clinical Centre at Vairão to promote this reinforced clinical team and the upgraded facilities and equipment, so providing an opportunity to showcase the on-call service as well as assessing practitioners’ needs.

As shown in the Indicators, this large investment has resulted in the increase in the number of referral cases seen intramurally by students.

1.3.2. Comments
Currently, in Northern Portugal, most of equine veterinary clinical work is performed within an ambulatory service, so emphasizing the need for clinical teaching in this area.

These recent advances at ICBAS have led to a growing interest from equine practitioners, as well as encouraging the development of the Centre as the referral equine clinical and surgical service for the region.

1.3.3. Suggestions
None.

1.3.4. Decision
This Major Deficiency has been fully corrected.

1.4. Major Deficiency 4: Insufficient formal pedagogical training of the practitioners involved in core curriculum clinical training

1.4.1. Findings
During the last three academic years, the VEE (IMVM’s Scientific Committee and the ICBAS Medical Education Office, supported by the University of Porto Pedagogical Innovation Office) has organized annual pedagogical training sessions for all practitioners/teachers involved in teaching activities. Sessions were particularly focused on clinical tutorial teaching and methodology to assess student skills. The programme for each session can be consulted at links provided in the RSER.

The pedagogical training system promoted by IMVM scientific Committee will be maintained on a regular basis (at least once per academic year).
1.4.2. Comments
After meeting with a large group of clinical teaching staff, as well as the professional tutor responsible for delivering this teaching, it is obvious that this newly established pedagogical training has been highly effective.

1.4.3. Suggestions
None.

1.4.4. Decision
This Major Deficiency has been fully corrected.

1.5. Major Deficiency 5: Absence of adequate clinical data retrieval system to allow retrospective cases study (including necropsy) in all species and insufficient involvement of undergraduate students in the completion of these records in large animal clinics and in necropsy

1.5.1. Findings
ICBAS has now implemented a clinical management software system called GuruVet® after an active collaboration with personnel from GuruVet. The software can record and process data from retrospective case studies in all species (companion animals, production animals and equines). The contract with Guruvet included training of all practitioners/teachers as well as the regular maintenance of the system.

Students are able to participate by data entry under the supervision of practitioners/teachers to validate the information. Whenever possible, the historical information on clinical records was moved to GuruVet. All information is now available to registered users and compliance with data protection and confidentiality is ensured.

For necropsy cases, a retrieval system called Sispat has been implemented adapted to veterinary pathology from a platform originally designed for human medicine. Sispat accommodates data from all necropsies (companion and large animals) performed intra- and extramurally, enabling retrospective analysis to be carried out. Students take part in data collection and can complete records in Sispat.

During intramural necropsies students are able to fill in relevant data again using Sispat. In extramural necropsies, whenever this cannot be done due to practical reasons, records are inserted in Sispat at a later stage by either technicians or teachers, based on the student’s records drafted in the field under the supervision of teachers.

1.5.2. Comments
The Team was able to meet up with both a senior member of GuruVet as well as IMVM teachers involved with the software; in addition, a meeting with students confirmed their enthusiasm for utilising the GuruVet programme.

The Sispat programme was similarly presented.
1.5.3. Suggestions
None.

1.5.4. Decision
This Major Deficiency has been fully corrected.

2. Correction of the Minor Deficiencies

2.1. Minor Deficiency 1: Insufficient visibility and autonomy of the veterinary part of ICBAS

2.1.1. Findings
At the internal level, important organisational modifications were implemented, resulting in a higher autonomy of the IMVM Scientific Committee. The President and Vice-President of the Representatives’ Council, the Vice-Dean, Pedagogical Council’s Vice-President and member of the medical Ethics Committee of ICBAS/Saint Anthony Hospital are Professors of IMVM.

2.1.2. Comments
After meetings with members of both IMVM and ICBAS it became apparent that members of IMVM play specific and crucial roles within the entire organisation.

2.1.3. Suggestions
None.

2.2. Minor Deficiency 2: Non-optimal biosecurity and safety measures in necropsy and in some isolation units

2.2.1. Findings
In order to prevent any cross-contamination, cadavers are now transferred in and out of the necropsy room in biosafety containers and with appropriate procedures to avoid overlapping of in-out functions. Moreover, after necropsy, cadavers and viscera are always frozen before being destroyed. Students and all other personal use the room antechamber to dress protective equipment before entering the room.

Biosafety manuals have been also reviewed and disseminated to all staff and students both in the companion animals’ hospital UPVet (Appendix 3) and Veterinary Clinical and Research Centre at Vairão (Appendix 4). A new protocol signed between ICBAS and INIAV will address the issue of an antechamber for personnel to equip. It is also noteworthy that most of the large animal necropsies are performed on farms.

2.2.2. Comments
None.

2.2.3. Suggestions
None.
2.3. Minor Deficiency 3: Absence of formal involvement of all undergraduate students in emergency services for ruminants

2.3.1. Findings
To provide this level of teaching, the VEE has hired veterinarians from a private company (SVA- Serviços Veterinários Associados) and also from a dairy cooperative (Cooperativa Agrícola de Vila do Conde). This arrangement now ensures a 24 hour, 365 days on-call service based on several dairy farms.

Students are now able to follow emergency clinical services for ruminants throughout the academic year. Since this clinical teaching was newly established 275 emergency clinical cases were recorded in the first year, with 300 in Y2 and 338 in Y3.

Total numbers of individual ruminant patients seen extramurally (in Y1, 2942, in Y2, 2614, and in Y3, 2654) reflect emergency services and preprogrammed visits, such as reproduction clinical activity where the cows are also individually evaluated.

2.3.2. Comments
Due to the COVID-19 pandemic, practical classes carried out during the second semester of the academic year had to be suspended. Accordingly, Y3 corresponds to the 1st semester of 2019-2020 and 1st semester of 2020-2021.

During the Re-visitation and meetings with large animal clinical teachers, it became obvious that these links with SVA and dairy cooperatives have been in place well before the Stage 1 Visitation in 2016.

2.3.3. Suggestions
None.

2.4. Minor Deficiency 4: Absence of emergency services for horses

2.4.1. Findings
This minor deficiency has already been fully commented on above within section 1.3.1. As discussed in that section, the Equine Clinical Centre at Vairão has been upgraded to provide clinical services, including increasing students’ exposure to emergency cases. Such cases include severe wound repairs and colic problems.

2.4.2. Comments
None.

2.4.3. Suggestions
None.

2.5. Minor Deficiency 5: Insufficient documentation on the acquisition by all students of DIC

2.5.1. Findings
It appears that students already have Log Books to register all their clinical activities in companion animals (4th and 5th years) as well as in equine reproduction. However, it is not clear when these log books were introduced. It is intended to introduce a similar system for production animals and equines in 2021/2022.

2.5.2. Comments
In meetings with the relevant clinical staff, it became apparent that while there was no centralised system in place to actually document and check the findings in these log books, the recording of day one competences is achieved.

The VEE now recognises that such a system is important from a QA perspective in documenting the student's ability to fulfil Day 1 Competences.

2.5.3. Suggestions
None.

3. ESEVT Indicators

* Mean values for academic years 2012-13, 2013-14 and 2014-15 as reported in SER
** ESEVT recommended minimal values indicated in the Final Report as issued by ECOVE
*** Mean values for academic years 2017-18, 2018-19 and 2019-20 (due to the COVID-19 pandemic, practical classes usually carried out during the second semester of the academic year, were suspended. Accordingly, Y3 corresponds to the 1st semester of 2019-2020 and 1st semester of 2020-2021).

**Staff and students**

\[
\text{I1: n° of FTE academic staff involved in veterinary training / n° of undergraduate students} \\
85.6 / 398 = 0.215* (0.13**) \\
75.9 / 339.3 = 0.224*** \\
\]

\[
\text{I2: n° of FTE veterinarians involved in veterinary training / n° of students graduating annually} \\
41.2 / 60.33 = 0.683* (0.59**) \\
43.07 / 44.33 = 0.971*** \\
\]

\[
\text{I3: n° of FTE support staff involved in veterinary training / n° of students graduating annually} \\
95 / 60.33 = 1.575* (0.51**) \\
99 / 44.33 = 2.233*** \\
\]
Types of training

(^ Sixth year not included)

I4: n° of hours of practical (non-clinical) training:
   1317^A (585**)
   1324***A

I5: n° of hours of clinical training:
   707^A (651**)
   707***A

I6: n° of hours of FSQ and VPH training
   332^A (172**)
   332***A

I7: n° of hours of extra-mural practical training in FSQ and VPH
   42^A (28**)
   35***A

Patients available for intra-mural clinical training

I8: n° of companion animal patients seen intramurally / n° of students graduating annually
   4603 / 60.33 = 76.293* (42**)
   5761.66 / 44.33 = 129.962***

I9: n° of ruminant and pig patients seen intramurally / n° of students graduating annually
   80.66/ 60.33 = 1.337* (0.47**)
   71.66 / 44.33 = 1.617***

I10: n° of equine patients seen intramurally / n° of students graduating annually
   92.33/ 60.33 = 1.530* (1.20**)
   194.67 / 44.33 = 4.391***
FINAL REPORT AS ISSUED BY ECOVE ON 29 SEPTEMBER 2021

I11: n° of rabbit, rodent, bird and exotic patients seen intramurally / n° of students graduating annually
129 / 60.33 = 2.910***

Animals/herds/units available for extra-mural clinical training

I12: n° of companion animal patients seen extramurally / n° of students graduating annually
0 / 60.33 = 0* (0.29**)
0 / 44.33 = 0***

I13: n° of individual ruminants and pig patients seen extramurally / n° of students graduating annually
3875.7 / 60.33 = 64.238* (5.50**)
3041.3 / 44.33 = 68.602***

I14: n° of equine patients seen extramurally / n° of students graduating annually
27.3 / 60.33 = 0.453* (0.49**)
373.0 / 44.33 = 8.414***

I15: n° of visits to ruminant and pig herds / n° of students graduating annually
791 / 60.33 = 13.11* (0.47**)
302.7 / 44.33 = 6.827***

I16: n° of visits to poultry and farmed rabbit units / n° of students graduating annually
19.7 / 60.33 = 0.326* (0.05**)
16.7 / 44.33 = 0.376***

Necropsies available for clinical training

I17: n° of companion animal necropsies / n° of students graduating annually
147 / 60.33 = 2.436* (1.12**)
168.7 / 44.33 = 3.805***
I18: n° of ruminant and pig necropsies / n° of students graduating annually
55 / 60.33 = 0.912* (0.99**)
44.7 / 44.33 = 1.008***

I19: n° of equine necropsies / n° of students graduating annually
0.7 / 60.33 = 0.011* (0.08**)
5 / 44.33 = 0.120***

I20: n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually
337 / 60.33 = 5.586* (0.66**)
142.3 / 44.33 = 3.211***

Indicators used only for statistical purposes

I21: n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually
3 / 60.33 = 0.05* (0.05**)
6 / 44.33 = 0.135***

I22: n° of PhD-students graduating annually / n° of students graduating annually
56.7 / 60.33 = 0.939* (0.09**)
56.3 / 44.33 = 1.271***

4. Conclusions
All five Major Deficiencies have been fully rectified.
Decision of ECOVE

The Committee concluded that the Major Deficiencies identified after the Stage 1 Visitation on 23 – 27 May 2016 had been corrected.

The ‘Veterinary Education Establishment (VEE) of the University of Porto’ is therefore classified as holding the status of: APPROVAL.