

**European Association  
of Establishments for Veterinary Education**

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



**REPORT on the STAGE 1 VISITATION to UVMP in Kosice**

**26-30/10/2015**

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## **INTRODUCTION**

The University of Veterinary Medicine in Košice was founded in 1949 and is the only veterinary education establishment in the Slovak Republic.

The Establishment was visited by EAEVE in October 2005, revisited in March 2011 and approved by an ECOVE decision in April 2011.

In January 2010, the 'University of Veterinary Medicine and Pharmacy in Košice' (UVMP) was officially created, since the introduction of a new accredited study programme in pharmacy.

UVMP is a one-faculty university providing education at bachelor level (Cynology, Safety of Food and Feed, Animal Science, and Man-Animal Relationship and its Use in Canistherapy and Hippotherapy), and at master level (Pharmacy, Market & Food Quality and Doctor in Veterinary Medicine which includes General Veterinary Medicine and Food Hygiene).

Since the last Visitation, changes have been implemented at several levels:

- ) organisation (e.g. 10 departments and 5 clinics used in veterinary education, new organisational chart),
- ) curriculum (e.g. new courses, new credit system, species-based approach in clinical teaching),
- ) buildings and equipment (e.g. new facilities and improvement of previous ones for the teaching hospital).

These changes are described in details in the SER.

The main peculiarity of UVMP is that, since April 2010, it organises a Joint Bachelor Programme in Animal Science (JBPAS) together with the University of Nordland (UiN) (Norway). The students who succeed this JBPAS are allowed to apply for the Masters degree in Veterinary Medicine at UVMP.

UVMP also organises a veterinary curriculum in English language for full fee students from abroad.

## **1. OBJECTIVES & STRATEGY**

### **1.1. Findings**

The mission of UVMP is classical for a European Higher Education Establishment, i.e. 'to develop a harmonious personality, knowledge, wisdom, goodness and creativity in man and to contribute to development of education, science, culture and health for the welfare of the whole society and development of knowledge-based society'.

The principal objective of UVMP is to provide pre-graduate and post-graduate higher veterinary education based on original scientific research in the field of veterinary sciences and to graduate Veterinarians in accordance with the EU Directives.

The detailed objectives and strategy of UVMP are described in its 2012-2017 Strategic Plan (SP) which has been elaborated by the University Management, discussed by the Rector's Collegium, Scientific Board and Administrative Board and approved by the Academic Senate. The annually updated versions are discussed by the Administrative and Scientific Boards and approved by the Academic Senate. Staff and students are associated with the elaboration, monitoring and amendment of the SP via their representatives in the different committees.

The SP is based predominantly on the following:

- ) the Higher Education Act,

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- ) the rules imposed by the Ministry of Education, Science, Research & Sport of the Slovak Republic and by the regional Authorities,
- ) the Bologna Process in higher education,
- ) the EU Directives on veterinary education and the ESEVT SOP,
- ) the Visitation and Re-visitation Reports from EAEVE,
- ) the Evaluation reports of UVMP by the European University Association and by local accreditation bodies.

The SP includes the basic goals and directions of development in educational activities, research activities, collaboration with foreign institutions, material/technical support of educational and research activities, and quality assessment. A SWOT analysis is also provided, including mainly strengths and weaknesses. An English copy of the SP is also available for foreign students.

The objectives and strategy of the Faculty of Biosciences and Aquaculture (FBA) of the UiN are also given in the SER, since it is involved in the UVMP curriculum of some veterinary students through the JBPAS. Their aim is to deliver relevant, high quality research-based education at Bachelor's and Master's levels for future employments. The FBA has ambitious plans for further development within the veterinarian disciplines with a strategic goal to offer a complete educational programme for veterinarians.

### **1.2. Comments**

The UVMP has a real SP and appears to be well aware about its strengths and weaknesses and about the future challenges for the achievement of its mission.

The SP demonstrates that high quality and up to date basic veterinary education remains a priority. However little information is provided about the objectives for post-graduate levels.

There are contradictory statements regarding the objectives of the JBPAS in the documents provided by UVMP and UIN.

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

### **1.3. Suggestions**

The long-term objectives regarding the JBPAS must be officially harmonised and clarified.

## **2. ORGANISATION**

### **2.1. Findings**

UVMP is a one-faculty autonomous university, authorised by the Ministry of Education, Science, Research and Sport of the Slovak Republic and more particularly its Division of Higher Education Institutions.

UVMP is chaired by a Rector who is nominated for 4 years (renewable once) by the President of the Slovak Republic on the basis of a proposal from the Academic Senate.

The Rector is helped in his/her task by 5 Vice-Rectors in their respective areas of Education & Study Affairs, Foreign Studies, Research Activities & Foreign Contacts, University Development & Quality Assurance, and Clinical Activities & Contacts with Practice. They meet on a weekly basis, together with the Bursar (Head of Finance) and invited guests.

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For educational, clinical and research activities, UVMP is organised into 14 academic departments and 5 clinics (Small Animals, Ruminants, Horses, Pigs & Exotic Animals), out of which 10 departments and 5 clinics are involved with veterinary medicine. The departments are subdivided into institutes and the clinics are divided into several sections.

There are also many departments and units dealing with administrative, technical, logistical and social affairs (see the SER for an exhaustive list).

The main management committees are:

- ) The Academic Senate, which is the main decision-making body and is composed of 14 staff and 7 students;
- ) The Scientific Board which is the highest professional academic body in a Slovak university and is composed of 20 academic staff and 10 renowned scientists & practitioners in the field of veterinary science, pharmacy and related sciences;
- ) The Board of Trustees, which supports the links between UVMP and society and is composed of 14 members, 2 of them being the representatives of staff and students;
- ) The Rector's Collegium which is a permanent advisory body of the Rector and is composed of the Vice-Rectors, the Bursar, the heads of departments & clinics, and the heads of special facilities & self-sustaining structures.

Other committees are supervised by the Vice-Rectors, i.e. the Disciplinary Committee for employees, the Disciplinary Committee for students, the Editorial and Publishing Committee, the Ethics Committee for handling animals, the Economic Committee, the Committee for Health and Safety at Work, the Committee for Quality Assurance, the Committee for Mobility of Students and Teachers, The Committee for Scientific and Research Activities, the Committee for Field Practice, Professional Training and Internships, the Website Committee, the Liquidation Committee, the Wage Committee, the Pedagogical Committee, the Admission Committee, the Social Committee, the Property Damage Committee, the Accommodation Committee, the Central Inventory Committee, the Asset Disposal Committee.

Some structured collaborations do exist with national and international institutions, which are listed in the SER 2.

### **2.2. Comments**

UVMP appears to be well organised, structured and managed. It has a sufficient autonomy since it reports directly to the Minister, which is the advantage of a one-faculty university.

The disadvantage of such a university is that collaboration with other disciplines (e.g. human medicine, basic sciences, engineers) is less obvious, which seems to be the case for UVMP.

A peculiarity of UVMP is a very high number of departments/Clinics/institutes/units each of them having a head and council. As a result, any improvement in the educational and research activities requires a consensual approach, which is not easy to implement with so many sub-units.

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

### **2.3. Suggestions**

It is suggested to reduce the number of departments/institutes/units in order to improve the sharing of support staff & equipment and the interdisciplinary teaching strategy.

### **3. FINANCES**

#### **3.1. Findings**

Financial resources for education and research activities are provided either by MESRS, structural funds of the EU, research grants, clinical & other services and tuition fees from self-funded students. The State subsidy (MESRS) depends primarily upon the number of students, number of graduates, graduates unemployment rate, quality assurance rating and scientific production. The fact that the education of veterinary medicine students is financially the most demanding is also taken into account by MESRS.

The allocated budget is used to provide education, research and university operations and to develop new facilities and equipment on the basis of a financial plan proposed by the Management team and approved every year by the AS. This plan is implemented by the Management team and expenses are controlled by the AS.

A budget is allocated to individual departments and clinics at the beginning of each semester according to the extent of practical teaching and training within individual study subjects.

Overheads from individual project grants are about 15% of the total amount of the grant and are transferred to central university budget to cover the general costs related to the implementation of these projects.

Students who follow the courses in the national language do not pay tuition fees. However tuition fees are paid by students who follow the English courses (7500€/year) or who exceed the standard length of study (720€/year for Slovak students). Full-time PhD students do not pay tuition fees and usually receive from UVMP a scholarship of 550€/month. Part-time (external) PhD students pay 720€/year.

The mean incomes per year are 12.8 millions euros, i.e. 79% allocated directly to UVMP and 21% from services and research activities.

The mean expenses per year are 12.6 millions euros, i.e. 41% for salaries, 31% for teaching support, 5% for research support, 3% for clinical support and 20% for general costs.

Research grants are requested by UVMP (upon proposals from academic staff) to several Slovak public funding bodies (e.g. VEGA, KEGA & APVV). The total income from these grants (which include salaries, running costs and equipment) is around 1 million €/year.

The new clinical buildings and the IT equipment were mainly funded by EU grants.

#### **3.2. Comments**

The budget appears to be well balanced and UVMP has a full autonomy to allocate it for education & research activities and for investments. All incomes from services are retained for its own use.

UVMP claims that the public funding for veterinary education & research is insufficient in the long term (which is mostly due to the low percentage of gross national product allocated by Slovakia to Higher Education) and that the co-funding requested for most EU research grants is a very difficult challenge for the university's budget.

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

#### **3.3. Suggestions**

None.

## **4. CURRICULUM**

### **4.1. GENERAL ASPECTS**

#### **4.1.1. Findings**

There is no national curriculum in the Slovak Republic, and therefore the course is as set by the Establishment, not national law, and is based on EU directives 2005/36/EC and 2013/55/EU and on what the SER describes as the traditional focus of veterinary education in Slovakia. The Establishment offers a Bachelor Degree in Animal Science, offered jointly with the Norwegian School. Following this degree, students may continue their studies by pursuing a veterinary degree.

The official awarded qualification is Doctor of Veterinary Medicine (MVDr in Slovak), which is obtained after 6 years of veterinary education, and therefore this duration is in compliance with EU directive 36/2005. The ECTS credit allocation per year is 60 ECTS per year

Out of 360 credits required during the 6-year course, the total number of credits allocated to obligatory subjects is 327, 33+ credits are allocated to compulsory optional and optional subjects.

The curriculum at UVMP in Košice is based on the credit system regulated by Decree No. 155 of the MESRS of April 21, 2013. The standard student workload is expressed by 60 credits for a full academic year and 30 credits for a semester. The credits are awarded to the students after successful completion of a subject.

Modifications to the curriculum are made as a result of discussions among the members of the Pedagogical Committee, which submits them for approval by the Academic Senate. The Scientific Board of UVMP in Košice then submits the curriculum for approval.

The 6-year general veterinary degree programme includes all the EU directive listed subjects. Basic sciences are completed in years 1-3, while the clinical sciences are studied in the subsequent years. This programme is available in both Slovak and in English.

Students who have already completed a Bachelor of Science or equivalent may apply transfer ECTS from their original degree, where basic subject requirements from years 1-3 of the General Veterinary Medicine degree have already been achieved. These students normally complete the remaining requirements in 4 years. These students normally enter “Year 3”, but due to timetabling constraints, must have an adapted schedule and may take some “Year 2” subjects in their “Year 3”, and “Year 3” subjects in “Year 4”.

A further route to completion of the DVM programme is via the joint Animal Science degree, delivered in both the University of Nordland and at UVMP. These students complete three semesters primarily of basic sciences, at Nordland and then transfer to UVMP to complete a further three semesters of veterinary sciences. On successful completion of the 6 semesters, the students are awarded a Bachelor Degree in Animal Sciences. The students can proceed onwards to join the “Year Four” of the General Veterinary Medicine Degree (English Language).

Teaching delivery at UVMP is primarily through the use of lectures, seminars and self-directed learning.

Students may take courses from later years without having completed all the coursework in the previous year. This is managed through the use of pre-requisites, which prevent students from taking core material without having completed the adequate foundation material needed to understand the subject.

Students gain extramural experience during their 1<sup>st</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and at the end of the 5<sup>th</sup> years. This work is based in the University facilities, in the State and District laboratories and in food producing companies.

After completion of the 5<sup>th</sup> year of study, students undergo compulsory professional short-term training with private veterinarians for a total of 80 hours. The training is one of the conditions for proceeding to the 6<sup>th</sup> year of study. The student keeps a record of the practical training in a Clinical Practice Record Book, which is certified by the private veterinarians.

Clinical subjects are taught in years 4, 5 and 6, and primarily takes place in the Establishment's own clinics, reorganised into 5 species-based clinics as part of the changes in the organisational structure of the university units in 2007. The facilities include the University farm, which supplies the main types of farm animals (cattle, swine and small ruminants); the UFBD, which provides certain game and fish species and bees; and the Equestrian Centre (EC).

Typical group sizes for clinical training are stated as 8 – 12 students.

A diploma thesis is a part of a final state examination, and its preparation is compulsory and a precondition for successful completion of study. The "Diploma thesis" or DVM dissertation is included in table 4.4, and constitutes 390 hours of deskwork. More detail on the DVM dissertation is found in Chapter 13.1 of the SER and is discussed under "Research".

#### **4.1.2. Comments**

Where there is a degree of flexibility in course scheduling, as occurs here with the adapted schedule for advanced entry students, and also for students who fail subject area but proceed on to the next year of the programme, it is essential that pre-requisites are carefully applied. This is to ensure that students are not permitted to enter into a new subject area without having the foundation knowledge to prepare them for the new material.

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

#### **4.1.3. Suggestions**

Subject leaders should regularly review the prerequisites for their modules.

### **4.2. BASIC SUBJECTS & BASIC SCIENCES**

#### **4.2.1. Findings**

All the basic subjects are taught in the establishment as part of the core curriculum, and are therefore not required as part of the entry process.

The basic subjects and basic sciences are taught in years 1, 2 and 3. The basic subjects and basic sciences are prerequisites for subjects presented later in the course.

There appears to be an appropriate balance between didactic (lecture-based) teaching, and practical classes. The content of these courses are relevant to veterinary medicine. There is a high proportion of veterinary graduates teaching in these subject areas.

In the General Veterinary Medicine programme, anatomy teaching, including histology and embryology, comprises 299 hours, of which the greater proportion is practically-based, with greater than 60% animal or animal tissue-based practical hours. Fresh specimens are primarily used, in preference to preserved specimens.

There is a well-maintained anatomical museum.

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For histological teaching there are 44 binocular light microscopes, and boxed glass histological slides available for histological teaching.

Physiology teaching comprises 130 hours, of which 52 are didactic, 36 are laboratory/desk-based and 36 are animal or animal tissue-based practicals. Biochemistry also has a balance of didactic (52) and practical (72) hours. There is no animal work listed for biochemistry, although animal tissues and fluids are used.

The microbiology (including virology, bacteriology and mycology) content consists of 117 hours in total in the General Veterinary Medicine course. The content is approximately 50:50 didactic vs practical coursework. The microbiological practicals range from basic techniques of staining and culture to molecular and serological methodologies.

Pharmacology and pharmacy teaching comprises 74 hours, of which 26 are practical-based. Group sizes for most of the laboratory practicals consist of 15-17 students, with further division into subgroups. Students typically perform practical tasks in 3- to 5-member groups under supervision of lecturers and technical staff.

Epidemiology includes 36 hours of animal based work of a total of 117 hours. Professional ethics and skills are included in the curriculum of all students.

“Basics of veterinary haematology” is elective, although principles of haematology are taught in the core subjects of histology and immunology. Blood biochemistry appears at several points in the curriculum.

In each subject, the first practical exercise provides information on health and safety compliance in accordance with legal requirements.

All of the basic sciences are also delivered in the JBAS course. As an example, the JBAS students complete 196 hours of anatomy teaching in their first three years of study, and a further 53, primarily practical-based, hours in the “Year 4” of study.

### **4.2.2. Comments**

The facilities for teaching the basic sciences are very good. Good practice in anatomical teaching is adopted through the use of small groups in dissection, in addition to a requirement for a degree of student self-direction. Facilities are limited, however, for anatomical training in the larger species such as adult bovines and equines.

The JBAS course during the first three semesters in Norway includes animal physiology, histology and embryology, but not anatomy.

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

### **4.2.3. Suggestions**

The JBAS curriculum could be improved by commencing basic anatomical training in the second or third semester of the course, in order to assist students to related structure (anatomy) to function (physiology) and also to better prepare the students for the transition to the more intensive anatomical studies in UVMP.

### **4.3. ANIMAL PRODUCTION**

#### **4.3.1. Findings**

The UVMP has at its disposal some specialised establishments, namely UF university farm in Zemplínska Teplica, 35 km away from Kosice, Veľké Ozorovce and Čalovka. These farm units keep cattle, pigs, sheep and goats.

The UVMP has a specialised establishment namely UFBD, University Facility for Breeding and Diseases of Wild living Animals, Fish and Bees in Rozhanovce, 20 km away from Košice, and the EC of UVMP, Equestrian Centre in Košice on the outskirts of Košice.

These establishments cover all aspects of animal production. This involves many units of UVMP in Košice dealing with health, husbandry, management and production factors of food producing animals.

Students have the opportunity to handle all species of farm animals. The UVMP also provides visits to commercial poultry farms, broilers and layers, through a contract with the most important poultry company of the Slovak Republic.

The veterinary study plan includes subjects in animal production, animal nutrition, agronomy, rural economics, animal husbandry, veterinary hygiene, animal ethology, and animal protection.

In table 4.2, page 41 of the SER, in GVM, the general veterinary medicine curriculum, we find 535 hours comprising 306 theoretical hours and 229 hours of practical training.

In the Joint Bachelor Programme in Animal science, we find 208 hours comprising 123 theoretical hours and 85 practical training.

Herd health management is mainly taught by the clinic of ruminants and not by the department of Nutrition.

Students assess animal welfare in different locations, on small and large animals.

#### **4.3.2. Comments**

The facilities of the UVMP in these different places offer the students a large scale of activities in animal production.

All topics are covered, but there is a big difference in the number of hours given in the GVM curriculum and in the JBPAS.

Animal welfare and animal protection are well taught in the UVMP, but more interaction with the clinics of small and large animals could be organised.

In the necropsy room, located at the UF in Zemplínska Teplica, we did not find any instruction on the walls about cleaning, disinfection or biosecurity measures.

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

### **4.3.3. Suggestions**

The equivalence between the GVM and the JBPAS curriculum in animal production should be improved.

The training in animal welfare should also involve the clinics, in order to improve the impact of a regular welfare assessment of the animals.

Even if the students are aware of hazards and protective clothing use, it would be desirable to have posters to explain processes clearly, not only in necropsy rooms, but also in every other place where biosecurity measures are necessary.

## **4.4. CLINICAL SCIENCES**

### **4.4.1. Findings**

The UVMP do run an emergency veterinary service on weekdays and holidays (7.1.7). Emergency services are part of clinical services provided to patients outside the regular consultation hours. Each of the university clinics except for the Clinic of Swine provides emergency services to patients according to its own system and organisation schedule. In the Small Animal Clinic – Section of Surgery, Orthopaedics, Roentgenology and Reproduction the students participate in emergency service according to their clinical training schedule until 6 pm. At all the clinics the veterinarian is on call. There is a lack of mandatory participation of students in emergency clinical services.

The Faculty also runs a mobile ambulatory practice in relation to Horses, Ruminants and Swine. The mobile ambulatory practice is not run 24 hours year around. The Clinic of Horses performs these activities at the horse breeders' establishments according to their requirements by providing certain arranged diagnostic and preventive treatments. The mobile practice uses a minivan with space for 4 students. Before each visit, equipment and medicine are packed and stored in the trunk. The boxes are not fastened in the trunk.

The mobile ambulatory clinic at the other clinics offers an opportunity for practical training and activities outside the university clinics, especially as regards the Clinic of Ruminants and Clinic of Swine. They use mainly the UF and some cooperating farms around Košice. These two clinics plays a vital role in covering part of the established extent of clinical training provided by the two clinics.

The students participate in the activities of the mobile and ambulatory clinic usually in small groups of 3 – 6 students. They are accompanied by one or several teachers. There are cars with a capacity of 3 – 7 persons made available for the purpose of the training on the farms. If there are more extensive field training activities planned covering a greater number of animals, e.g. those relating to preventive diagnostics of metabolic disorders (metabolic profile tests), reproduction-related examinations (pregnancy examinations, puerperal health problems, infertility), or when taking preventive measures in animal holdings (vaccinations, collection of blood samples or other biological specimens for diagnostic purposes), participation of larger student groups is also possible. In such cases, there is a minibus available. The Ambulatory clinic is made use of by the Clinic of Ruminants also for orthopaedic interventions in cows at the dairy cow holdings, which include the treatment of hoof disorders or regular preventive hoof care. Number of cases seen by the Ambulatory (mobile clinics) in the past three years can be seen in Table 7.4a.

Students are not insured by the Faculty. The Faculty does not have a liability insurance during extramural work. They do not either have an insurance for the animals referred to the hospital and the mobile clinic in case of adverse events.

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Total number of hours (lectures, seminars, self directed learning, lab work etc.) for the Clinical Sciences are 1293 (SER, Table 4.2, p41) with clinical training adding up to 807 hours.

Teaching of clinical disciplines is organised according to animal species and this system applies also to organisation of clinics and clinical activities. (p.61). In small animal clinic it is further organised in disciplines. Balance between species can be seen in Table 7.3 + 7.4.a + 7.4 b.

The amount of adequate hands-on clinical teaching is not transparent. The real clinical work starts at 3<sup>rd</sup> (SER p.49). It is not clearly stated how much hands-on the students have. During the visit it appeared that the number of compulsory, practical, hands-on hours for the students was too low.

The University has agreements with private different horse clubs and veterinary clinics, members of CVS.

The students take part in necropsies. The practical training is organised in such a way that dissection of one cadaver is carried out by a small group of students. Permanent macroscopical and histopathological preparations are also used for teaching. The caseload can be seen in SER p.107 table 7.2. During the visit it was recognised that the necropsies for the students took place in 4 GVM. The caseload varies considerably between the different animal species. The caseload is sufficiently high for small animals, but low in relation to cattle, small ruminants and horses (SER, Table 7.2, p69).

It is not clearly stated in the SER how much hands-on the students have in relation to Buiatrics with adequate opportunities for each student to handle parturitions, dystocias, displaced abomasum, traumatic reticulitis, milk fever, or acetonaemia. During the visit it was clear that there is insufficient mandatory hands-on surgical practice for undergraduate students in relation to laparotomy.

Surgical procedures (soft-tissue surgery, orthopaedics, eye surgery and stomatology) are practised on carcasses, which enables inspecting the access to organs and cavities. Practical training also involves demonstration of clinical patients including diagnostic and therapeutic procedures and the students are given the opportunity to consider the therapeutic effect. It is not clearly stated if the students are themselves able to perform an ovario-hysterectomy on a cat or a dog. During the visit it was clarified that they only assist in surgeries and are not performing these surgeries by themselves.

The students prepare patients for surgery by introducing permanent cannulas, participate in preparation of anaesthesia protocols, monitoring and measurements of values of life functions of patients. Students participate also in technical preparation for surgery, assist with surgery and help with intensive post-operative care. After surgery students participate in therapeutic activities, monitor clinical status, wound healing, observe dynamics of therapeutic effects, and are involved in patient's rehabilitation.

There are insufficient (computerised) clinical records (especially in English) and insufficient involvement of undergraduate students in the completion of these records. The students can only read in the system under supervision. All files are written in Slovakian language. The system has been developed to include all species but is used at different levels at the different clinics. The small animal clinics are enrolling the patient from the first visit. They do at the same time use paper files, which by the end of the day is updated into the database. At the Clinic of Horses the system is used for preparing the discharge summary. The daily recording system is in paper files. The Clinic of Ruminants and Swine are not using the database, but are recording everything in paper files. The students are not actively involved in recording the daily status of the animals. All files are in Slovakian, which is also the case for the treatment-sheet which the students do complete.

The students do not follow a rotation system in the clinics, as they have to actively sign in for clinical teaching. The day in the clinics varies from half a day to one week. The foreign students can only

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sign in for a Monday at the Small Animal Clinic in comparison to the Slovakian students, who have the possibility so sign in for the other four days.

The Clinic of Exotic Animals, Birds and Reptiles has the same database recording system and used it in the same manner as the Clinic of Small Animals. It seems as they have a high caseload.

In one room at the Clinic of Exotic Animals, Birds and Reptiles, a transportable x-ray machine was installed. They didn't have security in relation to that nor were operators wearing dosimeters.

### **4.4.2. Comments**

Students must be insured during their activities at the Faculty and also extramurally.

The number of compulsory, practical, hands-on hours for the students seems too low.

There is a lack of mandatory clinical services for emergency services.

The mobile ambulatory practice is not run 24 hours year around.

The boxes are not fastened in the trunk for the Equine mobile practice, which is a health and safety risk in case of a traffic accident.

During the visit it was clear that there is insufficient mandatory hands-on surgical practice for undergraduate students in relation to laparotomy.

During the visit it was clarified that the students only assist in surgeries and are not performing these surgeries by themselves e.g. castrations and ovario-(hyster)ectomy on cat and dog.

The students do not participate in recording clinical records and all the clinical records are in Slovakian

There is an insufficient computerised clinical record system (especially in English) and insufficient involvement of undergraduate students in the completion of these records. The students only have access to the database system under supervision.

The students are not actively involved in recording the daily status of the animals.

All files are in Slovakian, which is also the case for the daily status files.

The students do not follow a rotation system in the clinics, as they have to actively sign in for half days of clinical teaching. This doesn't give the student the opportunity to follow a certain patient through several days and recognise the daily status.

There is a manual for biosecurity, but in certain areas it is not followed e.g. shoes at the large animal hospital, use of special clinical clothes e.g. the Equine Clinic.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are not met because of Lack of mandatory clinical rotations for emergency and out-of-hours services and because of Insufficient (computerised) clinical records (especially in English) and insufficient involvement of undergraduate students in the completion of these records.

#### **4.4.3. Suggestions**

The number of compulsory, practical, hands-on hours for the students in the clinics, must be increased.

Students must be insured during their activities at the Faculty and during extramural practice.

The students should be more active in the clinics and motivated by the teachers and establishment of a clear plan for the clinical teaching. A rotation system with at least one-week duration in each clinic should be implemented.

The Clinic of Exotic Animals should follow the health and safety rules in relation to radiography.

The students should be more active in surgeries.

The database should be implemented for all species and the students should have the possibility to work actively in the system.

The databases and daily record system should also be available in English.

The students should be trained to write records of the patients.

The students should take more active part in animal care, castration, sterilisation and treatment, which the team strongly advises.

The Equine Mobile Practice should have a rigid separator or closure between trunk and passenger seat.

### **4.5. FOOD SAFETY & QUALITY AND VETERINARY PUBLIC HEALTH**

#### **4.5.1. Findings**

Coverage of Food Hygiene and Public Health (FHPH) (including basic studies on food production and meat quality) is integrated within the UVMP curriculum for General Veterinary Medicine (GVM) taught in Slovak and in English, and the Joint Bachelor Programme in Animal Science (JBPAS) with the University of Nordland of Norway taught in English. The total number of the curriculum in General Veterinary Medicine (GVM) devoted to FHPH teaching are 325 in a total curriculum of 4382, which means 7.42% of the total curriculum, divided into 5% devoted to lectures, 7.3% to seminars, self-directed learning 8.7%, laboratory and desk-based work 7.9% and non-clinical animal work 25.85%. The main responsibility of the pedagogical activities relies on the Department of Food Hygiene and Technology, which includes 2 Institutes: the Institute of Meat Hygiene and Technology, and the Institute of Milk Hygiene and Technology. The Department is formed by 16 teachers (3 Professors, 8 Associate Professors and 5 Assistant Professors), 2 researchers, 7 laboratory technicians and 5 administrative support staff. The Department manages 2 lecture rooms, 6 laboratories for training in food hygiene and technology, 1 laboratory for food microbiology and 2 pilot plants (for meat and dairy), plus offices, library and meeting rooms.

The studies involve subjects focused on microbiology, technology, hygiene, inspection, control and legislation of animal origin foods. The core subjects of FHPH are taught between years 3 to 5 of the GVM curriculum, beginning with Food Microbiology in the 3<sup>rd</sup>; Food Hygiene and Technology I. (milk) in the 4<sup>th</sup> year of study Winter Semester (WS), 2/3 (field training: 6 hours dairy farm, 6 hours dairy plant); Food Hygiene and Technology II: (poultry meat, eggs, fish and game) 4<sup>th</sup> year of study Summer Semester (SS), 2/3 (field training: 6 hours poultry inspection, 3 hours poultry processing, 6

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hours fish processing and inspection, 3 hours eggs processing and inspection): Food Hygiene and Technology III: (meat) 5<sup>th</sup> year of study WS and SS, 1/2 and 2/3 (field training: 26 hours and 3 hours in abattoir, 6 hours meat and meat products processing). Inspection and control of animal production 5<sup>th</sup> year of study SS, ½ (field training: 4 hours). An obligatory Extramural Work in the 3<sup>rd</sup> year for laboratories, food processing units, and during the 4 to 6<sup>th</sup> year for Food Inspection units, abattoir. Since the curriculum is in a transition to a new one, currently in the 3<sup>rd</sup> year, not all changes have taken place and still subjects are in the shearing different years. The new curriculum will reinforce the subjects in animal and meat control in slaughterhouses and general principles of food inspection. The subject in the JBPAS is Food Safety and it is taught in the 3<sup>rd</sup> year. The link of FHPH to other related topics that support acknowledges and basic criteria have been identified in animal production the reference to the primary sector production that relates to food animal origin link to FHPH.

Practical training in FHPH in GVM curriculum is divided into laboratory work and mainly non-clinical animal work, where the load of the latter is double that of the first. The main activities are well described for slaughterhouses of different animal species and the protocol followed. Extramural activities are oriented to State or District Veterinary Services (with a total load of 160) and to food enterprises (40 hours). Overall the combination of all activities reaches more than 300 hours.

Training in the inspection of slaughter animals under the subjects of Food Hygiene and Technology II and III (5<sup>th</sup> year), which cover teaching of FHPH, which covers poultry slaughterhouse, practical training in animal inspection of cattle, swine, sheep, goats and domestic solipeds also takes place at certified slaughterhouses, and the examination techniques and technological processing of swine slaughter. Inspection of other food origin products (milk and dairy products) are mentioned to be part of obligatory extramural activities (80 hours, 3<sup>rd</sup> year) at the SVFIs (State Veterinary and Food Administrations), DVFAs (District Veterinary and Food Administrations) (80 hours, 4<sup>th</sup> year)), and in food-processing enterprises (40 hours, 4<sup>th</sup> year) (e.g. milk and dairy production establishments).

All students receive practical training in the slaughterhouses. They are trained mainly in WS visiting the swine abattoir (Zemplínska Teplica, about 35 km from the university, and owned by the University) 5 times during 4 h/each visit (20 h in total), Dalton s.r.o. company in Košice for swine and cattle inspection (as in the other case 20 h in total and in WS), Agrokombinát Sabinov s.r.o. in Sabinov for inspection of small ruminants (sheep and lambs), in a 6 h visit (in this case in SS), and finally Agrokombinát Sabinov s.r.o. in Sabinov for inspection of small ruminants (sheep and lambs) with a total number of 6 h. The total number of hours in this case is of 52. Other abattoirs are available but far away from the UVMP. The activities for the teaching are: demonstration of animal slaughtering and that involves veterinary inspection of animal carcasses and meat. Students learn techniques of ante-mortem and post-mortem inspection in slaughtering establishments (cattle, swine, sheep and poultry) abattoir, decisions marking of carcasses, including assessing compliance with GHP (Good Health Practices) and GMP (Good Manufacturing Practices).

The practical training groups are based on 10-12 students, which are subdivided into 2-3 student's teams for laboratory work, and in the slaughterhouse they take different roles in the inspection based on the slaughter specie and kind of control. There are lectures and practical training on defined topics of relevance for UVMP, like management system and food safety information through the RASFF (Rapid Alert System for Food and Feed) or alimentary zoonoses basic knowledge and their control. The practical training is based on GHP, GMP, HACCP plan, and risk analysis in food establishments as well as office for hygiene and veterinary public health where veterinarians, state inspectors present practical aspects.

As a main changes to the study programme has been the inclusion of the state examination in Hygiene, Food Safety and Quality was included in the 5<sup>th</sup> year of study along with a State Examination (SE) in

Contagious Diseases of Animals, Environmental Protection and Veterinary Legislation to ensure that the graduates are prepared to provide veterinary and food hygiene services and work in the field of state veterinary medicine.

#### **4.5.2. Comments**

The coverage of FHPH is well integrated within the UVMP curriculum for General Veterinary Medicine (GVM) with a clear identified training in this field to acknowledge the request by the European Union for the competences of Veterinarians. An added value of the new curriculum is the integration of the SE that will allow the newly graduated students in the GVM to be recognised as professionally competent to provide veterinary and food hygiene services and work in the field of state veterinary medicine.

In general there is well-balanced lecture/practical training in the subjects (1:1 or 1:2), and it covered the basic training in slaughterhouses with knowledge in meat inspection (ante mortem –including animal welfare- and post mortem, carcass and offal inspection), hygienic conditions based on HACCP and public health protection as major concepts. The abattoirs visited by the team reflected commercial practice and were thus appropriate environments for relevant learning. Infrastructure concerning teaching is adequate in terms of facilities space, number of laboratories and human resources.

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

#### **4.5.3. Suggestions**

Although Department laboratories are adequate in number for the load of students and the specific training provided, the laboratories present some safety deficiencies regarding the materials used. It is suggested that in the future the laboratories will replace or renovate the potential inflammable counters with safer ones as well as replace obsolete materials.

Regarding security procedures and biosecurity, although the students receive specific information and training, there was a lack of information displayed to reinforce the warnings about self-protection to avoid accidents for students as well as teachers and staff in the laboratories and especially at the slaughterhouses. It is suggested to display adequate and normalised signposting and the students trained properly. For slaughterhouse training the material used is adequate and used properly but the use of boots will be much better to provide security during the training.

To improve the practical training of the students it is suggested to provide to the students with written protocols to know in advance the objective of the training, with security measurements to follow, equipment and reagents required, detailed steps in the procedure, interpretation and any other relevant information required. Especially for the slaughterhouse training it is important to follow precise protocols and for HACCP, animal welfare evaluation and others assessments to follow written protocols that allow the students to perform a precise evaluation of the training. Also it is important that the students report on the practical training and generate evidences of training for auditing and evaluation.

Regarding slaughterhouses, the currently available ones are adequate for the basic training but the capacity and infrastructural conditions are limited. Although we are aware of the difficulties to identify new and large capacity and with updated conditions for slaughtering, it will be preferable for the students to be exposed to the design and hygienic conditions of other modern abattoirs.

## **4.6. ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS**

### **4.6.1. Findings**

The establishment does not run a “tracking system” at present. The students who are interested in a specialty, e.g. diseases of small animals or exotic animals, can enrol in obligatory elective subjects or optional subjects covering these topics during their studies.

The establishment also uses student clubs run by experienced clinicians, where the students can develop their interests and gain skills of animal handling, sample collection, therapeutic treatment, feeding, breeding, etc. These are not part of the “core” curriculum.

Students must complete some additional obligatory subjects in addition to core material.

These are:

- ) English/German language
- ) Latin terminology
- ) Diploma thesis.

The students are also offered a list of obligatory elective subjects (electives) and optional subjects to choose from in a given semester according to their interest. The obligatory elective and optional subjects are linked to the obligatory subjects and extend the knowledge in a given area.

These electives are offered on site

There is an extensive number of electives offered:

Basic subjects:

Biophysical methods in medicine

Radiobiology

Basics of ecology

Basics of scientific work

Basic Sciences:

Applied cytology

Applied virology

Ecotoxicology

Animal health protection in biomedical research in accordance with the current EU legislation

Xenobiochemistry

Basics of genetic engineering

Basics of veterinary haematology

Clinical Sciences:

Assisted reproduction

Diagnostics of the internal body environment disorders in animals

Diseases of laboratory animals and management of clinical experiments

Diseases of small mammals and laboratory animals

Diseases of bees

Breeding and diseases of reptiles and terrarium animals

Clinical biochemistry

Clinical pharmacology

Clinical genetics

Clinical oncology of animals

Clinical syndromes in dogs and cats in small animal practice

Crisis management and biotechnics in reproduction

Nephrology and urology in small animal practice

Repetitorium of small animal neurology

Pathological biochemistry

Radiographic anatomy

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Reproductive endocrinology  
Veterinary dermatology of small animals  
Veterinary ophthalmology  
Veterinary stomatology and jaw orthopaedics  
Basics of horse shoeing and orthopaedic horse shoeing  
Zoonoses  
Cynology  
Cynology of rescue dogs  
Homeopathic treatment of small animals  
Laboratory diagnostics  
Tropical veterinary medicine  
Official veterinary surgeon  
Training and rehabilitation of horses  
Behaviour disorders in companion animals  
Animal production:  
Fishery  
Hunting  
Hunting  
Mountain sheep farming  
Food Hygiene/Public Health:  
Food chemistry  
General hygiene and food analysis  
Safety and quality of plant products  
Foodborne diseases  
Professional knowledge:  
History of veterinary medicine  
Basics of legislation for veterinary surgeons  
Official veterinary surgeon  
Animal production:  
Fishery  
Hunting  
Hunting  
Mountain sheep farming  
Food Hygiene/Public Health:  
Food chemistry  
General hygiene and food analysis  
Safety and quality of plant products  
Foodborne diseases  
Professional knowledge:  
History of veterinary medicine  
Basics of legislation for veterinary surgeons  
Official veterinary surgeon

The obligatory elective subjects and elective subjects are expected to extend and deepen the knowledge and practical skills of students in a given topic. At the discretion of the university Scientific Board, the number and content of the obligatory elective and elective subjects is flexible and they can be supplemented according to the students' interest. Students are required to pass basic clinical subjects before they can choose the more specialised topics in the same way as core subjects. As soon as the obligatory elective subject is elected by student, it become mandatory and is evaluated as core subject.

#### **4.6.2. Comments**

The broad range of elective topics on offer provides a great deal of opportunity for students to deepen their learning. The facilities for studying apiculture, raptor care as well as care of other native wildlife are particularly impressive.

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

#### **4.6.3. Suggestions**

None.

### **5. TEACHING QUALITY & EVALUATION**

#### **5.1. TEACHING METHODOLOGY**

##### **5.1.1. Findings**

The teaching programme is based on the study plan where subjects cover all contents necessary to prepare a veterinary graduate to be competent for practice. Teaching process coordination (theoretical and practical) is scheduled at the University level per study programme, degree year and group, taking into consideration the specific requirements of departments, clinics, institutes and units to fit. No overlap between subjects or degrees has been identified. Coordination of teaching has different levels: of the instruction by the Vice-Rector for Education and Study Affairs and the Pedagogical Committee of the university, which meets as necessary; teaching process and its coordination are regularly on the agenda of the university Management, the Rector's Collegium and the Scientific Board of the University. The timetable of the students is defined at the beginning of the semester for the compulsory subjects. The timetable for optional subjects is given later during the semester. Regarding the clinical hours in small animals, students have to register by themselves to fulfil the number of hours requested in the curriculum. It is possible for them to add extra hours of clinic.

The teaching system uses several standard teaching methods traditionally used in the medical fields of study. The different teaching methodologies include lectures, practical training (practical lessons, learning under supervision, clinical training), seminars, consultations, production and specialised practice, short-term training at clinics, or other forms of teaching. Lectures, seminars and practical lessons (laboratory techniques and working with laboratory material) are used for the teaching of basic subjects. Lectures and seminars are used to introduce each topic, and a greater part of teaching is moved towards its practical part in the advance courses.

Practical training starts with non-clinical practice (healthy animals), moving in the years to clinical environment (cases) both at the university and non-university clinics as part of compulsory clinical practices (80 hours requested in a private practice at the end of 5<sup>th</sup> year). Clinical practice is composed of work with the pedagogical animals belonging to the school and work with patients.

A strong focus is placed on the clinical veterinary medicine allowing the students to gain clinical experience and the day-one skills required of a new veterinary graduate. The teaching is carried out according to the study programmes, and provided by departments, clinics, institutes and other units of the university.

The students use scientific monographs, university textbooks, course books and other study materials. Textbooks and course books are used in most subjects within a list of recommended and supplementary literature both, in Slovak and in English. Supplementary literature is available at the main University Library or other libraries (departments or clinics). The students can borrow study

materials from the Library or use the Library study room, where a service is provided also after working hours and at weekends. Some subjects, particularly the clinical ones, are taught off-site. The UF owned by the university is of great benefit to students, providing space for clinical training, teaching the subjects covered by the Institute of Animal Breeding, teaching the selected chapters on nutrition and dietetics, as well as some subjects in food hygiene.

Problem-solving method is mainly used in clinical disciplines and also in pre-clinical, consisting in work with a patient covering admission, medical history taking, diagnosis, decision-making related to a possible intervention, releasing the patient to home care, or subsequent check-ups. It is also achieved by introducing a reward system for the academic staff based on the student assessment of teaching.

No reference to research-based teaching methods is made.

At UVMP in Košice, the quality of teaching and the professional and pedagogical competence of the teachers (Professors, associate professors, assistant professors, researchers and experts from practice including those from abroad participate in teaching) are evaluated electronically by means of an anonymous questionnaire. This application is functional within the academic information system. Anonymity of the evaluators is ensured and the decision to make use of this possibility lies with the students. A new programme of anonymous evaluation of the teachers has been set up this summer by the ministry, using codes scanned by smartphone. This programme is only available in Slovak language. The teacher's evaluation is based on a one-to-five scale from "well above average" to "well below average". All teachers are evaluated every year. The evaluation results are discussed at the levels of the university Management, the Rector's Collegium, the Scientific Board, and at the meetings of the UVMP teachers and researchers, where conclusions from the evaluation results are made. The Student Chamber of the AS informs the students about the overall evaluation and the conclusions adopted. The assessment results are then incorporated in the teaching process.

The offer of opportunities to real-life clinical is made thru Emergency services are part of clinical services provided to patients outside the regular consultation hours. Each of the university clinics provides emergency services to patients according to its own system and organisation schedule, taking into consideration specific requirements of individual animal species: Small Animal Clinic-Section of Internal Diseases, Small Animal Clinic – Section of Surgery, Orthopaedics, Roentgenology and Reproduction, Clinic of Horses (24h duty) and other Clinics like Ruminants, Swine, Birds, Exotic and Free-Living Animals. All have opportunities for the students within the normal timetable or by emergency on-call, but the presence of students is not compulsory for the Emergencies. There is no intensive care unit (a new intensive care unit will be constructed in the new small animal hospital).

Direct evidences of clinical training for "day-one skills" are recorded by the practice notebook (clinical activity from the 3<sup>rd</sup> to the 6<sup>th</sup> year, with implementation of the "record books for veterinary medicine students"). It contains a schedule of clinical and specialised practices according to the individual clinics and the established number of hours in the respective study years and semesters, starting in the 3<sup>rd</sup> and ending in the 6<sup>th</sup> year of study. It contains a list of tasks and specialised activities according to the specific requirements of the clinics, which must be successfully performed by the student in order that the practice is accepted. A teacher responsible for these activities is nominated at each clinic and guarantees that the practices are carried out in a requested way, and confirms that the students have completed them by signing the notebook.

According to the study plan, the students have to complete a total of 807 hours of clinical practice in the school hospital during the last three years of study. No indirect or other direct evidences have been identified.

### **5.1.2. Comments**

Teaching process coordination seems to be well coordinated at University level considering all the specific needs of the department, clinics and units. Learning objectives are not clearly defined in the SER but they are mentioned in the study plan.

Teaching methodology is using all the traditional and in some cases new ones like problem-oriented cases in clinics to improve the quality of teaching. No reference to research-oriented methodologies. Additionally teaching methodology is managed at different levels, from Department to University bodies with specific objectives for each subject, and the teaching strategies adapted to the need of the subjects.

Based on the results of the last years the system of evaluation for professor and courses is not very much used and the results cannot be very conclusive and representative. Perhaps the UVMP needs to actively promote the participation of students in the evaluation. The new programme of evaluation is not yet well developed.

The diversity of options for real-life clinical exposure opportunity offered is important and the students see a various amount of procedures and have the opportunity to do hands-on clinical work, especially with farm animals. However, emergency rotations are not compulsory in the course.

The notebook recording clinical activities is well filled by students and teachers in general.

The day-one skills followed is well established and organised to achieve the goal. Evaluation method is not clearly stated.

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

### **5.1.3. Suggestions**

As part of the essential training of the students of UVMP clinical exposure to real conditions are a key element that has to be provided to all the students in equal condition. For that reason it is suggested to include compulsory emergency rotations scheduled for both track, national and international students.

A new methodology based on accessible QR system of evaluation has been recently implemented for teacher's teaching skills. Suggestion is to track the use of this system and to promote the use this tool by all students, and make it understandable mainly to the international students.

For an accessible and global education of the students of UVMP the new technologies (IT) provide powerful tools. Some of them are already in use and other under definition and development. E-learning is a promising one that needs further implementation for the students of UVMP and it is suggested to work on the development of an intranet platform through the e-learning, that currently is in a blended model providing internet access to some of the resources but not in a proper e-learning model.

## **5.2. EXAMINATIONS**

### **5.2.1. Findings**

There is a central examination policy that regulates exams for all the UVMP subjects, and that also comply with the Higher Education Act, approved by the AS on August 15, 2013. Additionally it is based on the credit system regulated by Decree No. 155 of the MESRS of April 21, 2013.

Credits are numerical values allocated to subjects, expressing the amount of work necessary for acquisition of prescribed learning outcomes. The standard student workload is expressed by 60 credits for a full academic year and 30 credits for a semester. The credits are given to the student after successful completion of a subject. Credits for a particular subject may be given only once during study. 360 credits are necessary for successful completion of university study in the GVM study programmed. The student must register for an exam electronically via an information system (AIS).

The period of time for the examination is at the end of the two semesters (winter and summer), with 7 weeks the first one and 3 the second one. The examination period and dates are fixed and available to the students on several weeks every semester. Students can chose between several dates for each examination in the end of the semester.

The forms of examinations used are written papers, oral, oral and written, oral and practical, or written and practical examinations. All examinations are public. The students are informed about the assessment methods, which are listed in the Code of Studies and the Examination Rules of UVMP in Košice. Continuous evaluation is optional and to be decided by the teacher.

In case of failing an exam on the due date, the student is allowed for two retakes in the given subject. In addition, the student is entitled to an exceptional third retake in two subjects within two academic years. An examination commission (usually composed of three teachers of related subjects) is appointed by the Vice-Rector for Education and Study Affairs for the third retake.

The student takes an examination on one single day. An oral examination should not last longer than 30 minutes and results must be announced to the student by the head of subject on the same day, and in the case of a written examination within 24 hours or not later than on the following working day.

Subjects are with or without pre-requirements: to register for a subject with pre-requirements, a student needs to pass the previous required subjects. That procedure may limit the progression to a new and advanced course.

### **5.2.2. Comments**

The examination system is clearly stated and defined in the general common rules. With this frame it seems to be impossible to have continuous evaluation model or if possible should be explained during the visit of the team.

There is no continuous evaluation of the regular work of the students in the majority of the topics: the final exam is the only evaluation of each topic.

The two alternative system of oral or written exam give the opportunity to choose based on the subject matters. The timing to give results seems to be very tight for the professor but depends on the written exam as well as the number of students presented to the exam.

The subject with pre-requirements is logical for subjects that need previous knowledge so that the student is able to understand and follow the following courses.

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

### **5.2.3. Suggestions**

A continuous system of examination and assessment of the progression of acknowledgement and capacities of the students will be helpful for a more accurate evaluation of the students and the work effort made in the subject. This methodology will encourage also the students to work on a regular basis on the different topics. Also it could be a useful tool to contain and reduce the significant number of students that drop out in the first academic years.

To provide confidence in the oral examination method and the maximum objectiveness, it would have to provide an assurance in the procedure. During oral examinations, having two examiners would be beneficial as well as provide with evidence of the content of the answerers to the students.

External examiners' role in any academic process is to monitor standards to ensure that the assessments are fair, rigorous, appropriate and consistent. The inclusion of these external examiners is important and recommended for better examination procedures. A way to begin with this implementation could be the State Examination and based on that, implement in other subjects.

## **5.3. STUDENT WELFARE**

### **5.3.1. Findings**

Welfare measurements concerning the students of veterinary medicine at UVMP can be divided into two categories:

-) Measurements related with the inherent risks in veterinary studies: in the beginning of each course, the students are reminded of the main rules regarding protection against zoonoses, special clothing (special garments, aprons, footwear and gloves), and measures for the protection of health. In this case, students are trained by the professors and advice is given about the specific risks (from microbiological to animal management), and how to behave in case of any incident. The UVMP provides cabinets in each practice room containing a first aid kit with medicines – e.g. eye washes and showers, wound disinfection, dressings and bandages. Incidents are recorded for each department. However, there is not an organised programme of vaccination campaigns against zoonoses.

-) General facilities for student's welfare. In this case the UVMP provides infrastructures such as several study rooms, meeting rooms and furniture for student clubs and students delegates, computer rooms, libraries or several sport facilities. Free Wi-Fi wireless is provided in the university. Dormitories are available for a majority of the veterinary students, close to the campus. A canteen is available at the dormitories of the students. There is a large variety of clubs available for students (Aqua-Terra Club, International Veterinary Students' Association...), and different social and scientific events are organised throughout the year.

Other welfare measures related with general social (including scholar-ships), psychological and legal advice to its students and specialised tailor-made advice to the students with specific needs are provided by the university. There are medical facilities for students (doctor and dentist) in the dormitories and in the campus.

Students have their representative organs and participate in several committees, boards or panels. English-speaking students have access to the "Foreign Office" to which they can refer for anything concerning their curriculum and student life.

There is a bilateral agreement with 38 universities for the Erasmus programme.

### **5.3.2. Comments**

The UVMP provides most of the elements needed to maintain a good welfare of the students of veterinary medicine. It provides the general structure needed to deal with the specific needs to protect students' welfare.

The large lists of activities, clubs and associations revealed a good social environment for students and the support of the UVMP.

There are very few activities in which the Slovak students and the English-speaking students interact.

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

### **5.3.3. Suggestions**

One of the commitments of the University is to promote an atmosphere for the integration of the students particularly international. Although UVMP is acting in this direction, it is recommended to increase the opportunities and activities of interaction of the national and international students.

Some of the concerns of some of the students are relating to their confidentiality and privacy. It is that "good practice" is maintained regarding confidentiality of students' personal information and privacy be preserved, especially in the classroom setting.

As a suggestion for the students protection against infectious professional diseases like tetanus it would be a good practice to check that all are vaccinated and to promote a systematic programme of vaccination if needed.

## **6. PHYSICAL FACILITIES & EQUIPMENT**

### **6.1. GENERAL ASPECTS**

#### **6.1.1. Findings**

All university units (departments, institutes and clinics) providing education to students of veterinary medicine are located at the university campus (Annex 6.1, p. 43). The university has 5 independent organisation units – clinics – pursuing clinical activities: Small Animal Clinic, Clinic of Horses, Clinic of Ruminants, Clinic of Swine and Clinic of Birds, Exotic and Free-Living Animals. Number of places available for hospitalisation of patients according to animal species is presented in Table 6.1 p. 76.

Rooms for practical clinical training in clinical subjects, such as ambulances, examination rooms and operating rooms are located in individual buildings assigned to clinics. (Table 6.2 p. 77).

The university has at its disposal 17 lecture's rooms with a capacity from 20 to 200 students. (Table 6.3 p. 78)

The classrooms in individual units of the UVMP in Košice and its specialised establishments are used for supervised group work. There are 93 rooms available with a total capacity of 1887 seats (Table 6.4 p. 78)

In individual units of UVMP in Košice as well as at specialised establishments there are classrooms used for practical teaching, such as laboratory work (laboratories, rooms with microscopes, dissection rooms). The total number of classrooms used for practical work by students is 73, providing places for 736 students (Table 6.5 p. 78).

All classrooms, laboratories and animal housings used for practical teaching are equipped with sufficient number of wash-basins, soap, cloth or paper towels, and with disinfectants. In addition, according to the character of work, students are obliged to use other protective means to protect their health. This involves the use of protective coats, safe footwear, gloves, aprons and protective glasses. Some of the laboratories appeared dangerous due to the extensive use of wood, which can be dangerous in case of fire.

Before students start working with live animals, they are instructed on principles of safety at work with animals, including approach to animals, their handling and manipulation (diagnostic and therapeutic procedures).

Diagnostic laboratory activities are carried out by several units and have not been centralised to a central diagnostic laboratory. These activities cover a broader spectrum of analysed parameters and biological materials collected from clinical patients at clinical units of UVMP in Košice. Additional specialised diagnostic laboratory activities are carried out at a number of UVMP institutes.

Laboratory diagnosis for clinical workplaces is concentrated at 2 clinics.

A smaller range of basic laboratory diagnostic analyses for the purposes of clinical practice and teaching is conducted at the Clinic of Swine, Clinic of Horses and Clinic of Birds, Exotic and Free-Living Animals. The clinical laboratories mentioned above are teaching laboratories, aiding in the teaching of laboratory diagnosis to veterinary students, but provide also diagnostic services for practice and external applicants.

Other than clinical and some specialised laboratory diagnosis activities are carried out also by many other institutes and clinics of UVMP in Košice. This involves mostly laboratories focusing on more specific fields of laboratory diagnosis related to the orientation of individual university units.

A specialised classroom has been set up at UVMP in Košice for practical teaching in the field of food hygiene, namely for foodstuffs processing. The practical training of students of UVMP in Košice in the field of food hygiene takes place in its own slaughterhouse located in Zemplínska Teplica, about 35 km from the university. Its daily slaughtering capacity is 200 pigs and 20 cattle. Twelve pigs per week are slaughtered there for teaching purposes.

Additional teaching takes place in a slaughterhouse of a Dalton s.r.o. company in Košice. The annual slaughtering capacity of this slaughterhouse is 980 cattle and 16 280 pigs.

Practical training takes place also in a slaughterhouse Brutus s.r.o. in Trebišov (40 km away from university) with annual slaughtering capacity 157 cattle and 697 pigs and on a small scale, focusing on inspection of cattle, training takes place also in a slaughterhouse Gelnický bitúnok in Gelnica (40 km from Košice). Inspection of small ruminants (sheep and lambs) is conducted in a specialised slaughterhouse Agrokombinát Sabinov s.r.o. in Sabinov, particularly before Easter, when more than 20 000 Easter lambs are slaughtered. The distance of this slaughterhouse from Košice is 70 km.

Practical teaching of the UVMP students is carried out also in a poultry slaughterhouse – Hydina SK, a.s. Košice, with daily slaughtering capacity of 40 000 – 50 000 broiler chicks (6000 per hour), and the slaughter line comprising also portioning of chicken carcasses.

Teaching takes place also in a poultry dressing plant of the Komes plus, s.r.o. company, in the vicinity of Košice (Rozhanovce, 15 km from the university).

At the Pathology Department the storage capacity for entire large animals cadavers do not exist.

Horses can be transported also by a horse trailer available at EC of UVMP in Košice, which is used to transport horses to the university and back, if needed. Cattle, small ruminants and pigs can be transported by contractual haulier.

The university has at its disposal the following vehicles – personal cars and minibuses – used for operation of mobile clinic and transport of students to patients on farms and other institutions:

- personal car Citroen Berlingo combi – KE 246 FI – seating capacity 4+1 persons
- personal car Ford Focus – KE 602 EN - seating capacity 4+1 persons
- personal car Škoda Octavia – KE 022 CO - seating capacity 4+1 persons
- minivan car Peugeot Tepee – KE – 001 FV - seating capacity 7+1 persons
- minibus SB 122.00 ASIA – KE 252 CE - seating capacity 20+1 persons
- minibus SB 122.00 – KE 319 BS - seating capacity 20+1 persons.

The infrastructure of the campus of University of Nordland (UiN) is modern and well equipped. It has modern facilities for students and researchers in the main university buildings at Bodø campus. The Faculty of Biosciences and Aquaculture (FBA) has unhindered access to common facilities such as library, office space, lecture halls, meeting rooms, video-conference facilities and specially designed space like laboratories, and other areas needed for experimental work (Annex 6.2).

The research station is a large, modern and comprehensively equipped facility on the harbour-side. In three buildings it provides several laboratories and it has multiple indoor and outdoor tanks for experiments.

All laboratories at the faculty have special room for cleaning, various rooms for chemicals, special room for scales, small rooms for cold and deep freeze, and various rooms for storage (Annex 6.4).

All accidents (or near accidents) are specifically reported to FBA's HMS officer.

The chemistry laboratory has places for 24 students and the histology laboratory has places for 20 – 24 students. Adequate training to work in areas that possess particular risk (like special rooms/ areas in laboratories, fieldwork and the research station) is mandatory. Students are given such adequate training before access is given to specific areas, through a mandatory safety course at the beginning of the first semester. All rooms have access to first aid equipment and necessary.

All research facilities are either on campus or very close to the campus at the marine research station. The faculty has over the past years successfully applied for research grants and has today a solid research portfolio. Lab facilities used for research and education are very advanced and updated. The genomic platform is the most modern in Norway.

### **6.1.2. Comments**

Further development and improvement of the material-technical support of individual pre-clinical and clinical units has been one of the long-term priorities of the University Management as a part of increasing the quality of education provided by UVMP in Košice in an effort to advance clinical training and performance of clinical activities.

Some laboratories seem old-fashioned and dangerous as they were lined with wood, which can be dangerous in case of fire.

At the Pathology Department the storage capacity for entire large animals cadavers does not exist. This can be/is a problem during summertime and for cadavers coming during weekend.

The new building for the coming Small Animal Hospital seems nice. It was though seen, that the possibility for anaesthesia in the CT room didn't exist.

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in

Annex I of the SOP are met.

### **6.1.3. Suggestions**

It is suggested to renovate the old laboratories and provide a refrigeration storage capacity for large animal cadavers.

## **6.2. CLINICAL FACILITIES & ORGANISATION**

### **6.2.1. Findings**

There are 10 departments and 5 clinics used in the veterinary education. The departments are divided into institutes and the clinics can be divided into smaller sections as for the small animal clinic. Three new departments were created in relation to teaching pharmacy, one of which is common to all study programmes offered by the university.

The campus including the small and large animal clinics, are located in Kosice. The clinical facilities are species oriented and in companion animal further in disciplines.

Clinical services of the university staff include primary contact with patients within the scope of ambulatory consultation and therapeutic activities. Five clinics are involved in providing these services, namely Small Animal Clinic (Section of Internal Diseases and Section of Surgery, Orthopaedics, Roentgenology and Reproduction), Clinic of Horses, Clinic of Ruminants, Clinic of Swine and Clinic of Birds, Exotic and Free-Living animals. Each of these clinics provides services to patients according to its own system and organisation, considering specifics related to individual animal species.

Emergency services are part of the clinical services provided to patients outside the regular consultation hours. Each of the university clinics provides emergency services to patients according to its own system and organisation schedule, taking into consideration specific requirements of individual animal species. Small Animal Clinic – Section of Surgery, Orthopaedics, Roentgenology and Reproduction has between 6:00 p.m. and 8:00 a.m. only animal care staff on duty at the clinic. His/her responsibility is also to call the attending veterinarian to provide services to walk-in patients. All the clinics have on-call emergency service.

**Table 6.1: Places available for hospitalisation and the animals to be accommodated**

	<b>Species</b>	<b>Number of places</b>
<b>Regular hospitalisation</b>	Cattle	<b>12</b>
	Small ruminants	<b>42</b>
	Horses	<b>18</b>
	Pigs	<b>22</b>
	Dogs	<b>10</b>
	Cats	<b>2</b>
	Birds	<b>11</b>
	Free living animals	<b>5</b>
	Small rodents, reptiles	<b>13</b>
<b>Isolation facilities</b>	Farm animals and horses	<b>6</b>
	Small animals	<b>4</b>
	Birds	<b>10</b>
	Rodents	<b>10</b>

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The University has just invested in a portable digital X-ray system, endoscopes, ultrasound and ECG devices, medical monitors, upgraded diagnostic laboratories – ELISA, HPLC, blood gas and acid-base analysis systems, electrophoresis, and atomic absorption spectrophotometry, PCR analysis systems, etc.

The university currently does not have a central imaging diagnostic workplace.

All clinical units are equipped with an adequate technique allowing them to carry out *ultrasonographic* examination of animals of individual species. Endoscopic examination can be carried out at the Small Animal Clinic, Clinic of Horses, Clinic of Ruminants and Clinic of Birds and Exotic and Free-Living animals. *Radiological* examination is conducted at the Small Animal Clinic and Clinic of Birds and Exotic and Free-Living Animals, and Clinic of Horses has at its disposal a digital portable X-ray apparatus. *Electrocardiographic* examinations are carried out at the Small Animal Clinic and the Clinic of Swine. Equipment needed for anaesthesiology or monitoring of life functions for small animals are available the Small Animal Clinic and Clinic of Birds and Exotic and Free-Living Animals, and for large animals at the Clinic of Horses. In addition, the Small Animal Clinic has equipment for specialised professional clinical activities in the field of ophthalmology, stomatology, neurology, orthopaedics, reproduction and oncology.

Currently the university does not have CT and MRI equipment at its disposal. This is planned to be in the new building of the Small Animal Clinic.

The Clinic of Horses in general needs renovation. The doorways were very low in several places e.g. from the surgical room to the stables. The recovery box for horses was not in the same building as the surgical room, and the horse has to be transported for a long distance in anaesthesia to the recovery box.

There are inadequate isolation facilities for horses being handled in the establishment. Improved waste management systems are required. The floor of the current isolation facility was difficult to disinfect, and there was no appropriate drainage as liquids and cleaning material may exit and drain down the slope into to the “healthy” stables due to gap between floor and walls/doors.

Several laboratory facilities exist and have not been centralised to a central diagnostic laboratory. It does not seem as they have external samples arriving to the laboratory.

### 6.2.2. Comments

The Clinic of Horses in general needs renovation. The doorways were in several places very low e.g. from the surgical room to the stables.

The recovery box for horses were not in the same building as the surgical room, and the horse has to be transported for a longer distance in anaesthesia to the recovery box. This can be a safety problem during the transportation.

The surgical room is used for to many different procedures, as it was also used for x-ray, endoscopy etc ...

The inadequate isolation facilities for horses is a security problem due to the missing possibilities of disinfection floors, walls, etc. Furthermore the drainage is inadequate, which means that waste material is running out free. Waste management systems are required.

As the existing Clinic of Small Animals soon will be replaced by a new unit, no comments will be listed here.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are not met because of Inadequate equine isolation unit.

### **6.2.3. Suggestions**

It is suggested to :

- ) build isolation facilities for horses with an appropriate waste drainage system
- ) renovate the Equine Clinic in general
- ) develop an independent room for x-ray in Horses
- ) develop a surgical room only for surgery in Horses.

## **7. ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN**

### **7.1. Findings**

Most of the teaching material for food producing animals is located at the UF, 35km from Kosice. Most of the practical teaching on production animals is performed in UF, either with daily transfers of the teaching staff together with the students, or in several days block training in which the students are accommodated in a dormitory close to the main farm. UVMP organises pre-clinical courses for the students to be attended before the first year of lessons to get familiar with the animals handling and feeding of food producing animals: pigs (>400), goats (>70), sheep (>200), cattle (>1000). Students then deal in the UF with animal welfare, nutrition, hygiene and husbandry, while teaching is oriented in coping with the diseases of food producing animals (ruminants and swine). They become acquainted with the process of milk production, milking and mastitis prevention, biological samples collections for diagnostic purposes, hoofs and horns related procedures, therapeutic intervention. They participate to the reproductive assessments, diagnostics and therapeutic plans in husbandry, artificial insemination and andrology included, as well as lameness and orthopaedic in cattle and sheep with hoof related procedures.

Some teaching and recovered horses are housed in the Horse Clinic, where there are 19 places for these animals. Additional horses used for teaching are housed in EC of UVMP in Košice with the capacity for 60 horses. This is a commercial private equestrian centre.

EC is a very well run place strongly dedicated to teaching for the bachelor and general medicine course. The students can practice from horse handling and confidence to prophylaxis measures (deworming, vaccinations, disinfection).

Birds, fish, wild animals (deer) and bees are provided in UFBD. The UFBD is a hunting game centre that gives unique possibility to learn darts shooting immobilisation of wild animals. This is not in the mandatory curriculum but 30% of the students choose it. It is well organised with records of the immobilising drugs and clinical evaluation and procedures done. New constructions are ready to receive wild birds for recovery after injuries/surgeries.

The Aqua Terra club provides to the students a large number of reptiles, fish, and amphibians. This club is managed in cooperation with the Exotic Clinic and practical lessons by the teachers are held at the club. The members of the club are very dedicated in taking care of the large amount of animals and in improving their quality of life.

The Clinic of Birds, Exotic and Free-Living Animals in Kosice has at its disposal housing and hospitalisation facilities for poultry, where the clinic keeps the birds needed for teaching. However, the teaching is carried out on poultry farms outside the university as well.

Concerning the anatomy specimens the practical training is done on carcasses in the anatomical dissection rooms: sheep, goats, cattle, horses, pigs dogs and exotic animals come either from the UF

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or from the clinical departments in the campus. Some of the dissections are performed during practical training at the UF. In addition anatomical preparations and didactic aids are used like horse plastic model, whole skeletons and skulls in the osteological classroom and anatomical museum. Permanent preparations are available but the students don't come in contact with the conservation chemical means. Methods of preservation are not mentioned.

Food (meat) Hygiene is taught in the private slaughterhouses with ante and post-mortem inspections and observation of welfare during transportation and unloading, relative legislative regulation and environmental hygiene. According to annex 7.4 the numbers in 2014 are: 77 cattle- 200 small rum., 510 pigs.0 horses.7500 poultry.

Students are exposed to clinical experience at the 5 clinical departments (Small Animals, Horses, Swine, Ruminants, Birds exotic and Game and free living animals). They are involved in clinical ambulatory activities, surgeries, diagnostic and therapeutic plans, pre and postoperative care according to their schedules. All the departments offer a 24/7 ambulatory service but most of the commercial clinical activities run between 8am and 3pm. After that time the attending veterinarian is on call and animals are taken care by handlers or volunteer students.

Another source of clinical cases material is the external visits performed with the teachers outside the establishment by the use of the mobile clinic. This is actually an empty car, which is equipped with the needed material ready in boxes at the time of departure from UVMP.

Moreover, students have a set of hours of extramural practice with private veterinarians or private centres. These hours have to be reported in a case logbook.

The patient flow on the SER table 7.3 reports the numbers of cases received either for consultation or hospitalised (average 200 food pr. Animals -500 poultry/rabbits -254 equine -over 10000 companion animals).

Emergency Service is guaranteed in every clinical unit.

The Ambulatory Mobile Clinic provides services on call outside the campus for the Ruminants, Horse and Swine Clinics. Normally 3 students from the 5<sup>th</sup> and 6<sup>th</sup> year and a veterinarian are visiting the farms 365 days. Multiple cars/vans/buses are available for this service or to transport students and staff to outside sites when needed. The numbers of clinical cases seen by the mobile clinic staff is according to table 7.4a of the SER. ruminants>1500-equine >120.

The number of teaching cases visited outside the campus is good according to table 7.4b of the SER (food production animals>8000- equine 100- poultry>70000-small animals >250).

All the campus departments, but especially the Small Animal Clinic, are referral centres for private veterinarians due to the presence of modern diagnostic tools and of specialist veterinarians in the different areas. UVMP collaborated with different practitioners to give further opportunities to students.

The Ratios for graduating students *versus* clinical caseloads or necropsies in the annex 1 is within the guidelines except for R14 (equine caseload) R18 (necropsies food producing animals + equine), which are slightly below.

### 7.2. Comments

According to table 7.1 of the SER, the numbers reported of the material used in practical anatomical training are either very low (except for bone specimens) or not very clear (cadavers: just 1 horse. 3 ruminants. live animals: zero). According to table 7.2, the number of necropsies is very low in some species compared to the number of animals reported to be in UF (cattle 9; small ruminants 14; pig

53; horses 0). It seems that this data have been collected in a transition period during major reconstruction and majority of necropsies have been performed “at clinics or outside university directly on the farms” instead than at the Department of Pathology. There may be a lack of data recording outside the campus.

The timetable and planning of the practical activities don't seem as clear. Students have to sign spontaneously for the practical hours and they don't have to show at the lesson in a mandatory way. This makes the organisation of practical groups very confusing. For the small animal surgery department, foreign students (25 from the JBAS and 35 foreign students) can take practical lessons only on Mondays, whereas the Slovaks (who are approximately the double in the last years) have the possibility to subscribe for clinical practice on Tuesdays, Wednesdays, Thursdays and Fridays, which makes it sometimes difficult for foreign students to fulfil the mandatory hours before the end of the year. Especially for foreign students the language barrier is present in all the campus, with most records being written in Slovak. Regarding the clinical and therapies sheets and case loads it is almost impossible to follow the clinical case unless a proper and prompt translation is given to students by teachers, if this is asked by the students.

There is a lack of recording of the numbers of procedures performed on a single healthy teaching animal by the students during practical training.

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

### **7.3. Suggestions**

It is suggested to organise the practical training in advance at the beginning of the semester, having a set schedule in order to give to the students the opportunity to organise the other lectures (optional lectures) and/or different practical hours (like ambulatory calls).

## **8. LIBRARY & EDUCATIONAL RESOURCES**

### **8.1. Findings**

The library and information services at UVMP are provided centrally at the main library and in 33 subsidiary libraries at the level of the departments, clinics, institutes and other units. All books are centrally registered. It is the only specialised veterinary library in the Slovak Republic offering its services to researchers, teachers, university students and veterinarians throughout the whole country.

The library provides library and information services, and conducts also editorial and educational activities.

The library has 6 employees working full-time, i.e. 1 director and 5 specialist librarians. The Editorial and Publishing Commission acts as a library advisory body.

The main library has a total of 70 reading places and 50 computers for student use. The Library has a videoconference room, an Editorial Centre and a bookshop with scholarly and professional literature. A computerised system is available for standardising the loan system, both internally for staff and student's requests and externally for national and international inter-library exchanges.

The budget of the library is around 30.000€/year and is devoted to periodicals, books, databases and management software.

The opening hours of the main library are:

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- ) during the academic semesters: Monday to Saturday: 8H to 15-18H
- ) during vacations: Monday to Friday: 8H to 12H.

The library provides 73 periodicals linked to veterinary medicine and many books in all disciplines, each of them being available in numerous items (1 to 1000). Around 100.000 items are available in total.

The following databases are available for staff and students: Web of Science, Current Contents Connect, Medline, Scopus, Science Direct, ProQuest, Knowel, SpringerLink & Wiley InterScience. Around 14000 e-journals and a few e-books are available for staff and students.

An Editorial Centre is devoted to print notes and books for students and periodical news for staff, students and stakeholders. Professional equipment for documents and books digitalisation and for videoconference is also available.

Undergraduate students may be introduced to bibliographic search in the subject 'Basic of scientific work' (26H on an optional basis). For new PhD students, a one-week seminar is organised annually on a compulsory basis.

The IT department is well equipped with up to date facilities funded by the EU and provides *ad hoc* support to staff and students.

The e-learning is being developed, using a LMS Cisco platform. Several teachers are starting to use it, mainly for providing access to PDF and PPT files for the relevant students. So far, little information does exist for English speaking students and few data are available for supporting the clinical training.

VPN allows staff and students to access the intranet databases from abroad.

### **8.2. Comments**

The facilities are in agreement with the traditional requests for an academic veterinary library. The number of available books and the IT equipment are impressive. However it is surprising to observe an imbalance between on the one hand, the high number of subsidiary libraries (33) and items (100.000) and, on the other hand, the few data currently available for e-learning, especially for the curriculum in English.

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

### **8.3. Suggestions**

It is suggested to further develop the e-learning and to use its potentialities for supporting the practical and clinical trainings.

## **9. ADMISSION & ENROLMENT**

### **9.1. Findings**

Numbers: In academic year 2014-2015 there has been 909 enrolments, 232 foreign students, 154 non-EU countries. The 6years (1800 hr/year workload) programme has been successfully completed in time by 29% of the 2008 enrolled students (172). The average length of study is 6,4 years in the last 5 years.

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The organisation of study is based on credit system (60 credits per year). In order to register for study in the following year the student has to reach the minimal number of credits recommended by the study plan.

The admission requirements, condition, procedure and entrance exam are available to anybody on the Organisation and Study guidelines of the UVMP on the web site.

The application form has to be submitted within March 15<sup>th</sup> and will include curriculum vitae, a copy of the school leaving certificate a medical certificate, receipt of fee payment. Completion of the full secondary education programme is requested but is not evaluated in scores for the final evaluation of the test.

The number of student enrolling at the first year is restricted (numerus clausus) by the Rector. The Admission Committee evaluates the application results and the Rector decides about the admission upon their suggestions. This student places are funded by the state budget. Foreign students are admitted to the English language courses and the foreign student's resources cover the costs.

There is an admission test with core subject biology and chemistry plus other subjective criteria of admission as the participation to secondary school scientific workshops (Olympiads in chemistry and biology matters, documented work for organisation dealing with veterinary related subjects). This test occurs in the beginning of the summer, and there are two centres for taking the admission test: UVMP (several dates available) and Norway. There is an approved scoring system made public on the web site.

The final decision on admission or not is made by the Rector. In the last 5 years the average number of application has been 295 with an average admission of 175 students (around 60%). There is a slight increase in demand. This admission test is not very selective and this might be the cause of the high drop out rate.

The number of students admitted is influenced by the resources allocation per student from the state budget, the availability of teaching space, the number of state or private veterinarians required by the market. Since 2015 there is a limited number of foreign students accepted which is 35. This does not include the Norwegian students coming from the Bachelor in Animal Science in Bodø; they can run the test in their school in Norway as reported recently on the web site and 25 places are reserved for them.

Graduating students in 6 years are 30%. If they don't pass the 6<sup>th</sup> year exams, students can continue the studies for the 7<sup>th</sup> and 8<sup>th</sup> year, paying a fee. The overall graduation outcome is between 60% and 70% within the 8<sup>th</sup> year of study.

This reflects the high expectation for student performance during the study. In fact, due to light filter at admission, the first two years (basic science) have good efficacy in obtaining a natural selection on the capacity basis (especially anatomy). Reasons for interruption or withdrawal from studies are uneven level of secondary school education, failure to adapt to the university studying system and poor organisation during the veterinary studies.

For the Bachelor in Animal Science programme in UiN applicants must have a completed the secondary school and document Norwegian proficiency and take extra course in mathematics and chemistry. 25 places are available and there are usually 250 applicants every year. They offer extensive students counselling/guidance on the first year in order to assist the student and limit the drop out number.

## **9.2. Comments**

The high drop-out rate may reveal a lack from the teaching team to guide the students in good studying techniques or at least a good organisation of the work to be done. On another hand the enrolment test system is a very light filter to admission and the real selection is done after the completion of the basic science, which are the real filter and determine the dropout rate.

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

## **9.3. Suggestions**

None.

## **10. ACADEMIC TEACHING & SUPPORT STAFF**

### **10.1. Findings**

UVMP in Košice staff includes teachers, researchers and support staff. All of them are paid from financial funds allocated to the university for this purpose by the Ministry of education, science, research and sport.

We find 223,85 FTE academic staff, (152,35 VS plus 42 NVS teaching staff, and 22,7 VS plus 7 NVS research staff), and 145 support staff.

Numbers of personnel at UVMP in Košice is directly determined by the financial resources allocated to salaries, wages, tax and other payments from the total package of subsidies from the state budget received by the university.

Allocation of staff to individual departments, institutes and clinics is determined according to the system of budgeted posts of teachers, researcher and support staff. The number of teaching posts allocated to individual university units is calculated from the sum of total hours of teaching (direct teaching) provided by the respective unit in one academic year with the provision that the obligatory extent of direct teaching hours per one teacher and one academic year is 270 hours. The number of research posts allocated to individual units is determined by the results of scientific and publication activities in the past six years, number of PhD students who successfully completed their studies, success in obtaining financial funds for research through grants, and the research goals set for the subsequent period. The number of support staff allocated to individual departments, institutes and clinics is based on the number of budgeted teaching and research posts and differentiated according to demands on support work necessary for providing education and conducting research.

With authorisation of the rector, some clinicians can work on their own, in private practices.

With regard to overall economic situation in Slovakia, relatively high unemployment and limited opportunities of employment in the agro-sector, it is not difficult to recruit or retain qualified staff.

### **10.2. Comments**

The ratios R1 to R5 are met. We can add that students are well trained because of a large number of staff involved in different practical activities.

But the administrative staff is very important, due to the big number of department and institutes. The number of veterinary nurses is not very high.

Internationalisation in recruiting academic senior and junior staff would be fruitful for the UVMP.

But salaries of academics are fixed by the Slovak government, and cannot be modified by the Rector. They fit to the national and neighbouring countries, but are low regarding the European average, and are not high enough to attract foreign teachers.

The private sector of clinicians has to be taken in account and put under surveillance, because of certain possible conflict of interest with private practitioners.

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

### **10.3. Suggestions**

We encourage the UVMP to reorganise the structure of the department in order to decrease at the same time the number administrative staff and increase the number of veterinary nurses.

Internationalisation in recruitment of academics, or training abroad for existing teachers could improve the level of studies given at the UVMP.

The UVMP should involve more the veterinary Chamber and the Slovak veterinary association about the academic clinicians that have additional private activities.

## **11. CONTINUING EDUCATION**

### **11.1. Findings**

UVMP is one of the three institutions that offer continuing education in Slovakia. Together with the Chamber of veterinary Surgeons (CVS), the Professional Associations and the Department for continuing education (IPEVS) they set the training process, which is then evaluated through a quality assessment procedure by the use of a satisfaction questionnaire.

CVS is a self-governing association of veterinary doctors performing privately in the Slovak Republic. The associates are obliged to obtain a minimum of 300 educational points over the period of three years by participation in educational activities. The participation must be passive (lectures, seminars) and active (publications, case reports etc.). They prepare a calendar every year, which is reported in Annex 11.3.

IPEVS is a State subsidy organisation, which care of the continuous education of Official State Veterinarians. The subjects preferred are in the area of Hygiene of products of animal origin, animal health and protection, pharmacy, laboratory diagnostics, rapid alert system and certification. The list of activities organised is reported on Annex 11.4.

Teaching and research staff of UVMP take part in the organisation of many educational activities reported on the Annexes. They also contribute to writing in three scientific journals published in the country. There is no mention on whether there is an income generated by the CE. It seems that the CE is mandatory only for state Veterinarians.

### **11.2. Comments**

The Continuing Education programme seems to be centred within the teaching staff of the UVMP, which is devoted to give lectures and organise seminars for the veterinarians. There are not inputs from abroad with different sources of knowledge that might bring into the establishment new concepts and tools (foreign lecturers, participation to masters or stages abroad for the vet teaching staff).

In the Visitation team's opinion, the requirements regarding this chapter as they are laid down in

Annex I of the SOP are met.

### **11.3. Suggestions**

It would be very important to the both the Establishment staff and the Private Veterinarians or State Veterinarians to introduce in CE programmes international speakers, possibly EVBS Diplomates in the different specialities, to favourite a wider exchange of concepts.

## **12. POSTGRADUATE EDUCATION**

### **12.1. Findings**

Training of veterinarians who carry out state veterinary activities is provided by the Institute of IPEVS a stage one and stage two course, in two years for each, after passing an examination. They also prepare a final dissertation at the end of their studies.

UVMP in Košice offers postgraduate study programmes for students at the third level of higher education (PhD students) in both the full-time and the external forms in 17 accredited study programmes.

A board of “specialists” has been established at the university for each study programme, comprising at least 8 members. The board organises and evaluates the doctoral study at the university.

We find four European specialists at the UVMP. All of them are members of the European College of Bovine Health Management (ECBHM) and they have successfully undertaken the re-evaluation process in the past three years. Despite that, there is no residency programme and no resident enrolled yet.

Students are admitted to PhD studies on the basis of an interview, which takes place before an admission board. The Admission Board is appointed by the Rector and comprises a chairman and at least two members.

The numbers of students enrolled in PhD studies is 20 to 25 on average, depending of the finances available each year.

The standard length of doctoral (PhD) study in the full-time form is four years. The PhD study in its external form lasts five years.

The individual study plan of a PhD student comprises:

- a) a study part
- b) a scientific part and
- c) in the full-time form of study – teaching part or other professional activities.

The study part is concluded with a dissertation examination, which must be taken within 18 months from the enrolment to PhD study in its full-time form and 36 months in its external form.

Full-time PhD study involves teaching or other teaching-related professional activities, not exceeding four hours a week on average throughout the academic year.

There is no minimum publication requirement for postgraduate programmes.

### **12.2. Comments**

The specific training for veterinarian working in official veterinary services is well organised and gives a high level of knowledge in related topics.

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There is a large number of PhD courses, followed by very motivated students, with high level of research.

But there is not enough internationalisation in training for specialisation.

No internship and no residency programme are organised by the UVMP, mainly because of the lack of EBVS Diplomates or specialists in clinical activities.

There is no specialisation programme organised in the veterinary sector in Slovak Republic.

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

### **12.3. Suggestions**

The UVMP should develop residency programmes in attracting EBVS Diplomates or in giving teachers the opportunity for training abroad, particularly in clinical activities, in order to improve the level of studies for students.

## **13. RESEARCH**

### **13.1. Findings**

The UVMP indicates a strong commitment to research, as well as development of research, carrying out an annual evaluation of publication activities to monitor the number and quality of published scientific and professional papers.

The UVMP maintains a Scientific Board. The members of the Board are establishment professors and associate professors, scientists in the field of veterinary science, pharmacy and related sciences in different research areas, and veterinary practitioners and pharmacists from state administration, research, other professional veterinary activities.

The Long-Term Strategic plan of the university for years 2012-2017 proposes the following basic areas of research strategy: 1) non infectious diseases of large and small animals, 2) infectious (bacterial, viral) and parasitological diseases of large and small animals 3) development and protection of the animal environment, food hygiene and food safety, 4) pharmacy, pharmacology and toxicology, pharmacogenetics and toxicological interactions.

Using EU funding, the following centres of excellence were established:

- ) Centre of Excellence for Animal Diseases and Zoonoses –
- ) Centre of Excellence for Biomedical Technologies in partnership with UPJŠ in Košice
- ) Centre of Excellence for Parasitology in partnership with Parazitological Institute SAV in Košice
- ) Medical university scientific park in Košice (MediPark Košice) in partnership with UPJŠ v Košiciach
- ) Competence Centre for biomodulators and nutritional supplements (Probiotech) (Probiotech) in partnership with Institute of Animal Physiology SAS in Košice.

In addition, the UVMP has also been considerable successful in obtaining grant funding under the COST scheme. Finally, the UVMP has achieved a high success rate in obtaining grants from the Slovak Grant Agency (SGA/VEGA).

At least some funding is provided directly by the establishment to support research.

There are two active projects in partnership with UiN:

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- ) Mobility project between higher education institutions, Project Number: SK06-II-01-003, Programme: EEA Scholarship Programme Slovakia
- ) Strengthening cooperation between UVMP in Košice and UiN in Bodø, Project Number: SK06-IV-02-012, Programme: EEA Scholarship Programme Slovakia.

The UVMP has a substantial PhD student population. 103 students have graduated from the establishment since 2010, while the standard length of PhD study is 4 years.

Research posts are allocated to individual units in accordance with scientific and publication activities in the previous six years as well as number of PhD students who successfully completed their studies, success in obtaining financial funds for research through grants, and the research goals set for the subsequent period.

The PhD subject areas are provided in Annex 12.3:

Food Hygiene  
Veterinary Morphology  
Internal Diseases of Ruminants and Swine  
Internal Diseases of Horses, Small Animals and Poultry  
Veterinary Surgery, Orthopaedics and Radiology  
Veterinary Obstetrics and Gynaecology  
Infectious Diseases of Animals  
Parasitic Diseases of Animals  
Forensic and Public Veterinary Medicine  
Animal Nutrition and Dietetics  
Animal Husbandry Hygiene and the Environment  
Veterinary Biochemistry  
Microbiology  
Virology  
Immunology  
Neurosciences  
Toxicology.

The most active subject areas, in terms of PhD student numbers, are Food Hygiene and Veterinary Morphology.

The DVM students have the opportunity to interact with research through the Student Scientific and Professional Activity, which is optional and voluntary. In addition all DVM students must complete the diploma thesis. Both these forms of student research are funded from research grants at the respective departments.

The Student Scientific and Professional Activities are voluntary. The students may participate in this from the first year of study, acting on their own initiative. The students are assigned to a supervisor, with whom they prepare a work plan to work on the chosen topic for one year. The diploma thesis contains parts: literature review, Goals, Material and Methods, Results, Discussion, Conclusion, References and Abstract.

Students may start preparing their diploma thesis in the 3rd year of study. The students complete their diploma in conjunction with the university departments, clinics and institutes. At the beginning of an academic year, each academic/research staff and researcher of the university is obliged to post a diploma thesis topic. The topics for diploma theses result from the scientific and research tasks performed at the respective department.

**13.2. Comments**

The undergraduate students are provided with appropriate opportunities to engage in research with active research teams. Students are aware of the possibility of research as a career path.

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

**13.3. Suggestions**

None.

**EXECUTIVE SUMMARY FOR STAGE 1 VISITATION**

The University of Veterinary Medicine in Košice was founded in 1949 and is the only veterinary education establishment in the Slovak Republic.

The Establishment was visited by EAEVE in October 2005, revisited in March 2011 and approved by an ECOVE decision in April 2011.

In January 2010, the 'University of Veterinary Medicine and Pharmacy in Košice' (UVMP) was officially created, since the introduction of a new accredited study programme in pharmacy.

The SER was correctly written and provided on time to the Visitation team. A reply to most questions and/or requests for clarification from the experts was provided before the start or during the Visitation.

The Visitation was well prepared, well organised and carried out in a cordial and professional atmosphere. The liaison officer was easily and efficiently available when requested. The programme of the Visitation was easily adapted when requested by the Visitation team who had full access to the information, facilities and individuals they asked for.

The Visitation team has identified areas worthy of praise, e.g.:

- ) efficient and autonomous management
- ) broad range of elective topics for undergraduate students, e.g. in bees, wild animals,
- ) extensive practical training, especially during the first years
- ) numerous and motivated academic and support staff
- ) up to date IT equipment
- ) brand new and well-equipped teaching hospital for companion animals (to be opened in January 2016)
- ) opportunities for undergraduate students to be involved with research projects and many PhD programmes available for graduate students

The Visitation team has also identified several potential deficiencies, e.g.:

- ) too many departments/institutes, with as a consequence lack of sharing of support staff & equipment and lack of interdisciplinary teaching strategy within the student year of study and between years
- ) insufficient (computerised) clinical records (especially in English) and insufficient involvement of undergraduate students in the completion of these records
- ) lack of mandatory clinical rotations for emergency and out-of-hours services
- ) insufficient mandatory hands-on surgical practice for undergraduate students
- ) inadequate equine isolation unit
- ) inadequate facilities for equine treatments and surgeries
- ) insufficient large animal cadavers for necropsy training and lack of refrigeration storage capacity for entire large animal cadavers
- ) insufficient integrated strategy for biosecurity, both on campus and in external facilities.

The potential Major Deficiencies suggested by the Visitation team are:

- ) Inadequate equine isolation unit
- ) Lack of mandatory clinical rotations for emergency and out-of-hours services
- ) Insufficient (computerised) clinical records (especially in English) and insufficient involvement of undergraduate students in the completion of these records

Therefore the Visitation team recommends to ECOVE the status of Non Approval for UVMP (Košice).

## FINAL REPORT AS ISSUED BY ECOVE ON 11 MAY 2016

### Annex 1. Indicators (Ratios)

					GUIDELINES
<b>R1:</b>	$\frac{\text{n}^\circ \text{ of undergraduate veterinary students}}{\text{n}^\circ \text{ of total FTE academic staff in veterinary training}}$	=	$\frac{808}{223.85}$	=	<b>3.610</b> <8.381
					GUIDELINES
<b>R2:</b>	$\frac{\text{n}^\circ \text{ of undergraduate students}}{\text{n}^\circ \text{ of total FTE academic staff}}$	=	$\frac{2154}{368.85}$	=	<b>5.840</b> <9.377
					GUIDELINES
<b>R3:</b>	$\frac{\text{n}^\circ \text{ of undergraduate veterinary students}}{\text{n}^\circ \text{ of FTE veterinarians in veterinary training}}$	=	$\frac{898}{174.85}$	=	<b>5.136</b> <11.057
					GUIDELINES
<b>R4:</b>	$\frac{\text{n}^\circ \text{ of (veterinary) students graduating annually}}{\text{n}^\circ \text{ of FTE veterinarians in veterinary training}}$	=	$\frac{96.3}{174.85}$	=	<b>0.55</b> <2.070
					GUIDELINES
<b>R5:</b>	$\frac{\text{n}^\circ \text{ of total FTE support staff in veterinary training}}{\text{n}^\circ \text{ of total FTE academic staff in veterinary training}}$	=	$\frac{145}{223.85}$	=	<b>0.648</b> 0.505-1.907
					GUIDELINES
<b>R6:</b>	$\frac{\text{supervised practical training}}{\text{Theoretical training}}$	=	$\frac{2618}{2220}$	=	<b>1.179</b> >0.602
					GUIDELINES
<b>R7:</b>	$\frac{\text{Laboratory \& non clinical animal work}}{\text{Clinical work}}$	=	$\frac{1421}{807}$	=	<b>1.761</b> <1.809
					GUIDELINES
<b>R8:</b>	$\frac{\text{teaching load}}{\text{Self-directed learning}}$	=	$\frac{4810}{92}$	=	<b>52.283</b> 2.59-46.60
					GUIDELINES
<b>R9:</b>	$\frac{\text{total n}^\circ \text{ hours in the vet curriculum}}{\text{n}^\circ \text{ hours in FH/VPH}}$	=	$\frac{4382}{325}$	=	<b>13.483</b> 8.86-31.77
					GUIDELINES
<b>R10:</b>	$\frac{\text{n}^\circ \text{ of hours obligatory extramural work in veterinary inspection}}{\text{n}^\circ \text{ hours in FH/VPH}}$	=	$\frac{40}{325}$	=	<b>0.123</b> 0.074-0.556
					GUIDELINES
<b>R11:</b>	$\frac{\text{n}^\circ \text{ of food-producing animals seen at the Establishment}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{204}{96.3}$	=	<b>2.118</b> >0.758

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					GUIDELINES
<b>R12:</b>	$\frac{\text{n}^\circ \text{ of individual food-animals consultations outside the Establishment}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{1578}{96.3}$	=	<b>16.39</b> >8.325
					GUIDELINES
<b>R13:</b>	$\frac{\text{n}^\circ \text{ of herd health visits}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{42}{96.3}$	=	<b>0.436</b> >0.326
					GUIDELINES
<b>R14:</b>	$\frac{\text{n}^\circ \text{ of equine cases}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{254}{96.3}$	=	<b>2.637</b> >2.700
					GUIDELINES
<b>R15:</b>	$\frac{\text{n}^\circ \text{ of poultry/rabbit cases}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{507}{96.3}$	=	<b>5.265</b> >0.407
					GUIDELINES
<b>R16:</b>	$\frac{\text{n}^\circ \text{ of companion animals seen at the Establishment}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{12075}{96.3}$	=	<b>125.4</b> >48.06
					GUIDELINES
<b>R17:</b>	$\frac{\text{n}^\circ \text{ of poultry flocks/rabbits production units visits}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{4.7}{96.3}$	=	<b>0.049</b> >0.035
					GUIDELINES
<b>R18:</b>	$\frac{\text{n}^\circ \text{ of necropsies of food producing animals + equines}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{99}{96.3}$	=	<b>1.028</b> >1.036
					GUIDELINES
<b>R19:</b>	$\frac{\text{n}^\circ \text{ of necropsies of poultry/rabbits}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{175}{96.3}$	=	<b>1.817</b> >0.601
					GUIDELINES
<b>R20:</b>	$\frac{\text{n}^\circ \text{ of necropsies of companion animals}}{\text{n}^\circ \text{ of students graduating annually}}$	=	$\frac{427}{96.3}$	=	<b>4.434</b> >1.589

**Annex 2. Decision of ECOVE**

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

- ) Inadequate equine isolation unit
- ) Lack of mandatory clinical rotations for emergency and out-of-hours services
- ) Insufficient (computerised) clinical records and insufficient involvement of undergraduate students in the completion of these clinical records, particularly but not exclusively for those on the English-speaking programme.

The 'University of Veterinary Medicine and Pharmacy in Kosice' is classified after Stage 1 Evaluation as holding the status of: **NON-APPROVAL**.