

RE-VISITATION SELF EVALUATION REPORT

EAEVE Accreditation
June 2021

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Introduction

On receipt of the ESEVT report as issued by ECOVE on 29 May 2019 that identified one major and two minor deficiencies in the BVetMed programme, a task and finish group was convened to address those deficiencies. The group was chaired by Professor Stuart WJ Reid, Principal of the Royal Veterinary College. The deputy chair of the group was Professor Ken Smith, Head of the Department of Pathobiology and Population Sciences. Other members of the group were Professor Jill Maddison, BVetMed Course Director; Professor Adrian Boswood, Vice Principal Learning, Teaching and Assessment; Dr Pablo Alarcon-Lopez, Lecturer Animal Health Economics; Professor Javier Guitian, Professor of Veterinary Public Health; Dr Ana Mateus, Lecturer in Veterinary Public Health; Dr Jonathan Williams, Senior Lecturer in Anatomic Pathology and Pathology Rotation Director; Dr Nikolaos Dadios, Lecturer in Production Animal Health and Food Safety; Dr Troy Gibson, Senior Lecturer Animal Welfare Science; Dr Richard Booth, Associate Professor, Veterinary Extension Services and Infectious Diseases of Cattle; and Mr Ben Blowers, a Student Representative (nominated by the Student Union President).

The group met on the 6th September, 9th October and 23rd October 2019 and all meetings were minuted with an action log by Cheryl Jackson, Academic Quality Manager. Following agreement of the actions necessary to address the major and minor deficiencies the working group's conclusions were ratified by Academic Board (the principal academic committee of the Royal Veterinary College) on 11th December 2019 and reported to Council (the governing body of the Royal Veterinary College) in March 2020.

Changes to the College's teaching were introduced as soon as practicable thereafter, as outlined in this self-evaluation report. The self-evaluation report was prepared by a working group co-chaired by Professors Maddison and Boswood and the members were Emma Burchfield, Academic Registrar; Dr Nikolaos Dadios, Dr Ana Mateus, Professor Stuart W J Reid and Professor Ken Smith. Minutes and an action log of the working group's meetings were again maintained by Cheryl Jackson, Academic Quality Manager.

1. Correction of Major Deficiencies

1.1. Major Deficiency 1: Non-compliance with Substandard 3.5. The number of hours of FSQ & VPH training of the Establishment is 71 which is far below the recommended minimal value (- 103.4 hours). The number of hours of extra-mural practical training in FSQ & VPH of the Establishment is 25.33 being below the recommended minimal value (- 3.47 hours). Insufficient number of hours in FSQ and VPH training that affect the acquisition of Day One Competences in this field below the ESEVT indicators. Limited evidence of execution of practical post-mortem meat inspection and no visits conducted to commercial high throughput abattoirs.

1.1.1. Factual information:

A major re-mapping exercise of the curriculum was conducted after receiving the ESEVT report; this involved reviewing learning outcomes and content of all teaching activities in the BVetMed course. This review was conducted after the introduction of new software for mapping of the curriculum content. This helped to identify 70 more hours of FSQ and VPH content and 17.5 hours of IMR (Intra Mural Rotation) activities. Currently, there are a total of 181.5 hours of FSQ and VPH content in the curriculum to which the students are exposed, of which 140 are lectures and small group directed learning sessions and 41.5 hours are IMR.

Furthermore, 15 more hours have been added to FSQ and VPH teaching across the whole curriculum through placing additional emphasis and re focus on FSQ and VPH content in the lectures and

providing a recap through the addition of a slide and lecturer comment at the end of, or associated with, didactic teaching sessions on our virtual learning environment, identifying and emphasising VPH implications of relevant teaching taking a One Health approach. This has increased the total number of FSQ and VPH teaching to 196.5 hours.

We estimate, that students will spend c,72 hours in self-directed learning when revising FSQ and VPH teaching materials. The addition of new FSQ and VPH activities has been made through careful planning to ensure that existing content of the BVetMed curriculum was not reduced and that students' learning experiences were not compromised in the acquisition of other Day One Competences.

In response to the feedback kindly provided by the ESEVT team in 2019, an additional formal agreement has been established with a commercial high throughput pig abattoir; students began visiting this food processing facility in February 2020. In total the students will now visit three abattoirs, one high throughput and two low throughput abattoirs as part of IMR.

The high throughput abattoir is located within one hour's drive of the RVC and processes both cull sows and boars and slaughter age pigs, slaughtering up to 1,400 animals per day for national and international markets. The abattoir visits are conducted with 2 of the VPH lecturers. The students (between 10-12 students) are divided into 2 subgroups, with each group visiting the lairage and the slaughter hall separately. It has been arranged with the abattoir that students have access to rejected organs and carcasses in a separate room in the premises so that they can exercise meat inspection principles and discuss food safety, animal health and welfare implications and enforcement conducted as part of official controls as well as observe and discuss the slaughter process with the facilitator. The visit of the lairage, involves observing the unloading of animals, the ante-mortem inspection conducted by the official veterinarian and the stunning and bleeding of the animals and discussion of these aspects with the facilitator. During this part of the abattoir visit, the students are also presented with hypothetical case scenarios for discussion of potential implications for animal health, animal welfare and public health.

Four hours of livestock post-mortem practicals have been added to the Pathology and VPH IMR since February 2020; of these, two hours are dedicated to poultry and pigs (see section 2- Correction of minor deficiencies) and two hours are used to deliver a FSQ and Pathology integrated session on post-mortem inspection of specimens from livestock. This session is delivered by food safety and pathology lecturers. Students are given one or more scenario each and are required to apply meat inspection principles, describe lesions observed and assess the implications of these for animal health, welfare and public health.

The BVetMed curriculum is in the process of undergoing further revision. Delivery of a new curriculum will commence with the new intake of students in September 2021. The start of the new curriculum was originally planned for September 2020 but was delayed by one year due to COVID and the huge additional workload placed on our staff as a result of having to move all teaching online from March 2020. The new curricular structure will bring about further enhancement of the quantity of teaching sessions relevant to FSQ and VPH through the 5 years of the course.

From September 2021 onwards, five additional hours of FSQ and VPH will be added to Year 1 through an online food safety course Level 2 for which the RVC has already acquired the licenses from an accredited supplier. This course will allow students to understand better food safety principles and legislation framework operating in the food chain and includes embedded quizzes for which a pass mark is required for them to successfully complete the course. The course leads to a nationally recognised qualification and allows students to work in the food industry. FSQ and VPH teaching will also be

consolidated in Year 3 with the addition of three new sessions (2 lectures and 1 computer-based learning quiz [CAL]) on food safety in evolving production systems and antimicrobial resistance in the food chain and seven new didactic sessions (5 lectures and 2 CALs) covering seafood production, meat science, food technology, surveillance in abattoirs, animal by-products and foodborne hazards. Moreover, as part of IMR, students will also have a full day on the virtual abattoir tool that will include them completing virtual abattoir visits to commercial, large throughput abattoirs (see below “1.1.2-Comments” section) through a 2D app with FSQ and VPH content and quizzes and a discussion session with a VPH lecturer and a 3D simulation of an abattoir visit (expected duration: 4 hours). Students will also be required to complete a reflective essay in our online skills reflective portfolio programme, Folium, focused on their experience during abattoir visits (expected duration: 2 hours). These new teaching activities will add 21 hours to FSQ and VPH, from which 6 hours are IMR. This additional teaching will bring the total number of FSQ and VPH hours up to 217.5 hours.

1.1.2. Comments

The RVC has been involved in the development of an online virtual abattoir tool for teaching of FSQ and VPH together with Glasgow and Surrey Universities and a private software development company using real footage from UK commercial, high throughput abattoirs. This tool has been endorsed by the RCVS and has been used for teaching of FSQ and VPH during the pandemic due to the lack of access to abattoirs during this period (except for Langford abattoir). This tool allows students to conduct a virtual abattoir visit in 2D via an online app. The app includes the same components of what the students would observe and experience if they were conducting a visit with facilitators to a physical high throughput abattoir with audio and text explaining the different areas and activities conducted as part of the slaughter process and of official controls. Furthermore, the app also includes formative quizzes with feedback after each section so that the students can assess and consolidate their knowledge. The students then have a session with a VPH lecturer to discuss the scenarios inserted into the virtual abattoir (“Discussion Points”) and experience the virtual abattoir tool in 3D through a simulator. So far, the students have access to virtual high throughput sheep and poultry abattoirs, but more species are under development (i.e., beef, pigs and farmed venison). Due to the difficulty of securing access to poultry abattoirs, the RVC will use the virtual abattoir tool to address some of the FSQ and VPH teaching needs of students during IMR.

2. Correction of Minor Deficiencies

2.1. Minor Deficiency 1: Partial compliance with Substandard 3.2. because the number of hours of practical (non-clinical) training and the number of rabbit, rodent, bird and exotic pet necropsies is below the ESEVT Indicators.

2.1.1. Factual information: The minor deficiency in necropsy numbers has been addressed by the introduction of additional necropsy classes involving piglets and chickens during the two-week pathology and veterinary public health rotation that is undertaken as a core activity by all our clinical veterinary students. These additional classes ensure that every student undertakes one piglet and one chicken necropsy during the rotation, in addition to the diagnostic necropsies that span a broad variety of companion animal, farm and exotic species. Over 90% of diagnostic necropsies are undertaken by our clinical rotation students and all necropsies are reviewed by veterinary pathologists and specialists-in-training. Necropsy cases that have a public health significance are examined and discussed with the rotation students in that context. The students’ understanding of veterinary pathology and public health is further enhanced by case discussions throughout the rotation and by each student presenting a necropsy case to pathology faculty on the final day of the rotation.

2.1.2. Comments: The additional necropsies noted above are supplemented by online resources that

include detailed instruction on mammalian and avian post mortem technique.

2.1.3. Suggestions for improvement: We also plan to further improve necropsy exposure in key species groups with the introduction of wild rabbit necropsies as a core teaching activity for all of our clinical veterinary students in the 2022-23 rotation cycle.

2.2. Minor Deficiency 2: Partial compliance with substandard 5.1 because of low numbers of hours in non-clinical training (I4), low number of hours of FSQ and VPH training (I6, I7) and low numbers of necropsies on rodents, birds and exotic pets.

2.2.1. Factual information: The minor deficiency in necropsy numbers for rodents, birds and exotic pets has been addressed by the additional class involving poultry dissection that was introduced at the beginning of the clinical rotation cycle in February 2020 and is outlined at 2.1.1 above. The subsequent lockdown in the UK because of the COVID-19 pandemic meant that on campus rotations were suspended from March to August 2020 and clinical students were given necropsy training on a virtual basis over that period. This involved access to a broad range of online teaching materials, including avian and mammalian dissection videos, on our learning pages (RVC Learn), plus the opportunity for students studying in UK time zones to view live-streamed necropsy examinations undertaken by faculty and specialists-in-training during the lockdown period.

As non-essential travel and non-emergency veterinary procedures were significantly reduced in the UK during that period of lockdown there was an overall reduction in necropsy submissions. The lockdown restrictions in place in the UK also meant that abattoir and fallen stock centre exposure for our students became impossible during the academic year 2020-21 and mitigations that were put in place by our veterinary public health team through the virtual abattoir app and the 3D virtual simulation as described above in 1.1.2. Furthermore, FSQ and VPH activities were also delivered through online webinars and CALs across the Pathology and VPH, and IMR with our contracted collaborative partners, Synergy and Endell veterinary practices. However, the resumption of on-campus rotations in September 2020 has coincided with a gradual increase in necropsy numbers towards pre-pandemic levels in the academic year 2020-21 and we anticipate that increase will continue, in parallel with the restoration of student access to abattoir and fallen stock centre teaching this year. This will also allow the incrementation of the FSQ and VPH activities during IMR, which will be raised to 40.4 hours as the result of the introduction of new abattoir sessions and the remapping exercise.

2.2.2. Comments: As above.

2.2.3. Suggestions for improvement: In addition to the new class involving rabbits detailed at 2.1.3 we will continue to work with colleagues in our exotic animal service, based at the Beaumont Sainsbury Animal Hospital, to ensure that any client-owned rodents, birds or exotic pets that have died are submitted for necropsy where informed client consent has been given.

3. ESEVT Indicators

3.1. Factual information (*Updated data based on the last two academic years, excluding 2019-20*). ESEVT indicators for the two full academic years 2017-18 and 2018-19, preceding any adjustments necessitated by the pandemic, are included. These illustrate that the minor deficiency in ruminant and pig necropsies had been addressed by the 2018-19 academic year and that there was a residual minor deficiency in rabbit, rodent, bird and exotic pet necropsies at that time.

3.2. Comments: As above.

3.3. Suggestions for improvement: Inclusion of the new classes involving dissections of chickens (introduced during the 2019-20 academic year) and rabbits (to be introduced in the 2021-22) academic year will ensure that each of our graduating students will examine one chicken and one rabbit in addition to the full range of diagnostic necropsies included in the pathology and veterinary public health rotation each academic year. This will rectify the minor deficiency in rabbit, rodent, bird and exotic pet necropsies.

**Response to the European Association of Establishments for Veterinary
Education/Federation of Veterinarians of Europe (EAEVE/FVE) recommendations
arising from the November 2018
European System of Evaluation Veterinary Training (ESEVT) visitation
to the Royal Veterinary College, University of London**

1.0 Introduction

Following the combined international accreditation visit to the Royal Veterinary College of November 2018, the European System of Evaluation Veterinary Training (ESEVT) report identified a major deficiency under 3.5 in relation to the delivery of veterinary public health (VPH) and food safety (FS).

Specifically:

The Committee concluded that the following Major Deficiency was identified:

- Non-compliance with Substandard 3.5., because the number of hours in FSQ and VPH training is far below the recommended minimal value and there is limited evidence of execution of practical post-mortem meat inspection, resulting in insufficient acquisition of some of Day One Competences in clinical sciences.

The Royal College of Veterinary Surgeons, the Australasian Veterinary Boards' Council and the Council on Education of the American Veterinary Medical Association did not reach the same conclusions and, therefore, this response addresses solely the findings of the ESEVT visitors and the consequential conditional approval of the RVC.

The RVC is grateful for the early input and advice of Dr Milorad Radakovic, an experienced VPH professional who has held senior positions in the FVE's European Veterinarians in Research and Industry and previously of the Union European Veterinary Hygienists, and the person responsible for leading VPH at the University of Cambridge and their recent successful accreditation.

2.0 The issues

2.1 Low total hours of VPH teaching

The RVC takes a mapping approach to the delivery of its programme and does detailed work ensuring that each day one competency is mapped to a series of learning objectives and each required learning objective is mapped to curricular content. It does not usually adopt a time allocated approach. In contrast, ESEVT provides a list of indicators derived from an analysis of positively evaluated/accredited schools in the ESEVT system and states minima, maxima and median summary statistics. Whilst there are good grounds for pedagogical debate as to the value of time related metrics, the RVC accepts the finding.

Following the report of 25th June 2019, a task-and-finish group was assembled, chaired by RVC Principal, an ECVPH diplomate. The group came to the conclusion that in order to address the finding of a major deficiency there was a need to place the highest priority on rectifying the deficiency in hours of teaching identified by the visitors.

As a consequence and with a target of exceeding the minimum taught hours as stated in the ESVET SOPs, the group reassessed the curriculum. The following changes were identified for immediate implementation in the taught BVetMed as the academic cycle and student contract allow.

Reassessment of mapping and realigning of existing materials and inclusion of new teaching.

At the time of submission of the last SER we identified the following hours in our curriculum

96.333 hours (consisting of 71 hours lectures and DLs; and 25.333 hours IMR activities)

Additional hours which have been added to the curriculum or identified through the remapping exercise.

85.167 hours (69 hours lectures and DLs; 16.167 hours IMR activities)

New total reported in our RSER

181.5 hours (140 hours lectures and DLs; 41.5 hours IMR activities)

Full detail of the FSQ & VPH teaching sessions at each stage of the course are outlined in Appendix 1a. Additionally these are distinguished into those which were present previously and those which have been “added” either as a consequence of the remapping and inclusion of new teaching.

A summary of the entirely new teaching is given below.

New teaching which has been added to the curriculum consists of the following

a. Additional hours of didactic VPH/FS teaching in lectures (Appendix II)

- Total additional hours **7 hours**

b. Additional hours of didactic VPH/FS teaching in DLs and CALs (Appendix III)

- Total additional hours **8 hours**
- This includes an accredited Food Safety online programme (Appendix V) (duration 5 hours)
Identifying the utility to the student of a formal qualification in food hygiene at a level appropriate to stage of education as well as tailored to the UK environment, a certified programme was identified from a short list of three nationally accredited providers. All students will be required to demonstrate certification by the end Term 2 of their 3rd year.

c. New IMR activities (Appendix IV)

- Total additional hours **6 hours**
- This includes 4 hours of teaching achieved by reformatting and redesign of gross pathology practicals to incorporate meat inspection and relevant VPH legislation (Appendix VI)

d. Additional time on rotation for VPH/FS teaching

- Notwithstanding the VPH/FS elements that may be found in all species rotations where zoonotic infectious diseases are a consideration and, specifically on food animal rotations where there are food quality and safety implications, the curriculum will include a week of VPH/FS as described in appendix V.

The additional teaching hours outlined above do not include the following which all students on the BVetMed would be expected to undertake and to which students will be exposed throughout their studies.

a. *Hours of Self Direct Learning VPH/teaching*

- i. In common with the RVC's approach to lifelong self-directed learning and best practice in pedagogical theory, all students are required to prepare for and reflect upon materials delivered through the didactic and directed learning environment. In practice, a conservative expectation is 30 mins for each lecture and directed learning sessions. This was not included in the original summary.

- Total additional hours **70 hours**

b. *Change in emphasis of whole curriculum to include VPH consideration in all teaching sessions through the 5 year programme. (Appendix VII)*

- i. Identifying the need to change the attitude of the whole curriculum delivery all didactic teaching sessions are now required to include a final slide to be used as summary/talking point where the VPH implications are identified. Together with animal health and welfare and ecosystem health, this focus, even where minimal with regard VPH, will contribute a minimum 15 hours of teaching hours of the c.900 didactic lecture hours in the first 3.5 years of the programme alone. This change is implemented from the 1st November 2019

- Total additional hours **15 hours**

2.2 Inadequate exposure to VPH materials and harvesting environment

As ESEVT will be aware and previously agreed, the UK inspection system in commercial abattoirs is increasingly difficult to access and the nature of the profession's engagement with the meat industry in particular is rather different from the rest of the Europe. In particular the UK veterinarian is rarely involved in food processing inspections post the harvest environment (with exception of official controls at border inspection points and certification of animal-derived products for export markets); in fact, many of these activities fall under the remit of Local Authorities (i.e. Environmental Health Officers) without involvement of veterinarians for some activities (e.g., official controls in meat cutting plants and cold stores). Notwithstanding these differences, the RVC fully acknowledges the importance of the veterinary professional in inspection and certification in everything from abattoirs to export certification, and quarantine facilities to government policy advice at the highest level.

In addressing the need to increase exposure and better marshal the experience and learning opportunities in the latter years of the course, in addition to the information provided at the time of the visitation, each student will receive:

2.2.1 On campus

- a. A minimum of two full sheep necropsies and livestock offal that will include meat inspection activities from a VPH/FS/Official Veterinarian (OV) perspective to be provided during Pathology and VPH rotation and accessed from local farms and abattoirs, respectively. **(2 hours)**
- b. A minimum of one poultry necropsy per student that will include meat inspection activities from a VPH/FS/OV perspective to be provided during Pathology and VPH rotation and accessed from a local commercial white meat abattoir. **(1 hour)**
- c. A minimum of 12 porcine post-mortems to be provided during the Pathology and VPH rotation **(1 hour)**

- d. A week of instruction and exposure to both High (HTP) and Low (LTP) throughput facilities and dedicated teaching abattoir (Bristol) experience, including reflective exercise on VPH, FS and animal health and welfare aspects of the teaching sessions. (Appendix VII) **(32.9 hours)**
- e. Inclusion of instruction and exposure to milk, cheese and cutting plant operations **(3.5 hours)**

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| 2.3 Grand total of VPH/FS teaching hours | 266.5 hours |
| 2.3.1 Excluding self-directed time | 181.5 hours (140 hours lectures and DLs; 41.5 hours IMR activities) |
| 2.3.2 Added VPH emphasis across curriculum | 15 hours |
| 2.3.3 Including self-directed time | 70 hours |

3.0 Concluding remarks

Acknowledging the concerns of the ESEVT visitation team, the RVC has worked to address the issues raised in the report, at the same time as seeking to maintain the integrity of the pedagogical approach in place at the college and which has contributed to its global top place in the QS university subject rankings. As a consequence of the realignment of key curricular elements and the inclusion of new material and the holistic initiative to encourage a change of emphasis in the organisation, 86.4 hours have been added to the undergraduate exposure, augmented by a prescribed minimum self-directed component. Whilst the directed hours alone now fall within the range of the ESEVT indicators, the total hours take the RVC towards the median value for the sector.

Within the constraints of the UK commercial environment and the differing role of veterinarians in the VPH industry in the UK, the RVC has augmented the exposure of senior students in line with the specific recommendation of the visitors, specifically but not limited to, the HTP abattoir environment. Furthermore, the RVC student will now be exposed to a significantly increased “caseload” of *post mortem* and abattoir-derived organ and condemnation specimens of livestock and poultry species as well as to an increased food processing, handling and hygiene experience, the latter leading to certified national qualification.

The RVC welcomes the constructive comments of the report and presents its restyled and improved curriculum for scrutiny by ESEVT. With a full 5-year curriculum review underway, whilst it is hoped that the immediate changes meet with approval and, consequentially, full accreditation, any additional comment will be gratefully received in making the full programme fit for purpose and future proofed against a challenging political environment.