RCVS SETTING VETERINARY STANDARDS

Visitation to the School of Veterinary Medicine, University of Glasgow

7 – 12 March 2021

Report to the Council of the Royal College of Veterinary Surgeons (RCVS) in accordance with Section 5 of the Veterinary Surgeons Act 1966

Contents

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Introduction

1. Visitors representing the Royal College of Veterinary Surgeons (RCVS), the American Veterinary Medical Association Council on Education (AVMA COE), the Australasian Veterinary Boards Council (AVBC) and the South African Veterinary Council (SAVC) were present virtually at the School of Veterinary Medicine, University of Glasgow between 7 – 12 March 2021.

2. This was a virtual visitation, postponed from 2020, conducted remotely as a result of restrictions in place due to the Covid-19 pandemic.

3. A self-evaluation report (SER) was prepared by the School and provided to the Visitors two months before the visit. The SER had been produced a year ago and then updated in advance of the rescheduled virtual visitation. The Visitors were also given access to a repository of supporting documents including examination papers, external examiners' reports, committee records, course material, staff CPD records, as well as access to the College's Virtual Learning Environment.

4. The Visitors toured the facilities, including various off-site premises used for core teaching, through a combination of pre-recorded and live video footage, and stayed together as a group for the majority of the meetings with staff and students.

5. Meetings with staff and students were held via the Zoom platform, in line with the joint international virtual visitation guidelines, agreed by RCVS, AVMA, AVBC and SAVC.

6. The Visitors are grateful to Professor Cameron, and all the staff in the School for their help and hospitality during the visit. In particular, thanks were given to Caroline Hutchinson and her team for their professionalism in the organisation of the visit, the creation of the virtual base room, and their efficiency in the light of repeated requests for additional information from our team.

7. The Visitors are aware of the considerable amount of work and time that is taken up by these visitations, and thank the staff from the various departments who made themselves available. The Visitors would also like to thank the employers and alumni who attended the meetings and the undergraduate and postgraduate students who met with the Visitors to talk about the experience of studying at Glasgow. The Visitors commend the School on the quality, commitment and motivation of its veterinary students, including postgraduates, interns and residents. Their contribution to the visit was most important.

Summary of findings

Standard 3 – Facilities and Equipment

Commendations

1. The School is to be commended on the new Mary Stewart Building, which has improved social and study facilities for students within the school.

Suggestions

2. Continued progress on the proposed new post-mortem building to modernise and improve these facilities and increase the clinical skills unit capacity is encouraged. The School should update the accrediting bodies on any changes to the timeline for the completion of the new post-mortem building.

3. A comprehensive review of Health and Safety oversight policies at the level of SVM Senior Management is suggested.

4. The school is encouraged to develop a standardised format for the annual review of the distributive sites (e.g. agenda and notes).

5. The school is encouraged to implement any upgrades suggested by the disability access report.

Standard 4 – Animal Resources

Recommendations

6. The Schools must ensure that all relevant animal handling training and assessment is successfully completed prior to students first extra mural placements with the relevant species.

Suggestions

7. The School is encouraged to continue to explore areas to reinforce resilience in clinical case material provision for production animal teaching.

Standard 5 – Information Resources

Suggestions

8. The online platform (Mahara) should be evaluated in terms of usefulness and user-friendliness to staff and students, to ensure that the best platforms are utilised.

Standard 6 – Students

Commendations

9. The SVM and the University of Glasgow are commended for the support services that they provide for their students, especially during the pandemic. The SVM staff are further commended for their exemplary and prompt support and the genuine caring attitude that they provide to their student body.

Suggestions

10. The School should review the clinical learning environment and the processes to respond to concerns, in order to ensure a consistent, positive learning environment.

11. The School should update the accrediting agencies on the outcome of the review of the negative learning environment in hospital rotations.

Standard 9 – Curriculum

Commendations

12. The school is commended for the pedagogical design of the curriculum and the constructive alignment of the assessment with learning objectives.

13. The process for embedding clinical reasoning is comprehensive and well-constructed.

Suggestions

14. The School is encouraged to develop and implement the proposed online introduction to teaching module for external and postgraduate contributors to the teaching programme and ensure that once implemented, the module is consistently completed.

15. The school is encouraged to review the development of clinical communication skills, including “difficult conversations” with clients.

16. The School should ensure that all students obtain both red and white meat full throughput abattoir experience.

17. The School should implement a mechanism to record and follow up safety incidents occurring on EMS reported by either the provider or the student.

18. The School should implement a structure and process that allows EMS providers to formally report on the EMS system.

Standard 10 – Research Programmes

Suggestions

19. The School is encouraged to increase undergraduate involvement in hands-on research projects and take steps to ensure that the SVM and the RIs continue to work together to provide research opportunities for students and faculty.

20. The School is encouraged to improve collection of data relating to student research presentations, awards, publications and entry into research programmes after graduation.

Standard 10b – Assessments

Suggestions

21. It is suggested that the School reviews its assessment barriers, and the extent to which failing students may progress, particularly in relation to any with welfare implications and safety implications for animals, the student and any others present.

22. It is suggested that the school reviews the way the summative end of course assessment is aggregated to ensure that students display competence in each discipline within the assessment; that is, to avoid an overall satisfactory performance obscuring unsatisfactory performance in one area.

23. It is suggested that the School reviews the balance between shorter in-course and larger end of year assessments, with a view to spreading summative credits more widely. Students are clearly aware of assessment and curricular design, but greater understanding of the summative rationale will aid understanding and acceptance of the assessment programme.

Standard 11 – Outcomes Assessment

Recommendations

24. The college must have processes in place whereby students are observed and assessed formatively and summatively, with timely documentation to assure accuracy of the assessment for having attained each of the following competencies:
    7. understanding of health promotion, and biosecurity, prevention and control of disease including zoonoses and principles of food safety

25. The School must ensure that documentation exists that all students have attained competence in food safety and veterinary public health.

Suggestions

26. The School should consider the addition of mid-rotation formative feedback in all rotations.

Standard 1 – Organisation

Background

1.1 The Glasgow Veterinary College started in 1862 and is part of the College of Medical, Veterinary and Life Sciences (MVLS) at the University of Glasgow.

1.2 The school's vision is to maintain an exciting, innovative, and evolving educational experience that prepares the students for a rewarding lifelong career; to conduct high quality animal health and biomedical research in partnership with their institutes; and to promote knowledge and excellence in the application of veterinary medicine. Their aim is to inspire both staff and students and cherish the values of integrity, creativity, equity, diversity, openness, and academic freedom.

1.3 The University of Glasgow is recognised by all appropriate Government departments at both UK and Scottish levels. The arrangements for quality assurance and enhancement are set out in the Quality Enhancement Framework Guide (QEF) as agreed by the Quality Assurance Agency Scotland and Scottish Funding Council. The framework provides for institutional level external review known as Enhancement-Led Institutional Review (ELIR) and periodic internal reviews of subject areas. The University underwent its most recent ELIR in 2019 and achieved the highest possible outcome. Veterinary Medicine last underwent a Periodic Subject Review (PSR) in February 2019.

1.4 The most senior decision-making body of the University is Court, which has overall fiscal responsibility and approves strategy for the University. The Senate is responsible for academic governance. The Head of the School of Veterinary Medicine is a member of the MVLS College Management Group with the other School Heads, the Vice-Principal & Head of College, the College Chief Operating Officer, College Deans, Directors of Research Institutes, Head of Finance and Head of HR.

1.5 After restructuring of the University in 2010 most staff with significant research activity were assigned to relevant research institutes within MVLS, with those formerly in the Faculty of Veterinary Medicine primarily going to the Institutes of Inflammation, Infection and Immunity (IIIs) and Biodiversity, Animal Health and Comparative Medicine (BAHCM), with a small number going to Cardiovascular and Medical Sciences (CAMS). These staff now have 'Associate Academic' status in the School. Similarly, lecturer track and clinical track academic staff in the School hold 'Associate Academic' status in an Institute/Institutes relevant to their research interests. Staff within the School are still expected to carry out research and scholarship primarily in the areas of comparative medicine and clinical science through hospital-based and clinician-led research, which forms the scientific underpinning of evidence-based medicine in the School. Although the School is responsible for managing the veterinary programme, the delivery of teaching is the responsibility of all School and associate academic staff.

1.6 The School has five academic divisions, mapping to subject areas. These are: Equine Clinical Sciences (including the Glasgow Equine Hospital & Practice), Farm Animal Clinical Sciences (Cochno Farm & Research Centre and the Scottish Centre for Production Animal Health & Food Safety), Small Animal Clinical Sciences (including the Small Animal Hospital), Veterinary

Pathology, Public Health & Disease Investigation (including Veterinary Diagnostic Services)
Veterinary Science & Education

1.7 The matrix is completed by two administrative divisions: Administration , Undergraduate School

1.8 Strategic recommendations are brought forward to the School Executive, which meets every month or as necessary. The School Forum, which is open to all members of faculty and staff irrespective of job family association, is held periodically to discuss strategic goals and important issues for the School. The School has several academic committees that report on a trimesterly basis; there is undergraduate and postgraduate student representation on all relevant committees.

1.9 The Head of School is appointed by the University Court and is a qualified veterinary surgeon and a member of the Royal College of Veterinary Surgeons. The Head of School is ultimately responsible for all aspects of School management including staffing, the delivery of the professional curriculum, the running of the clinical facilities and for research in the School.

1.10 The academic management of the veterinary programme is the responsibility of the Programme Leader, supported by the phase and course leaders and the Heads of Division. The Associate Head of School for Learning, Teaching and Assessment (LT&A) has oversight over all undergraduate teaching and assessment in the School. There is faculty, staff and student representation on the Learning and Teaching Committee, the BVMS and BSc Programme Boards, the Information Services Committee and the Student Staff Liaison Committee, which are the committees that govern education in the School. The Clinical Directors have responsibility for the commercial functions associated with the Small Animal Hospital (SAH), the Glasgow Equine Hospital & Practice, Scottish Centre for Production Animal Heath and Food Safety (SCPAHFS) and Veterinary Diagnostic Services (VDS) supported by the Director of Commercial Operations. The Associate Head of School (LT&A), the BVMS Programme Director and all of the Clinical Directors are veterinary surgeons and members of the Royal College of Veterinary Surgeons.

1.11 Management of the School is a partnership between academic and professional services staff. The Head of School Administration is responsible for the School's professional services staff, which operates through two divisions: the Undergraduate School that provides support for students and the delivery of the programmes and the Administration Division that supports the management and operation of the School. These areas are led by three senior and experienced members of professional services staff who are line managed by the Head of School Administration. Governance is provided through the relevant School committees (Learning and Teaching Committee and the School Executive). In addition, Professional Services Staff who directly support clinical activity are line managed through the Divisions.

1.12 The School has no plans to make significant changes to its overall management structure. It does have potential plans to change the model for operating the Small Animal Hospital using a company structure. Overall the goals of this proposal are to: 1) Enhance the student experience; 2) Ensure sustainability as an excellent teaching platform; 3) Develop clear career pathways for both academic and clinically focussed staff 4) Offer more attractive terms and conditions for specialist clinical staff; 5) Maintain and grow caseload and income streams 6)

Ensure that the Small Animal Hospital continues to be a premier provider of top quality care to their pet owning community.

1.13 The University has a policy on equality and diversity that promotes and embraces diversity by valuing and respecting the perspectives and contributions of all staff and students. A University level Equality and Diversity Unit supports Schools and Institutes in promoting and embedding this culture across the University community. The School is actively engaged in a range of initiatives to promote diversity and inclusion including for example: schemes to increase take up of the veterinary programme by under-represented socio-economic groups; support of the School's LGBTQ+ community; a student Diversity & Inclusion sub-committee; and wide-ranging support for students with disabilities and mental ill-health.

1.14 Partner practices provide a service and enter into a paid contract with the University of Glasgow following a tender process. This approach applies to both the farm animal and equine rotations and results in contractual arrangements with a framework of practices. The School also has partnerships with a dermatology specialist practice and two charity organisations: the People's Dispensary for Sick Animals (PDSA) and the Scottish Society for the Prevention of Cruelty to Animals (Scottish SPCA). All external teachers are listed as affiliate staff and have full access to the virtual learning environment and other University resources.

1.15 **COVID-19 mitigation/actions**

Short Term:

19/20: organisational operational adaptations include: Working from home, shift working, furlough scheme; Regular online meetings with other schools (and accrediting bodies) nationally and internationally to share practice on teaching delivery, EMS, health and safety, diversity and inclusion etc

Medium-Long Term:

20/21: as above and also: Additional resources approved to deliver adjusted on- and off-campus teaching.

Comments

1.16 The school has a clear vision/mission statement displayed prominently on its website. Wording in the SER matches that published.

1.17 The school has clear strategic goals, also published on its website, linked to a comprehensive strategic plan.

1.18 The School is part of a College of Medicine, Veterinary Medicine and Life Sciences within the University of Glasgow. The University of Glasgow has degree awarding powers, and its overall standards and quality were confirmed in a recent Institutional Audit.

1.19 The School is a discrete organisational structure within the College of Medicine, Veterinary Medicine and Life Sciences. The Head of School has clear leadership responsibility for the School, and the HofS's voice is heard at college and university levels. The School has comparable autonomy with other professional schools. The HofS has discretion particularly with

regard to non-pay budgets, but the HofS's submissions regarding faculty/staffing needs are seriously considered in all discussions related to university-level personnel decisions.

1.20 The HofS is a veterinarian registered with the Royal College of Veterinary Surgeons, the UK licensing authority. As noted above, the HofS, within the MVLS College, has considerable discretion in relation to the non-pay budget and a meaningful voice at university level around faculty/staffing needs and numbers.

1.21 The School has clear administrative support structures relating to the delivery of the three strands of its mission, namely education, research and clinical services. Since the last visit, there has also been considerable change in relation to the design and delivery of the BVMS programme. Regarding the future, the School is looking at changing the business structure of its small animal hospital, but this is on hold due to the short-term focus on the pandemic.

1.22 The school has clear governance structures, that link to its parent College and the University level quality assurance processes. Continuity of clinical partner provision is provided through four-year contracts, with annual reviews, use of more than a single provider, and currently some built-in redundancy, which allows switching providers, if needed. The school has been conscious of the need to refine its very different curricular model, compared to its previous curriculum, so in the last seven to eight years has been proactively and reactively responding to faculty and student needs. Students recognise the curricular design, its learning benefits for them, and their role in its co-creation.

1.23 The School has been recognised for its equality, diversity and inclusivity policies and activities through the Athena Swan programme. It also has a Senior Faculty Champion in this area, and all Senior Managers are supportive of this work. While considerable focus, originally, was on gender issues (and this continues), work is now much broader, occurring within UK legal frameworks. Funding for five extra student places has been gained; these are designated and specifically allocated in support of widening participation.

Standard 2 – Finances

Background

2.1 The University's Senior Management Group assesses the strategic risks that the University faces at each monthly management meeting and identifies and executes appropriate mitigating plans. Court continues to emphasise that strong financial management is essential and that this should be achieved whilst ensuring that progress is made towards the aspirations set out in the University's 2015 – 2020 strategy, Inspiring People – Changing the World.

2.2 The financial position of the School and the University has allowed investment in staff. Headcount figures in the school have increased from 166 in 2013 to a current figure of 234.

2.3 Despite reductions in government funding over the last 5 years, revenue has continued to increase year on year. The main reasons behind this have been growth in commercial income (mainly within the Small Animal Hospital) and tuition fees, via international students. National lockdown impacted revenue in commercial areas from mid-March 2020 onwards. Activity levels however are now broadly in line with pre-COVID expectations.

2.4 Based on SFC funding and capacity, the target numbers for the School are 135 students per year (including 5 widening participation places) with approximately 33% Scottish/EU, 20% RUK and 45% international. The T-grant is supplemented by tuition fee income for undergraduate and postgraduate students. Tuition fees for Scottish resident students are paid to the University by the Student Awards Agency for Scotland (SAAS), rather than by the individual student, and do not require to be repaid. From 2012/13, and in line with changes to student funding in other parts of the UK, students resident in England, Wales or Northern Ireland are liable for fees, which they pay directly to the University. These fees are considerably higher than those for Scottish/EU students, and for veterinary medicine this fee is set at £9250 per annum, the maximum fee allowable for the rest of the UK. International students and UK graduate students undertaking the BVMS programme are liable for full cost fees, which for a student entering the programme in 2019/20 are £29,250 per annum for each of the five years of study.

2.5 Since the University/College restructuring, research funding has been largely distributed to institutes within the college of MVLS.

2.6 Commercial activity represents a major income stream for the School. From 2015 through to 2019 hospital income has risen by 31% (£6.7 million to £9.1 million) representing an average rise of over 6% year on year. The rise in income is attributable to the Small Animal Hospital, with growth a result of previous and ongoing investment in both hospital facilities and personnel resulting in a significant expansion in case numbers. Plans to operate the Small Animal Hospital under a new company model have been put on hold. The School currently believes the desired objectives can be achieved within the current operational structure. Income at the Glasgow Equine Hospital has reduced by £85k when comparing the most recent figures to a 2015 baseline. Efforts have been taken to address this by the introduction of an Equine First Opinion service.

2.7 Donations to the School are directed to one of three main projects; The Small Animal Hospital, Glasgow Equine Hospital, or James Herriot Scholarships funds. Gifts to these projects are used to fund student projects, promote research, and purchase equipment. Funding can vary from year to year and in 2019 was boosted by the bequest of £2.6 million to the Small Animal Hospital.

2.8 Increased revenue over the last 5 years has been re-invested within the School. Expenditure has increased by 24% over the period, compared to a revenue increase of 19%, demonstrating the ongoing investment in all aspects of School activity.

2.9 Based on the current allocation of costs to teaching hospitals, revenue has averaged at 107% compared to costs over the past 5 years. However, it should be noted that in broad terms teaching hospital costs are direct costs only and do not reflect, for example, University overhead or utility costs.

Annual cost of training a veterinary student (£)	2019	2018	2017	2016	2015
	24,074	18,890	17,040	15,973	14,881

Comments

2.10 The School finances as shown are sufficient to support adequately the requirements for the School to meet its mission and achieve its objectives for veterinary education including the provision of necessary clinical services (on-site and distributed).

2.11 The Head of School has appropriate levels of autonomy with evidence of a collaborative, flexible relationship in terms of the annual planning cycle noted.

2.12 The allocation of resources for the upcoming 5 years appears to be realistic and is based on the income and expenditures of the last 5 years. The School provided additional information on contribution level documenting that the contribution level of the School has remained relatively static in the face of increased clinical income. The importance of an ongoing positive relationship with the College of MVLS is emphasised to ensure the contribution level remains at or close to this point.

2.13 It is noted that the estimated annual cost/student of providing veterinary education has increased substantively over the last 5 years; this highlights the importance of considering efficiencies in programme delivery to ensure this does not continue to escalate to unsustainable levels.

2.14 A substantial percentage of the School's income comes from international student fees. The increase in revenue from this source over the next five years presumes similar numbers of international students will be recruited. This must be closely monitored as it becomes clearer how the appetite for international travel and education is impacted post pandemic.

2.15 The research revenue is low partly due to the organisational structure meaning research revenue does not sit in the School's budget since the transition of research active faculty to the Research

Institutes. It is important that over time this does not impact on the importance the School places on ensuring adequate research opportunities for its students and staff.

2.16 The School runs a small number of other programmes notably a BSc and some Masters programmes. These programmes are of much smaller scale than the BVMS and their delivery does not adversely affect the BVMS programme.

Standard 3 – Facilities and equipment

Background

3.1 The School is located on the University's Garscube Campus. Co-located on the campus are associate staff in MVLS Research Institutes who contribute to veterinary teaching and research provision. Garscube also houses the University's principal sporting facilities as well as the Wolfson Hall of Residence, which typically accommodates veterinary students in their early years of study.

3.2 Veterinary teaching and the majority of clinical activities are delivered on Garscube campus, with extensive use also made of the University's Cochno Farm (5 miles). Although the Garscube site is self-sufficient, students also have access to the main University campus at Gilmorehill (3 miles), where they can utilise the University's substantial library collection (in addition to the James Herriot library) and access wider provisions for sports, social activities and student support services. The facilities can be broadly divided into six main geographical areas:

- The Teaching Complex (comprising the Mary Stewart and McCall Buildings and a linked annexe)
- The Small Animal Hospital
- Glasgow Equine Hospital & Practice (based at the Weipers Centre)
- The Scottish Centre for Production Animal Health & Food Safety
- The Research Complex (incorporating Veterinary Diagnostic Services)
- Cochno Farm & Research Centre

3.3 The Teaching Complex comprises the Mary Stewart Building (MSB) and McCall Building and a linked annexe. The MSB is a multi-purpose learning and social hub with a café and seating for up to 400. It has a range of teaching spaces to accommodate a variety of learning styles. It links directly to the School's primary teaching and related spaces. The McCall building has three floors and houses the two principal lecture theatres; seminar rooms; the Clinical Skills Facility (see below); the post-mortem unit; two student computer clusters; and administration and staff offices. The annex houses the James Herriot Library and library staff offices, student locker rooms and showers, and one seminar/meeting room. In late March 2020 the teaching complex and offices were closed due to lockdown, with teaching and assessment pivoting into an online format.

3.4 The small animal hospital (SAH) is a two-storey purpose built building that holds RCVS-accredited Veterinary Hospital and Emergency Service Clinic status. There are 14 consulting rooms and a spacious and bright reception area with separate cat waiting area. The central treatment area is used for all non-sterile procedures and acts as the main hub of the hospital. There are 12 wards; 1 ICU ward, 1HDU ward, four main dog wards (plus 4 dog runs) and a separate cat ward. There is a mixed day care ward, exotic animal ward and isolation wards (two for infectious diseases and one for neutropenic patients). The diagnostic imaging area comprises eight rooms with MRI, CT, digital radiography, and general and cardiac ultrasound

machines. There are four surgical theatres and a prep room as well as designated changing and scrub areas and facilities for in-house sterilisation of equipment and sterile stores.

3.5 The Wellness Centre provides facilities for aspects of physiotherapy including hydrotherapy. The comparative oncology suite houses the radioactive iodine cat ward as well as providing rooms for the safe administration of chemotherapy. The suite also contains a linear accelerator maze and control room. The upper floor of the SAH contains office space for administrative staff, clinical scholars and clinicians as well as student facilities including two seminar/meeting rooms, an IT room, and two communal/social areas. During the initial period of COVID-19 restrictions and lockdown, the SAH continued to provide 24/7 emergency care for referred small animal cases, while elective and non-urgent procedures were temporarily suspended. Again, with the easing of lockdown restrictions the hospital was able to offer its full range of services from July 2020.

3.6 The equine hospital holds RCVS-accredited Veterinary Hospital status. The hospital has one lecture theatre, a seminar/ meeting room, social space, small laboratories, clinical skills area and staff offices. The clinical area comprises two surgical suites, each with dedicated induction, preparation, theatre and recovery areas. It also contains three examination rooms (with fixed or mobile stocks), one radiography suite, one nuclear scintigraphy suite, an MRI unit, and an indoor lameness examination hall. The Sir James Armour Stable blocks have 20 hospital boxes (stalls) and two barns together with a staff room, in-house laboratory, nurses' office, pharmacy, clinical records room and examination area and an eight PC computer room for students. The floodlit indoor riding arena is located nearby, as is the hard lunge area and horse rescue site. The large animal isolation unit provides secure isolation facilities for both equine and production animal species. It has four self-contained stable units, where one unit is equipped with a hoist to aid support of a horse via a sling. Three of the units are used for equid cases and one for production animals.

3.7 A new equine primary care service was formally launched in Summer 2020. This service complements existing arrangements with Clyde and MBM Vet Groups and will provide additional capacity for primary care instruction. This new ambulatory service operates out of the equine hospital, but is resourced by primary care clinicians. Portable video endoscopy, oroscopy and ultrasonography allow students to be directly involved in primary care procedures and diagnostic interpretation. Point of care diagnostic testing is used to allow students to be involved in diagnostic interpretations. The practice management system allows students to see a patient's entire clinical history (including PACS diagnostic images and test results) while horse-side. In addition, this facility should increase the number of referrals to the hospital, increasing the case-load and providing additional instructional opportunities for students rotating through the hospital. It is anticipated that referrals from the practice will provide a more complete learning experience; students will be able to trace cases back to see the decision making and disease progression that led to referral and they will also follow cases once they have returned to the Primary Care Service.

3.8 The Scottish Centre of Production Animal Health and Food Safety holds RCVS General Practice status. It provides flexible accommodation for up to 30 adult cattle or a larger number of small ruminants, including two secure bull pens. Typically around 18 cattle and 24 other ruminants are housed. Each pen is equipped with a crush for clinical examination. There is a

separate area for pigs, which has three pens and can accommodate up to 15 finishing weight pigs. The centre also contains two areas for clinical examination classes with flexible access crushes and handling facilities for safe handling of all sizes of cattle (including bulls). There are two large calving simulators and rectal simulator models. The facility has a separate teaching area with flexible provision of 2 crushes for handling of adult cattle. There is a preparation room where students can access clinical case records. The facility contains a pharmacy plus a laboratory that is used for sample processing and basic analyses, as well as reproduction teaching. There are three seminar rooms, including two designated as clean areas (no boots or waterproofs allowed) and one designed as a dirty area immediately adjacent to the teaching area in the main animal accommodation building. There is open plan clinical office space, currently home to one academic clinician, two interns and two clinical scholars. The facility operates three fully equipped ambulatory vehicles available for transporting students and staff on farm visits.

3.9 The Jarrett Building principally provides the veterinary students with a learning environment to develop their skills in Anatomy, Clinical Pathology, Histopathology and Infectious Diseases. This building houses one small lecture theatre; one principal Gross Anatomy Dissection teaching laboratory, one Histopathology teaching laboratory, one reptile unit (part of the Clinical Skills Facility), several laboratories of the Veterinary Diagnostic Services unit, and a range of additional research laboratories and staff offices. The Veterinary Diagnostic Services (VDS) laboratories are located across 3 principal laboratory complexes (Histopathology, Clinical Pathology and Infectious Diseases), with a shared common sample reception area. Further details are outlined in section 3.12. The Henry Wellcome Building for Comparative Medical Sciences contains several research laboratories; one seminar room/meeting room; staff resource centre with cafeteria; and staff offices. The Sir Michael Stoker Building houses the MRC-University of Glasgow Centre for Virus Research, the UK's largest grouping of human and veterinary virologists. This building contains a multitude of research laboratories, meeting rooms and staff offices. The Urquhart Building for Parasitology houses research laboratories; one seminar room and staff offices. The Botham and MacRobert Buildings both house research laboratories and staff offices. Faculty and staff from the School and two of it's partner Research Institutes (Institute of Biodiversity, Animal Health & Comparative Medicine; Institute of Infection, Immunity & Inflammation) occupy these buildings.

3.10 The Cochno Farm and Research Centre is a commercial upland pastoral farm extending to 345 hectares and an altitude of 1,200 feet that is located approximately 5 miles from the Garscube campus. The enterprises consist of: 60 cow Holstein dairy herd plus dry cows and youngstock, 40 cow Angus x beef herd (cow-calf/suckler) plus youngstock and around 600 Easycare ewes plus rams/lambs. The farm is used extensively for teaching a broad range of topics around production animal management/husbandry. In addition, it is used extensively for production animal clinical teaching, including herd/ flock health planning and management. In addition to the farm resources available, Cochno House affords additional facilities used to support teaching, e.g. changing facilities, seminar room and meeting/tutorial rooms. Finally, the farm also acts as the University's sole facility for conducting large animal research (including Home Office-licensed research), principally in ruminants, equids and poultry.

3.11 There are School-level policies and standard operating procedures (SOPs) for specific areas, including clinical facilities, for a variety of health and safety matters, such as radiation

protection/monitoring, safe use of chemotherapeutic/cytotoxic drugs, biosecurity, animal handling, pregnancy of staff/students etc.

3.12 The post-mortem facility is relatively small, limiting the number of students who can observe necropsies at any one time, but teaching is structured into small group cohorts. In addition, the School has high quality image capture equipment in the facility so that teaching material can be recorded and if required relayed synchronously to the adjacent lecture theatre. As part of the School's commitment to continue to provide up-to-date clinical teaching facilities, the School is currently progressing plans for a new purpose-built post-mortem facility to replace the existing facilities used to support teaching, research and commercial activity. The University's Estates and Commercial Services department are working closely with local authority planning and architects to progress design options in conjunction with key School faculty and staff. Once the current exercise is completed the School and College senior management will review the options and submit their preferred design to the University for approval. It is anticipated that the facility may be completed around 2022-23.

3.13 The strategy for decisions on upgrading or proposing new buildings is largely managed by the School's management team and the programme for upgrading and maintaining buildings is managed by the University's Estates & Commercial Services department, which is a centralised service provider covering all areas of the University. In terms of routine maintenance, the estates team have a cyclical schedule for many aspects (e.g. painting) and any maintenance required out-with the standard cycles (including urgent maintenance) can be requested 24h per day via the Estates online maintenance request system. Where upgrading of buildings is likely to be a significant new cost, the School is required to submit a New Project Request to the College of MVLS for discussion between the School, College and Estates senior management teams for collective approval.

3.14 The strategy for new equipment purchases is largely based on those items required to maintain a high-quality clinical facility in order that the students have the most appropriate clinical environment for instruction, and to ensure that the clinical environment is reflective of that available in many private practices when students enter the workplace post-qualification. The programme for upgrading equipment is managed locally within the School with key input from a senior financial analyst.

3.15 The School has access to a number of slaughterhouse facilities throughout Scotland. Visits to these sites are normally restricted to small groups, typically no more than 6 individuals, hence each site will likely have <20% of students visiting overall. There is always a key member of veterinary public health faculty with the students at all times leading the teaching session. Abattoir teaching is currently done through the use of virtual demonstrations whilst in person access remains a challenge, due to the pandemic. The following providers are normally used, many of which have cutting plant functionality as well as a slaughterhouse:

- Anglo Beef Processors (ABP) - beef (Perth; 64 miles)
- Braehead Foods – game birds, poultry (Kilmarnock; 25 miles – seasonal for game birds but poultry all year round)
- Highland Meats – beef (Saltcoats; 30 miles)
- James Chapman (Butchers) – beef, pigs, sheep (Shotts; 27 miles)

- Robertsons – pigs (Ardrossan; 32 miles)
- Sandyford Abattoir – beef, sheep (Paisley; 10 miles)
- Scotland's Rural College – poultry (Auchincruive; 40 miles)
- 2 Sisters Food Group – poultry (Couper Angus; 80 miles)

3.16 The School has access to a number of food processing units throughout Scotland. The following providers are currently used:

- Belchers (ready to eat products/cutting) – (Prestwick; 36 miles)
- Caledonian Proteins (category 3 processing plant) – (Motherwell; 20 miles)
- Chapmans (butchers and cutting plant) – (Wishaw; 23 miles)
- Cumbria Seafood (oyster beds and depuration plant) – (Ayrshire; 40 miles)
- Fish market (industry, freshness assessment, auditing, holding tanks) – (Glasgow; 8 miles)
- Graham's Dairy (dairy processing plant) – (Bridge of Allan; 37 miles)
- Grayshill (fallen stock plant) – (Cumbernauld; 16 miles)

Number of lecture halls + number of places per lecture hall

Hall	McCall	Ilay	Jarrett	AHTC
Places	186	160	50	132

Total number of places in lecture halls: 528

Number of rooms that can be used for group work (supervised work)
Number of places in the rooms for group work:

Room	A1 to A5	B1 to B5	Kelvin2	Herriot room
Places	12 each	12 each	15	30

Room	Lomond	Dumgoyne	SCPAHFS1	SCPAHFS2	SCPAHFS3
Places	30	8	40	30	40

Room	SAH1	SAH2	Weipers Centre	Cochno Farm
Places	40	30	10	25

Room	PC cluster (McCall)	PC cluster (IAMS)	PC cluster (SCPAHFS)
Places	25	25	15

Total number of places in rooms for group work/supervised work: 483

Number of laboratories for practical work by students + number of places per laboratory

Room	Teaching lab 1	Teaching lab 2	Microscopy suite
Places	50	76	10 (multiheader)

Clinical Skills facility:

Room	Lab1	Cattery	Theatre	Prep	Rm1	Rm2	Communication skills	CSlab2
Places	20	3	12	12	15	15	15	3

Clinical Skills facility (cont.):

Room	Diagnostic imaging	Microscopy	Reading Rm	Small Mammal Rm	Reptile Rm
Places	12	12	8	4	9

Room	Weipers Centre
Places	12

Total number of places in laboratories: 288

Comments

3.17 Standard 3 was assessed via video presentations with added comments from School staff. While this process is aligned with interim pandemic-related accreditation site visit practices, this is an interim substitute for an on-site assessment for compliance with the Standard. An on-site Physical Facilities and Equipment review of both the SVM and the distributed sites within 18 months is critical to the assessment process. Specifically, the safety and biosecurity aspects (such as compliance with operational policies and procedures) need to be reviewed and observed directly, along with observations of the physical facility and equipment to ensure they are well maintained and adequately equipped.

3.18 The improvements to the Teaching Complex (comprising the Mary Stewart and McCall Buildings and a linked annex) appear to have improved primary teaching facilities and related student interaction space.

3.19 A new Small Animal Hospital which holds RCVS-accredited Veterinary Hospital and Emergency Service Clinic status is operational. In the footprint of the old small animal hospital a new clinical skills facility was built, expanding opportunities for student learning.

3.20 Post-mortem and diagnostic laboratory facilities are currently adequate for student teaching. A new post-mortem facility and reconfiguration of the existing space to provide a large animal cadaver surgery facility as part of the clinical skills facility is planned for 2023.

3.21 An extensive review of Health and Safety policies and procedures (e.g., SOPs and risk assessments) revealed varying formats, and indications that some were not reviewed annually or were dated years ago without a recent review. The School's Statement on Standard Operating Procedures indicates that the governance of school process and procedures is through the School committee structure. Staff indicated that additional oversight was at the level of the SVM.

3.22 The Visiting Team received information that an ambulatory vehicle did not have a means to secure the controlled drug lockbox. Evidence was provided that the controlled drug lockbox was secured to the vehicle during the site visit.

3.23 Notes from discussions and reviews with Distributed Sites used for Core Teaching were available for review. The agenda, format, and meeting notes varied considerably (examples: names of participants were not consistently recorded; there wasn't a consistent set of agenda topics).

3.24 A disability access report with costing is available for the McCall and Jarrett buildings on the Garscube campus.

3.25 A 2018 SVM Annual Review revealed that cattle handling areas at the Cochno Farm needed to be reconfigured to facilitate a safe environment. In response to this report, these areas were retired and new facilities were constructed.

Commendations

3.26 The School is to be commended on the new Mary Stewart Building, which has improved social and study facilities for students within the school.

Suggestions

3.28 Continued progress on the proposed new post-mortem building to modernise and improve these facilities and increase the clinical skills unit capacity is encouraged. The School should update the accrediting bodies on any changes to the timeline for the completion of the new post-mortem building.

3.29 A comprehensive review of Health and Safety oversight policies at the level of SVM Senior Management is suggested.

3.30 The school is encouraged to develop a standardised format for the annual review of the distributive sites (e.g. agenda and notes).

3.31 The school is encouraged to implement any upgrades suggested by the disability access report.

Standard 4 – Animal resources

Background

4.1 Due to government restrictions and health considerations final year teaching within the clinics was suspended from March-August 2020. This coincided with the companion animal clinics moving to essential veterinary services only (emergency and urgent) and therefore a significantly reduced caseload.

4.2 The Small Animal Hospital (SAH) receives referral cases both during and out with normal hours. In addition, the out-of-hours emergency service for first opinion practices has increased the first opinion case load of the hospital. This combined with the first opinion case load attending the People's Dispensary for Sick Animals (PDSA) clinic provides a number of cases for the teaching of small animal medicine and surgery. In addition, students attend the Scottish Society for the Prevention of Cruelty to Animals (Scottish SPCA) where they carry out neutering and dental procedures under supervision. Students in BVMS1, 2 and 3 undertake scheduled classes for practical handling and examination of small mammals and reptiles which are housed and maintained on site as an important teaching resource. The school has adapted teaching practices within the SAH to enable students to continue to gain 'hands-on' practical experience with clinical cases, while maintaining physical distancing. Although the SAH saw cases on an emergency-only basis during lockdown, the caseload returned to normal/near-normal levels well in advance of the final year student rotations commencing in August.

4.3 Food Animal teaching makes maximum use of a hospitalised caseload of diseased animals, purchased by the School for teaching purposes. Recovered clinical cases become part of a resident population of healthy animals that are used for clinical exam teaching throughout the curriculum.

4.4 Students on the farm animal rotations are also involved in first opinion casework on several beef and dairy farms, including the University's Cochno Farm. In addition, food animal first opinion cases are seen when the students attend the Clyde Veterinary Group (CVG). Throughout the programme the students have access to healthy animals housed at the School's Galloway building and Cochno Farm and specific scheduled practical classes cover issues such as condition scoring, lambing and cattle pregnancy diagnosis.

4.5 Referred equine cases are seen at the Glasgow Equine Hospital; first opinion equine cases are currently seen at two local practices through teaching contracts. The School has recently launched a two veterinarian first opinion practice (operating from the equine hospital) with the aim of improving access to first opinion teaching material and enhancing hospital caseload. The BVMS5 working equid selective rotation at the American Fondouk, Morocco, is a learning experience which provides extensive experiential clinical training for approximately 30 undergraduate students with support from equine clinicians from the School. The referred equine case load has slightly decreased and this has been addressed by establishing teaching contracts with two first opinion equine practices.

4.6 Since the decline in pig and poultry post-mortem examinations, steps have been taken to address this; pig carcasses for student post-mortem examinations are sourced in smaller

numbers from Moredun Research Institute and in larger numbers from a local fallen stock firm (Grayshill, Cumbernauld). This has resulted in a total of 36 pig post-mortems being conducted by students during the academic year 2019/20 to mid-November 2019, with an additional 10 carcasses frozen for use over subsequent months. Poultry and gamebird carcasses are being sourced from local poultry slaughterhouses including Auchincruive, Ayr, and from fallen stock firm Grayshill. As a result, 30 poultry or gamebird post-mortems have been conducted by students during academic year 2019/20 to mid-November 2019.

4.7 Although many of the clinical skills are taught using simulators or cadavers, there is extensive use of staff/student owned pets in these classes (50-60 dogs). The School maintains a group of four teaching horses which are utilised extensively in BVMS1-4 clinical skills training. The School has a collection of normal reptiles (snakes, lizards, tortoises and terrapins) and caged pets (rabbits, guinea pigs, rats and ferrets) which are used for teaching basic handling in addition to three ragdoll cats. Within the farm animal department, a resident population of 5 cows, 8 sheep, 2 goats, 2 pigs and 6 chickens is maintained for clinical skills teaching.

4.8 Off-campus instruction takes place at one large farm animal practice, the Clyde Veterinary Group, one specialist practice, (Dermatology Referrals), one of two equine practices (Clyde Veterinary Group and MBM Veterinary Group) and two small animal charity clinics, (PDSA and Scottish SPCA). All these practices have staff members with subject expertise qualifications as well as appropriate diagnostic imaging facilities, clinical laboratories, information technology and reference resources. For instance, the equine practices are staffed by equine-only veterinarians with a range of experience but include individuals who have practised for more than 10 years and who hold RCVS Advanced Practitioner status.

4.9 School staff are embedded at the Scottish SPCA and PDSA and take primary responsibility for student learning at these sites. The emphasis at the practices is on experiential learning, with the students being encouraged to participate in casework at a level that is appropriate to their stage of development. Tutorials are used to complement the casework by stimulating discussion and reflection on topics.

4.10 Contractual arrangements/agreements are in place with the external providers of off-campus instruction.

4.11 An Electronic Patient Record (EPR) system, StringSoft, is currently used to store clinical data from cases attending the SAH. The system is linked to the imaging (PACS) and clinical pathology databases to ensure that the complete case details can be viewed on any desk-top computer. This increases the access to clinical data for all clinician and student users. All critical data are coded within the records using the VENOM system. Images can be displayed within the records improving the quality of data storage. Information held electronically can be accessed by BVMS5 students. StringSoft is also used for food animal clinical recording, and the equine hospital will soon be adopting the system. The Equine hospital adopted Stringsoft in 2020. . Records of the keeping and tracking of controlled substances are maintained and monitored. Reports can be created and run for research purposes and these can be added to consultation information and collated as a final report.

4.12 Every EMS placement undertaken requires feedback from the placement provider about the student. The form used is based on RCVS guidelines and includes graded tick boxes together

with a free text box. Any poor feedback received is investigated by a meeting between the student and the EMS Coordinator.

4.13 Cadaver materials for practical anatomy training are sourced fresh from shelters and abattoirs. Students also have access to embalmed and plastinated specimens. Embalmed specimens are stored in formalin whilst fresh specimens are stored in the freezer, or temporarily in the chill. Bones are available in demonstration classes in BVMS1 and 2, and during BVMS2 students are loaned sets of bones for the duration of the year. Other teaching materials include posters, radiographs, information sheets and students take part in equine/farm animal limb palpation exercises on live animals.

4.14 Small animal caseload in the referral hospital includes canine and feline patients, but few small pets or exotics. The proportion of dogs seen at the hospital is higher than cats, but students have good opportunities to work with feline patients during their small animal primary care rotation as well as at the hospital.

4.15 Students are prepared in BVMS1-4 through a series of clinical skills practical sessions. They then spend a week with the clinical pathology service and 2 weeks with the diagnostic imaging service in BVMS5. Day 1 skills in both areas are also developed in other rotations (e.g. equine core, production animal core, small animal specialist and small animal primary care). DOPS assessments are completed in both areas.

4.16 The Professional portfolio underpins reflective learning throughout the programme and is designed to provide an opportunity for students to consider cases or situations in greater depth supported by relevant literature, staff feedback and discussion with a portfolio adviser. The portfolio grows as students move throughout the programme – in BVMS5 students are required to produce 8 assets built around a reflection and supported by relevant evidence and consideration of the literature.

Comments

4.17 Clinical resources for companion animals (small animal and equine) are good and represent a balance of primary care and referral practice. Students have multiple opportunities to gain experience in a range of clinical settings and are active participants in the work-up of patients.

4.18 In order to enhance the students' experience with pigs, the School has greatly increased the numbers of pig carcasses available for necropsies. The School has also recently entered into an agreement with the Garth Pig Practice (pig specialty practice with 11 pig veterinarians) for the provision a 5th year Selective in pig practice. This selective will be available to one Professional Phase student per block.

4.19 The School has a range of measures to access clinical resources for production animals teaching and collectively these currently provide an adequate resource. The School is encouraged to continue to explore areas to reinforce resilience in clinical case material provision for this area.

4.20 A meaningful proportion of clinical resource provision occurs at distributed sites (e.g. CVG, MVM, PDSA, SSPCA).

4.21 It was learned that some students had not completed some of the assessments in animal handling prior to attending a relevant pre-clinical extra mural study session.

4.22 The medical records system used on campus (StringSoft) was demonstrated by faculty and students, is comprehensive and is easily searchable by various categories including diagnosis. Students routinely make entries into the medical records and can access the medical records from off-campus. Students do not enter financial information; clinicians should continue to make efforts to involve students in these discussions.

Recommendations

4.23 The Schools must ensure that all relevant animal handling training and assessment is successfully completed prior to students first extra mural placements with the relevant species.

Suggestions

4.24 The School is encouraged to continue to explore areas to reinforce resilience in clinical case material provision for production animal teaching.

Standard 5 – Information resources

Background

5.1 The School operates a blended learning environment, with full library services, and there is continued expansion and updating of the available resources. The University of Glasgow uses a fully supported combination of Moodle and Mahara as its VLE allowing 24/7 access. The VLE is integrated into day-to-day learning and teaching, including provision for self-directed study. In 2019, the School implemented a new structure for course content, highlighting core weekly learning objectives and active learning activities.

5.2 The School has a dedicated library, the James Herriot Library (JHL), in the MSB. JHL offers seating for 140 students and access to 4800 print books, as well as an increasing number of e-books (approximately 430 titles in 2019), and around 40,000 electronic and bound journal titles. Information on resources, including the library catalogue, can be accessed via the "Library Search" on the Library website; this provides a single portal through which to locate all Library resources, including specialist bibliographic databases. Additional facilities include 10 PCs, wireless access, powered desks to enable personal device charging, self-service printing, scanning and photocopying and a self-issue machine. Funding for library materials is devolved to the School, enabling informed decisions to be made regarding the purchase of new materials, and the budget for these materials has increased by 38% since the previous accreditation.

5.3 The School employs a Learning Technology Specialist (1 FTE), and an Information & Data Co-ordinator (1 FTE) to support Faculty and students in using the VLE and to encourage and implement innovation in learning and teaching. An Assessment Process Administrator (1 FTE) is employed to continuously improve assessment processes and data management.

5.4 The JHL is permanently staffed by a Senior Library Assistant who is part of the College Library Support Team (CLST). The CLST Manager provides training and managerial support for JHL from the team, and further cover as required. The qualified College Librarian (CL) is based on the Garscube campus two days a week and the University Library three days a week.

5.5 IT support is provided by Information Services, the joint Library and IT Directorate. Day-to-day support is provided by the Desktop Technician Team that has a member permanently located at Garscube, and server support for the StringSoft system is provided by a member of the Servers and Services team. Other specialist support (e.g. networking) is provided on an 'as required' basis by the appropriate team.

5.6 The School uses a combination of tablet-based and online assessment tools for marking OSCE and DOPS assessments, allowing feedback and marks to be collated and disseminated within 24 hours of assessment. The School currently has 80 Windows 10 tablet devices for these activities, with an annual rolling replacement process. The online system (used for DOPS assessment and final year feedback) allows multiple Faculty to input feedback to individual students, with the completed document automatically sent to students as a PDF for inclusion in their portfolio as evidence.

5.7 The University Library is open 07.15-02.00 every day, except for Christmas and New Year Bank holidays, and is staffed 09.00-17.55. The Library offers a free, online document delivery service for items not held by the Library, and an accessibility service for students with disabilities.

5.8 There are 111 PCs distributed throughout the campus available in all main teaching buildings, and charging points for student devices are widely available. Pull printing facilities are available across the campus. Each of the 10 tutorial rooms in the MSB have a networked computer, wall-mounted screen and power outlets for student group work.

5.9 The University Staff Development Service and Computing Service offer a range of training courses in all aspects of information management and basic IT skills.

5.10 In 2017, the School undertook a joint project with the Schools of Medicine and Life Sciences to develop a series of student-led information resources and tools for understanding the importance of professionalism in the context of online activity, mental wellbeing and social media. These resources are now embedded in curricular teaching.

Comments

5.11 The school makes use of a comprehensive Virtual Learning Environment (VLE) utilising the Moodle and Mahara platforms, but there are some concerns around the search facilities in Mahara and whether it may limit its functionality.

5.12 The hospitals make use of Stringsoft as a system for client relationship and case management.

5.13 There is adequate WiFi access at all the onsite hospitals, and at the distributed sites there is either Wifi or dedicated internet access. Support is offered from the central IT structure, with technicians available to attend to issues on distributed sites, and a full-time technician on the Garscube campus.

5.14 There is redundancy built in to the Stringsoft and Moodle/Mahara platforms, with multiple servers and power supplies employed to limit outages as much as possible.

5.15 Cybersecurity is a priority, and the systems are protected with up-to-date software and protocols.

5.16 IT accessibility is ensured for widening participation and/or disabled students with the short-term hardware loan system through the central university, as well as functionality on Moodle where settings (such as contrast and font size) can be adjusted as needed.

5.17 Training in digital wellbeing, managing online distractions, managing social media and a professional online presence is offered through the faculty as well as student bodies.

5.18 New online resources are developed by faculty and students on an ongoing basis, with the help of peer support as well as the Learning Technology Specialist, and resources developed specifically during the pandemic have been found to be useful and will continue to be used going forward. The development process for new resources includes evaluation of their usefulness in teaching and learning.

5.19 Online exams have been mandated by the University during the pandemic, and an online proctoring system will be in place by the next set of exams.

Suggestions

5.20 The online platform (Mahara) should be evaluated in terms of usefulness and user-friendliness to staff and students, to ensure that the best platforms are utilised.

Standard 6 – Students

Background

6.1 In 2008 the School introduced BSc/BSc Vet Sci (Hons) and integrated MSci degree programmes in Veterinary Biosciences. These programmes are designed to provide students with an understanding of the key elements that underpin all modern biological sciences with a major focus on health and disease in animals. There are approximately 25 students in each year of the programme.

6.2 There are two intercalated degree programme options at Bachelors levels and two at Masters level. The intercalated degree programmes represent an opportunity for BVMS2-4 students to temporarily put on hold their BVMS degree programme in order to obtain an additional degree.

6.3 The number of interns and residents has increased over the past five years. Slight variations over and above core funded studentships are dependent on the vagaries of securing external funding. The School has been regularly successful in obtaining funds from the Royal College of Veterinary Surgeons (RCVS), British Small Animal Veterinary Association (BSAVA), Horse Race Betting Levy Board (HBLB), Harbro and ANTECH.

6.4 In recent years there has been a gradual increase in total student numbers since the decision, following careful planning at School Executive level, to have a target entry of 135 (+/- 5) students per year. At present around 70 students in the year are state funded (Scottish/EU) or state subsidised (rest of UK) with the balance being full cost overseas and graduate students (65). A student who has completed the first three years of the curriculum for the Degree of Bachelor of Veterinary Medicine and Surgery (BVMS) and has achieved grade D3 or better in the Degree examinations prescribed for these courses may be recommended for the award of the Degree of Bachelor of Animal Health (BAH). Students who choose to graduate with a Degree of BAH cannot re-apply for admission to either the Degree of Bachelor of Science in Veterinary Bioscience or for the Degree of Bachelor of Veterinary Medicine and Surgery of the University of Glasgow on a future occasion.

6.5 'Reach Scotland' (Access to the High Demand Professions) was established through support from the Scottish Funding Council with the overall aim of widening participation to high demand professions: Dentistry, Law, Medicine and Veterinary Medicine. In Scotland one of the main measures by which the Scottish Funding Council judge how successful a University is at widening participation, is the number of pupils who gain entry from disadvantaged postcode areas identified by the Scottish Index of Multiple Deprivation. To date, the School has hosted 53 Reach students, with a 100% retention rate.

6.6 The School of Veterinary Medicine student support office is located within the McCall building. This arrangement facilitates student/staff interaction and students are encouraged to seek help at the earliest opportunity, be it for either academic or personal reasons, and have access to support via many routes. The Student Support Services provide pastoral care through the Student Support Office. In addition to the student support staff, each student has an allocated Student Adviser, and the Chief Adviser of Studies for the five-year programme

oversees this scheme. Formal support is recorded and held in a confidential manner by the Undergraduate School. Confidential disclosure of relevant information may be made available to Boards of Examiners, Progress and Appeals Committees.

6.7 A variety of student support services are maintained at the University level including but not limited to: Student Counselling & Advisory Service, Student Disability Service, the International Office, Health, Chaplaincy, Financial Support, Accommodation and other areas. Student interests within the University are represented at all levels including Senate and Court through the auspices of the Students Representative Council that represents and supports individual students.

6.8 The Student Disability Service provides a dedicated service for registered students with disabilities or specific learning difficulties, assessing and putting in place appropriate provision. Disabilities include chronic health problems (eg. Crohn's disease, diabetes), physical impairments (e.g. hard of hearing, visual impairment), Autistic spectrum disorder, mental health difficulties (e.g. depression, eating disorders) and other invisible difficulties. Provision could include assistive technology, extended library loans, increased adviser support or adjusted access. Students with disabilities or chronic health conditions which may affect their performance in examinations can register with the student disability service so that where relevant, course teams are able to plan and implement "reasonable adjustment" for examination procedures, provide assistive technology and arrange support.

6.9 There is a School Disability Co-ordinator who is responsible for providing support and implementing actions required for temporary disability, e.g. limb fracture. Should a student become ill, they are required to note this on MyCampus, which is checked by School staff weekly. If a student is ill for more than a few days, they will be contacted by Student Support and appropriate help instigated on a case by case basis.

6.10 The School of Veterinary Medicine is currently a Silver Athena SWAN award holder, achieved in May 2019, with its first Bronze award attained in Nov 2015. To support its work in this area the School has an action plan covering support for students and staff; key career transition points; and organisation and culture. Progress with delivering the plan is overseen by an Diversity & Inclusion Committee, which includes staff and student representatives. The School has a visible LGBTQ+ community that is fully supported both by the staff and is affiliated to the vet student association (GUVMA). There is an active private Facebook group where members can communicate freely and safely and there are many social and welfare events to raise awareness of the group within the School.

6.11 The School of Veterinary Medicine has developed a peer support scheme for students in collaboration with the University of Glasgow's Counselling & Psychological Services, who provide over 30 hours of necessary training in order for this to take place. Student volunteers are trained to provide emotional support and advice to fellow students. The skills taught include being a good listener, helping others to feel more comfortable with social, academic and personal relationships, helping others to make decisions without giving advice, and managing and communicating around sensitive issues.

6.12 There are a variety of student clubs and organisations (200+) across the University. Glasgow University Veterinary Medical Association (GUVMA) is a student-run group which serves as a

governing body for Glasgow University veterinary students. It provides a forum for its members to interact on a professional and social level. GUVMA coordinates charity fundraisers, social events, and educational opportunities. The association represents the students, sporting clubs and societies within the veterinary school. GUVMA is part of the Association of Veterinary Students (UK and Eire), and the International Association of Veterinary Students.

6.13 The School provides information for prospective students on both the University website and in a printed version. The website provides information which is divided into the following sections: programme structure (stating the purpose and goals of the programme), entry requirements, career prospects, degrees and UCAS codes, fees and funding, and how to apply. Additional information about admissions interviews is also available. The University website has several pages of information specifically for International students which includes total educational cost, cost of living considerations and financial aid programmes, international student support and visas, US federal loans, tuition fees, withdrawing from university.

6.14 For each year of the BVMS programme, there are two class representatives on, the Staff/Student Liaison Committee. These representatives, the GUVMA President, Vice-President and Student Representative Council representative, the Associate Head of School for Learning & Teaching, and all course leaders sit on the Staff/Student Liaison Committee, which is convened by the Head of Student Support and meets three times per year. Staff are expected to respond to matters raised at these meetings in a timely fashion. The minutes from this committee are published on Moodle so that all staff and students have access to them.

6.15 Course leaders, Head of School & Associate Heads of School operate an open-door policy.

6.16 There are formal AVMA and RCVS anonymous feedback systems to allow students to offer suggestions, comments and complaints regarding compliance of the School with the Standards of Accreditation; this is brought to the attention of students on a regular basis, and they are encouraged to send comments. A direct link for anonymous feedback to both RCVS and AVMA is found on the Moodle Common room page. The message is directed to the appropriate person/group depending on the content and context. The response again will feed into the other feedback mechanisms such as Focus groups, You Said-We Did, Staff Student Liaison Committee, Annual Monitoring Review or direct to the individual if they opted to provide contact details. Student comments are made available to the Council annually.

Table – Total Number of Vet Students – including International Students

Ethnicity	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Arab	6	9	6	4	3	0
Asian or Asian British - Indian	3	3	4	6	5	0
Black or Black British - African	21	12	10	4	2	0
Chinese	63	65	69	59	59	55
Information refused	14	16	15	15	17	18
Mixed - White and Asian	11	11	13	16	17	16
Mixed - White and Black African	1	1	1	0	0	0
Mixed - White and Black Caribbean	1	1	2	2	2	0
Not known	1	1	1	0	1	0
Other Asian background	17	20	21	19	21	22
Other Black background	7	7	6	0	0	0
Other ethnic background	8	7	7	4	5	5
Other mixed background	4	2	4	5	5	14
Other White background	6	7	10	11	13	13
White	573	549	541	533	562	561
White – Scottish	49	62	64	70	67	72

Home and RUK students only

Ethnicity	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Mixed - White and Asian	6	6	5	5	5	6
White	411	395	384	356	368	368
White - Scottish	48	61	63	71	67	71

Table – Widening Participation Student Numbers

Year	Undergraduate #enrolled
2015-16	8
2016-17	8
2017-18	8
2018-19	9
2019-20	15

Comments

6.17 Both internship and residency opportunities exist in the Small Animal Hospital, Equine Hospital, Pathology and Production Animal. The numbers of interns and residents have increased over the past 5 years. Residents are expected to complete a Master of Veterinary Science degree in conjunction with their residency programme. Faculty at the School also act as supervisors to PhD candidates and are involved with Masters students in other departments within the University of Glasgow. The training of BVMS students by interns and residents is supervised by Faculty. Residents become trained as DOPs assessors. Many of the PhD students have undergone formal training as Graduate Teaching Assistants.

6.18 The student support services provided by the SVM and the University of Glasgow are wide ranging and readily available to the BVMS students.

6.19 Many students commented they feel well supported by the school, and that they have good access to both formal and informal support from staff.

6.20 The site team received a number of comments regarding a positive working environment during rotations. However, the 2018 Septennial review of the BVMS flagged a concern regarding a negative learning environment in the small animal hospital and the site team also received comments from more than one source, that some students experienced negative

comments and disrespectful treatment in the small animal specialty services rotations and a similar concern was expressed about the equine hospital rotations. Those identifying concerns perceived that there was limited response by the school to these comments. The school stated that they were aware of the general concerns and it was a work in progress.

6.21 The school and University of Glasgow website amply provides all of the required information for an individual considering application to and enrolment in the school.

6.22 In addition to the physical feedback boxes and QR code opportunities in the Mary Stuart Building, a link to the AVMA or RCVS for submitting anonymous comments is found in the BVMS Common Room on their Moodle website under the tab entitled “Reporting & Feedback”.

Commendations

6.23 The SVM and the University of Glasgow are commended for the support services that they provide for their students, especially during the pandemic. The SVM staff are further commended for their exemplary and prompt support and the genuine caring attitude that they provide to their student body.

Suggestions

6.24 The School should review the clinical learning environment and the processes to respond to concerns, in order to ensure a consistent, positive learning environment.

6.25 The School should update the accrediting agencies on the outcome of the review of the negative learning environment in hospital rotations.

Standard 7 – Admission and progression

Background

7.1 Student admission and enrolment are linked with Student Support Services, under the auspices of Student Services. Collectively, the objectives are (1) to ensure the admission of well qualified, highly motivated, resilient students to the programme, regardless of gender identity, ethnicity and background, (2) to offer comprehensive support so that they can achieve their academic goals.

7.2 The minimum requirements for admission to the School are detailed in the University Prospectus that is published annually. Normally five SCE Highers, four at band 'A', one of which should be in Chemistry, and one at band 'B'. Subjects must include Chemistry, Biology and either Mathematics or Physics, and all five Highers must be passed at one sitting of the examination. Candidates are then expected to complete a sixth year at school and generally offers will be made conditional upon them achieving high grade passes in their fifth and sixth year subjects at Higher, Advanced Higher, or 'A' level as appropriate. For A levels, normally three 'A' passes in Chemistry, Biology and one other subject are required.

7.3 The School supports a Scottish initiative to offer an alternative route of entry to individuals who wish to re-enter Higher Education to follow a professional career (SWAP West). This route is shared with the other health professions (medicine, dentistry, nursing and pharmacy). Following a competitive selection process, candidates follow an intensive one-year course in basic sciences. Success in this course allows individuals to be considered in the selection process for an interview.

7.4 Graduate entrants are expected to have an Upper Second Class or First Class Honours Degree in an appropriate subject area such as Animal Science, Zoology, Biochemistry or Physiology.

7.5 Candidates from North America will normally be considered for admission after they have satisfactorily completed three years of a college course, which includes Inorganic Chemistry, Organic Chemistry, Biology, Physics or Mathematics. An analogous standard is sought from other nationalities. For applicants whose first language is not English, the University sets a minimum English Language proficiency level.

7.6 The School has an Executive Admissions Committee that sets the admissions strategy and policy and an Admissions Panel that is composed of 24 members of academic staff and 20 veterinary practitioners. The Head of School and Associate Head of School (Learning, Teaching & Assessment) act as ex officio members of the Panel. The Admissions Panel is convened by the Student Services Manager, who is a senior member of administrative staff within the Undergraduate School. The Convener of the Admissions Panel is responsible to the Associate Head of School (Learning, Teaching & Assessment) for this activity.

7.7 The 'interview' process is designed to objectively assess evidence of motivation, relevant communication and observation skills, awareness of the opportunities and challenges presented by a career in veterinary medicine, resilience, ethical reasoning and a candidate's knowledge of current and controversial veterinary matters. The 'interview' consists of three

stages; a computer based ethical reasoning test and two 15-minute interviews. The ethical reasoning test is based on situational judgement tests. This part of the admissions process has been designed to evaluate ethical sensitivity, empathy, altruism, critical and creative thinking and judgement. The interview panels consist of an Admissions officer and Senior Member of Academic staff/and or a practising veterinary surgeon.

7.8 The first 15-minute interview assesses performance (1-4 scale) against five areas/characteristics, communication skills, initiative, leadership qualities, confidence and work/life balance. The second 15 minute interview assesses performance (on a 1-4 scale) against five areas/characteristics, practical experience, awareness of animal welfare, observation skills (from animal experience), understanding of topical biomedical issues and independent thinking. The scores from the two panels are totalled and success determined relative to cut off points for the interview and the ethical reasoning test. All members of the university staff involved in the admissions process must have undergone 'Unconscious Bias' and 'Equality and Diversity' training. A tour of the School is organised by students where the applicants have the opportunity to gain a student perspective on the course and other aspects of studying in Glasgow. Results of applications are communicated to candidates by e-mail within eight weeks of interview.

7.9 Applicants are required to demonstrate that they have acquired a certain level of practical experience that not only ensures their knowledge of the veterinary profession, but also provides the selection panel with evidence of the candidate's motivation. Practical experience should be as varied as possible and in addition to at least two weeks' work experience with a veterinarian, it should include a selection of the following: specialist veterinary practice (small animal, food animal, equine), farming experience (beef, sheep, pigs, poultry); lambing experience; stables; kennels/ cattery; veterinary investigation laboratory and abattoir. However, the volume of experience is judged against opportunity to ensure those with less access are not disadvantaged.

7.10 The Admissions Committee reviews the selection process on an annual basis. In addition, student performance and attrition rates are monitored at the end of professional examinations. Students electing to leave the course have an exit interview with a senior member of staff.

7.11 Criteria regarding progression are published within the programme specification on the University Senate website. The supplementary regulations within the University Code of Assessment are also published on the BVMS Mahara website. These sources state that candidates cannot proceed to the second, third, fourth and final years of the curriculum until they have successfully completed all courses, including achieving a pass in all compulsory but non-graded assessments and achieving grade D3 or better in the degree examinations in the preceding session. Students who do not attain a D3 or better, with the permission of the Progress Committee, may repeat a year. In this circumstance, a student will be allowed to carry any assessment, in which they have achieved D3 or better, for one year only. In repeating a year, they are required to attend all compulsory classes and submit all required work related to the assessment they are carrying, so that their skills/knowledge remain current, as well as the classes and assessments required for the assessment for which they were unsuccessful.

7.12 Students can be excluded through lack of academic progress or through misconduct. Lack of progress is monitored by the Progress Committee. Students excluded have the right of Appeal to the College and if unsuccessful to the Senate. Misconduct is reported to Senate for initiation of an investigation process. The Code of Appeal and Conduct and Fitness to Practice are available on the university website.

Comments

7.13 The Schools admissions policy is clearly outlined on the University website. The academic standards are clearly outlined, and are in line with all other schools of veterinary medicine in the UK. Details about efforts to reduce bias and improve diversity are described.

7.14 The School has an Executive Admissions Committee of which the majority of the members are full-time faculty members. Additionally, it has an Admissions Panel, which is a substantially larger body and includes practitioners as well as faculty that conduct interviews. All members of these bodies have been required to take training in unconscious bias and diversity prior to participation, and many have been observers of interviews before participating themselves. The practitioners interviewed, who took part in the process, and had been doing so for many years, were very enthusiastic about participating and felt that they made a very valuable contribution to the process.

7.15 Candidates are screened to ensure that they meet the published minimum entrance criteria before being invited for interviews. The interview is a three-part process involving an online ethical reasoning test followed by two in person (virtual during the pandemic) interviews, one to determine personal traits and one to determine practical experience and awareness of the profession. There are minor modifications in the process for international students.

7.16 The applications by both domestic and international students have held steady and may even have shown a recent uptick, and attrition has decreased over the last 6 years.

7.17 Progression is determined by successful passing of practical assessments and end of year examinations. Students may have repeated opportunities to pass the practical assessments and two opportunities to pass the end of year examinations. However, students who are perceived as performing poorly are flagged with a “cause for concern” and counselled by staff as soon as identified. Similarly, students on clinical rotations who are perceived to be performing poorly, and identified and flagged with a “cause for concern”, are referred for similar counselling and assistance.

7.18 The admissions committee meets to review its process annually. Changes that have been made based on this review include introduction of the ethical reasoning test and changing the way the interview rubric scores have been incorporated into the selection process.

7.19 The School is actively engaged in ensuring that the students entering the class reflect the population within the constraints permitted under UK law. These efforts are focused on ensuring that members of under-represented groups are recruited into the applicant pool; this entails identifying students as early as S4 in high school and assisting them all the way through the application process up to the point at which the admissions panel screens applicants. The school participates in a foundation access course at the University to prepare

students academically. Additionally, funding for five places by the Scottish Funding Council has been reserved for students at a socio-economic disadvantage.

7.20 Students with a disability are assessed as permitted under UK law, in that if reasonable accommodations can be made for the disability, students are accepted.

7.21 UK applicants are expected to have Scottish Highers in chemistry and biology, plus physics or mathematics, or A-levels in chemistry and biology, and a third subject, preferably a science. International students already enrolled in undergraduate education are expected to have a 3.4 GPA. While it is not indicated on the website, a broad range of subjects is expected of UK applicants at the GCSE level.

7.22 A variety of skills, interests, and achievements unrelated to veterinary medicine are incorporated into the admissions decision; examples would include Duke of Edinburgh Awards, accomplishments in sport or the arts, and charity work. In addition to the aforementioned academic qualifications, at least two weeks of experience with a veterinarian is required.

7.23 The school does not accept transfer students.

Standard 8 – Academic and support staff

Background

8.1 The staffing strategy has been to invest in the three main clinical disciplines: small animal; production animal; and equine, to ensure critical mass across the disciplines and sub-disciplines. The School has also invested in the clinical and professional skills team that contributes significantly to the development, acquisition and assessment of graduate competencies. Overall since the time of the last visitation (2013) faculty have increased from headcount of 67 (including vacancies) to 93 (including vacancies) with only a modest increase in BVMS net student numbers through this period (< 5%).

8.2 The School has an allocated a pay budget that supports faculty and staff positions across the School. The annual planning and budgeting meeting with the College offers the opportunity to request increased resources required to meet strategic objectives and to support new business initiatives. The School Executive considers the best use of vacant posts arising from departures or retirements; usually this results in replacement in the same discipline or role but on occasions the School Executive may wish to redirect this resource to another area. A post release form is then forwarded to College for final approval.

8.3 The University has replaced academic probation with the Early Career Development Programme (ECDP). This programme has been designed to give longer support to early career staff and continues until faculty reach Grade 9 (Senior Lecturer level), typically 5-7 years from appointment at Grade 7 or Grade 8 (Lecturer level). The opportunities for training and development have been greatly enhanced and are an integral part of the programme. An important component of ECDP is the Postgraduate Certificate in Academic Practice (PGCAP). This training is undertaken by all teaching faculty within the School and associated Research Institutes, including those faculty embedded in partner practices. All staff on ECDP are appointed a mentor to help support objective setting, development planning and advise on learning opportunities. In addition to the foregoing there is on-going task specific training within the School. This includes training in directly observed procedural skills (DOPS), objective structured clinical examination (OSCE) and portfolio assessment. Faculty also engage in exam question writing workshops covering a range of exam question styles such as multiple-choice questions (MCQ), extended matching questions (EMQ) and clinical decision making (CDM). These are run on a rolling basis typically annually.

8.4 There is one promotion round each year based on self-application. The College Progression and Promotion Committee (CPPC) review the applications. For Grade 7 and 8 levels, the case for promotion is decided at this level, for Grade 9 and 10 level promotions the College committee establishes a prima facia case, which together with external referees reports are forwarded to the Principal's Board of Review. The University has developed and refined clear and evidence based academic promotion criteria for faculty promotion through Grades 7 to 10. Tenure as such does not exist within the British university system and staff are either employed on open-ended (permanent) or on fixed-term contracts. The majority of faculty appointments are open-ended and underpinned by secure and stable core funding.

8.5 Faculty are employed on different career development pathways (tracks) depending on their role and job description. These include the Research & Teaching (R&T) Track (5 faculty); the Teaching Learning and Scholarship (TLS) Track for those focussed on teaching and professional training (23 faculty); and the Academic Clinical (AC) Track for those with a significant clinical service commitment as well as clinical teaching duties (51 faculty). Both the University's promotion criteria and its career development structure have been aligned to these different career tracks.

8.6 The University recognises the value of consultancy work and faculty are permitted up to 30 working days with permission of the line manager. As outlined on the University's Consultancy Policy, staff can receive 100% of any income below £5000; above £5000 20% of the income flows to the University. Faculty can choose to have the income placed in a University discretionary account using a fee waiver form.

8.7 The School has set aside budgets for conference and research support, faculty/staff training, clinical faculty/staff CPD and nurse training.

8.8 Core teaching is almost entirely delivered, and exclusively managed, by the School's permanent faculty. Some of these faculty are 1.0 FTE whilst some are less than 1.0 FTE. University HR policies and the School's Athena SWAN strategy strongly encourage managers to agree to flexible working requests wherever possible, and a number of long-term established faculty work on a part-time basis. The School also uses short-term or fractional contracts, or the services of self-employed individuals for teaching.

Comments

8.9 With the change in the curriculum that was introduced almost immediately after the last accreditation site visit, there was a significant increase in the number of faculty required to instruct small groups, in particular clinical skills labs that are held throughout the first four years of the curriculum. In response to this need, the number of faculty positions in the SVM has increased from 61 to 93, the majority of whom are on the Academic Clinical track. That said, the School is experiencing difficulties in recruiting/retaining specialised faculty in certain disciplines, in common with other schools of veterinary medicine.

8.10 Faculty indicated that both evaluation and mentoring were good and that credit was given for all activities they performed. Faculty regularly have the opportunity to attend, and have presented at, various different conferences on both veterinary and medical education, the cost of which is covered by the SVM, including international conferences.

8.11 Faculty turnover is in the range of 10%. No concerns about job security were expressed and it was noted that the University non-salary benefits were reportedly generous compared to the private sector; however, that wasn't always appreciated because the salaries reportedly paid to private practice veterinarians in certain specialties were significantly higher than those at the University. The latter has contributed to significant difficulties in both recruitment and retention, difficulties that are not unique to the University of Glasgow. Because the University pay structure is relatively rigid in relation to grade, retention through salary increases is limited, but the SVM is able to make use of 10-15% salary supplements in certain areas.

8.12 The faculty, by and large, declare that the requirements for advancement are clearly outlined, and that there is support and guidance for faculty starting at grades 7 and 8. There is an Early Career Development Programme and there are numerous courses available on campus for faculty to take advantage of regarding different aspects of their development. All faculty are required to complete a Postgraduate Certificate in Academic Practice. The junior and mid-career faculty also indicated that promotion from grade 7 to 8 was readily attained by following the criteria, but the jump to grade 9 was significantly more difficult, at least in part because of their time commitments and ability to pursue appropriate scholarship. The workloads of some of the clinical faculty appear to be very high, which may contribute to this situation and may give rise to tension at times in the Hospital.

8.13 Furthermore, it was mentioned by academic staff that there were ceilings for some employees within the SVM, because of lack of opportunity to obtain qualifications needed for advancement.

8.14 It is clear both from the composition of the faculty and the Silver Athena SWAN status that the SVM has attained that the school has demonstrated its core value to promote diversity within the constraints of UK law.

8.15 The teaching of the BVMS curriculum is almost entirely provided by permanent members of the SVM faculty, approximately 10% of whom are currently part-time (these are faculty who have the potential to return as full-time faculty as opposed to outside part-time or adjunct appointments), and a small number of guest lecturers cover topics for which the school does not currently have sufficient expertise, e.g. exotics. Residents and PhD students are encouraged to enhance their career development by demonstrating in various disciplines within the SVM and many PhD students have undergone formal Graduate Teaching Assistant training at the University. As such, the combination of these instructional resources appears to be used relatively seamlessly.

Standard 9 – Curriculum

Background

9.1 At the time of the last visitation the BVMS was on the verge of implementation of its new curriculum; BVMS1 and BVMS5 started in the academic year 2013-14, BVMS2-4 were rolled in over the subsequent three academic years. The overall curriculum has changed radically since the last accreditation visit. The aspirations of the curriculum change were to create a flexible, yet coherent, programme structure, to reduce didactic load, to integrate basic and clinical sciences, to provide opportunities for flexibility and choice within the programme, to increase clinical and practical skills training across all years of the programme, and to develop students' skills in team working, self-directed learning and professional communication.

9.2 Teaching of basic subjects, including traditional elements such as anatomy, physiology, biomolecular sciences, pharmacology, toxicology, pathology, microbiology and parasitology, alongside applied subjects such as scientific method, epidemiology and biostatistics is embedded within the integrated structure of the Foundation Phase and is revisited, reinforced and developed as students progress through the programme. A range of teaching methods are employed utilising: traditional didactic teaching in lectures; online/active learning approaches supported by videos, quizzes e-tutorials; practical and clinical skills teaching etc. These are accessed through the main VLE portal: BVMS Common Room.

9.3 The BVMS programme has 3 Phases; Foundation (BVMS1 & BVMS2), Clinical (BVMS3 & BVMS4) and Professional (BVMS5).

9.4 The Foundation Phase aims to provide a firm foundation in knowledge and skills for further clinical study, integrating concepts of structure and function, health and disease in contexts which emphasise the clinical and societal applications of this knowledge and encourage the development of skills for lifelong learning. In this Phase students acquire fundamental knowledge and develop the skills and attitudes on which the following years of training are based, including anatomy and physiology of the body systems relating to health and disease in domestic animals, and the underlying cellular processes involved; an insight into common husbandry practices and animal breeding and how these impact on the animals veterinary surgeons care for. Professional training starts at the beginning of BVMS1 with classes in fundamental animal handling techniques, skills such as suturing, communication skills, history taking, clinical examination and clinical reasoning.

9.5 The aim of the Clinical Phase is to build on the Foundation Phase to provide a broad training in key elements of veterinary professional practice, with a focus on common and important problems and presentations encountered in Veterinary work. The approach emphasises complexity and the role of clinical reasoning, as well as continuing to develop skills and attitudes required to work in the clinical environment and to take a greater responsibility for learning in the subsequent Professional Phase of the programme.

9.6 The aim of the Professional Phase is to develop the competencies required to enter the Profession as a new graduate, whilst recognising that individual aspirations and interests will

vary. The emphasis is on experiential learning, developing autonomous learners who can continue to monitor and maintain their professional competency throughout their careers. In this Phase there are no lectures and the primary emphasis is on small-group involvement in clinical activity, covering the common species of domestic animals. Though this year of the programme is structured so that students receive clinical experience in core clinical areas, there is also the opportunity to focus on personal interests or explore the breadth of opportunities in the veterinary profession by choosing “Selective” experiences.

9.7 The BVMS programme has an Assessment Policy which is available through the VLE to all faculty and students on the BVMS policies page. Assessment in the context of the BVMS programme encompasses two distinct but related themes: knowledge and application and clinical competency. This reflects the nature of the professional degree programme which must meet the competency requirements of the accrediting bodies as well as the academic standards of the university.

9.8 The EMS co-ordinator oversees EMS for the 5 years of BVMS students. Every student undertakes 38 weeks of EMS (12 weeks preclinical and 26 weeks clinical), which is embedded as an integral part of the programme. Preclinical EMS is normally spent on animal husbandry-related placements so that students gain experience of the behaviour and management of normal animals in their own environments to understand livestock and farm systems. Clinical EMS comprises 26 weeks across a broad range of areas.

9.9 Students may choose any two selective options. The only limitations are due to available places (some options are capped for numbers) and timetabling (some students may have existing commitments when a specific selective is running). Students are encouraged to discuss selective choices with their adviser, and to seek guidance from relevant faculty as required. The selection process is initiated two years ahead of time to allow any conflicts to be resolved well in advance.

Comments

9.10 A new veterinary curriculum (BVMS) has been implemented since the last accreditation site visit, with the first cohort graduating in 2018. The BVMS is a five-year programme; clinical training commences in the first week of the programme and is embedded in each semester. The final year is dedicated to clinical training.

9.11 The BVMS Programme Board has primary accountability for management of the curriculum, and includes student representation. There is a comprehensive approach to evaluating the curriculum, including Annual Programme Reviews and Septennial Reviews (most recently in 2018), and there were numerous examples of adjustments being made to the curriculum in response to such evaluations. Students are actively engaged at various points in the review processes.

9.12 New Faculty appointments are required to complete a postgraduate certificate in academic practice, and are able to progress to Masters or Doctorate level qualifications in education. External assessors, teachers based in distributed sites and postgraduate teachers

(specifically residents and interns) receive induction into assessment and teaching, but this appears variable in nature. The School has developed a proposal to develop online training resources for external teachers and supervisors, based partly on existing materials (from the Master of Advanced Practice in Veterinary Nursing).

9.13 A feature of the new curriculum is its 'spiral' approach to the development of programme learning outcomes, meaning that students revisit topics and skills as they progress through the programme, increasing the clinical focus as they do so. Clinical and professional knowledge and competencies are developed across the five years of the programme.

9.14 Each year of the programme consists of one course. In the first four years, each course comprises a series of 6-7 modules, each consisting of three weeks of teaching and a week of consolidation, as well as practical and clinical skills training offered through small group rotations. The final year consists of six core clinical rotations and two elective rotations. The curriculum relies heavily on small group teaching and a high level of coordination between different areas of the School, and is labour-intensive to deliver.

9.15 Students receive two grades for each year; one which reflects knowledge and understanding and one which reflects competency assessment. The grading system is applied to all students uniformly. Summative assessment occurs almost entirely at the end of the course/year. For example, theory exams spread over six hours at the end of the academic year determine 85-100% of the grade for knowledge and assessment. Grades for competence are based on OSCEs and submission of an ePortfolio. The latter contributes 10% of the competency grade in years 2 and 4, and 100% of the competency grade in final year. Several hurdle assessments supplement these summative assessment tasks, e.g. DOPS (direct observation of procedural skills), and continual assessment tasks such as quizzes and reports that occur throughout the modules.

9.16 Students recognise the curriculum design, its learning benefits for them, and their role in its co-creation.

9.17 The pivot to online teaching and assessment in response to covid was done successfully, and students reported feeling supported during this transition and they valued the online learning resources that had been developed. The School intends to maintain and expand on these resources.

9.18 Areas for improvement in business and finance teaching have been identified by students and employers of graduates. Students engage in invoice preparation in primary care clinical rotations only.

9.19 Students and employers expressed a desire for additional instruction in "difficult conversations" with clients.

9.20 Of the 24 weeks of core clinical rotations (in 'normal times') there are seven weeks of primary care rotations (4 weeks small animal, 2 weeks production animal and 1 week equine). Of the 21 weeks of the core clinical rotations (in COVID times) there are six weeks of primary care

rotations (4 weeks small animal, 2 weeks production animal). Students expressed a desire for more primary care caseload-based training. The School is actively investigating strategies to increase primary case load in small animal and equine rotations.

9.21 A process for embedding clinical reasoning in the curriculum is ongoing.

9.22 In normal times – 2 weeks of the 4 weeks core final year rotation in public health and pathology are dedicated to veterinary public health. In COVID times – 1 week of the 3 weeks core final year rotation in public health and pathology is dedicated to veterinary public health.

9.23 In response to the pandemic the school enhanced their virtual abattoir experiences, including both white and red meat experiences. Outside of the current pandemic restrictions, students all have the opportunity to visit red meat plants but only a proportion of students routinely visit white meat plants. If students have an interest in this area, visits to white meat plants are facilitated. This does not comply with the RCVS EMS policy.

9.24 Students identify aims for placements prior to attending, and are encouraged to consider the clinical skills on which they would like to focus during the placement. For clinical EMS, the number of weeks spent on different types of placement or with different species is not specified – it is up to students to identify and fulfil their learning needs and explore career aspirations.

9.25 Students can undertake preclinical farm placements prior to having been assessed for competence in handling of the relevant animal species (refer to standard 4).

9.26 While EMS providers give feedback on student performance, there is no formal process for them to provide feedback on the EMS system. There is no clear and formal mechanism for EMS providers or students to report safety incidents occurring on EMS and for the School to document follow-up of these.

9.27 Cost of placements was reported as an issue for some students, and this is likely to increase as the School seeks to widen participation from students of lower socio-economic background. There are funds students can apply to for support for both national and international placements.

Commendations

9.28 The school is commended for the pedagogical design of the curriculum and the constructive alignment of the assessment with learning objectives.

9.29 The process for embedding clinical reasoning is comprehensive and well-constructed.

Suggestions

9.30 The School is encouraged to develop and implement the proposed online introduction to teaching module for external and postgraduate contributors to the teaching programme and ensure that once implemented, the module is consistently completed.

9.31 The school is encouraged to review the development of clinical communication skills, including “difficult conversations” with clients.

9.32 The School should ensure that all students obtain both red and white meat full throughput abattoir experience.

9.32 The School should implement a mechanism to record and follow up safety incidents occurring on EMS reported by either the provider or the student.

9.33 The School should implement a structure and process that allows EMS providers to formally report on the EMS system.

Standard 10 – Research Programmes

Background

10.1 The Research Convener for the SVM and has produced and delivered a plan to make best use of the existing available research funds in order to maximise the impact of the school at the next Research Excellence Framework (REF) exercise. To date this process has realised and committed, between 2018 and 2023, more than £1,040k in research funding for 15 PhD programmes co-supervised by members of staff from SVM and colleagues in research institutes both within and outwith the College of Medical, Veterinary and Life Sciences. In addition to this, since 2013 a total of £573k has been awarded to colleagues in the SVM enabling more than 60 'small grant pump-priming' projects to proceed. These projects often directly feed into the MVM work conducted by clinical residents helping to ensure successful publication of papers.

10.2 The CVR is led by a veterinarian and its existence owes a lot to the former Faculty's strong research focus on veterinary viruses and cancer. The Centre has a holistic approach to virology, spanning studies at molecular/structural level and the cellular level, through to the individual patient/host and the affected population. Studies integrate molecular and structural virology, cell biology, pathogenesis, epidemiology and mathematical modelling. The CVR considers that it is important to remove the artificial distinction between human and veterinary virology, embracing the One Health concept. There are nine research groups within the CVR: virus structure, epidemiology and evolutionary dynamics, arboviruses, animal retroviruses, intrinsic immunity to virus infection, emerging viral diseases in Africa, human and animal papillomaviruses, biology and pathogenesis of human herpesviruses, and hepatitis C virus.

10.3 Members of staff within the SVM and other Institutes are routinely invited to present plenary and keynote lectures at a range of international and national meetings. Staff serve(d) as editors and associate editors on a number of international veterinary and basic science journals (e.g. Veterinary Record, Equine Veterinary Journal, Journal of Feline Medicine and Surgery, Journal of Small Animal Practice, American Journal of Veterinary Science).

10.4 The SVM has good representation on government advisory panels and staff members sit on both international and national grant awarding/scientific and veterinary advisory bodies.

10.5 Research methodology is introduced in the foundation phase with training delivered in literature searches, diagnostic methodologies, data interpretation as well as statistical analyses of data and epidemiological concepts such as measures of disease frequency and study design. Assignments are assessed in a summative CAT format focussing on the conduct of a literature review and presentation of a research topic in BVMS1. This is then consolidated and further reinforced in BVMS2 when students are asked to write a mock vacation research scholarship application.

10.6 Evidence based veterinary medicine research activities are delivered in the clinical and professional phases of the programme. Students are introduced to the concepts of critical paper evaluation focussing on the need to be clear about how to identify and select study groups, control groups and outcome measures. They specifically engage in the statistical

evaluation of diagnostic tests, test result interpretation, as well as epidemiological and herd data analyses. Students are also required to present and evaluate other open source (e.g. governmental) resources to identify key issues for veterinarians as well as understanding their regulatory background. All of this work is assessed (formative or summative).

10.7 In each year of the BVMS programme 'Blue sky lectures' are organised which involve a 1-2 hour lecture from a researcher at the cutting edge of current scientific endeavour, generally outwith the BVMS curriculum. Examples of titles include: 'Canine intervertebral disc herniation: evidence based or defensive medicine'; 'Livestock and Climate Change – just a lot of hot air?' The annual Weipers and McCall lecture series are hosted by the SVM. These lectures are open to all members of staff and students, and in recent years have required use of overspill lecture theatre space to accommodate the numbers of students attending.

10.8 Weekly clinical seminars, held by clinical residents and senior clinicians across the SVM, are compulsory for all final year students on rotation in the relevant clinical areas. These seminars expose undergraduate students to the type of clinically relevant research often conducted as part of residency training programmes that enable those residents to be successful in their European or American College Diplomate examinations. The School also recruits veterinary graduates to undertake PhD projects and it is a requirement that clinical residents undertake a research project, as part of a Masters' study resulting in publication. These activities ensure the School is contributing to the training of the veterinary academics of tomorrow.

Comments

10.9 Due to the constraints of the pandemic, there was no opportunity to experience the Schools Research facilities and the standard was assessed based on written evidence and a limited video tour. An on-site review of the SVM and Research Institute facilities will be scheduled within 18 months.

10.10 The research structure within the College of Medical, Veterinary and Life Sciences results in a concentration of primary research staff, research income and outputs within the associated Research Institutes (RI). Affiliates from RI teach as a part of the SVM programme and some SVM staff are affiliates within the RIs so high-quality research activity is represented between the combined faculty. Students are also explicitly exposed to research via Blue Sky lectures and the externally funded INSPIRE programme.

10.11 Within the SVM, clinical research activities are constrained by time pressures of the curriculum and service work, but development of the new curriculum has afforded staff within the SVM opportunities to develop an educational research focus. In addition, efforts are made to pair research active clinical faculty with researchers in the RIs.

10.12 Learning objectives for the undergraduates require students to critically analyse data, write literature reviews, research proposals and case reviews.

10.13 There is no mandatory requirement for students to be involved in hands-on research but there are voluntary opportunities for student engagement in research via summer research projects, EMS projects, selectives and intercalation. The numbers of students involved in hands on

research and publication remains at a relatively low level but those that are interested in research careers are well supported.

10.14 Scholarship funds provide support for students and early career researchers.

10.15 There is a lack of readily accessible information on undergraduate students' research outputs including publications, research awards and progression to postgraduate programmes.

10.16 Approaches to evidence based medicine are embedded within the clinical and professional phases of the curriculum.

10.17 Sufficient numbers of advanced postgraduate degrees, residencies and internships are supported by the SVM and Research Institutes. PhD students are often co-supervised by RI and SVM faculty. Facilities and supervisory staff are sufficient for these activities.

10.18 A variety of continuing education courses are provided by the School with a focus on the needs of the local practitioners and local patient populations.

Suggestions

10.19 The School is encouraged to increase undergraduate involvement in hands-on research projects and take steps to ensure that the SVM and the RIs continue to work together to provide research opportunities for students and faculty.

10.20 The School is encouraged to improve collection of data relating to student research presentations, awards, publications and entry into research programmes after graduation.

Standard 10b – Assessments

Background

10.21 The BVMS programme has an Assessment Policy available to students on the BVMS policies page. This document provides an overview of the purpose and design of assessment in the BVMS programme along with an explanation of the range of assessment modalities used within the programme and how these align with ILOs.

10.22 The Professional portfolio which has both summative & formative roles, focuses on gathering and interpretation of evidence to inform and plan future personal learning strategies. Competency assessment methods include OSCEs, DOPS and Portfolio and are designed to demonstrate progression in clinical skills across each of the three Phases of the programme. In the context of the BVMS programme the Portfolio forms part of the competency course assessment at the end of each Phase of the programme (BVMS2, BVMS4 & BVMS5). The BVMS Portfolio aims to provide a vehicle for the student to demonstrate that they have achieved specific ILO's which map on to the RCVS & AVMA Day-One competencies. The Portfolio also has an important formative role, as students use it to document and plan their learning. Students are required to submit their Portfolio for formative assessment at the end of BVMS1 and BVMS3.

10.23 The ILOs of each course within the BVMS programme are mapped to the requirements of the accrediting bodies, and this information is combined with that provided by assessment blueprinting to ensure that the programme assesses the full range of requirements. This is consistent with the University assessment policy.

10.24 Each year of the programme has clearly stated intended learning outcomes (ILOs) and these are used to plan and design assessment. The course leader is responsible for planning assessment for each course to ensure that year-level ILOs are assessed appropriately. This process is known as Blueprinting. A formal record of the blueprint for the examination is submitted to the external examiner as part of the assessment review process. A copy is kept on record by the Undergraduate School. The Curriculum Mapping process required for Blueprinting (and consistent with section 5 of the University assessment policy) includes mapping year-level ILOs to Phase-level ILOs. The blueprint demonstrates how the year-level ILOs are assessed through the course assessments. Students are encouraged to use ILOs to guide their study and thus develop life-long independent learning skills. The competencies expected of graduates of the BVMS programme by the professional accrediting authorities are mapped through a process of constructive alignment to the assessments undertaken by students in assessment matrices, which give an overview of how competencies are developed over the three phases of the programme.

10.25 For all Phases, a candidate who fails to obtain a passing grade in the Knowledge and Application Assessment will be required to repeat all elements of that category of assessment at the second diet. A candidate who fails to obtain a passing grade in the Competency Assessment will be required to repeat only the failed elements of that category of assessment at the second diet (i.e. either the OSCE or the Portfolio). Candidates must obtain a passing grade in both assessment categories in order to progress.

10.26 Introduction of the new curriculum and subsequent refinements have resulted in a significant reduction in the amount of summative assessment for each student; improved timing of assessments (reduced overall number and duration of examinations); inclusion of consolidation weeks at the end of each module with an associated continual assessment task (CAT).

10.27 Marking time for faculty is typically 4 hours per written question with a number of question types (e.g. MCQ, EMQ) being automatically marked. Distribution of marking is managed across each course with the load typically proportional to teaching load. The School is progressing towards the introduction of a “Comprehensive Assessment System” which is expected to provide further streamlining of processes, particularly from an administrative perspective.

10.28 The School of Veterinary Medicine supports the development of a range of approaches to formative feedback, including self-assessment, peer-assessment, individual feedback on assignments and provision of model and example answers across a range of achievement levels. General feedback on the end of course summative assessments is provided where possible, in addition to individual student grades, cohort grade profiles and the opportunity to review examination scripts on request.

10.29 University of Glasgow academic faculty receive training in the principles of assessment as part of the postgraduate certificate in academic practice (PGCAP) which is completed by new faculty as part of the Early Career Development Programme (ECDP). Specific training is offered for different assessment formats used in the BVMS programme and both internal and external faculty are required to complete training prior to involvement in summative assessment of students. OSCE assessor training and Portfolio assessor training are half-day workshops. DOPS training is delivered by the relevant DOPS coordinator and/or rotation coordinator, and a DOPS audit process involving peer review of DOPS assessment forms part of the curriculum review. Other assessment-related tasks such as standard setting, question writing and marking for written or computer-based papers are described in the assessment policy and relevant course documentation; face to face training is provided for new members of faculty with specific roles in these assessments.

10.30 The University upholds the principle that students should have a full opportunity to raise appeals against academic decisions without fear of disadvantage and in the knowledge that confidentiality shall be respected. An appeal is defined as a request for a review of a decision of an academic body charged with making judgements concerning student progression, assessment or awards. There are only two grounds for appeal, namely “Unfair or Defective Procedure” and “Failure to take into account medical or other adverse personal circumstances”. The Senate office provides clear guidance on the processes involved on the Academic Appeals section of their website.

Comments

10.31 The new curriculum is constructively aligned with a comprehensive range of assessment methods, relevant to knowledge, technical and professional skills. In particular, there is considerable emphasis on assessing the full range of Day-1-Competences. Formative opportunities to experience assessment methods which they not have previously encountered

are appreciated by students. Appropriate QA processes are in place, as well as appeals processes.

10.32 While, in general, achievement at each stage governs decisions on progression, there is evidence in some areas (eg successful completion of animal handling DOPs are not essential for progress to placements) that this may hamper ability to perform, and potentially compromise safety.

10.33 There is clear mapping of technical competences (RCVS and AVMA day one competences) in assessments, to assure their achievement by individual students, but although knowledge elements are blue-printed for proportionate inclusion in written assessments there is no mapping of achievement in discrete areas of underpinning knowledge.

10.34 Students recognise the value of their integrated programme, and for those used to the short module, “memorise and forget” approach to learning, the sequential building of knowledge and skills was a refreshing change. However, for some students, the large end of year/phase assessments were perceived as overload.

Suggestions

10.35 It is suggested that the School reviews its assessment barriers, and the extent to which failing students may progress, particularly in relation to any with welfare implications and safety implications for animals, the student and any others present.

10.36 It is suggested that the school reviews the way the summative end of course assessment is aggregated to ensure that students display competence in each discipline within the assessment; that is, to avoid an overall satisfactory performance obscuring unsatisfactory performance in one area.

10.37 It is suggested that the School reviews the balance between shorter in-course and larger end of year assessments, with a view to spreading summative credits more widely. Students are clearly aware of assessment and curricular design, but greater understanding of the summative rationale will aid understanding and acceptance of the assessment programme.

Standard 11 – Outcomes Assessment

Background

11.1 The educational environment of the University of Glasgow is assessed by the Quality Assurance Agency for Higher Education (QAA) Scotland on a four-year cycle through the Enhancement Lead Institutional Review (ELIR). The latest review was in 2019 and the panel judged that the "University of Glasgow demonstrates effectiveness in arrangements for enhancing quality and securing academic standards".

11.2 As part of its public funding commitments the University of Glasgow reviews all programmes in its catalogue through Periodic Subject Review (PSR) on a 6 year cycle. The SVM and the BVMS programme are reviewed on a 7 year cycle by the professional accrediting bodies (Royal College of Veterinary Surgeons 2013, American Veterinary Medical Association 2013, European Association Establishments of Veterinary Education 2013, Australasian Veterinary Boards Council 2013, South African Veterinary Council 2013, current status all full accreditation for 7 years. The National Student Survey (NSS), undertaken annually by all UK students in the final year of their degree programme, is managed and reported by an external organisation. The annual 'Destination of Leavers from Higher Education', which is reported to the University and the School is to be replaced in 2020.

11.3 A veterinary employers survey is undertaken every two years, which is operated and reported by the Veterinary Schools Council. The North American Veterinary Licencing Examination (NAVLE) is taken annually by students whose ambition is work in the North American veterinary market and is delivered and reported by the International Council for Veterinary Assessment (ICVA). The SVM undertakes surveys of graduates approximately 15 months (annually) and 3 years after graduation (this activity will be undertaken by the Veterinary Schools Council from 2019).

11.4 The SVM operates an assessment policy for the BVMS programme that outlines the assessment of the development and attainment of clinical competence across the programme. This suite of assessments is constructively aligned with Miller's pyramid of developing clinical competency.

11.5 Direct observations on student progress towards essential competencies related to animal handling and clinical examination are part of the summative assessment in BVMS2 (end of the Foundation phase) and BVMS4 (end of the Clinical phase delivered by Directly Observed Procedural Skills (DOPS) assessment. Multiple opportunities are available in each phase to develop the necessary skills to be successful in a specific DOPS. All attempts result in immediate formative feedback. The DOPS undertaken in these phases are mapped to RCVS and AVMA competencies. To progress to the next phase a student must complete all phase DOPS successfully. The progression towards other competencies is sampled in BVMS2-4 through Objective Structured Clinical Examinations (OSCEs).

11.6 Direct (DOPS) and indirect observations (rotation feedback) on student attainment of competencies are collected in the senior year (BVMS5) using an on-line multi-source performance feedback system (SVM Feedback system) that collates feedback for each

student at rotation level, including individual comments. The system manages both feedback to individual students and reports outcomes to the course team. The course administrator follows a SOP in which monthly reports are created for the course leader which identify students who are performing below expectation and rotations where the Service Level Agreement (SLA) with students for return of feedback are not being met. The course leader manages the outcome of these reports on a monthly cycle. The outcomes of the DOPS assessments and the SVM feedback system provide the opportunity for the prompt identification and potential remediation of under-performing students in the Professional phase as well as identifying issues with the SLA for rotation feedback. The cumulative data are summarised and reported annually to the BVMS programme board and the rotation leaders/clinical oversight group.

11.7 The BVMS programme board monitors NAVLE outcomes on an annual basis.

11.8 In 2017 the Veterinary Schools Council instigated a biennial national survey of the employers of veterinary graduates. The VSC national survey is substantially different to the surveys used by the SVM in the past so direct comparison and trend analysis is not appropriate. Broadly graduates entering the profession meet the expectations of employers, with less satisfaction in the domains of Resilience and Financial and Business management. These domains have been identified in previous graduate and employer surveys and have led to changes in the curriculum. These changes will not yet be reflected in graduate/employer outcomes surveys.

11.9 The AMR process requires course teams to comment annually on the infrastructure, staff resources, organisation and student attainment related to the educational environment. The comments of course teams are reviewed at School, College and University level. In the SVM the AMR is discussed by the BVMS programme board and the School Learning and Teaching committee, with further discussion by the Staff Student Liaison and School Executive committees.

Entering Class	Total Attrition*	Reason for Relative Attrition**				Reason for Absolute Attrition****		
		Academic	Additional Programme (IC)	Personal	Transfer ***	Academic	Personal	Percentage
2009	41	17	5	3	0	9	7	12.7
2010	26	11	2	3	0	9	1	7.4
2011	36	17	3	3	1	9	3	8.8
2012	14	6	0	1	1	5	1	4.5
2013	18	3	7	2	0	3	3	5.0
2014	14	3	2	1	2	3	3	5.3

Table – Attrition Monitoring Rates

Table – Employment Rates

Graduating Class	Total # graduates (number of respondents)	# Employed in Field Related to Veterinary Training	% Employed of respondents	# Graduates in Advanced Clinical Training (internships/residencies)	# in advanced academic training (Masters/PhD)
2017	74	70	94.6	*	1
2016	45	45	100	*	1
2015	32	30	91.4	*	3
2014	51	48	94.1	*	0

11.10 The BVMS programme board reviews outcomes data cyclically, dependent on the different feedback cycles, with information from the various sources being triangulated to define the significant issues for action. In recent years changes that have been made to the operation of the BVMS programme include: enhancement of transition onto BVMS programme (2014-2018); retraining of Foundation phase DOPS assessors (2015); appointment of a NAVLE champion (2016); reinforcement of antimicrobial teaching with sign-posting in BVMS1-4 and new activities in BVMS 5 (2017); review of Professional portfolio assets and assessment (2017); relaunch of Advisor of Studies programme (previously mentor programme) (2018); improvements to the delivery of business teaching (2018); introduction of bespoke feedback management software (2018 – 2019); signposting of active learning within courses (2019); increased emphasis on clinical reasoning (2019); assessment policy review (2019).

11.11 All courses are reviewed annually through the External Examiner programme run by the Senate Office (University central administration responsible for teaching). The External Examiner role includes monitoring assessment processes, assessment content and bench marking to other similar courses in other institutions. External examiners report directly to the Senate Office annually.

Table – AVBC Ratios

Activity, Service or Facility to be Evaluated	Indicator	Ratio Numerator and Denominator	Satisfactory	Unsatisfactory	Unacceptable
Teaching Staff	Teacher/student ratio [1]	• (a) 81.1 FTE • (b) 635 HC • R = 8.1	$R = \frac{a}{b} = \frac{1}{\leq 7.5}$	$R = \frac{1}{x \leq 7.5 < x < 15}$	$R = \frac{1}{> 15}$
Support Staff	Teacher/support staff ratio	• (a) 81.1 • (c) 133.1 • R = 1.6	$R = \frac{a}{c} = \frac{1}{\geq 1}$	$R = \frac{1}{0.5 < x \leq 1}$	$R = \frac{1}{< 0.5}$
Theoretical, practical and clinical training	Ratio of theoretical training/ practical and clinical training: RE Ratio of clinical training/theoretical and practical training : RC	• Theoretical training (d) • 1124.5 hrs • Practical and clinical training (e) • 2620.75 hrs • RE (d/e) = 0.43 • RC = 0.93	$RE = \frac{d}{e} = \frac{1}{\geq 1}$ $RC = \frac{e3}{d+e1+e2} = \frac{1}{\leq 4}$	$RE = \frac{1}{0.6 < x < 1}$ $RC = \frac{1}{4 < x \leq 9}$	$RE = \frac{1}{< 0.6}$ $RE = \frac{1}{> 9}$
Animals available to the clinic	Student/animal ratios[2]	• Students graduating (i) 123 Animals • Livestock (f) 2,799 R = 1/23 • Pets (g) 18,732 R = 1/152	$R = \frac{i}{f} = \frac{1}{> 20}$ $R = \frac{i}{g} = \frac{1}{> 50}$	$R = \frac{1}{20 > x > 5}$ R $= \frac{1}{50 > x > 20}$	$R = \frac{1}{< 5}$ $R = \frac{1}{< 20}$
Animals available for post-mortem examinations	Student/ post-mortem examination ratio	• Students graduating (i) 123 Post-mortem examinations (h) 682 • R = 1/5.5	$R = \frac{i}{h} = \frac{1}{> 4}$	$R = \frac{1}{2 < x < 4}$	$R = \frac{1}{< 2}$

Comments

11.12 The School has a comprehensive process in place to gather outcomes data and provided several examples where the analysis of such data led to adjustments in curriculum or assessment strategies to enhance the quality of the programme and graduate outcomes. Employers of the School's graduates provided very positive feedback in relation to their skills and preparedness to practise.

11.13 There is a comprehensive process for mapping attainment and assessment of clinical competencies across the programme, and the assessment of these through Direct Observation of Procedural Skills, OSCEs, and assessment of performance on clinical rotations and EMS, through end of rotation grades. Students are required to collate attainment of competencies, and their reflections arising from their learning experiences, in an ePorfolio. The professional phase portfolio, including evidence of all of the preceding, is the basis for the competence grade awarded to students in final year.

11.14 Students receive a performance assessment at the completion of each final year clinical rotation, or within a week of its conclusion. Students identified to have performance issues are issued with a 'cause for concern' notice which triggers a process to remediate the deficiencies – the 'cause for concern' notice and certification that the deficiency has been addressed must be included in the professional phase portfolio. Deficiencies are discussed at the point they are identified in the rotation, but there is no systematic process for providing each student with mid-placement feedback on their performance. This risks students' capacity to maximise the learning value of the placements.

11.15 The mapping of attainment of underpinning knowledge is less granular, largely reflecting the fact that theory is assessed summatively at the end of each year of the programme in a series of 2-3 written examinations. Students need to gain a passing grade for the combined theory exams, as opposed to a minimum performance being required in any component. This creates a particular challenge in the area of Veterinary Public Health. A student could potentially receive passing grades for knowledge and understanding in BVMS3 and BVMS4 without actually passing the veterinary public health components of these examinations. Students do complete continual assessment tasks during the Veterinary Public Health – Aspects of Food Safety module in BVMS3 but, although these must be completed to a satisfactory standard, they do not contribute to the final grade for knowledge and understanding in this course.

11.16 The School advised the Site Team that they are continuously reviewing the programme's reliance on very large end-of-year summative assessment tasks.

Recommendations

11.17 The college must have processes in place whereby students are observed and assessed formatively and summatively, with timely documentation to assure accuracy of the assessment for having attained each of the following competencies:

7. understanding of health promotion, and biosecurity, prevention and control of disease including zoonoses and principles of food safety

11.18 The School must ensure that documentation exists that all students have attained competence in food safety and veterinary public health.

Suggestions

11.19 The School should consider the addition of mid-rotation formative feedback in all rotations.

University Response

The School wishes to thank the site visitors and RCVS staff for a positive and constructive site visit. Despite the complexity of a site visit involving the RCVS, CoE, AVBC and SAVC the visit was very professionally managed and conducted. The meetings were conducted in a very positive and supportive manner allowing students and staff to speak openly. The School is very pleased with the relatively small number of recommendations, which we believe is testament to the hard work and professionalism of colleagues. The School, and more importantly its staff, regard the student experience as our core priority and I am pleased this was recognised at the site visit. Finally, I personally would like to thank the staff, the Chairs, Professor May and Dr Parks, and the visitors for the smooth running of the visit and for their helpful observations and perspective. We will reflect on all the suggestions and use these as part of our drive for continuous improvement.

Ewan Cameron
Head of School

Standard 3 – Facilities and Equipment

Commendations

1. The School is to be commended on the new Mary Stewart Building, which has improved social and study facilities for students within the school.

Suggestions

2. Continued progress on the proposed new post-mortem building to modernise and improve these facilities and increase the clinical skills unit capacity is encouraged. The School should update the accrediting bodies on any changes to the timeline for the completion of the new post-mortem building.

University Response

In line with the University of Glasgow's normal procedure for major capital projects a project board for the new post-mortem facility has been established. An application to fund RIBA stage 3 of the project will be submitted to the University Investment and Finance Committees in September/October 2021. Advice from the Estates project managers suggest the facility could be completed and commissioned by 2025.

3. A comprehensive review of Health and Safety oversight policies at the level of SVM Senior Management is suggested.

University Response

The School believes it has robust systems and processes in place through a standing Health and Safety Committee constituted with representation from across the different areas of the School. Additionally, the University carries out regular risk assessments on different buildings and activities of

the School. Nevertheless, the School agrees that oversight by senior management could be more transparent. As such the School has instituted a formal annual report from the Health and Safety committee and an annual meeting between the School Executive and Health and Safety Committee members to review and discuss the findings of the report. Such a report will serve as a checklist to ensure that all safety reviews have been conducted according to a standard predetermined schedule and will include a record of completed actions.

4. The school is encouraged to develop a standardised format for the annual review of the distributive sites (e.g. agenda and notes).

University Response

A standardised template has been developed and will be used for formal annual review meetings with partner practices at distributed sites from September 2021. Minutes and actions of these meetings will be submitted to the BVMS programme board for consideration as part of the annual calendar. This will be instituted for the coming academic session 2021/22.

5. The school is encouraged to implement any upgrades suggested by the disability access report.

University Response

The School notes the importance of disability access and will continue to consult with Estates colleagues on identified priorities to continue to improve use of the facilities by all in line with legislation and University policy. Discussions with Estates are ongoing and there are meetings scheduled throughout the year.

Standard 4 – Animal Resources

Recommendations

6. The Schools must ensure that all relevant animal handling training and assessment is successfully completed prior to students first extra mural placements with the relevant species.

University Response

The School has already changed its policy for the 2021/22 academic session. Training and assessment in animal handling have been rescheduled to maximise the opportunities for students to receive training in handling the relevant species. All extra mural study (EMS) places are formally approved by the School. Such approval will only be granted where the student has completed the

relevant core species-based training and assessment in safe handling. This policy will apply to incoming first year students in September 2021.

Suggestions

7. The School is encouraged to continue to explore areas to reinforce resilience in clinical case material provision for production animal teaching.

University Response

The farm animal division will continue to review all approaches to herd and case-based teaching. This will be supported by a new quality assurance post. Part of the new postholder's duties will be to monitor clinical resources on an ongoing basis and report/suggest improvements to course/programme leaders and Divisional/School management.

Standard 5 – Information Resources

Suggestions

8. The online platform (Mahara) should be evaluated in terms of usefulness and user-friendliness to staff and students, to ensure that the best platforms are utilised.

University Response

Through academic session 2021/22 the School Learning and Teaching Committee will review the use and functionality of Mahara and how it integrates with the other main University teaching platform Moodle. Currently Mahara is used to manage the student portfolio system in addition to hosting a range of other content. This review will consider content migration and involve consultation and testing with both staff and students on the user-experience. The School Learning and Teaching Committee will report back to the School Executive with their recommendations.

Standard 6 – Students

Commendations

9. The SVM and the University of Glasgow are commended for the support services that they provide for their students, especially during the pandemic. The SVM staff are further commended for their exemplary and prompt support and the genuine caring attitude that they provide to their student body.

Suggestions

10. The School should review the clinical learning environment and the processes to respond to concerns, in order to ensure a consistent, positive learning environment.

11. The School should update the accrediting agencies on the outcome of the review of the negative learning environment in hospital rotations.

University Response

Comments 10 and 11 are related and will be discussed together. The School already has comprehensive student feedback systems in place, including end of rotation feedback and focus groups with the Head of School and other senior staff in final year. Although the vast majority of feedback is very positive the School has documented occasional negative interactions between students and staff/interns/residents. Although infrequent such events can impact on the student experience.

From session 2021/22 students will be specifically asked about any negative learning experiences at the end of rotation and this will be monitored closely. Discussions between clinical Heads of Division and the School's programme director have already taken place. A supportive learning environment and positive student experience will be discussed with all staff at their annual performance and development review, whilst resident and intern induction and annual reviews will give an opportunity to emphasise the importance of a supportive working environment. These additional measures will complement the University's robust student complaints procedure.

The school places a high value on a positive working and learning culture and as part of our Athena Swan action plan has instituted ongoing culture surveys, confidential diversity and inclusion surgeries for staff and students, and microaggression workshops for final year students as well as interns, residents, and staff.

Standard 9 – Curriculum

Commendations

12. The school is commended for the pedagogical design of the curriculum and the constructive alignment of the assessment with learning objectives.

13. The process for embedding clinical reasoning is comprehensive and well-constructed.

Suggestions

14. The School is encouraged to develop and implement the proposed online introduction to teaching module for external and postgraduate contributors to the teaching programme and ensure that once implemented, the module is consistently completed.

University Response

Training is already provided to external and postgraduate contributors but a standardised approach to the provision of this training is being adopted. Importantly, we will update our approach to monitoring engagement and completion. This is already in place for graduate teaching assistants, but we will ensure that all nominated teachers in distributed sites have undergone appropriate online and bespoke in person training and that this has been recorded. This will be introduced in session 2021/22, the training records will be curated by the quality assurance officer.

15. The school is encouraged to review the development of clinical communication skills, including “difficult conversations” with clients.

University Response

The School was a little surprised by this comment. Communications skills training use an extensive bank of scenarios that cover how to handle a variety of “difficult conversations” (a list of over 30 scenarios is available and this is reviewed annually). Within these scenarios a number cover difficult or sensitive situations. Related to this point the school has embedded unconscious bias and diversity training in the curriculum, covering such areas as cultural awareness, identities, and protected characteristics.

16. The School should ensure that all students obtain both red and white meat full throughput abattoir experience.

University Response

This is a challenging area but the School will intensify its efforts to gain access for all students to independent high throughput red and white meat abattoirs. This will include lobbying through Scottish Government, industry associations and FSS. Consideration will also be given to financial incentives. The virtual abattoir app developed through a vet school partnership has proved an excellent teaching aid and will continue to be an important complement to public health teaching.

17. The School should implement a mechanism to record and follow up safety incidents occurring on EMS reported by either the provider or the student.

University Response

There is a legal requirement for the business operator to record, and if necessary, report serious safety incidents directly to the Health and Safety Executive; nevertheless, the School will ensure that students are aware that they are expected to inform the School through our existing reporting procedures. In consultation with the University’s senior safety officer the EMS form has recently been updated to simplify the recording of all incidents.

18. The School should implement a structure and process that allows EMS providers to formally report on the EMS system.

University Response

The School already receives feedback on students on EMS placements and has a web-based system to obtain feedback on the EMS system in general, and how it operates from the providers perspective. Future communication with providers will re-emphasise this feedback system and encourage its use.

Standard 10 – Research Programmes

Suggestions

19. The School is encouraged to increase undergraduate involvement in hands-on research projects and take steps to ensure that the SVM and the RIs continue to work together to provide research opportunities for students and faculty.

University Response

Restructuring in 2010 resulted in major research activity moving from the School to associated research institutes. The College has recently reviewed its research strategy and implementation of the new strategy will result in much closer integration between the school and its associated research institute with shared responsibility for research and teaching. This will enhance research opportunities for both staff and students within the School. Furthermore, internal sustainable funding of research for staff and postgraduate students via the University's Vet Fund (which is managed locally by the School's Research Co-Convenors) will continue to create further opportunities for participation in hands-on research projects for our BVMS students.

20. The School is encouraged to improve collection of data relating to student research presentations, awards, publications and entry into research programmes after graduation.

University Response

The curation of information relating to student research activity and achievements will be the responsibility of the new quality assurance post.

Standard 10b – Assessments

Suggestions

21. It is suggested that the School reviews its assessment barriers, and the extent to which failing students may progress, particularly in relation to any with welfare implications and safety implications for animals, the student and any others present.

22. It is suggested that the school reviews the way the summative end of course assessment is aggregated to ensure that students display competence in each discipline within the assessment; that is, to avoid an overall satisfactory performance obscuring unsatisfactory performance in one area.

University Response

Suggestions 21 and 22 are being actively reviewed by the BVMS programme board as part of its assessment review and changes will be implemented in the academic sessions 2021/22 and 2022/23.

23. It is suggested that the School reviews the balance between shorter in-course and larger end of year assessments, with a view to spreading summative credits more widely. Students are clearly aware of assessment and curricular design, but greater understanding of the summative rationale will aid understanding and acceptance of the assessment programme.

University Response

The School's recent review of assessment policy has recommended the greater use of within course summative assessment to reduce the anxiety associated with a high stakes end of year exams. These changes will be introduced for BVMS1 and BVMS3 courses during 2021-22 with intention of extending to BVMS2 & BVMS4 courses from 2022-23 onwards.

Standard 11 – Outcomes Assessment

Recommendations

24. The college must have processes in place whereby students are observed and assessed formatively and summatively, with timely documentation to assure accuracy of the assessment for having attained each of the following competencies:
    7. understanding of health promotion, and biosecurity, prevention and control of disease including zoonoses and principles of food safety

25. The School must ensure that documentation exists that all students have attained competence in food safety and veterinary public health.

University Response

Recommendations 24 and 25 have been considered by the programme board and changes to assessment will be introduced during sessions 2021/22 to 2022/23 to comply with this requirement. Ongoing work on assessment management will assist in demonstrating that all students achieve the required outcomes in both knowledge and understanding (Schedule A) and professional competencies (Schedule B).

Suggestions

26. The School should consider the addition of mid-rotation formative feedback in all rotations.

University Response

This suggestion is being actively considered by the final year phase team. Some rotations are composite experiences and feedback is already given after each sub-section. Consideration will be given to the benefits and workload implications associated with delivering mid rotation feedback.