



THE UNIVERSITY of EDINBURGH
The Royal (Dick) School
of Veterinary Studies



VetEd 2023

International Symposium of the Veterinary Schools Council
Conference Theme: Sustainable Veterinary Education

5-7th July, 2023

Edinburgh, Scotland



Charities supported by VetEd



Cyrenians Food Bank,
Leith Edinburgh





THE UNIVERSITY OF EDINBURGH
The Royal (Dick) School
of Veterinary Studies



VetEd 2023 – Welcome and Information for delegates

Dear VetEd delegates

On behalf of the VetEd Organising Committee and the Royal (Dick) school of Veterinary Studies we extend a warm welcome to this year's event which we are very proud to be hosting in our bicentenary year.

Our conference theme is 'Sustainable Veterinary Education' and as such we are not providing the traditional 'goody bag' - instead we invite you all to select a charity from our chosen shortlist, by voting with the sustainable token you will given at registration. We will then make a donation to each charity commensurate with the number of tokens they got (see 'Chosen Charities' below).

Thank you again for coming to VetEd, we look forward to seeing you and wish you all a successful, invigorating and engaging conference!

Susan Rhind, Paul Wood and Eoghan Clarkson (VetEd2023 Co-Leads)

VetEd2023 Organising Committee

Gura Bergkvist, Emma Boyd, Eoghan Clarkson, Alexander Corbishley, Sarah Dunn, Andrew Gardiner, Dana Grigore, Laura Kidd, Ailidh Mackay, Jennifer Marshall, Yolanda Martinez-Pereira, Carolyn Morton, Caroline Mosley, Kristina Pollock, Lucy Pughe, Susan Rhind, Jenna Richardson, Hannah Simpson, Garry Tainsh, Paul Wood, Glynn Woods.

Useful links

- The VetEd 2023 website at <https://edin.ac/veted2023>.
- Travel advice at <https://edin.ac/veted2023-travel>.
- Keep up to date with @VetEd2023 and #VetEd2023 on Twitter <https://twitter.com/hashtag/VetEd2023>.
- Browse the conference programme at <https://veted2023.exordo.com/programme>.
- Rummage through our Digital Delegate Bag at <https://edin.ac/veted2023-delegate-bag>.



Thank you to our generous sponsors!

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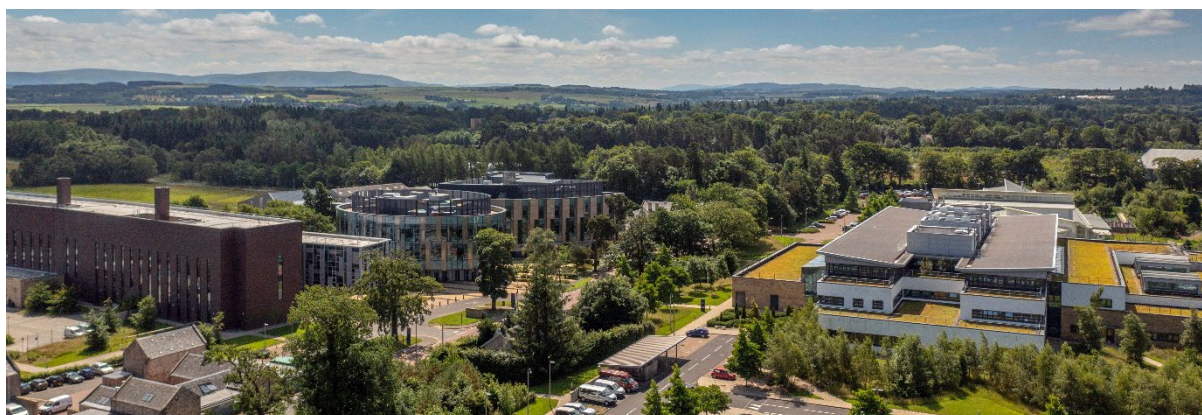
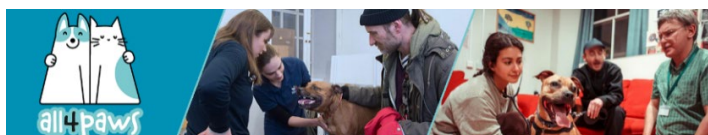


THE WEBINAR VET

VetEd 2023 is also proud to support:



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The university buildings have a guest WiFi network called Visit-Ed, available across all campuses.

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Delegate bag

Together with our sponsors, we have put together a virtual delegate bag of offers and resources.

You can access it at:

- <https://edin.ac/veted2023-delegate-bag>

Chosen Charities

All delegates will be able to vote with their individual 'token' for one of the following 3 charities:

All4Paws

All4Paws is a student-led outreach project run by the Royal (Dick) School of Veterinary Studies. They provide support and advice to homeless people with animals in Edinburgh.

- <https://www.ed.ac.uk/vet/community/in-the-community/all4paws>

Cyrenians foodbank, Leith, Edinburgh

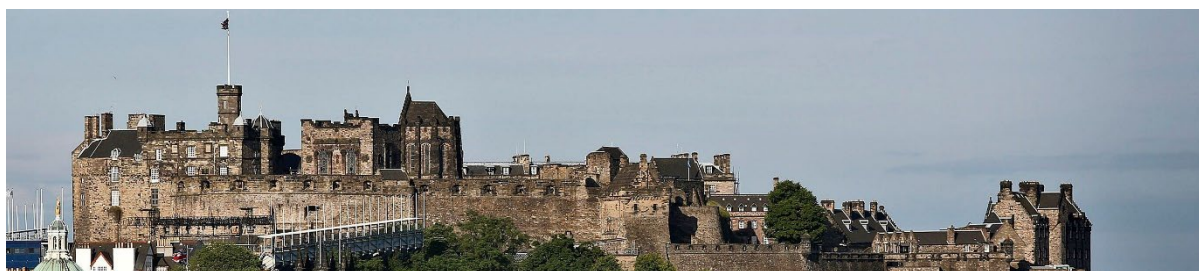
The Fareshare Depot in Leith is a thriving surplus food hub connecting local community to good quality food that otherwise would have been sent to landfill. It is one initiative under the Cyrenians umbrella which aims to tackle the causes and consequences of homelessness.

- <https://cyrenians.scot/social-enterprise/fareshare>

VetLife

Vetlife provides independent, confidential and free help via the 24/7/365 Vetlife Helpline. Everyone in the veterinary community is welcome to contact the Helpline for support. The Helpline is run by trained volunteers, all of whom are veterinary professionals. As well as the Helpline, Vetlife funds and manages the award winning Vetlife Health Support service, and provides Financial Support to those facing hardship.

- <https://www.vetlife.org.uk/>



Explore Edinburgh

If you weren't lucky enough to get a ticket for the social event, are visiting with family or have some spare time before or after the conference to explore Edinburgh then take a look here at some of the many sights and locations you can visit in our historic and beautiful city:

- Our Vet School team have picked their favourites: <https://edin.ac/veted2023-delegate-bag>
- TimeOut magazine have also selected their 12 best attractions in Edinburgh:
 - <https://www.timeout.com/edinburgh/things-to-do/top-edinburgh-attractions>

Conference programme

The main conference sessions are held in eight rooms across two buildings on the Pollock Halls estate:

- John McIntyre Conference Centre
- St Leonard's Hall

The two buildings are 100 metres apart.

You can view the full programme at the following link:

- <https://veted2023.exordo.com/programme>

John McIntyre Conference Centre

John McIntyre Conference Centre, Pollock Halls, 18 Holyrood Park Road, Edinburgh



The numbers on the above floorplan correspond to the numbers of the sessions in the programme:

1. Pentland
2. Prestonfield
3. Duddingston
4. Salsbury
5. Holyrood

St Leonard's Hall

St Leonard's Hall, Pollock Halls, 18 Holyrood Park Road, Edinburgh



The numbers on the above floorplan correspond to the numbers of the sessions in the programme:

6. Nelson Room
7. St Trinnean Room
8. Bonnar Room
9. Pollock Room

Schedule

Schedule: At a Glance

Plenary	
Short Communications	
ePosters	
Workshops	

Thursday		Location
9:15-10:15 PLENARY		
	Opening Plenary - Thomas Gale. Educating for Capability	Pentland John McIntyre Conference Centre
10:15-11:15 SESSION A: ePosters and Short communication parallel sessions		
A1	A1: ePosters: Clinical and Practical Skills	Pentland John McIntyre Conference Centre
A2	Short Comms: Staff Development and Evaluation	Prestonfield John McIntyre Conference Centre
A3	Short Comms: Admissions and Interprofessional Education	Duddingston John McIntyre Conference Centre
A4	ePosters: Professional and Workplace Skills, PG pathways	Salisbury John McIntyre Conference Centre
A5	Short Comms: Curriculum - Preparedness and Employability	Holyrood John McIntyre Conference Centre
A6	ePosters: Assessment and Feedback	Nelson, St Leonards
A7	Short Comms: Curriculum and Technology	St Trinnean St Leonards
11:45-1PM SESSION B: ePosters, Short communication and workshop parallel sessions		
B1	ePosters: Clinical Skills	Pentland John McIntyre Conference Centre
B2	ePosters: Sustainability + Wellbeing	Prestonfield John McIntyre Conference Centre
B3	Supplementing veterinary education with VIN Resources	Duddingston John McIntyre Conference Centre
B4	Supporting the Student of Faith within the Veterinary Curriculum	Salisbury

		John McIntyre Conference Centre
B5	Expanding the umbrella – using a one health framework to incorporate themes of sustainability, equity and inclusivity into a veterinary curriculum	Holyrood John McIntyre Conference Centre
B6	B6: Short Comms: Assessment and Feedback	Nelson St Leonards
B7	B7: Short Comms: Professional Skills, Support and Wellbeing	St Trinnean St Leonards
B8	B8: Short Comms: Clinical Practice and Simulation	Bonnar St Leonards
2-3pm PLENARY		
	Plenary - Andrew Gardiner. Veterinary Education: Moving Forward, Looking Back, Minding the Gap!	Pentland John McIntyre Conference Centre
3:30-5PM SESSION C: Workshop and Short communication parallel sessions		
C1	C1: Short Comms: Clinical Skills and Clinical Reasoning	Pentland John McIntyre Conference Centre
C2	One Health and Veterinary Nursing/ Veterinary Technology Education	Prestonfield John McIntyre Conference Centre
C3	Making the most of flipped classrooms to prepare students for animal handling and clinical skills practicals	Duddingston John McIntyre Conference Centre
C5	How new vets navigate emotional labour: Can we (and should we) help them to keep smiling?	Holyrood John McIntyre Conference Centre
C6	Psychometric Standard Setting Workshop	Nelson St Leonards
C7	Eating the elephant: consideration of approaches to curriculum review in veterinary education	St Trinnean St Leonards
C8	The creation of an online learning tool to support clinical reasoning skills development early in the veterinary medical curriculum.	Bonnar St Leonards

Friday PLENARY 9-10:30		Location
	Plenary - Suicide prevention in veterinary education	Pentland John McIntyre Conference Centre
11-12 Session D: ePosters, Short communication and workshop parallel sessions		
D1	ePosters: TEL and Peer Support	Pentland John McIntyre Conference Centre
D2	Short Comms: Curriculum - Practical and Clinical	Prestonfield John McIntyre Conference Centre
D3	Raising the integration bar: can interdisciplinary collaboration enhance professionalism and basic science teaching?	Duddingston John McIntyre Conference Centre
D4	Supporting Student Success	Salisbury John McIntyre Conference Centre
D5	Getting workplace-based assessment to work in the veterinary curriculum	Holyrood John McIntyre Conference Centre
D6	Leveraging artificial intelligence to augment simulations with elements of diversity and equity for the development of cultural humility and inclusivity among learners.	Nelson St Leonards
D7	Safety planning: support for people experiencing suicidal thoughts	St Trinnean St Leonards
D8	How to avoid doing everything, everywhere, all at once: Use of sequential care in the veterinary curriculum	Bonnar St Leonards
12:15-1:15 Session E: ePosters and workshop parallel sessions		
E1	ePosters: Curriculum - General and Postgraduate	Pentland John McIntyre Conference Centre
E2	Developing new Clinical Educational Partnerships: a shared experience	Prestonfield John McIntyre Conference Centre
E3	A new specialty a new way – or an oxymoron? The generalist specialist.	Duddingston John McIntyre Conference Centre
E4	Curriculum Integration of Psychological Skills: The Harper Keele Approach	Salisbury John McIntyre Conference Centre
E5	Art for Anatomy: Investigating the benefits of observational drawing in undergraduate veterinary students	Holyrood John McIntyre Conference Centre
E6	To Lead or be Led: Navigating Shared-Decision Making as a New Graduate	Nelson St Leonards
E7	Designing a farm practical skills curriculum – what should be taught, when and how?	St Trinnean St Leonards

2-3:30 PLENARY

[Sustainable Veterinary Education. Hannah Davies, Ellie West, Tom Gale, Paul Gogerty, Anthony Chadwick](#)

Pentland
John McIntyre
Conference Centre

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1. University of Bristol

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1. *Royal Veterinary College*

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<i>1. European Commission for the Control of Foot-and-Mouth Disease - School of Biodiversity, One Health & Veterinary Medicine, University of Glasgow, 2. Institute of Game & Wildlife Research, Universidad Castilla la Mancha, 3. European Commission for the Control of Foot-and-Mouth Disease</i>	
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Dr. Rebecca Vallis¹, Mrs. Sarah Wood ¹, Prof. Sarah Baillie ¹

1. *University of Bristol*

Plenary 4

Thursday Sessions

Plenary 1

Educating for Capability

Many educators and regulators in the healthcare professions utilise Competency-based medical education (CBME) to establish graduating standards but it is important to differentiate between *competence* and *capability*. Over the last decade, significant changes have emerged from CBME with greater emphasis on outcomes, progression of abilities with measurement of performance and less focus on 'time-based training'. Currently there is a paradigm shift from defining graduate outcomes as discrete entities in terms of knowledge, skills and attitudes to integrated activities, which more closely resemble the scope of practice and responsibilities of healthcare professionals. We need to prepare our graduates with the capability to integrate multiple skills, adapt to new situations, work effectively in interprofessional teams, know their own limitations and know when to seek extra support or advice. But how do we train and assess for capability? This talk will explore how simulation, technology assisted learning, interprofessional education and Entrustable professional activities can help to *educate for capability* and prepare graduates with the skills needed to tackle complex real world problems in ever-changing healthcare environments.

Professor Tom Gale, BMedSci, BMBS, FRCA, PFHEA, MClInEd



Professor Gale is a Professor of Medical Education and Director of Assessment at the Faculty of Health, University of Plymouth, and Consultant Anaesthetist at Plymouth University Hospitals NHS Trust. Tom leads the Collaboration for the Advancement of Medical Education Research and Assessment (CAMERA) research group, which undertakes research to improve capability and sustainability in the healthcare professions. His major interest areas are in the assessment of capability, recruitment and selection, preparedness for practice, simulation based education and retention of the medical workforce. He is currently involved with externally funded research investigating: stress and well-being in anaesthetic trainees, preparedness for practice of new graduates regulated by the Health Care Professions Council, Fitness to Practise processes in Dentistry, professional support and remediation of doctors, and professional identity formation during interprofessional simulation.

Session A

Development of Models for Teaching Ram Breeding Soundness Examinations in Veterinary Education

Thursday, 6th July - 10:15: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

***Dr. Kate Flay*¹, *Ms. Ling Yan Cheung*², *Dr. Rebecca Parkes*¹, *Dr. Gareth Fitch*¹, *Dr. Santiago Alonso Sousa*¹, *Mrs. Susanna Taylor*²**

1. Department of Veterinary Clinical Sciences, City University of Hong Kong, 2. Jockey Club College of Veterinary Medicine and Life Sciences, City University of Hong

Background: Ram Breeding soundness examinations are commonly undertaken by veterinarians to provide essential information to sheep farmers, helping to maximise reproductive performance of their flocks. These examinations are used to identify rams that are unsound and therefore unsuitable for breeding, both prior to sale (or purchase) and pre-breeding. It is essential that new graduate veterinarians can identify common abnormalities that result in rams being classified as unsound, yet it can be difficult for all students to palpate the full range of abnormalities in live rams during their training.

Summary of Work: We developed models for teaching ram scrotal assessment and palpation as part of our Production Animal Clinical Studies course. To do this, we first developed our 'normal' ('sound') testicles. These were created in open-source 3D modelling software using photographic reference material. We then 3D printed 2-part molds which were used to cast the testicles using ecoflex 00-30 silicone. Following this, we edited the normal testicles within the 3D software to display common abnormalities (epididymitis of the head, epididymitis of the tail, segmental aplasia, micro-orchid) allowing us to 3D print 'abnormal' molds and subsequently cast 'unsound' scrotal contents. To create testicles that were anatomically normal, but were too soft, we used the normal mold but cast them creating a center of ecoflex gel silicone.

The testicles were inserted into siliconized, lubricated stockings and then placed into scrotal sacs sewn from polar fleece. We suspended the models from a table during the practical classes. The students gave excellent informal feedback on the appropriateness and usefulness of models, as did veterinarians with expertise in sheep health. Formal validation of the models is in progress.

Take Home Message: Ram testicles can be edited, and 3D printed, to create models used for teaching ram breeding soundness examinations.

A novel ultrasound imaging model for training fine needle paracentesis to veterinary students

Thursday, 6th July - 10:21: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

***Mr. Pierantonio Battiato*¹, *Mr. Gabriele Ratti*¹, *Mr. Luca Lapira*¹, *Dr. Maurizio Longo*¹, *Dr. Emanuela Dalla Costa*¹, *Prof. Davide Danilo Zani*¹**

1. Department of Veterinary Medicine and Animal Sciences – DIVAS, University of Milan, 26900, Lodi

Ultrasound guided fine needle paracentesis is largely used by first year post-graduated general practitioners for assessing different small, large and exotic animals medicine cases, mostly in emergency situations. Therefore, veterinary students should be highly confident with this technique before graduating. Nowadays, ultrasound phantoms are quite diffused as teaching tools in several academic institutions. These are used in order to mimic different fluid, soft and hard tissues ultrasonographic textures and ultrasound echogenicities to train veterinary students. The aim of this study is to present a simply hand-made, cheap and useful phantom model to teach and train veterinary students to perform paracentesis without life-threatening complications.

A water, gelatin and psyllium-based phantom was developed and used during a teaching trial for 16 veterinary students. All the students were trained by a face-to-face technique under the supervision of a 3rd-year ECVDI Resident. After the training they completed a survey to evaluate their confidence and competence on the use of the technique. The students reported the marked improvement in competence level on ultrasound probe and spatial positioning, ultrasound echogenicities distinction, fine needle insertion, fluid sampling; while the overall confidence moderately increased after the trial.

To the authors' knowledge, this is the first study evaluating the usefulness of a hand-made phantom model to teach paracentesis to veterinary students with excellent competence and confidence results.

A novel ultrasound imaging model for training fine needle paracentesis to veterinary students

Introducing a surgical skills elective using models in a new clinical skills laboratory in Poland

Thursday, 6th July - 10:27: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

Prof. Marta Kankofer¹, Ms. Agnieszka Żejma-Szłafka¹, Prof. Sarah Baillie²

1. University of Lublin, 2. University of Bristol

Background

Being able to perform clinical skills and basic surgical procedures are core competences for veterinary graduates. A new clinical skills laboratory was opened at our university in October 2022 to support students in learning and practicing a range of clinical skills. The first course we ran was a week-long surgical elective for sixteen final year students.

Summary of Work

The elective consisted of five practicals all using models. The course built from basic surgical skills (e.g. suture techniques) to more complex surgical skills and procedures (e.g. lumpectomy, abdominal wound incision and closure, bitch spay). The elective was set up as a course in Teams and included online flipped classroom activities for the students to do as preparation in advance of each practical. The students undertook a group project to create a new learning resource for the clinical skills laboratory with a presentation at the end of the week.

Students completed pre- and post-elective surveys rating their confidence for each skill. Confidence levels increased significantly for all skills. Students were also asked to describe what aspects of the course had been most helpful, enjoyable or could be improved. They appreciated being able to practice skills on models and how the relaxed atmosphere in the skills laboratory was conducive to learning. The main theme under improvements was suggesting additional models and wanting more opportunities to use the facility. Group project topics included models for intravenous catheterisation and ultrasound.

Take Home Message

Our first surgical skills course was a success. It demonstrated that our new skills laboratory has great potential to contribute to student learning and will help us in aligning with the European Association for Establishments of Veterinary Education (EAEVE) concept of 'never the first time on a live animal'.

Our clinical skills journey: From a box in an office to a multi-building facility

Thursday, 6th July - 10:33: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

Ms. Alison Catterall¹, Prof. Sarah Baillie¹, Dr. Emma Gallop¹, Ms. Louisa Mitchard¹, Mrs. Sam Brown¹, Ms. Lucy Gray¹, Ms. Kathryn Brant¹, Mrs. Sarah Weston¹, Mrs. Rachel Harris¹, Dr. Abi Miles¹

1. University of Bristol

Background

Clinical skills laboratories (CSLs) are excellent facilities for supporting student learning and have been commonplace in medical education for many decades. An increasing number have been opened at veterinary schools over the last twenty years. In 2012, our first CSL was opened in a repurposed large animal operating theatre and integration of teaching and assessment into the curriculum began. The aim was to transform student skill development and their preparedness for workplace learning (extramural studies), rotations and graduation.

Summary of Work

We started with a few models in a box in an office and have progressed to a multi-building facility with a wide range of models and dedicated facilities for teaching animal handling and clinical skills and for running OSCE circuits. Our team have learned a lot along the way and have benefitted from the generosity of the wider clinical skills community and their willingness to share expertise and tips. Regular feedback has been gathered from students, staff, and employers, and the CSL team have also undertaken and published research studies.

Our top tips for developing and running CSLs include having lots of space (more is always needed, especially for storage); using models that are cost-effective, multi-use and sustainable; having heavy equipment on wheels (e.g. large models, tables); creating high-quality supporting learning resources (flipped classroom for student preparation; instruction booklets for in-class, self-directed learning and revision). An enthusiastic team has been crucial to success, particularly the skilled technical team who teach, assess, make and repair models, create instructional resources for students and provide training for staff.

Take Home Message

A well-designed CSL, associated resources and curriculum-wide teaching and assessment will enhance student learning by allowing them to practice and master skills on models in preparation for live animal experiences. And along the way, we've had a lot of fun!

Manual Intermittent Positive Pressure Ventilation (IPPV): Feline Simulation Model

Thursday, 6th July - 10:39: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

Mrs. christina maden¹

1. The Royal Veterinary College London

Background

I am a registered veterinary nurse with 12 years of experience in small animal emergency and critical care at the Royal Veterinary College. I have had significant involvement with patients requiring manual or mechanical IPPV, either in incidences of cardiopulmonary arrest or to provide respiratory support. I am now a teaching fellow in veterinary clinical skills at the RVC.

Summary

During a small group teaching session of third year veterinary students, I was inspired to develop a manual IPPV simulation model. Whilst discussing the suitability of certain anaesthetic breathing systems for IPPV, I was frequently asked to explain the method, which verbally I found complex. I wanted to design a model which would provide a visual demonstration of this day one skill, in addition to creating an opportunity for the students to develop the practical technique.

I chose to design and create a feline simulation model because I had suitable materials already available. I also wanted to highlight the importance of not overinflating the lungs, showing how easy this could be done in a small animal.

I wrote a clinical skills sheet to assist independent use of the model for practice.

Take home message

This novel design was simple and inexpensive to make yet has proved to be a valuable learning aid for students to acquire a crucial and potentially lifesaving clinical skill.

Engaging students as partners in developing a simulated otoscopy model and teaching session

Thursday, 6th July - 10:45: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

Dr. Avril McGinn¹, Ms. Diane Cashman¹, Dr. Sue Rackard¹

1. University College Dublin

Background:

Canine otitis is one of the most common conditions presented to veterinarians in primary care practice. (Banfield, 2016). Examination of the ear is often first attempted by students in a clinical setting. Lack of experience at performing this routine examination can leave students and new graduates unprepared, negatively impacting patient welfare. The aim of this study is to evaluate a new teaching model of the canine ear (developed in UCD's Clinical Skills Centre) which aims to develop competence in ear examination at the 'shows' level of Miller's pyramid (Miller 1990).

Summary of work:

This project will inform the development of clinical skills teaching of ear examination.

A model has been created to simulate the canine ear canal. The potential utility (van der Vleuten) of the model in undergraduate teaching has been evaluated by students and teachers. Student feedback from this session will be used to refine the model and inform a teaching session for the next academic year.

Students were invited to participate in a voluntary teaching session. Resources on otitis and indications for examination of the canine ear were provided. Students participated in a facilitated session on how to examine the ear model using an otoscope. They were given the opportunity to prepare cytology samples. Students were invited to a focus group discussion to provide feedback on the usefulness of the model and teaching session.

This study assesses the educational impact, cost and acceptability of this model and teaching session. This feedback will inform the next phase to allow investigation of validity and reliability.

Take home message:

This study engages students as partners in an educational development project. Student feedback allows the co-creation of a student-centered teaching session while providing students with some insight into educational design.

Development of the American Association of Veterinary Medical College Guidelines for the Use of Animals in Veterinary Education

Thursday, 6th July - 10:51: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

***Prof. Julie Hunt*¹, *Prof. Sarah Baillie*², *Prof. Bonnie V Beaver*³, *Dr. Anne Marie J Carey*⁴, *Dr. Julie A Cary*⁵, *Dr. Jeremy Delcambre*⁶, *Dr. Derek M Foster*⁷, *Dr. Dean Hendrickson*⁸, *Prof. Jon N Huxley*⁹, *Dr. Ted Mashima*¹⁰**

1. Lincoln Memorial University, 2. University of Bristol, 3. Texas A & M University, 4. Atlantic Veterinary College, University of Prince Edward Island, 5. Washington State University, 6. Louisiana State University, 7. North Carolina State University, 8. Colorado State University, 9. Massey University, 10. American Association of Veterinary Medical Colleges

Background

In July 2021, the American Association of Veterinary Medical College's (AAVMC) Board of Directors established a task force on the use of animals in veterinary education with the charge of developing recommendations to the Board. The task force consisted of representatives from nine member institutions from four countries across three continents (North America, Europe and Australasia) and recommended the development of guidelines for AAVMC member institutions.

Summary of Work

The task force used an iterative consensus-building approach in developing the guidelines over a 12-month period. Once drafted, the guidelines were shared with member institutions during an open commenting period. The task force considered all comments and made several edits. The AAVMC Board approved the guidelines in October 2022 and published them online. The guidelines aim to support the use of animals in a way that is humane and welfare appropriate and is guided by the 4 Rs: replacement, reduction, refinement, and respect. The guidelines cover both cadavers and live animals, their use in meeting educational outcomes and the utilisation of alternatives when appropriate. Institutions are also encouraged to demonstrate transparency by reviewing, presenting, and discussing information about the source and use of cadavers and live animals with students and faculty. The task force is now preparing an open-access online handbook to accompany the guidelines and is working with co-authors from member institutions to share best practices for use of cadavers, live animals and alternatives, with expected publication in Spring 2024.

Take Home Message

The guidelines have been written, and should be interpreted, as guiding principles and are not meant to be prescriptive. Individual institutions are encouraged to interpret the guidelines with due regard to their own unique institutional, national and regional circumstances.

Low-fidelity simulators for castration of male cats

Thursday, 6th July - 10:57: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

***Ms. Anna Chodzinski¹, Prof. Sandra Goericke-Pesch¹, Dr. Sabine Kramer¹, Ms. Vivien Bettermann¹,
Dr. Georga Tiffany Karbe¹, Prof. Andrea Tipold¹, Dr. Sandra Wissing¹***

1. University of Veterinary Medicine Hanover

Background

Neutering small animals is a day-one competency as defined by the European Association of Establishments for Veterinary Education. All veterinary students must be trained as part of their education. Due to animal welfare reasons and large student cohorts, there is only limited opportunity for students to practice and repeat this skill on live animals. For this reason, practical skills are increasingly taught on simulators.

Summary of work

A simulator to learn practical skills should contain all relevant anatomical structures, be inexpensive, reusable and can be produced quickly in large quantities to allow each student to practice and repeat castration.

The described low-fidelity simulator consists of a commercially available stuffed animal with simulated reproductive organs consisting of easily obtainable material such as balloons, cotton balls and rubber bands.

Twenty veterinarians from the Unit for Reproductive Medicine and the Surgery Department of the Clinic for Small Animals of the University of Veterinary Medicine Hanover tested and evaluated the model with regard to its realism and suitability for teaching castration skills.

Results show that the model is suitable for learning castration skills of a male cat. However, experts remarked that the anatomical structures are a bit too abstract and that some parts tore easily during the procedure.

The model will therefore be adjusted accordingly. Teaching materials and an instructional video will be created to prepare students for the procedure.

Take home message

Despite the limitations mentioned above, the simulator is suitable for training castration skills of a male cat. The simplicity allows an inexpensive and quick production so that each student is able to learn and practice the skill.

Training sessions on the described simulator will be established in surgical compulsory courses for all students, and in addition, the model will be used in elective courses.

VetScape: an escape room experience at the skill lab

Thursday, 6th July - 11:03: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

***Dr. Emanuela Dalla Costa*¹, *Mr. Gabriele Ratti*¹, *Dr. Vincenzo Ferrulli*¹, *Dr. Federica Alessandra Brioschi*¹, *Dr. Giulia Sala*², *Dr. Monica Probo*¹, *Dr. Alessia Gazzonis*¹, *Prof. Davide Danilo Zani*¹**

1. University of Milan, 2. University of Pisa

One of the most important and difficult challenges of the veterinary teaching program is preparing students for the transition into practice. Students should be able to combine and apply theoretical and practical skills they have learned within the curriculum. For this reason, we developed a learning format named “VetScape”. The VetScape is organised as an escape room, a game in which a group of 3 players, using clues and information provided, together with practical competences, solve a real clinical case in a limited amount of time (30 minutes). During the game, students work together through the case with the help of 3 facilitators. During each step, students read the presentation of the clinical case and the following clues, then answer 3-5 multiple choice questions provided using a Moodle™ and perform a practical skill using models. If the team answers correctly, they can proceed, otherwise they are stopped, and some additional learning material is provided. A maximum of 10 minutes is given for solving each step, then they can move to the next room. To maximize the involvement every member should perform one practical skill; the team decides which member is the best for performing each practical skill. Each team gets a final score based on the execution of the hands-on skills and the time needed to conclude each step. The team with the best score receives a symbolic award. Clinical case simulations remain available for students to practice by themselves. Clinical cases are selected based on the most common scenarios that veterinarians may face on their first day of work in practice. Feedback for VetScape has been excellent, this will be shared in more detail during the presentation, along with key lessons learnt.

Low-cost sheep model aids students' learning of injection sites and meat cuts

Thursday, 6th July - 11:09: A1: ePosters: Clinical and Practical Skills (Pentland) - Oral eposter presentation

***Ms. Abby McNeil*¹, *Ms. Beth Reilly*¹**

1. Royal Veterinary College

Background

The constant increase in veterinary student numbers⁽¹⁾ has put universities under pressure to find ways to ensure welfare of teaching animals are not compromised. Use of models either alongside or instead of live animals can be a way to reduce pressures such as availability, cost and welfare concerns⁽²⁾ especially when used to teach food producing animal medicine⁽³⁾.

Summary of Work

This study evaluated veterinary medicine students studying at the Royal Veterinary College, perceived confidence understanding injection sites, and meat cuts before and after using a low-cost painted fiberglass sheep model as a teaching aid. Two studies were conducted; Study A integrated the model within a pre-existing animal husbandry session alongside live animals, with 62 students all from year one of the graduate accelerated course. Study B was a new lesson which used only the model alongside an interactive drawing element and consisted of 32 students from multiple year groups. Both studies showed a statistically significant improvement in students' perceived confidence across all teaching areas. The studies showed that regardless of live animals being present or not the model improved perceived confidence. No statistical difference was seen in perceived confidence between students with or without a learning difference. The model was also viewed in a positive manner, with the majority of students across both studies saying they would not learn these topics as effectively without the model.

Take Home Message

Follow up studies with control groups and examination should be conducted to test students' knowledge retention after learning with the model. Regardless, this study shows the ease in which inexpensive models can be integrated into existing teaching which may play an important role to ensure the welfare of teaching animals with increasing cohort size as well as aiding the student learning experience.

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Exploring the relationship between enjoyment, learning and a self-reported change in behaviour of small animal veterinary practitioners in the UK following continuing professional development

Thursday, 6th July - 10:15: A2: Short Comms: Staff Development and Evaluation (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

*Dr. Aoife Reid*¹, *Dr. Karen Humm*², *Prof. Liz Armitage-Chan*²

1. Vets Now Ltd, 2. Royal Veterinary College

Background

Lifelong learning ensures continuous self-development and improvement in performance. In veterinary practice, learning is traditionally associated with continuing professional development (CPD), including formal (e.g., organised events) and informal learning sources (e.g., case discussion, social media groups). Formal CPD may be framed around educational theories and practices which may or may not have behaviour change at their core. The UK regulator incorporates an outcomes-based CPD scheme which places greater responsibility on practitioners to identify their own specific CPD requirements and encourages reflection on how CPD activities may improve patient health and professional performance. Consequently, adopting a change in behaviour is an important output of CPD activity for UK small animal practitioners.

Summary of Work

A cross-sectional survey questionnaire was completed by 190 UK small animal veterinary practitioners exploring their experiences of CPD in the previous 12 months. Respondents reported outcomes aligned with the theoretical framework of Kirkpatrick's Evaluation model. CPD activities were ranked by enjoyment, learning, behaviour change and impact on practice. Results suggest learning was a more prevalent outcome than enjoyment and some CPD activities were associated with less self-reported behaviour change than others within this study population. Many activities generating self-reported changes in behaviour were cost-effective activities which can be completed in practice, such as case discussion, quality improvement projects and significant event analysis.

Take Home Messages

UK small animal practitioners perceive they are changing behaviours in response to CPD activities and engage in multiple types of CPD activities with varying levels of Kirkpatrick outcomes. Overall, learning and enjoyment outcomes were more frequent than behaviour change outcomes, however it is behaviour change that indicates professional growth. Understanding self-reported behavioural changes in practice, following CPD, may allow key stakeholders to improve their part in the CPD process to effectively enhance CPD experiences and outcomes for UK small animal practitioners.

Beware Student Evaluation of Teaching

Thursday, 6th July - 10:27: A2: Short Comms: Staff Development and Evaluation (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

***Dr. Robert Gilbert*¹, *Dr. Dave Gilbert*²**

1. Ross University School of Veterinary Medicine, 2. University of British Columbia

Background:

Student evaluation of teaching is notoriously biased, amongst other factors by grades received or expected by students. Correlation of course evaluations with student grades has been interpreted as validating the evaluation (Cohen, 1981; Feldman, 1989) but a meta-analysis did not support enhanced learning from highly rated instructors (Uttl et al., 2016). To our knowledge this question has not been addressed in veterinary education. The Veterinary Educational Assessment (VEA) is an independent, external exam in basic sciences subjects administered by the International Council for Veterinary Assessment and is taken by Ross University School of Veterinary Medicine (RUSVM) students in their fifth semester of study. It offers an external means of measuring student learning in specific subjects and relating them to course evaluations. Our goal was to determine the relationships between student grades, course evaluation and related VEA scores.

Summary of work:

Ross University School of Veterinary Medicine has three terms each year with three separate intakes of students. Course evaluation and student grades were recorded for courses from fall 2018 to summer 2022, spanning 12 cohorts of students, and 166 individual courses. Courses were aligned to the relevant section of the VEA taken by each cohort. Pearson correlation coefficients were calculated. Course evaluations were significantly positively correlated to median grade in the course ($r = 0.32, P < 0.0001$) and the proportion of students earning A-grades ($r = 0.33, P < 0.0001$). The relationship between course evaluation and relevant VEA score was negative ($r = -0.23, P = 0.005$).

Take home message:

Student evaluations of teaching should be interpreted very cautiously; their use for evaluation of teachers or for salary improvement or promotion may be counter productive and penalize some of the most effective teachers and provide unintended incentives for teachers to lower expectations of student mastery of material.

Managing and motivating academic advisory boards for high performance

Thursday, 6th July - 10:39: A2: Short Comms: Staff Development and Evaluation (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

Dr. A. Paige Adams¹, Dr. Rebekkah Stuteville¹

1. Kansas State University, Olathe

Academic leaders and faculty in professional academic programs often gather input from practitioners to test the relevance of academic curricula. It is an established practice to create program advisory boards for professional programs to provide feedback on curricula and industry needs, but there is limited research examining the effective management of these boards. Research exists on managing volunteers in nonprofit organizations and managing boards of directors, but academic program advisory boards are positioned in-between informal volunteer arrangements and formal boards of directors with fiduciary and legal responsibilities. The objective of this project was to use existing research on volunteer and board of director management to understand the experience of academic advisory boards that provide advice and guidance on animal health academic programs. A survey was administered to existing advisory boards at a university campus in the U.S. Survey questions were aimed at determining the strengths and weaknesses of the campus's academic advisory board recruitment and management practices. Based on survey responses (scale 1-5), members of the advisory groups reported a high agreement score regarding their understanding of their role on the advisory board (average score 4.7) and seeing the connection between the work of the advisory board and the mission of university campus (average score 4.6). The advisory groups agreed that administrative support and management was sufficient to complete its work successfully (average score 4.6), and they felt appropriately recognized by the university campus for their service on the advisory board (average score 4.6). More insight was appreciated in the commentary from advisory board members, where they requested shorter meetings more often and more actionable tasks rather than overviews of programs. Valuable feedback from this study models how a university campus can improve advisory board engagement so that they feel more valued in how they can positively impact educational programming.

Teaching Academy Learning Communities: Sustainable Professional Development?

Thursday, 6th July - 10:51: A2: Short Comms: Staff Development and Evaluation (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

Prof. Susan Matthew¹, Dr. Rachel Halsey¹

1. College of Veterinary Medicine, Washington State University

Background

Learning communities formed around common interests in teaching and educational leadership are an effective method of educator professional development. These communities may function effectively at an institutional level as well as when they are focused by the specific interests of smaller groups of educators. However, whether learning communities are sustainable depends on how they are framed, organised, led and supported. Individual and contextual factors contribute to short-, medium- and long-term outcomes.

Summary of Work

This case study presents lessons learned from the learning communities of the College of Veterinary Medicine Teaching Academy at Washington State University, USA. The Teaching Academy is envisioned as an open, scholarly community of educators engaged in teaching and career development. Learning communities span the Teaching Academy overall and smaller interest groups focused on specific topics, such as active learning, clinical teaching, peer observation of teaching, promotion packet development, and survey-based research. Supportive and detrimental factors found to impact on the sustainability and effectiveness of learning communities will be discussed. Practical tips for addressing these factors will be integrated throughout the case study.

Take Home Message

Learning communities can be meaningful and effective in developing teaching practices and educator professional identity. The sustainability of learning communities is impacted by a range of factors, both individual and contextual. While some of these factors are difficult to manage, others may be readily addressed to create effective and sustainable educator learning communities that enhance teaching and learning within veterinary education.

Global perspectives on supporting female leaders in veterinary academia: A qualitative study

Thursday, 6th July - 11:03: A2: Short Comms: Staff Development and Evaluation (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

*Dr. Jennifer Hammond*¹, *Dr. Elpida Artemiou*², *Prof. Sarah Baillie*³, *Dr. Kimberley Carney*⁴,
*Prof. Nayana Wijayawardhane*⁵, *Dr. Eloise Jillings*⁶, *Dr. Myassar Alekish*⁷, *Prof. Rafael Gianella Mondadori*⁸

1. University of Glasgow, 2. Texas Tech University, 3. University of Bristol, 4. Lincoln Memorial University, 5. Department of Veterinary Clinical Sciences, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, 6. Massey University, 7. Jordan University of Science and Technology, 8. Universidade Federal de Pelotas

Background

Evidence indicates that feminization within a profession can raise gender inequalities.

Based on results from a 2021 Council on International Veterinary Medical Education (CIVME) study that showed much lower percentages of females in leadership roles than as faculty, the current work sought to explore the challenges and opportunities that females experience in gaining leadership roles in veterinary medical education worldwide.

Summary of Work

We will present the outcomes of a global qualitative study. The objectives of the study were to:

Describe challenges and opportunities that females employed in veterinary medical education institutions globally experience in their professional and leadership development.

Identify organizational practices that successfully increase female representation in leadership positions.

Participants included 31 females in leadership roles within veterinary academia recruited from six geographical regions: Asia, Australasia, Middle East/Africa, UK/Ireland, Continental Europe, North America, South America.

Narratives were collected through virtual interviews facilitated by CIVME members, focusing on questions about participants' journey to their current leadership position and any organizational policies or practices that supported them in this process.

Interviews were transcribed, and an inductive analysis completed to identify themes surrounding individual factors and organizational practices relevant to their leadership roles.

Key internal motivators for females in leadership roles included qualities such as courage and a sense of responsibility. External motivators included role models, mentors, and family circumstances.

Barriers to thriving in leadership roles included structural aspects, personal and cultural influences.

Training opportunities varied across regions and included both formal and informal activities.

Take home message

This work highlights organizational practices that could increase female representation in leadership positions across veterinary medical institutions. The involvement of participants from across 6 geographic regions increases the global relevance of these findings. Highlighting continued barriers will enable institutions to focus on how to promote and support female leaders within Veterinary academia.

Do 1st year veterinary medicine students have realistic expectations about the profession?

Thursday, 6th July - 10:15: A3: Short Comms: Admissions and Interprofessional Education (Duddingston) - Oral short communication (10 mins plus 3 mins questions)

Dr. Damian Valle¹, Ms. Bonnie Vincent¹

1. University of Surrey

Expectation plays a key role in decision-making as humans. To explore the relationship between clinical experience gained and expectation of veterinary practise, first and fifth year veterinary students at the University of Surrey (UoS) were asked to complete a questionnaire containing five sections of questions regarding topics applicable to challenges faced by clinicians in practise (work-life balance, public perception, compassion, career progression and customer service). Responses received from 90 (25.6%) students were divided into the two year-groups and four questions which received the highest percentage-split of answers between year-groups were statistically analysed using a Mann-Whitney U test. One of four of these questions returned significantly different ($p = 0.47$). Data collected by the questionnaire supports the idea that first-year students' expectations of veterinary practise were considerably aligned with fifth-year colleagues. Qualitative data collected about perception of the profession's relationship with the public revealed that student perspective is more negatively-skewed. Results were considered in light of developing a cause-effect model for increased attrition rates in the veterinary profession. Although data suggests a mismatch in expectation of practise is unlikely, weak evidence and a small sample size relative to target population indicates that further investigation is required to make a reasonable conclusion.

Use of asynchronous Multiple Mini Interviews (MMIs) in the final stage of selection to the Veterinary Medicine and Science (BVMSci) course at the University of Surrey

Thursday, 6th July - 10:27: A3: Short Comms: Admissions and Interprofessional Education (Duddingston) - Oral short communication (10 mins plus 3 mins questions)

Dr. Neerja Muncaster¹, Dr. Sian Rosser¹, Dr. Alison Callwood¹

1. University of Surrey

Background

The University of Surrey's Faculty of Health and Medical Sciences uses Multiple Mini Interviews in their professional degree programmes. Admissions tutors invite external clinical mentors, alumni, final year students and staff to participate in the applicant interview cycle to obtain a breadth of opinions and mitigate potential assessor bias. Historically these have been in person, real-time interviews.

In the post Covid era, an automated, asynchronous MMI system, SAMMI™ was introduced with 10 principles for fairness built in. Six hundred UK and international vet school applicants were interviewed during the 2022-23 admissions cycle. This was followed up with in person offer holder days for applicants to meet staff and student ambassadors, with campus tours.

Summary of Work

In a cross-sectional evaluation of interviewers and applicants, a combination of Likert scale and free text were used to assess acceptance of an automated asynchronous interview when accompanied by in person offer holder days.

20 interviewers and 91 applicants responded.

The most significant outcomes were:

82% of interviewers and 80% of candidates were very accepting or accepting of SAMMI in the context of having additional offer holder days.

Only 1% of candidates were not at all accepting of online interviews.

Admissions staff experienced a 70% time saving.

Take home message

Our preliminary findings suggest that the asynchronous MMI provided a sustainable, resource light, flexible and equitable approach to interviewing veterinary applicants from across the globe. When used in conjunction with in-person offer holder days (tours, activities, and question/answer sessions) applicants were in acceptance of this interview style.

Interprofessional Education and Team-Based Veterinary Healthcare

Thursday, 6th July - 10:39: A3: Short Comms: Admissions and Interprofessional Education (Duddingston) - Oral short communication (10 mins plus 3 mins questions)

Dr. Virginia Corrigan¹

1. Appalachian State University

Background:

Another idea to create a large-scale impactful wellbeing solution within veterinary medical education is preparing our students to truly be ready with the foundational clinical and non-clinical skills they will need to feel confident and competent in their jobs on Day One. This will involve changing the paradigm of veterinary professional education, and shifting the model of clinical education towards team-based, collaborative experiences with autonomous, primary care/spectrum of care focused, student-centered learning, with educational approaches that align the assessment and cross boundaries between professional training programs for veterinarians and veterinary technicians/nurses, along with other members of the veterinary healthcare team, including veterinary assistants, practice managers, and veterinary social workers (i.e., Team-Based Veterinary Healthcare (AAVMC)). The training opportunities would enhance knowledge of each member of the healthcare team's roles and responsibilities, as well as how to integrate roles properly within a clinical setting so that efficiency can be maximized, while capitalizing on individual strengths and maximizing overall team and workplace wellbeing.

Summary of Work:

A proposed curricular framework will be presented, which will integrate the joint didactic and clinical training in the core curriculum of our veterinary medical and veterinary technology/nursing educational institutions. The Interprofessional Education Collaborative (IPEC) Core Competencies for Interprofessional Practice will be discussed, along with specific ideas for delivery and assessment of these competencies within an innovative Team-Based Veterinary Healthcare curriculum.

Take-Home Message:

There is a need to develop core competencies and assessment strategies for interprofessional education specifically for veterinary medical education and veterinary healthcare teams. Having a holistic approach to veterinary professional education has a significant potential to set future veterinary medical professionals up better for success, and similar to IPE in human medical education, has the potential to lead to improved provider wellbeing and enhanced patient outcomes.

Veterinary Nursing students' experience in the clinical learning environment and factors affecting their perception

Thursday, 6th July - 10:51: A3: Short Comms: Admissions and Interprofessional Education (Duddingston) - Oral short communication (10 mins plus 3 mins questions)

Mrs. Susan Holt¹

1. University of Bristol

Student veterinary nurses (SVNs) spend a significant proportion of their training time within the clinical learning environment (CLE) of a veterinary practice. These clinical experiences are vital for building practical and professional skills. To evaluate the current satisfaction of SVNs in the CLE, a cross-sectional survey design was used incorporating a previously validated instrument, the SVN CLE Inventory. To provide understanding of factors that may affect SVN satisfaction, additional validated tools were added relating to factors including resilience, wellbeing, personality and workplace belonging. Two open questions were included to provide greater depth of understanding of factors that detracted from and contributed to learning in the CLE.

A total of 171 SVNs completed the survey. Results showed that 70.76% of respondents were satisfied/very satisfied with their experience within the CLE. Significant factors that negatively affected the satisfaction scores included higher scores for depression, anxiety and stress ($p < 0.001$), reduced scores for psychological sense of organisational membership ($p < 0.001$). Factors that positively affected satisfaction scores included the personality types of agreeableness ($p = 0.022$) and emotional stability ($p = 0.012$). The qualitative data demonstrated shared SVN factors that were found to contribute to clinical learning including inter-personal support, positive training practice (TP) factors and support outside the CLE. Those that detracted from clinical learning included clinical supervisor barriers, negative TP factors, inter-personal barriers and challenges outside the CLE.

Educational facilities and veterinary training practices can support the SVN within the CLE by creating a greater sense of work place belonging and considering the SVN's individual personality and wellbeing. Supporting the student to recognise personal biases and well-being will help increase self-reliance and resilience. Ensuring the student is appreciated as a stakeholder, rather than consumer, will support a student-centred approach and facilitate co-creation of a tailored training plan.

Accepted: Journal Veterinary Medical Education and shared with their permission.

A fish out of water? Navigating the world of academic work in Higher Education

Thursday, 6th July - 10:15: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

Mrs. Lorna Henn¹

1. Harper and Keele Vet School

As an experienced veterinary nurse in first opinion practice, I thought I had my role nailed; I enjoyed work and above all I enjoyed supporting student veterinary nurses and newly graduated veterinary surgeons. A step into education seemed like a possibility for my distant future career until I took the leap to apply to Harper and Keele Veterinary school as a Clinical Skills Teaching Assistant.

Industry experience not only provides practical guidance but also enhances personal development skills and contributes to employability. In a client-facing role in practice, I am accustomed to achieving client satisfaction in the service and care that they and their pet receive. Therefore, I measured my teaching success on apparent student satisfaction using my emotional intelligence I developed in a nursing role. The Connected Curriculum Framework (Fung, 2017) suggests that linking professional skills with academic skills allows for a holistic teaching experience. This has not only informed my teaching performance but provides reassurance that effective learning experiences are not limited to my perception of student engagement.

Teaching observations have been a critical element in evaluating teaching performances as an inexperienced teacher; and I have found observing others to be enlightening. Teaching experiences don't always have to be positive ones and a good understanding of this has helped my confidence grow significantly. I will share my journey and give an opportunity for new teachers in Higher Education (HE) to connect and collaborate with others as we progress from working in a clinical industry to academia.

This presentation considers the transition from industry to education and the idea that the 'hidden curriculum' (AdvanceHE, 2020) is very real for both students and teachers. The presentation offers guidance, drawing on my experiences of transitioning from working in a busy first opinion practice to teaching and assisting with teaching in HE.

Preparing students for life in general practice, so that they want to stay – consultation immersive simulation classes

Thursday, 6th July - 10:21: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

Dr. Louise Dingley¹, Dr. Kristina Pollock¹, Dr. Carolyn Morton¹, Dr. Stacy Spielman¹

1. The Royal (Dick) School of Veterinary Studies

Immersive simulation teaching in veterinary medicine is becoming more widely utilised and has been established in medicine since the 1960's. The quality of teaching provided is affected directly by the fidelity of the simulated patient (SP) and therefore adequate resources need to be allocated to recruit and train SP's. This can be difficult to achieve and puts pressure onto teaching staff.

A proposed solution would be to use clinical veterinary staff as SP's (or in this case, simulated clients - SC's) to offer an authentic 'performance' that is relevant to general practice.

Four consultation scenarios were created of commonly presenting cases using real patient histories with identifying details removed. One general practice vet and one teaching faculty staff member facilitated each class of eight fourth year students, which lasted two hours.

In medicine, the use of actors as SP's is well accepted by students who prefer this to role-playing with colleagues/clinicians however the reason for this has been found to be related to students feeling intimidated and the performance being unrealistic. In our class design we purposefully introduced the class as a safe, confidential space and we made the scenarios as realistic as possible – partly by being acted by vets who are used to seeing these cases daily.

The students did not know the vets before the class and it was made clear that they were out of their comfort zone as well.

The verbal feedback received was positive and it was felt that the addition of a consultation immersive simulation class was beneficial in preparing the students for final year and also helpful in the personal growth and job satisfaction of the vets involved. A few observations for improvement include: having debriefs aligned with learning objectives, using prompts, reducing micro-teaching and further staff training.

An interprofessional, skills and case-based project at University College Dublin's School of Veterinary Medicine

Thursday, 6th July - 10:27: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

Mr. Mark McCorry¹

1. University College Dublin

Background

A follow on IPE event from a pilot with final year vet (MVB stage 5) and vet nurse (VNUR stage 4) students. A skills and case-based approach utilising communication skills, ensuring each participant knows and understands the abilities and roles of the profession in each team and ultimately improve teamwork and patient care through simulation based learning (Tierney 2011). This event had stage 4 MVB and stage 3 VNUR. Both cohorts have completed CEMS and practical skills classes required for the simulation.

Summary Of Work

Nine stage 4 MVB and eight stage 3 VNUR students participated. A simulated patient was developed allowing both professions to contribute. Following an ice-breaker, a Talking Wall (Parsell 1998) was used. Initially, both professions worked in silos and outlined their perception of treatment and role of the other profession in that treatment. Following this, groups swapped lists, edited, clarified and discussed areas of uncertainty. A pre-brief was performed and the skills/case-based session lasted 90 minutes. Students worked in pairs – one MVB and one VNUR. A debrief and short survey followed.

Survey Results

Talking Wall results showed 75% of VNUR and 22% MVB had a new found respect for the other profession. While 63% VNUR and 78% MVB indicated learning something new about the other profession. Results from the case-based simulation showed 71% had a better understanding of the other professions role in patient care. This 71% represented 75% MVB students and 67% VNUR participants.

Take Home Message

All participants enjoyed the Talking Wall and working through the skills/case-based simulation. All participants found the other profession complemented their approach. All strongly agreed they would like a similar IPE approach during their studies. Working through the skills/case-based simulation provided more insight, respect and better understanding of the other profession while improving teamwork and communication skills.

Exploring patterns of medication errors in a simulated veterinary emergency using a human factors approach

Thursday, 6th July - 10:33: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

***Ms. Niamh O'Donoghue*¹, *Dr. Karen Dunne*², *Prof. Deirdre Campion*¹**

1. University College Dublin, 2. Dundalk Institute of Technology

Background

Although evidence suggests that medication errors are common in veterinary medicine (Oxtoby *et al.*, 2015; Wallis *et al.*, 2019; Schortz *et al.*, 2022), little is known about how these occur, or how to reduce error. While veterinary patient safety is increasingly emphasised, there are currently no tools available to guide medication safety, and interprofessional team communication and human factors/ergonomics training is lacking in undergraduate veterinary education.

Interprofessional simulation provides an opportunity for the teaching of non-technical skills such as evidence based team communication methods, and allows observation and root cause analysis of error.

Medication errors are likely during cardiopulmonary resuscitation (CPR) (Flannery and Parli, 2016) and the impact of such errors is likely to be high (Lipshutz *et al.*, 2008). Of additional concern is that harm caused by medication errors during resuscitation is likely to remain unknown, as a poor outcome is not unexpected, making it less likely that a medication error will be suspected (Lipshutz *et al.*, 2008; Flannery and Parli, 2016).

Summary of Work

The aim of this study was to perform a significant event audit of errors arising during a interprofessional student CPR canine simulation.

115 undergraduate veterinary medicine and 40 veterinary nursing students participated in a CPR simulation. Analysis of video footage was performed to determine causes of the numerous observed medication errors. A summary of the contributing factors is presented using a Fishbone (Ishikawa) diagram as used in the London Protocol (Taylor-Adams, Fisher and Street, 2004).

Take Home Message

An understanding of how medication errors occur, particularly in high risk situations such as cardiopulmonary resuscitation, could inform effective error prevention strategies and improve patient outcomes.

Online one-to-one Library search clinics: bespoke support for searching.

Thursday, 6th July - 10:39: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

***Ms. Fiona Brown*¹, *Ms. Heather K. Moberly*²**

1. University of Edinburgh, 2. The Pennsylvania State University

Background:

One of the main roles of academic libraries is to support students to become effective learners and researchers. For many years libraries has been providing generic, embedded, and bespoke information skills and literature searching training, helping students and staff build essential searching skills. The support we provide to students includes in person and online one-to-one literature searching sessions.

In March 2020, universities and colleges worldwide responded to the Covid outbreak by looking at ways to move campus-based learning, teaching and support online. In libraries, we used the experience of supporting students on online-only programmes to feed into this.

Summary of Work:

In the process of transitioning our support for campus-based students, we realised that the online one-to-one support we provided to online-only students could also work well for students who would normally be campus-based. As we return to more campus-based library activities, we have retained our online one-to-one offering for all students and staff. This has the benefit of reaching students and staff wherever they may be, at a time that is most convenient for them. The librarian and the student can screen share, and work on live searches together, and the student can record the session.

This poster reports on librarians' activities in delivering online one-to-one support, and the benefits for students and staff.

Take home message:

Librarians can help you and your students more easily find resources to support learning, teaching, research and clinical work, and we can do this at a time and location that best suits you. We would like you to encourage your students to make more use of this offering, where available.

Establish the student reported outcomes of an immediate debrief following ‘diamond debrief’ format following an immersive simulation training session for final year veterinary students

Thursday, 6th July - 10:45: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

Dr. Emma Tallini¹

1. University of Surrey

Immersive simulation sessions are used in veterinary education to allow students to experience situations which mimic the real world whilst remaining in a safe and controlled environment. Effective debriefing following simulations is key to embedding learning and allowing participant to explore the emotional impact of the scenarios. In this study 65 final year veterinary students took part in an immersive simulation which was immediately followed by a group debrief using the diamond debrief method. A questionnaire was used to determine to what extent the students felt that the debrief was helpful in meeting four key learning objectives. The four outcomes identified in this study were: teamwork, processing emotions, self-reflection, and perspective. The results, both quantitative and qualitative, demonstrated that the students felt that they were successfully able to meet the four learning outcomes identified, with no significant difference between them.

Sustaining learning beyond the university gates: postgraduate career pathways for vets and nurses

Thursday, 6th July - 10:51: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

Dr. Charlotte French¹

1. Improve Veterinary Education

Background:

Continuing Professional Development (CPD) is not only a professional requirement but also essential to developing confidence and enabling veterinary surgeons and nurses to thrive within general practice. Businesses which encourage the personal and professional development of staff, through careful planning and investment in their learning, are likely to be more effective in recruiting and retaining top talent. This is critical in the current economic climate.

A career pathway provides clearly defined stepping stones that guide veterinary professionals throughout their lifelong learning journey, enabling them to plan their professional development and achieve goals which will be recognised by both employers and peers.

Summary of Work

This poster will describe the Improve International points-based career pathways which have been developed for postgraduate vets and nurses. The aim is for individuals to bespoke their own learning journey and awards. Routes are flexible with several points of entry, allowing them to progress at their own pace. The goal is one of the highest levels of award attainable in general practice. For vets this is the International School of Veterinary Postgraduate Studies (ISVPS) Master General Practitioner Award and for nurses, ISVPS Lead Veterinary Nurse Practitioner Award.

Take Home Message:

Our previous research suggests that 77% of veterinary students are keen to learn more about CPD whilst at university. Introduction of the concept of a career pathway, and assistance with CPD planning prior to graduation could be a useful addition to the curriculum, potentially leading to increased long-term retention of more professionals within general practice.

Veterinary student, academic and clinical supervisor perspectives on preparedness for workplace clinical training at the University of Surrey

Thursday, 6th July - 10:57: A4: ePosters: Professional and Workplace Skills, PG pathways (Salisbury) - Oral eposter presentation

***Dr. Jennifer Routh*¹, *Dr. Sharmini Julita Paramasivam*¹, *Prof. Peter Cockcroft*¹, *Prof. Vishna Devi Nadarajah*², *Prof. Kamalan Jeevaratnam*¹**

1. University of Surrey, 2. International Medical University

Background:

Teaching and learning in the workplace can be conceptualised in various ways, and this could lead to different expectations among stakeholders such as veterinary students, academics, and workplace supervisors regarding students' readiness for workplace clinical training (WCT). The purpose of this study was to measure these differences, which is essential for fostering a shared understanding among students and staff, and for translating preparedness goals into priorities for the veterinary curriculum.

Summary of work:

Prior qualitative research informed the custom design of an online survey to rank 91 preparedness characteristics and seven preparedness themes in terms of importance for WCT. The survey was administered to final-year veterinary students, academics, and workplace supervisors at the University of Surrey. Statistical analyses were used to assess rank alignment (Kendall's Tau correlation) and significant differences in characteristic ranks (permutation tests) and theme ranks (Mann Whitney U tests) among the stakeholder groups.

The study found that the correlation between preparedness characteristic ranks was strongest between students and supervisors, and weakest between supervisors and academics. "Honesty, integrity, and dependability" was ranked as the most important characteristic for both students and supervisors but ranked 18th by academics. Instead, the most important characteristic for this group was "students' awareness that perfection is not expected; failure or mistakes are likely, and they are part of the learning process". Additionally, the "knowledge" theme was ranked as significantly more important for academics compared to students.

Take-home message:

This study highlights the differences in expectations among veterinary students, academics, and workplace supervisors in relation to WCT preparedness. These differences could create confusion for students if they receive conflicting messages about the knowledge, skills and attributes they should possess. Curriculum malalignment between the classroom and workplace-based phases may also pose challenges. Addressing these findings will require cross-stakeholder communication, reconciliation, and veterinary curriculum fine-tuning.

Using pairwise comparisons and the Elo algorithm to quantify perspectives on preparedness for veterinary workplace clinical training

Thursday, 6th July - 10:15: A5: Short Comms: Curriculum - Preparedness and Employability (Holyrood) - Oral short communication (10 mins plus 3 mins questions)

*Dr. Jennifer Routh*¹, *Dr. Sharmini Julita Paramasivam*¹, *Prof. Peter Cockcroft*¹, *Mrs. Sarah Wood*², *Dr. John Remnant*³, *Dr. Cornélie Westermann*⁴, *Dr. Alison Reid*⁵, *Dr. Patricia Pawson*⁶, *Prof. Sheena Warman*², *Prof. Vishna Devi Nadarajah*⁷, *Prof. Kamalan Jeevaratnam*¹

1. University of Surrey, 2. University of Bristol, 3. University of Nottingham, 4. Utrecht University, 5. University of Liverpool, 6. University of Glasgow, 7. International Medical University

Background:

The preparation of veterinary students for workplace clinical training (WCT) is a crucial aspect of their education journey. Although this has been explored qualitatively, there may be differences in the characteristics that students and their supervisors consider to be most essential. Examining such differences is important, as a harmonious relationship between these groups is critical, but incompatible expectations could threaten.

Summary of work:

Using a survey design based on pairwise comparisons, this study aimed to assess the relative importance of 91 preparedness characteristics for WCT according to students and supervisors. There were 901 respondents from 25 veterinary schools. The Elo algorithm was used to generate relative importance ratings and ranks of the characteristics for both groups. Kendall's Tau coefficient was calculated to evaluate the characteristic rank alignment, and permutation testing was used to identify the characteristics that had significant between-group rank differences.

The Kendall's Tau coefficient for the characteristics' ranks was $r=0.77$, $p<2.2e-16$. Students and supervisors differed significantly in their ranks of certain characteristics. The characteristics with the largest discrepancies in rank included "students' awareness of their own and others' mental well-being and the importance of self-care", "being willing to try new practical skills with support", "having a clinical reasoning framework for common problems", "students' awareness of uncertainty and risk in clinical decision-making", and "empathy, compassion, and kindness".

Take-home message:

Identifying the differences in perspectives on preparedness is important to allow for the reconciliation of expectations, optimise supervisor satisfaction, and minimise student stress surrounding the transition to WCT. Additionally, a multi-centre approach generated impactful data that can be applied across contexts. Using pairwise comparisons and the Elo algorithm to quantify the relative importance of characteristics is a novel approach in health professions education research that could be useful for other VetEd researchers to rate and rank different item sets.

Perceptions of “fit” in UK undergraduates when considering a career in production animal practice.

Thursday, 6th July - 10:27: A5: Short Comms: Curriculum - Preparedness and Employability (Holyrood) - Oral short communication (10 mins plus 3 mins questions)

Mrs. E Payne¹, Dr. John Remnant¹

1. University of Nottingham

Background

Recruitment and retention issues within veterinary medicine have been highlighted as a crucial problem to be addressed by the RCVS and many supporting professional bodies. When considering farm animal careers (FAC), previous research has identified that perception of “fit” is important for undergraduates when choosing a discipline to enter upon graduation.

Summary of work

An online survey was distributed to nine UK and Republic of Ireland veterinary schools as part of a wider study. Demographic data received was focused on, and a mixed methods approach taken to assess whether students felt like they “fit” a FAC and reasons surrounding this. Respondents answered the following five-point Likert-style question “Taking into account the demographic information you have provided above, to what extent do you agree with the following statement: I feel able to pursue a career in farm practice?” followed by a free text box allowing respondents to expand their answer. 1146 quantitative responses were descriptively explored, and multiple regression used to evaluate associations between agreement and demographic attributes; qualitative data were analysed using thematic analysis.

Thematic analysis identified six themes: career opportunities, nature of farm veterinary work, relationships and interactions, individual experiences, expectations and perceptions and no perceived barriers. When considering the statement “I feel able to pursue a career in farm practice” females, marginalised ethnic groups, overseas students, and those from an urban/suburban background all had significantly less agreement ($p < 0.05$). No associations were found between the level of agreement and respondent religion or year of study.

Take home messages

Barriers still exist for some undergraduate students considering FAC. Accessibility for all needs to be addressed, as do the biases still found within wider society. Education needs to provide more open, inclusive and diverse populations of role models for our undergraduate students to aspire to emulate.

Strategies to enhance student interest and employability in Veterinary Public Health areas at the School of Veterinary Medicine and Science, University of Nottingham, UK

Thursday, 6th July - 10:39: A5: Short Comms: Curriculum - Preparedness and Employability (Holyrood) - Oral short communication (10 mins plus 3 mins questions)

Dr. Sudhakar Bhandare¹, Dr. Amelia Garcia-Ara¹, Dr. Charlie Davis¹

1. University of Nottingham

Veterinary Public Health (VPH) is not a popular course amongst UK vet students and hence, there is a need for change in the curriculum and teaching delivery to ensure that students go forward into a VPH career. At the Nottingham vet school, final year students' feedback, revealed that the majority of students incline towards more clinical aspects of the Veterinary medicine rather than VPH for their career choices. They also mentioned that E-learning tool like Virtual Slaughterhouse Simulator (VSS) is beneficial. Year three students' feedback emphasized having hands on VPH practicals. Hence, we came up with the strategies of delivering increased practical training i.e., work-based experiential learning augmented by VSS to ignite student interest in VPH. Based on 'William Osler's clerkship system', the main VPH practical topics like post-mortem pathology, risk assessment, food microbiology, hazard analysis critical control point approach and audits need to be taken from lecture theatres to our abattoir workplace setting for scaffolded active learning. This teaching must include practical risk management using actual problem-based scenarios in the food processing environment. Further training programmes like Official Veterinarian training, continuing professional development courses and postgraduate training opportunities in VPH area would enhance VPH job prospects. Providing more information on VPH careers was suggested. Data collection surveys/questionnaires such as learner satisfaction survey using five-fold Likert scale (0-5) for measuring usability of VSS, semantic differential scale questionnaire with slider rating for practical experience in actual abattoir and an alumni survey for employability and graduate outcomes were developed for evaluating planned strategies.

Exploring new training strategies to advance foot-and-mouth disease emergency preparedness in non-endemic countries

Thursday, 6th July - 10:51: A5: Short Comms: Curriculum - Preparedness and Employability (Holyrood) - Oral short communication (10 mins plus 3 mins questions)

Mr. Marcello Nardi¹, Dr. Mattia Begovoeva¹

1. European Commission for the Control of Foot-and-Mouth Disease

Background:

The European Commission for the Control of Foot-and-Mouth Disease (EuFMD) has been organizing real-time training courses (RTT) in FMD endemic countries since 2009 to increase the emergency preparedness of veterinarians from its Member Nations. In 2022, to overcome the travel restrictions due to the COVID-19 pandemic, the EuFMD conducted a hybrid RTT (HRTT) combining online introductory modules with a face-to-face course held in Italy using a blend of classwork and on-field training.

Summary of work:

Participants applied principles of outbreak response in a real-time emergency scenario using a crisis simulation software combined with a virtual reality tool developed by the Australian Government Department of Agriculture, Fisheries and Forestry, and a visit at the teaching farm of the University of Turin, Italy. Topics addressed included clinical signs of FMD and other similar transboundary animal diseases (FAST diseases), FMD lesion ageing, sampling, laboratory and epidemiological investigations, farm biosecurity and risk factors, biosecurity when entering/exiting infected premises, emergency response.

Trainees reported increased confidence in all the learning objectives, particularly lesion ageing, clinical examination, and emergency response, and showed great interest for differential diagnosis of FAST diseases. Regarding the course structure, they appreciated especially online modules, classroom discussions, and the case scenario. Their feedback about virtual reality was positive, although some initial struggles with the tool.

Take home message:

Even though the HRTT could not provide hands-on experience on animals affected by FMD, the hybrid format enabled training to continue despite travel restrictions. The interactive format encouraged cooperation between the trainees, while the emergency scenario stimulated them to put into practice the skills acquired during the induction course. In the future, the structure and training material could be developed into a ready-to-use training kit for trainees to further disseminate their newly acquired knowledge amongst their colleagues, thus increasing the impact of training events.

Impact of 3D printed feline skulls as a learning tool on radiographic interpretation of craniomaxillofacial traumatic injuries.

Thursday, 6th July - 10:15: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

***Dr. Francesco Ferrari*¹, *Dr. Jessica Bassi*¹, *Dr. Giulia Sala*², *Dr. Federica Alessandra Brioschi*¹, *Dr. Elisa Maria Gariboldi*¹, *Mr. Gabriele Ratti*¹, *Dr. Emanuela Dalla Costa*¹, *Prof. Davide Danilo Zani*¹**

1. Department of Veterinary Medicine and Animal Sciences – DIVAS, University of Milan, 26900, Lodi, Italy, 2. Department of Veterinary Sciences, University of Pisa, Viale delle Piagge 2, 56124, Pisa, Italy

The use of 3D printed models has shown better understanding of complex anatomical structures and bone lesions both in undergraduate student of human and veterinary medicine (1, 2, 3).

The present study aims to evaluate the impact of 3D printed models on the ability of undergraduate veterinary students in recognising the normal anatomy and relative traumatic lesions of the feline skull applied to radiographs.

Forty-six veterinary students underwent a pre-training test, and they were randomly divided in two groups (2D, 3D). Both groups attended a recorded lesson about feline skull radiographic anatomy and traumatic lesions but only 3D group was provided of 3D printed skulls both normal and with fractures. Finally, they underwent a post training test. The total scores of both tests were registered and also categorized into anatomical and pathological scores. Differences between pre- and post-test scores were analysed using Wilcoxon correlated sample and post-scores of the two groups were compared with U Mann-Whitney test. Statistical significance was set at $P < 0.05$.

Fifteen (33%) fourth year and 31 (67%) fifth year students were included. They were: 39 (85%) female and 7 (15%) male. The results of the whole pre-test [7(3-11)] and post-test [11(2-14)], as well the pre- and post-anatomical [4(1-6) and 6(2-7), respectively] and pre- and post-pathological [2(0-6) and 5(0-7), respectively] tests were significantly different ($P < 0.001$). When the results were categorized in anatomy and pathology and statistically compared between 2D and 3D groups, only 3D post-anatomical median scores [6(2-7)] resulted significantly different between groups ($P = 0.036$).

Printed 3D models seem to improve the ability of veterinary students to recognise on radiograph anatomical structures but not traumatic lesions of the feline skull.

Student attainment in the first year of a master's degree in veterinary nursing: Do entry qualifications matter?

Thursday, 6th July - 10:21: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Ms. Samantha Fontaine¹, Ms. Angharad Davies¹, Dr. Euan Bennet¹

1. University of Glasgow

Background

Entry to the VN profession is achieved through a parallel pathway of degree and diploma-level qualification. Post-registration, VNs are encouraged by the RCVS to participate in lifelong learning and gain higher levels of specialised skills, and since 2019 they have accredited a selection of postgraduate (PG) programmes. These programmes typically recruit students from varied academic backgrounds, however it is unclear if this impacts their attainment.

Summary of work

This study aimed to describe student attainment and retention in the first year (PG certificate) of a three-year master's degree in Advanced Practice in Veterinary Nursing. All 68 student admissions records were reviewed and anonymised demographic and academic data collected, including route of qualification and grade point average (GPA) following completion of 60-credits. The majority resided in the UK (63.2%), were female (95.6%), with a median age of 34 years. Most held a VN qualification that was below degree-level (73.5%), though 8.8% had also 'topped-up' to a degree. The median length of qualification was 7 years. Of the 41 students who had thus far completed 60-credits, all had achieved a passing GPA, with 51.2% classified as a merit, and 7.3% with a distinction. Students in the latter group all held VN qualifications below degree-level. The overall attrition rate was 14.7%, where 10.3% withdrew at the outset. Of the non-completers, 70% were below degree-level, 20% were degree-level, and 10% held both qualifications. No academic factors were associated with attainment at the 95% level of statistical significance.

Take home message

Levels of student attainment on this PG programme were high and showed that VNs from all academic backgrounds can succeed at masters-level study. VNs who have qualified through non-degree routes should not be excluded from PG study but may require additional support at the start to prevent withdrawal.

Implementation of Sequential OSCE Testing in a Veterinary Medicine Curriculum

Thursday, 6th July - 10:27: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Dr. Jean-Yin Tan¹, Dr. Grace Kwong¹

1. University of Calgary

Implementation of Sequential OSCE Testing in a Veterinary Medicine Curriculum

A European Association of Establishments for Veterinary Education initiative to share best practice in the use of logbooks for Day 1 Competences across veterinary education establishments

Thursday, 6th July - 10:33: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Prof. Sarah Baillie¹, **Dr. Begum Yurdakök-Dikmen**², **Dr. Sue Rackard**³, **Prof. Pierre Lekeux**⁴, **Prof. Thomas Gobel**⁵, **Prof. Marie-Christine Cadiergues**⁶, **Dr. Andrea Barbarossa**⁷

1. University of Bristol, 2. Ankara University, 3. University College Dublin, 4. European Association of Establishments for Veterinary Education, 5. Ludwig-Maximilians-Universität, 6. Ecole Vétérinaire de Toulouse, 7. University of Bologna

Background

Logbooks are used by veterinary education establishments (VEEs) across Europe to document attainment of Day 1 Competences and are included in the European Association of Establishments for Veterinary Education (EAEVE) accreditation standards. EAEVE and VEEs have identified a need for greater standardisation of logbooks, more guidance on assessment of student competence and the potential for a sharable electronic version. A multinational working group was established to undertake a 2-year project (2022-2024) to evaluate existing logbooks, review best practice on assessment of competence, prototype an e-logbook, and make recommendations.

Summary of Work

A literature review was undertaken to identify examples of logbooks and approaches to assessment of competence. Existing logbooks were collected from VEEs across Europe and the content was analysed and summarised. Forty-four VEEs supplied logbooks representing 21 countries. There was considerable variation; logbooks ranged from a portfolio of workplace-based assessments to a checklist of skills with limited additional detail. To assist VEEs in further development of logbooks and to support greater standardisation, guidelines are being written which draw upon best practice from medical and veterinary education globally. To explore the potential for a sharable e-logbook, a requirements analysis for the design has been undertaken. A simple version is being piloted as a proof-of-concept for a more extensive e-logbook. The initial version collects quantitative data only and is designed to capture student exposure to cases and the level of engagement (observe, assist, perform), which can be used for audits by VEEs and contribute to student/tutor discussions.

Take Home Message

Many VEEs have engaged in the project. The logbooks supplied have illustrated the considerable variation in content. Written guidelines and a more standardised e-logbook have potential to support VEEs in demonstrating student attainment of Day 1 Competences and are being further developed in the second year of the project.

Introduction of a new Canine clinical examination assessment to a Year 3 Veterinary Curriculum.

Thursday, 6th July - 10:39: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Mrs. Kirsty McGinley¹

1. University of Surrey

This poster describes the introduction and conceptualization of a new assessment to the Year 3 curriculum at The University of Surrey School for Veterinary Medicine. The Canine Clinical Exam Assessment was designed to ensure that students had adequate practical experience in performing clinical examinations before starting on their clinical extra mural studies (EMS) placements.

The assessment required students to perform a 'basic' clinical examination of a live patient under the direct observation of an academic with membership of the RCVS. Students were provided with study material prior to the session in the form of guidelines and video content, in order to prepare for the assessment. A rubric was provided to academic staff assessors for use in evaluating student performance. Students were given 15 minutes to complete the examination, provided with feedback in real time, and given the opportunity to remediate during the session.

The rubric was presented as a Microsoft form on an iPad, to reduce paper use. Live dogs were provided by students and staff, avoiding the need for additional journeys.

The introduction of the assessment was motivated by a concern that students were not receiving sufficient supervised practical experience in performing clinical examinations. The assessment was well-received by students and academic staff, and appears to be a valuable addition to the curriculum.

Practical assessments (OSCEs): how does inclusivity score?

Thursday, 6th July - 10:45: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Ms. Emily Lawrence¹, Ms. Emily Hall², Dr. Jude Bradbury², Dr. Rachel Davis²

1. Royal Veterinary College (student), 2. Royal Veterinary College

Assessment of practical skills is a fundamental component of measuring competency in both veterinary surgeon and veterinary nursing training programmes across the world. With the veterinary profession striving for greater equality, diversity and inclusivity amongst its members and students, greater scrutiny is being placed on meeting the varying learning and physical needs of these students during their veterinary training programmes. The Equality Act (2010) requires UK exam boards to make reasonable adjustments for disabled students which includes both physical and learning differences. Of these, specific learning differences (SpLDs) such as dyslexia or attention deficit hyperactivity disorder (ADHD) are considered the most common, and affect how the individual processes, learns, and communicates information as well as how they coordinate movement. However, veterinary professional students are still required to meet the day one skills/competencies of the RCVS to be eligible to register and work here in the UK, regardless of any physical or learning differences they may have. Veterinary educators designing and implementing practical assessments need to balance requests for reasonable adjustment with a valid, reliable means of assessing competency to practise whilst ensuring the examination remains fair to all students.

In this workshop we aim to discuss the following:

- Findings from a student research project investigating the experiences of students with SpLDs during practical assessments from different UK veterinary institutions
- Current implementations of reasonable adjustment in OSCEs (or equivalent)
- The difference between inclusive assessment and reasonable adjustment
- Areas of good practice/blue sky thinking for future assessments
- Student awareness of inclusive assessment and feedback

Publishing undergraduate student writing: outward-facing assessment

Thursday, 6th July - 10:51: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Dr. Karen Dunne¹

1. Dundalk Institute of Technology

Background

Veterinary nursing is a relatively new profession and still in the development phase of its evidence base. Many publications are written by veterinarians, for veterinarians. Encouraging veterinary nursing students to write for a professional audience adds their perspective to the literature.

The majority of undergraduate assignments are only read by the author and the academic tasked with grading them. Nevertheless, some students can produce work of relevance to a professional audience. Designing selected undergraduate assignments so that the end result is structured as an article intended for publication means that high quality pieces can be readily submitted to a suitable journal or periodical.

Summary of Work

Students on the BSc in Veterinary Nursing at DkIT complete an equine nursing module in final year of the programme. 40% of the module marks are awarded for the completion of a continuing education article on an aspect of equine care of the student's choosing. Students are encouraged to consider submitting high quality pieces of work to the Veterinary Ireland Journal (VIJ). To date, over a dozen articles have been published via this route. The author would like to acknowledge the support of colleagues and editors at the VIJ.

Potential benefits for student authors:

- Freedom to choose own topic promotes engagement
- Academic staff are available to assist the student with the publication process
- Adding to the veterinary nursing literature
- Experience of writing for a professional audience, but without the rigor of full peer review
- A sense of pride and achievement on seeing their work in print
- A publication to include in a CV

Take Home Message

The discipline of writing for publication results in shorter and more focused assignments that are also less time-consuming to grade. Students are capable of writing to a professional standard, and it is rewarding to support them.

Using the Calgary-Cambridge Checklist to evaluate Clinical Communication skills with real clients during fourth Year Community Practice Clinical Rotation: Preliminary Findings

Thursday, 6th July - 10:57: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Dr. Frank Insignares¹

1. Oniris - Nantes Atlantic College of Veterinary Medicine, Food Sciences and Engineering

Oniris France School of Veterinary Medicine has been involved in implementing Clinical Communication skills for over 10 years. Pre-clinical teaching includes evidence-based methods such as peer & professional actor simulations. In order to comply the EAEVE recommendations, clinical communication skills should also be evaluated during Clinical Rotations. The four Public French Veterinary Schools developed a clinical evaluation digital tool based on eight macro clinical competencies to be assessed during clinical rotations. One of the competencies is Communication Skills and defined as “effective oral communication skills” but few veterinary faculty members knew exactly how to evaluate these skills. The ONIRIS **Clinical Communication** team (composed of two Veterinary faculty members and two communication professors who have been trained as clinical communication coaches) saw this as an opportunity to raise awareness of skills taught and to implement the evaluation of these skills. The Calgary- Cambridge checklist tool was used in order to determine whether students had minimum competence in communication skills when conducting a wellness/vaccination consultation during the 2023 community practice rotation. This will be helpful in the implementation of compulsory evaluation of clinical communication skills as of fall 2023 with over 160 students. An experimental feedback session study was conducted with twelve volunteer students. Communication professor conducted evaluation and included direct observation of student/client interaction as well student/veterinary clinician debrief. A Client satisfaction survey was conducted immediately following the interaction. Preliminary findings show that the Calgary-Cambridge based evaluation/ feedback sessions reinforced the skills are taught during the pre-clinical years, increased student confidence, set up Student SMART goals for improvement, and raised awareness among veterinary faculty members and clinical staff who are unaware of the precise requirements for evaluating evidence based clinical communication skills.

Peer Assessment - Does Formative OSCE peer assessment improve the performance of the assessors?

Thursday, 6th July - 11:03: A6: ePosters: Assessment and Feedback (Nelson) - Oral eposter presentation

Dr. Zamantha Marshall ¹, Ms. Lissann Wolfe ¹

1. University of Glasgow

Background:

For a number of years, the University of Glasgow School of Biodiversity, One Health & Veterinary Medicine has utilised peer assessment in Formative OSCEs (Objective Structured Clinical Examination). This represents an educational approach in which more experienced students teach younger and less experienced ones. The training the peer assessors receive encourages students to critically appraise their peers' performance while also helping them to develop self-assessment skills that benefit their own learning process. It also helps the students to develop lifelong skills required of veterinary professionals, such as providing feedback, teaching others, and demonstrating empathy. In previous years at Glasgow, information has been collected with regards to how the peer assessors feel and think being a peer assessor impacts their own OSCE performance, but we had not evaluated their own actual Summative OSCE performance.

Summary of Work:

Analysis of the performance of peer assessors in their own Summative OSCE, compared to that of the rest of the cohort to answer the question, "Does Formative OSCE peer assessment improve the performance of the assessors?"

Take Home Message:

- Acting as a peer assessor may have a positive impact on the performance of peer assessors.
- Further research is needed for a more in-depth understanding of how being a peer assessor may result in an improvement of OSCE performance.

Creating asynchronous online guided learning activities in histology that are ‘the bee’s knees’

Thursday, 6th July - 10:15: A7: Short Comms: Curriculum and Technology (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

Dr. Christina Marth¹, Prof. Elizabeth Tudor¹, Dr. Reza Sanaei¹

1. Melbourne Veterinary School

Background

Instigated by the public health restrictions due to the COVID19 pandemic, we adapted our histology teaching to fully online guided classes that have been more effective and more appreciated by students than their on-campus equivalents.

Summary of Work

Prior to the pandemic, histology classes were conducted in person with students viewing digital images of slides and completing a series of questions in their paper-based practical manuals. In the early days of the pandemic, we supported students by creating short video clips highlighting the main learning points on each slide. In the second iteration, we supplemented these videos with synchronous class sessions via zoom, where students were encouraged to annotate slides in real time and cohort level feedback was provided.

To improve interactive engagement and feedback further, this approach to teaching of histology has now been augmented/ partially replaced with asynchronous guided learning activities delivered via the Lt platform (<https://www.adinstruments.com/lt>). Lt enables the creation of highly interactive lessons that incorporate key background material, links to our digital slide collection and importantly, capacity for annotation and feedback. Students tell us that they value the immediate formative feedback they receive, and that on completion of each lesson they have a sense of mastery, not previously experienced.

Take Home Message

Students value online activities if they are directly aligned with learning objectives and assessment tasks, if they are customised for their course of study, and if they provide appropriate feedback. Use of these asynchronous lessons has significantly reduced didactic teaching during practical times allowing teachers to use face-to-face time for deeper learning and knowledge application.

Artificial intelligence in veterinary education: risks and opportunities

Thursday, 6th July - 10:27: A7: Short Comms: Curriculum and Technology (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

Dr. Rachel Kenvyn¹

1. Medivet

Background

Technological advancement is a crucial challenge facing veterinary education. Artificial intelligence (AI) is revolutionising veterinary medicine in imaging, disease diagnosis and telemedicine. Opportunities for leveraging AI in veterinary education are vast, however, there are risks.

Summary of Work

A review of the potential for integrating AI into veterinary education was undertaken, focusing on how challenges of rising costs, an evolving curriculum, staff shortages and stress could be mitigated.

It was found that AI could reduce student expenses through the efficient identification of learning resources. For educators, AI can assist with preparing learning plans that account for individual learning styles and weaknesses as well as means for combining AI with virtual reality to provide simulated, safe and controlled surgical or client-interaction scenarios. In practice and academia, AI can aid tasks such as grading, appointment scheduling, business case writing, referrals and client communications as well as identifying and compiling literature – all enabling more time for teaching and mentoring.

Significant risks were identified. AI technology is developing rapidly and experienced trainers are in short supply. Overuse of AI may result in reduced hands-on training and a lack of empathy towards animals. Students may rely on (potentially unvalidated, biased and erroneous) AI-based diagnoses and become less critical thinking. AI chatbots can help students formulate ideas, however, the generation of essay answers is dishonest, difficult to detect and inhibits learning.

Take Home Message

Future veterinary students will enter a workplace where AI is embedded. To succeed, they must be equipped with the skills to utilise and evaluate AI and its outputs. It is recommended that the risks and opportunities of AI be taught as part of the curriculum. By doing so, we can ensure that AI is used to its full potential in enhancing the quality of education and improving animal welfare.

Evaluation of Lecture Streaming and Lecture Capture to Complement in Person Lectures on the BVSc

Thursday, 6th July - 10:39: A7: Short Comms: Curriculum and Technology (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

Dr. Emma Love¹, Dr. Julie Dickson¹, Prof. Sheena Warman¹

1. University of Bristol

In 2022-23 Bristol Vet School piloted live-streaming of in-person lectures in addition to standard lecture recording (RePlay), on the 5-year (BVSc) and 4-year (AGEP) programmes. We evaluated the introduction of streaming by gathering data on how students engaged with in-person lectures and explored their perceptions and experiences.

A questionnaire was e-mailed to all students in Years 1-4 (BVSc) and Years 1-3 (AGEP) in January 2023. It included pre-written options, likert, yes/no, and free text responses. Responses were received from 348/810 students (43%).

Most students preferred to attend in-person lectures (57%), with 26% and 17% preferring to either livestream or use Replay respectively. Of the students who preferred to engage with streaming, the majority (36%) used the streaming to attend 24% of lectures, with 5% using streaming to attend 100% of lectures. Most watched streamed lectures "At my place of residence/home individually" (79% respondents). For the students who do use streaming, 59% Strongly Disagree/Disagree that streaming is not worse than an in-person lecture, and 64% Strongly Agree/Agree that streaming is comparable to the experience of an in-person lecture. Positive comments around streaming related to inclusivity and flexibility.

Students who preferred attending lectures in-person cited the social aspects and preferring to work on campus. Technological concerns also influenced this decision. More than half of these students engaged with RePlay in addition to attending the lecture.

Flexibility in when students engage with lectures is important (96% students Agreed/Strongly Agreed) and students value the opportunity to learn on campus (88%) and interact with peers and staff. Almost half of respondents indicated that their mental health influenced how they managed their learning.

The way students choose to engage with lectures is evolving. Further work to evaluate the effectiveness of engagement with lectures by attending in person, streaming and RePlay is warranted.[SW1] [JD2]

Does in person vs synchronous remote attendance impact academic achievement?

Thursday, 6th July - 10:51: A7: Short Comms: Curriculum and Technology (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

Dr. Priti Karnik¹, Dr. Robert Gilbert¹, Dr. Elpida Artemiou²

1. Ross University School of Veterinary Medicine, 2. Texas Tech School of Veterinary Medicine

Background:

Lecture attendance in undergraduate programs has a strong relationship with class grades and can be used as a predictor of academic success (Crede et al) though studies regarding the effect of lecture attendance in medical schools have reported mixed results. Reid et al have evaluated lecture capture at a veterinary school in the UK and determined that its use as a learning resource was particularly unhelpful in students that relied heavily on this modality. Our study examined the effects of in person or synchronous remote attendance.

Summary:

Study participants included Ross University School of Veterinary (RUSVM) second-year students (n=124) registered in the Small Animal Surgery (SAS) course. Study was completed between January to April 2022, and participants had the option to attend SAS lectures live or synchronous. Classroom attendance was recorded via a QR code and lecture recordings were made available to all students. Academic success was measured based on scores in progress tests, the final exam and overall course grades. Zero order correlations between outcomes and other variables were determined. Variables with correlations to the outcome of interest ($P < 0.3$) were offered to backward, stepwise linear regression; variables with final P-value less than 0.1 were retained in the final model. We found that remote synchronous lecture participation had a significant ($P < 0.001$) and negative effect on final exam scores, even when controlling for overall preclinical veterinary curriculum GPA. There was a corresponding effect on overall course grade ($P = 0.08$) but no effect on progress test performance ($P = 0.48$), suggesting the greatest impact was on recall and long-term memory.

Take Home Message:

Study outcomes suggest that students would benefit from in person classroom attendance rather than using synchronous remote lectures. Further studies assessing the effect of attendance across courses and the overall program are warranted.

Session B

Development of a Model for Teaching Equine Closed Castration Technique in Veterinary Education

Thursday, 6th July - 11:45: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

***Dr. Santiago Alonso Sousa*¹, *Dr. Kate Flay*¹, *Ms. Ling Yan Cheung*², *Dr. Rebecca Parkes*¹, *Mrs. Susanna Taylor*², *Dr. Gareth Fitch*¹**

1. Department of Veterinary Clinical Sciences, City University of Hong Kong, 2. Jockey Club College of Veterinary Medicine and Life Sciences, City University of Hong

Background:

Castration is one of the most common surgical procedures performed by equine practitioners, due to an owner's desire to reduce or avoid aggressive behaviour in animals not used for breeding, and risk of inguinal herniation, testicular trauma or neoplasia. Because of this, castration is a basic competency for junior veterinarians entering equine practice. Although castration is considered routine, complications can occur, and these are a common cause of malpractice claims against equine practitioners. For this reason, it is essential that veterinary students are confident and proficient to perform this procedure before graduation.

Summary of Work:

The priorities of our model development were to select components that would allow repeated practice of the procedural elements. Specifically; maintaining sterility, skin incision, testicle exteriorisation, scrotal fascia stripping, ligature placement, emasculator placement and assessment of successful haemostasis. To do this, we developed our testicles using 3D modelling software. We then 3D printed 2-part moulds which were used to cast the testicles using Ecoflex 00-30 silicone. We attached two replaceable silicone tubes to the proximal portion of the testicles ("*vessels and vas deferens*"). The testicles were inserted into several layers of material: 1) siliconised stockings with lubricant ("*parietal tunic*"), 2) stockings with the toe removed and located over the proximal third portion of the testicle ("*scrotal fascia*"), 3) latex balloon ("*tunica dartos*") 4) silicone swimming cap ("*skin*"). The inguinal region of a recumbent horse was simulated using thermoplastic material, placed over a horse cadaver, and moulded using a heat gun. Two holes were created to simulate the inguinal rings and the stockings were passed through. The formal validation of the model is in progress.

Take Home Message:

The equine male reproductive system can be simulated using 3D printing and affordable materials, enabling repeated practice at the closed castration technique in a recumbent horse.

Feeding tube Freddie: teaching model for placement of oesophageal feeding tube

Thursday, 6th July - 11:51: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

Ms. Charlotte Turpie¹

1. University of Nottingham

Practical, hands on teaching is an important part of our students learning and understanding. At The University of Nottingham we are constantly looking at new ways to provide these practical experiences. Many of our sessions use cadavers which are donated or bought in especially for teaching. Using cadavers can restrict when and where a session can be taught and comes with some moral/environmental implications.

It was while developing a practical session on feeding tube placement that I started to think that maybe there was a more consistent and versatile way of teaching this skill, as well as looking at reducing our reliance on buying in cadavers. We were originally using rabbit cadavers for the practical, however they didn't best represent the species in which you would commonly place an oesophageal feeding tube.

Meet "Feeding Tube Freddie"! "Freddie" is a prototype model in which the practical teaching of oesophageal feeding tube placement can be demonstrated and then performed by students. Due to there been no biohazard risk, "Freddie" can be moved around the school easily and even taken out to our Teaching Associates.

I plan to further develop "Freddie" to make the procedure feel more lifelike but the feedback I have gathered from students so far, that have used both Freddie and the cadaver, is positive, with one student contacting me to say that following my practical, he felt confident enough to place this type of feeding tube within weeks of starting his first job.

Feeding tube Freddie: teaching model for placement of oesophageal feeding tube

Development of a low-cost OVH surgical model

Thursday, 6th July - 11:57: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

***Prof. julia matera*¹, *Ms. Mariana Rodrigues da Silva*¹**

1. University of Sao Paulo

The focus of this study was developing an alternative model, with low cost and sustainability for the environment, using materials that could otherwise be discarded but was be reused. The students to obtain abilities and learn surgery techniques, they need to practice on a model, that can be used as a complementary method of learning, together with the use of other teaching methods. The model simulates female neutering (OVH) and employed:

- One plastic box;
- Two modeling balloons, that simulate uterine horns;
- One round balloon, that simulates the urinary bladder;
- Two stings that simulate ureters.

The extremities of the balloons were filled with gel representing the ovaries and urinary bladder too. A print to remember the anatomy of a female genital-urinary tract was attached at the bottom of the box to illustrate the region.

This model is a complementary learning material aimed to encourage the student to make and learn. It is simple to build, low cost, and easy to acquire the materials.

The low-cost models can help the perception of students' abilities, improving confidence and lowering anxiety when they perform surgery on live animals. The possibility to repeat brings confidence to the student.

Currently, the model has great cost-benefit and interesting characteristics that can help to train the students, including anatomic knowledge, development, and manual repeatability. It is important with the possibility to reuse the materials like the plastic box, urinary tract, and print, needing to replace only the balloons of the uterine horns. The construction is simple, and materials are cheap and easily available, with characteristics that allow repeatability and manual learning, important features of teaching surgical techniques class.

The total cost of this model was US\$1 = R\$5,00.

The model was used to train our students before they practice OVH in cadavers.

Using 3D models as an anatomical educational tool

Thursday, 6th July - 12:03: B1: ePosters: Clinical Skills (Pentland) - Oral poster presentation

Prof. Antonio Assis Neto¹, Mr. Felipe Simoes¹

1. University of Sao Paulo

The objective is to validate the use of 3D anatomical models during practical classes offered in the Descriptive Anatomy of Domestic Animals disciplines at the University of São Paulo. Anatomical parts were scanned from real scanned models using a 3D scanner and then converted into STL files. The analyzes were carried out during the years 2020 to 2022. The classes contained 80 students in the first semester of each year and 80 in the second semester. The classes were divided into two groups: those who studied 3D anatomical specimens and real specimens simultaneously (Group I) and those who studied only real anatomical specimens (Group II). Two types of analyzes were carried out: 1) Application of questionnaires using the Googleforms application, with multiple choice alternatives based on the Likert scale, at the end of each practical class. 2) Comparative practical exams in the two Groups. For GI students, tests were performed exclusively on 3D models and for GII students performed tests exclusively on real anatomical models. The data obtained from the form showed that students' acceptance of studying in 3D parts was very good. The test scores to assess Likert scale responses was the U Mann Whitney. Students from GI and GII obtained averages of 6.75 and 5.59, respectively. Therefore, two graphs were obtained with the comparative scale of student performance for both groups, which demonstrated that the general performance of Group I was superior to that of GII. In conclusion, it was possible to suggest that the use of 3D models, as a teaching methodology, proves to have a useful didactic value in classes, can be used as an additional tool to anatomical teaching and can be used to reduce the use of cadavers in classes.

DIY Resuscitation model for teaching CPR

Thursday, 6th July - 12:09: B1: ePosters: Clinical Skills (Pentland) - Oral poster presentation

Mrs. Zoe Lawlor¹, Ms. Emma Drinkall¹, Mr. Tom Hackney¹

1. University of Nottingham

”Under pressure you don’t rise to the occasion you sink to the level of your training” Archilochus

The importance of well-trained staff in resuscitation is well understood (Mcintyre et al ,2014). Thus, allowing less experienced staff and students to develop skills in real life scenarios is not ideal or appropriate due to the importance of knowledge, and timely correct action for optimal outcome. The need for training leads to the essential and valuable use of simulations and models, studies have demonstrated spaced repetition, or 3 monthly simulation-based training improved “on the time that elapsed from call for help to initiation of chest compressions” (Sullivan et al 2015).

However existing commercial models are not always affordable especially in quantity, or readily available for purchase. Similar to previous teams (Militego et al, 2012) we have created an achievable DIY simulation model including the necessary elements required for adequate CPR training. Our presentation will share the brief build guide for delegates to DIY their own, include links for online access to the SVMS Centre of Innovations video/text build guide and “maker community”, and our suggested use cases for the model.

Comparison of teaching modalities on skill retention in undergraduate students undertaking lung point of care ultrasound

Thursday, 6th July - 12:15: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

Mr. Thomas Hackney¹, Ms. Imogen Smith¹

1. University of Nottingham

Background: During the COVID-19 Pandemic, practical teaching of veterinary skills was disrupted, and blended learning approaches increased within several institutions.

Objective: To evaluate the effectiveness of different teaching modalities on retention and performance of practical skills, specifically lung point of care ultrasound, by veterinary students.

Study design: Quantitative experimental randomised study combined with qualitative experience survey

Sample population: 21 third year University of Nottingham veterinary students.

Methods: Students were randomly allocated to receive either in-person practical teaching, self-directed learning (SDL) material or a pre-recorded video lecture. 24-hours later, students undertook an objective structured clinical examination (OSCE) and interview to compare skill retention and performance.

Results: Students who received practical teaching were significantly faster at conducting a lung ultrasound (average 170 seconds) compared to SDL and lecture groups (average 254 seconds) ($P < 0.05$). Only students receiving practical teaching produced a perfect score in the subsequent OSCE (3/7).

In response to the statement "I can perform lung ultrasound alone", 6/7 students receiving practical instruction agreed or strongly agreed, 3/7 students receiving video material agreed, and 2/7 students receiving SDL material agreed. The SDL group were the only group where students strongly disagreed with the statement (3/7).

Conclusion: Practical teaching remains important in the post-covid educational environment and is an effective method for knowledge retention and skills accuracy. Students who received practical teaching achieved better overall scores and communicated greater confidence in the skill during interviews.

Take Home Message: Covid necessitated blended learning for many aspects of veterinary education, but practical face to face teaching should be prioritised for teaching practical skills such as lung ultrasound.

Model-assisted lecture on neck and spine musculature – an approach to more sustainable anatomy knowledge

Thursday, 6th July - 12:21: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

Dr. Julia Dittes¹

1. Centre of Applied Training and Learning (PAUL), Faculty of Veterinary Medicine, Leipzig University

Background

Anatomy lectures very often convey a high load of information in a short period of time. Especially complex topics are hard to grasp but important to know when dissecting an animal. Part of those challenging contents are the layers of muscles in neck and dorsum, which students find difficult to understand due to large interspecies differences. Past studies showed that the use of models can enhance the learning outcome.

Summary of Work

Aim of this project was to develop an illustrative cost-effective model to assist the classic anatomy lecture on muscles of the neck, extrinsic muscles of the thoracic limb and epaxial muscles. For each layer a white fleece blanket was coloured with the equivalent muscles or connected with small sewed muscle cushions using Velcro tape. During summer term the blankets will be put on a horse skeleton situated in the lecture hall accompanying two lectures. Following this, a small study is planned to evaluate the impact of the model-based lecture on short- and long-term knowledge.

Take Home Message

In conclusion, model-based teaching is well known in the field of veterinary clinical skills. But it is worthwhile to translate its positive aspects into preclinical subjects as well. The study will show if the application of this model can continue the list of experiences gained with other small self-made anatomy models.

Peer-supported learning in practice at the Budapest clinical skills lab

Thursday, 6th July - 12:27: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

Ms. Ciara Reynolds¹

1. University of Veterinary Medicine, Budapest

The practical skills lab at UVMB was started in September of 2020 as a fully student-run project with the goal of providing students with additional opportunities to learn clinical skills, as well as specific topics not covered in a standard veterinary education. Classes were originally held fully online but as of February 2023 Skills Lab has merged with the official university Skills Lab program (started 2015) and now operates out of a permanent on-campus practical space. Practical workshops are taught by a team of student “demonstrators” from the clinical years – 3rd and above, and those students who have extensive experience outside of school.

Peer-supported learning provides a safe, low-risk environment where students are often less nervous about making mistakes and therefore show increased engagement and participation. Students attending class feel more comfortable asking questions or admitting they do not understand a concept when the intimidation and power imbalance of a standard student-professor relationship is removed. Students organizing and teaching the workshops gain a far deeper understanding of the topic via their additional prep work and the act of explain to others. In addition, many students attending professional doctorate programs have a large amount of previous experience in their chosen fields and are a currently untapped resource for teaching basic classes and specific techniques. This is even more prominent in an international university where there is an opportunity for representatives to show how a procedure is performed in several different countries.

The development of a canine dental descaling and extraction model for pre-clinical veterinary education

Thursday, 6th July - 12:33: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

Dr. Andrei Stefan¹

1. Harper and Keele Vet School

Dental and periodontal disease is a common presentation in general veterinary practice. Veterinary schools typically provide some basic training in dental anatomy, pathology, and treatment during the core curriculum. However, the depth and extent of this training may vary among different schools. This might explain why veterinary dentistry appears as an overlooked aspect of general practice, and veterinary dentistry skills level differ widely between general practitioners. To address all these at an early stage in the undergraduate course, at Harper and Keele Veterinary School, a 3D printed canine dental descaling and extraction model was developed. The model offers the opportunity for students to practice during their pre-clinical training basic veterinary dentistry procedures on an anatomically realistic model. Being in its inception, the model only represents the bony structure of the canine mandibula and accommodates the bilateral extraction of the incisors (301-303; 401-403), three premolars (306-308; 406-408) and first molars (309; 409). For the students to undergo a comparable experience with the one found in the clinical practice, besides anatomical fidelity, the model was optimised by taking in consideration the use of a standard range of dental instruments commonly used in veterinary dentistry procedures, as well as to protect the integrity of the model throughout multiple repetitions. These objectives were achieved by utilising different strengths and types of materials for the fixed and removable parts of the model. Anecdotal feedback was received during the sessions and after, with overall positive comments from both staff members and students. Future versions will aim to not only improve the 3D model representation of the true anatomy and its variations, but also to assess it as a valuable learning and practicing tool.

Development and Validation of a Canine Gastric Dilatation and Volvulus Simulator for Practical Training of Veterinary Students

Thursday, 6th July - 12:39: B1: ePosters: Clinical Skills (Pentland) - Oral eposter presentation

Dr. Rikke Langebæk¹, Ms. Laura Buchwald¹, Ms. Veronika Lyngby Stark¹, Dr. Michelle Brønniche Nielsen¹

1. Copenhagen University

Background

Canine Gastric Dilatation and Volvulus (GDV) is a severe and potentially life-threatening condition that requires rapid diagnosis and treatment. A pilot study showed that GDV was ranked as the most challenging surgical emergency procedure among Danish veterinarians and veterinary students. Furthermore, managing GDV patients was associated with a variety of negative emotions among participants. These findings indicate a need for a GDV simulator to help veterinary students prepare in managing these cases.

Summary of work

Following the pilot study, a low-fidelity GDV simulator was developed focusing on the specific components deemed most challenging by the participants in the pilot study. The simulator was created using easily accessible materials, and is part of a comprehensive GDV simulation case, which includes oro-gastric intubation, trocarization and gastropexy. The simulation was tested, and content validated by 10 experienced surgeons, focusing on the comprehensibility and correctness of the case, assessment of the visual and tactile sensation and the utility of the simulation as a teaching tool. Furthermore, 34 veterinary students participated in test trials. Students completed a modified State Trait Anxiety Inventory before and after engaging in the simulation with the aim of evaluating their perceived emotions regarding GDV management.

Take home message

The test trials were conducted very recently, and therefore, final results will not be available until the end of next month. However, preliminary results indicate that the simulator is effective in addressing the intended construct, and suggest a clear reduction in negative emotions among students when it comes to managing GDV patients.

Based on these preliminary findings, we tentatively conclude that the GDV simulator can become a useful tool in veterinary surgical and emergency training, by offering students an otherwise unique opportunity to perform the entire procedure in a safe learning environment.

A sustainable approach to international animal welfare education

Thursday, 6th July - 11:45: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

Dr. Louise Connelly¹

1. University of Edinburgh

The Jeanne Marchig International Centre for Animal Welfare Education at the Royal (Dick) School of Veterinary Studies, University of Edinburgh, aims to improve the quality of life for all animals through veterinary education, research, and training, particularly with international partners.

The Centre works collaboratively with partners (e.g. in India and China); developing education resources to enable knowledge transfer, thus ensuring practical approaches to change and sustainable impact on animal welfare. To maximise international outreach and support, a number of sustainable education resources have been developed and are freely available. This approach is also aligned with the University Open Education Resource (OER) policy. Current topics include dog population management catch-neuter-return (CNR); massive open online courses (MOOCs); zoo welfare; with resources on farm animal welfare launching in 2023.

Pedagogical approaches for delivery are multi-modal including good practice guides for vets and NGOs (CNR: 16 videos, 23 pdfs) and MOOCs ('The Truth About Cats and Dogs'; 'Animal Behaviour and Welfare' – endorsed by the Scottish SPCA; and launching in 2023 – 'Animal Welfare in the Clinic'). Since our first MOOC launched, there have been more than 206,200 participants enrolled on the two MOOCs, and uptake continues to grow. The zoo welfare web-based-resource, produced in collaboration with the organisation, Wild Welfare, consists of 8 modules (pdfs and interactive quizzes), available in 5 languages and endorsed by the World Association of Zoos and Aquariums (WAZA), launched in 2021. The engagement has been very successful, with participants from 69 countries accessing the resource, 16,200 downloads and 37+ organisations using the resource.

The Centre continues to work collaboratively and sustainably, producing a wide range of free, accessible, and endorsed educational resources to ensure maximum outreach, to enhance the skills and knowledge of the veterinary profession, and to support the delivery of high quality care and animal welfare.

Wellbeing as a Day One Competency for all Veterinary Medical Professionals

Thursday, 6th July - 11:51: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

Dr. Virginia Corrigan¹

1. Appalachian State University

Background

What if all schools and colleges of veterinary medicine, as well as all veterinary technology and veterinary nursing programs, had comprehensive and evidence-based wellbeing frameworks and programs in place in order to best set up students, faculty, and staff for success? What if wellbeing wasn't just something that was talked about, but was actually integrated into the culture, the formal and informal curriculum, and within the core values and leadership philosophy of the institutions themselves? How can prioritizing and operationalizing our approach to wellbeing help us to not only foster the passion that draws people to this profession, but also keep that fire burning brightly for a sustained and thriving career in veterinary medicine? My idea is to develop a comprehensive wellbeing framework, including day one wellbeing competencies for all veterinary healthcare professionals, that could be applied to AVMA accredited veterinary medical and veterinary technician/nurse educational institutions.

Summary of Work

A logic model outlining a pilot of a wellbeing framework for veterinary medical educational institutions will be presented. In order to ensure that the wellbeing framework is comprehensive, all aspects of wellbeing and health are considered, including mental, financial, relationships, physical, cultural, environmental, and occupational. Proposed steps to implementation and a brief review of current evidence-based wellbeing programs as well as proposed wellbeing competencies in veterinary medical education will be discussed in this presentation.

Take Home Message

With the potential for synergy, collaboration, and widespread positive impact, it makes sense for veterinary professional educational institutions and allied organizations to collaborate on efforts to develop comprehensive wellbeing frameworks and competencies for all veterinary healthcare professionals.

A training course on passive surveillance as a framework for sustainable veterinary capacity development

Thursday, 6th July - 11:57: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

***Dr. Valentina Busin*¹, *Ms. Sian Westcombe*¹, *Ms. Anastasia Mavraki*¹, *Mr. Ross Ward*¹, *Mr. Marcello Nardi*¹, *Dr. Fabrizio Rosso*¹**

1. European Commission for the Control of Foot-and-Mouth Disease

Background

Capacity development has gained a lot of attention as a process to analyse, create, develop, plan and reflect on outcomes, with the final aim to positively impact and transform societies. Within the field of veterinary education, sustainable ways of achieving effective capacity development should be focused on directing the limited resources available on priority areas of training, as well as appropriate delivery modalities and ensuring cascade training.

Summary of Work

Here we propose the development of a training course on passive surveillance as a framework to achieve sustainable veterinary capacity development. The framework consisted of a training need analysis (based on background research and expert opinions), which revealed an ill-defined context and how this could be addressed. It was followed by a specification of the learning objectives, target audience and content outline. Once these two preliminary steps had been completed, the course was developed.

The framework also focused on the most appropriate delivery modalities and how to enhance cascade training, based on three distinct levels of engagement required. A first level, open-access course (comprising only asynchronous activities, with no staff input) to raise awareness and motivate interested participants in further courses; a second level, tutored courses (comprising synchronous and asynchronous activities) for a pre-selected, motivated audience; a third level, face-to-face training workshop (comprising practical activities) for a further restricted audience, mainly involved in cascade training.

Take Home Message

The development of this training course has emphasized how, rather than personal enthusiasm in developing new training, a systematic, evidence-based approach to any capacity development activities will ensure that the limited resources available are targeted at the right audience and with the most appropriate modalities, for a truly sustainable training of the veterinary workforce.

Perfectionism and Mental Health in First Year Veterinary Students

Thursday, 6th July - 12:03: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

Ms. Tamzin McClung¹, Dr. Alison Reid¹, Dr. Emma Ormandy¹

1. University of Liverpool

Background

Veterinary students are broadly considered to be highly perfectionistic. It is also suspected that perfectionism, can exacerbate mental health issues, such as anxiety and depression. Research into the implications of perfectionism on mental wellbeing in veterinary students is an important emerging area of educational research. This study intends to investigate the relationship between perfectionism and mental health in first year veterinary students at the University of Liverpool.

Summary of Work

First year veterinary students were distributed a questionnaire at two time-points during the 2021/2022 academic year, in semester one and two. Questions were designed using the Hewitt and Flett perfectionism scale, the SMRC Personal Health Questionnaire Depression Scale and the Generalised Anxiety Disorder Scale to investigate feelings of perfectionism and mental health. Results were descriptively analysed, and statistical tests including paired T-tests and Spearman's rank correlations carried out. This allows examination of differences in perfectionism score, correlations between perfectionism types, the impact of gender and the relationship between perfectionism, anxiety and depression.

Take Home Messages

This poster will present the results of investigations into perfectionism, including how it changed in this population over time, as well as the correlation between anxiety, depression and perfectionism. The findings will provide useful information for future studies into the mental health of veterinary students and can inform enhancements to student support practices.

Initiatives for Recycling PPE at the Ontario Veterinary College

Thursday, 6th July - 12:09: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

Dr. Andria Joy¹, Ms. Youstina Makhlof¹

1. Ontario Veterinary College

During the Phase II academic year over 600 non-biohazardous surgical gowns, drapes, masks, and hairnets are used in a variety of simulated teaching settings. Typically, these would go into landfill as garbage since our city does not have recycling capacity for non-woven polypropylene. To divert these products from landfill, Youstina Makhlof, a second-year veterinary student and Sustainability Project Research Assistant with the U of Guelph Sustainability Office, initiated a program to recycle this PPE. She presented a proposal aligning the goals of the UN with the University Sustainability policy and encouraged OVC to be a leader in sustainability on campus. OVC committed \$5000 CND, which was matched by the Sustainability Office. Then she compared the pros and cons of 2 different facilities that could recycle these products, taking into account their locale (proximity to Guelph), future ability to include different items into the program (gowns that have been used in live animal surgery, iv lines/bags) and ease of fit into the current University waste disposal systems (use of our own recycle collection bins). Stage 1 of this program was launched on February 2023, taking PPE from our simulation labs. The effectiveness of stage 1 will be reviewed in 1 year and decisions made to move on to stage 2, collecting PPE from our Phase III surgical exercises program and ultimately, stage 3, collecting the PPE from our teaching hospital.

Incorporating Sustainable Development into the Veterinary Education Curriculum: Finding the balance

Thursday, 6th July - 12:15: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

Dr. Olukayode Daramola¹

1. University of Surrey

Education for Sustainable Development (ESD) refers to an interdisciplinary approach to integrating societal, economic, and environmental issues into the curriculum. While ESD tends to be associated with the United Nations' 17 Sustainable Development Goals (SDGs), the extent to which it should be incorporated in the veterinary education curriculum is debatable, especially for a professionally regulated programme. This emerging idea study used an anonymous survey to evaluate higher education academics across various disciplines' perspectives and academic practices around ESD. Findings indicate academics have a diverse perception of what ESD means. While these perceptions include ESD within the scope of the 17 SDGs, academics also understood ESD within the scope of staff professional development and student life-long skill acquisition. It was observed that academics' confidence in including ESD into their teaching practices ($P = 0.021$), academics' level of training on ESD ($P = 0.023$), and academics' views on the need for their institution's commitment towards ESD ($P = 0.028$), were each statistically linked with academic's number of teaching years in higher education. Results suggest that early career academics (with less than 5 years of teaching experience in higher education) were more aware and open to ESD, while academics with more than 5 years of experience were likely to be less interested in incorporating ESD into their teaching practices. This study revealed that although academics have some understanding of ESD, a clear institutional commitment to staff training on how to incorporate ESD into teaching and learning, particularly within the scope of the 17 SDGs will be crucial to the ESD initiative, however conversations around the "extent of incorporation" should be actively ongoing especially in veterinary schools.

A Review of Veterinary Education in Australia and New Zealand: Securing Australasia's Future in Biosecurity, Food Production, One Health and Animal Welfare

Thursday, 6th July - 12:21: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral poster presentation

***Dr. Helen Scott-Orr*¹, *Prof. Grant Guilford*², *Prof. Susan Rhind*³**

1. -, 2. New Zealand Veterinary Association, 3. UoE

Background

Veterinary Schools of Australia and New Zealand (VSANZ) comprises the eight veterinary schools of Australia and New Zealand, who work together to advance veterinary education and research in the region. In 2022, VSANZ commissioned a comprehensive review of veterinary education in Australia and New Zealand by an independent panel prompted by a rapidly changing veterinary landscape and resultant educational challenges.

Summary of Work

The Panel released a discussion paper in early September 2022 to canvass stakeholder ideas on if, and how, veterinary education must change to meet foreseen demands of the next decade and beyond. Stakeholders were encouraged to make a submission to the review, addressing some or all of the matters covered in the terms of reference and the discussion paper [<https://vsanz.org/review-of-veterinary-education/>]. 69 submissions were received and a series of 19 interviews conducted to explore issues in more depth. Data was analysed and common themes informed a final report released in March 2023. The report presents a series of 25 recommendations including in relation to admissions, accreditation, curriculum and tracking, wellbeing and transitions, debt-relief, post graduate support, career development and mentoring, biosecurity and emergency disease preparedness, collaboration across the profession, resource sharing, research and funding. A key recommendation is for government to significantly increase funding per veterinary student in coming years.

Take Home Message

The challenges facing veterinary education in Australasia are reflected in many other parts of the world. The review recommendations are therefore likely to be of relevance to veterinary educators and the wider profession in many other contexts.

[The panel gratefully acknowledge VSANZ for funding the project and the support of Bernard Rupasinghe and Scott Williams for their work]

The Impact of a Short-Duration Mind-Body Therapy Intervention on Veterinary Student Stress Levels

Thursday, 6th July - 12:27: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

Ms. Louise Anderson¹

1. University of Glasgow

As the veterinary profession continues to struggle with issues of poor mental health, a possible course of action suggested by some stakeholders would be for veterinary students to be taught stress management strategies during their undergraduate training. The objective of this study was to evaluate the impact of a short, 8-week online Mind-Body Therapy (MBT) relaxation course by investigating the views of volunteer participants from the third-year cohort of undergraduate veterinary students. A mixed methodology was used, and data collected before and after the intervention. Participants were asked to complete a short paper questionnaire at each time point, comprising a mix of Likert-type questions, open questions, and a psychometric self-report, the shortened version of the Depression, Anxiety Scale (DASS-21). Results showed mean baseline DASS-21 scores in each category to be above normative values, with the baseline anxiety mean in the *severe* ratings group. The mean scores post-intervention were lower in each DASS-21 category and all within the *moderate* ratings groups. 94% of respondents agreed that the MBT sessions had been a useful way to unwind, and 88.2% agreed that MBT would be of future benefit to them.

Although there were some limitations such as the lack of a control group and a relatively small number of participants (n=17), positive comments from the participants verified the quantitative findings, with the positive reactions to the taught breathing techniques being the most notable. An unanticipated finding from this study was perhaps the most significant which was the popularity of the simple 'yoga' technique of box-breathing, and the power of this particular breath pattern to alleviate stress.

While MBTs would not appeal to all veterinary students, for those that are receptive, the inclusion of some foundation MBT techniques into the curriculum could help students develop adaptive coping skills to take forward into their careers.

Veterinary education for school children – Antibiotic use and antimicrobial resistance workshops as part of Vienna’s KinderUni (Children’s University) outreach programme

Thursday, 6th July - 12:33: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral poster presentation

Dr. Clair Firth ¹

1. Unit of Veterinary Public Health & Epidemiology, University of Veterinary Medicine, Vienna

Background: The KinderUni (Children’s University, <https://kinderuni.at/en/vienna-childrens-university/>) in Vienna provides free access to seven universities, including the University of Veterinary Medicine, for two weeks in the summer holidays. Children aged between 7 and 12 years are able to access lectures, seminars and workshops in a variety of subjects from veterinary medicine, agriculture, food hygiene, law, economics, languages, history and many more.

Summary of the Work: Using interactive dice games, soft toy microbes, and a simplified short lecture in either German or English, we have been able to introduce children aged 10-12 years to the facts about antibiotic use in animals, why this use is essential, but also why we as pet owners, consumers, and patients need to be responsible with our own antibiotic use. With respect to antimicrobial resistance, different coloured dice are used to demonstrate to the children how difficult it can be, even with repeated antibiotic treatments, to “kill” all the bacteria in a sick pig. Susceptible bacteria (white dice) are easily removed, but a few multi-resistant bacteria remain. During the lecture part of the workshop, where the importance of bacteria for healthy humans and animals is explained, simple questions are asked and children are allowed to vote by holding up different coloured cards. This ensures a high level of interaction and involvement, even among those who would prefer not to speak out in a group setting.

Take Home Message: To encourage prudent antibiotic use and understanding of veterinary treatments among the general population, we need to start young. The Children’s University and similar outreach programmes provide an ideal opportunity to explain relatively complex topics to children, who in turn are likely to discuss what they learnt with their parents and grandparents.

Quality Work: How enhancement led approaches to teaching data can reduce workload, improve outcomes, and deliver rainbows and kittens to all.

Thursday, 6th July - 12:39: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral poster presentation

Ms. Jill MacKay¹

1. University of Edinburgh

Background

Quality Assurance in Higher Education (HE) serves a range of purposes including the safeguarding of standards and supporting the development of staff and students. However, often Quality Assurance is seen as an onerous task, or even a barrier to innovation, such as when a Learning & Teaching Committee is viewed as an obstacle to the implementation of new teaching or assessment. In Scotland, HE Quality Assurance takes an 'enhancement led' approach where strong relationships between education providers, funding bodies and student organisations are encouraged, feedback is delivered to improve outcomes, and the sharing of good practice is encouraged. In the veterinary education sector, quality assurance is particularly important to support the delivery of day one competent veterinarians and meeting accreditation standards. Much of the enhancement led approach to Quality Assurance also sits in line with Open Science Framework approaches to data and methods, particularly in the review of data processing even where data itself is too sensitive to be shared.

Summary of Work

This talk will outline some of the open science approaches to data that R(D)SVS have developed in their Quality Assurance work. In line with open science approaches, it will share workflows and even utilities which can make Quality Assurance tasks in other schools easier and more comparable across schools. It will outline a potential strategy which interested parties can adopt to improve processes.

Take Home Message

Quality assurance need not strike boredom into the heart of educators. It can be made to work to our interests where we share good practice, particularly in reducing workload when good practice approaches are freely shared.

VetSustain Curriculum Working group: past, present and future

Thursday, 6th July - 12:45: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

*Prof. Alun Williams*¹, *Mrs. Sharon Boyd*², *Dr. Amelia Garcia-Ara*³, *Dr. Julie Dickson*⁴, *Dr. Louisa Slingsby*⁴, *Dr. Milorad Radakovic*¹, *Dr. Iain Richards*⁵, *Prof. Susan Rhind*⁶, *Ms. Samantha Fontaine*⁷, *Dr. Noelia Yusta*⁷, *Prof. Zoe Robinson*⁸, *Prof. Rob Smith*⁹, *Dr. Sarah Hewitt*³, *Dr. David Connolly*¹⁰, *Dr. Zoe Halfacree*¹⁰, *Dr. Sue Paterson*¹¹, *Dr. Laura Higham*²

1. Cambridge Veterinary School, 2. University of Edinburgh, 3. University of Nottingham, 4. University of Bristol, 5. University of Central Lancashire, 6. UoE, 7. University of Glasgow, 8. Harper and Keele Vet School, 9. University of Liverpool, 10. Royal Veterinary College, 11. The Royal College of Veterinary Surgeons

Background: VetSustain is a multidisciplinary group of veterinary professionals with a passion for sustainability and how the profession can influence changes. VetSustain has identified six main sustainability goals to highlight the ways that veterinary professionals can, and do, and play a key role in addressing the challenges facing society. In order to achieve these goals, four working groups were created: Food and Farming, Greener Veterinary Practice, Communications and Network Engagement and Vet Curriculum.

Sustainability is an essential aspect of the veterinary curriculum, expected by vet students and society in response to the climate emergency. There are also the challenges for all involved including lack of time, management support and general uncertainty of what needs to be covered in an already intense curriculum. This group provides a space to share experiences and support actions.

Summary of work: The group has representatives from the majority of UK veterinary schools and the RCVS, including a range of discipline experts from cardiology to veterinary public health. The group meets regularly to discuss sustainability in Schools, campuses and curricula. Topics discussed include the tools and approaches taken and actions include presentations and workshops. Staff and students have emailed for advice about setting up similar groups in their institution, guests have attended meetings and the group has presented remotely to non-UK institutions. Speakers have attended meetings to showcase their research on how to implement sustainability in the curriculum. Members share these ideas with their local groups and report back on what works well.

Take home message: New members are welcome. The group is an excellent environment to share ideas; its purpose has been equally important as a community of practice and peer support to discuss shared challenges as we progress in a steady but determined way to embed sustainability pedagogies in our curricula.

New Sustainability Embedded Module at Nottingham Vet School (SVMS)

Thursday, 6th July - 12:51: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

*Dr. Amelia Garcia-Ara*¹, *Dr. Elsa Sandoval-Barron*¹, *Dr. Robert Atterbury*¹, *Prof. Malcolm Bennett*¹,
*Dr. Sarah Hewitt*¹, *Dr. Katie Lightfoot*¹, *Dr. Mandy Roshier*¹

1. University of Nottingham

Background: The School of Veterinary Medicine and Science (SVMS) at the University of Nottingham recognises the responsibility new graduates have towards a sustainable future and wanted to integrate this into the curriculum from day one. To this end, we created a new sustainability embedded module in 2022, which incorporated the skills, knowledge, values and attitudes necessary for our graduates to engage with global sustainability and One Health challenges, both as good citizens and as professionals. We focused on the theme of “Sustainable development”, using the Brundtland report definition, 1987: meeting our own needs without compromising the ability of future generations to meet their own needs, as well as the UN SDGs.

Summary of Work done so far: We began by identifying the main themes, keywords, and modules which had the greatest potential for sustainability input in the undergraduate curriculum. We raised awareness of our plans among staff through a series of presentations at staff meetings; specifically targeting other module convenors (MCs) and rotation leads. We are also using discussion sessions to inform students of this new module. A new talk around this new sustainability module is now being delivered in first year to ensure students consider sustainability from week one. Curriculum mapping and gap analysis is currently being undertaken to see how sustainability content and learning objectives can be integrated into the curriculum without overly-burdening staff or students.

Next steps and take-home messages: Although sustainability seems to be in everyone’s agenda and the SVMS has been supportive, the main challenge for us was agreeing on a definition, finding the time to meet and engaging MCs to include new or amend old LOs to highlight sustainability.

Mindset, resilience and response to workplace challenge in UK RVNs

Thursday, 6th July - 12:57: B2: ePosters: Sustainability + Wellbeing (Prestonfield) - Oral eposter presentation

***Ms. Charlotte Bullard*¹, *Prof. Liz Armitage-Chan*¹, *Dr. Rachel Davis*¹**

1. Royal Veterinary College

Background

The veterinary workplace is complex and can present significant challenges. Many veterinary nurses (RVNs) report stress and dissatisfaction in their careers (IES, 2019). Understanding of what RVNs could do to mitigate workplace challenge is relevant to RVNs, educators and employers.

Summary of work

This study adopted a single methods approach; an online survey was distributed to UK RVNs in Spring 2021, collecting demographics, mindset typing, resilience scoring and experiences of motivating/satisfying and demotivating/draining workplace challenge.

Analysis of mindset and resilience scores revealed no correlation between these characteristics. There was a positive correlation between mindset scoring and perceiving a greater proportion of motivating/satisfying events in the workplace; growth mindset and normal/high resilience individuals also reported greater career satisfaction. Despite most respondents reporting growth mindsets or normal levels of resilience, our data suggest that RVNs struggle to apply these principles at work.

Growth mindset/resilience can be nurtured in learners, therefore embedding mindset and resiliency training within the RVN curriculum could help better prepare learners for workplace challenge. This is especially important if these traits enable RVNs to gain more satisfaction from challenge and ultimately from their careers. Our respondents' perceptions and behaviours in response to challenge would however suggest that RVNs could benefit from achieving greater coherence between what they say 'espoused theory' and what they actually do 'theory in use' (Argyris and Schon, 1974) when faced with challenge.

Take home message

Mindset/resilience scoring may not be a reliable indicator of the ability to navigate workplace challenge. Reflective practice could help RVNs progress from 'knows how' to 'does' regarding their own wellbeing at work.

Supplementing veterinary education with VIN Resources

Thursday, 6th July - 11:45: B3: Workshops (Duddingston) - Main conference workshop: (60 mins)

Dr. Márton Balogh¹

1. Veterinary Information Network

Since its beginnings in 1991, the Veterinary Information Network (VIN) has pursued the goal of providing accurate, unbiased information for veterinarians by veterinarians. This aim resulted in the development of resources intended to help veterinary students in their studies, as well as to assist post-graduate colleagues. These resources, such as the interactive 3D anatomical models, an extensive library of procedure videos, several online text-books, webinars and a virtual clinic are curated in the VIN Student Center, which is the landing page of all student members.

Access to VIN is free for veterinary students, interns, residents and academics alike. This workshop is aimed towards introducing participants to these resources, as well as opening discussion about possible cooperation between VIN and veterinary colleges.

The workshop's intended structure is as follows: after a 15-minute introduction and overview of available VIN resources, participants will be divided into smaller groups with the task of either picking a teaching tool and discussing how it can be used at their own institute, or proposing a new resource and elaborating on how it can fit veterinary education. After this approximately 20 minute long interactive session, each group will summarize their results, and the workshop will conclude with a final summary.

Supporting the Student of Faith within the Veterinary Curriculum

Thursday, 6th July - 11:45: B4: Workshops (Salisbury) - Main conference workshop: (60 mins)

Dr. Adeel Khan¹, Prof. Kate Cobb¹

1. University of Nottingham

Background: Choosing between your faith and your education/career is an unfair option and should be considered a major contributor to the reduced diversity within the profession. Currently approximately 3% of the veterinary profession is from a Black and minority ethnic background (BAME), within these, there are even fewer who are Muslims. Although the actual number is not recorded, we can agree that the veterinary profession is largely homogenous in the cultural and religious makeup of its members. With the need and desire to increase diversity within the veterinary profession, we need to have an understanding on what is required to create an inclusive learning environment.

Summary of Work: This workshop aims to discuss, listen, collaborate, and provide insight to educators on supporting the Muslim learner and Muslim colleagues within the context of the veterinary curriculum. The focus of the session will be the Muslim learner however we are open to discussions regarding other faiths and cultures. Key challenges will be discussed followed by discussion on how these are managed at different institutions and tips on how to successfully combat some of these. Proposed solutions by the University of Nottingham will be highlighted. The overall aim is to have a consensus and create guidelines on how to support the Muslim learner within the veterinary curriculum.

Take Home Message: It is crucial that we can support students of faith in the veterinary curriculum. We would like to share our journey, discuss those inward and outward challenges that have been identified and gather evidence to create simple guidelines on how to support the Muslim learner and colleague. We would also like to collaborate and highlight challenges encountered by learners from other faiths and cultures and propose appropriate guidelines in the future.

Expanding the umbrella – using a one health framework to incorporate themes of sustainability, equity and inclusivity into a veterinary curriculum

Thursday, 6th July - 11:45: B5: Workshops (Holyrood) - Main conference workshop: (60 mins)

***Dr. Catherine Finnegan*¹, *Dr. Dona Wilani Dynatra Subasinghe*¹, *Dr. Hannah Davies*¹, *Dr. Neerja Muncaster*¹, *Dr. Issa Robson*²**

1. University of Surrey, 2. British Veterinary Ethnicity and Diversity Society

Background

In order to reflect how changes in society and our planet influence the veterinary profession, we explore the use of a One Health (OH) framework to bring in allied concepts of sustainability, inclusivity and equity into a veterinary curriculum and to align with the RCVS Day One Competencies. Other veterinary programmes internationally have noted the importance of examining their own curricula to enhance diversity, equity, inclusion and belonging (Burkhard *et al* 2022), one health (Wong and Kogan 2013) and sustainability (Schiavone *et al* 2021).

We explore how OH, as a paradigm, reaches much further than ‘just’ zoonoses and antimicrobial resistance, and echoes calls to action for One Health to be more expansive in order to consider larger system complexities and interconnectedness (Mumford *et al* 2023).

A critique of the One Health approach is that it can be challenging to move from theory to practice – this workshop will give an opportunity to discuss this and imagine how to effectively deliver one health and planetary health concepts.

Workshop Structure

A short presentation outlining the conceptualisation and iterative process of designing a module within a veterinary clinical curriculum will start the session. Delegates will then have the opportunity to discuss in groups the workshop themes and explore how to move from ‘theory to practice’ and what teaching, learning and assessment activities are best placed to explore these important themes within a veterinary curriculum.

Outcomes

Delegates will have the opportunity to explore the process of embedding one health and allied concepts into a veterinary curriculum. They will also have the opportunity to explore with peers how best to deliver these themes in their own curricula.

Expanding the umbrella – using a one health framework to incorporate themes of sustainability, equity and inclusivity into a veterinary curriculum

Clinical educator approaches to teaching and assessment: an audit and analysis

Thursday, 6th July - 11:45: B6: Short Comms: Assessment and Feedback (Nelson) - Oral short communication (10 mins plus 3 mins questions)

***Mrs. Yolanda Martinez Pereira*¹, *Ms. Nina Tomlin*¹, *Dr. Juliet Duncan*¹, *Prof. Susan Rhind*²**

1. University of Edinburgh, 2. UoE

Competency-based veterinary education requires workplace-based assessment (WBA) tools for clinical educators. Factors such as staff availability, clinical time and workload, assessor training, workplace culture towards teaching, and insufficient evidence-informed approaches can hinder successful implementation of WBA in clinical settings. Auditing approaches to teaching and assessment (T&A) can identify barriers and support informed strategies for implementation of WBA tools.

An online questionnaire was used to evaluate clinical educators' involvement, approaches and perceptions towards T&A in a small animal university teaching hospital. Five contexts were covered: practical tasks, communication/teamwork, clinical reasoning, professional skills, and written communication. Response rate was 46% (n=118/254). Free-text responses were analysed using reflexive thematic analysis, quantitative data was analysed using descriptive statistics. Staff across all core (seniors, residents) and support roles (nurses, interns, animal assistants) were involved in T&A: 45% reported spending 5-25% of their time in T&A; 20% reported 25-50%. Role, but not teaching experience influenced time spent in T&A: highest involvement was reported by seniors, nurses and residents. Self-perceived teacher identity was reported by 68% of respondents; 32% held a teaching qualification. Immediate feedback was the most used T&A strategy across all contexts except for professional skills, where feedback was mostly given at end of placement. Five themes were generated by qualitative analysis under two overarching domains: positive perceptions - high value, high quality, team effort; and negative perceptions -barriers and effect of role on credibility and sense of value. Clinical educators identified lack of student preparedness, procedural structure for T&A, dedicated teaching time and training, and clinical workload demands as barriers to T&A.

In this teaching hospital, clinical educators across all roles were involved in T&A, with most educators self-reporting teacher identity. Understanding identity, approaches and barriers to T&A can help inform future staff development needs and support implementation of new WBA strategies.

Group Presentation Assessment of Problem-Based Learning Improves Student Experience and Use of Deep Learning Techniques than Multiple-Choice Question Assessment.

Thursday, 6th July - 11:57: B6: Short Comms: Assessment and Feedback (Nelson) - Oral short communication (10 mins plus 3 mins questions)

Dr. Charlotte McCarroll¹, Ms. Sophie Hicks¹, Ms. Sasha Danilina¹

1. University of Surrey

Background

Problem-based learning (PBL) is a case-based student-led approach to learning with learning outcomes designed around students solving a problem using background knowledge, teamwork and information seeking skills to enable them to solve clinical cases and equip them with lifelong-learning skills. Rather than relying upon the memorisation of facts in the more traditional teacher-led lecture-based learning, PBL is about students learning how to think about and solve problems. Staff act as the facilitators of discussion and can guide students in teamworking, information seeking and critical appraisal. However, despite the training of students and the work put into this different learning style, using an assessment strategy of summatively scored MCQs that assess memorisation of facts does not align with the learning outcomes of PBL.

Summary of Work

A new assessment strategy for PBL was designed to align with the PBL learning outcomes by assessing teamwork, information seeking, critical appraisal, and consolidation followed by communication of the task outcomes in a summatively assessed group presentation. The new assessment was approved by the University of Surrey School of Veterinary Medicine Curriculum Committee in 2021 for a staged roll-out. Year 2 of the 2021-22 cohort continued with MCQ assessment, while Year 1 had the presentation assessment. Students were asked to participate in a survey comprised of 5-point Likert questions designed around experience, engagement and learning techniques and results tested for normality using the Shapiro-Wilk test and analysed using the non-parametric Mann-Whitney U statistical test.

Take Home Message

Students in Year 1 (n=97) scored their experiences significantly higher than those in Year 2 (n=115) for 12 out of 15 questions ($p<0.05$), and Year 1 reported significantly greater use of deep learning techniques for all 10 questions ($p<0.05$), while Year 2 reported significantly greater use of shallow techniques for 7 out of 9 questions ($p<0.05$).

Investigating approach to study of vet students and whether this changes in relation to assessment and the delivery format

Thursday, 6th July - 12:09: B6: Short Comms: Assessment and Feedback (Nelson) - Oral short communication (10 mins plus 3 mins questions)

Ms. Daisy Hollister¹, Mrs. Kate Cobb¹, Mr. John Remnant¹

1. University of Nottingham

There are several studies investigating approach to study and its relationship with study success in university students. However, there appears to be a gap in the literature when it comes to how assessment affects approach to study in vet students. The primary aim of this study is to investigate whether approach to study changes between midterm and revision periods.

Several engagement factors been associated with higher levels of student motivation and participation within veterinary teaching, including engagement with case-based discussions, studying clinically relevant material and perception of staff in practical and clinical roles. The secondary aim of this study aims to evaluate factors affecting student engagement and whether approach to study can be predicted by preference of delivery format. The aims of this study were investigated using a mixed methods approach. A shortened eighteen item version of the Biggs Study Process Questionnaire (SPQ) was released to undergraduate students from years one to three during midterm and revision periods. Additional questions were included in the midterm release of the questionnaire to investigate student perception of delivery format. Both questionnaire releases contained free text options for students to add any additional comments relating to what encourages and discourages them from engaging.

This presentation will discuss the results so far, and will explore how student engagement can be improved. Questions from the audience will be encouraged.

Using modified essay questions, MEQ, in assessing clinical reasoning

Thursday, 6th July - 12:21: B6: Short Comms: Assessment and Feedback (Nelson) - Oral short communication (10 mins plus 3 mins questions)

Dr. Helene Hamlin¹

1. Swedish University of Agricultural Sciences

In Sweden, in the course of small animal clinical sciences, oral assessments has earlier been an important tool to evaluate the ability to perform analysis and synthesis of clinical cases. However, many students in this setting experienced severe nervousness and anxiety. Therefore, since several years, we have introduced and developed modified essay questions, MEQ, as a written assessment tool instead.

In MEQ you are introduced to a case, and then answer questions step by step following the evaluation of the patient. More information is added as you proceed and the purpose is to mimic a real clinical situation.

This study evaluates the use of MEQ in assessing clinical reasoning. Data were gathered by focus group and individual interviews with both students and teachers and by summarizing 10 years of student course evaluations.

The teachers interviewed were all positive about MEQ, with the possibility to assess clinical knowledge at a deeper level than they had experienced with other kinds of written exams. However, the amount of time and effort that is required in order to achieve a good quality MEQ, was considered high.

The students were overall positive about MEQ, both according to interviews and comments in the course evaluations. However, some criticism was raised concerning possible misinterpretation of questions and the limitation of subject areas.

When students in course evaluations were asked if they by answering MEQ could fairly demonstrate their knowledge, the MEQ in 8 out of 10 years scored a median of 4/5 and in the remaining two years scored 3/5 and 5/5 respectively. Common comments from the students were: “the best possible clinical examination – fun to write!”, “imitates real-life work situations”, “very educative”.

In conclusion, we think MEQ in combination with other exams is a useful tool in assessing clinical reasoning in small animal sciences.

OSCEs – ‘O’ is for the overall stress that I feel!

Thursday, 6th July - 12:33: B6: Short Comms: Assessment and Feedback (Nelson) - Oral short communication
(10 mins plus 3 mins questions)

Ms. Lissann Wolfe¹, Mr. Leo Johnston¹, Dr. Zamantha Marshall¹

1. University of Glasgow

Glasgow Vet School has been using the Objective Structured Clinical Examination to assess practical skills since 1994. Senior academic staff responsible for the co-ordination of the OSCEs in undergraduate years I to IV report anecdotally that students’ stress levels in the OSCE exams seem to be markedly higher than in more traditional written exams. In 2019, it was decided that station titles would be released the night before the OSCE with the aim of alleviating the stress and anxiety surrounding not knowing which skills would be assessed each day. However, there has been only minimal student feedback to support that this had a positive impact on stress levels. In an effort to address this, the authors decided to investigate students’ perception of stress levels in different types of examination within the curriculum; the impact of releasing station titles; what factors during OSCEs contribute to stress and potential methods to mitigate this stress. In February 2023, during the BVMS IV summative OSCE, 141 fourth year undergraduates were asked to fill in a mixed methods questionnaire to explore OSCE stress. Findings reveal that students find the OSCE marginally more stressful than written examinations, and students are less stressed when they know the station titles of the OSCES the night before. Factors contributing to OSCE stress include the timing of revision sessions, the waiting room environment and assessor non-verbal communication. Suggestions for alleviating stress include implementing strategies to improve the exam waiting room environment, addressing assessor non-verbal communication and prioritising summative OSCE year groups: revision sessions, appropriate lecture scheduling, and formative training.

Imposter syndrome in veterinary medicine students – prevalence, triggers and coping strategies

Thursday, 6th July - 11:45: B7: Short Comms: Professional Skills, Support and Wellbeing (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

Ms. Aysen Kupeli¹, Dr. Rachel Davis¹

1. Royal Veterinary College

Background: Imposter syndrome (IS) is a widely experienced phenomenon, where individuals feel a deep distrust in their abilities along with an intense belief that they have fooled others. High prevalence of IS in veterinary students and professionals and association with negative wellbeing has highlighted this as an important area of research.

Summary of Work: A survey was sent out to veterinary medicine students at the Royal Veterinary College (RVC) which included demographic questions, the Clance Imposter Phenomenon Scale (CIPS), and open text questions exploring experiences of academic challenge and associated responses. Analysis of CIPS scores revealed a 69% prevalence, with age ($p=0.039$), retaking examination ($p=0.036$) and self-identifying as a minority group ($p=0.031$) showing significant increases in CIPS scores. Thematic analysis of open text questions identified acceptance onto the course and receiving assessment results and as the main triggers of imposter feelings. Most individuals described responding to imposter feelings with maladaptive coping strategies, such as avoidance or overworking to point of burnout. A small number of individuals described using adaptive coping strategies, including challenging imposter thoughts, celebrating successes and discussing their experiences with others.

Take home message: In general, veterinary students at the RVC had comparable prevalence of IS to previously reported groups. However, mature students, retaking students and minority groups tended to have higher CIPS scores. IS tended to be triggered by entry into vet school and when receiving grades on high stakes assessments. Very few respondents described using adaptive coping strategies to manage feelings; instead, avoidance and overwork were most common.

Identifying the most important professional skills for Bangladesh veterinary graduates through regional stakeholder consultation

Thursday, 6th July - 11:57: B7: Short Comms: Professional Skills, Support and Wellbeing (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

***Prof. MD Ahasanul Hoque*¹, *Dr. Nurun Nahar Chisty*¹, *Dr. Talia Guttin*², *Dr. Nusrat Irin*¹, *Prof. Sarah Baillie*³**

1. Chattogram (previously Chittagong) Veterinary and Animal Sciences University, 2. St George's University, 3. University of Bristol

Background

Despite professional skills being part of the Day One Competences published in the Bangladesh Veterinary Council Standards (2014) and by other international accreditation bodies (e.g., American, European and UK), veterinary schools in Bangladesh do not provide comprehensive professional skills training in the curriculum. Therefore, this study aimed to identify the most important professional skills for veterinarians in Bangladesh through local consultation to inform changes in teaching and learning in the curriculum.

Summary of Work

Methods: Focus group discussion meetings were conducted with key stakeholders: placement providers (veterinarians who supervise students on work placements), university academics, recent graduates, final year students, and clients. The audio recordings were transcribed, translated into English from Bengali and analysed using inductive thematic analysis.

Results: Eleven focus groups were conducted with 45 participants in total. The most important professional skills identified were communication, ethical conduct, teamwork, career options, financial management skills, lifelong learning, time management and self-appraisal. One of the best opportunities to practise many of the skills was identified as being during the final year, while participating in extracurricular activities, learning by observing others and self-motivation were also considered valuable. Participants identified an urgent need for more formal professional skills teaching and learning in the curriculum, starting with a course prior to final year work placements. Challenges included finding space in the curriculum, raising awareness amongst university academics and providing them with appropriate training.

Take Home Message

Consultation with relevant regional stakeholders is crucial to inform curricular change. This study has identified the most important professional skills in our context. The results are being used in the development of professional skills courses and teacher training with the long-term aim of better preparing our graduates for their future careers.

STUDENTS: THE LOOP OF LEARNING PROCESS

Thursday, 6th July - 12:09: B7: Short Comms: Professional Skills, Support and Wellbeing (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

***Dr. Nélide Fernández Pato*¹, Mr. Juan Pedro Barrera Martín¹, Mrs. María Sánchez Sánchez¹, Mrs. Alexandra Marín-Baldo Vink¹, Dr. Lydia Calleja Bueno¹, Dr. Isabel Rodríguez Hurtado¹**

1. Veterinary Faculty Alfonso X el Sabio University

The learning process involves both: students and professors. Recently, lectures have proven not to be as useful as before, and students demand to learn by doing.

Moreover, competencies are required from day one and being able to show knowledge is only one of the competencies that students must acquire. The well-known interpersonal skills, as well as an appropriate attitude and aptitude, are part of learning process.

Learning development in the study of parasitic diseases is an important component of the third year curriculum in the Veterinary Degree program. Students begin learning about parasitology in the second year. They are introduced to the taxonomy, morphology, and life cycles of parasites. While a solid foundation in parasitology is necessary, the study of parasitic diseases focuses on its understanding the etiology, pathology, diagnosis, prevention, and control, all while considering the one health and welfare perspective.

As this is not an innovative approach, in addition to lectures and laboratory training, students are taught through seminars, in which, different learning methodologies, and exercises, are performed to improve their skills. They not only learn concepts, but also various learning methods and mnemonic tips to facilitate the retention of theoretical and practical knowledge. This is a key aspect in connecting different parts of the subject and linking knowledge together.

During a 50 minutes interactive seminar, students solve clinical cases by co-working and explain the design thinking, To ensure a practical approach, printed photos quizzes or keywords, can be supplied.

Teaching is not just about providing specific and up-to-date information. While there are available plenty of resources and innovative teaching methods, the best way to apply them at any level of education, is to recognize and create activities that can help students solve problems from a new perspective, taking into account the real needs of our students.

Learning Strategy Support in today's Veterinary Education Context

Thursday, 6th July - 12:21: B7: Short Comms: Professional Skills, Support and Wellbeing (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

Mr. Peter Slinger¹

1. Department of Educational Services, St. George's University

Many veterinary schools are increasing enrolments to meet society's needs. Supporting self-directed learning among an increasingly larger, and more academically diverse, student population can be challenging. The purpose of this presentation is to review the overarching approach that one Caribbean university has taken to provide academic support services, such as learning strategies, to its increasing population of veterinary students. After a few terms of such programming its believed that the key to such support lies within asynchronous/synchronous workshop development, effective student outreach initiatives, collaboration with the teaching faculty, community building among students/faculty, and contextualized learning strategy assistance. In short, these learning strategy related activities must be designed in a holistic way that leverages the asynchronous environment to maximize the in-person synchronous experience. A few of the challenges surrounding creating such programs will be reviewed and recommendations will be made on how to adapt these initiatives to other institutions.

Structured intervention of early term pre-clinical veterinary students experiencing academic peril improves academic performance

Thursday, 6th July - 12:33: B7: Short Comms: Professional Skills, Support and Wellbeing (St Trinnean) - Oral short communication (10 mins plus 3 mins questions)

Dr. Ryan Cavanaugh¹, Dr. Hilari French¹, Ms. Zahra Jacobs¹, Mrs. Natalie Robinson¹, Dr. Robert Gilbert¹

1. Ross University School of Veterinary Medicine

Evaluation of academic intervention programs is required to objectively identify methods to assist veterinary students experiencing academic difficulty. Students in the lowest quartile (LQ) of their class were enrolled in a 15-week individualized Academic Development Program (ADP) at start of their 2nd semester. Academic metrics were tracked through 5th semester when they took the Veterinary Educational Assessment (VEA) exam and compared to the LQ of the class one semester ahead of them (control group; CG).

By semester 5, 13.8% (4/29) of ADP students were dismissed for academic reasons compared to 27.6% (8/29) of CG.

End-of-semester grades were tabulated and mean numerical score of core courses was calculated and compared to the other quartiles in their class and the CG. Prior to enrollment in ADP, mean scores were meaningfully lower (77.72 ± 0.39) than remainder of the class (86.90 ± 0.41 , $P = 0.0000$). At beginning of 5th semester, ADP students' grades were indistinguishable from upper quartiles in their class (ADP = 82.55 ± 1.35 vs. rest of class = 84.29 ± 0.48 , $P = 0.1771$). This trend was not observed in the CG with meaningful differences still present between LQ's grades and remainder of their class (CG = 80.00 ± 1.16 vs. rest of class = 84.41 ± 0.64 , $P = 0.0046$).

Impact of ADP was further assessed using multiple linear regression with ADP and student mean score in 1st semester as variables. A positive effect was identified by completion of 2nd semester (2.1 percentage points; $P = 0.023$) which was sustained through beginning of 5th semester (4.35 % points; $P = 0.001$). ADP enrollment had a positive effect on VEA score ($P = 0.017$) with mean scale score increased by 4.83 points.

Participation in ADP resulted in meaningful reductions in attrition, increased semesterly academic outputs, and bolstered standardized test performance.

How do we train veterinary students to tolerate high levels of ambiguity in clinical practice?

Thursday, 6th July - 11:45: B8: Short Comms: Clinical Practice and Simulation (Bonnar) - Oral short communication (10 mins plus 3 mins questions)

Mx. Liz Arnold¹, Prof. Sheena Warman¹, Dr. Jennifer Hammond²

1. University of Bristol, 2. University of Glasgow

Background:

Veterinary practice is inherently ambiguous. It is widely recognised that veterinary graduates should be able to manage in ambiguous situations and there is research to support that there are serious negative health and wellbeing consequences of intolerance of ambiguity for health professionals. Educators are encouraged to find ways to increase tolerance of ambiguity in their students, but little is known about how to achieve it. Case-based learning shows promise as a potential opportunity to expose students to, and learn to tolerate, ambiguity.

Summary of work:

In a pilot study we compared the tolerance of ambiguity in students enrolled on a traditional lecture-based and a mainly case-based veterinary degree program using a validated scale for measurement of tolerance of ambiguity in veterinary students; the tolerance of ambiguity in veterinary students scale (TAVS). We hypothesized that students educated mainly through facilitated case-based-learning would have higher tolerance of ambiguity compared to students educated mainly through lectures. Our results indicate that reliability analysis of the TAVS scale showed good inter-item reliability ($\alpha = 0.75$). Comparison of the mean TAVS scores of the two student groups revealed no significant difference between the groups. Additionally, we found no association between age, nationality, level of prior education or gender and tolerance of ambiguity.

Take home message:

Our results contribute to the validity evidence for the TAVS scale as an internally valid measure of tolerance of ambiguity in veterinary students, but we did not find that case-based learning changed tolerance of ambiguity in veterinary students in this pilot. Recognising that tolerance of ambiguity can go down as well as up and that nothing is known about how outliers are affected by educational method: longitudinal studies, with focus on changes in outliers are the next steps forwards in this new area of veterinary educational research.

Readability scores of postsurgical discharge instructions correlate to postoperative complications in companion animals undergoing elective sterilization procedures

Thursday, 6th July - 11:57: B8: Short Comms: Clinical Practice and Simulation (Bonnar) - Oral short communication (10 mins plus 3 mins questions)

*Mr. Christopher Biancaniello*¹, *Prof. Kerry Rolph*¹, *Dr. Priti Karnik*¹, *Dr. Andrea Peda*¹, *Dr. Sarah Cavanaugh*¹, *Dr. Ryan Cavanaugh*¹

1. Ross University School of Veterinary Medicine

Background:

Readability of client directed correspondence conveying medical information is a commonly overlooked topic in veterinary medical education. Readability is defined as the ease of reading a piece of text. Scoring systems include the Flesch Reading Ease (FRE) and Flesch–Kincaid Reading Grade Level (FKRGL), in which higher scores suggest more difficult levels. Standards have been set in place within human medicine to advise readability levels of patient focused materials to be at a U.S. sixth-grade level. Previous studies in veterinary medicine have shown that readability of post-procedural discharge instructions for owners exceeded this level. We hypothesized that student written discharge instructions would be of an inappropriate readability level, and that higher readability level would be associated with greater complication rates.

Summary:

The records of 149 dogs and cats enrolled in a community spay/neuter lab were assessed. This lab was conducted by third-year veterinary students with faculty oversight. Surgical discharge instructions, written by students, were stripped of all identifying factors and readability was assessed using a commercialized software program. Patient records were searched for any post operative (PO) complications that occurred.

Two percent (3/149) of discharge instructions aligned with the readability guidelines set forth in human medicine. There was an association between FKGL and complication occurrence ($p=0.005$). After stratifying for species, there was an association between readability score and complication occurrence in dogs (FRE $p=0.038$, FKGL $p=0.002$), but not cats (FRE $p=0.964$, FKGL $p=0.679$). It is suspected that this is due to inherent differences in behaviour between the two species.

Take Home Message:

Many veterinarians and therefore veterinary trainees are unaware of the implications that readability can play in owner understanding and comprehension of PO care instructions. Whilst further studies are needed, it is suggested that introducing readability evaluation to the veterinary curriculum could help decrease PO complications in future.

Transparency, reproducibility and replicability of peer-reviewed, analyses of veterinary medical education simulator studies

Thursday, 6th July - 12:09: B8: Short Comms: Clinical Practice and Simulation (Bonnar) - Oral short communication (10 mins plus 3 mins questions)

Dr. Sarah Hooper¹, Dr. Elpida Artemiou²

1. Ross University School of Veterinary Medicine, 2. Texas Tech School of Veterinary Medicine

Background: Transparency, reproducibility and replicability of analyses have not been widely discussed within the field of veterinary medical education nor in other educational research domains. All three of these concepts are recognized in research fields outside of veterinary medical education as essential to improving the validity of empirical research studies and many peer review journals have adopted policies on data sharing and providing the analysis code. Providing the raw data, when participant confidentiality is still assured, or example data, and the analysis code, provides key benefits, such as the ability to understand the exact analytical steps by the release of the statistical coding.

Summary of Work: We conducted a meta-analysis of the last ten years of veterinary medical education studies reporting the development and validation of simulators using the key search terms of “veterinary education”, “simulator”, and the name of the most common data and code repositories along with the Boolean operator of AND between the search terms. While studies may deposit virtual simulators on their institutional websites or repositories such as Github, there were no studies which published the raw data, example data, or analysis code for the actual evaluation of the simulator.

Take Home Message: Data and code repositories such as Github, are an underutilized resource in the veterinary medical education community. We can strengthen the validity of veterinary medical education research by promoting the concepts of transparency, reproducibility and replicability.

Maximising the impact of simulated consultation practicals on student learning

Thursday, 6th July - 12:21: B8: Short Comms: Clinical Practice and Simulation (Bonnar) - Oral short communication (10 mins plus 3 mins questions)

***Dr. Christina Marth**¹, **Dr. Joanna Aitken**¹, **Dr. Michelle McArthur**²*

1. Melbourne Veterinary School, 2. The University of Adelaide

Background

One of the most effective ways for students to gain experience in veterinary-client communication is through simulated consultations. These practicals are staff intensive, however, and students often find the experience of 'performing' in front of their peers stressful. We propose that increasing student preparedness and aligning learning objectives with assessment tasks after the practicals significantly increases the value of simulated consultation practicals.

Summary of Work

With the support of a teaching grant, we redeveloped the preparation material from fully self-directed pre-reading and recorded lecture content to an interactive online module and a groupwork-based in-person workshop. To do this, we created video content of 'effective' and 'poor' communication styles in large and small animal consultations and incorporated short video clips from these into the online module, bringing the Calgary-Cambridge Consultation model to life. Since one of the main sources of feedback during the simulated consultation is from peers, we used the in-person workshop to teach students to give well-intentioned, balanced, specific and actionable feedback to the video recordings.

In combination with the simulated consult itself, these tasks now have a clear alignment to assessment tasks which include written peer feedback, a transcript of part of the student's own consultation and a reflection on their experience.

Take Home Message

Engaging students through an interactive process that gradually increases the challenge and is directly aligned to subject learning objectives and assessments improves preparedness and maximises the impact of simulated consultation practicals on veterinary student learning.

Plenary 2

Veterinary Education: Moving Forward, Looking Back, Minding the Gap!

Future historians of British veterinary medicine might look back at the first quarter of the 21st century and consider it an interesting time, as veterinary education changed from a pattern largely modelled on mid-20th century medical education to ... something else! In this, the Bicentenary year of the Royal (Dick) School of Veterinary Studies, we will take a historical tour through British veterinary education, pausing at some sites of special scientific interest. New vet schools are not new. It is not widely known that the Dick is only one of four veterinary colleges/faculties to have been located in Edinburgh, and that at three points in time two vet schools were operating simultaneously in the city. How did an argument lead to the formation of Glasgow Vet School, and why did Liverpool start off in Edinburgh? Why does new information about Joseph Lister's horse pose problems for current understandings of the reception of germ theory in British veterinary education? Why did mid-20th century attempts to socially engineer a sustainable British profession fail, and what lessons can we learn from this to help in the current climate, where sustainability in its widest sense has become an imperative? Lots of questions, some suggested answers - but historical argument, like science, is always provisional and conditional.

Dr Andrew Gardiner



Andrew Gardiner qualified from the Dick in 1992 and spent 15 years in practice, the last few mainly doing orthopaedics. A mid-career Masters and PhD, both funded by the Wellcome Trust Medical Humanities programme, allowed a period of total immersion in the veterinary archives, from which he has never quite recovered. He joined the teaching staff of the Dick in 2008, is currently Senior Veterinary Clinical Lecturer, and drops history in whenever he can.

Session C

Assessing the validity of a low-cost teaching model for teaching orthopaedic screw placement to veterinary students

Thursday, 6th July - 15:30: (Pentland) - Oral short communication (10 mins plus 3 mins questions)

*Dr. Ben Murray*¹, *Dr. Adriana Franca*¹, *Prof. Dylan Clements*¹

1. University of Edinburgh

Background:

Successful placement of orthopaedic screws is crucial to avoid implant failure. The role of the surgeon is to sufficiently tighten a screw, whilst avoiding overtightening, which would lead to failure of the screw-bone interface, known as stripping. There is no current standardised protocol for teaching screw placement, with surgeons often learning subjectively on live patients during the early stages of their careers. This poses a potential risk to patients, as poor screw placement may lead to complications such as implant loosening or failure. Multiple human studies have assessed the efficacy of surgeon training using objective, torque-based approaches to screw placement on synthetic bone models, showing initially promising results in small groups of orthopaedic residents. Determining an effective and affordable teaching model for undergraduate or early career veterinary surgeons has the potential to improve patient outcomes.

Summary of work:

Through comparison with the torque values of cadaveric bone, balsa wood was selected as an effective low-cost material for use in a teaching model. Using this model, 102 undergraduate students were split into two groups. One group was instructed to place screws subjectively through a 'trial and error' approach, the other using objective real-time feedback from a specialised screwdriver to determine correct screw tightness. Students placing screws using a torque-directed teaching method stripped significantly fewer screws ($P < 0.05$) compared to those taught through traditional subjective methods.

Take home message:

Teaching orthopaedic screw placement using an objective torque-based approach led to a significant reduction in the number of screws stripped compared to traditional methods. Use of a low-cost teaching model alongside a torque-based method of instruction could improve undergraduate and postgraduate orthopaedic education and reduce patient morbidity. Further research is required to assess student retention of these skills over time.

An escape game for undergraduate veterinary students to link fundamental and clinical skills

Thursday, 6th July - 15:42: (Pentland) - Oral short communication (10 mins plus 3 mins questions)

Dr. Laetitia Jaillardon¹, Dr. Nicolas Soetart¹, Mr. Titouan Beaupele¹, Mr. Frédéric Fouillet¹, Ms. Julia Poirier¹, Mrs. Florence Rouillé¹, Dr. Jérôme Abadie¹

1. Oniris - Nantes Atlantic College of Veterinary Medicine, Food Sciences and Engineering

Background

Undergraduate veterinary students encounter difficulties to stand back and look at the overall picture when they have to put theory into clinical practice. Building an integrated skill-based assessment is thus challenging, particularly with the new generation of trainees. Many studies show the educational benefits offered by game-based learning through the improvement of student's engagement, motivation and communicative skills. This work aimed to assess the feasibility of an educational escape game based on a clinical case, in order to evaluate how the vet students are able to mobilize the core knowledges learned during their first years of training.

Summary of work

Conception of the game:

- Definition of the objectives: To understand an animal as an integrated biological system by rapidly mobilizing knowledges learnt during the early years of study;
- Conception of the scenario: a clinical case of a canine pyometra;
- Conception of enigmas, solutions and imbrications: nine various and transdisciplinary enigmas with a linear progression, as in a real diagnostic approach;
- Conception of the staging and immersion: students were convened for a self-assessment without knowing where they stood for. The teacher arrived with a stuffed dog and let the students locked into the room with the game master until the end of the game;
- The game was tested by a group of 6th year students before full-scale exercise.

One hundred and fifty-seven 5th-year veterinary students divided in groups of 6 to 8 were enrolled. The game lasted 45 minutes, followed by a 10 minutes debriefing.

Sixty-eight students answered to a survey and 91% assessed the learning experience as extremely positive.

Take home message

An educational escape game is an innovative way to teach clinical approach by promoting team building and allowing mobilization of the knowledge learnt during the first years of vet school.

Analysis of the clinical reasoning teaching within the veterinary course at the University of Glasgow- a multiple method approach

Thursday, 6th July - 15:54: (Pentland) - Oral short communication (10 mins plus 3 mins questions)

Ms. Michaela Wegg¹, Dr. Jennifer Hammond², Mrs. Maureen Carnan², Dr. Fiona Dowell²

1. University of Edinburgh, 2. University of Glasgow

Clinical reasoning is an analytical process that veterinary professionals use daily when they problem solve, it involves integrating clinical and contextual factors to inform a diagnostic, treatment or management plan. Clinical reasoning teaching is important as it develops problem solving, critical thinking skills and promotes deep learning. A vertical theme of clinical reasoning teaching was embedded into the BVMS programme at Glasgow University from 2019, introducing key concepts, terminology and simple scenarios from first year which increase in complexity as students progress through the programme in preparation for clinical work. The aim of this study was to assess the student and staff opinions of the clinical reasoning teaching.

Students from all years were asked to complete a paper questionnaire, including twelve Likert-based responses and two free text questions. A focus group was performed with clinical reasoning peer-advisers, and semi-structured interviews conducted with four staff members new to the programme involved in the clinical reasoning teaching. Qualitative data were analysed using Braun and Clarke's approach to reflexive thematic analysis.

Questionnaire data demonstrated that students had different levels of understanding regarding the definition of clinical reasoning, this correlated with year group; with students in younger years having a more superficial understanding than those in later years. It was encouraging to note that 96.8% of students agreed/strongly agreed with the statement 'I feel the Clinical Reasoning teaching is relevant to my future career as a vet'.

Synthesis of qualitative and quantitative findings suggests changes in student conceptions of clinical reasoning from superficial to deep, with active pedagogical methods of teaching clinical reasoning. We relate this to the experience of the student peer-advisers and staff involved in delivering clinical reasoning on the programme. Our findings illustrate that active engagement with clinical reasoning tasks enables students to develop this skill alongside learning core course material.

Establishing a Clinical Skills Laboratory at Jimma University, Ethiopia

Thursday, 6th July - 16:06: (Pentland) - Oral short communication (10 mins plus 3 mins questions)

*Dr. Alemayehu Hailemariam*¹, *Dr. Tewodros Tesfaye*¹, *Dr. Dese Kefeyalew*², *Dr. Laura Skippen*³, *Dr. Amy Barstow*³

1. Brooke Ethiopia, 2. Jimma University, 3. Brooke, Action for working horses and donkeys UK

Background

Brooke Ethiopia, a working equid welfare charity, seeks to improve working equid welfare through the training of veterinary professionals. Using Brooke's competency-based Animal Health Mentoring Framework poor practical skills were identified in newly qualified vets which included injection techniques, handling, drug dosage calculations, and suturing techniques. It is suspected that this is the result of a lack of opportunity for practical skill acquisition.

Summary of the work

Brooke sought to improve the clinical skills of future new graduates by initiating the establishment of a clinical skills laboratory (CSL) within Jimma University, the first CSL in East Africa.

A 4-day training workshop was created where faculty could learn about clinical skills labs, develop the skills necessary for delivering training in the lab and create their own clinical skills models from cheap and locally available materials. A total of 18 skill stations were established and are now available to 55 clinical year students for drop-in, self-directed study. The CSL and clinical skill models are also being integrated into existing training sessions and faculty are informally reporting that delivering clinical skills sessions with models has enhanced their practical sessions and that students are highly motivated to attend and engage with training sessions using models.

Take home messages

- CSLs are still new within East Africa and support is required to establish CSLs in this area.
- The initiation of the CSL has improved the learning environment for veterinary students and faculty members and encouraged them to continue to grow the CSL and develop more models.
- Further data is required to determine the impact on clinical skill competence and sustainability of this intervention.
- The skills and knowledge acquired through the establishment of the CSL at Jimma University could help to change the trend in veterinary education in Ethiopia.

Examining exotics, a collection of complementary simulation models

Thursday, 6th July - 16:18: (Pentland) - Oral short communication (10 mins plus 3 mins questions)

Dr. Emma Drinkall¹, Dr. Victoria Strong¹, Mrs. Hayley Williamson¹, Mr. Phillip Hammond¹, Mrs. Emily Dixon¹, Mr. Nicholas Drinkall²

1. University of Nottingham, 2. De Montfort University

There is a paucity of opportunity for undergraduate students to get hands-on with exotic species and access to specimens is limited. In addition, repeated or prolonged handling of many exotic species is often not appropriate for animal health and welfare. This presents significant challenge for the design and delivery of effective exotics education to undergraduate veterinary and nursing students and is reported as a factor in limiting student confidence in this area.

The Centre of Innovation, and exotics teaching team at SVMS have teamed with De Montfort University and together have created a range of simulation models to complement live and cadaver animal teaching. These models enhance the teaching and learning experience by improving students' opportunity to observe clinically relevant anatomy, practice core skills and develop confidence, whilst preserving animal health and welfare. We aim to create sustainable resources – upcycling and keeping things simple where we can but using modern tools where appropriate. Our collection of models includes chelonian body condition scoring and handling, rodent I/V access, rodent dentistry, poultry I/V access, and more.

In this short communication we will share our models, brief build guides for delegates to DIY their own, include links for online access to our video/text guides and “maker community”, and our suggested use cases.

Intravenous catheterization in rabbits: Undergraduate student Pre-conceptions and Confidence

Thursday, 6th July - 16:30: (Pentland) - Oral short communication (10 mins plus 3 mins questions)

Dr. Athin Athinodorou¹, Dr. Darren Shaw¹, Dr. Jenna Richardson¹

1. The Royal (Dick) School of Veterinary Studies

Introduction: Intravenous (IV) catheter placement is a key clinical skill in veterinary medicine. ‘Day One Competencies’ by the Royal College of Veterinary Surgeons, requiring intravenous access, include administering sedation/general anaesthesia and performing euthanasia. Intravenous catheterization was cited as a ‘Day One’ practical skill by 85% of veterinary anaesthetists and general practitioners. Historically, IV catheter placement in rabbits is considered challenging by many veterinary professionals.

This study aimed to identify if undergraduate veterinary students demonstrated species bias in their perceived confidence of intravenous catheter placement and whether practical experience changed their viewpoint.

Materials and Methods:

Between January and November 2022, 70 final year veterinary students, completing their exotic animal clinical rotations, were provided with the opportunity to place an intravenous catheter in the marginal ear vein of a rabbit. Time for successful placement and number of attempts were recorded. Partaking students completed a two-part questionnaire (pre- and post- catheter placement), which included questions relating to dog, cat and rabbit clinical experience.

Results:

Catheter placement was successful on the first attempt in 78.6% (n=55) of students and the second attempt, for 18.6% (n=13). One student (n=1) placed the catheter on the third attempt. Only one (n=1) student was unsuccessful at placement.

Students demonstrated a statistically significant increase in their perceived confidence of the technique post placement. Regardless of prior clinical experience, students deemed themselves to be more confident in their hypothetical abilities to place an intravenous catheter in a dog, followed by a cat and lastly a rabbit.

Conclusion:

To promote the continued advancement of rabbit veterinary medicine, and change preconceptions in general practice, rabbit clinical techniques should be included in all undergraduate veterinary curriculum. Rabbit intravenous catheter placement should be considered a core skill for veterinary surgeons and veterinary nurses.

Development and evaluation of a surgical simulator for standing castration of the horse

Thursday, 6th July - 16:42: (Pentland) - Oral short communication (10 mins plus 3 mins questions)

Ms. Helen Braid¹

1. University of Liverpool

The use of simulators for teaching practical clinical skills to veterinary students is well reported in the literature and there is a large repertoire of simulators available.

The aim was to create and validate a model for standing castration in the horse. The model will provide students with the knowledge and skills required to perform the procedure in a safe environment prior to performing it on a live horse in the course of their clinical studies or career.

Standing castration may be categorised within “common surgical procedures” under the RCVS list of Year One Competences. Teaching of standing castration relies on case exposure, which, as with all caseload-reliant teaching, can not be guaranteed. It is not intended for the model to replace teaching on live cases, but to supplement this teaching and act as an alternative in the absence of caseload.

A model for closed castration in the horse has been reported, but a model for standing castration is yet to be described.

The intention of the project was to create a model of low to medium fidelity and low technology, whilst keeping the cost per student to below £5. It is envisioned that the model could be used across veterinary institutions without the need for advanced modelling techniques or materials.

Following simulator development, evaluation was performed via gathering feedback from users of the model in three different categories – academics, equine practitioners and 4th and 5th year veterinary students. Following evaluation and feedback, any changes to the model will be implemented prior to it being integrated into the curriculum for use during small group teaching sessions during the clinical rotations year. This evaluation and feedback process is ongoing and results will be available by July.

One Health and Veterinary Nursing/ Veterinary Technology Education (Withdrawn)

Thursday, 6th July - 15:30: (Prestonfield) - Main conference workshop: (60 mins)

*Dr. Virginia Corrigan*¹, *Ms. Billie Comer*¹, *Prof. Jennifer Schroeder Tyson*¹

1. Appalachian State University

Background:

There is a paucity of information in the literature regarding One Health educational and career opportunities for veterinary nurses and credentialed veterinary technicians (CVTs) in Veterinary Medicine. Much progress has been made in One Health training and educational opportunities for veterinary medical students and graduate veterinarians; the educational and training needs for CVTs in One Health has yet to be elucidated. One Health concepts are integrated into Competency Based Veterinary Education (CBVE) as well as the newly developed Competency Based Veterinary Nursing Education (CBVNE) framework. The World Organization for Animal Health recently published a Call to Action for One Health for a Safer World, including the call to "Build intersectoral One Health workforces that have the skills, capacities and capabilities... by strengthening joint pre-service and continuing education for human, animal, and environmental health workforces".

Summary of Work:

The purpose of the study was to learn how veterinary nurses and CVTs are contributing to various aspects of One Health, and what educational opportunities may need to be created for existing and emerging One Health competencies and career paths. Qualitative and quantitative data will be presented from a survey that was distributed to veterinarians, veterinary educators, credentialed veterinary technicians, and veterinary technology students in July 2022.

Take Home Message:

Veterinary nurses and CVTs are on the frontlines of patient care and client communication in a variety of animal healthcare settings. Preliminary data suggests that the field supports veterinary nurses/ CVTs taking a more active role in educating and promoting One Health regardless of their career choice, and a majority of respondents believed that Veterinary Technology training programs do not adequately prepare students for One Health fields within Veterinary Medicine. There also appeared to be an interest in promoting non-traditional careers for veterinary nurses and CVTs, including Veterinary Social Work.

Making the most of flipped classrooms to prepare students for animal handling and clinical skills practicals

Thursday, 6th July - 15:30: (Duddingston) - Main conference workshop: (60 mins)

*Ms. Alison Catterall¹, Ms. Louisa Mitchard¹, Mrs. Sam Brown¹, Ms. Kathryn Brant¹,
Prof. Sarah Baillie¹*
1. University of Bristol

Background

Online flipped classrooms are increasingly used to help students prepare for animal handling and clinical skills practicals, a development that was accelerated by the pandemic. Our Clinical Skills Lab team have used a standardized template to develop flipped classrooms for all practicals. We have also undertaken research to evaluate the entire bank of flipped resources by gathering feedback from students and instructors and the results have been used to inform further developments.

Summary of Work

The workshop aims to allow attendees to share experiences and best practices that will enhance future use of flipped classroom in the context of animal handling and clinical skills. It will start with a presentation about the findings from our flipped classroom research projects and the wider body of evidence from the medical and veterinary literature. The main part of the workshop will be a group activity with attendees discussing the benefits of using flipped classroom from the perspective of both students and instructors; sharing examples of best practice and approaches that have been used to design flipped classrooms; and discussing tips to overcome challenges encountered such as student engagement with the flipped preparatory material (and how to deal with the lack thereof). Each group will briefly present the outcomes of their discussion. The final part of workshop will involve attendees contributing to a Padlet to share what will take away from the workshop and apply in their use of flipped classrooms in the future.

Take Home Message

Attendees will reflect on the use of flipped classroom to enhance student preparation for animal handling and clinical skills and will be able to use the tips, ideas and experiences shared in the workshop to enhance the design and delivery of flipped classrooms in their own courses.

How new vets navigate emotional labour: Can we (and should we) help them to keep smiling?

Thursday, 6th July - 15:30: (Holyrood) - Main conference workshop: (60 mins)

Mrs. Rachel Williams¹

1. Cardiff University

The term 'emotional labour' was coined by Hochschild (1983 p7) 'to mean the management of feeling to create a publicly observable facial and bodily display'. Attention has since been afforded to the topic of emotional labour in the vet profession and the need to support vets in dealing with emotional situations (Allister, 2020), (Hannah and Robertson, 2021). This workshop will address how emotional labour is experienced by newly qualified vets and consider how the need to manage emotions intensifies the challenge of their first year of practice. The findings are based on interviews with twenty-five 2021 veterinary graduates sampled from every UK vet school. Data was collected on three occasions over a 20-month period: before the vets started work, after 6-8 months in practice, and again after 12 – 18 months. A total of 77 interviews were carried out, with all vets participating in every round of interviews.

Findings of the study suggest that although the vets initially felt well prepared for practice, many found the first year more difficult than expected. The most emotionally draining aspects of the role were the need to remain cheerful and calm in the presence of clients, to juggle many tasks whilst appearing to be in control and to support colleagues who were also struggling to hide their feelings. Vets highlighted how difficult it was to deliver bad news without showing emotion, particularly when they had developed a relationship with the animal and owner. How much they cried each week became a measure of how well they were coping their job. The workshop will highlight the impact emotional labour has on the experience of new vets and provide an opportunity to share views and good practice on how they may be supported, both to prepare them for practice and during their first year.

Psychometric Standard Setting Workshop

Thursday, 6th July - 15:30: (Nelson) - Main conference workshop: (60 mins)

Dr. Julie Dickson ¹

1. University of Bristol

Psychometric analysis of examination data is often considered a bit of a black hole, however, is necessary for ensuring robust assessments. This workshop aims to create a friendly and supportive environment to demystify standard setting. The workshop will aim to discuss; what actually is standard setting, why is standard setting important, what different methods are there to set the standard, and go over the most commonly used standard setting methods.

The workshop would involve the following ILOs:

- Explain what standard setting is in relation to assessments.
- Explain where standard setting occurs in the assessment process.
- Explain the difference between norm-referenced and criterion referenced standard setting.
- Recognise the main standard setting method used is the Modified Angoff method.
- Be able to conduct a and calculate the pass mark using the Modified Angoff method.

The structure of the workshop will be very interactive using small-group work, 'clicker' questions using smart devices, and provide a safe space for participants to ask and answer questions anonymously. The workshop will sequentially work through the above order of ILOs and finish by pulling everything together to get participants to calculate the pass mark using the Modified Angoff method for a mock general knowledge exam. Suggested attendees would be colleagues new to standard setting and attendees with previous experience who would like a refresher.

Eating the elephant: consideration of approaches to curriculum review in veterinary education

Thursday, 6th July - 15:30: (St Trinnean) - Main conference workshop: (60 mins)

Dr. Alison Reid¹, Dr. Emma Ormandy¹

1. University of Liverpool

Curriculum development is a constant process in higher education programmes, where courses of study strive to deliver the best learning experience aligned with the best evidence. Periodically, full curricular review is necessary, to scrutinise the programme holistically and correct any drift from the central mission which may have occurred, as well as to ensure the programme aligns with the best evidence and meets the requirements of accreditors, while being sustainable for staff and students.

Curricular design in veterinary education too often reverts to being content-driven and highly didactic, and efforts to generate meaningful change may be frustrated by individual and institutional factors which tend towards inertia and conservation of established practices. To combat these restraining elements, a collaborative approach to curricular review is needed, involving all key groups from within the school and the sector, and holding the intended outcome (the graduate) as the central mission.

This workshop will present and dissect the intended approach of The University of Liverpool School of Veterinary Sciences to its upcoming curricular review, providing opportunities for discussion of each stage of the review process as well as what happens following a review: curricular change. This workshop will be of interest to anyone involved in curricular design or review, whether setting up a *de novo* curriculum in a new school or reviewing a longstanding curriculum.

The creation of an online learning tool to support clinical reasoning skills development early in the veterinary medical curriculum.

Thursday, 6th July - 15:30: (Bonnar) - Main conference workshop: (60 mins)

Prof. Kerry Rolph¹

1. Ross University School of Veterinary Medicine

Background

Experienced veterinarians employ clinical decision making to adapt to changes, allowing for new learning and innovative solutions. To foster the development of adaptive learners, critical thinking and reflection are required. Clinical reasoning skills (CRS) programs have been introduced to increase adaptive learning habits such as critical thinking and reflection. However, there remains debate as to whether CRS can be taught in the classroom and how best to assess the efficacy of programs.

Summary of Work

At RUSVM, CRS courses have been introduced into our foundation course, and semesters 2-4, with ~650 students enrolled in CRS each semester.

To date, most CRS assessment has focused on students during their clinical placement, or in small group teaching. However, with growing class sizes, a novel solution to allow for the sustainable development of CRS programs was sought. Initial didactic sessions utilised case presentations and introduced learners to concepts such as dual-process reasoning, the role of bias and heuristics, and adaptive processing. However, didactic sessions were not ideal for case interaction, or development of reflective thinking. Therefore, online, 'gamer-style', support material has been developed to run alongside the didactic sessions and complement the learning objectives. The students apply the concepts learnt in class to work through cases alone, or in groups and have check-points where they submit individual reflective summaries of their progress. The 'choose your own adventure' style has been designed to encourage adaptive thinking techniques, with built-in script concordance questions allowing for formative evaluation of the students' progress and providing the learner with feedback throughout the process.

Take Home Message

The introduction of CRS early in the curriculum, provides learners with the opportunity to enhance these skills as they progress through the veterinary program. To aid in the development of CRS processes novel methods of delivery can enhance the learner experience.

Friday Sessions

Plenary 3

VetEd Plenary session:

Friday 7th July 2023: 9am-10.30am

Suicide prevention in veterinary education

Suicide prevention is a vital focus for the veterinary professions. This session brings together diverse perspectives, including lived experience, clinical, policy, psychological, and occupational expertise. The session is applied in focus, considering what veterinary educators can do to help.

Dr Neil Hudson

MA VetMB PhD DEIM DipVetClinStud PFHEA FRCVS MP

Mental Health Support and Suicide Prevention: The View from Parliament



Dr Neil Hudson MP is a veterinary surgeon, academic and politician who has worked in mixed practice in the UK and Australia. Neil completed a Mixed Practice Internship at the University of Sydney, a PhD in Grass Sickness and Equine Gastroenterology and a Residency in Equine Internal Medicine at the University of Edinburgh. He holds the RCVS Diploma in Equine Internal Medicine (DEIM), spent periods as Lecturer in Equine Medicine, Director of Admissions and Senior Veterinary Clinical Lecturer at the Dick Vet. Neil is a Fellow of the Royal College of Veterinary Surgeons and a Principal Fellow of the Higher Education Academy. Neil established with colleagues at the Dick Vet the Undergraduate Certificate in Veterinary Medical Education. In 2019 Neil was elected as Member of Parliament for Penrith and The Border. He sits on the Commons EFRA Select Committee, where he has triggered Parliamentary Inquiries on Rural Mental Health, Movement of Animals Across Borders, Pet Welfare and Abuse, and Marine Mammals. Neil is Vice-Chair of the All Party Parliamentary Groups for Animal Welfare and for the Horse. In 2021 Neil was nominated as one of the British Equine Veterinary Association BEVA 60 Faces Initiative. In 2021/22 Neil was a member of the British Horseracing Authority Steering

Group on the use of the whip in horse racing. Neil's research has included Equine Gastroenterology, Veterinary Education, Peer Assisted Learning, Equine Welfare, Veterinary Admissions, Student Wellbeing. Neil is the only vet in the House of Commons.

John Gibson

So much more than a statistic - the lived experience



John Gibson is Emeritus Professor of Oral Medicine in the University of Aberdeen, Chief Executive Officer of The Canmore Trust (SC051511) and a member of the Lived Experience Panel of the Scottish Government's National Suicide Prevention Leadership Group. On 20th October 2019, John's youngest child, Cameron, a veterinary surgeon, died by suicide at 24-years-old and his world changed forever. John now works to prevent suicide, and offer support to individuals, families and communities affected by suicide.

Dr Alex Thomson

MBBS MA FRCPsych

Safety planning



Dr Alex Thomson is a consultant liaison psychiatrist and Vice Chair of the Royal College of Psychiatrists (RCPsych) Faculty of Liaison Psychiatry. He has been awarded RCPsych Psychiatric Educator of the Year 2020 in recognition of his

achievements in postgraduate clinical education. He has published and presented on various topics related to mental health, suicide prevention, self-harm and adult protection. Dr Thomson has contributed to various clinical guidelines and expert advisory groups, and is currently a member of the RCPsych Psychiatric Liaison Accreditation Network Advisory Group and the National Institute for Health and Care Excellence Guidelines Committee on Self-harm.

Dr Mark Hoelterhoff

Looking at the other side of mental illness among professionals, the role of hope



My clinical, teaching and research focus is on positive psychology. I have been in the field of promoting positive mental wellbeing for over 25 years. As a counselling psychologist, I've provided psychoeducation and positive psychotherapy to individuals, couples and families in private practise along with third-sector organisations worldwide. In addition to healthcare settings, I worked at several higher education institutions before coming to the University of Edinburgh.

Dr Rosie Allister

BSc (Hons) BVSc MSc PhD MRCVS

Suicide prevention in veterinary settings: what we can do to help



Dr Rosie Allister has received the British Veterinary Association Chiron Award and the Royal College of Veterinary Surgeons Impact Award for work on veterinary mental health. Rosie manages Vetlife Helpline, a 24 hour support service for

everyone in the UK veterinary community. Her research, based at the University of Edinburgh, looks at veterinary suicide prevention, occupational mental health, and wellbeing at work. She has written and spoken extensively about veterinary mental health in the UK and internationally. She has volunteered with Samaritans for 19 years and advises a number of national organisations, including Scottish Government, on suicide prevention and self harm.

If you need support Vetlife Helpline provides confidential support to the veterinary community 24 hours a day, every day: contact 0303 040 2551 or email via www.vetlife.org.uk

Session D

Virtual Atlas of Veterinary Anatomy

Friday, 7th July - 11:00: D1: ePosters: TEL and Peer Support (Pentland) - Oral poster presentation

***Ms. Michelle Davidson*¹, *Mr. Brian Mather*¹, *Dr. Andrew Gardiner*¹**

1. The Royal (Dick) School of Veterinary Studies

This poster presents a visual sneak peek at the Virtual Atlas of Veterinary Anatomy (VAVA) student-led project being developed at the R(D)SVS. VAVA is an innovative project incorporating the cutting-edge technologies of photogrammetry scans, volumetric imaging, and three-dimensional (3D) models for a technology-enhanced learning tool. In addition, this project identifies methods for digital teaching and uses for technology in any curriculum, including hybrid teaching models. The project will develop a vertical slice to show how manipulating an anatomy model and isolating key landmarks could improve the veterinary learning experience and, for example, help students interpret diagnostic images. A meta-analysis showed that 3D visualization technology in learning has a significant impact on improved spatial knowledge acquisition (Yamine & Violato 2015). Veterinary-specific research on using virtual 3D models is an emerging trend and projects like VAVA are needed to assess potential benefits (Dickson et al. 2022). The current goal funded by an Edinburgh University Student Experience Grant is to demonstrate the use and potential of this virtual teaching tool and show a taste of what could be included in a full-scale version of the program. Follow our progress to see how you can be involved in future testing sessions.

References:

Yamine, K. and Violato, C. (2015), A meta-analysis of the educational effectiveness of three-dimensional visualization technologies in teaching anatomy. *American Association of Anatomists*, 8: 525-538. <https://doi.org/10.1002/ase.1510>

Dickson, Gardiner, A., & Rhind, S. (2022). Veterinary Anatomy Education and Spatial Ability: Where Now and Where Next? *Journal of Veterinary Medical Education*, 49(3), 297–305. <https://doi.org/10.3138/jvme.2020-0087>

Use of a phone based app to deliver key animal husbandry teaching

Friday, 7th July - 11:06: D1: ePosters: TEL and Peer Support (Pentland) - Oral eposter presentation

***Mr. Paul Wood*¹, *Dr. Lesley Jessiman*², *Dr. Emma Baxter*²**

1. R(D)SVS, 2. SRUC

As it becomes more and more difficult to provide hands on teaching and real world demonstrations to undergraduates in certain species (ie. pigs, poultry) and subjects (ie. behaviour) novel ways of providing this need to be considered. At R(D)SVS we are considering the use of a app based course to supplement the taught aspects of pig husbandry. Currently the app provides training in enrichment and welfare to SRUC students however there is scope to use it during the ALFS course and to produce similar programmes to cover behaviour (in pigs and other species). We see this as a way to help provide alternative learning sources and modalities to students to help them identify key aspects of animal husbandry in their future careers.

The use of a mobile app makes the material easily accessible and can be used to support learning when out on placements or for revision.

We are currently undertaking research into whether students see value in this activity before embarking on a pig AHEMS placement.

Use of quick-response codes in clinical skills labs to incorporate clinical case material

Friday, 7th July - 11:12: D1: ePosters: TEL and Peer Support (Pentland) - Oral eposter presentation

Dr. Pippa Gibbons¹, Dr. James Brown¹, Mr. Guy Gilbert¹

1. Texas Tech School of Veterinary Medicine

BACKGROUND

Clinical skills labs are a core part of the veterinary curriculum to teach students basic technical skills. Clinical material is typically covered in medicine and surgery courses, with clinical reasoning courses spanning the divide of clinical skills and clinical medicine typically utilizing case material. Realtime clinical cases are challenging to incorporate into the didactic curriculum for large class sizes prior to clinical year. Clinical material was incorporated into clinical skills labs by using Quick-Response (QR) codes.

SUMMARY OF WORK

During a second-year bovine lab, students were able to scan QR codes attached to a full-size bovine simulators. Following an orientation video on Bovine PE, students performed 4 PE on simulators augmented with strategically placed QR codes which resolved to websites containing images, videos, sounds or text that learners could review and discern on their own mobile devices. Based on the assessment of those findings, students collectively as a group developed a problem list, differential list and diagnostic plan and presented it to the larger group in a “barn rounds” style.

QR codes were also used in an objective structured clinical examination for equine clinical skills. QR codes were placed on either the distal limb or the abdomen which resolved to an image (fetlock radiograph) or video clip (distended loops of small intestine) and an attached graded question regarding ultrasound interpretation for students to answer.

QR codes were again used during an inter-professional disaster simulation involving students from veterinary medicine and healthcare disciplines of nursing, pharmacy and medicine. QR codes were used to represent specific injuries in a simulated equine trailer wreck that allowed learners to triage and plan the extraction of the horse.

TAKE HOME

QR codes are an effective and efficient means of augmenting and standardizing clinical simulations with the intended assessment findings of a clinical case.

Developing an interactive seminar for final year veterinary students on animal health and climate change, with a particular focus on the Austrian Alps

Friday, 7th July - 11:18: D1: ePosters: TEL and Peer Support (Pentland) - Oral eposter presentation

***Dr. Clair Firth*¹, *Prof. Annemarie Käsbohrer*¹, *Prof. Johannes Lorenz Khol*²**

1. Unit of Veterinary Public Health & Epidemiology, University of Veterinary Medicine, Vienna, 2. University Clinic for Ruminants, University of Veterinary Medicine, Tyrol Extension, Innsbruck

Background: Animal production in the Alps differs substantially from other European agriculture in that farms are limited by their location and extremes of weather. Alpine farms are extremely small, tie-stalls are still common, and most animals graze communal mountain pastures each summer. To improve veterinary recruitment and retention in mountain regions, the University of Veterinary Medicine in Vienna has begun offering rotations based in Innsbruck, Tyrol, to final year veterinary students. This abstract involves the theoretical part concentrating on animal health, food safety and Alpine production, focusing on the effects of climate change.

Summary of Work: The primary learning objective is that students will integrate their knowledge of climate change into its effects on disease among livestock in Austria. Students will attend an interactive seminar over three days. Initially, veterinarians and a meteorologist will provide short talks about working as farm veterinarians in the Alps and the effects of climate change on mountain weather. Following the ideas of the flipped classroom, scientific papers will be provided one month in advance to allow students to investigate the following topics: heat stress, water shortages, vector-borne diseases, zoonotic/transboundary diseases, greenhouse gases, parasites, biosecurity on communal pastures, biodiversity, other topics relevant to the Alps (as suggested by the students). Students will work in pairs to prepare a short presentation on each of these topics, using scientific research and their own knowledge. Other groups will be encouraged to ask questions and draw on their own experience. In the final sessions, students will work together to create posters on possible solutions or improvements, and to promote these ideas to their peers.

Take Home Message: Discussions on the effects of climate change take place daily between farmers and veterinarians and it is vital that we prepare our veterinary students to take an active role in this area.

Hybrid Teaching: A Sustainable Model for Collaborative Veterinary Education?

Friday, 7th July - 11:24: D1: ePosters: TEL and Peer Support (Pentland) - Oral eposter presentation

***Prof. Susan Matthew*¹, *Dr. Sanaa Zaki*²**

1. College of Veterinary Medicine, Washington State University, 2. The University of Sydney

Background

The online teaching challenges of COVID-19 opened the opportunity to introduce new ways of engaging learners that also enhance educators' professional development and experiences of teaching. These strategies may now be synthesized into hybrid formats that integrate online and face to face learning activities to enhance learning and teaching beyond what normally occurs in the classroom. Collaborative teaching across institutions through hybrid learning provides opportunities to draw on disciplinary expertise and individual strengths, aid educator development and reduce educator cognitive load, generate new ideas and add additional enjoyment to teaching. The result has the potential to address educator shortages in individual institutions and create a sustainable model for effective veterinary education.

Summary of Work

This presentation presents a case study of hybrid teaching in veterinary professional practice drawing on teaching collaborations and disciplinary expertise across institutions. Overall, the shift to hybrid teaching has positively impacted student learning and engagement, as well as educator development and enjoyment. The key features of this approach (pre- and post-class tasks, in-class co-teaching across institutions, horizontal integration of learning activities) will be discussed, along with the challenges that emerged, the potential effects on staff and student workload, and the factors required for this approach to be sustainable.

Take Home Message

Hybrid teaching that draws on teaching collaborations and disciplinary expertise across institutions enhances the effectiveness and sustainability of veterinary education. Institutional support and resources are important factors in long-term sustainability.

The use of Microsoft Teams to encourage peer-assisted learning during final year veterinary students' Emergency and Critical Care rotation

Friday, 7th July - 11:30: D1: ePosters: TEL and Peer Support (Pentland) - Oral poster presentation

Ms. Sarah O'Shaughnessy¹, Dr. Vicki Black²

1. University of Bristol, 2. Langford Vets

Veterinary students in their final year at the University of Bristol undertake a two-week Small Animal Emergency and Critical Care rotation within Langford Vet's Small Animal Hospital. Microsoft Teams is used to support communication and co-ordination of staff and eight to ten students across three different shift patterns.

By its very nature, the emergency caseload is variable, and end of rotation student feedback reflects this challenge. To help maximise learning opportunities within the existing caseload, students were asked to present each emergency case they had seen to their peers on a dedicated case discussion channel in Microsoft Teams. Students were encouraged to share photos, videos, and test results and to reply to their peers' presentations. Students were informed that the task was compulsory and would contribute towards assessment of professionalism but not of their clinical competencies.

Microsoft Team's analytics function was used to monitor student engagement. Over four two-week rotations, 35 students generated 56 posts, 134 replies, 22 'mentions' (where other staff or students have been invited to join a discussion) and 80 'reactions' (such as heart or 'thumbs-up' emoji). Informal qualitative feedback from students has been largely positive: 'I found writing out the cases for other people to work through and learn from very useful and rewarding. I have discussed the concept with my flat mates, and we have since decided that any interesting cases we see we will send into our housing group chat. This will help us all refine how we approach cases.' Challenges have included students not presenting their cases until the end of the rotation and inconsistent engagement between rotation groups.

Messaging applications such as Microsoft Teams can encourage peer-assisted learning during placements. Further research would be needed to formally evaluate student perceptions which could help to further develop the use of this learning tool.

Use of comic strip creator software to engage veterinary students in the teaching of workplace health and safety prior to clinical rotations in practice.

Friday, 7th July - 11:36: D1: ePosters: TEL and Peer Support (Pentland) - Oral poster presentation

Dr. Emma Robertson¹

1. University of Surrey

The veterinary workplace is a hazardous environment, and it is important that veterinary students are taught the principles of occupational health and safety (OHS) prior to clinical rotations. Studies suggest that barriers to engagement in OHS training across all sectors include bureaucracy of processes, indifference, and the fact that severe injuries occur very rarely. This was supported by the previously high incidence, but poor reporting, of OHS incidents on clinical rotations by final year vet students at the author's institution.

Comic strips as a form of storytelling have been used as an educational tool for many years, especially in the teaching of languages and science. Asking schoolchildren to create their own comic strips when learning about a topic has been shown to improve critical thinking and engagement, although there is limited evidence of its use in higher education.

Prior to the start of their clinical rotations, veterinary students attended a one hour face-to-face teaching session focussing on OHS in the veterinary workplace. The seminar began with an explanation of the importance of hazard recognition, protecting oneself from harm, and incident reporting. Students then worked in pairs using online comic strip creator software to demonstrate the potential consequences of poor hazard awareness in a veterinary practice scenario. During this activity, the academic facilitators moved around the room and discussed with students how the undesirable event they'd depicted may have been prevented. A small prize was awarded for the best comic strip. Student engagement in this task was excellent and enabled us to discuss a serious matter through dark humour.

Comic strip creation may be useful to enhance student engagement in the teaching of topics to large groups of students that are historically perceived as uninteresting or lacking relevance.

Learning approach and experiences of mentoring in undergraduate veterinary students

Friday, 7th July - 11:42: D1: ePosters: TEL and Peer Support (Pentland) - Oral eposter presentation

*Ms. Leah Dodds*¹, *Dr. Emma Ormandy*¹, *Dr. Alison Reid*¹

1. University of Liverpool

Background:

Current literature suggests that peer mentoring systems are likely to have substantial benefits for the student community in terms of mindset and academic success; from the perspectives of both students receiving mentoring and the mentors themselves.

At the beginning of the 2021/22 and 2022/23 academic years, a group of undergraduate BVSc students at the University of Liverpool were recruited as peer academic mentors and provided with training from staff surrounding learning theory, mindset development and mentoring/coaching techniques. The group aim to provide various services to students ranging from ad hoc one-off coaching to longer-term mentoring relationships supported by workshops made available to all students. Since the launch of the scheme, uptake has been consistently strong.

Summary of Work:

The overall study will include three phases however this poster will focus on phases 1 and 2. In phase 1, a survey composed of Likert-type questions was distributed to all students on the BVSc to gauge their current views of their learning and their awareness of and willingness to engage in the peer academic mentoring system. In phase 2, a focus group allowed qualitative exploration of the experiences of the mentors themselves, throughout the training process and their first few weeks as active mentors. This poster will present the results of these two phases.

Take Home Messages:

A comprehensive insight into the significance of students supporting students: how do undergraduate students view their own learning approach, and how do those supporting them feel? In combining our data with the discussion of key literature, we hope that this study will inform further strategies to improve academic success synonymously with student mindset and wellbeing.

Blended learning: Comparing online and on-farm delivery methods to teach applied population medicine (livestock health planning) to final year veterinary students.

Friday, 7th July - 11:00: D2: Short Comms: Curriculum - Practical and Clinical (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

Dr. Rob Kelly¹

1. CVS Ltd and University of Edinburgh

An essential part of livestock veterinary practice is population health management. As part of a final year farm-animal core rotation, groups of 5-7 veterinary students were tasked to formulate a health plan for a beef and a sheep farm. The clinician-supervised activity entailed an introduction, farm visit and classroom time to produce a health plan for discussion. During the farm visit students using an app showing a farm map with 6 locations where they were presented with data from diagnostic tests, farmer interviews and “thinking points” to consider. The aim of this research was to compare online and blended teaching methods to develop health planning confidence and competence in final year students.

In 2020-21, beef and sheep health plan activities were conducted online. In 2021-23, beef and sheep health plan activities were conducted in person including farm visits. In addition, all cohorts undertook an in-person dairy farm health plan activity including a farm visit. An online questionnaire was used to collate student feedback about learning outcomes, confidence, and teaching methods for all health plan activities. The results of the questionnaire were analysed to compare teaching delivery on student outcomes, with the dairy activity acting as a baseline.

Students felt variably confident discussing different aspects of health plans with farmers, depending on the topic but regardless of teaching method. All students were less confident providing management recommendations compared with understanding farm systems and data. They were less confident in beef systems, possibly because students lacked experience. Consistent sign-posting between activities enabled students to navigate online materials but it would have been less confusing if they had gone to the farm with a clinician. Overall students in their preference of teaching method, often relating to their previous levels of on-farm experience.

Veterinary Nurse Motivations to Undertake Postgraduate Education

Friday, 7th July - 11:12: D2: Short Comms: Curriculum - Practical and Clinical (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

Ms. Samantha Fontaine¹, Dr. Emilie Law¹

1. University of Glasgow

Background:

The RCVS recommends that VNs participate in lifelong-learning to keep abreast of evolving practice, and educators are key in creating a learning culture that will motivate them. Postgraduate (PG) education is in its infancy for VNs, and it is unclear what motivates individuals to pursue this level of qualification.

Summary of work:

The aim of this study was to investigate the motivational factors that influence VN engagement with PG education. Students enrolled on the Advanced Practice in Veterinary Nursing programme between 2020-2023 were invited to anonymously participate. The 47-item questionnaire comprised participant demographic and professional questions, the 30-item Participant Reason Scale (PSR), and one open-ended question. The PSR assesses intrinsic and extrinsic motivational factors for PG students. Factor 1. Professional Improvement and Development (PID) and Factor 2. Professional Service (PS) are intrinsic; and Factor 3. Collegial Learning and Interaction (CLI), Factor 4. Personal Benefits and Job Security (PBJS), and Factor 5. Professional Commitment and Reflection (PCR) are extrinsic. PSR item scores were considered of high importance if ≥ 6 , and low importance if ≤ 4 . There was a 63.8% response rate (n=30). Participants were predominantly female (93%), and ages ranged from 29-55 years. Mean PSR item scores ranged from 4.2-6.3, and of the 9 items that were of high importance, only one was an extrinsic motivator. Of the five factors, the intrinsic motivating factor PID ranked the highest (mean score 6.0) and the extrinsic motivating factors of PBJS and PCR ranked joint lowest (mean score 5.1). Free-text responses described the most common intrinsic motivator to be improved professional service and extrinsic motivator to be career advancement with current employer.

Take home message:

VNs are intrinsically motivated to undertake PG education. Their pursuit of improved professional service could benefit practices, and therefore employer support through time and funding should be encouraged.

Indigenous service-learning in Veterinary Education: Systematic program evaluation of an equine veterinary service-learning initiative

Friday, 7th July - 11:24: D2: Short Comms: Curriculum - Practical and Clinical (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

Dr. Jean-Yin Tan¹, Dr. Yvonne Poitras Pratt¹, Dr. Patricia Danyluk¹

1. University of Calgary

Background

Veterinary students have historically lacked meaningful experiential learning opportunities in equine medicine. At the same time, there are barriers in accessing veterinary care in Indigenous communities where horses hold an important role in Indigenous cultures.

In 2018-2019, a partnership was initiated with Tsuut'ina and Siksika Nations where University of Calgary students began to provide equine veterinary services to these communities. This is the first-documented equine veterinary service-learning initiative in Indigenous communities embedded in a veterinary curriculum. The outcomes of the program have yet to be systematically evaluated for its potential impact.

Summary of Work

Multiple stakeholders of the program were engaged in a convergent, parallel, mixed-methods program evaluation to explore the main program outcomes: (1) patient health status; (2) student learning and experience; (3) cultural competence of faculty members and staff; and (4) thematic analysis of community member interviews. Despite 2 years of pandemic interruptions, the 4-year program had a positive impact on patient health status, serving over 200 horses, administering over 1000 vaccines, and providing over \$135,000 CAD worth of veterinary services. The 2-week rotation met 63% of competencies expected of a graduating equine veterinarian and students gained cultural awareness surrounding the impact of colonialism and systemic racism on Indigenous relations with veterinary medicine. Faculty members and staff gained appreciation for the need to tailor veterinary care according to the needs of horse owners. Themes identified from interviews with Indigenous community members included appreciation for the program, the researcher, and reciprocal learning. They discussed future directions such as on-farm services and expansion of care to other species.

Take Home Message

Program evaluation of an equine service-learning initiative in Indigenous communities reveals a profound impact on patient health status, student veterinary and cultural learning, and strengthened relationships and reciprocal learning with partnered Indigenous communities.

Applying small group case-based learning principles to larger cohorts to facilitate active learning

Friday, 7th July - 11:36: D2: Short Comms: Curriculum - Practical and Clinical (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

Prof. Sheena Warman¹, Ms. Lindsey Gould¹, Ms. Chloe Anderson¹, Dr. Emma Love¹

1. University of Bristol

There are many reported benefits of integrating 7-step case-based learning (CBL) (sometimes described as problem-based learning (PBL)) into medical curricula, including improved communication and problem solving skills; cognitive effects such as increased retention of knowledge; the development of self-directed learning abilities; and the enhancement of integration of the basic sciences into clinical problems by learners (Bate et al, 2014). However, small group CBL is resource intensive, and this may preclude its widespread adoption in veterinary schools.

The aim of this project was to determine if CBL sessions can be adapted to be delivered to a larger cohort (up to 180 students) whilst continuing to actively engage learners in the collaborative and student-led learning that characterises small group CBL. Additionally, two physical environments for conducting these adapted CBL sessions were compared; a flatbed teaching space (100 student capacity; students working in groups of 6 with 3 facilitators in each room) and a traditional lecture theatre (200 student capacity; students working in groups of 3 with 3 facilitators per lecture theatre).

Two adapted cases were built in Articulate Storyline360, one was delivered in the flatbed space and one in a lecture theatre. A survey was distributed at the end of each of these sessions and focus groups were conducted. The results of the study are pending but these will be ready to share in more detail during the short communication.

References

Emily Bate, Juliette Hommes, Robbert Duivivier & David C. M. Taylor (2014) Problem-based learning (PBL): Getting the most out of your students – Their roles and responsibilities: AMEE Guide No. 84, Medical Teacher, 36:1, 1-12, DOI: 10.3109/0142159X.2014.848269

Dog owners' awareness of animal cadavers and their motivations towards pet cadaver donation

Friday, 7th July - 11:48: D2: Short Comms: Curriculum - Practical and Clinical (Prestonfield) - Oral short communication (10 mins plus 3 mins questions)

Dr. Ilknur Aktan¹, Ms. Kira Tracey¹

1. University of Surrey

ABSTRACT

Background

Animal cadavers play an essential role in education, as the number of schools increase, the demand for cadavers rises proportionately. Many schools would like to participate in pet cadaver donation schemes but finding owners willing to donate their pet is challenging. The aim of this study was to investigate dog owners' awareness of pet cadaver donation.

Summary of Work

The study was conducted using Jisc online surveys with the survey being distributed via social media. In total 708 people answered a ten-question online questionnaire.

The most common reason given for why a dog owner might donate was to assist in the education of future veterinarians (n=396, 56%). When asked to rank the options given to them upon the passing of their pet single animal cremation was overwhelmingly the participant's favoured option. (n=483, 68.2%).

Factors such as religion, financial status and cultural differences that might affect the findings were not explored in this study.

Take Home Message

The only incentive shown to increase the likelihood of pet owners to donate to a pet cadaver scheme was to return their pet's ashes to them after the cadaver had served its purpose. This study revealed that dog owners currently have very little knowledge of pet cadaver donation.

Raising the integration bar: can interdisciplinary collaboration enhance professionalism and basic science teaching?

Friday, 7th July - 11:00: D3: Workshops (Duddingston) - Main conference workshop: (60 mins)

***Dr. Sarah Channon*¹, *Dr. Emma Driver*¹**

1. Royal Veterinary College

Integrated curricula are becoming widespread within veterinary education, though ‘integration’ is used varyingly to describe a spectrum of levels, from tokenism, to well considered curriculum alignment, through to true interdisciplinary integration of topics and ideas within a module/unit/teaching session.

Professionalism and the development of professional skills and attributes are critical components of veterinary education, preparing students for the demands and expectations of the workplace. If not fully integrated at the inception of a curriculum design, professionalism can appear an add-on, and exist relatively isolated from other components of the curriculum. This may result in low student participation and/ or engagement with professionalism teaching, and in some students believing professional skills to be ‘unimportant’, ‘optional’, or simply too removed from their current needs and interests.

Basic sciences teaching has evolved significantly in modern curricula, away from simply knowledge acquisition. Most commonly it is now taught in clinically relevant contexts with a focus on allowing students to develop problem solving and higher order skills and understand the clinical implications of their acquired knowledge. There is huge potential to broaden the scope of that clinical integration to include professionalism more explicitly. This may help in overcoming some of the challenges associated with engaging students with such material.

In this workshop we aim to:

- Discuss the potential opportunities afforded by integrated teaching approaches
- Share examples of effective integration (formal and informal) of professionalism and basic sciences
- Identify and address some of the challenges that arise when integrating professionalism and basic sciences teaching
- Identify future opportunities for integrating professional skills within basic sciences teaching
- Encourage and foster new networks and collaborations between teachers of science and professionalism subjects

Supporting Student Success

Friday, 7th July - 11:00: D4: Workshops (Salisbury) - Main conference workshop: (60 mins)

***Dr. Emma Ormandy*¹, *Dr. Alison Reid*¹, *Dr. Rosie MacDiarmid*¹**

1. University of Liverpool

Higher education establishments have a duty of care to their students. This can be considered at pastoral and academic levels, including inclusive approaches to teaching, opportunities for social integration and signposting to support, principles of which are incorporated into University Charters and Accreditation Standards.

While the majority of students studying on veterinary programmes progress without incident, a group of students in each cohort struggles, with some doing so throughout their studies.

Research indicates a large number of factors, which impact student persistence and progression across the HE sector, linked to student demographics, personal attributes and curriculum design. A common barrier to addressing these factors is that crucial mechanisms of support can often require self-identification and referral and therefore appropriate methods of identifying these at-risk students are required in order to facilitate appropriate support and remediation.

Within this workshop we will present evidence supporting the use of learning analytics to identify at-risk students within the University of Liverpool School of Veterinary Science, and provide opportunities for discussion of appropriate processes and remediation pathways which can enhance student development and support and increase successful outcomes for at-risk students.

Getting workplace-based assessment to work in the veterinary curriculum

Friday, 7th July - 11:00: D5: Workshops (Holyrood) - Main conference workshop: (60 mins)

Mrs. Sarah Wood¹, Mx. Liz Arnold¹, Dr. Rebecca Vallis¹, Prof. Sheena Warman¹, Ms. Nina Tomlin²

1. University of Bristol, 2. University of Edinburgh

Background:

Workplace based assessment (WPBA) tools are a key element of assessment of core clinical skills and professional attributes. As such these are of use in identifying competence and readiness for graduation in final year veterinary students. There are many forms of workplace-based assessment including; mini clinical evaluation exercise (mini-CEX), directly observed procedural skills (DOPS), multi-source feedback (MSF) and case-based discussion (CBD). WPBA are widely used in undergraduate and post-graduate medical education, and we can draw on pedagogical research from this field to support their use in veterinary education. These assessments have the benefit of skill evaluation in a “real-life scenario”, they should be quick and easy to perform, and as such can be incorporated within the daily workload by clinicians. Evaluation of performance in core skills and “in the moment” feedback from assessors allow learners to progress their skill set. Their use in veterinary education is increasing, and while there is evidence in the literature to direct best practice use of these assessment types (1) we are aware many vet schools are using different combinations of these in different ways.

Summary of work:

In this workshop we will present commonly used types of WPBA for discussion. We will draw on expertise to share the experiences of use at various institutions for assessment of vet students. We will facilitate discussion to share good practice, and problem-solve challenges around the use of WPBA.

Take home message:

WPBA tools can be utilised to support progression in clinical veterinary science students. To achieve robust and authentic assessment which can be mapped to accreditation standards a variety of these assessment tools are optimal for use.

1. Baillie, S., Warman, S. M., & Rhind, SM. (2022). A Guide to Assessment in Veterinary Medical Education: 3rd Edition. EdArXiv. <https://doi.org/10.35542/osf.io/kectf>

Leveraging artificial intelligence to augment simulations with elements of diversity and equity for the development of cultural humility and inclusivity among learners.

Friday, 7th July - 11:00: D6: Workshops (Nelson) - Main conference workshop: (60 mins)

Dr. Elpida Artemiou¹, Mr. Guy Gilbert¹, Mr. Juan Diego Tejada¹, Mrs. Linda Dascanio¹, Dr. Bethany Schilling¹, Dr. Marcelo Schmidt¹

1. Texas Tech School of Veterinary Medicine

Training with culturally rich veterinary communication scenarios can facilitate the development of cultural humility in both students and educators. Such, addresses issues surrounding health disparities and social justice in veterinary medicine. In medical education, artificial intelligence (AI) has been utilized in teaching to provide personalized and adaptive learning experiences, as well as in simulation and virtual reality platforms, assessment and curriculum development. AI can also be used in the development of clinical communication cases by generating accurate demographics and culturally rich context exposing learners to people beyond their primary social context to foster their own cultural humility.

This workshop explores how AI, specifically, large language models (LLMs) such as ChatGPT that are trained to generate information from large datasets has the potential to add depth and contextual nuances to clinical scenarios used in experiential practice of communication skills. We are developing best practices in utilizing LLMs and share expert guidelines on prompt engineering to maximize the outputs in designing and developing culturally rich veterinary clinical communication scenarios. Limitations are addressed such as that LLMs may contain biases, and if these are not addressed, they may be perpetuated in the scenarios generated by the models. Considering ethical considerations and balancing human input and the capacity of AI in adding depth and contextual nuances to clinical scenarios is essential as AI alone may not be able to fully capture the complexities of human communication. LLMs may struggle with understanding sarcasm, irony, or context-specific expressions.

The use of AI in developing clinical cases can increase learners' exposure to diverse cultures, religions, socioeconomic backgrounds, gender differences, beliefs and attitudes surrounding animal ownership; a core clinical competency for veterinary care providers. AI can assist in reducing effort as well as complement the simulation experience in developing and delivering diverse veterinary clinical scenarios.

Safety planning: support for people experiencing suicidal thoughts

Friday, 7th July - 11:00: D7: Workshops (St Trinnean) - Main conference workshop: (60 mins)

***Dr. Rosie Allister*¹, *Dr. Alex Thomson*², *Dr. Neil Hudson*³, *Prof. John Gibson*⁴**

1. University of Edinburgh, 2. Central and North West London NHS Foundation Trust, 3. MP, 4. The Canmore Trust

Suicide prevention is a vital priority in veterinary medicine and education. Safety planning is an evidenced intervention which can have suicide protective effects, and has been identified as a type of 'best practice' in the field of suicide prevention internationally.

Safety planning is a type of short term intervention developed to help someone to be safer in moments of acute difficulty, until things have improved, or as a step to getting other help.

Although safety planning started as a clinical intervention, it has since been investigated when the person making the safety plan with the suicidal person is not a mental health professional. It is now adapted for lay people to deliver and safety plans are recommended by a wide range of mental health and suicide prevention organisations.

This session considers the evidence for safety planning, when you might use a safety plan, the steps of safety planning, and time for Q&A with professionals experienced in safety planning and veterinary suicide prevention.

Delivered by a presenters with professional experience in mental health, veterinary medicine, lived experience, and policy, this workshop is practical and solution focussed. By the end of the workshop delegates will have considered the evidence for safety planning, when it may be helpful, and will understand how to make a safety plan.

This workshop is evidence and skills focussed and does not require any self-disclosure of personal experience – though people with lived experience are extremely welcome to attend. If you want to pre discuss session content to understand whether the session is right for you please contact Rosie Allister. If you need urgent support please contact Vetlife Helpline 0303 040 2551

How to avoid doing everything, everywhere, all at once: Use of sequential care in the veterinary curriculum

Friday, 7th July - 11:00: D8: Workshops (Bonnar) - Main conference workshop: (60 mins)

***Dr. Jude Bradbury**¹, **Mrs. Rosamund Ford**¹*

1. Royal Veterinary College

Historically, the veterinary curriculum has focused on teaching vet students systematic 'gold-standard' approaches to patient care. While thorough, this methodology creates disparity between what students are taught/see at university and how most cases are managed in primary care practice. This disconnect in the veterinary curriculum can result in dissatisfaction and conflict with personal values upon graduation, particularly if the student's professional identity aligns with a dominant diagnosis-focused discourse, rather than a relational discourse for example between themselves and the client.

With workforce shortages placing increased pressure on veterinary practices, staff retention is a high priority and so areas of dissatisfaction or conflict need to be addressed. Ensuring new graduates are optimally prepared for life in practice can not only aid this retention, but also reduce pressure on existing staff needing to train and support new graduates.

Sequential care is commonly used in primary care practice and emphasises the importance of adapting the care and approach to cases in a stepwise, evidence-based manner rather than completing multiple steps simultaneously. This approach allows the experience and values of the different stakeholders to be addressed whilst prioritising the core common factor, the patient's wellbeing.

In this workshop we aim to discuss:

- The benefits of integrating sequential care into the veterinary curriculum
- Methods of integrating sequential care into the veterinary curriculum
- Example scenarios of sequential care in the veterinary curriculum

Session E

The relatives' farm

Friday, 7th July - 12:15: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

Prof. Patricia Baier¹, Mr. Osvaldo Campos¹, Mrs. Patricia Garcés¹, Mr. Hermes Pacheco¹, Mr. Mario Contreras¹, Ms. Nancy Contreras¹

1. Liceo Bicentenario Técnico Profesional Alonso de Ercilla y Zúñiga

Acquiring mathematical skills is vital in the learning process for technical staff working in the agricultural sector. Example of application of mathematical skills required include soil analysis, fertilizer dose calculation, veterinary medicine dosage, animal nutrition calculations, among many others. Therefore, teaching and learning for students registered at the Agricultural Specialty [N(1)] of the Liceo Bicentenario Técnico Profesional Alonso de Ercilla y Zúñiga (Cañete, Chile), aims for students to develop these skills. By the end of the course, they are expected to be able to apply mathematical skills when managing a for-profit farm and/or provide technical advice to their farmers. To further assist students' learning, new teaching strategies were explored, particularly gamification in learning. Gamification was selected as it involves mental challenges that generate emotions, where part of reality is transferred [N(2)] to games. These characteristics of the learning methods allows skills to be acquired dynamically and enhance creativity, while increasing students' motivation to learn as well as improving their self-esteem. This is how, through gamification, the specialty [N(3)] modules [N(4)] and the mathematics subject are articulated to improve the development of these skills among students by offering problems that they must address once they enter the world of work. A board game was designed with four boards with different levels of difficulty, from basic to the complex. A player must roll a dice that allows him to advance through the board and must answer agromathematical questions that will allow him to advance through it. It is expected that through this playful learning, students become actively involved in their learning process, completing their modules satisfactorily and achieving mastery of agromathematical skills that allow them to succeed at school.

Facilitating case-based learning: what are the challenges for teaching staff?

Friday, 7th July - 12:21: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

Ms. Chloe Anderson¹

1. University of Bristol

In 2019, Bristol Veterinary School launched the BVSc Accelerated Graduate Entry Programme (AGEP), featuring a case-based learning (CBL) curriculum. The goal of CBL is “to prepare students for clinical practice, through the use of authentic clinical cases” (Thistlethwaite et al., 2012, p.3). As a collaborative form of learning, it also fosters professional skills such as communication and teamwork (Baillie et al., 2010).

CBL on the BVSc AGEp is conducted in small groups of 10-12 students, guided by a facilitator. The facilitator’s role is to “manage the learning, manage the activities and manage the group” (Burgess et al., 2020, p. 2). An initial cohort of approximately 35 teaching staff were trained to facilitate this element of the curriculum as a component of their overall teaching commitment. Although there was significant teaching expertise within the cohort, experience in the facilitation of inquiry-based learning was limited.

A ‘light touch’ survey conducted in 2020 demonstrated unease within the cohort in relation to the introduction of this teaching practice. Participants described ‘fear’ and ‘anxiety’, some of which was voiced during the facilitation training workshops. This chimes with the literature, which shows that reactions to facilitation of inquiry-based learning can include stress, uncertainty and discomfort (Maurer, 2007; Spronken-Smith and Harland, 2009).

The Vet School has undergone a cultural shift to accommodate case-based learning, with significant development in staff training and support. However, on an individual level tensions still exist for staff in the experience of CBL facilitation. This session provides an overview of a qualitative study using Cultural Historical Activity Theory (CHAT) (Edwards, A., 2011) as a tool to uncover some of these tensions. The aim of the study is to better understand the nature of the problems staff encounter in their role of CBL facilitator within the context of change. Initial findings will be presented.

Investigating the use of an illustrated vest for teaching topographical anatomy in the dog

Friday, 7th July - 12:27: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

Ms. Charlotte Craston¹, Dr. Shona McIntyre¹, Dr. Christopher Basu¹

1. University of Surrey

Knowledge of topographical anatomy is critical in the veterinary profession. It is key to maximising the potential of skills such as imaging, palpation and surgery. However, considerable debate exists in the literature regarding the methods used to teach topographical anatomy in veterinary education. The aim of this study was to evaluate the use of an illustrated vest, “the anato-tee”, for teaching topographical anatomy of the dog abdomen.

Twenty-four 3rd year veterinary students were enrolled into the study. We assessed their knowledge of topographical anatomy by testing their ability to locate the abdominal organs of a fox cadaver, using ultrasonography. Experimental groups were given a model dog dressed in the “anato-tee” as a study resource prior to the assessment, whilst control group students were given a textbook-based resource for learning. After the assessment, the participants completed a questionnaire about their experience.

The “anato-tee” did not significantly increase the number of abdominal organs identified by students on ultrasound ($p = 0.817$), nor did it improve overall confidence in locating structures ($p=0.756$), when compared with learning using a textbook. However, students perceived that the “anato-tee” was significantly easier to understand, improved their ability to locate structures on ultrasound and increased their confidence regarding abdominal ultrasound when compared with textbooks. Therefore, it was concluded that the “anato-tee” could be a valuable teaching resource for topographical anatomy, in combination with traditional methods. Applications are wide-ranging, including teaching abdominal palpation in higher education or for the broader profession’s use in continuing professional development (CPD).

On the outside, looking in – Re-imagining a veterinary curriculum to deal with complex modern dilemmas such as climate change, biodiversity collapse, AI and much more, and integrating systems thinking into veterinary education.

Friday, 7th July - 12:33: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

*Ms. Nayantara Ghotge*¹

1. MRCVS

That the veterinary profession is in crises, is unfortunately an oft repeated phrase and bandied across multiple different sectors from industry to academia to government bodies. Across the world, farm animal veterinarians are increasingly hard(er) to find, retention rates are poor, suicide statistics are heartbreaking and often the future for young vets – increasingly female seems bleak.

While multiple solutions, articles, papers, discussion panels and groups have examined each of these issues individually, perhaps if we were to analyse multiple facets of our profession, from who chooses to be a vet, to how younger vets view utilitarianism – which was the bedrock of food producing systems in the last century, our educational models may broaden to discuss other aspects such as circular economies, integrative farming systems and sustainable land use, attitudes, philosophies and behaviour changes needed to combat antimicrobial resistance and much more.

Much of veterinary medicine's success as a profession rests on its adaptability and ability to change with changing times. Veterinary medicine has been responsible for numerous success stories in food production, disease control and in the last few decades the immense advancements made in providing ever evolving levels of care for the animals in our care, especially companion animals. And yet with climate change and ecosystem collapse being very real and imminent threats facing the younger generation of veterinarians and veterinary students, we haven't carved out space for adequate discussion, let alone systemic change.

For most veterinarians working in a small animal clinic where dispensing flea and worm medication without routine screening to the abundance of single use plastic, to farm animal medicine – where invariably profitability becomes more pertinent than welfare, to larger concepts such as re-wilding, ecosystem collapse, sustainable land use, the environmental impact of dog faeces in national parks and many other areas where one would expect veterinarians to be heard, we are instead unprepared in many cases to take on these “global challenges.”

While we are aware within the profession of the broad based learning we undergo, adequately adapting that to challenges for the future including modified food systems, lowering the carbon footprint of livestock, discussing how to support a world with decreasing wildlife and rapidly increasing human and domestic animal life, increasingly and chronically persistent chemical run off from dispensed medication and lastly how will AI systems like chatGPT modify our role as primary health care givers, the future for our profession looks tough, but manageable and the answers to these perhaps lie more in social science, anthropology and utilitarianism and philosophy discussions of which we don't have enough of in the veterinary curriculum. Adapting our veterinary curriculum, to best assist the next generation of veterinarians to deal with these issues should be at the forefront of current veterinary curriculum modifications and making us human in a world of increasing efficiency and mechanisation is what will make us thrive.

Co-design of educational workshops to train farmers and build resilience through collaboration in Bangladesh

Friday, 7th July - 12:39: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

***Prof. MD Ahasanul Hoque*¹, *Dr. Meherjan Islam*¹, *Dr. Syeda Munira Dilshad*¹, *Dr. Easrat Jahan Esha*¹, *Dr. Nurun Nahar Chisty*¹, *Dr. Chandan Nath*¹, *Dr. Md. Abu Shoieb Mohsin*¹, *Dr. Rajiv Kumar Roy*¹, *Prof. Robyn Alders*², *Prof. Ayona Silva-Fletcher*³**

1. Chattogram (previously Chittagong) Veterinary and Animal Sciences University, 2. Australian National University, 3. Royal Veterinary College

Background:

Poultry production, from large- to small-scale enterprises, is vital for Bangladesh's economy and an important source of protein and micronutrients. Individuals, including micro-entrepreneurs and the unemployed, may start small-scale production without any training, experience, or qualifications and with little or no capital. There are policy regulations, including for antimicrobial usage, but knowledge and implementation of them is limited and there is urgent need for educational interventions. The One Health Poultry Hub, Bangladesh (OH-PHB) inaugurated a 2-day, co-designed training program for small- to medium-scale poultry farmers to develop their farming knowledge and competency and improve farm-biosecurity using a collaborative model.

Summary of work:

Methods: OHPHB in collaboration with the Department of Livestock Services and private poultry companies conducted training workshops in 12 sub-districts of Chattogram, Bangladesh. A total of 183 farmers (15-18 per sub district) were selected by the local livestock office. The training programme comprised problem-based learning (PBL), PowerPoint lectures, practical farm visits, expert-sessions with a human doctor (in person) and a poultry expert (via video link), and a policy awareness poster session. Using pre- and post-surveys, more in-depth understanding of farmers' knowledge, attitudes and practices were gained to enhance future programmes.

Results: The farmers particularly enjoyed the collaborative approach, PBL sessions and making posters, and engaged in the online components. They became more receptive to the advantages of complying with regulations as they came to understand the benefit for their enterprises and were eager for more training.

Take Home Message:

Particularly valuable educational approaches for farmers included solving problems (PBL), using information technology as a convenient way of communicating conferencing and story-based poster presentations. This collaborative training could be a model to educate poultry and other farmers effectively in other regions.

The first steps to decolonising a veterinary curriculum

Friday, 7th July - 12:45: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

Ms. Emily Moore¹, Dr. Fiona Dowell¹, Dr. Karen Maceachern¹, Prof. Lubna Nasir¹

1. University of Glasgow

The definition of decolonisation in the context of higher education is “a movement to: (1) recognise how forces of colonialism, empire and racism (and other forms of discrimination) have shaped the systems in which we participate; and (2) offer alternative ways of thinking about the world, re-centring perspectives of populations historically oppressed by these forces”. In veterinary medicine, decolonisation asks us to reflect on the ways that these systemic forces influence our knowledge and care.

To explore the ways in which colonialism has shaped the veterinary medicine perspective, we conducted research to find examples of ways in which historical European “discoveries” were informed by non-eurocentric practices, medical breakthroughs that came at the expense of unethical research on vulnerable communities, and a more diverse array of veterinarians that contributed to the knowledge we have today.

The culmination of this research is a resource of compiled infographics for staff and eventually students to access that aims to bring awareness to the ways our BVMS curriculum at Glasgow University has been influenced by colonialism and euro-centric values. This resource was introduced to educators involved in teaching the curriculum, who provided feedback on the content. All of the staff (100%) either agreed or strongly agreed that the resource increased their understanding of what it means to “Decolonise the Curriculum”, and the majority (88%) feel it is important for staff to reflect on the material excluded from the curriculum providing very encouraging initial feedback on the resource.

Moving forward, the resource and movement can continue to develop by rolling it out to student focus groups for feedback, as well as giving staff the opportunity to incorporate infographics from the research into their teaching and build further examples into the resource.

Wildlife disease surveillance training for veterinary services

Friday, 7th July - 12:51: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

***Dr. Rodrigo Nova*¹, *Dr. Christian Gortazar*², *Dr. Tsviatko Alexandrov*³, *Ms. Charlotte Rendina*³, *Dr. Fabrizio Rosso*³**

1. European Commission for the Control of Foot-and-Mouth Disease - School of Biodiversity, One Health & Veterinary Medicine, University of Glasgow, 2. Institute of Game & Wildlife Research, Universidad Castilla la Mancha, 3. European Commission for the Control of Foot-and-Mouth Disease

The European Commission for the Control of Foot and Mouth Disease (EuFMD) delivers an extensive programme of activities, supporting emergency preparedness, response and control, for foot-and-mouth disease (FMD) and similar transboundary animal diseases (FAST diseases) in its 39 member nations (MNs) and additionally in 10-20 priority European neighbourhood countries.

As a result of the risk of FAST diseases introduction, spread and maintenance due to the presence of suitable hosts in EuFMD MNs, a workshop on FAST diseases wildlife surveillance was organised and delivered in 2022, in partnership with the Spanish Institute of Game & Wildlife Research (IREC). The course was aimed to decision makers, who could use the acquired knowledge and skills to review/update their processes and protocols related to wildlife surveillance. The audience included 29 participants working in the veterinary services of 23 MNs.

Overarching learning objectives were first drafted and agreed with the trainers. The content was delivered over 33 hours, organised over two weeks. The first week consisted in asynchronous self-directed learning aiming to harmonise participants baseline knowledge. The second week was a face-to-face workshop, which included seminars, group work and field activities (drill simulation exercise).

At the end of the training, participants reported they had increased their knowledge in all the areas covered by the course, particularly regarding the application of epidemiological principles for wildlife surveillance and the assessment of sampling plans. Trainees suggested more field work and changes in the flow of the live sessions aimed to enhance engagement.

Future versions of this course could explore different tiers of training (i.e. field staff and planners). Additionally, other stakeholders, such as hunters and wildlife associations, could be involved, making this activity a platform for discussion and sharing knowledge, which could result in further improvements on the management of the wildlife component of FAST diseases.

TOM, a Training Management System to strengthen capacity against Foot-and-Mouth and similar transboundary diseases

Friday, 7th July - 12:57: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

Mr. Marcello Nardi¹

1. European Commission for the Control of Foot-and-Mouth Disease

Authors: Fabrizio Rosso, Marcello Nardi, Leah Seabrook, Sylvia Engmann, Pilar Rius Muñoz, Valentina Busin, Rodrigo Nova, Charlotte Rendina

Background

The European commission for the control of Foot-and-Mouth disease (EuFMD) is one of the oldest independent commission of Food and Agriculture Organization (FAO) and has among its objectives to improve preparedness for management of FMD and similar transboundary animal diseases (FAST) crises by EuFMD Member Nations. Following the demand from Veterinary Services to develop the capacity in preparedness, the commission has developed TOM Training Management System, a capacity development support tool that allows them to monitor the delivery of competency-based education for veterinarians and similar roles.

Summary of Work

TOM is made of two components: a web application and a competency-based framework. The web app allows veterinary services to assess the current level of individuals according to a competency, identify gaps at in specific regions and at individual level and monitor the progress of learning. The Disease Control and Emergency Management competency framework has been developed through a round of expert reviews and piloted through central and field veterinarians. The framework allows identifying the immediate needs at individual level and the expected level for each role through five proficiency levels. EuFMD has developed a process for assessing initial levels of learners through a combination of completion of courses completed and self-assessment. The tool is currently piloted in specific countries for identifying additional features and improvements.

Take Home Message

Capacity development in veterinary services can be leveraged through tools that allows monitoring the progress of learners at central level and provide a map for future improvements of capacity. Competency-based education, where provided with a compelling framework, provides a reference point for the development of public health veterinarians working against FMD and similar transboundary diseases.

Veterinarians' opinions towards dissection during the undergraduate veterinary medicine course and its effectiveness in preparing them for surgery and veterinary life

Friday, 7th July - 13:03: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

Dr. Ilknur Aktan¹, Mr. Charlie Coward¹

1. University of Surrey

Background: Studies are aplenty when it comes to understanding the opinions of veterinary students towards dissection and maximising their experience in the dissection lab, however very little has been done exploring the opinions of practising veterinarians on the usefulness of dissection as part of the undergraduate veterinary medicine degree.

Summary of work: An online survey was distributed via two veterinary social media pages on Facebook in order to ascertain the views of veterinarians. Responses were organised into subgroups to allow for data analysis.

221 people responded to the request for participants. There was little difference in opinions between the subgroups, with the only significant difference identified being in the anatomical and clinical confidence between different numbers of years in practice ($p = 0.045$). Veterinarians identified the importance of dissection in anatomical instruction and the development of practical skills, however there was variability in the perception of dissections role in developing certain attitudes such as professionalism and emotional coping strategies.

Take home message: The results strongly support the continued use of dissection in undergraduate veterinary medicine, whilst also recognizing the need to improve its relevance to clinical knowledge and increase its utilisation in later clinical years. It also recognizes the need to use modern methods, such as virtual software, alongside traditional dissection rather than as a replacement.

Playful learning trial in learning comparative anatomy

Friday, 7th July - 13:09: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

Dr. Ilknur Aktan¹

1. University of Surrey

Background: The aim of the study was to evaluate the usefulness of playful learning with use of crossword puzzles, colouring and labelling as a learning tool in the subject of anatomy at the level of undergraduate veterinary curriculum.

Summary of work: The survey was presented to all first-year students from the School of Veterinary Medicine, in the 2019–2020 academic period. After a Topographical Anatomy Practical, practical evaluation form was handed out to students. Out of 144 students, 125 completed half a page survey. %98 of the students that completed the survey said that they think having playful learning tools is beneficial to their understanding of anatomy. Breakdown of common responses are presented in the below table.

This preliminary study showed that studying challenging subjects like comparative veterinary anatomy with the use of crossword puzzles, colourings and labelling's has proved to be an effective way of learning.

Take home message: This session helped to create an environment for active learning, a process that motivates the students and increase their interest in the topic, which contributed towards the positive learning experience as perceived by the students in this study. Most of our students also agreed that crossword puzzles promoted peer discussion and that they would like to have more puzzles to be used in future teaching. Most students also commented positively to the background music.

Validation study of canine blood donor training models used within veterinary nursing education

Friday, 7th July - 13:15: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

*Mrs. Celine Walsh*¹, *Dr. Karen Dunne*¹, *Ms. Samantha Fontaine*²

1. Dundalk Institute of Technology, 2. University of Glasgow

Background

Canine blood donation collection technique is a frequently performed and often life-saving or emergency procedure in small animal critical care. Training student veterinary nurses (SVNs) to correctly perform this clinical technique with confidence involves repetitive training using simulation prior to clinical practice with real patients. Teaching methods including training models used in simulation must undergo validation evaluation to demonstrate suitability for teaching, appropriateness for learning and reliability for assessment, since inappropriately developed models risk incorrect learning with increased confidence.

Summary of Work

A canine blood donor simulator was designed and constructed to train SVNs at Dundalk Institute of Technology Ireland on correct blood donation collection technique as part of transfusion therapy. Two plush canine toys were modified to include jugular veins using infusion lines connected to red tinted fluid bags, representing respective patient blood volumes. A stepwise checklist was also developed to guide and assess procedural performance. Eight VN educator colleagues from three Irish VN training programmes participated as experts to evaluate model appropriateness and usefulness. 11 SVNs used the model in Critical Care practical class and of those, six opted into the study to provide feedback and ratings on the models' validity and suitability for learning. Pre-existing experience in transfusion therapy and confidence levels of SVNs at performing the skill post model use were also assessed.

Take Home Message

Experts found the models to be suitable for teaching and assessment of correct technical skill performance. Students found the models to be helpful to learn the skill correctly and develop confidence prior to live animal performance. The models are a useful precursor to skill performance in live patients and may have potential value outside of the classroom in training veterinary staff to promote clinical effectiveness and patient safety via procedural error identification and reduction.

Setting up a clinical skills lab in Sri Lanka using low cost, homemade simulators for teaching and acquisition of veterinary professional and clinical skills

Friday, 7th July - 13:21: E1: ePosters: Curriculum - General and Postgraduate (Pentland) - Oral eposter presentation

***Prof. Nayana Wijayawardhane*¹, *Dr. Thilanka Kavisekara*², *Prof. Sarah Baillie*³**

1. Department of Veterinary Clinical Sciences, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, 2. Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, 3. University of Bristol

Background: Veterinary studies in Sri Lanka recently underwent a major change with the implementation of a new curriculum, revised under the OIE Twining Partnership with Massey University, New Zealand. The new curriculum has included much more teaching of practical and professional skills to better prepare students from 1st year onwards. Models and simulators housed in a clinical skills laboratory (CSL) are increasingly used in this context to supplement existing training. In setting up our CSL, an important consideration was whether to source simulators from commercial companies as these would pose major additional expenses in running a CSL in a developing country. Thus, the aim of this project was to set up a CSL with homemade simulators using locally available, low-cost resources.

Summary of work: We were able to develop more than 20 models with a surprisingly low cost of \$500. These included models for IV catheter placement, bitch/queen spay, suturing practice, surgical dexterity box, canine epidural anesthesia etc.,

Take home message: Learning from others is an important way to develop an understanding of how to set-up and manage a CSL. In setting up the CSL, we have used key information from veterinary workshops and free guidebooks developed by the international community. The implementation of a CSL will further increase hands-on learning for students in a safe, controlled environment.

Developing new Clinical Educational Partnerships: a shared experience

Friday, 7th July - 12:15: E2: Workshops (Prestonfield) - Main conference workshop: (60 mins)

***Mx. Liz Arnold*¹, *Ms. Jenny Mason*¹, *Dr. Abi Miles*¹, *Dr. Charlotte Sinclair*², *Dr. Amy Wheeler*²,
*Mr. Jon Forrester*², *Prof. Sheena Warman*¹**

1. University of Bristol, 2. CVS Ltd

Background: Bristol Veterinary School has a number of educational partnerships with a range of clinical providers, as part of a semi-distributed model of final year clinical teaching. Establishing a clinical educational partnership requires close collaboration between the partners, defining new ways of working and establishing effective processes and relationships. This workshop, led by representatives from both Bristol Veterinary School and CVS Ltd (one of Bristol Vet School's clinical educational partners), will give participants an opportunity to consider the priorities and challenges inherent to establishing new clinical educational partnerships.

Summary of work: Through discussion and sharing of experiences, participants will be invited to consider aspects such as relationship-building, training needs, assessment processes, logistical considerations and quality assurance. We will discuss "ways of working" at practice and institutional levels, and the needs and expectations of students, the university, the practices, and accrediting bodies.

Take home message: The development of new clinical educational partnerships is a significant undertaking for both the University and the clinical provider. Participants should leave the workshop with insight into some of the key priorities and challenges that need to be considered when establishing new partnerships. Participants will have the opportunity to explore potential strategies for success from the perspective of both the University and a clinical educational partner.

A new specialty a new way – or an oxymoron? The generalist specialist.

Friday, 7th July - 12:15: E3: Workshops (Duddingston) - Main conference workshop: (60 mins)

*Ms. Kerry Williams*¹, *Ms. Bree Merritt*², *Ms. Emma Dobson*³

1. University of Nottingham, 2. The Royal Veterinary College London, 3. Cambridge Veterinary School

Background: The majority of small animal veterinarians in the UK are working within primary care in a huge variety of contexts. To date one cannot become a specialist in primary care despite its important and increasing role in undergraduate teaching, and in the veterinary profession as a whole.

This structured postgraduate education would be relevant to veterinarians in independent, corporate and charity practices, carrying out care for pets in contexts from a single pet to multi-animal shelters with different physical health, behaviour and welfare concerns and a great variety resources available.

Two of the many strands of primary care are shelter medicine and accessible care, often provided by charities. With the formation of the Association of Charity Vets in 2010, the publication of BSAVA Manual of Shelter Medicine (2018) and designated shelter streams at recent BSAVA conferences, shelter medicine and accessible care are both increasingly recognised in the UK as unique areas of veterinary practice, within the wider arc of primary care.

Summary of work: The workshop will give the opportunity for participants to use their ideas for developing veterinary primary care or experience in obtaining and training specialist status to formulate a plan to establish primary care as a European specialty.

In small groups facilitated by current primary care and shelter medicine educators, our workshop will focus on three questions with delegates:

1. What makes someone a primary care specialist?
2. How do we assess these qualities?
3. How to train a primary care specialist?

We will do this in the context of current policies of the European Board of Veterinary Specialists, and explore the challenges and benefits of current specialism training.

Take home message: We are calling on fellow veterinary educators from across different disciplines to discuss the practicalities of clinical specialty training and postgraduate curriculum development.

Curriculum Integration of Psychological Skills: The Harper Keele Approach

Friday, 7th July - 12:15: E4: Workshops (Salisbury) - Main conference workshop: (60 mins)

Prof. Jason Spendelow¹

1. Harper and Keele Vet School

Background:

We are seeing more integration of psychological skills and thinking in veterinary education as non-clinical professional skills become increasingly recognised as vital for career success, satisfaction, and longevity. The Harper & Keele Vet School has taken a proactive approach, employing a clinical psychologist to lead this work under the strategic theme of 'Performance & Wellbeing'. This initiative aims to seamlessly incorporate psychological skills into the curriculum to better prepare students for the challenges they will face in their future careers.

Summary of Work:

The integration of psychological skills and thinking has been a key area of work within the school. These skills have been embedded through the delivery of the 'Performance & Wellbeing Toolkit', which focuses on fostering psychological skills among veterinary students. This training package targets the development of Day One Competencies. This content has been integrated with existing academic modules to fully embed psychological skills into the curriculum. The presentation will discuss the process of content integration and provide several examples of how this material has been incorporated into the student learning experience.

Take Home Message:

The integration of psychological skills and thinking into the veterinary curriculum is an essential step towards nurturing resilient, adaptable, and high-performing veterinary professionals. The curriculum integration work at the Harper & Keele Vet School can serve as an innovative model for other institutions. By incorporating psychological skills into the curriculum, veterinary schools can not only enhance their students' learning experience but also prepare them for the diverse challenges they will encounter in their professional lives.

Art for Anatomy: Investigating the benefits of observational drawing in undergraduate veterinary students

Friday, 7th July - 12:15: E5: Workshops (Holyrood) - Main conference workshop: (60 mins)

Dr. Rosie MacDiarmid¹, Dr. Fay Penrose¹, Mr. Eddie Henson¹

1. University of Liverpool

Visual literacy is a key skill in the clinical professions. Observation of behaviours and the ability to recognise normal and abnormal structures are skills used every day in veterinary practice. An accessible way to develop visual literacy skills in the novice learner is through the creation of observational drawings. For this study we ran six optional observational drawing sessions for veterinary science undergraduate students using anatomical specimens. Each session lasted for 90 minutes, and students could attend as many sessions as they wanted. During the sessions participants were encouraged to create drawings of anatomical material such as bones or potted specimens, using a variety of media which was provided free of charge. Data was gathered using pre and post session questionnaires for all participants, plus an additional post course questionnaire for students who attended at least four sessions. The aim was to gather data on three aspects relating to participation in the sessions; the effect on student wellbeing, student's perception of improving anatomical understanding, and an evaluation of attitudes towards the use of drawing/visual learning as a learning or revision technique. The number of unique participants over six sessions was 48. Of these, 21 students attended four or more sessions. Results show that the sessions improved feelings of relaxation and wellbeing, improved students' perception of anatomical understanding and improved confidence, making participants more likely to use drawing for wellbeing and revision purposes in future. In accordance with the University of Liverpool Guidance, all participants involved in this project completed an ethics form permitting use of their data.

This interactive workshop will present the results of this study, discuss the opportunities for setting up similar classes in your school and provide an opportunity to experience some observational drawing practice (all materials provided and no drawing experience necessary!)

To Lead or be Led: Navigating Shared-Decision Making as a New Graduate

Friday, 7th July - 12:15: E6: Workshops (Nelson) - Main conference workshop: (60 mins)

Dr. Emma Driver¹, Mrs. Rosamund Ford¹

1. Royal Veterinary College

From day one in veterinary practice, graduates will be involved in shared decision-making with clients and team members. The complex nature of practice, with diverse client interactions, shifting team hierarchies, as well as legislation considerations, requires constant navigation by new graduates. This is quite a unique position, compared to other professions, as though novice members of the team, graduates need to be able to lead and take responsibility in clinical case decisions. Yet, they must also recognise when to be led by others in decisions, such as more experienced team members.

The nature of shared decision-making, especially in client interactions, has the potential to result in frustration when an alternative option is chosen to the one recommended. If a graduate does not feel confident in approaching shared decision-making, and navigating between leading and being led, this could result in frequent feelings of frustration. Especially, if the conclusions of multiple interactions differ to the individual's desired outcome. Continued frustration could ultimately impact a graduate's job satisfaction, which has been recognised to play a key factor in retention of vets within the profession.

There will be a wide range of Knowledge, Skills and Attributes (KSAs) which contribute to day one competency in navigating shared decision-making. Definition of these KSAs allows educators to recognise opportunities where they can be acquired and developed within curricula, and how to support student development. This may help prepare veterinary students to confidently navigate shared decision-making interactions that they will encounter after graduation.

In this workshop we aim to:

- Discuss the KSAs that form day one competency in shared decision-making.
- Share examples of current development opportunities for shared decision-making KSAs in veterinary teaching.
- Identify and address potential challenges to the development of shared decision-making KSAs.
- Explore future opportunities for development of shared decision-making KSAs in veterinary teaching.

Designing a farm practical skills curriculum – what should be taught, when and how?

Friday, 7th July - 12:15: E7: Workshops (St Trinnean) - Main conference workshop: (60 mins)

***Dr. Rebecca Vallis*¹, *Mrs. Sarah Wood*¹, *Prof. Sarah Baillie*¹**

1. University of Bristol

Farm animal clinical practice has changed rapidly in recent years with a shift away from traditional emergency work towards a more advisory role [1]. Remnant (2021) recently outlined the future training of farm veterinarians in the UK, which included the need for practical skills to gain confidence and credibility with farmers, whilst acknowledging the challenges of training increasing numbers of veterinary students in many veterinary schools [2].

Veterinary students work towards competence as defined, for example, by Competency-Based Veterinary Education (CBVE) and Royal College of Veterinary Surgeons' "Day One Competences" by graduation.

A recent study identified the practical skill requirements for graduates entering farm animal practice [3]. The study prioritised 'day one' practical skills required for both cattle and sheep practice. The results of the study provide an opportunity for veterinary educators to review their current teaching of practical skills, identify gaps in the curriculum and prioritise the skills that have been listed as 'clearly most important'. The outcomes can also be used to identify transferrable skills could be signposted in the teaching; for example common underpinning skills in suturing or management of haemostasis in acute trauma.

This workshop will provide the opportunity for educators across vet schools to review the cattle and sheep practical skills list [3], consider how these could be integrated into their school's curriculum and share ideas for how the skills can be best taught, which may include the use of high or low fidelity models, flipped classrooms, case scenarios, posters, videos and teaching animals.

1. Woodward et al. The future of cattle veterinary practice: insights from a qualitative study. *Veterinary Record*. 2019;185(7):205.
1. Remnant J. The future of farm practice. BCVA Congress; 2021; Cardiff.
1. Wood et al. Prioritising practical skills for farm animal veterinary graduates using a Delphi technique. *Veterinary Record*. 2023;p.e2643.

Plenary 4

Sustainability Panel Session

Humanity is facing a multitude of complex and urgent sustainability issues including climate change, biodiversity depletion, public health pandemics, social inequity and animal welfare concerns.

With a unique One Health perspective at the human-animal-environment interface, veterinary professionals make an important contribution to the sustainability agenda, both within veterinary operations, and in the sectors we influence through the animals under our care. There is a substantial opportunity to further enhance these contributions, and we can begin by learning from those that are paving the way to more sustainable models of education and healthcare.

This session will explore the existing and potential roles veterinary professionals can play in supporting sustainable solutions in their work and studies. The panel of speakers will discuss sustainability and environmental management in veterinary practices, considering how the veterinary profession can be part of the solution to the climate crisis. The panel will reflect on the workforce crisis currently experienced by the NHS, and how the existing medical workforce can be supported in anticipation of future healthcare demands.

Veterinary student and new graduate perspectives on sustainability will be explored, before an overview of the curriculum review of sustainability conducted by the University of Surrey and how this links to Day 1 Competencies and the principles of education for sustainable development. The plenary will finish with a look at sustainable and regenerative solutions for the wider veterinary industry, from the perspective of an online continuing education provider.



Ellie West

'Sustainability in veterinary practice'

Ellie graduated from Cambridge University in 2003 and worked first as an intern in a private referral practice and then as a general practitioner in a first opinion clinic. She has been an anaesthetist since 2006; first as an intern at University College Dublin, Ireland, then as a Clinician-Teacher at the University of Liverpool and as a clinical anaesthetist at Davies since 2013. Ellie passed her ECVAA Diploma in 2017, and became a Practitioner with the Institute of Environmental Management and Assessment in 2022. Ellie's particular interests are in environmental sustainability within veterinary medicine. Ellie is the Environmental Sustainability Lead for the Linnaeus group, and an active member of the Davies Green Group.



Professor Tom Gale

BMedSci, BMBS, FRCA, PFHEA, MCLinEd

'Sustainability of the workforce: Supporting under-performing doctors'

Professor Gale is a Professor of Medical Education and Director of Assessment at the Faculty of Health, University of Plymouth, and Consultant Anaesthetist at Plymouth University Hospitals NHS Trust. Tom leads the Collaboration for the Advancement of Medical Education Research and Assessment (CAMERA) research group, which undertakes research to improve capability and sustainability in the healthcare professions. His major interest areas are in the assessment of capability, recruitment and selection, preparedness for practice, simulation based education and retention of the medical workforce. He is currently involved with externally funded research investigating: stress and well-being in anaesthetic trainees, preparedness for practice of new graduates regulated by the Health Care Professions Council, Fitness to Practise processes in Dentistry, professional support and remediation of doctors, and professional identity formation during interprofessional simulation.

Tom has had major roles in the design and implementation of medical education curricula at Peninsula Medical School, Royal College of Anaesthetists (RCoA) and as Council member for the European Board of Medical Assessors. He was recently involved as a key member of the Curriculum Review and Implementation Groups for the RCoA with responsibility for designing entrustment scales to be incorporated within the new curriculum and for developing assessor-training materials for work place based assessments. The General Medical Council recently appointed him as Chair of the Board for the new Anaesthesia Associate Registration Assessment.



Paul Gogerty

'The student/recent graduate lens on sustainability'

Paul Gogerty is a veterinary surgeon, graduating from the University of Edinburgh in 2022 and currently working in mixed practice at Armac Biggar. In 2022, Paul was recognised for his role in developing a bespoke set of courses teaching nature connection and field skills for fellow veterinary students at the Royal (Dick) School of Veterinary Studies. These courses aimed to encourage practices in nature connection within the greater student body and vet school

community and, in doing so, champion the importance of time spent in the natural world for overall physical and mental health and wellbeing.



Hannah Davies

BSc (Hons) BVMS MSc MRCVS

'Sustainability and the veterinary curriculum'

Hannah graduated from the University of Glasgow in 2009 and started her career in mixed practice. With a keen interest in one health and sustainability, she completed a masters in International Animal Health whilst working as a Veterinary Programme Advisor for the working animal charity, SPANA. After travelling extensively across Africa and Asia providing training to veterinary teams and communities, Hannah decided to set down roots at the University of Surrey. At Surrey, her main role is to champion the intramural rotations within the final year curriculum, supporting students on farm and equine placements within the university's partner practice. Alongside this, Hannah champions sustainability within the vet school and wider university, including encouraging others to go green and cycle to work! She has recently taken up a part-time role as Technical Content Lead for Vet Sustain, where she is developing sustainability resources to help veterinary professionals in leveraging their unique niche and skills at the human-animal-environment interface.



Anthony Chadwick

BVSc CertVD MRCVS

'Finding Sustainability Solutions within the Wider Veterinary Profession'

Anthony qualified from his home town vet school in Liverpool in 1990 and has spent most of his career in small animal practice. He is the founder of 'The Webinar Vet' recognising the need to bring sustainable, accessible and flexible online continuing education into the veterinary profession. Anthony is facilitating the veterinary industry to regenerate into a more sustainable environmentally friendly space, encouraging others to become more ambitious with their targets on climate, biodiversity and resource use. Anthony is about to host 'The Veterinary Green Discussion Forum', a

unique CPD event bringing veterinary professionals together for the second year running to work towards finding solutions to our climate crisis.

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