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Welcome to the joint July/August issue of Veterinary Practice magazine. I’m sad to say that after two and a half years with the publication, this will be my final issue.

I have learnt an enormous amount in my time as editor and will be sorry to say farewell to what has been such a friendly, welcoming profession.

Besides enriching my vocabulary with a selection of fantastic new words, the role has opened my eyes to some of the big issues facing our animals in today’s changing world. It is my hope that the profession will remain resilient to the testing waves of Brexit, open to fresh means of accommodating people in the profession, enthusiastic about embracing innovation and fierce in the drive for workplace changes to improve mental health.

I’d just like to say a big thank you to all the magazine’s excellent contributors and loyal readers for joining me on what has been a transformative journey for Veterinary Practice over the past couple of years.

June is a month of many conferences and so in this issue, look out for reports from VetsNorth, Vet Festival, the Animal Welfare Foundation Forum and Cx Congress. We have a Q&A with vet-turned-Parliamentary Candidate Danny Chambers, and in small animal, there are features on the nutritional management of chronic diarrhoea, treating pruritus and improving quality of life for epilepsy patients.

On the “In focus” theme of parasites, Ian Wright talks about the feline lungworm threat and Jacqueline Matthews explains the best means of nematode control in cattle. Turn to the equine section to read about the role vets can play in tackling anthelmintic resistance in donkeys.

In large animal, there is an update on the TB picture in the UK and Ceva Animal Welfare Award finalist Sarah Tomlinson describes her approach to improving communication with farmers.

Will Stirling continues his new marketing column this month with a useful piece on performing a brand audit. Also in practice management, consider what measures to take if a team member is reported to the RCVS and read about the potential benefits of the reinstatement of vets on the Shortage Occupation List.

I hope you enjoy this issue and we look forward to introducing the new editor in September’s magazine.

JENNIFER PARKER  EDITOR

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IN FOCUS

36 Is feline lungworm infection underestimated in the UK?
Know how to spot lungworm infections, which may become more clinically relevant with climate change and increasing pet travel.

38 Nematode control in cattle
Developing an effective plan for controlling roundworm and reducing disease risk in summer.

40 A look through the latest literature
The latest academic publications providing further insight into this month’s “In focus” topic.

REGULARS

4 News
A snapshot of the topics currently hitting industry headlines.

11 Events
Read about the hot topics discussed at June events, including VetsNorth, the Animal Welfare Foundation Discussion Forum and Vet Festival.

17 Mental health
How mindfulness can be used as a tool to prevent stress, burnout and depersonalisation.

18 RCVS Knowledge
How effective are isoxazolines for treating canine demodicosis?

19 Insurance
Giving the insight for owners to stay in control of their dogs’ health.

20 Practice
Meet the vet campaigning to put Cornwall back on the map.

22 Exotics
Brush up on the diseases and injuries commonly encountered by working ferrets, which are still prevalent in the UK.

24 Sustainability
How can veterinary professionals apply their unique skillset to become leaders in the sustainability challenges?

26 Nutrition
Dietary management can be tailored to each case to effectively manage chronic diarrhoea in dogs.

29 Dermatology
How to approach the parasites, infections and allergies that can cause pruritus and tips for better utilising vet nurses in dermatology cases.

32 Neurology
Good communication is fundamental to improving quality of life in dogs with epilepsy.

36 Is feline lungworm infection underestimated in the UK?
Know how to spot lungworm infections, which may become more clinically relevant with climate change and increasing pet travel.

38 Nematode control in cattle
Developing an effective plan for controlling roundworm and reducing disease risk in summer.

40 A look through the latest literature
The latest academic publications providing further insight into this month’s “In focus” topic.
OPINION

25 Gudrun Ravetz
"Should we look to more of a freelance business model in the UK?"

41 David Williams
"We do have a strange way of passing the buck for our errors, don’t we?"

56 Gareth Cross
"We need these issues to be lined up and poked with a good firm satirical stick now and then"

EQUINE

46 Corticosteroids and laminitis
Is the supposed causal link between corticosteroids and laminitis a veterinary urban myth, fake news or fact?

54 Marketing
Is your business branding making the right impression?

LARGE ANIMAL

42 Veterinary practices and a bovine TB future
Will the vet’s role evolve in an updated picture of bovine TB in the UK?

44 Building relationships with farmers
How to develop rapport and improve means of communication with farm clients.

52 Recruitment
Will reinstatement on the Shortage Occupation List help the workforce?

53 Client experience
How can we improve the client experience for euthanasia appointments?

55 Legal
Supporting a team member reported to the RCVS.

50 Business
A process for handling online card payments could soon stop customer purchases if practices don’t comply with the new rules.

54 Marketing
Is your business branding making the right impression?

PRACTICE MANAGEMENT

52 Recruitment
Will reinstatement on the Shortage Occupation List help the workforce?

53 Client experience
How can we improve the client experience for euthanasia appointments?
Maximum sentence for animal cruelty may be extended to five years

Environment Secretary Michael Gove has announced a new bill to enable tougher prison sentences for the worst animal abusers which was introduced to Parliament on 26 June 2019. The Animal Welfare (Sentencing) Bill means that animal abusers could face up to five years in prison, a significant increase from the current maximum sentence of six months. This will make it one of the toughest sanctions in Europe, strengthening the UK’s position as a global leader on animal welfare.

The Bill follows a public consultation last year, in which more than 70 percent of people supported the proposals for tougher prison sentences. It means the courts will be able to take a tougher approach to cases such as dog fighting, abuse of puppies and kittens or gross neglect of farm animals.

Michael Gove said: "There is no place in this country for animal cruelty. That is why I want to make sure that those who abuse animals are met with the full force of the law. Our new Bill sends a clear message that this behaviour will not be tolerated, with the maximum five-year sentence one of the toughest punishments in Europe."

The RSPCA received 1,175,193 calls to its 24-hour cruelty hotline in 2018, with a call every 27 seconds. There have also been a number of cases in the last few years in which the courts said they would have handed down longer sentences had they been available.

Recent examples include a case when a man trained dogs to ruthlessly torture other animals, including trapping a fox and a terrier dog in a cage to brutally attack each other.

The announcement complements Finn’s Law, which came into effect in June 2019 and provides increased protection for service dogs and horses. It was named after a German Shepherd Dog named Finn, a police dog stabbed in the head and chest in 2016 while trying to catch a man suspected of robbing a taxi driver at gunpoint. If passed into law, the Bill means that someone who attacks a police dog could face a sentence of five years in prison.

The Animal Welfare (Sentencing) Bill was introduced into the House of Commons, the step before moving through to the House of Lords. If passed, it will come into effect two months after it receives Royal Assent.

CPD requirements set to change

At the June meeting of the RCVS Council, members agreed wide-reaching changes to the College’s policies on CPD, including the hourly requirement and the processes for recording learning and development.

The paper had been brought forward by the RCVS Education Committee, and was approved by the RCVS Veterinary Nurses Council at its May meeting, with six key recommendations for changes to CPD policy:

- Changing the CPD requirement – as stated in the Codes of Professional Conduct – to 35 hours per calendar year for veterinary surgeons and 15 hours in the same period for veterinary nurses, from the start of 2020. This replaces the previous requirement of 105 hours and 45 hours of CPD over a rolling three-year period for veterinary surgeons and veterinary nurses respectively

- Making the use of the new CPD platform (currently in development) for recording learning and development mandatory from 2022

- Giving veterinary surgeons and veterinary nurses who, upon renewing their registration, have confirmed their compliance with the requirement, the opportunity to download a certificate demonstrating this

- Introducing an administration fee (which is yet to be determined) that will be charged to any veterinary surgeons or veterinary nurses who continually (defined as two or more years in a row) fail to confirm their compliance with the requirement and/or fail to respond to requests from the College for their CPD records

- Changing the words of the Codes of Professional Conduct to include the fact that CPD should be “regular” and “relevant”

- Continuing the RCVS CPD Referral Group, which meets to consider what further steps should be taken in cases of veterinary surgeons and veterinary nurses who continually fail to comply with CPD requirements and/or respond to requests

RCVS Council agreed, by a majority vote, to approve the above recommendations.

Council member Sue Paterson, who introduced the paper and is the incoming Chair of the Education Committee, said: “The changes to our CPD policy are intended to tighten up our processes and are targeted at those who, when challenged about why they have not undertaken sufficient CPD, say that they will meet the requirement one or two years down the line as part of the rolling three-year system.”
Surgical Instrument

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On 13 June 2019, the Council of the RCVS gave the go-ahead for a wide-ranging review of a number of key provisions of the supporting guidance to the RCVS Code of Professional Conduct, following ongoing discussions around trialling the development of telemedicine services, including remote prescribing, in UK veterinary practice.

The review was recommended to RCVS Council by its Standards Committee following its lengthy and detailed exploration of the implications of new technologies for both animal health and welfare and veterinary regulation – a key strategic objective for the RCVS, first identified as part of the Vet Futures initiative in 2015.

The main areas under consideration include the provision of 24-hour emergency cover and the interpretation and application of an animal being under the care of a veterinary surgeon. During the course of its discussions, which included numerous meetings and reports, a public consultation and examination of external legal advice, the committee identified a number of anomalies in the college’s existing guidance that could affect how the code’s provisions were applied across a range of different scenarios.

It is anticipated that the review will require wide engagement from all relevant sectors, potentially including a Select Committee-style hearing in certain areas. This would help to ensure any decision to treat different groups differently, in relation to “under care” and “out-of-hours”, is both reasoned and justified.

In the meantime, as this review will take some time to complete, the College should like to make clear that the current provisions of the RCVS Code of Professional Conduct and its supporting guidance remain in full effect. Further information about the review will be made available in due course.

“Under care” and 24-hour cover under review to facilitate innovation

The BVA Welsh Branch has elected Ifan Lloyd as its new President at its AGM, held at Cardiff City Hall on 25 June 2019. Since graduating from Cambridge in 1988, Ifan has worked mainly in mixed practice. He now works part-time at St James Veterinary Group, Swansea, where he was a partner for 23 years. Ifan is passionate about animal health and disease eradication. He is a member of the Wales Animal Health and Welfare Framework Group and a director of Cefn Gwlad Solutions, a company set up to lead bovine TB (bTB) related programmes. He is also a director of Iechyd Da (Gwledig), the current bTB testing delivery partner in South Wales. Ifan has represented the BVA on working groups to eradicate BVD and sheep scab in Wales and is currently a member of the BVA’s bTB working group.
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The RCVS has welcomed a recommendation made by the Migration Advisory Committee (MAC), which provides advice on immigration issues to the Home Office, that veterinary surgeons should be added to the Shortage Occupation List.

The RCVS made a submission to the MAC in conjunction with the BVA as part of the MAC’s review into the Shortage Occupation List, which began in autumn 2018. Professions on the list are prioritised for visas required to live and work in the UK. Employers wishing to hire professionals on the list are not required to complete the Resident Labour Market Test, so they would not have to advertise vacancies locally before offering the role to an employee from overseas.

The submission focused on the need for the UK immigration system to recognise that the veterinary workforce is already under capacity and that this problem is likely to be exacerbated after Brexit. This is due to the potential for increased demand for veterinary surgeons in areas such as export certification, and the likelihood that fewer veterinary surgeons from the EU will be joining the Register. It also reiterated the importance of veterinary surgeons in areas such as public health, food safety and disease surveillance and control, as well as education, research, clinical practice and animal welfare.

Commenting on the MAC’s response, RCVS President Amanda Boag said: “While we are still unaware of how the process of the UK leaving the EU will pan out, this is a very important step in ensuring the future security of the profession and mitigating against worsening workforce shortages.

“We would reiterate to the government that the UK is currently reliant on overseas registrants to meet the demand for veterinary surgeons, with veterinary surgeons from the rest of the EU making up around 50 percent of new registrants each year. By adding veterinary surgeons to the Shortage Occupation List, and therefore reducing the immigration requirements needed to live and work in the UK, the government will be helping ensure vital veterinary work continues to be done, particularly in areas such as food safety and public health.”

The RCVS will also be continuing to work with the BVA, Defra and the veterinary schools to look at how the number of “home-grown” veterinary surgeons can be increased through expanding the UK veterinary education sector, increasing retention rates within the profession and looking at how the veterinary team could be reformed to allow allied professionals to utilise their full range of skills by taking on extra tasks and freeing up veterinary time.
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BVA calls for “hub and spoke” model for integrated animal care

In response to the rapid changes in the veterinary environment, the BVA has launched a vision for effective teamwork between vets and allied professionals with the aim of improving animal health, animal welfare and public health.

The BVA’s concept of the vet-led team calls on vets and appropriately trained and regulated allied professionals to use a “hub and spoke” model that has the vet at its heart to coordinate services for clients and patients.

Vets should act as the hub for treatment, directing clients to an allied professional after examining an animal, making a diagnosis and determining the best course of action. Allied professionals – who can include registered veterinary nurses (RVNs), official auxiliaries/meat hygiene inspectors, embryo transfer technicians, equine dental technicians, foot trimmers, farriers, hydrotherapists, animal behaviourists and veterinary physiotherapists – operate as spokes surrounding the hub, returning cases back to the vet whenever further direction is necessary.

The BVA’s recommendations recognise that the profession is operating within a rapidly changing environment, including an expansion in the range of allied professionals, concerns regarding veterinary workforce shortages, technological innovations and changes in the expectations of pet owners, farmers, industry and other clients.

To address these changes and clarify where the responsibility for a patient sits and how it is shared between vets and allied professionals, the vet-led team position also calls for:

- The regulation of allied professionals to include mandatory veterinary diagnosis and oversight and appropriate access to veterinary records as prerequisites before treatment
- Clarity on the delegation of duties for RVNs under Schedule 3 of the Veterinary Surgeons Act and protection of the “veterinary nurse” title in legislation
- Consultation with the veterinary profession on any regulatory changes that may arise as a result of technological or other innovation

The BVA’s Spring 2018 Voice of the Veterinary Profession survey revealed that over half of vets (52 percent) believe that regulation is one of the top three most important considerations when selecting an allied professional to work with. The same survey also found that many of the allied professions in which vets’ confidence is highest actually have little or no formal regulation in place.

In its vision for the vet-led team, the BVA makes a series of recommendations on accreditation and regulation of allied professions and calls for clear and accessible information to be made available to support veterinary decision making. To gain regulated status, allied professionals should be required to follow veterinary diagnosis and oversight as well as have appropriate access to veterinary records before treatment.

New BSAVA Summit to confront major issues facing profession

BSAVA is launching a new event to tackle some of the potentially contentious clinical and non-clinical issues facing veterinary professionals.

BSAVA Summit will take place over two days on 16 and 17 December 2019 at the Royal College of Physicians in London and will involve a series of high-profile keynote speakers and interactive workshops. Registration opened on 17 June 2019.

The event will deliver CPD differently to other veterinary meetings, with most sessions run as facilitated workshops to enable delegates to lead and shape discussions. Each day delegates can choose three out of a total of five workshops. Online forums will be used in the run up to BSAVA Summit to develop ideas and thinking for the workshops before the event.

The full programme is available and registration is open online at: bsavasummit.com

UK Islamic scholars would accept stunning under one condition

A survey has shown that over 95 percent of UK Islamic scholars indicated that pre-slaughter stunning would be halal-compliant if it could be shown that the procedure did not result in instantaneous death.

To gauge the level of Islamic scholarly understanding and perception of pre-slaughter stunning, Awal Fuseini of the University of Bristol School of Veterinary Science carried out a survey of Islamic scholars and halal consumers in the UK, surveying 66 scholars and 314 halal consumers.

The results of the survey showed that, on the perception of stunning, 69 percent did not think stunning is capable of reducing or abolishing the pain associated with the neck cut, whilst 58 percent indicated that they were not convinced that some methods of stunning were reversible, hence they put a blanket ban on all forms of stunning.

On the acceptability of stunning, over 95 percent of the scholars indicated that stunning would be halal-compliant if it could be shown that the procedure did not result in instantaneous death.
Topical issues facing the veterinary profession today

From following the gold standard to making practices greener, key topics were covered in the VetsNorth panel

This year, the regional CPD event VetsNorth took place at the Manchester Metropolitan University Business School on 12 and 13 June 2019. The conference had dedicated streams for veterinary medicine, surgery and nursing, and at the end of day one, ran a Q&A panel session for delegates in all areas of practice.

Facilitated by Jon King, Centre Manager for the World Veterinary Science Centre at the University of Aberystwyth, the expert panel comprised Wendy Nevins, President of the BVNA; Jon Hall, Senior Lecturer in small animal surgery at the University of Edinburgh; and David Williams, Director of Studies in Veterinary Medicine and Pathology at the University of Cambridge.

The problem with gold standard
The first question posed to the panel was “Do we always need to be following the gold standard?”

Simply put, David said, it is “somebody’s gold standard”; the best option will vary depending on the circumstances. At the vet school, they teach what the best thing to do is, but in situations limited by money, or some other factor, there are still things that can be done. He used the example of a blocked cat, for which there would be a typical operating procedure that would be considered “gold standard” – bloods, electrolytes, X-rays, etc. We could try other things to treat the blockage, “but are you able to do anything other than what’s considered best?” he asked. “The guidelines should say that there are several different routes.”

What actually is the gold standard? Wendy asked. Are we talking about the gold standard for the practice, the profession or the pet? Because these will not necessarily be the same.

Jon agreed, raising the question of “just because we can do it, should we?” “Just because it can be done, doesn’t mean it is gold standard,” he said. “When we talk to students, we’re clear that we want to work a case up thoroughly and tick every box: ‘this is one way of doing it; these are the safe corners we can cut; these are the risks we might introduce by doing that; and we target it to the patient.”

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Some things considered gold standard might also be for the sake of the clinician, as means to ensure that you as the clinician aren’t going to get into trouble, he said. “You have to use your veterinary acumen and your social conscience together.”

New graduates may leave vet school and get frustrated that we can’t always do what they consider the “gold standard” and it needs to be drummed in that this often isn’t just for the pet. We typically think the reason we can’t do something using a “gold standard” method is money but there are many other potential factors in an owner’s life that may alter what is the best treatment option for a pet.

A look at accountability
The next question asked how we ensure non-veterinary practice owners are held responsible for clinical mismanagement – for example, for enforcing short consult times or refusing to pay for the right equipment.

“Corporatisation allows non-veterinary owners and business management and input. If you argue it’s the same pot of money from the pet-owning public, it’s now held in a lot of levels in middle management and higher management; it’s going to get absorbed into that and taken away from veterinary surgeons,” Jon said. “And that means that the business owners don’t have the same investment in animal welfare and health; they are going to look at the financial bottom line.” On the other hand, vets can be soft, he said, highlighting that if they are left to their own devices when it comes to charging cases, things can go badly wrong for the business.

It’s easy to blame corporates and non-vet owned practices, Wendy said, “but I think we all need to make sure that we’re aware of our own value in practice”. If vets don’t charge as much as they should, it can have a significant negative impact on the practice. Consistent charging and valuing the time of vets and nurses is important and will help a business to be successful.

Bob Partridge, veterinary dentistry specialist, noted from the audience that the Royal College does require clinics that are non-veterinary-surgeon specialist, noted from the audience that the Royal College does require clinics that are non-veterinary-surgeon owned to have a clinical director. It’s not right to demonise corporate practices as being those with five-minute consults and no facilities, he said, noting that there are vet-owned practices that have limited facilities and do a poor job.

Thinking green
Finally, the conversation turned to a totally different area of practice with the question “How do you increase the environmentally friendly aspect of veterinary practice?” “Surgery is a horribly unenvironmental thing and I don’t know how you get away from that,” Jon said. But it is undoubtedly something we would all like to improve in practice.

Wendy advocated the role of vet nurses as champions of greener practice initiatives. There is lots of interest in the topic on vet nurse chat groups on social media, and this is a good place to go for more information and advice, she said. If we make more conscious decisions to buy products that are better for the environment, then we can improve, she said, adding that often, it can reduce costs for the practice too.

Contributions from the audience included turning down lanyards at events and plastic freebies from stands at exhibitions, washing out the urine pots for diabetic patients and giving them back to them and looking for other alternatives to single-use plastics, such as the VetPen for giving insulin.

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Managing millennials

How can management styles be adapted to keep millennials satisfied at work and so boost staff retention?

The millennial generation (defined here as people born between 1984 and 2000) has developed an unwanted, and probably unfair, reputation as being tough to manage with a much greater focus on work–life balance than previous generations.

At the Vet Festival in Surrey on 7 and 8 June 2019, Lucy Montague, Clinical Nursing Lead at Fitzpatrick Referrals, spoke about how management and leadership strategies can be adapted to get the most out of the millennial generation and encourage them to stay at a practice for longer.

A study conducted last year found that 40 percent of millennials only expected to stay in their current roles for a maximum of two years, Lucy said. In a profession where recruitment is an ongoing challenge and millennials comprise the majority of the workforce, we need to consider what we can do to retain these younger staff.

Though not often reported on, this generation has unique strengths, and we can draw on these to improve how we engage them and keep them happy in the workplace. It has been reported that millennials typically:

- Are very accepting
- Have a heightened desire for money to be used for good (and are drawn to companies that use their finances and resources to help others)
- Have a desire to make an impact
- Are willing to challenge the status quo
- Are digitally engaged
- Like to work in teams

There are also challenges that might need addressing in practice; for example, millennials may:

- Have low self-esteem
- Have no coping mechanisms for stress, and so increased levels of depression and anxiety
- Be impatient, expecting instant gratification at work

So how do you lead a team that is comprised primarily of people with these traits and characteristics? Lucy suggested some strategies that can be implemented in practice to address the challenges and ensure that staff members are supported and feel valued at work.

Leadership is the overarching theme here and it will typically fall to the leaders in the practice to drive these changes in policy and culture.

Mobile phones

Have a clear policy on mobile phones. It is very difficult to remove them from practice entirely, but how will you reprimand individuals who are found using social media on their phones on the practice floor? Why not take advantage of the millennials’ technological skills to improve your website and social media offering?

Development and feedback

It is important to millennials to receive feedback, so have regular appraisals and a clear review process in place. Specific, short-term goals should be set and opportunities to progress made clear. Help to build the confidence and self-esteem of these individuals.

Work–life balance

Think about how your practice could be flexible, but make sure you are realistic. Could you have longer hours and a shorter week? Consider holiday allowance and overtime – are these extra hours paid in money or in time off? Often time off is deemed more valuable.

Recognition

It is a good habit to publicly recognise when somebody in your team has done great work. When somebody passes an exam, publicise this internally. Encourage team members to write publications for journals and blog posts for the website. Embrace events such as Vet Nurse Awareness Month and make sure good work by all members of the team (and the team as a whole) is celebrated and valued.

Culture

It is important to have a strong, positive culture in the workplace. This provides a supportive environment in which people are comfortable admitting mistakes. Actively work to remove any kind of a blame culture in the practice and ensure that leaders are open about failure, too.

Responsibility

Millennials tend to shy away from responsibility, so delegating them tasks can help them develop their skills and kick-start their career progression. It also encourages trust in you as a leader.

This generation in particular needs to know that they have a supportive leader that they can trust, Lucy said. There must be clear rules, a well-defined disciplinary procedure and a development and feedback plan. See where you can be more flexible and recognise the good work of team members. If you can create a positive environment and culture in which staff are supported through mistakes, you will develop a happy and healthy workplace that will help millennials, and indeed all staff and the practice, to thrive.
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When is euthanasia the best option for welfare?

Difficult questions were addressed at the 2019 Animal Welfare Foundation Discussion Forum in London

The event, which took place on 5 June 2019 in Westminster, began with a fantastic talk by Polly Taylor, a European Veterinary Specialist in Anaesthesia and Analgesia. Polly discussed the topic of overtreatment, particularly of companion animals, and posed the question "just because we can, does it mean we should?"

There are two important laws to consider in this discussion: the Veterinary Surgeons Act, which is for the benefit of the animal, and the Animals (Scientific Procedures) Act, which allows procedures if the benefit to others outweighs the harm to the animal. Vets are not exempt from the ASPA and shouldn’t be performing new or experimental treatments on animals without going through an official process.

The "best" treatment isn’t always the right treatment and Polly argued that "the profession is getting carried away with apparent clinical excellence". As for new treatments, these are often lifesaving or are undertaken when there is "no alternative", but they should always go through a peer review process as a "sanity check", Polly said.

Ethical review ensures that the patients aren’t harmed along the way, including in those cases that are supposed to be for the benefit of the patient. To help make this process easier, Polly has been involved in the design of a "Veterinary Ethics Tool" (VET), which helps clinicians come to a decision by asking questions about the animal, the owner and the clinician.

She concluded by stating that "We are privileged to be able to apply euthanasia; this is not a failure."

Can we meet the welfare needs of exotics?

As the key theme to the day, a debate about keeping exotic animals in captivity followed. Exotics vet Tariq Abou-Zhar was tasked with reasoning that it is possible to meet the welfare needs of these animals in captivity. He argued that there are human benefits and benefits to the animals and, if it were made illegal, there would inevitably remain a large number of exotic pets kept "underground", which would only serve to heighten any welfare issues.

Zoo and wildlife vet Romain Pizzi explored the opposite case; he argued that a lack of poor welfare does not equal good welfare. Romain noted that in many cases, enrichment is provided to combat negative welfare, but that in a suitable environment, enrichment would not be required.

Mark Jones and Chris Draper from the Born Free Foundation continued the discussion, describing a lack of biological data for many exotic species. Mark reminded the audience that welfare must be considered throughout the entire supply chain, not just at the end destination. There is a lack of basic animal care advice, inappropriate holding conditions and inadequate legislation to protect exotic animals in trade, Chris summarised.

A member of the audience asked what happens if people come to your practice that aren’t capable of looking after the animal. What happens to the animal? Romain reiterated one of the messages from Polly’s talk earlier in the day: if we can’t move these animals into a high welfare situation, we can euthanise them. "We’re not trying to save everything, we’re trying to keep them well and if we can’t do that, we can euthanise them."

Expanding on the topic, it was asked if, considering overtreatment from Polly’s talk, the veterinary profession is facilitating long-term conditions and suffering in exotics not suited to life as pets.

Tariq said that the overtreatment principles apply in the same way to exotic animals. "If you get a Harris hawk with a fractured tibiotarsus, put a couple of pegs in it and three weeks later it’s fixed, brilliant. If you’ve got to do something incredibly invasive, like chemotherapy, there are questions that we should ask in terms of how far we should go." Chris argued that we need to be very conscious of the possibility of prolonging suffering of exotics in some circumstances by prolonging life in very poor welfare conditions.

There is a lot we don’t know about exotic species. We need to incorporate consideration of positive welfare into our assessments rather than focusing on whether basic needs are being met. One important point voiced during the discussion was that we must consider welfare throughout the supply chain, not just when they are being kept as pets.

Campaigns and education for the keeping sector, driven by the veterinary profession, could improve the welfare of exotic animals. Romain summarised the session by stating that it is possible to keep exotic animals to high welfare standards, but it is not easy, and we must consider the welfare needs of the individual animal throughout.
The value of mindful working

How mindfulness can be used as a tool to prevent stress, burnout and depersonalisation

When someone asks you what you do for a living, don’t you find that people react with a lot of interest? Often with a degree of longing for our career as they always wanted to be a vet or nurse. The general assumption is that we are living the dream, career-wise. There’s a long queue of disappointed A-level students desperate to get onto the course. And yet there’s a surprisingly long queue (42 percent of us) wanting out of the profession.

Why aren’t we more fulfilled?

Few careers provide the opportunity to have such a profound effect on the lives of others and to derive meaning from work. To experience the joy of facilitating healing, and to help support those patients who can manage a good quality of life despite their medical diagnoses is a pleasure that often passes us by.

Often, we disregard our clinical successes and are driven immediately to problem solving the next case. We would never get through the ops list if we spent our time basking in the glory of one case that went beautifully. But this isn’t mindful working. The avoidance of pausing to take a moment to observe what is good at work for fear that we might waste time is prevalent among vets and nurses.

Putting mindful working into practice

Taking a minute, or even 30 seconds, to appreciate a case that is going well, however minor a case it may be, might contribute to better time management for the next few hours. When we are stressed, or even just mildly overwhelmed or flustered, we are less focused on the individual patient.

We have a responsibility to ourselves, to our colleagues and most importantly to our patients and their owners to manage the stressors unique to our career path, to deter burnout and to improve the standard of care we provide to our patients. Being proactive is better than reacting to burnout after it has damaged one’s professional life or personal wellness.

Morbidity and mortality reviews of surgical errors show that one of the main reasons cited for gross errors is that the vet was not focused. They were thinking of something else which was apparently more urgent; they were not being mindful. Mindfulness is not a luxury that vets with short ops lists partake in at their leisure. Mindful working is paramount if we are to perform to the best of our ability and thus avoid many of the errors that would drive us to join the queue to leave the profession.

A study in the Journal of the American College of Surgeons by Carter Lebares last year looked at burnout and stress among US surgery residents. It rings true for many healthcare professionals and, I believe, very much so for vets. The author noted the connection between the mental health of the practitioner and how it affects patient outcomes. She examined burnout and the psychological characteristics that can contribute to burnout vulnerability and resilience in a group of surgical trainees.

Burnout was assessed with an abbreviated Maslach Burnout Inventory. Stress, anxiety, depression, resilience, mindfulness and alcohol use were assessed and analysed for prevalence. Truthfully, how many of these appear in your life? Among the 566 surgical residents who participated in the survey, burnout was a whopping 69 percent, equally driven by emotional exhaustion and depersonalisation. Depersonalisation involves a persistent or recurring feeling of being detached from one’s body or mental processes. To some of us, it may feel like going through the motions, purposefully feeling as little as possible in order to get through the day. Depression, suicidal ideation and anxiety were notably high across training levels, but improved with greater experience.

Odds ratios (ORs) were used to determine the magnitude of presumed risk and resilience factors. I include the OR in brackets just to stress the differences between burnout and mindful working. Higher burnout was associated with high stress (78), depression (48) and suicidal ideation (57). However, on a more optimistic note, she also found that dispositional mindfulness was associated with lower risk of stress (0.15), depression (0.26) and suicidal ideation (0.25). These figures are vastly different.

The case for mindfulness is strong. For it not to be promoted as part of the workplace culture is to miss a real opportunity to optimise patient care by promoting clinician self-care. This study supports the potential of mindfulness training to promote resilience, decrease exhaustion and burnout and to improve the standard of care we provide to our patients. Being proactive is better than reacting to burnout after it has damaged one’s professional life or personal wellness.

To promote mindfulness training in practice, why not have a mindfulness CPD day with a qualified mindfulness practitioner? This counts as RCVS CPD and is tax deductible. Set up a mindfulness hub in your practice and employ the mindfulness practitioner to teach staff how to use it for mini meditations.
How effective are isoxazolines for treating canine demodicosis?

Could a combination of imidacloprid and moxidectin be a better option for treating red mange?

Around three years ago, canine demodicosis, or red mange, was found to be treatable by a new class of drugs: isoxazolines. Now, a new Knowledge Summary in Veterinary Evidence has compared its efficacy against that of the commonly prescribed combination of imidacloprid and moxidectin.

Under the skin of canine demodicosis

In dogs, demodicosis is caused by an overabundance of *Demodex canis*, a species of the *Demodex* genus of mites that lives in the hair follicles. The mites naturally occur in low numbers and don’t pose a problem unless they reproduce in larger amounts. When this happens, it is assumed to have been triggered by immunosuppression or a genetic defect in the immune system of the skin.

Clinical signs can be local or generalised and range from small patches of mild skin irritation and hair loss, to severe body-wide inflammation and even purulent discharge when accompanied by a bacterial infection.

There are a number of treatment options for demodicosis in dogs, but best practice is still an area of discussion. This is confounded by a number of factors, such as the licensing of particular drugs depending on country; inconsistent dosage and administration; poor owner compliance; potentially serious side effects; misdiagnosis of the condition; underlying or secondary medical problems; and the difference in presentation of the disease in adults and juveniles.

Comparative efficacy of isoxazolines

The Knowledge Summary “Choosing treatment for dogs with generalised demodicosis – isoxazolines or imidacloprid and moxidectin?” aimed to investigate the evidence for two of the most promising treatment options.

By appraising five relevant studies, the Knowledge Summary concluded that isoxazolines have comparable efficacy to a combination of imidacloprid and moxidectin.

Three different and widely available forms of isoxazoline were tested among the studies – sarolaner, fluralaner and afoxolaner, given either orally or topically.

Across the studies, treatment success – as measured by gold standard mite counts on skin scrapings – was broadly similar, although isoxazoline groups achieved a marginally better reduction in mite counts. The differences, however, were not significant and could be explained by dosage frequencies or severity of disease.

Treatment with imidacloprid and moxidectin, on the other hand, tended to require more frequent dosage (ie once per week rather than monthly) and this may be a consideration for the veterinary professional, especially if treatment is reliant on successful owner compliance with administration at home.

All of the available studies were sponsored, and in most cases authored, by the pharmaceutical companies that prepare the isoxazoline. As a result, bias in study design, especially considering the nuances of treating individual presentations of the disease, is possible. However, the evidence is strong enough to support the use of isoxazolines for treating canine demodicosis.

Cautions for the veterinary professional

In 2018, the US Food and Drug Administration released a fact sheet (“Fact sheet for pet owners and veterinarians about potential adverse events associated with isoxazoline flea and tick products”) on the topic of side effects.

Although uncommon (none were noted in the studies appraised by the Knowledge Summary), drugs in the class have been associated with significant neurological side effects, including muscle tremors, ataxia and seizures, in dogs and cats. Veterinary surgeons should be particularly cautious about prescribing any such drug to animals with a prior history of neurological conditions or reactions.

Isoxazolines are not yet licensed for use in all countries, so the prescribing vet is urged to check local regulatory body advice. Similarly, they are advised to examine drug guidelines for dosage suggestions – this goes for all treatment options including imidacloprid and moxidectin, which is recommended as a monthly administration unless the case is severe.

Full Knowledge Summary


Author: Sarah Long
Giving the insight for owners to stay in control of their dogs’ health

Using pet activity monitors can help owners understand and improve the health-related needs of their animals

In a new partnership with PitPat dog activity monitors, Agria Pet Insurance demonstrates a further commitment to its ethos of promoting the importance of the owner–pet relationship, while at the same time helping owners take a positive step towards tackling dog obesity.

The partnership will see every owner who takes out a new Lifetime or Lifetime Plus policy with Agria Pet Insurance be given a free PitPat activity monitor for their dog. In a similar way to human activity monitors, PitPat uses the combination of a device, attached to the dog’s collar or harness, and an app, to allow owners to keep track of their dog’s activity and manage their weight.

Simon Wheeler, Managing Director of Agria Pet Insurance, says, “What’s particularly compelling about PitPat is the fact that it keeps owners actively involved in their dog’s health. By staying aware of their pet’s weight and the exercise they’re getting, owners can avoid problems caused or exacerbated by inactivity or obesity.

“Crucially, PitPat doesn’t encourage owners to overdo it, either. By recommending the right amount of exercise depending on the breed and age of dog, owners are advised on appropriate exercise, which is of course especially important where young dogs are concerned, as well as when they are slowing down in later life.”

Robin Hargreaves, BVA Past President and Vet Lead at Agria, says, “As well as being a health risk in its own right, obesity also makes every single other health condition worse; from skin conditions to heart disease and arthritis. Furthermore, there are the increased risks with any surgery that might be required on an animal that is obese – anything that we can do to help owners keep their pets at a healthy weight is really valuable.

"Having the awareness of how active your dog is and being reminded to weigh them gives a very beneficial insight. So many later-life problems can be either eliminated or mitigated by getting feeding and exercise right, and to give owners a tool to help with this, especially at the beginning of their pet’s life, is incredibly useful."

Agria Vet Team member, Yvonne, has been using the device to help achieve a healthier weight for her two-year-old Staffordshire Bull Terrier: “I got a PitPat to help with Nala’s weight-loss journey and it’s been brilliant. She’s gone from a slightly chunky 28kg, to a healthier 25kg and seems to have more energy than ever.

"The PitPat app is really easy to use and provides calorie and activity recommendations specific to her. Nala and I are enjoying working towards goals and earning badges together and I’m so pleased she’s now healthier and happier!"

Beth, RVN from a small animal practice in Bath, had the challenge of helping Harvey, the black lab she adopted, lose the extra 10kg he was carrying when she first met him. Using a combination of diet food and a PitPat, Harvey rapidly reached his target. Beth is now keen to share the results with her clients at the weight loss clinics she manages.

Dog owners taking out a new Lifetime or Lifetime Plus policy with Agria Pet Insurance will qualify for a free PitPat. See pitpat.com for further details

For further information about how Agria Pet Insurance supports veterinary practices, please visit: agriapet.co.uk/vets or call 03330 308390
Meet the vet campaigning to put Cornwall back on the map

Marion McCullagh speaks to Danny Chambers, a veterinary surgeon who was recently named Parliamentary Candidate for the North Cornwall Liberal Democrats

Danny Chambers is a veterinary surgeon based in Cornwall. He graduated from the University of Liverpool with an intercalated MSc in veterinary infectious disease control. Throughout his diverse career, Danny has worked with numerous veterinary charities abroad, including on public health programmes eradicating rabies from street dogs and projects treating working equids. At home, he is an active animal health and welfare campaigner.

In April 2019, Danny succeeded in becoming Parliamentary Candidate for the Liberal Democrats in North Cornwall. Marion McCullagh finds out more about his step into politics and his views on key issues in the profession today.

Do you think your work as a veterinary practitioner had anything to do with your success in becoming Parliamentary Candidate for the North Cornwall Liberal Democrats?

I grew up on a farm near Launceston and I have worked in equine and mixed practice in Cornwall for over 10 years, so I have developed a good understanding of the needs of the rural community. The diagnostic process relies on communication, observation, assessment of the problem and finding a practical solution. Sorting out homelessness, child poverty and the issue that many of my potential constituents are working but still in poverty needs the same thought pattern. I have the energy and determination to do my best for local people when I reach Westminster, just as I have done in my practice.

I see you have spent time in third world development and in academia

I did an intercalated year studying for my MSc in infectious disease control. In 2016, I worked in Iraq in Erbil, in Kurdistan, as a project manager for an agricultural improvement programme. We were 30 miles from Mosul, which was held by Isis. The Kurdish people are fighting Isis and fighting for their own autonomy, so the situation was extremely complicated. The war and the consequent political turmoil led to loss of production from very fertile land. Now the farming is mostly pastoral, producing sheep and goats, with veterinary services coming back into place, using a mixture of state and private services. When I was there, about 30 percent of lambs and 50 percent of kids were dying in the first week of life and diseases which we regard as notifiable were rampant. I was helping to organise vaccination programmes which were needed urgently. Honey production was another activity. It has a high financial return, a kilo of honey fetches $100 when it is sold to the UAE.

I had a combination of clinical teaching, public relations and business planning in my two years there. This broadened my outlook and, like my development work, gave me experience in organising institutions to make them as efficient as possible. Politics needs these skills; it is necessary to communicate and gain a consensus of opinion to get the energy to carry a project forwards.

Has your involvement in the Bristol Veterinary School helped towards your political career?

I had a combination of clinical teaching, public relations and business planning in my two years there. This broadened my outlook and, like my development work, gave me experience in organising institutions to make them as efficient as possible. Politics needs these skills; it is necessary to communicate and gain a consensus of opinion to get the energy to carry a project forwards.

There was a report that resistant bacteria, supposedly originating in dairy cows, were found in a sample of seawater taken from a Cornish surfing beach; how do you see the challenge of increasing resistance to antimicrobials?

According to the World Health Organization, antimicrobial resistance is the biggest threat to global public health. Many politicians do not understand the most basic biology; they do not even know the difference between bacteria and viruses. I believe that we need more science in politics; I feel very strongly that I can use my veterinary knowledge in Westminster. The best politicians communicate complicated concepts in a simple way. This is something that a veterinary surgeon does all the time. The concept of antimicrobial resistance is immensely complicated but the general public needs an awareness of the delicate balance between antimicrobials and the ever-changing genetics of pathogens. Antimicrobials are precious, but the efficacy is not immortal.
How do you see the veterinary profession developing in the face of the climate change emergency? Are we about to witness an end to meat-eating?

I became involved in looking at the various quality labelling processes when I was working with the BVA’s Farm Assurance Working Group. Schemes such as the red tractor and the RSPCA farm assurance scheme give the consumer an indication of quality farming, good produce and good animal welfare. The variations among these schemes were interesting for our group but may not be apparent to the consumer. The BVA is suggesting that we should be eating quality meat but less of it. Surprisingly, it is cheaper to buy the same amount of protein as meat than as economy sausage. The “Buy British” campaign leads the consumer towards sustainable farming, higher welfare standards and fewer air miles. Shoppers may be sympathetic towards animal welfare without understanding farming methods and this labelling gives useful guidance.

How do you see the veterinary profession adapting to the demands of the 21st century?

The urgent concern is to get the work–life balance right. Traditionally, vets worked hard, for long hours, and night and weekend duties were an integral part of the job. Now, both men and women want to work in a way that allows them to spend time with their families. Corporate practices have depersonalised the situation to some extent, there is less of the feeling of owning one’s job. In a small practice you worked until the job was done, regardless of time. When I qualified, I had a grant to get me through university. I expected to move into practice and be able to buy myself a house and in due course, buy into the practice as a partner. Now, the new graduate is burdened with student debt and salaries have not increased in the last 10 years, whereas house prices have risen fivefold. Partly due to the rise in the value of property, practice partners have been selling to the corporates for five times the value of the business. Today’s veterinary surgeon may be feeling that there is no tangible reward for extra effort.

I see that you are a trustee of Vetlife; can you tell me some more about that?

Vetlife grew out of the Veterinary Benevolent Fund, which provided financial and personal support for veterinary surgeons who were in difficulties. Now, Vetlife provides a 24-hour, 365-days-a-year email and telephone support system for veterinary professionals. This service is totally confidential. It involves 80 volunteer helpers who are either vets themselves or closely involved in the profession. There are about 24,000 vets in practice in the United Kingdom and from this, 2,775 calls for help were made in 2018.

Do you think that that is because the stress of working in the profession is increasing or is it that people are more willing to talk about their problems?

I think it is a bit of both. Practice is becoming increasingly sophisticated technologically; the veterinary world is changing very rapidly. There are intense emotional demands on the clinician, so it takes a blend of cool head and warm heart to thrive in practice.

As a Liberal Democrat you would have heard Vince Cable’s vision of a Britain as “A country where everyone can afford somewhere to live, in a safe, clean and friendly neighbourhood...” Do you regard this as utopian or achievable?

I think it is essential to be an optimist. Aims can feel unreal and idealistic but we all need to believe that a better future is possible. I want to be in politics to play my part in creating a better future for this country and especially for my constituents in North Cornwall.
EXOTICS

Should we be doing more for working ferrets?

Brush up on the diseases and injuries commonly encountered by working ferrets, which are still prevalent in the UK

Ferrets (*Mustela putorius furo*) have been domesticated for several hundreds of years. In recent years they have increased in popularity as pets, but they continue to be used for pest control and in sport.

Why are working ferrets important?
There are still substantial numbers of working ferrets in different parts of Britain. A national survey 10 years ago, conducted by pet food manufacturer James Wellbeloved in collaboration with the Ferret Education and Research Trust (JWB/FERT, 2009), indicated that nearly 20 percent of ferrets in Britain fall in the category known as “working”: in other words, they are used to help to catch rabbits or to kill rodents and, sometimes, other species. In some parts of the country, such as Norfolk, the figure was nearer 40 percent.

It is highly probable that more working ferrets are kept than that survey suggested. There appears to be no recent published evidence to suggest that the numbers have declined, nor has such a trend been noted by those of us who are familiar with farmers, gamekeepers, pest control operatives and falconers, many of whom continue to keep and use working ferrets.

Can the veterinary profession do more?
Although many books and scientific papers about ferrets have appeared in recent years, these are almost entirely concerned with those kept as pets or in laboratories. For instance, the otherwise excellent *BSAVA Manual of Rodents and Ferrets*, edited by Emma Keeble and Anna Meredith (2009), devoted only one introductory paragraph to the history of ferrets (noting that they were originally domesticated for hunting rabbits) and nothing specific about the (often unique) ailments and welfare needs of working ferrets appears elsewhere in that book.

Many owners of working ferrets do not seek professional advice, in part because there is a widely held belief among many that the average vet knows little about working ferrets and their particular needs. There is also the question of fees. As “pet ferret medicine” becomes more specialised, the cost of a consultation and investigative techniques rises – and those who keep their animals as a means of catching rabbits or controlling rats are less able to pay. It is sometimes easier to dispose of the ferret, or to attempt treatment with traditional remedies, rather than involve a vet.

Diseases and susceptibilities
Ferrets in Britain recognise signs of ill health in their animals, but most have little scientific understanding. They still sometimes refer to “the sweats” when describing ill health associated with external lesions in ferrets and “the staggers” when an animal shows general signs, such as incoordination (Porter and Brown, 1985). Some diseases of working ferrets are given in Table 1.

Discussion and conclusions
The current situation is disturbing. The veterinary surgeon has access to a rich variety of literature about the health and diseases of pet ferrets but next to nothing about those that are used primarily to hunt and to control pest species.

The developments in veterinary care of pet ferrets, on both sides of the Atlantic, are to be applauded. However, they have led to a sideling of working ferrets and there is an assumption by some that these animals are now a dying breed.

Ferrets kept as working animals have their own range
of health problems that are not the same as those seen in pets; their welfare and health will continue to be neglected unless better, focused, less expensive, attention is available. Working ferrets have served the human race well for 2,000 years. They deserve better from the veterinary profession.

Acknowledgements
I am grateful to my wife Margaret who for many years tolerated ferrets in our house and for helpful advice from friends and colleagues who keep and work ferrets, or have experience of treating them, especially Graham Wellstead, James McKay and Stephen Cooke. The National Ferret Welfare Society is to be commended for its concern for the health and welfare of all ferrets.

A full reference list is available on request.
How can veterinary professionals apply their unique skillset to become leaders in the sustainability challenges?

At a time when some of the world’s most pressing socio-political and environmental challenges are in sharp focus, what is the veterinary surgeon’s role in driving a sustainable food system fit for the future?

What role can, and should, we take in feeding the world’s growing population? And how do we use our unique expertise to best effect? How do we balance the need to feed a growing population with our responsibility for the welfare of animals in our care, and with the long-term environmental and economic viability of the farming communities of which we are a part?

The latest UN predictions of population forecast that there will be over 10 billion people in the world by 2050, which means an increasing demand for dietary protein – levels which have nearly doubled since 2005. This correlates with the rapid expansion of food animals to a global figure of over 70 billion, and a legacy of production systems with some major sustainability blocking challenges.

Sustainability challenges

In the 2016 Global Agricultural Productivity report, it is estimated that one fifth of all livestock are lost to disease through the production system. The frequently postulated need to “double food production” is challenged by some who argue that, if we can close some of these productivity gaps, we already produce enough.

There is little doubt that disease compromises sustainability across the board, and there is an urgent need to develop new ways of approaching the control of endemic disease across the globe. From an environmental perspective, loss through mortality or morbidity can be high as the resources (including land, water, feed and time used to rear the animal) may be wasted, and in the case of bacterial disease, the One Health or environmental “treatment cost” can also be significant. From an ethical perspective, the effect on animal welfare is clear, but high animal losses can also have a negative impact on agricultural workers and communities. These productivity challenges can be the source of huge economic loss or missed economic opportunity.

Environmentally, there is also evidence that both the amount and, critically, the way we use the land for food production have some major knock-on detrimental effects on climate and biodiversity. We are likely all aware of the impact of deforestation on rainforest in South America, but closer to home, the 2016 State of Nature report indicates a 56 percent decline in British wildlife species since 1970.

Harnessing our influence

As vets, we have much to contribute in terms of our broad knowledge of genetics, nutrition, husbandry, biosecurity and the judicious use of vaccines, diagnostics and treatments. Increasingly we have the ability to look at disease control in a holistic and truly preventative way, delivering practical, actionable solutions for producers – but we must do so in our professional lives with increased vigour and urgency.

As influencers, our profession has a strong role in societal leadership and advocacy through our actions and through veterinary practices as hubs of knowledge, by developing our knowledge of broader issues concerned with food production and its ethical, environmental and economic impacts. As we shift from being consumers towards being citizens – where we have the freedom not just to choose what we consume but to play an active role in shaping what those options are – this brings with it a responsibility with which we must be well informed and proactive.

We have a responsibility to lead by example and to do this with energy and enthusiasm for the huge positive changes we can and must all make. My own personal sustainability “audit” in the last year has included re-evaluating my family’s food consumption habits, growing a bit more, wasting a lot less and actively looking for more sustainable options in food packaging and some crucial ingredients such as palm oil, and an overhaul of single-use plastics – including ridding the house of lots of products from baby wipes, cling film and food bags to tea bags and packaging materials.

Alarmed to learn of the environmental cost of some cotton production and processing systems, we are trying to change our clothing use habits, asking questions of retailers about their sourcing, buying from more sustainable outlets and recycling. By more explicitly stating and acting on our own preferences, I hope that in some small way we are able to shape and focus the rate and path of change. This move from consumer to citizen has been called the “citizen shift”, and I see this as a way for us all to take action.

Both as professionals and human beings, we have much to contribute – by fully deploying our important skillset, taking personal responsibility, challenging ourselves in our professional and personal decisions and emerging as leaders in the sustainability shift.

This article was first published on the BVA blog
Locum, locum everywhere and not an employed vet to find. How close is this to the future reality of the veterinary workforce? The current recruitment and retention crisis facing the veterinary profession raises two questions: what can we do to improve the existing situation? and are there viable alternative business models to traditional practice?

There is a lot of anecdotal discussion in the veterinary press around the rise in locums and increasing difficulty in recruiting and retaining permanent staff. However, there is a scarcity of recent data of the numbers involved.

The BVA’s collaborative research with the University of Exeter looked at factors that influence motivation, retention and satisfaction in the veterinary workplace in general and the effect of gender discrimination. The SPVS Recruitment Survey 2017 cited low wages and vets feeling stressed or undervalued as contributory factors to the recruitment crisis. We need to work on these findings and encourage flexible and supported working in order to prevent the “skills haemorrhage”.

A recent survey by recruitment agency Recruit4Vets showed a rise in the number of applicants willing to consider locum work from 63 per cent in 2018 to 75 per cent in 2019. The majority of practices surveyed (80 per cent) reported having a locum working with them at any given time, and the majority of these (55 per cent) were longer-term placements of four weeks or more. Longer-term placements are more likely to be covering for staff shortages rather than periods of leave or absence. The most commonly cited reasons for becoming a locum were flexibility (83 per cent) and pay (69 per cent).

Better remuneration when locuming is the bottom line that grabs attention, with a lot of vets and nurses quoting poor pay as demotivating and a reason for leaving the profession. However, by the time the additional employment benefits are totted up, locum pay doesn’t always fare so well. As an employee, businesses frequently cover the costs of professional subscriptions and professional insurance. They provide CPD allowance, pension contributions, parental leave and pay, and sickness and holiday pay. Ambulatory jobs often come with a company car and fuel allowance.

Locums will have to fund this themselves and in addition, locums are more likely to require accountancy support. Employees are also heavily supported with rights against unfair dismissal and discrimination. There are fewer protections with locum work and an increased need for careful financial planning and consideration of income support protection. These additional factors should be carefully considered when calculating if locums are actually better off than employees.

Being masters of our own destiny and retaining control over work–life balance is an increasingly important motivator in modern society, with locum work often seen as the panacea. However, there can be trade-offs. There may be reduced continuity of care with long-term clients and less opportunity to develop working relationships with colleagues, clients and their pets.

Does this mean we need to look at alternatives to our business models? Should we look to more of a freelance business model in the UK?

Self-employed individuals buy into shared spaces such as the chair in the hairdressing salon. Indeed, this is the most common model for dentists in the UK. Here, the surgery facilities are used and maintained by a practice owner with self-employed associates making regular payments in return for the use of the premises, equipment, materials and staff.

In our day job, this would require a deep mutual understanding of common practice scenarios, such as the unregistered emergency running in the door. Who deals with it? There would also need to be consensus with provision of out of hours care and holidays. Associate models have similar tax implications to locum work with grey areas around what is classified as off-payroll working (IR35 legislation). For both, there is a requirement to prove the possibility of substitution should the associate or locum be unable to work.

In the short term, agile veterinary businesses which can provide flexibility, support and attractive remuneration packages are more likely to recruit and retain the best staff. Moving forwards, we may have to do things differently. To quote Peter Drucker, “The best way to predict the future... is to create it.”
Dietary management of chronic diarrhoea in dogs

Nutritional support can be tailored to each case to effectively manage this common condition.

**ELLIE GROVES**
PURINA PETCARE

Ellie Groves, BA (Hons), VetMB, MRCVS, is the Veterinary Affairs Manager at Purina Petcare. Since joining Purina, she has co-founded a cross-business initiative to drive advanced nutritional training, and her mission is to achieve a greater understanding of clinical nutrition in veterinary practice.

Chronic diarrhoea – defined as diarrhoea of over three weeks’ duration (Purina Scientific Review, 2012) – is a very common presentation in clinical practice and, in many cases, is one in which dietary management is central. It is important to highlight that diarrhoea is only a symptom, not a diagnosis.

Successful management of chronic diarrhoea relies on identifying whether the disease is small or large intestinal in origin and, as far as possible, reaching a definitive diagnosis, since this will significantly impact treatment strategies. The diarrhoea may be due to intestinal disease or may be the result of secondary or systemic conditions such as Addison’s disease or liver or renal disease. Whilst discussion of diagnosis is beyond the remit of this article, Table 1 highlights some of the differences in clinical presentation between small and large intestinal diarrhoea.

### Small intestinal diarrhoea
An appropriate diet to help manage canine small intestinal chronic diarrhoea should incorporate most or all of the following components. Some of these may vary in their importance or appropriateness for a particular condition (for example, limited antigen diets are of particular importance in the case of adverse reactions to food or IBD).

**High energy density food of 4 to 4.5kcal/g**
This is useful in many cases to help combat weight loss that could result from nutrient malassimilation (Hand et al., 2011).

**High digestibility, low residue**
This helps to maximise nutrient availability, reduce exposure to dietary antigens and minimise complications from the presence of undigested food (eg osmotic diarrhoea, altered microflora) (Hand et al., 2011).

### Protein of a high biological value, coming from a limited number of protein sources
This reduces exposure to ingredients that could cause a dietary allergy (adverse immunological reaction) or intolerance (non-immunologically mediated) (Purina Scientific Review, 2012). A reduced antigen diet reduces the risk of acquiring allergies to dietary allergens when tight junctions are disrupted. Malabsorption of poorer quality proteins can result in undigested material reaching the colon where it is broken down by colonic flora, producing higher levels of faecal water, which can worsen diarrhoea. It can also serve as a substrate for the growth of potentially pathogenic bacteria, and produce ammonia and sulphur-containing compounds, which can increase faecal odour and negatively affect the colonic mucosa. All of these cause further compromise to the gastrointestinal tract.

### Table 1

<table>
<thead>
<tr>
<th>SMALL INTESTINAL</th>
<th>LARGE INTESTINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency: two to four times a day</td>
<td>Frequency: more than four times a day</td>
</tr>
<tr>
<td>Urgency uncommon</td>
<td>Urgency common</td>
</tr>
<tr>
<td>Tenesmus rare</td>
<td>Tenesmus common</td>
</tr>
<tr>
<td>Increased volume of faeces</td>
<td>No increase in volume of faeces</td>
</tr>
<tr>
<td>Mucus rare</td>
<td>Mucus common</td>
</tr>
<tr>
<td>Melaena possible</td>
<td>Fresh blood possible</td>
</tr>
<tr>
<td>Steatorrhoea possible</td>
<td>No steatorrhoea</td>
</tr>
<tr>
<td>Weight loss possible</td>
<td>No weight loss</td>
</tr>
</tbody>
</table>

**TABLE 1** Some differing clinical signs may be seen in small and large intestinal diarrhoea (Lecoindre et al., 2010)

**An appropriate level of mixed fibres (soluble and insoluble)**
This helps to normalise gastrointestinal motility and slow colonic transit time to promote maximal absorption of colonic contents. Soluble fibres including inulin and oligosaccharides can function as prebiotics to selectively promote the growth of beneficial bacteria (eg *Bifidobacteria*) and provide nutritional support to the gastrointestinal mucosa and enteric cells. Fibre reduces the digestibility of the diet, so care should be taken to ensure it is not excessive. Prebiotics incorporated into some pet foods include fructooligosaccharides (FOS), mannanoligosaccharides...
(MOS) and inulin (Purina Scientific Review, 2012), and have a number of supporting studies demonstrating benefits on digestive health in dogs. Prebiotics may also play a direct role in host defences and immunomodulation. Prebiotics are selectively fermented in the colon by beneficial microorganisms such as Bifidobacteria to produce short chain fatty acids (SCFAs) including acetic acid and lactic acid. These organic acids are an energy source for colonocytes and reduce growth of potentially pathogenic bacteria.

**High carbohydrate digestibility of more than 90 percent**

High carbohydrate digestibility is advised (Hand et al., 2011); carbohydrate malassimilation can result in osmotic diarrhoea or bacterial overgrowth (Purina Scientific Review, 2012).

**Low in fat**

Fat malabsorption is associated with IBD, EPI, lymphangectasia and a number of other causes of small intestinal diarrhoea (Lecoindre et al., 2010). Fat digestion involves eight steps including the requirement of bile acids and pancreatic lipase. Absorption occurs predominantly via the epithelial cells at the tip of the villi, which are the cells most susceptible to mucosal injury. Thus, mucosal damage or deficiencies in pancreatic lipase or bile acids can result in fat malassimilation (Lecoindre et al., 2010).

A low-fat diet limits the quantity of malabsorbed fats that are fermented to hydroxylated fatty acids, and which can exacerbate diarrhoea. It also helps minimise fat malassimilation, bile acid malabsorption and consequential deconjugation of unabsorbed bile acids, and minimises increased mucosal permeability. Since fat delays gastric emptying, a low-fat diet is useful for any patients suffering from concurrent nausea or vomiting. Ideally, fat should provide a maximum of 15 percent of the total diet’s calories (Hand et al., 2011), and lower than this in some disease states.

**Increased omega 3 fatty acids from fish oils**

EPA and DHA help to maximise natural anti-inflammatory processes by modulating the generation and biological activity of inflammatory mediators (Lecoindre et al., 2010).

**High palatability**

This is important since many patients with chronic diarrhoea may suffer from inappetance.

**Appropriate electrolyte levels**

Chronic diarrhoea can cause abnormalities in electrolytes, eg sodium, chloride and potassium (Hand et al., 2011).

**Antioxidants**

It remains to be determined whether there are long-term clinical benefits of antioxidant supplementation for patients with chronic diarrhoea, but oxidation by free radicals will exacerbate any tissue damage and chronic inflammation. Antioxidants tend to be incorporated into most diet plans to help protect cells (LaFlamme et al., 2007).

**Large intestinal diarrhoea**

Causes of colitis include inflammatory bowel disease (IBD), irritable bowel syndrome (IBS), histiocytic ulcerative colitis in Boxers and food sensitivities. The three main dietary options to consider in colitis cases are:

- High digestibility (fat and digestible carbohydrate greater than 90 percent digestibility, protein greater than 87 percent)
- Increased fibre (with a blend of soluble fibres (particularly prebiotics) and insoluble fibres)
- Hypoallergenic (Purina Scientific Review, 2012)

Other dietary factors that may be of benefit in colitis include a low-fat diet to reduce irritation to the colon from hydroxyl fatty acids and bile salts as well as increased omega 3 fatty acids to help reduce inflammation (Hand et al., 2011). These are similar to management in small intestinal diarrhoea.

The choice of diet should be based primarily on the nature of the clinical disease present. For example, in IBD and food sensitivities, a hypoallergenic diet is likely to be most preferable, whereas in IBS, increased fibre may be the most effective (Hand et al., 2011). Other patient factors should also be considered; for example, if an animal has a low body condition score, a high-fibre diet may not be helpful. Optimal case management will often involve a multimodal approach with consideration of the diet, medications and environmental management. The rationale behind each is summarised in Table 2, along with potential disadvantages of the diet.

**Additional considerations**

In most cases of chronic diarrhoea, and particularly small intestinal diarrhoea, food should be given in small meals, little and often. Given that commercial complete diets are balanced, more convenient for owners and designed to meet the nutritional needs of animals with gastrointestinal disease discussed above, these are recommended over a home-cooked diet in most cases, and particularly given that these patients will require long-term dietary management. Ideally, any treats given should provide a maximum of 10 percent of the daily intake and consist of the main meal (for example, many wet commercial diets can be “shaped and baked” by owners to produce shaped treats).

**Nutritional supplements**

Probiotics are live microorganisms which, when adminis-
tered in adequate amounts, confer a health benefit on the host (Lecoindre et al., 2010), and they can be an additional useful nutritional aid in many cases of small and large intestinal diarrhoea. Within the pet food industry, they tend to be given as a supplement rather than incorporated into...
the food. They may help via several different modes of action, eg direct competition between pathogenic bacteria in the gut, creation of a hostile luminal environment for pathogens to grow and immune modulation and enhancement. Though now quite commonly incorporated into the management of diarrhoea, there is variable evidence for their use. They are usually used as part of a multimodal approach where it is difficult to determine their specific impact on any clinical improvement. There is little regulation regarding their use, resulting in marked variability in the quality, strains and doses incorporated into products. Within veterinary medicine, most commercially available probiotics are strains of *Enterococcus faecalis* but even between these, the strain of bacteria used – and the strength of evidence for its use – can vary. The clinician should critically assess the evidence for the particular strain and preparation of the probiotic before use, and ideally select a veterinary probiotic showing success for the disorder and species the veterinarian intends to use it for. Each animal will have a differing gastrointestinal microbiome and this, alongside other aspects of management, may influence how well any given probiotic works in a particular individual.

Another key consideration in chronic enteropathies is the level of vitamin B12. Many patients suffer from cobalamin deficiency, particularly those with a compromised distal small intestine, gut dysbiosis or EPI, and supplementation may be required. Whilst commercially available diets may have vitamin B12 supplementation, additional supplementation is usually required. This may be in the form of weekly parenteral subcutaneous injections of vitamin B12 (Lecoindre et al., 2010), or a veterinary-approved oral formulation.

### Conclusion
Canine chronic diarrhoea is a commonly encountered condition. Appropriate nutritional support, tailored to the individual case and underlying disease, has an important role in management. Some of these nutritional aspects are similar for small and large intestinal disease, including reduced dietary fat and prebiotics, whereas other aspects, such as increased insoluble fibre, may be very beneficial for some patients with large intestinal diarrhoea but contraindicated in many types of small intestinal diarrhoea. Alongside a suitable main meal diet, advice on meal size and frequency of feeding and use of a probiotic should be considered.

### Potential dietary approaches in canine chronic large intestinal diarrhoea

<table>
<thead>
<tr>
<th>DIET TYPE</th>
<th>ADVANTAGES</th>
<th>DISADVANTAGES</th>
<th>DIETS AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High digestibility</td>
<td>- Reduced osmotic diarrhoea due to reduced residue (reduced fat and reduced carbohydrate in colon)</td>
<td>- Lower fibre</td>
<td>- Hills i/d</td>
</tr>
<tr>
<td></td>
<td>- Reduced production of intestinal gases (reduced carbohydrate in colon)</td>
<td></td>
<td>- Purina EN</td>
</tr>
<tr>
<td></td>
<td>- Reduced antigens (reduced intact proteins in colon)</td>
<td></td>
<td>- Royal Canin Gastrointestinal</td>
</tr>
<tr>
<td>Increased fibre</td>
<td>- Increases faecal bulk, helps to normalise colonic motility by promoting segmental and longitudinal contractions, thus can benefit both diarrhoea and constipation in dogs</td>
<td>- Reduces overall food digestibility</td>
<td>- Hills w/d</td>
</tr>
<tr>
<td></td>
<td>- Buffers bile acids and bacterial endotoxins due to increased luminal acidity and increased faecal bulk which can dilute toxins</td>
<td>- Excessive soluble fibre may worsen diarrhoea</td>
<td>- Purina OM</td>
</tr>
<tr>
<td></td>
<td>- Binds excess water, helping to normalise stool consistency</td>
<td>- Increases volume of food fed – disadvantageous if patient is inappetant or has a low BCS</td>
<td>- Royal Canin Satiety</td>
</tr>
<tr>
<td></td>
<td>- Supports normal microflora (soluble fibres may function as prebiotics)</td>
<td>- Not advised for cats suffering from colitis (suitable for constipation only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Can prolong colonic transit time, enabling more complete absorption of colon contents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fuel for colonocytes (prebiotic sources provide SCFAs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypoallergenic</td>
<td>- Hydrolysis of proteins below a threshold of 18kDa molecular weight reduces antigen challenge in the colon</td>
<td>- May require fibre supplementation</td>
<td>- Hills z/d</td>
</tr>
<tr>
<td></td>
<td>- Tend to be high digestibility</td>
<td></td>
<td>- Purina HA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Royal Canin Anallergenic</td>
</tr>
</tbody>
</table>

**TABLE 2** Potential dietary approaches in canine chronic large intestinal diarrhoea (Purina Scientific Review, 2012; Lecoindre et al., 2010; LaFlamme et al., 2007)

A full reference list is available on request
Eliminating the causes of pruritus

How to approach the parasites, infections and allergies that can cause pruritus

Pruritus is a clinical sign rather than a diagnosis or disease and may have a multitude of causes. Broadly speaking, however, there are three main causes of pruritus that the clinician should consider when faced with a pruritic patient: parasites, infections and allergies. Additionally, some diseases that are primarily non-pruritic may become pruritic when secondary infection is present (eg an endocrinopathy such as hypothyroidism with secondary bacterial pyoderma).

Approaching the pruritic case
Investigation of pruritus necessitates a thorough dermatological history and clinical examination, and successful treatment outcomes depend on making an accurate diagnosis and managing the various components of the disease in the individual patient (Favrot et al., 2010). Rushing to address the pruritus without due care and attention to the various factors at play can result in poor response to treatment or even exacerbation in clinical signs, not to mention a frustrated client.

The challenge we frequently encounter is that atopic patients commonly present to the clinician with concurrent secondary infections (due to self-trauma and skin barrier defects) and many suffer from food-induced flares or a combination of food and environmental allergies. Furthermore, some patients can have hypersensitivities to microorganisms, which further complicates the disease process (Marsella et al., 2011; 2012).

In the context of the factors contributing to pruritus, it can be useful to refer to the pruritus threshold theory (Marsella and Sousa, 2011). This theory illustrates the fact that each individual patient has a personal threshold at which clinical signs of pruritus are evident (ie scratching, nibbling, chewing, rubbing) and, in the majority of cases, there are several factors that may contribute to the level of pruritus at any one time. It can be useful to think of these factors as “building blocks” that add up to push the patient over the threshold, with each building block having its own “height” or “weighting”. So, for example, a dog with a low-grade environmental allergy may be asymptomatic until it develops a secondary pyoderma, and by treating the secondary pyoderma, we can keep this patient below its pruritic threshold for most of the time. Teasing out the major components of each individual patient’s disease takes time but investing time in identifying these components can pay dividends in the longer term.

The diagnostic process
The diagnostic process should be logical and comprise a detailed history-taking exercise followed by a full clinical examination, a detailed dermatological examination and then basic screening tests (see Figure 1).

It is worth emphasising the importance of going back to basics when it comes to the initial investigations as the indiscriminate use of a wide variety of irrelevant tests too early on can lead the clinician into a maze of false positive and false negative results, resulting in an incorrect diagnosis and inappropriate treatment recommendations.

This is why allergy testing has no role in the “diagnosis” of allergy. Allergic skin disease is a diagnosis of exclusion; allergy testing should only be undertaken to identify allergens for avoidance and allergen-specific immunotherapy.

The history-taking exercise is an important first assessment of the presenting problem and often gives vital clues as to the underlying cause of the pruritus. Using a history-taking sheet can keep things streamlined and consistent and allows a certain amount of “staying in control” during the consultation. Key information such as general health, family history of skin disease, diet, lifestyle, travel history, history of contagion, medical history and how the skin disease has progressed over time or responded to treatment are all important to determine.

Specifically, the date and age of onset, distribution of the problem at onset, initial appearance, progression/regression of lesions over time, seasonality and pruritus score are vital to establish. It is also very helpful to determine (if possible) whether the pruritus preceded the development of skin lesions (common in allergic skin disease) or whether skin lesions preceded pruritus (common in pyoderma).

The clinical examination comes next and should begin with gaining an overall impression of the patient: demeanour, attitude and general distribution of lesions if obviously visible. A full clinical examination should be performed to assess the general health of the patient and include palpation of peripheral lymph nodes, abdomen and testicles (if present). The detailed dermatological examination should follow with an initial assessment of skin and coat quality and then a detailed examination of the entire skin for lesions, distribution patterns and presence of ectoparasites – not forgetting those hard-to-reach areas such as facial folds and interdigital skin (see Figure 2). Clipping of the haircoat may be necessary to visualise lesions in some cases.

It can be useful to annotate a body map with location of primary and secondary skin lesions. Establishing the
distribution and configuration of lesions may help prioritise certain differential diagnoses. For example, bilateral and symmetrical patterns often suggest a systemic cause (such as endocrine or allergy), whereas asymmetrical patterns may suggest infection or neoplasia.

Furthermore, certain breed-associated phenotypes have been recognised for canine atopic dermatitis (Wilhem et al., 2011). Some of these differences may be due to genetic variability while others are likely to be associated with variations in environmental factors.

Otoscopic should form part of the dermatological investigation and include examination of the pinnae and external ear canal plus assessment of discharge (if present) and the tympanic membrane. Even if the problem appears to be very localised (for example, pedal furunculosis or otitis), the clinician should be urged to look further and assess the skin in its entirety to look for other, perhaps more subtle, signs that may suggest a more generalised problem, such as allergy.

It is worth noting that cats show a much greater variety of clinical signs compared to dogs, and distribution patterns are often not quite so distinct (Hobi et al., 2011). Pruritus in cats is generally displayed as overgrooming and cats are usually quite secretive in their behaviour, which means that owners are not often aware that they are pruritic. Four cutaneous reaction patterns exist in cats, each of which represents a manifestation of pruritus: self-induced symmetrical alopecia, miliary dermatitis, head and neck pruritus and eosinophilic dermatitis. These different presentations often occur together in the same patient (see Figure 3).

A well-thought-out differential list should be developed and listed in order of most likely to least likely, taking into account incidence and prevalence of disease in relation to age of onset, breed, gender and geographical location. This will direct the use of appropriate tests and investigations so that a definitive diagnosis can be made.

**Basic screening tests and therapeutic trials**

Simple and inexpensive screening tests are very helpful in confirming or ruling out the main differentials of pruritus and can usually be performed during the consultation. Flea comb/coat brushings, skin scrapes, hair plucks and cytology form the “bread and butter” of any pruritus work-up and only require a basic dermatology work-up kit.

If parasites are identified or suspected, a treatment trial should be performed for at least three to four weeks. Any infection identified on cytology should also be treated. Often, these are done at the same time with an appropriate ectoparasiticide and a topical antimicrobial agent (sometimes systemic antimicrobial agents are required).

If pruritus persists and is non-seasonal, then a food trial should be undertaken. This can be more challenging in cats due to their lifestyle and risks of hepatic lipidosis if the patient refuses to eat the diet for more than a day or so. Owners require detailed instructions to ensure that the food trial is conducted reliably, and compliance is good.

The choice of trial diet should be based upon knowledge of prior dietary history, although recent studies have shown that the mislabelling of pet foods is common, even in those claiming to contain “novel” or “limited” ingredients (Olivry and Mueller, 2018). The author prefers to use a hydrolysed diet containing proteins that have not been previously fed if possible. The trial should be eight weeks long; diagnosis of food allergy is made by noting a marked improvement over a period of relapse within a week or two of reintroducing the previous diet.

Atopic dermatitis is a diagnosis of exclusion and once the other causes of pruritus have been ruled out, the clinician can be relatively confident if the history and clinical presentation is consistent (Hensel et al., 2015). Once the diagnosis is made, the next step is the individualisation of the treatment plan (Olivry et al., 2015).

The multimodal approach consists of a combination of some of the following: allergen avoidance, immunotherapy, infection control, essential fatty acids (or diets enriched in essential fatty acids), antihistamines, glucocorticoids, oclacinib, ciclosporin and lokivetmab, with the principle that the smallest amount of therapy should be used to minimise side effects. The patient should be regularly assessed, treatment should be modified if necessary and compliance should be maintained through good communication.

A full reference list is available on request.
How to better utilise nurses in dermatology

Nurses can and should play a key role in dermatology, facilitating more efficient case management and better outcomes for skin cases, which make up some 32 percent of cases seen in dogs and 27 percent in cats.

Dermatology tests nurses can perform include:

- In-house ear cytology, tape strips and impression smears for quick assessment for the presence of micro-organisms
- Hair plucks to look for Demodex mites as well as assess for causes of alopecia
- Skin scrapes for Sarcoptes and Demodex mites
- Blood tests which may make up part of a skin work-up
- Skin biopsies

Nurses can also get involved with lab work: correctly staining samples, whether taken by the nurse or vet, and performing microscopy – taking the time to ensure the samples are checked thoroughly. A nurse experienced at this is often more adept than a vet who may have limited time and interest in using the microscope.

Running dermatology clinics

A nurse with an interest in dermatology can go on to run their own dermatology clinic. They can use a questionnaire to help gather history and collate existing history to help the vet make a diagnosis and assess the skin, initially or as part of a check-up during ongoing therapy. Nurses can help with client education to aid compliance, by supporting and informing the client of the nature of skin disease and the reason and method behind treatment options. They can also aid in tracking cases and providing follow-up support, taking photos for monitoring progress and performing repeat tests to check progress.

Assisting with treatment

Nurses can be pivotal in the success of the multimodal approach needed for successful skin therapy. They can help with the selection of non-prescription topical products, such as ear cleaners, shampoos and foams, sprays and wipes. They can apply topical treatments where owners are unable to and can help compliance with treatment regimes through education and providing initial and ongoing support. Nurses can perform ear flushes under GA and monitor the healing progress of wounds and lesions.

Dermatology particularly is an area where the practice team, working together, can improve the outcome of cases, and utilising the veterinary nurse is essential.

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Epilepsy is the most common chronic neurological disorder in dogs and humans, with many similarities present between the two species (Shihab et al., 2011; Winter et al., 2018). The diagnosis of epilepsy is reached by a combination of history, signalment and investigations that generally include blood tests, MRI of the brain and CSF analysis where appropriate.

In one study, half of the owners reported that knowing more about the cause of seizures helped them understand their dog’s problem better and the costs associated with this were worthwhile. Reaching a diagnosis increased both owners’ and veterinary surgeons’ confidence in case management (Chang et al., 2006).

The diagnosis of epilepsy implies an ongoing commitment and associated costs with the management by the owners, and therefore it is important to understand the impact of this disease on both dogs’ and owners’ quality of life. Owner involvement is paramount to a good outcome and consequently, owner education with regards to seizure identification and management, as well as good communication, are essential (Nettifee et al., 2017). It is accepted that dogs with epilepsy may have a shorter survival time, estimated between 2.07 and 2.3 years, where poor seizure control and high initial seizure frequency are associated with shorter survival times (Packer et al., 2018).

**Measuring quality of life**

Health-related quality of life (QoL) is defined by the World Health Organization as “an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person’s physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment.” This definition cannot be extrapolated to dogs and measurement of QoL in animals can be challenging.

Assessment in animals should include not only physical health but also all aspects of the pet’s life (Belshaw et al., 2015). This assessment is performed by the owners where they recognise and interpret their animal’s behaviour. As much as this may be subjective, the same occurs in humans where self-reporting is not possible (Belshaw et al., 2015; Wessman et al., 2016). In humans, evaluation of QoL is part of the assessment of the success of treatment and the same should happen in dogs.

Canine epilepsy studies have focused on the seizure presentation itself, seizure control and side effects of medications used as well as its impact on the owners. Chang and colleagues found that a good QoL, adequate seizure frequency (in this case considered one seizure every three months or less) and acceptable side effects of anti-epileptic drugs were the most important factors, and that administration of medication and monitoring and costs were not a concern.

One third of owners with work commitments and two thirds of owners without work commitments reported that caring for an epileptic dog did not interfere with their commitments, but 60 percent of them reported that it affected their free time regardless of seizure control (Chang et al., 2006). The owner’s quality of life correlates with the perceived quality of life of the pet and some owners reported panic attacks, depression and feeling isolated for looking after an epileptic pet (Wessmann et al., 2016).
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Use medicines responsibly www.noah.co.uk/responsible.

For more information please view the full SPC or contact TVM UK Animal Health Ltd Kirtlington Business Centre Slade Farm Kirtlington Oxfordshire OX5 3JA UK | telephone 0800 038 5868 | email help@tvm-uk.com

1. TVM study A123737. Pivotal bioequivalence study of two formulations of phenobarbital in the dog.

*based on list price Jan 2019

Download our free seizure management guidelines at www.tvm-uk.com
Changes in behaviour and cognition

Most recently, behavioural changes and cognitive impairment have been studied. In humans, somatic and neuro-behavioural comorbidities are associated with recurrent seizure disorders and this seems to occur in pets too (Shihab et al., 2011; Winter et al., 2018; Packer et al., 2018).

In one study, questionnaires that included 80 patients were reviewed and found that in 71 percent of the dogs, their behaviour changed. Dogs on no treatment were found to be more anxious/fearful when approached by unfamiliar people or dogs, in unknown surroundings or with sudden movements. They became more aggressive in general and started barking with no reason, chasing lights or shadows, pacing and staring.

When medication was started, defensive aggressive behaviour decreased but all others increased. Non-responder dogs (with less than 50 percent decrease in seizure activity) showed significant differences in aggression, abnormal perception and behaviour compared to the responders which could lead to a behavioural marker of pharmacoresistance in dogs with epilepsy (Shihab et al., 2011).

Another important finding to consider relates to cognitive impairment. Packer et al. found four risk factors associated with canine cognitive dysfunction:

1. Epilepsy diagnosis
2. Older dogs
3. Lighter dogs
4. Training history: more training related to lower risk

However, epilepsy-related cognitive dysfunction represents a different entity from the common canine cognitive dysfunction based on nature, progress and age of onset. In canine epileptic patients, the onset of cognitive dysfunction happens earlier in life. It affects mostly memory and there is no significant progression over time. In these patients, no impairment in social interaction has been reported.

Seizure frequency has been associated with the degree of mental decline in humans and equally a history of cluster seizures and high frequency is associated with a greater degree of cognitive impairment in dogs. Interestingly, anti-epileptic drug therapy had no impact on scores of cognitive dysfunction, but this should be interpreted with caution as more information is required to confirm this finding (Packer et al., 2018).

Conclusion

Taking into consideration quality of life when deciding on treatment of a chronic disease is very important. It is important to evaluate the impact of the disease and the treatment, the effects they may have on the owners and how that is going to dictate compliance. Further studies are required to evaluate the effect of epilepsy in our patients but the current available literature gives good initial information to aid decision making.

A full reference list is available on request.
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Is feline lungworm infection underestimated in the UK?

Know how to spot lungworm infections, which may become more clinically relevant with climate change and increasing pet travel.

The spread of *Angiostrongylus vasorum* across the UK over the past two decades alongside media campaigns and research into its epidemiology, diagnosis and prevention has led to raised awareness of this parasite. In comparison, the impact of feline lungworms on the health of UK cats has been relatively overlooked with knowledge gaps persisting in their UK distribution and pathogenicity. While cats are not infected with *A. vasorum*, they can be affected by two lungworms of veterinary significance that have been demonstrated to be endemic in the British Isles. These are *Aelurostrongylus abstrusus* and *Eucoleus aerophilus*.

**Aelurostrongylus abstrusus**

*Aelurostrongylus abstrusus* has a worldwide distribution and is thought to be endemic in most European countries including the UK and Ireland. It has an indirect life cycle with first-stage larvae (L1) passing out in the faeces of cats and molluscs acting as intermediate hosts. A number of reptiles, amphibians and birds can act as paratenic hosts, making hunting cats at greater risk of infection (Traversa and Di Cesare, 2013). Adult worms live in the lung parenchyma and small bronchioles with small foci in the lung tissue, although larger foci of up to 1cm with wider areas of consolidation can occur. Muscular hypertrophy and hyperplasia of the bronchioles, alveolar ducts and pulmonary arteries are typical pathological changes.

Although *A. abstrusus* infections are commonly of low pathogenicity and reports of fatal cases are rare, infected cats commonly present with respiratory signs. The most common clinical presentation is a mild to moderate chronic cough, but many other signs may be present including sneezing, wheezing, mucopurulent nasal discharge and dyspnoea, with or without tachypnoea. These in turn may lead to lethargy, anorexia and weight loss. Fatal cases are rare but can occur, especially in kittens and the immune suppressed. A fatal case of aelurostrongylosis was recently reported in a UK kitten with an exceptionally high worm burden (Dobromylský et al., 2019), demonstrating the need for *A. abstrusus* to be considered as a differential for severe as well as mild respiratory signs in both adult cats and kittens.

Diagnosis relies upon Baermann faecal analysis (Figure 1) for the detection of L1 larvae. In experienced hands this can be highly specific but is relatively insensitive as larvae are...
only shed intermittently and it requires examination of fresh faecal samples over three consecutive days to improve sensitivity. L1 larvae of A. abstrusus are typically 360 to 400µm in length with a kinked “s”-shaped tail, dorsal and ventral incisures and a knob-like projection (Figure 2). In cats that have travelled to continental Europe, Troglostrongylus brevior should be considered as a differential. T. brevior L1 larvae are morphologically very similar to A. abstrusus and distinguishing between them is a specialised task (the "s"-shaped tail is less kinked in T. brevior). Indeed, the wide variation in lengths reported in the length of T. brevior L1 larvae (300 to 500µm) may be due to A. abstrusus L1 larvae being misdiagnosed as T. brevior.

Treatment and prevention

Fenbendazole is licensed for the treatment of A. abstrusus infection and is effective at 50mg/kg daily for at least three days, although longer periods of treatment (up to seven days) may be required. In recent years, spot-on solutions containing eprinomectin (Broadline) and emodepside (Profender) have also gained treatment licences for A. abstrusus, offering treatment flexibility to improve compliance. Other spot-on preparations have been demonstrated to have 100 percent efficacy against the parasite, including moxidectin (Advocate) and selamectin (Stronghold) but their use is off licence (Traversa et al., 2009).

This apparent susceptibility to a wide range of anthelmintics in routine prophylactic use against a range of other parasites may explain why prevalence in domestic populations of cats remains low when compared to higher prevalence in feral cat populations. Lifestyle, however, is also likely to play a role in this variation with indoor cats having been demonstrated to have a lower prevalence of infection (Elsheikha et al., 2019). Response to treatment is often excellent with reversal of pathological changes (with the exception of the muscular hypertrophy) and resolution of clinical signs.

With the potential for fatal cases and chronic respiratory changes, preventative treatment is warranted in cats at high risk of infection. The parasite has been demonstrated to be present in the English and Irish cat population at low prevalence and therefore is likely to be present at least focally across the whole of the UK. A recent study found prevalence to be significantly higher in cats living in the south east of England, but it is more likely that lifestyle is a greater risk factor for infection in cats than geographical location (Elsheikha et al., 2019).

Prevention should be considered in cats with a history of hunting and those with outdoor access. Emodepside is licensed for use in cats at risk of infection and it is likely that routine use of emodepside or a macrocyclic lactone will have a protective effect against clinical aelurostrongylosis. Limiting access to paratenic and mollusc hosts by keeping cats indoors is also likely to be an effective preventative measure but not always practical.

Eucoleus aerophilus

Canine and feline respiratory infection caused by E. aerophilus is sporadic across Europe and most cases are subclinical. Clinical cases in cats, however, have been reported (Barrs et al., 2000; Foster et al., 2004). In Europe, the nematode is commonly found in wildlife, with foxes being a reservoir in the UK and Ireland (Morgan et al., 2008; Wolfe et al., 2001) but recently it has been identified in companion animals including cats. Knowledge of epidemiological data (eg range of hosts and geographic distribution) of E. aerophilus in Europe is fragmentary but it would appear that cats are occasionally infected due to reservoirs of infection maintained in wildlife hosts such as foxes where prevalence can be high.

Typical clinical signs associated with infection include a cough (productive or unproductive), sneezing and dyspnoea, with or without tachypnoea. E. aerophilus infection should be considered as a differential in cats presenting with these signs. Diagnosis is achieved by identification of the lemon-shaped, slightly asymmetrical bipolar plugged eggs by faecal flotation (Figure 3). Shedding of these eggs may be intermittent and faeces should be tested over three consecutive days.

Treatment and prevention

There is no product licensed for the treatment or prevention of E. aerophilus infection and data on efficacy of anthelmintics against the parasite are lacking. One recent study, however, demonstrated a spot-on preparation of moxidectin (Advocate) to have close to 100 percent efficacy against infection (Traversa et al., 2012). Prevention of exposure to environmental infection is difficult without keeping cats indoors, but this should be considered in repeatedly infected cats or the use of a monthly moxidectin/imidacloprid preparation off licence where this is not practical.

Conclusions

Lungworm infections can cause significant lung disease and are often overlooked in cats presenting with acute and chronic respiratory signs. They should be considered as a differential in cats with relevant clinical presentations, especially those that hunt or have regular outdoor access. Recommendation of monthly emodepside or macrocyclic lactone use is warranted as a preventative measure in cats at higher risk of infection or switching to an indoor lifestyle where this is practical. Pet travel and climate change will only make feline lungworm infections more clinically relevant in future years, with the possibility of exotic feline lungworms such as T. brevior establishing. Veterinarians must therefore be prepared to encounter feline lungworms in practice and give accurate preventative advice to clients to help keep UK cats free from parasitic respiratory disease.

A full reference list is available on request
IN FOCUS

Nematode control in cattle

Developing an effective plan for controlling roundworm and reducing disease risk in summer

JACQUELINE MATTHEWS

Jacqueline Matthews, BVMS, PhD, FRSB, FRCVS, is an RCVS Specialist in Parasitology and has worked in livestock and equine parasitology for around 30 years. Her group studies nematodes, focusing on diagnostics, vaccines and sustainable control methods. She has published more than 140 peer-reviewed research papers, reviews and book chapters.

In intensive farming systems, roundworm (nematode) control needs to be applied to avoid infection levels that affect production or cause disease. More often than not, infection is subclinical, with subtle effects on liveweight gain and/or milk yield. In animals with high burdens due to a lack of, or inappropriate, control measures, disease can be seen.

For many years, the regular application of broad-spectrum anthelmintics underpinned control programmes. This has led to drug resistance. Reports of resistance in cattle nematodes are increasing worldwide. It is commonly detected in the intestinal worm species, Cooperia oncophora, but there are also reports of drug resistance in the pathogenic worm, Ostertagia ostertagi, including in the UK. With new dewormer actives still on the horizon for cattle, once effectiveness of the current products is lost, significant worm-related losses could become commonplace.

To reduce selection pressure for resistance, evidence-based approaches to control need to be taken. These require a balance between treatments to reduce infection and minimise production loss, whilst preserving efficacy.

Variation in worm prevalence and farm management means that plans should be designed on a case-by-case basis. Effective plans require a good knowledge of parasite epidemiology and farm history, supported by diagnostic tests to help build a picture of the parasites present, which animals are most susceptible to infection and, ideally, anthelmintic sensitivity of the resident worms.

Diagnostic-led targeted treatments can be used during the grazing season, with all-group strategic treatments to target worm stages not detectable by faecal egg count (FEC) tests. Diagnostic-informed treatments are best utilised in summer for nematode control, along with grazing strategies that break the worm life cycle to reduce challenge.

Control options

For nematodes, first and second grazing-season cattle should be the main priority in control plans. In the first season, disease risk depends on birth date and whether or
not calves graze with their dam. At highest risk are weaned calves on pasture grazed by cattle in the previous 12 months. In these high-risk groups, all-group treatments can be administered strategically from three weeks after turn out, in the first half of the season, to reduce larval contamination. Frequency of applied treatments will depend on the level of "persistence" of the formulation used.

All-group treatments provide a strong selection pressure for anthelmintic resistance. For this reason, and where calves are at lower risk of disease, ie when grazing clean pasture or spring calves grazing with their dams, decisions to treat should be based on growth monitoring and FEC testing.

Liveweight gain is a very effective indicator of infection level when there is sufficient nutrition and no other disease, so routine growth monitoring is a valuable tool when assessing whether or not to treat. This can be supported by FEC testing to monitor contamination or effectiveness of treatment.

**Faecal egg count (FEC) testing**

From late spring to summer these tests can be used, especially in calves, to assess nematode contamination onto pasture to guide management and treatment decisions. Nematode egg shedding does not correlate well with burden or liveweight gain in young cattle. FEC tests measure egg shedding to provide information on:

1. Worm infection dynamics and contamination across a season
2. The differential diagnosis of diarrhoea and/or weight loss in grazing cattle
3. Identifying animals that contribute most to contamination for selective treatments to reduce egg shedding within groups
4. Estimating the effectiveness of dewormers

The FEC test gives an approximate value for egg numbers shed and can be used to estimate contamination, eg a 200kg calf with a 200 egg per gram (EPG) FEC that deposits 5 percent of its liveweight in dung each day will excrete approximately 2,000,000 eggs/day.

The test is also a useful tool for informing treatment decisions in dairy cows year-round to mitigate the production effects of subclinical infections. Blanket use of anthelmintics in all milking cows is not recommended as not all cows have a burden requiring treatment.

Nematode eggs are not evenly distributed in dung so representative samples from across a pat must be obtained – take a heaped dessertspoon’s worth in three to four sub-samples from across the pile, and mix well. The sample must be kept cool and the container airtight to prevent egg hatching, which will lead to underestimation of counts. The Control of Worms Sustainably (COWS) group has recently published a leaflet on how to carry out FECs, which can be viewed at: [cattleparasites.org.uk/resources](http://cattleparasites.org.uk/resources).

Dung should be mixed well at the lab before taking a sub-sample for counting. It is good to use a sensitive method to reduce variability. Methods that apply a large multiplication factor, ie X100, lead to imprecise results and are not recommended for efficacy testing.

Several tests are available with good sensitivity: FLOTAC (sensitive to 5 EPG) and FECPAKG2 (sensitive to 20 EPG). These are useful for testing older cattle, which often have low FEC.

FEC tests have no value in detecting pre-patent infection and therefore are of no use in diagnosing early parasitic gastroenteritis.

**Testing dewormer efficacy**

It is also important to test effectiveness of dewormers. The FEC reduction test (FECRT) is used for this purpose. As a "look-see", dung samples can be taken one to two weeks post-treatment from 10 animals/group to provide a guide as to a treatment’s effectiveness.

If this test proves positive, a more detailed FECRT should be performed. This involves testing individual samples from as many of a group as possible (15 or more). Dewormer should be administered at 100 to 110 percent dose rate and FEC analysed for each calf at treatment and 10 to 17 days later, depending on the anthelmintic used (10 days after benzimidazoles, 14 to 17 days after levamisole or macrocyclic lactones).

The mean percentage egg count reduction is obtained by comparing day of treatment FEC and post-treatment FEC. Values below 90 percent (benzimidazoles, levamisole) or 95 percent (macrocyclic lactones) indicate resistance may be an issue.

**Conclusions**

Before the start of the grazing season, a worm control plan should be drawn up so that anthelmintics are used as needed. To reduce selection pressure for resistance, decisions should be based on epidemiology, history, season, weather and type and age of the stock and guided by diagnostic tests. The risk of helminth-associated disease can be reduced by avoiding contaminated grazing in high-risk animals and by using mixed or alternate grazing with sheep.
A look through the latest literature

Combination anthelmintic treatment for dogs persistently shedding hookworm ova

Lindie Hess and others, Ohio State University, Columbus

The hookworm, *Ancylostoma caninum*, is a nematode parasite causing anaemia and diarrhoea in dogs and its third-stage larvae may be associated with the zoonotic condition cutaneous larval migrans. An unusual feature of this parasite is the ability of its larval stages to migrate to, and encyst in, somatic tissues before reactivating and migrating to the mammary gland during pregnancy. Drugs that are poorly absorbed from the gastrointestinal tract are ineffective against the encysted or migrating stages. The authors used a combination of topical moxidectin, followed by pyrantel, febantel and praziquantel at monthly intervals in greyhounds that were persistently shedding *A. caninum* ova. They suggest that this combination treatment is effective in controlling persistent or non-responsive infections.


Effects of climate and season on anthelmintic resistance in cyathostomins

Martin Nielsen and others, University of Kentucky, Lexington

Equine veterinarians around the world have reported increasing problems of anthelmintic resistance in cyathostomin nematodes against all the main drug classes. The authors developed a computer model of the cyathostomin life cycle to evaluate the influence of climate and seasonality on the development of anthelmintic resistance in these parasites. Climate was shown to be an important factor in the emergence of resistance. They also state that this study is the first to demonstrate the value of cyathostomin parasite refugia in managing anthelmintic resistance.

*Veterinary Parasitology*, 269, 7-12.

Risk factors for *Candida* urinary tract infections in cats and dogs

Krystle Reagan and others, University of California, Davis

*Candida* is a genus of yeasts that are commensal residents of the mucosal surface but may cause disease in hosts with damaged mucosal barriers or a compromised immune system. Infections of the urinary tract are fairly common in dogs and cats but little is known about other potential risk factors. The authors reviewed the clinical notes on 18 dogs and 8 cats with urinary tract infections. Their findings show that the recent administration of antibacterial drugs is a potential risk factor for the development of candiduria in both species.

*Journal of Veterinary Internal Medicine*, 33, 648-653.

Entomological and socio-behavioural components in heartworm prevalence

Nicholas Ledesma and others, Cornell University, Ithaca, New York

*Dirofilaria immitis* (heartworm) is a major health issue in companion animal practice in the US. The authors circulated a questionnaire completed by 96 Florida residents on their knowledge of the condition. Most dog owners administered preventive treatments to their pets but for those who did not, a lack of risk awareness, rather than cost, was the main reason why. Mosquitoes belonging to 28 different species were collected from the respondents’ properties, seven of which were *D. immitis* positive.

*Journal of the American Veterinary Medical Association*, 254, 94-103.

Comparing clinical and imaging findings in cats with single and mixed lungworm infections

Elettra Febo and others, University of Teramo, Italy

A number of different lungworm species are known to infect cats and mixed infections have been reported with increasing frequency, particularly in the Mediterranean countries. The authors compare the clinical and radiological findings in cats with the respiratory nematodes *Aelurostrongylus abstrusus*, *Troglostrongylus brevior*, *Capillaria aerophila* and mixed infections of each. They found that those cats with mixed infections tended to have higher clinical scores. There was no clear correlation between the clinical and radiographic scores.

What a sweet sight – sitting there munching a nut from last autumn before spotting me, then scampering off and heading up a tree trunk deftly to leap from one branch to another as it speeds away. And yet, apparently, I should see this animal as a pest – as vermin to be euthanised if it were presented to me in my clinic rather than to be cared for and released. And all because its name is *Sciurus carolinensis* rather than *Sciurus vulgaris*; it has a grey coat rather than a red one.

The grey squirrel didn’t ask to be introduced into the UK from North America back in 1876, did it? It’s not its fault that it is so well suited to living in the UK.

We might consider the grey squirrel responsible for the decimation of the red squirrel population. This happened because it is able to survive cold winters through its greater fat reserves and live with squirrel pox while its red counterpart dies of the disease. But neither the whole species nor any individual animal is “responsible” for the demise of its “vulgar” cousin in the same way that by driving our cars and flying across the world, we are responsible for climate change.

We do have a strange way of passing the buck for our errors, don’t we? We introduced the grey squirrel. We leave food litter around that it can easily scavenge. We persecuted the red squirrel as a pest for years – the Highland Squirrel Club killed 80,000 red squirrels more than 100 years ago and many such clubs existed across Scotland. We destroyed millions of acres of woodland that was the red squirrel’s natural habitat to make way for agriculture and housing.

I’m sure that much of this was done thinking it was exactly the right thing to do at the time. That being said, sometimes we did massacre species without thinking what we were doing.

We killed off the beaver (*Castor fiber*, if Latin names give you a buzz!) by trapping them. We killed them for their meat and their pelts to some degree for sure, but mostly for castoreum: a sweet-smelling (apparently – I’m not speaking from experience) liquid that originates from glands (the castor sacs) between the beaver’s genitals. Beavers use the secretion to oil their fur and make it water-resistant. Very reasonable. But how anyone reasoned that a secretion from there would be appropriate to use in cosmetics and medicine, I don’t know. We wouldn’t say the same for what comes from a dog’s anal glands would we? (And there I do speak from experience!)

We exterminated beavers from the UK 400 years ago, yet still consider them indigenous in a way that grey squirrels which have been around for 100 years aren’t. “Indigenous” to the extent that we are spending £2 million or more to bring beavers back from Norway to repopulate Scotland. “Indigenous” to the extent that we don’t seem particularly bothered by the fact they may carry the zoonotic tapeworm *Echinococcus multilocularis*. “Indigenous” to the degree that we haven’t thought that their dams and lakes may alter environments irrevocably affecting species considered truly indigenous.

And what next? Wolves maybe? Computer modelling has suggested that wolves could significantly combat the problem of overabundant red deer in the Highlands (who caused that, I wonder?) but what about impacts on sheep farms and tourism? These potential issues need to be taken into consideration too.

I’m worried: it seems that somehow whatever we do with the best intentions typically falls foul of one poor estimate or another.
Veterinary practices and a bovine TB future

Will the vet’s role evolve in an updated picture of bovine TB in the UK?

Earlier this year, veterinary surgeons attending an evening meeting in Devon to discuss bovine TB were asked by the speaker to indicate their confidence that the current initiatives were leading to disease eradication. A forest of hands indicated that the veterinary surgeons were dissatisfied by the current levels of disease. The speaker clearly had strong views and it may be that the audience was being manipulated; however, at the Official Veterinarian Conference in September and the British Cattle Veterinary Association Congress in October, there will be in-depth analysis and discussion about the current and future tools, initiatives and approaches to combat the disease.

The veterinary surgeons who raised their hands at the meeting were reacting to the disease occurrences within their clients’ herds. Individual veterinary practice data is not generally available, but county and country statistics have been published, so individual veterinary surgeons can compare their experience to the general picture.

The current bTB situation in the UK

The latest situation for Devon is that there are 4,697 herds, and 1,364 herds (29 percent) were bTB restricted during the 12 months to the end of February 2019. There is a great range of data available but in order to gauge progress with disease eradication, the 688 new herd incidents identified may be relevant. Five years earlier, there were some 130 more herds in the county and 817 new incidents. Devon has had the highest number of infected herds for many years; the data for neighbouring counties is shown in Table 1.

If the county data reflects individual veterinary practice incidence then around a quarter of cattle clients in the south west will have had cause to be dissatisfied with bovine TB in the past 12 months. Around half of those under restriction are because the herd has been detected with a new bTB incident. Although the new incidents are lower than five years earlier, there has not been a major fall in recorded new bTB failures.

It seems reasonable to consider that where an effective disease control programme has been implemented, the first impact would be on new incidents. The herds were considered disease free and now they are not. The information currently being collected from those herds should be very valuable in identifying whether there are common disease breakdown factors. Data are available for all regions and counties online (for a summary, see Table 2, Defra, 2019). Interrogate the regional summary online and the specific dataset is available for each county with high, edge and low risk groupings.

To appreciate the scale of disease nationally, there are 48,523 herds recorded in England, 11,852 in Wales and 13,248 in Scotland. Some 10 million cattle were tested in the year to the end of February 2019 (England: 7.7 million, Wales: 2.1 million and Scotland: 269,000). The numbers of herds under movement restriction are: 4,216 (9 percent) in England; 953 (8 percent) in Wales; and 136 (1 percent) in Scotland.

In terms of farmer and veterinary surgeon dissatisfaction, the local situation in the higher incidence counties is masked if the national figures dominate general understanding. Individual veterinary practice incidence or parish incidence would provide a more accurate picture. There is considerable concern about cattle TB beyond farmers, vets and officials, and more local information would be of value.

### Table 1

<table>
<thead>
<tr>
<th>County</th>
<th>Herds</th>
<th>TB Restricted</th>
<th>New Herd Incidents Past Year</th>
<th>New Herd Incidents 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornwall</td>
<td>2,788</td>
<td>697 (25%)</td>
<td>350</td>
<td>426</td>
</tr>
<tr>
<td>Devon</td>
<td>4,697</td>
<td>1,364 (29%)</td>
<td>688</td>
<td>817</td>
</tr>
<tr>
<td>Dorset</td>
<td>1,207</td>
<td>248 (21%)</td>
<td>140</td>
<td>167</td>
</tr>
<tr>
<td>Gloucester</td>
<td>1,061</td>
<td>329 (31%)</td>
<td>145</td>
<td>195</td>
</tr>
<tr>
<td>Somerset</td>
<td>2,456</td>
<td>466 (19%)</td>
<td>257</td>
<td>290</td>
</tr>
<tr>
<td>Wiltshire</td>
<td>1,131</td>
<td>367 (32%)</td>
<td>180</td>
<td>199</td>
</tr>
</tbody>
</table>

*Table 1: Data from south-western UK counties show the number of herds, proportion that are bTB restricted and the number of new herd incidents in 2018 compared to 2014 (adapted from Defra, 2019).*
The numbers of cattle slaughtered have increased over the past five years. The comparable data is in the years to the end of December, and in 2018, the numbers of cattle slaughtered were:

- 32,925 in England (compared to 26,413 in 2014)
- 11,233 in Wales (6,371 in 2014)
- 498 in Scotland (240 in 2014)

The new herd incidents are recorded as:

- England: 3,612 (3,804 in 2014)
- Wales: 746 (857 in 2014)
- Scotland: 498 (240 in 2014)

It is widely reported that the testing intensity schedules for Wales have been improved and the number of tests has risen from 1.9 million to 2.1 million over five years with the number of cattle slaughtered increasing from 6,371 to 11,233.

Key developments under discussion

One of the aspects under discussion at the forthcoming conferences is whether alternatives to the skin test are expected to be applied and how this impacts on the detection of disease. There are many issues, but it is the early detection of disease in herds that are currently considered free of disease that is exciting some veterinary specialists; if this can be detected from routine milk samples then the eradication programme would enter a new phase of hope.

The recent study of cattle chains has indicated that dairy herds are a major source of cattle for other farms and the inference is that if bTB could be controlled in dairy herds then national eradication may be a major step closer.

Two practical considerations that were discussed at the Devon meeting are working within the current test and control programmes, but there was considerable concern expressed that test and cull is not sufficient to control the disease. The first concerns neighbours. It is believed that a major risk to a cattle herd is the disease status of neighbouring herds. For veterinary practices, this is a difficult aspect because within a local area, there are likely to be different practices servicing the needs of the herds. However, the use of specialists is well founded where a veterinary surgeon from outside the practice is invited to visit a client and implement a disease control programme. Veterinary cooperation can be achieved if clients are convinced of the benefit.

A major step change discussed was to consider contamination from cow to cow based on the knowledge gained from the Johne’s control initiative. There is likely to be more detail available about the steps needed but cleanliness and the transfer of mycobacteria from gut to dung to another cow and reducing the build-up of the organism within housing and elsewhere may also have wider benefits. Organism control in bedding, walkways and water troughs requires considerable enthusiasm from the farm staff. Step forward the vet as motivator.

Veterinary surgeons are encouraged to consider the aspects of bovine TB control that are effective within their practice and to engage with any new tools and ideas that are discussed. Detailed work has been signified going forward and it seems unacceptable to settle for having to live with current levels of bovine TB.

**TABLE 2** Data from 12 months to the end of February 2019 for all regions in England (adapted from Defra, 2019)

<table>
<thead>
<tr>
<th>REGION</th>
<th>HERDS</th>
<th>DISEASE RESTRICTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midlands</td>
<td>11,368</td>
<td>2,201 (19%)</td>
</tr>
<tr>
<td>North</td>
<td>15,994</td>
<td>435 (3%)</td>
</tr>
<tr>
<td>South east</td>
<td>7,229</td>
<td>442 (6%)</td>
</tr>
<tr>
<td>South west</td>
<td>13,932</td>
<td>3,684 (26%)</td>
</tr>
</tbody>
</table>

References

Building better relationships with farmers

How to develop rapport and improve means of communication with farm clients

In my experience, there is no such thing as a “typical farmer”. The traditional image of a middle-aged male in tweed and a flat cap doesn’t exist in many places anymore. So, there is no “typical” way to communicate with farm clients.

All businesses and people have very different aims and personalities that require a variety of approaches. Some want facts and science without fluffiness; some require a more gentle, holistic approach. Some farmers are money orientated whilst for others, time is more important. Knowing your audience and what outcomes they want is crucial for effective communication.

Equally, the James Herriot-styled “typical farm vet” is a thing of the past. Thankfully, we are now a very diverse community, and farm practice teams have a variety of personalities that should be utilised in the most appropriate way. There is a reason some farmers prefer some vets.

In this article, I am going to talk about my own approach and how I communicate with my own clients and many farmers across England about quite a touchy subject – bovine TB.

A modern approach

I have a friendly and understanding approach to farmers (or at least I hope and think I do) I know sometimes this maybe doesn’t get an immediate effect with a farmer, but I build a relationship of trust and understanding, which I think gets the best results in the long term.

Long gone are the roles of “me vet, you farmer” and “I am right, you must do this”. As vets, we must work as a part of the farm team. Very often there is someone coming onto farm foot trimming, someone scanning and someone giving financial and planning advice. We must remember we are not the only ones trying to tell the farmer what we think would be best for their business. We need to put our advice into perspective and justify why we think the advice we are giving is relevant and necessary.

Before launching into what you want the farmer to do, ask them what else is happening on the farm. Let them talk first. You are a trusted professional and friend; they might just tell you about a financial situation or a staffing issue that might alter what parts of your plan you highlight, as they could help with something you might not otherwise have seen as relevant.

Keen, reliable staff are often hard to keep. Good staff want to progress. If a farmer speaks to you about their staff and a concern over someone, you could suggest they sit in on your conversation about Johne’s control. If they know why they are being asked to do something like separate certain cows at calving, they might just do it. They might be keen to attend some of the practice meetings or you could point them to sources of information to learn more. This is a “win, win, win” situation, as the farmer gets a job done better, the member of staff is engaged and you get your advice carried out!

We need to remember who we are communicating with and therefore what buttons will get the desired effect. The farm owner, for example, may want nothing but facts and figures; they might be more financially motivated or interested in long-term outcomes. The part-time worker on the other hand may want to know how much longer something will take them.

Explain why and how

One of the most important things I feel when communicating with farmers is to explain the “why and how”. Don’t just tell them you want them to do something without explaining why. My example is TB. I spend at least two days of my week trying to persuade farmers there is something they can do to reduce their risk of a TB breakdown.

I explain the sensitivity and specificity of the skin test and what implications that has when buying in. The changes in body language and facial expressions when they have this explained to them is phenomenal. You can almost see them thinking “Why has no one ever told us this before?” and “I get that now!” Then when we discuss the risk pathways on their farms, they can see that purchasing animals from herds without knowing when their last reactor was is a massive risk. Explaining the fact that TB bacteria can live for up to 60 days in water will help them see why you think raising water troughs to 1 metre can massively reduce the cattle/badger risk pathway.

Motivational interviewing

As a mother, I spend a lot of time persuading the children in my life that what I want them to do is their own idea. It was
what to do; help them work out how to make it happen.

Finally, make the solution happen. Don’t just tell someone

Making the solution happen

when they are told to cleanse and disinfect. What does that

Instead, ask: “How are those calves doing we blood

First, ask: “Do your calves get scours?” Don’t let them just answer

When talking about TB to farmers, my biggest bugbear is

Practical guidance on dealing with TB can be found on

when talking to TB farmers, my biggest bugbear is

Building better relationships with farmers

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Animals, Ethics and Us
Madeline Campbell

Everyone has a view about animal ethics. Each of us, for instance, has an opinion about whether we should eat meat, whether animals should be used for scientific research, or whether the use of animals in sport is acceptable. But very few of us stop to wonder about the basis of our views, or to rationalise them. In this book, Madeline Campbell aims to enable us to do so, by addressing a series of questions such as: ‘What does animal use become abusive?’; ‘Why do we treat some animals differently from others?’; ‘Are there some things which we should never do to animals?’ and ‘Just because we can, should we?’.

Animals, Ethics and Us offers a stripped back, balanced and moderate perspective, based on logical argument, philosophical principles and sound science. It is thought-provoking read aimed at farmers (including veterinary students and potential veterinary nurses) as well as animal owners and animal enthusiasts, as well as a useful primer for students of animal ethics, welfare and veterinary medicine.

Research and Study Skills for Veterinary Nurses: A Practical Guide for Academic Success
Jane Davidson

As the veterinary nursing profession continues to develop beyond the traditional caring and support roles, more academic rigour is expected of veterinary nurses. Exams, CPD and repeated testing and study throughout the nurse’s career are now requirements.

Aimed at veterinary nurses and technicians this book will guide the reader through the various research and study disciplines required of them. It examines how to complete written assignments, how to reference correctly, how to approach different test questions, how to respond to oral exams, how to complete OSCEs and how to do work-based practical assessments.

Research and Study Skills for Veterinary Nurses provides information and advice. It is a comprehensive guide to research technique, revision schemas, study styles – for student vet nurses who need a reliable resource to guide them through their course.
“Fake news” was not a term many people used four years ago, but as well as being a favourite of Donald Trump, it was named 2017’s word of the year. Whatever term is used, the statement “corticosteroids cause laminitis” is certainly not based on fact.

As far as the author is aware, there is no scientific paper that supports the idea that corticosteroids cause laminitis. There is the occasional case report of a single horse developing laminitis following steroid administration, but in many if not all cases, these were written before we knew of risk factors or even equine metabolic syndrome as an entity with insulin dysregulation as a central feature.

Nobody can be sure why this myth entered the veterinary world, but it may be that a high profile legal case was inadvertently the cause. I say “inadvertently” because, had the findings of the judge been carefully looked at, there is no way this case could have been involved in perpetuating the myth. Erroneously, the perception developed that triamcinolone was a “high risk” steroid even though the facts of the case were considerably complex, and triamcinolone was neither used at typical doses nor in isolation. The drama of a legal case relating to one horse sticks in the mind, yet data collected from over 30,000 horses tell a different story.

One source is the excellent RCVS Knowledge information library. There is an informative Knowledge Summary by Catherine McGowan and two colleagues entitled “No evidence that therapeutic systemic corticosteroid administration is associated with laminitis in adult horses without underlying endocrine or severe systemic disease.” The title speaks for itself and when backed up by such a thorough and well-written piece of work, makes for an extremely compelling chunk of evidence to debunk the myth.

Another nail in the coffin of the myth may come from the informative article by Katya Potter and colleagues from the RVC. First published in the Veterinary Record on 7 June 2019, the study investigated the development of laminitis in animals treated with corticosteroids. It notes that it is important to acknowledge that in these sorts of studies involving large numbers of horses and ponies, many of the equids included “were probably also subject to management changes, including box rest and dietary changes related to their primary condition that may have increased the risk of laminitis and were not accounted for”. This is a point often not understood or not acknowledged, and may indeed go some way to encouraging perpetuation of the myth.

The hard copy article in the Veterinary Record is accompanied by a commentary by David Rendle. The commentary makes many points, but two I would pick up on are: laminitis is common and a temporal association between steroid use and laminitis in individual cases does not indicate cause and effect; and metabolic dysfunction as a result of obesity and/or pituitary dysfunction is the primary factor in the development of most cases of laminitis.

These two points are also critical in why the idea that steroids “cause” laminitis erroneously gained traction. Whilst we cannot know for certain why the concept became a veterinary “fact”, the body of evidence to counter this is ever growing. So next time someone says to you “steroids cause laminitis” in Donald-esque fashion, you can simply reply “fake news”, possibly even accompanied by a stabbing of your finger in the direction the words are coming from.
Highlights

Keeping the sports horse on the road – practical advice on how to use farriery to your advantage for the sports and pleasure horse from the farriers’ and vets’ perspective.

World leading experts including Dean Richardson, Myra Barrett, Martin Waselau and Valeria Busoni come together to discuss diagnostic imaging.

Workshops focusing on Reproduction, Lameness, Ophthalmology and Medicine.

Not to be Missed Speakers

Sue Dyson: globally renowned expert in equine clinical orthopaedics and poor performance.

Gunther Van Loon: Professor in large animal internal medicine at Ghent University and head of the equine internal medicine clinic and equine cardioteam.

Nathan Slovis: director of McGee Medicine Department and partner at Hagyard Equine Medical Institute, Kentucky.
How can vets alleviate anthelmintic resistance in donkeys?

Additional methods are needed to control parasites and protect donkey health

Donkeys are subjected to a wide array of parasitic infections. Due to the lack of commercial vaccines, anthelmintic drugs constitute a fundamental tool in the control and prevention of parasitic infections in donkeys. Currently available anthelmintics include: macrocyclic lactones (eg ivermectin and moxidectin), benzimidazoles (eg fenbendazole and mebendazole) and tetrahydropyrimidines (eg pyrantel). The challenges to curing infections with parasitic helminths or worms, especially small strongyles (also known as cyathostomins), have increased in an era where there are dwindling anthelmintic choices for drug-resistant parasites.

Resistance status of donkey strongyles

The emergence of drug-resistant parasite variants is always a concern because it could compromise the usefulness of current therapeutics. Our understanding of drug resistance in donkey parasites has increased with accumulating evidence of limited efficacies of pyrantel, fenbendazole, ivermectin and moxidectin in curing cyathostomiasis (caused by cyathostomins) in donkeys (Trawford et al., 2005; Peregrine et al., 2014; Lawson et al., 2015; Buono et al., 2018). Some of the factors that lead to the development and spread of anthelmintic resistance (AR) are widely accepted; eg the heavy reliance on anthelmintic treatment and the extra-label use of anthelmintics licensed for horses and ruminants, without optimisation of dosing regimens and determination of pharmacological properties of these drugs in donkeys.

Tackling anthelmintic resistance

To maximise the efficacies of current anthelmintic drugs, careful attention to the appropriate use of drugs is necessary. Veterinarians should balance between choosing anthelmintic treatment for donkeys with suspected strongyle infection and utilising anthelmintics in a judicious fashion. Although providing effective treatment and improving anthelmintic utilisation may seem opposing goals, there are strategies to accomplish both.

Anthelmintic stewardship can provide an efficient mechanism to implement these strategies and support the clinician’s effort in improving treatment outcomes and combating AR in donkeys. Veterinarians need to be sensible in anthelmintic use and should be open-minded to revise treatment dose intervals, because excessive anthelmintic use is a key factor in the development of AR. The Danish model of restricting anthelmintic drugs to prescription-only usage started two decades ago, and was later adopted by other European countries and Quebec in Canada.

Evidence-based and targeted treatment

To effectively manage resistant worms in donkeys and guide treatment choices, veterinarians should have better knowledge of local parasite epidemiology and follow the best possible practice in anthelmintic use. Also, they should monitor the development of AR using an early indicator, such as egg reappearance period (ERP) or faecal egg count reduction test (FECRT). Standardisation of resistance detection methods is essential to avoid discrepancies in the interpretation of the diagnostic results.

The practice of FEC-directed treatment and treating high strongyle egg shedders has been recently promoted as a potential approach for reducing anthelmintic treatment frequency because egg excretion (Figure 1) can be highly dispersed among individual animals. An earlier study suggested that increasing the threshold for treatment to 1,000 eggs per gram of faeces (epg) can minimise the emergence of drug-resistant parasites.
of resistance and prolong the use of anthelmintics, such as pyrantel (Lawson et al., 2015).

**Combination therapy**
Combination therapy, such as pyrantel combination drugs, has been suggested as a possible approach to improve treatment outcome. This approach may also slow down the progression of resistance by utilising different mechanisms of action and extend the spectrum of treatment by providing more coverage for potential parasites causing the infection. With the development of resistance to monotherapy (eg individual anthelmintics), efficacy can be partly restored by using a combination of different anthelmintics.

Despite the intuitive appeal of this approach, and although combination therapy may, in some situations such as handling resistant parasites, seem better than monotherapy, it is a temporary solution. Convincing data supporting combination anthelmintic therapy have not been confirmed in clinical trials as yet. Lessons should be learned from the situation in Australia, where resistance has been observed in sheep parasites against major classes of anthelmintics, including combination products (Wrigley et al., 2006).

**Alternative solutions**
The search for alternative, non-chemical treatments has gained momentum and many researchers have delved into the search for approaches as complementary and alternative solutions to better manage AR in donkey parasites.

**Sound grazing management**
Donkeys acquire infection by ingestion of infective third-stage larvae (Figure 2) when grazing in pastures. Therefore, pasture hygiene has been recognised as one of the most effective means of controlling helminths. Faecal removal from pasture at intervals frequent enough to prevent third-stage larvae developing can reduce nematode transmission, and removal of faeces twice a week alone was even more effective than anthelmintic therapy in reducing pasture levels of strongyle larvae.

The management of pastures by rotational grazing can be effectively practised, as well as lowering animal numbers, increasing grazing pasture size and keeping animals out on pasture for longer intervals. The use of different/alternative species such as small ruminants to mop up strongyles and other worms from the pastures can remove a substantial proportion of the larval population on pasture over time.

Nematodes are generally species-specific; therefore, good pasture management can be reasonably effective, with the exception of some helminths, such as *Trichostrongylus axei* and *Fasciola hepatica*, which can be transmitted between equines and small ruminants.

**Refugia versus resistant populations**
There is always a subpopulation of strongyle worms that has not been exposed to the drug at the time of treatment, such as the encysted larvae, and larval stages in the environment: L1, L2 and L3. They escape the effects of the drug and are not under selection for resistance. The amount of refugia in donkeys can be large and will dilute those parasites which can survive due to resistance. Therefore, lack of refugia means that the parasites containing the allele for resistance will slowly build up, creating a resistant population within the host. Refugia may not only impede the building of a resistant population but also can dilute the same resistant worm population and delay its proliferation, allowing the effectiveness of anthelmintic treatment to be prolonged.

**Biological means of control**
There has been some levels of success using the nematophagous fungus *Duddingtonia flagrans* as a biological control in equines. When *D. flagrans* is fed to an animal, usually in multi-nutritional pellets, results showed a reduction in cyathostomin larvae. This indicates that *D. flagrans* would be especially valuable when handling potentially resistant strains by reducing pasture contamination. However, despite its success, no attempt has been made as yet to develop *D. flagrans* into a commercial product.

In Australia, dung beetles have been promoted as a biological tool to reduce parasite larval population breeding in the dung. However, anthelmintic treatments can have deleterious effects on dung beetles themselves, further demonstrating the need for reducing the use of chemical drugs.

More traditional botanical products, such as garlic and papaya latex, have been investigated with the hope to discover more natural means of parasite control. Ingestion of plants containing secondary metabolites, such as tannins, has been shown to reduce parasite burden, providing a natural alternative and/or complementary antiparasitic treatment in a group of Miranda donkeys under a free-ranging system in Portugal. Whether these natural products can rescue donkeys affected with resistant parasites remains to be investigated.

**Conclusions**
In the last two decades, drug resistance caused by the overuse of anthelmintic drugs has gone from an interesting scientific observation to a reality of enormous veterinary importance. Current therapy for resistant parasites is limited to a few options, such as ivermectin and pyrantel. However, there have been reports of therapeutic failures of these drugs to control infection with strongyle resistant strains. The limited therapeutic options left for these parasites present a host of challenges for veterinarians. While the therapeutic values of anthelmintics to control parasite burden in donkeys and other animal species are acknowledged, additional complementary methods of parasite control are being investigated.

A full reference list is available on request.
Online card fraud is huge and according to Finextra Research, between 2017 and 2018, £4.1 billion was stolen as a result of this type of theft. To illustrate how personal the problem is, the firm quotes a survey commissioned by comparethemarket.com of 2,000 UK adults which showed that 22 percent of those surveyed were defrauded in the last year this way.

Europe has, for some time, been worried about the problem of card fraud. As part of the fight back, from 14 September 2019 a new process known as strong customer authentication (SCA) made under the Revised Directive on Payment Services (PSD2) will be in place.

The new process
SCA is an extra layer of security designed to prevent payment fraud. It ensures that online card transactions become more secure through “multi-factor authentication” – a second check to demonstrate that both the transaction and cardholder are genuine.

The aim of SCA is to be the “chip and pin” of the online world; and rather like chip and pin, SCA will apply to transactions over a certain value (£30). But while SCA targets the online transaction, Mark Nelsen, Senior Vice President, Risk and Authentication Products at card processor Visa, says that banks and merchants may also need to regularly check that contactless payments are made by the correct cardholder too – by asking for a PIN. “This might occur after a contactless card has been tapped five times in succession, or when £150 has been spent using only contactless taps,” Mark explains.

How will it work?
SCA could mean any one of numerous authentication methods: an online PIN or password, or a device that only the cardholder can authenticate. This could also include smartphones, or biometric traits such as fingerprints or facial recognition.

SCA is going to mean a marked change to how practices sell (or take payments) online and how an estimated 420 million customers in Europe – including the UK – buy at a distance. And for some there are worries that this extra layer of protection will add unnecessary complexity which will irritate customers who subsequently abandon their “shopping carts” part way through the buying process – leading to lost sales and delayed payments.

In the context of veterinary practices, those that allow bills to be paid online will have to ensure that their systems can cope with the change.

What is PSD2?
As the name suggests, PSD2 is an update on the original Payment Services Directive (PSD) that was brought into force in 2007. Its stated goals were to create a single market for payments with easier and more efficient cross-border payments. This would mean that it wouldn’t matter if a payment was made to another member state, within the same member state or to a party in a different member state.

PSD2 expands on PSD by permitting third parties to access an individual’s account information via the “Open Banking” protocol; enhancing consumer rights, especially in relation to currency charges; and enhancing cardholder security via SCA.

Why now?
Change was clearly needed. According to a UK Finance report in 2018 entitled UK Payment Markets, in 2017 there were 3.1 billion credit card payments – an increase on the previous year of 13 percent. In the same report, it is stated that by 2027, there will be 3.9 billion credit card payments a year. By way of comparison, there were 13.2 billion debit card payments in 2017 (up 14 percent on the previous year) and 2027 could see some 19.7 billion debit card payments.

And with rising levels of card use come increasing risks of fraud. The European Central Bank, in its fifth report on card fraud, published in September 2018, found that cards issued within Europe saw fraudulent transactions to the tune of €61.8 billion in 2016, and that 73 percent of that sum related to card not present transactions.
What does this mean for veterinary practices?
Compliance with the new regime is mandatory. There will be no exceptions and if the business doesn’t comply, all transactions will be automatically declined by the cardholder’s bank when they attempt to make a purchase. Further, by not planning ahead and developing authentication processes that offer the least friction to consumers, businesses could see falls in sales as consumers switch off and march with their feet.

Considering that, according to Ecommerce Europe in its European Ecommerce Report 2018 Edition, the European business-to-consumer online economy was worth around €602 billion in 2018 (up from €307 billion in 2013), if only 10 percent of consumers – let alone the potential 25 percent that could walk – abandon a transaction because of complexity or irritation, then firms may stand to lose huge sums.

A study from 451 Research backs the point. It reckons that Europe could lose €57 billion in economic activity in the first 12 months after the implementation of SCA. Its findings are based on “surveys conducted with 500 qualified payment professionals at online businesses and 1,000 consumers in the UK, France, Germany, the Netherlands and Spain.”

But with new rules, there may also be new opportunity. This change could be a chance for practices to market themselves to customers as both being secure and trustworthy, as well as having the simplest way possible of complying with the new rules.

The rollout won’t be easy. While EU demands compliance, every member state will see different interpretations of PSD2. Whether that’s from the banks, card issuers or central bank, there will be differences. On top of this there is the €30 exemption to take into account.

Worryingly, the 451 Research study reported that three months before SCA implementation, preparedness remains remarkably low. It appears that only 40 percent of businesses who said that they were aware of SCA felt prepared to address its requirements. That means, quite simply, that most businesses will now be racing against the clock to become compliant as only 44 percent expect to be ready by 14 September 2019.

The research also found that SCA is less well known among smaller firms. 60 percent of businesses with fewer than 100 employees either didn’t know about SCA or weren’t planning on being compliant before implementation. In contrast, firms with 5,000 or more staff saw only 4 percent being in the same position.

What changes should practices make now?
Clearly then, the first step for practices is to set systems to recognise when transactions need to abide by SCA (because they are above the €30 threshold) and when they do not (because they are below the threshold). Further, recurring payments will be exempt from the regime, so that needs to be noted by the system.

Allied to this is the option for a customer to “whitelist” a business with their card issuer so that future purchases made from that business fall outside of the multi-step authentication regime. That said, some banks won’t permit this and with the sheer number of banks in Europe (6,250 in 2017 according to the European Banking Federation’s 2018 Facts & Figures report), this may not even be an option for all but the largest of traders.

The second step is to consider how SCA is to be operated. Is it to be by text, smartphone, email, biometric trait or another option? Given the size of some firms, such as Amazon, the options are many. But for the smaller independent, a text- or email-based process is likely to be more appropriate.

Visa suggests that for transactions that require SCA, firms should have what is known as 3-D Secure 2.0 (3DS) in place to enable them to apply exemptions such as low-risk transaction analysis or perform two-factor authentication when needed. The benefit to practices of 3DS is that it allows issuing banks to verify credit card owners during the transaction process; this means that those using this protocol can transfer liability for fraud disputes away from themselves.

Lastly, practices need to think about whether they want to implement SCA internally – and so become “expert” themselves – or hire in third party help to undertake the task. A conversation with the merchant acquirer would be time well spent.

In summary
SCA is coming and any veterinary practices selling or taking payments online need to plan ahead. If they are not compliant, businesses may face a catastrophic meltdown as a huge chunk of their business will be denied from mid-September.
Will the Shortage Occupation List help the veterinary workforce?

Recruiting from overseas should become easier as vets are expected to receive priority visa status

The situation for vets
Veterinary surgeons had been added to the SOL in 2008 following evidence of significant workforce shortfalls. The role was subsequently removed in 2011, when it was deemed the supply of EEA-national vets had resolved the shortage in supply. Recent years have seen mounting evidence of deterioration in recruitment options for vet vacancies in the UK, with calls from industry bodies for the role to be put back onto the shortage list. At the end of 2018, the government commissioned the MAC to assess the current list of shortage occupations in its entirety.

It has been six years since the list was last reviewed and the resulting report recommends wide-ranging changes that would see 9 percent of jobs in the labour market feature on the list – compared with the current figure of 1 percent – including the reinstatement of vets.

The MAC considered evidence from the BVA, the RCVS and the Veterinary Profession Panel on vacancy levels and recruitment rates. Their submissions showed growth in vacancy rates for vet positions and recruitment difficulties prevalent across the sector, such as declining volumes and suitability of applications and longer lead times to fill roles.

An immediate solution to the workforce crisis
Recruiting from overseas offers a viable and immediate means to fill vacancies for vets, particularly while efforts to increase the supply of UK-trained and UK-resident vets are yet to make their mark on the labour market.

The impact of Brexit in restricting access to EU-national vets is also of significant concern. While the end of EU free movement will restrict access to EU-national workers, post-referendum migration statistics already show declining numbers of EU nationals coming to the UK to work.

Despite the terms of Brexit remaining unclear, the government is pushing ahead with its plans to overhaul the UK immigration system and make EU citizens subject to the same skills-based immigration rules as non-EEA nationals. The new system is expected to be effective by 2021.

In its report, the MAC also recommended that the shortage list, and the system for monitoring and alleviating skills shortages in general, would require a full review in light of the new immigration rules. Employers should therefore brace for further change.

In the meantime, the ability to access the global talent market with less cost and hassle should be a positive step for practices in meeting their recruitment needs, and for the sector as a whole in easing the workforce crisis. We expect practices will move quickly to take full advantage of the relaxed rules to improve their recruitment options.
Improving the euthanasia experience

How can we increase the number of clients that return to a practice after euthanasia?

The Cx Congress took place on 14 and 15 June 2019 in Nottingham and this year, a full day was dedicated to end of life care. The day was hosted by Mary Gardner, a small animal vet from Florida with a passion for geriatric care.

The euthanasia appointment is one aspect of day-to-day practice that is often overlooked; yet, there are few areas where the client experience is more important. It is also a key area for losing clients; research has suggested that many clients won’t return to the same practice after their pet has been euthanised. How can we make sure that the process is as good an experience as possible and in turn, increase the number of clients that return to the practice in the following years?

Mary took congress delegates on a tour of the euthanasia experience map, from the initial phone call to aftercare, and identified areas where the experience could be improved. She provided some practical, cheap tips for improvement that can be implemented right away.

Preparation
The phone call is typically the first contact point in the euthanasia experience. It is important to ensure that all reception staff are trained to deal with euthanasia calls; they should find out what is important to the owner and be aware of their tone of voice and choice of words. Remind reception staff that silences don’t have to be awkward.

Once the appointment has been made, Mary advised sending a preparatory email including all the important information owners should know. In the same email, let them know that they can give the animal their medications as usual and bring a treat (virtually any treat they like!) to the appointment with them.

Mary recommended that every practice have an end of life advocate and that they work with other practice staff to develop a process for euthanasia. She listed some handy ideas that could improve the experience:

- Have a reserved parking space for euthanasia clients
- Place a battery-operated candle and a sign in reception stating that if the candle is alight, it means somebody is saying goodbye to their pet, so please keep voices low
- Find ways to alert staff that a euthanasia is underway – perhaps a flag in the corridor or something obvious that can be placed in the treatment room

The appointment
To allow the client the time that they need, why not install a wireless doorbell that they can press when they are ready for you to re-enter the room?

Mary had some useful tips for changing your language during the euthanasia, for example, use “we are doing the best thing” rather than “you are doing the right thing” and “you have done an amazing job” rather than “there is nothing more you can do”.

When explaining the euthanasia process, always make clear that every pet’s passing is different; describe the basic process and that if anything else happens, you’ll explain it at the time. Mary always prepares owners for the common aspects of euthanasia that may cause distress, like the eyes remaining slightly open and the bladder relaxing.

As well as being a nice touch for owners, taking paw impressions can help tie the process up, she said.

Exit and follow-up
Remember that it’s OK to show emotions – just try not to outdo the owner, Mary said. Ask for a hug if appropriate, or else try to touch the client’s shoulder or elbow.

Finally, consider asking everybody in the practice who knew the animal to sign a sympathy card for the pet’s family; this gesture can mean a lot to grieving owners and may be that all-important token that shows the family you value them and encourages them to return to your practice.

Arrival
Be prepared for the arrival of the client and their pet; go out to the car and help them, Mary urged, and take them straight to the allocated room so they don’t have to wait with other clients.

Whether you have space for a dedicated room or not, do your best to make the room feel like a home, Mary said. One nice touch is to have a basket containing a small mirror, bottles of water, colouring books for kids and makeup remover.

When you think about what you would want if it were your pet, you probably don’t picture stained towels and scruffy blankets. Could you have separate (nicer) towels and blankets for euthanasia appointments? Providing a bag for the pet’s collar is another thoughtful touch.

Payment is an awkward part of the journey. When do you ask for payment? Do you have to ask for payment at all? Perhaps you could offer free euthanasia appointments to registered clients and just charge them for the cremation costs; a member of the audience said that this was the approach his practice took and that it was working well for them.
How to perform a brand audit

Is your business branding making the right impression?

A brand audit is a way to run a diagnosis of your business branding, to assess strengths and weaknesses and review your position in the local marketplace. Your brand is one of your biggest assets, which means it must be cultivated and monitored. By running an audit, you will be able to check that all your marketing messages are aligned with your brand strategy, enabling you to really clarify your message and create your annual marketing plan with your brand at its core.

An outside marketing company could be hired to conduct a brand audit for you, or you can do much of it yourself. It is time consuming, but however you choose to do it, it is always a highly valuable exercise for the whole team. The key findings from the audit should be turned into a detailed action plan for the team to execute.

A brand audit should cover three areas:

1. Internal branding – your brand values, mission and company culture.
2. External branding – your logo, print and online advertising and marketing materials, public relations, website, social media presence and digital marketing.
3. Customer experience – your waiting rooms and clinic, customer support and customer service policies.

Consider internal branding

Since last month’s article, hopefully you have held a branding meeting and identified your business’s mission, vision and unique selling points. If you haven’t already, start by reviewing your company’s vision and goals. Who are your target customers and what does your brand message promise them? Clarify what you think your brand is before evaluating what others think. This can be used as a basis to decide if your current brand and marketing communications convey the right messages to the right audience.

Assess your external branding

This might take a while but is very useful. Make three checklists: printed materials, digital marketing and staff materials. Then on a separate checklist, carry out a digital marketing audit by evaluating your online presence on Google Business Pages, your practice website, your pet health club email messages and newsletters and social media profiles.

Are all of these elements consistent in terms of design, colour and tone of voice? Does your personality come across in the tone and style of your design and copy?

Branding matters not only for your external customers, but for your staff as well. Have a look through all your employee recruitment ads, education and training materials and check that you are communicating your message in a way that resonates with the sort of staff you want to attract and retain. Do your communications immediately convey a clear reason to choose your company, or do they look and sound just like those of your competition?

Consider the customer experience

This is where you evaluate what is known as the “customer journey”. Carry out an audit of the clinic waiting room, car-park, answerphone message, uniforms and staff training, and assess whether these things align with the general “feel” (happy, professional, technical, holistic, etc) that you are trying to achieve as part of your branding.

Go around your building looking at everything; imagine yourself as a customer visiting your clinic for the first time. From the first phone call to book an appointment to the flowerpots in the carpark, it’s all part of your brand.

Consider doing a clinic audit once a month to keep on top of things to check that you are delivering on the brand promise you have made to your customers. Staff training is the key to success here; consistent regular workshops and training events help reinforce your message with your team and ensure they are the best ambassadors for the brand.

Review the results

Using the information gathered from the audit, document what aspects of your brand are working, which need some fine-tuning and which are missing the mark entirely. Then create an action plan for updating things to bring them in line with your brand mission and vision. To help make things easier, prioritise your goals: what can realistically be accomplished in the next year? Of those goals that can be accomplished more quickly, which will have the greatest return on investment?

Monitor your progress

As you complete each element of your brand update, review the results to ensure the changes have the desired effect. Brands naturally become a bit stale over time, so repeating your brand audit every few years will help ensure that you keep your brand fresh and your business one step ahead of your competitors.

WILL STIRLING
Will Stirling is a freelance marketing consultant who has worked in small animal practice marketing for over a decade, consulting on marketing strategy. He now spends his time helping independent veterinary clinics to grow and thrive.
Supporting a team member reported to the RCVS

What measures should a practice take to support the team member and manage risks throughout the complaint procedure?

Professionals hold a position of trust and responsibility and clients expect professionals to conduct themselves in a way that justifies this trust. With this status, veterinary surgeons and veterinary nurses carry a burden of accountability.

Very occasionally one of your team may find themselves before the RCVS to face allegations relating to their fitness to practice following from a complaint made by a client; from a colleague; or from self-referral following from a clinical mistake.

There is a comprehensive amount of information freely available to veterinary surgeons and nurses on what they should do if they are faced with a concern that has been raised against them. However, there are also steps that a practice can take to ensure that any resulting damage to the reputation of employees, any negative public perception and the adverse impact on the profession’s image is minimised. So, in these circumstances, what should the practice do?

Be supportive
If they have not been contacted directly, notify the person that concerns have been raised against them and that an investigation may be conducted by the RCVS.

It is important, though, to be supportive and proportionate in your dealings with your employee and to follow your internal policies. A referral to counselling or a peer support programme should be considered. It should be noted that a referral to the RCVS is often a stressful experience and especially so for those surgeons and nurses with otherwise unblemished records.

The practice should use the intervening time to get its house in order and collect information that may be required by the RCVS, the employee and the practice itself should a formal investigation be undertaken.

Manage the risks to your practice
From a regulatory perspective, a fair and proper fitness to practise process cannot be rushed and it will take time. In some cases, however, the concerns will be very serious and there may be a real risk that the behaviour will be repeated, perhaps with the potential to cause harm to animals or the public.

A well-managed practice will have ensured that all their professional activities are covered by professional indemnity insurance or equivalent arrangements should the worst-case scenario develop.

Comply with policies and procedures
Your fitness to practise policies may permit that it is necessary to consider whether interim measures are required to minimise any risks; for example, temporary suspension of the veterinary surgeon or nurse from practising for a period of time.

Generally speaking, the RCVS will write to the surgeon/nurse to inform them that a concern has been reported against them. At this point, they will be asked to provide their comments on the concern. It is usually appropriate for the surgeon/nurse to inform their practice manager about the concern that has been raised against them at this stage.

Of course, there is no compulsion on them to inform the practice (especially as the concerns may not be substantiated). However, it may well be worthwhile for the practice to introduce into its standard terms of employment and service contracts that the practice must be informed of any concerns received from the RCVS against a member of the team. This is so the practice can ensure that personnel are adequately supported and can balance this with the ongoing obligation to safeguard the public and the profession.

The use of interim measures
If it is considered that interim measures are required, these should be proportionate to the level of risk and should be periodically assessed for suitability as the substantive investigation progresses. Full and proper reasons should be given if a decision is made to invoke interim measures.

It may be reassuring to know that only a very small number of concerns that are raised with the RCVS are progressed beyond the initial stage (assessment and investigation of the concern) and similarly only a small number progress beyond the second stage (consideration of the information by a committee) to the third and final stage (a disciplinary hearing).
One thing that can keep you going through difficult days is a sense of humour. Many stressful and apparently bleak situations can have a humorous side if viewed from just the right oblique angle. Laughing at yourself or the situation you find yourself in can be a real boost for your morale, even if it is along the lines of “One day I’ll look back on this and laugh.” The news is often depressing, and it seems to make no sense why people do the things they do in the world. However, watching Have I Got News for You or Mock the Week, or listening to the News Quiz, can bring a new perspective and lighten the mood at the end of yet another week of watching the world trying to self-destruct.

So how about the veterinary world? What about when breeders bring you grief, or clients want it all right now but don’t want to pay for it? Or when the Royal College disciplines someone and you think “there but for the grace of God go I”? The employment crisis, emotional stress and overwork... the list is endless. We need these issues to be lined up and poked with a good firm satirical stick now and then, and we need this to be done in public so we can all have a good laugh at those things. If we all laugh together, it helps us realise “it is not just me who feels like this”.

Luckily, there are a few veterinary satire groups around, mostly working on Facebook, and their many thousand followers can laugh, together, at the things that make them angry, upset or just damn frustrated at veterinary life. One popular satire Facebook group is “The Raptured Spleen”. The group is anonymous, but lurking in a secret corner of the internet I managed to find the editor. In the online equivalent of them wearing dark glasses, a trilby hat and trench coat and sitting on a bench in Hyde Park smoking a Gauloise, they agreed to meet and we traded some emails; these are edited down and presented below.

“The Raptured Spleen is a small group of writers from the vet and nurse community, producing comedy and satire aimed at the wider veterinary profession. We have a few aims – firstly just to share a smile around our colleagues. I used to write for another group... and after that closed, we were blown away by the wave of support from throughout the profession – people commented how it brought some light and humour to their darker days, and I really felt a kind of responsibility to continue. We’re all aware of current well-being issues in the profession – and it’s actually a hell of an impact for our colleagues if we can kick out some smiles each day. Some of our stuff is very visual, really strong, and we aim for a couple of posts each day.

“A secondary aim is to shine a light on some situations using satire to make some ‘sharp and blunt’ points, to quote our tagline. You’re more likely to find the RCVS, CEOs and surgeons as humour targets, but it’s a firm principle of the Spleen that everyone takes a turn as the hero and the victim of gags. Good satire can make a point in a funny quip or picture that a speech or an article would struggle to achieve. We can react to RCVS disciplinary decisions, Crufts parades or CEO speeches with a funny angle, but also to make a serious point, articulate what people are feeling – we read all the comments, and we’re really chuffed when we’ve represented a common view on a serious situation.

“Thirdly, through our ‘SplenicMasses’ posts, support of comments and Sunday quizzes, we’re keen to get other people into writing comedy. It’s that well-being thing again – you come up with an idea, out it flies, you find you’ve made people laugh. It’s a kick for the writer, undeniably, and we really want to share that. We have a chat room to share and polish gags – it’s amazing how sometimes a rewrite, switched format and a tighter edit can make a gag flow far better or come across more successfully, and we take a fair bit of pride in that. We’ve been going a couple of months and have over 5,000 fans from 45 different countries, mainly the UK. Check us out, pick a favourite gag and share it... and if you fancy a shot, send us some stuff – it makes us smile, we’ll make it fly!”

Find a good veterinary satire group online and follow them. It will shine a little humorous light into your darkest day, raise a smile when you are feeling low and failing all that, just make you laugh at something you see every day but never realised was funny – until somebody shines a light on it and it becomes clear that everyone sees the humour.
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