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This month marks one year since I completed my MSci at the RVC and joined the team at Veterinary Practice, and what a year it has been! Despite living through a pandemic and having to adapt to that in my first year on the job, I have learned so much and am looking forward to the year ahead.

This month’s issue of the magazine focuses on infectious diseases. In the In Focus section, Conor O’Halloran discusses the management of a case of canine leishmaniosis and Colin Buchan looks at infectious bovine rhinotracheitis.

Following on this theme, Fleur Whitlock and Richard Newton explore making the right diagnosis of infectious respiratory disease in our equine section, Steve Smith outlines the management of red mite in poultry in our farm animal section and Marion McCullagh discusses feline trichomoniasis in our small animal section. The RCVS Knowledge column this month looks at best practice infection control, and Anita Patel’s dermatology column highlights the role of Malas-sezia dermatitis in the management of allergic dogs.

In the small animal section, you can also read about the early detection of CKD in cats in Susanna Clark’s article, and find a helpful guide to recognising a focal epileptic seizure written by Jos Bongers.

Our nursing content has two pertinent articles this month: Zoë Halfacree gives her top nursing tips for the exploratory laparotomy patient, and BVNA Junior Vice President Josephine Oakden explores the tools available to assess the nutritional needs of your patients, and how to implement them for weight management.

The quarterly Official Vet section is back this month, featuring an article by Samantha Holland of the APHA on the importance of reporting abortions in cattle to maintain the UK’s status as free of brucellosis, and part two of Claire White’s series, looking at safe and humane on-farm killing and slaughter.

The OV conference is back at the end of September in a brand-new online format, and I’m very excited to attend. Make sure to check out the preview article in this month’s issue to find out more. Tickets are still available so make sure you get yours before it’s too late: head to officialvet.com for the full programme and ticket information.
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EDITORIAL
Nic Catterall
07730 762136
nic.catterall@improveinternational.com

ADVERTISING ENQUIRIES
Nic Catterall
07730 762136
nic.catterall@improveinternational.com

EDITORIAL ENQUIRIES
Amelia Powell
07704 306843
amelia.powell@improveinternational.com

facebook.com/vetpracticeonline
@VetPractice_Mag

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**Madi Hewitson**

“The future of the veterinary profession is not in the hands of the future generation; it is in our hands.”

**Clifford Warwick**

“Any single wild animal, at any single wildlife market, in any single country, could spawn the next pandemic.”

**David Williams**

“Each of those working in the practice have an equally valuable part to play.”

**Supporting each other during the COVID crisis**

BEVA President Tim Mair highlights the importance of helping out colleagues.

**Infectious respiratory diseases**

What are the important things to consider when trying to diagnose a respiratory infection?

**Claiming back statutory sick pay under coronavirus.**

**Staying GDPR compliant.**

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RCVS releases report on third COVID impact survey

The RCVS has published the report on its third survey on the impact of the COVID-19 pandemic on veterinary businesses, held in June 2020. Some of the key changes from the last survey identified in the report were that:

- Generally, this survey indicated an improving picture with a marked increase in practices running a "near normal caseload" and practice turnover data reflect a shift back towards normality.
- Fewer staff are self-isolating, with around 15 percent of practices having veterinary surgeons and veterinary nurses self-isolating or with COVID-19, compared with 30 percent in the first survey and 20 percent in the second survey.
- As expected with the improvement in practice turnover and workload, fewer practices have staff on furlough. The modal (most frequent) response for the percentage of staff furloughed was 11 to 25 percent for both veterinary surgeons and veterinary nurses in this survey. This is in contrast to the previous two surveys where the modal response was 26 to 50 percent.

The survey results can be read in full at: r cvs.org.uk/coronavirus-resources

New set of Day One Competences for graduating vets

The RCVS has published a new set of Day One Competences, which describe the knowledge and skills expected of veterinary students upon graduation.

The new competency model and underpinning Day One Competences was developed following detailed feedback from the profession during the Graduate Outcomes consultation. The Graduate Outcomes consultation explored how the RCVS, working with the UK veterinary schools, could better prepare veterinary students for life in practice and ensure that new graduate vets were better supported during their first years in practice. There was a significant response from the profession with valuable feedback being submitted which was used to finalise the new RCVS Day One Competences. The competences are described within a conceptual model of continuous learning and with animal welfare at its heart. There are four broad areas, each containing detailed competences: personal leadership, professional commitment, reflective relationships and vet capability.

Work on other aspects of the Graduate Outcomes consultation – including the new Professional Development Phase, changes to extra-mural studies and developing clinical education for general practice, is ongoing.

The full documentation on the Day One Competences can be found at: r cvs.org.uk/publications

RCVS COVID-19 Taskforce further extends remote prescribing guidance

The RCVS Council COVID-19 Taskforce has recently decided to extend the College’s temporary guidance that allows veterinary surgeons to prescribe prescription-only veterinary medicines (POM-Vs) remotely without first having physically examined the animal until the end of September, but with a minor language adjustment to allow more room for individual professional judgement in each case.

RCVS Council originally decided to change the supporting guidance to the RCVS Code of Professional Conduct in March, in view of the nationwide lockdown measures in place at that time due to the coronavirus pandemic. This enabled veterinary practices to continue to provide the animal-owning public with veterinary services, a proportion of which via remote means, whilst safeguarding the health of their teams and clients.

In June, the Taskforce considered the latest situation at that time and decided to extend the guidance for a further eight weeks, with another review to be held no later than 6 August. At its recent meeting on 30 July, the Taskforce duly considered the guidance again, taking into consideration the pandemic’s progress and latest government guidance, the headline results from a survey of practice experience of remote consulting and additional third-party data from a number of veterinary practices.

On balance, the Taskforce considered the temporary guidance on remote prescribing should remain for the time being, but with a small change to step three of its coronavirus guidance flowchart (removing the words: “in the first instance”) to allow veterinary professionals more flexibility in deciding whether to consult remotely or face-to-face.

The updated flowchart, along with all the College’s coronavirus guidance for the professions, is available at: r cvs.org.uk/coronavirus
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NEWS

2020 sees record number of vets admitted to the RCVS Fellowship

A record number of veterinary surgeons have been admitted to the RCVS Fellowship this year, joining the learned society in recognition of their contribution to veterinary science and practice.

Some 58 Fellows have been admitted this year out of a total of 65 applicants. Of those joining the Fellowship, 39 have been recognised for meritorious contributions to clinical practice; 14 for meritorious contributions to the profession; and five for meritorious contributions to veterinary knowledge.

The RCVS Fellowship is a learned society whose key purpose is to advance veterinary standards by providing a resource of independent knowledge for the benefit of the veterinary profession. It aims to do this by promoting scientific excellence, furthering professional skills and practice, and enriching the discourse about the importance of veterinary science to everyone.

Although the Fellowship was founded in the 19th century, it was relaunched with its new mission statement in 2016 and with three new routes to entry to reflect the breadth of veterinary achievement. Since its relaunch over 200 new Fellows have been welcomed on board, although this year has seen the most new Fellows in an individual year.

The full list of new Fellows has been published at rcvs.org.uk/fellows

Applications to join the Fellowship in 2021 are already open. Details on how to apply and the application criteria are available to view at rcvs.org.uk/fellows – those who are interested can also contact Ceri Chick, Leadership Initiatives Officer, on c.chick@rcvs.org.uk for further details. A directory of existing Fellows can be found at rcvs.org.uk/fellowship/fellows-directory

BSAVA and BVBA provide behavioural advice for pet owners and veterinary professionals

The BSAVA and the British Veterinary Behaviour Association (BVBA) have put together a Q&A for pet owners to help them prepare their pets for return to normal life as lockdown eases. The information has been made available amid concerns from behaviourists and animal welfare organisations that there may be a rise in behavioural issues as lifestyle restrictions are lifted.

The Q&A, which has been written for vets to pass on to their clients easily, explains what some of the key behavioural concerns are and how these can be prevented and managed. Topics include separation-related issues, animals becoming anxious as the world around them becomes busier and noisier, and puppies lacking appropriate skills when greeting animals (including dogs and people) from other households.

The Q&A and further information for vets can be found in the BSAVA's COVID-19 resources on the BSAVA website: bsava.com/COVID-19

Microchips mandatory in equines from 1 October 2020

The Chief Veterinary Officer, Christine Middlemiss, has called on all horse, pony and donkey owners in England to get their animals microchipped ahead of 1 October 2020 as part of a move to tackle horse theft, improve equine traceability and improve animal welfare.

From this date it will be mandatory in England for all equine owners to microchip their animals. The Central Equine Database will mean local authorities and the police can track down owners who abandon their horses, donkeys and ponies, helping to improve animal welfare standards, while also helping prevent horse theft. Compulsory microchipping will also mean lost or stolen horses can be reunited with their owners more easily.

In 2019, the RSPCA received more than 21,000 reports to its cruelty hotline and took 875 horses into care. Around 70 percent of these were not microchipped, making it difficult for the organisation to trace owners and to hold anyone responsible for the cruelty the animals had faced.

 Owners are legally required to make sure that their animals’ details are up to date on the Central Equine Database. This can be accessed online via the Digital Stable and holds information on all horses in England (as well as other parts of the UK) so owners can be reunited if their animal were to ever go missing.

If equine owners do not microchip their animals by October 2020, they could face sanctions from their local authority including a fine.
Taking a closer look at veterinary nurse insurance during COVID-19

Are you self-employed? Do you work on a contract as a locum Veterinary Nurse? If you do, you may be finding things a little uncertain at the moment. While most veterinary practices remain open, the Coronavirus pandemic means that many are operating with skeleton staff and dealing with emergency cases only.

Why is now a good time to review your cover?
If you’ve been working as a Veterinary Nurse for a number of years it may be that you bought cover when you first started out on your own and haven’t reviewed it since. But over time, your work and responsibilities may have changed so it’s worth taking the time now to take a closer look at the details of your policy to make sure they still meet your needs and the risks you face.

If you have found yourself with time on your hands because of the current situation, it would definitely be worth putting some of that time to good use by reviewing your insurance. The insurers providing cover for Veterinary Nurses have changed too. At PLH Medical we’ve partnered with Tapoly who are on a mission to revolutionise the insurance landscape. Tapoly offer up to £5 million of Medical Malpractice Insurance for Veterinary Nurses which you can buy quickly and easily online.

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BVA launch new conference in summer 2021

The BVA, the largest membership organisation for the veterinary profession in the UK, and CloserStill Media, organisers of the largest international veterinary events portfolio, have partnered to announce the launch of a major new conference and exhibition for the veterinary profession: BVA Live.

BVA Live, the first BVA standalone conference for eight years, will debut at the NEC, Birmingham, on 24 and 25 June 2021. This event will cater for 1,500 veterinary professionals and provide high-value, low-cost, practical clinical and non-clinical CPD and big issue debates, and showcase key veterinary suppliers and vendors in the exhibition in a vibrant central location.

BVA Live will complement the success of the London Vet Show which runs in the autumn, where BVA will continue to host its annual Congress, Gala Dinner and a range of clinical and non-clinical CPD.

For more information and to register your interest in attending, visit bvalive.vetshow.com

BEVA Congress postponed until September 2021

BEVA Congress has been postponed to 4 to 7 September 2021. The decision has been made in light of the ongoing uncertainty around holding events due to the continued risks and restrictions presented by COVID-19.

BEVA Congress is Europe’s largest equine veterinary conference and is usually held annually in September. It was initially postponed until January 2021 but the difficult decision to postpone it further was made by the elected BEVA Council and the congress programme committee, given the unpredictable circumstances of the current COVID-19 pandemic.

Tim Mair, President of BEVA, said: “The overriding factor in our decision-making process was to protect everyone attending Congress... We intend for September 2021 to mark an exciting, fresh start for the profession following the harrowing experiences of 2020. It should be safe for our international speakers and delegates to attend by then, getting us all back on track with networking and world-class CPD to inspire us for the new post COVID-19 world.”

BEVA Congress will be held from 4 to 7 September 2021 at the ICC in Birmingham. Visit bevacongress.org to find out more
The BVA has issued advice for pet owners after it emerged that the virus responsible for COVID-19 had been detected in a pet cat in England, in the first such known case in the UK.

A statement issued by Defra on 27 July said that the infection was confirmed following tests at the APHA laboratory in Weybridge on 22 July.

A private vet diagnosed the pet with feline herpes, a common respiratory infection in cats, but the sample was also tested for the SARS-CoV-2 virus as part of a research programme. Follow-up tests at the APHA laboratory confirmed that the cat was simultaneously infected with this virus.

The government has emphasised that all available evidence suggests that the cat contracted the coronavirus from its owners, who had previously tested positive for COVID-19. The cat and its owners have since made a full recovery and no other animals or people in the household were affected.

Staff at the veterinary practice where the cat was treated were aware of the household’s COVID-19 status and were not impacted by the virus.

Responding to the news, BVA President Daniella Dos Santos said: “While pet owners may be worried by this news, we’d like to emphasise that there continues to be no evidence that infected pets can pass COVID-19 to their owners. There have been a tiny number of cases of COVID-19 in domestic animals worldwide and in all cases, it appears likely that the transmission was from infected humans to animals.

“We have been in touch with vets in government and the local veterinary practice for information and have been informed that the cat only showed mild clinical signs and has since made a full recovery.

“Our advice to pet owners who have COVID-19 or who are self-isolating with symptoms remains to restrict contact with their pets as a precautionary measure and to practise good hygiene, including regular handwashing.

“We also recommend that owners who are confirmed or suspected to have COVID-19 should keep their cat indoors if possible, but only if the cat is happy to be kept indoors. Some cats cannot stay indoors due to stress-related medical reasons.

“It is also the case that animals may act as fomites, as the virus could be on their fur in the same way it is on other surfaces, such as tables and doorknobs. That’s why good hand hygiene remains important.”

BSAVA issues reminder for small animal vets on safe working with bats

BSAVA has issued a reminder to primary care small animal practice staff to ensure they know how to work safely with bats. The reminder comes following the recent publication of statistics on rabies in UK bats by Defra. The most recent case of rabies in a bat in Great Britain was in July 2020 in Wimborne, Dorset, and there were four cases in 2019.

Like many wild animals, bats can carry a number of different pathogens, including European bat lyssaviruses (EBLVs) 1 and 2 – also referred to as bat rabies. The rabies virus is present in the saliva of infected bats and is usually spread to humans or other mammals by the bite of an infected bat. The virus may also enter the body via open wounds or mucous membranes.

Whilst the risk of transmission to humans is generally considered low, those handling bats may be at an increased risk of contracting the disease. Individuals who regularly handle bats should be vaccinated against rabies. Those who are not vaccinated against the disease should assume that all bats are possible carriers of rabies. Individuals handling bats should wear gloves of a suitable thickness for the species of bat they are handling to avoid being bitten or scratched. Further information on how to safely contain and handle a bat can be found on the Bat Conservation Trust website.

In the event that an individual is bitten or scratched by a bat or exposed to bat saliva or nervous tissue in any other way, they should seek immediate medical advice. The contact area should be washed with soap and water, and any wounds must be disinfected.

Further information can be found on the APHA, PHE and NHS websites.

For more advice on the handling and treatment of wildlife casualties including bats, we advise vets to consult a reference book such as the BSAVA Manual of Wildlife Casualties.
The Official Veterinarian (OV) Conference, an annual event hosted by Improve International in association with the Animal and Plant Health Agency (APHA), is moving online as a result of the COVID-19 pandemic. As the only event dedicated solely to the CPD needs of OVs, the conference provides a unique forum in which OVs can discuss current topics of interest and recent developments in their work, as well as gain exclusive offers from industry-leading sponsors and exhibitors.

The 2020 OV Conference will offer up to 25 hours of CPD with live lectures, workshops and Q&A sessions from world-class speakers in small animal, farm animal and equine streams. There are two ticket types available: the first will allow you to attend all sessions (up to 25 hours of CPD) throughout the week, or you can get a more tailored ticket allowing access to only the equine stream on Friday 2 October 2020 (4.5 hours of CPD). The CPD can count towards OV revalidation qualifications, but you don’t have to be an OV to attend – the event is open to all vets, as well as animal health paraprofessionals, nurses and practice managers.

“The OV Conference is an important event in the calendar for Official Veterinarians, and we recognised that it was vital for us to adapt in order to help you to continue learning and gaining CPD safely,” says Sue Hay, Head of Official Veterinarian training at Improve International. “Speakers, sponsors and delegates alike have so far welcomed the decision, and we are certain that the OV Conference Online will be just as successful, enjoyable and informative as the face-to-face event would have been.”

The online nature of this event brings with it many benefits. Using a Moodle site to host the conference, there will be six sessions every day, each lasting 45 minutes and including a live Q&A session after each presentation. In addition to the live content, delegates will also be able to view recordings of all the sessions on-demand for three months following the conference, up to 31 December 2020.

Networking is a key part of any in-person conference, and the OV Conference Online has been built in a way to provide plenty of opportunities to discuss the most recent developments within the profession with colleagues throughout the week. Such opportunities include live Q&A sessions with speakers after each presentation, but also workshops, an online forum and a Sponsors’ Area, where sponsors will be available to discuss the products and services they offer. Delegates can also find exclusive offers from sponsors in their virtual conference bag.

**Lecture streams**

Across three streams over five days, the main topics covered at the 2020 OV Conference Online will include notifiable diseases, biosecurity and disease control, and export certification.
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Small animal (days one and two)
The OV Conference Online will begin on Monday 28 September 2020 with two days of content for small animal practitioners. Christine Middlemiss, the UK’s Chief Veterinary Officer (CVO), will give an opening address. Infectious diseases will be at the forefront of the programme on day one, with talks on bartonellosis, rabies and tuberculosis by Ian Wright, Samantha Holland and Conor O’Halloran respectively. Gail Camp will be discussing the management of illegal puppy imports coming through Dover and the APHA virology team will be giving an update on coronaviruses in livestock and other mammalian species in this stream.

On the second day, Claire Wade and Linda Smith of the APHA will give guidance on what to do if you suspect a case of rabies. Ian Wright will give a second presentation, this time on the threat of leishmaniosis in the UK, and Alasdair Macnab will discuss the changes in attitude in practice about biosecurity over the years. Lesley Larkin will be looking at public health considerations linked to raw pet food and the current control measures in place. Exports will be a hot topic, with talks by Neil Forbes on avian exports and by Philippa Liles on issues occurring during pet exports which have been highlighted by audits.

Farm animal (days three and four)
Wednesday 30 September sees the beginning of the farm animal stream of the OV Conference. With an opening
address by the UK’s CVO, various topics will be covered. APHA TB Advisors will be giving TB policy updates from England, Scotland and Wales and Juan Herreros will be presenting case studies showing the use of whole genome sequencing in bTB field investigations. Lourdes Leon Fabregas will be discussing the events of the avian influenza outbreak in December 2019, from the first report to the lifting of restrictions. Julia James will describe common and notifiable diseases in backyard pigs, Andrew Iveson will be looking at common problems with product exports and how to deal with them and Paul Gethings will be discussing the courtroom experience.

On 1 October, the second day of farm animal content, Anne Tordoff will be talking about issues in certification and planning for farm animal exports highlighted by audits. Claire White will discuss best practice for on-farm killing and what OVs need to know, Alasdair Macnab will be giving his talk on biosecurity again in this stream and Alan Wight will be discussing miscellaneous and exotic farmed animal disease surveillance and recent post-mortem findings. Claire Wade and Linda Smith will detail what happens when a case of bluetongue is suspected and James Russell, BVA Junior Vice President, will discuss the future of OV capacity post Brexit.

Equine (day five)
The equine stream takes place on Friday 2 October 2020 and equine specialists can purchase a special one day ticket for these lectures. The main themes of this stream are equine welfare, exports and infectious diseases. After the opening address by Christine Middlemiss, Laura Trigg will give a topical talk on the welfare implications of the coronavirus pandemic on equines. Allison Williment will discuss whether shorter journeys protect the welfare of equines when being transported, and Balazs Toth will be looking at the future of equine exports. Richard Newton will give an update on equine endemic and exotic diseases, and Claire Wade and Linda Smith of the APHA will highlight what to do if you suspect a case of African horse sickness. The last lecture on day five will be looking at the newly introduced export health certificate (EHC) online application system.

Workshops
A selection of workshops will also be taking place at the 2020 OV Conference Online. These will each be limited to 20 attendees to allow for interactive and inclusive discussions. Conference ticket holders should apply for places via email. If you are unable to get a space at a workshop, the main topics and a summary of the content covered will be added to the discussion forum afterwards, and the facilitators will be contactable after the workshops to continue the conversation.

To find out more about the 2020 OV Conference and book your tickets, visit officialvet.com
Fear of anxiety itself

It is for each of us to decide how much [if at all] we want to change the hold that anxiety has on us.

In recent months, the vast majority of my clients have said they are having trouble coming to terms with the levels of anxiety they are feeling. Maybe it’s COVID. Maybe they have always had a certain amount of unexplored anxiety running in the background and now it’s come to the fore. Maybe they have a story totally unrelated to COVID which is causing them anxiety.

The fact is that feeling anxious is part of the human experience. Most people describe a range of symptoms such as nausea, tight chest, tension in the jaw and shoulders, raised heart rate or palpitations and a lump in their throat.

Whether we have conquered problems in the past which were causing us concern, only for them to rear their ugly heads again many years later, or only recently discovered this phenomenon called anxiety which is novel to us, it’s true to say that feeling anxiety and fear is generally unpleasant.

So, we avoid it. As a single-celled organism avoids a noxious substance, we avoid unpleasant thoughts, feelings and bodily sensations reflexively. Being self-aware and thus knowing what is likely to cause us fear and anxiety, we often avoid situations which will make us feel this way. Sensible, right? Or, are we limiting ourselves and our experiences in life by avoiding these places, people and activities?

Wouldn’t it be great if someone could wave a magic wand and make all those unpleasant feelings disappear, opening up a world of previously avoided opportunities for us?

Jon Kabat Zin describes this venture into uncomfortable feelings as dipping our toe into cold water. You know how it is, you dip a toe in, you become acclimatised to the unpleasant feelings and then you put your foot in. Soon, both feet are in and then you very slowly wade in up to your knees or even take the plunge and swim – “it’s OK once you’re in”.

Similarly, when sitting on the cushion or wherever else you choose to meditate, really getting dug into this emotion and these feelings of sickness in your stomach can be a “dipping in of your toe” and acclimatising yourself to these uncomfortable sensations, further liberating you from their grip.

For those feeling very brave, while meditating, try to become aware of your racing pulse, your hyperpnoea, really be at one with that feeling you want to throw up. Hold that thought and dive in. And then, maybe, just maybe, it’s not so bad once you’re in.

A rapid heart rate and a lurching of your stomach are unpleasant for sure. But are they to be feared to such a degree that you limit your life choices to avoid them at all costs?

With each scenario, it’s worth asking yourself: “Is it the scenario you’re afraid of? Or is it the emotions you fear?”

Laura Woodward has been the surgeon at Village Vet Hampstead for over 10 years. Laura is also a qualified therapeutic counsellor and is affiliated with the ACPNL and the ISPC. She runs laurawoodward.co.uk – a counselling service for vets and nurses.

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“The future of the veterinary profession is not in the hands of the future generation; it is in our hands”

Millennials. Generation Z. A demographic of people whose lives are seen to be consumed and driven by social media and technology. The next generation of veterinary professionals.

Growing up in a world where technology has made communication more accessible and far reaching, everybody now has a platform from which they can share their thoughts and opinions, with the possibility of reaching an audience larger than ever before. As a result, not only are we connecting more with the catastrophic events happening due to the environmental crisis, but we are seeing a great movement within society towards the use of personal platforms to promote positive change. Consequently, a surge in climate activism has been driven by the youth movement. A youth whose lives will be indefinitely impacted by the changes occurring.

Greta Thunberg has been an incredible advocate for progress in the environmental sector and a great role model to the younger generation. She is a young woman who has managed to drive the most amazing movement for generations and has been a great leader and advocate of disruptive change. She has demonstrated that, no matter your age, your voice and opinions matter and that they will be heard. However, when we look closer to home, within the veterinary profession, the role models for environmentalism are few and far between. Those that are championing environmentalism report challenging conversations and closing doors.

With access to the instant gratification that comes from a life that revolves around social media, we have reduced our capability for patience. Generations that grew up among resource scarcity in war time often have the mindset of “I need” when it comes to consumption. That then evolved to “I want” and now to “I deserve”. This “fast food” culture has permeated our lifestyles – “we deserve it and we want it now”. Although this attitude has contributed to the climate crisis at an alarming rate, it has also provided the attitude of urgency that is needed to mitigate it. This has been echoed in the youth climate strikes – “we want action and we want it now”. Their message and their voices are loud, and I hope that this will begin to be echoed within the veterinary profession, as future generations become our colleagues.

I hope that this future brings a greater balance to the ethnic and cultural diversity within veterinary medicine. That the awareness of intersectional environmentalism, an inclusive version of environmentalism that advocates for both the protection of people and the planet, is ingrained into the profession alongside the influx of youth. Furthermore, and importantly, that BAME colleagues’ voices are equally heard on the topic of environmentalism.

Despite all of this, the future of the veterinary profession is not in the hands of the future generation; it is in our hands. Your hands. Collectively, the profession needs to address this important and urgent crisis that we all contribute to. It is very easy to dismiss a problem and put it on to the shoulders of another. However, ultimately, it is not the future’s responsibility, it is ours, at this very moment. How we act in this time will shape the future of our profession.

My final message to you all, is that we need to empower ourselves and the “Greta”-like characters around us. We must realise that we are all in this together and must reject a nit-picking culture, that delays and divides us, from finding solutions to this very real threat that is upon us.
What can practices do to develop and retain their new graduates?

Practices need to develop the unique skills of new grads, helping to prevent professional disillusionment

Charlotte Harrison, DrVetMed, MRCVS, achieved a degree in veterinary biosciences at the University of Glasgow before studying veterinary medicine at the University of Veterinary Medicine, Budapest. After qualifying in 2019, she joined Hook Norton Vets, part of the XLVets community, as a farm vet to pursue her passion for large animals.

It feels like quite a leap to go from being the vet student on EMS to suddenly being the qualified vet out on call with your own budding vet student in the car next to you. In what feels like an overnight change, new graduate vets find themselves in a position of immense responsibility which can bring conflicted feelings, caused by the infamous imposter syndrome along with the excitement of starting out in this rewarding profession after many years of study. That’s where being part of a community can really help to transform an experience from one that could simply be hugely intimidating and scary into one where we feel properly supported.

With the current shortage of vets, what can practices do to develop and retain their new graduates? This is going to become ever more vital for the profession. Nurturing new grads is not just about providing assistance when it is needed, it is also about helping them to identify key strengths and interests that should be developed, recognising that each individual has a unique set of skills that are valuable to the team. By encouraging new graduates to embrace their own career journey, we can make the experience more fulfilling. We aren’t trying to shoe-horn people into roles that don’t suit them, leading to immense stress, but rather are embracing their individuality. That can go a long way in keeping valuable new graduates and future leaders of the profession in practice.

The importance of finding a good fit

Part of the solution might lie in encouraging new vet students to invest more time in identifying the right first practice to give them the best start in their career. Having moved around a lot over the years between South Africa and Hungary, before studying for some time in Glasgow and then ending up back in Budapest for my veterinary studies, I really believe that it’s important to feel at home in your first practice as a new grad. With the current high demand for vets, new graduates can, and should, take the time to find the place where they fit in the most and would be comfortable living. It is OK not to accept the first offer that you get, and to take your time to get things right. My top tip is to go early to a practice that you’re seeing EMS with and look at how people walk in the door and engage with each other, whether they have a smile on their face and a positive outlook.

Where you chose to work will heavily influence what your “average” day might look like, and this is especially true for farm vets. At my practice, we see about 50:50 beef and dairy, and I enjoy having such a big mix of cases. I’m lucky enough to work with a diverse range of clients, from those that have financial constraints to those who are happy to pursue gold-standard treatments. This enables me to be inventive at coming up with solutions to suit the different challenges that this variety presents. It also allows me to perform some interesting diagnostics, and I’ve even been known to X-ray alpacas!

The take-home here is that factors such as geographical location, size of practice, vet rota, client base and in-house diagnostics will all affect what type of vet work you will be able to get involved with. Practices would do best to cater to the individual and be flexible where possible, aiming to establish what each new grad is comfortable with.

I also would urge any soon-to-be graduates not to be limited by any preconceptions, and to talk to plenty of vets

Finding a practice that meets any of these expectations is just as important a part of the jigsaw as working somewhere friendly and supportive if we want to avoid new grad disillusionment.

I also would urge any soon-to-be graduates not to be limited by any preconceptions, and to talk to plenty of vets in practice to hear about and learn from their experience. A good example of this is that, despite the feminisation of the profession, there’s often a feeling among students that female vets in large animal practice will have a tough time. This can sadly be a barrier to young female vets considering farm animal practice. Happily, this has not been my experience: our clients make me feel valued and respect my opinion.
What can practices do to develop and retain their new graduates?

New grads bring fresh insights

Are practices making the most of their new grads? It is important to remember that although they have less experience than more senior colleagues, new grads bring with them valuable new perspectives and their own set of unique strengths. They help to enrich the practice in their own way.

There are lots of opportunities for training and pursuing your own professional interests. The “Train the Trainer” course I did with XLVets equipped me with useful knowledge about how adults learn, effective communication skills and adjusting training style to suit different audiences. This complemented my natural love of interacting with people and encouraging learning. I particularly enjoy getting involved with client education and I have gradually been able to take over with leading client meetings and courses.

As a new grad there is often the worry that clients might not be very open to new ideas but I have generally found my clients to be very receptive to discussing these topics. I also find that they respect my honesty – they know that I’ll call a more senior colleague if ever I’m unsure, but see this as keenness to do a good job for them, not as a negative.

Recent graduates can also play a big part in mentoring vet students. As a newer vet, you remember how they feel and it’s important to bear in mind that we’ve all been there, we all learn differently and are all interested in different things. Taking on students can be intimidating at first, but should be embraced as a great opportunity to help you consolidate your own learning. Through explaining things to others, it helps cement that knowledge and understanding and drives us to be better ourselves.

The value of leadership role models

Importance should be attributed to leadership role models. I’m surrounded by fantastic examples of leaders and mentors who work hard to bring out the best in the rest of the team. The shadow of these leaders is a powerful motivating factor in helping new graduates aspire to reach their potential, both within leadership roles but also within other aspects of their career journeys.

The community in which I work is a great fit for me, because I am really excited about the leadership opportunities that I will get to take on naturally over time. Many young vets feel intimidated by the thought of taking on these roles. People often equate experience with leadership aptitude and may not self-identify that they have the makings of a great mentor. Vets also have a predisposition to be highly self-critical and without the proper support and training can lack the confidence to take on these roles. We should remember the value of having different perspectives and personalities in leadership roles in order to help bring about meaningful change in the profession.
The RCVS concerns and investigation process explained

How does the RCVS investigate complaints raised about the professional conduct of veterinary surgeons?

As the regulator of UK veterinary surgeons and veterinary nurses, the RCVS is responsible for investigating complaints raised about the professional conduct of individual veterinary surgeons and veterinary nurses. We understand that, for members of the profession about whom a complaint has been raised, this can be a very daunting and stressful situation.

Here Gemma Crossley, Head of Professional Conduct at the RCVS, explains more about the process which, while robust and thorough, is also fair and takes into account the strain that professionals can find themselves under while being investigated.

Investigating complaints

Following the publication of an article in the July issue of Veterinary Practice that contained some unclear information regarding the RCVS concerns investigation and disciplinary processes, we wanted to take the opportunity to explain in a little more depth how it works for those subject to a complaint and what you should do if a complaint is made about you.

We have a legal responsibility to investigate all concerns raised with us regarding veterinary surgeons and veterinary nurses on our Register but we also recognise this can be an extremely worrying time for those being investigated.

It is worth adding here what we can and cannot deal with as a regulator. Concerns that involve disputes over costs or customer service issues would generally be directed to the Veterinary Client Mediation Service (VCMS), an independent body funded by the RCVS that seeks to resolve matters that are in dispute.

The role of the RCVS is to investigate allegations of serious professional misconduct affecting fitness to practise. This includes allegations of dishonesty or false certification, or significant departures from the standards expected of a reasonable veterinary surgeon/nurse.

Stage one

If we are investigating a concern raised about you, we will assign a case manager to you who will be your personal point of contact at the College until your case is concluded and who will be responsible for coordinating the investigation.

The first stage of the investigation is carried out by a case examiner group comprising your case manager and two case examiners. The job of the case examiner group is to determine whether there is an arguable case that the matter could amount to serious professional misconduct. At this stage, you may be asked to provide your written comments on the concerns raised, or to produce documentation and other evidence, such as clinical notes and communications with a client, where applicable. If you are unsure what or how much information to provide, you should consult your assigned case manager, as well as your professional indemnity insurer, for additional advice.

We will also provide you with details of support services available to veterinary surgeons and nurses.

The majority of cases are closed at this first stage and, if this happens, your case manager will write to you explaining why. If the case examiner group felt that there was not an arguable case of serious professional misconduct, but that you had fallen short of the standards expected, it may issue advice to you (generally a reminder of relevant parts of the Code of Conduct or Supporting Guidance).

If it is considered that there is an arguable case of serious professional misconduct, the complaint will be passed on to the Preliminary Investigation Committee (PIC).

We aim to complete stage one of the process within four months of receiving the concerns.

Stage two

The PIC is a statutory committee, comprising both veterinary and lay members, that is tasked with undertaking further investigations and scrutiny of cases. The committee meets every two weeks or so to discuss cases and, among its powers, has the ability to seek further information and evidence from you, complainants and witnesses, including by instructing external solicitors.

After considering all the evidence, the PIC will decide whether to close the case (with or without advice), or, if it considers that there is a realistic prospect of proving that your behaviour amounts to serious professional misconduct, it may be passed to the Disciplinary Committee for a full public hearing. Cases may also be held open for up to two years if it is considered that there is a realistic prospect, but that it is not in the public interest to refer the matter. In some circumstances, the PIC may consider it
appropriate to place registrants on a health or performance protocol, if they consent to such.

We aim to complete cases at stage two within seven months from the date of receiving the concerns (or 12 months for complex cases).

**Disciplinary committee**

The Disciplinary Committee meets in public in a setting similar to that of the courtroom environment.

As an independent committee, the DC comprises both lay and veterinary members recruited and appointed by an outside agency. Its purpose during the hearing is three-fold: first, to determine if the facts of the case can be proven (the standard of proof, "to be sure", is tantamount to the criminal standard, "beyond reasonable doubt"); second, where the facts of the case are proven, it determines whether these amount to serious professional misconduct; and third, where serious professional misconduct is found, it determines what sanction to apply.

As opposed to what was stated in the previous article, the DC has no powers to impose any conditions on a veterinary surgeon’s or veterinary nurse’s licence to practise. The options open are relatively limited: the DC can close the case with no further action; hold the case open for up to two years (with or without the health or performance protocols); issue a formal reprimand; suspend your name from the Register for a period of up to two years; or remove your name from the Register.

In the case of the latter two sanctions, there is an appeal process to the Privy Council with appeals needing to be made within 28 days of you being notified of the DC’s decision. For those removed from the Register, there is also a restoration process and applications for restoration can be made within 10 months of being removed from the Register.

**Looking ahead**

I hope that this brief overview provides a clearer picture of how the RCVS investigations and disciplinary process works. It is worth noting that relatively few cases escalate to the Disciplinary Committee which is generally reserved for the most serious breaches of the Code.

The aim of the process is not to punish registrants, but to seek to ensure the protection of animal health and welfare and public health, and to maintain and uphold standards.

Looking ahead, RCVS Council recently voted to consult on possible changes to our disciplinary system that would bring it more into line with modern regulatory best practice, whilst maintaining public protection at its heart.

You can find full details of the existing process at [rcvs.org.uk/concerns](http://rcvs.org.uk/concerns) or email [profcon@rcvs.org.uk](mailto:profcon@rcvs.org.uk) for further information. Information about recent proposals for changes to the disciplinary system can be found at [rcvs.org.uk/disciplinaryreform](http://rcvs.org.uk/disciplinaryreform)

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Best practice infection control

It is important to minimise the risk of infection spreading whilst creating an optimum environment for patient care.

Imagine this clinical scenario: a canine patient with possible leptospirosis is coming in for a work-up. The pathogen, *Leptospira*, carries serious contagious and zoonotic risks, so it is important to consider infection control, biosecurity and barrier nursing measures. The infection can spread through any form of contact with wounds or mucous membranes, directly or indirectly through urine, and can survive up to three months in contaminated water supplies. You want to ensure that your infection control procedures are up to standard to minimise the risk of the infection spreading to other patients and humans. What steps should you take?

With a potential infectious case, the aim is to provide optimum patient care where the risk of infection is minimised for other patients and the team. The principal component of infection control is breaking transmission; leptospirosis is largely spread through contact with urine from an infected animal, so cleaning and disinfection are important to maintain a safe environment.

The patient should be considered positive until proven otherwise. Therefore, the patient’s journey should be considered, starting from their entry into the practice. Where will the patient enter and be admitted? Think about the areas the dog’s nose may touch when entering the practice, and also the areas where the dog may urinate or meet other dogs, both inside and outside. Is it possible to send the patient straight into the consultation room, kennels or isolation? Can they avoid the reception area and waiting room or can the time they spend there be minimised? Is there time to disinfect the area before another patient has to enter?

Ideally, the possibility of leptospirosis should be flagged before the appointment to allow staff to create a plan and to discuss this with the owner. The kennel and isolation area can be prepped for the patient’s arrival and the owner will know to call ahead when they arrive. The patient can then enter through a separate exterior door (or be led straight through). It is important to keep track of where the patient has been – kennel logs are particularly useful to ensure the correct hygiene and cleaning procedures are followed.

While waiting for confirmation of the diagnosis, it is crucial to treat the patient as infectious. Ideally, the dog should be placed in isolation, either in a separate ward or in a designated area within the kennels that can be zoned off and separated from other areas. The isolation area will need separate equipment and consumables for each patient. These should be disposable or easily cleaned and disinfected. Placing hazard tape around the area, taking into account the potential risk from urination and splashes, can serve as a visual reminder to prevent unauthorised team members and those not wearing the correct PPE from entering. Preparing everything in advance is key, including the patient’s journey, procedures likely to take place, equipment and the team involved. It is beneficial to keep a minimal team and ensure everyone is wearing PPE. Staff with open cuts or skin lesions should avoid suspected or confirmed patients. If contact is essential, lesions should be covered with a waterproof dressing.

If possible, minimise the patient’s contact with the walkways by moving them on a trolley or stretcher. It is useful to assign a “clean runner”, someone who does not handle the patient but is responsible for helping to collect items and open doors, to minimise the infection risk.

In areas of the practice with high traffic, there is the potential for infection via fomites. How can you minimise the level of disruption to the rest of the practice, to reduce contamination risk for other patients and areas of the practice?

Ensure that the rest of your team are aware of the infection risk, to enable time for the diagnostic rooms to be fully cleaned between patients. The workspace should be clearly marked for cleaning before it is used again. It must be cleaned with a disinfectant suitable for the suspected pathogen at the recommended dilution rate. Be sure to identify anything that is potentially contaminated and mark it as such. The team member cleaning the room must wear the same level of PPE as was worn for the procedure. Specific policies and procedures for infection control, including the management of specific pathogens, patients and areas within the practice, will ensure that the whole team is prepared for such cases and aware of any restrictions.

A dedicated infection control group, including representatives from all areas of the practice, can take the lead in creating these policies and offering advice to the team regarding the management and prevention of infectious diseases. This can include: movement and care of infectious or immunosuppressed patients; barrier nursing; PPE guidance; cleaning and disinfection of areas and equipment; and advice in circumstances where there might be disease outbreak or changes. Including the whole team brings a range of ideas and can help increase compliance.

Visual reminders (eg checklists and cleaning schedules) are helpful. Auditing can identify if these are being completed and if they are effective, identifying areas that require further support, or equipment.

Further information and guidance can be found at: rcvsknowledge.org/qi/infection-control
Wildlife markets have never been more infamous. From live invertebrates to primates, and from animals’ dried heads to their privates, some “dead or alive” wildlife markets have become the anything goes, no limits outlet for animal abuses and public health hazards.

There are ”wet markets” and there are ”wildlife markets”. Wet markets typically deal in domesticated species – notably dogs, cats and fowl – which can often be neglected, beaten and butchered with sickening brutality, along with seafood, which suffers much the same gruesome fate.

Wildlife markets sell just that – wild animals with frogs, turtles, tortoises, crocodiles, lizards, snakes, pangolins, bats, civets, monkeys and much, much more. These places are unforgettable sights, whether it’s the blood stains, cries of anguish or just being kept silent in miserable cages, as for fishes, amphibians and reptiles.

Artist Sue Coe said that ”If animals believed in God, the Devil would look like a human being” (2004 [lithograph]).

Well, if animals believed in hell, I think it may look remarkably like a wildlife market.

However, whether one of these hapless victims leaves this world following inhumane husbandry and live evisceration and dismemberment, or imprisoned in a plastic terrarium in someone’s house depends entirely on the intentions of the purchaser – wildlife markets sell wildlife, what the buyer wants with it is a separate issue.

Vast numbers of wild-caught and captive-bred critters and their bioproducts are shipped not just nationally, but internationally, including from recognised zoonotic hotspots to wet markets and pet markets throughout the world.

Wildlife markets hiding in plain sight

Understandably, the world’s media has run many exposés of the wet and wildlife markets, and given great emphasis to the possibility that COVID-19 originated from such an environment in Wuhan. The UK, along with numerous Western countries, quickly vented its conjoined contempt at the cultural clash, unhygienic conditions and sheer repugnance of welfare deprivations and cruelty that accompany the treatment of animals in market conditions.

And rightly so. However, China is not the only place where wildlife markets tick all the wrong boxes for animal welfare, public health and even pandemic risk – Cambodia, Japan, Thailand, Vietnam, the Philippines, Indonesia, Bolivia, El Salvador, Mexico, Peru, Congo, Mali, Nigeria and Togo also accommodate these events. As well as... Canada, the USA, Germany, the Czech Republic, the Netherlands, Spain, France and – wait for it – the United Kingdom. Indeed, we have wildlife markets – wet and pet – right here in the West, right under our noses.

Wet markets – complete with live crustaceans, fish, turtles and others – lurk in many places and the end of life care for these animals is not pretty. So-called ”reptile expos”, ”pet fairs” and ”bird shows” are ”prettier” and tuck themselves away among hired halls here and abroad, where they often (illegally in the UK) peddle wild animals from plastic food containers and terraria at makeshift stalls. Some are bred within a thriving tax-dodging cottage industry and others arrive straight from Southeast Asia – and being largely reptiles, quarantine-free. The fact that the snake sitting on a table top in northern England may have eaten a coronavirus-, or worse, an Ebola-laden bat in Indonesia two days earlier may go unacknowledged.

Getting our own house in order

Sure, the ”Western-style” wildlife markets may seem less ramshackle, but look beyond the plush advertising website or the clear plastic frontage of a Perspex box. The cramped, deprived, stressful conditions of captivity, along with national and international transportation in planes, vans and car boots are still there for exotic animals to endure. From a public health perspective, any single wild animal, at any single wildlife market, in any single country, could spawn the next pandemic. Until we have eliminated all wildlife markets, in all their forms, and in our own Western backyards, then not only are we unable to claim the moral high-ground, but we may be the next centre of epidemiological attention.

Clifford Warwick
G Dip(MedSci), PhD, CBiol, CSci, EurProbioL, FRSB
Consultant Biologist and Medical Scientist

We have wildlife markets – wet and pet – right here in the West, right under our noses.
The importance of recognising the role of *Malassezia* dermatitis in the management of allergic dogs

Unless the infection with *Malassezia pachydermatis* is treated, it is likely that the pruritus will continue.

Pathogenesis

*Malassezia* organisms are known to produce virulence factors (proteases, lipases, phospholipase, lipoxygenase and many others; Coutinho et al., 2000) which break down cells and trigger the release of inflammatory mediators. They also activate the complement cascade that induces inflammation and recruits inflammatory cells. These changes influence the skin’s microclimate, which in turn favours the colonisation and proliferation of the organism. Furthermore, in a small number of individuals, these factors can induce IgE-mediated, or cell-mediated, immune responses.

The key factors that favour *Malassezia* overgrowth include:

- An increase in environmental temperature and humidity
- Inflammation, exudation and self-trauma
- Breed predispositions
- Underlying hypersensitivity, endocrine and paraneoplastic conditions
- Anatomical site (eg skin folds and ear canals)
The importance of recognising the role of *Malassezia* dermatitis in the management of allergic dogs

**Clinical signs**

Pruritus is a common presenting sign but the clinical signs vary according to the duration and intensity of the infection and the area affected. Lesions can be localised or generalised and, in the acute stages, include erythema, scaling and crusting (Figure 2), with varying degrees of hyperpigmentation. Advanced or chronic cases usually present with erythema, scaling, hyperpigmentation, lichenification and crusting. Dogs with *Malassezia* infections have brown exudate and/or discoloration of the skin and claws. Often, there is a concurrent bacterial infection and frequently, peripheral lymphadenopathy is present.

The distribution of the infection is usually of that seen in atopic dogs (Figure 3) and often *Malassezia* otitis is a common problem.

**Diagnostic tests**

In general practice, the cheapest, quickest and easiest way to demonstrate the presence of the organisms is by cytological examination of tape-strip preparations, direct smears or scrapes, stained with Diff-Quik. *Malassezia* are identified as oval to footprint-shaped organisms under oil immersion (Figure 1). The number of organisms seen under high power (x100 lens) can vary depending on the site sampled, the sampling techniques and the staining techniques. Even a small number seen can be significant, if the clinical signs and history are suggestive of *Malassezia* infection and there is favourable response to treatment.

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Immediate hypersensitivity responses to *Malassezia pachydermatis* can be demonstrated by intradermal and serological tests, both of which demonstrate the presence of *Malassezia*-specific IgE.

Finally, if there is a high index of suspicion, but *Malassezia* organisms are not found, then response to treatment can be used to rule infection in or out.

**Key points**

- Cytology – adhesive tape strips, direct impression smears, indirect impression smears, superficial scrapes
- Culture
- Response to treatment
- Demonstrate presence of *Malassezia*-specific IgE by intradermal allergy test or by serum allergy testing

**Treatment**

Depending on the extent of the clinical signs and client and patient compliance, topical and/or systemic therapy can be considered.

**Topical treatment**

2% miconazole / 2% chlorhexidine shampoo or 3% chlorhexidine shampoo are the licensed treatments of choice based on evidence-based medicine (Negre *et al.*, 2009). Other topical antifungal preparations such as selenium sulphide shampoo, lime sulphur and enilconazole rinse may also be useful. Unlicensed shampoos, lotions and ointments containing antifungals such as ketoconazole, clotrimazole, miconazole and terbinafine may be of some use for *Malassezia* dermatitis in individual cases, but there is lack of evidence for their use in most cases. Wipes impregnated with chlorhexidine digluconate, climbazole 0.5%, zinc gluconate 1%, Tris-EDTA and glycerine; those with chlorhexidine 3%, climbazole 0.5% and phytosphingosine; and those with acetic acid and boric acid may be useful in reducing the yeast numbers (Bourdeau *et al.*, 2007; Cavana *et al.*, 2015). Other shampoos and foams containing similar combinations of ingredients are also available and can also serve the same purpose.

**Systemic therapy**

Ketoconazole (5 to 10mg/kg) or itraconazole (5 to 10mg/kg) once daily can be considered in cases where the infection is non-responsive to topical treatment or when topical treatment is not practical. When indicated, the author prescribes between 14 and 21 days’ systemic treatment concurrently with topical medication. Depending on the individual case, the topical treatment can be continued after the course of systemic treatment is concluded as a maintenance therapy.

Side-effects include anorexia, vomiting, diarrhoea and hepatic dysfunction, which can occur with both ketoconazole and itraconazole; however, it is suggested that they are less severe and less frequent with the latter (Miller *et al.*, 2013). In some cases, reducing the dose may help with the gastroenteric signs.

For those dogs where long-term management is required, pulse treatment on two consecutive days of each week can be used but monitoring of liver function and haematology are essential.

Terbinafine at 30mg/kg sid has been reported to be effective, but in an evidence-based review support for its use was lacking (Negre *et al.*, 2009). A later study showed that terbinafine concentration in canine stratum corneum and sebum barely exceeded the reported *Malassezia* MIC90, when dogs were given it at 30mg/kg once daily for 21 days, suggesting that a higher dosage may be needed (Gimmler *et al.*, 2015) for the treatment of *Malassezia*.

For successful long-term control of recurrent infections, it is necessary to identify and manage the underlying condition predisposing the animal to *Malassezia* infection. Alternatively, the underlying cause is treated but the *Malassezia* infection overlooked. For instance, atopy predisposes dogs to intermittent *Malassezia* infections, and staphylococcal infections are also associated with *Malassezia* infections. However, in general practice, often the atopy and/or the staphylococcal infection is treated but the *Malassezia* is overlooked.

**Summary**

*Malassezia* dermatitis is a common cause of pruritus and dermatitis in dogs. The clinical signs include erythema, scaling, exudations and lichenification. In-house cytological examination is the most rapid and cost-effective way of diagnosing the condition. Apart from the treatment of the *Malassezia* dermatitis, the underlying condition should be identified and managed, otherwise the treatment protocol for the *Malassezia* infection will be compromised, if not entirely ineffectual, in the long term. At the same time when an atopic dog relapses, or fails to respond to appropriate management, always look for infections as they may be preventing the resolution of the pruritus.
Early detection of chronic kidney disease in cats

Detecting CKD in its earlier stages is beneficial for enabling the prompt implementation of therapeutic interventions.

Chronic kidney disease (CKD) is a common disease in cats, particularly as they get older. A recent study analysing electronic health records of cats found the prevalence of CKD to be 17 percent, with a mean age at diagnosis of around 13 years (Bradley et al., 2019). The cause remains unclear in many patients, but histology of the kidneys of affected cats often shows chronic interstitial nephritis and renal fibrosis, the severity of which is dependent on the stage of disease (McLeand et al., 2015).

One of the most important and challenging aspects of CKD management is early diagnosis in order to implement effective treatments and management strategies to slow the progression of the disease and monitor it effectively.

What are the benefits of detecting CKD early?

Detecting CKD in the earlier stages is beneficial for enabling the prompt implementation of therapeutic interventions. These interventions are likely to be most effective earlier on in the course of the disease (Lees, 2004). The International Renal Interest Society (IRIS) has described a staging method for CKD in cats (Table 1), incorporating multiple factors including serum creatinine and symmetric dimethylarginine (SDMA), and can be further staged using the urine protein to creatinine ratio (UPC) and blood pressure. Nutrition is one of the most important aspects of management, as it has been shown to significantly impact the survival time of cats with CKD, particularly with respect to phosphorous restriction (Elliot et al., 2000). Recent guidelines from the International Society of Feline Medicine have recommended starting a renal diet for cats with CKD as early as possible in stage 2 (Sparkes et al., 2016). Whilst they acknowledge that there has been no determined point at which diet starts to produce benefits, ensuring that the cat accepts the diet and will eat it consistently is important, and acceptance of a new diet is more likely to occur before the cat’s appetite starts to become affected as a consequence of uraemic toxins. Renal diets should be gradually introduced over four to eight weeks to increase the likelihood of acceptance.

One of the benefits of starting a phosphorous-restricted diet early on is the addressing of hyperphosphataemia, which in turn can cause secondary renal hyperparathyroidism. As the number of functioning nephrons decreases so does glomerular filtration rate (GFR), in turn leading to a reduction in the excretion of phosphate ions. Parathyroid hormone (PTH) is secreted in response to hyperphosphataemia to inhibit phosphate ion reabsorption in the kidney but also increases calcium and phosphate ion efflux from bone, in addition to stimulating renal calcitriol production. This increases calcium ion concentrations, and decreases phosphorous concentrations, but as phosphorous is ultimately excreted by the kidney, hyperphosphataemia occurs if dietary intake is not controlled (Geddes et al., 2013).

Hyperphosphataemia also inhibits the production of calcitriol, which is an important inhibitor of PTH synthesis and is involved in phosphorous and calcium absorption from the intestine (Kidder and Chew, 2009). One study found that 84 percent of cats with CKD have an increased PTH (Barber and Elliot, 1998). Furthermore, some cats in that study were found to have normal concentrations of ionised calcium and serum phosphorous with elevated levels of PTH. Feeding renal diets with restricted phosphorous is associated with suppression of phosphate and PTH concentrations (Elliot et al., 2000). Secondary renal hyperparathyroidism is usually seen in cats with CKD at stages 3 and 4, given the severity is seen to increase with increasing azotaemia (Barber and Elliot, 1998). However, hyperphosphataemia and secondary renal hyperparathyroidism can be identified in cats with CKD.

**TABLE 1** IRIS staging of CKD in cats (adapted from IRIS, 2019)

<table>
<thead>
<tr>
<th>STAGE</th>
<th>BLOOD CREATININE µmol/l</th>
<th>SDMA µg/dl</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAGE 1</td>
<td>Less than 140</td>
<td>Less than 18</td>
<td>Other renal abnormality present</td>
</tr>
<tr>
<td>STAGE 2</td>
<td>140 to 250</td>
<td>18 to 25</td>
<td>Mild or absent clinical signs</td>
</tr>
<tr>
<td>STAGE 3</td>
<td>251 to 440</td>
<td>26 to 38</td>
<td>Clinical signs absent: early stage 3. Many or marked systemic signs: late stage 3</td>
</tr>
<tr>
<td>STAGE 4</td>
<td>More than 440</td>
<td>More than 38</td>
<td>Increased risk of systemic clinical signs and uraemic crises</td>
</tr>
</tbody>
</table>

SUSANNA CLARK

Susanna Clark, BVetMed, MRCVS, graduated from the Royal Veterinary College in 2014 and worked in small animal practice in the South East for four years before joining Royal Canin in 2019 as a Veterinary Business Manager.
as early as IRIS stage 2 (Kidder and Chew, 2009) which suggests the importance of starting dietary modification promptly in these cases.

How can CKD be diagnosed earlier?
Investigations to rule CKD in or out are often started in response to the cat being presented with clinical signs that the owner has noticed, or after abnormalities are detected on routine monitoring tests. Routine "wellness checks" are encouraged for senior cats once they reach between 7 and 10 years of age at intervals of six months, and it is recommended that a physical examination and haematology, biochemistry, urinalysis, total thyroxine (T4) and blood pressure measurement is included (Pittari et al., 2009). This may help to detect CKD at an earlier stage for many cats, as they often appear well despite suffering from underlying diseases. In addition, owners may attribute clinical signs in older cats solely to ageing. Clinical signs in these patients include polyuria, polydipsia, weight loss, anorexia and lethargy among others (Reynolds and Lefebvre, 2013).

Clinical signs are important factors when considering the likelihood of a patient having CKD. A study by Green et al. (2014) found that the likelihood of a patient having CKD increased when cats had lost 10 percent or more of their body weight in the previous 6 to 12 months. The same study found that periodontal disease, cystitis, dehydration or anaesthesia occurring in the previous year were also associated with an increased likelihood of CKD, which should prompt investigation to rule CKD in or out in those patients.

When considering investigations for these patients, the diagnosis of early CKD is difficult; there is no accurate biomarker that exists for renal function. Methods that directly measure glomerular filtration rate are not widely available and a diagnosis is usually achieved using a combination of blood testing and urinalysis. Even then, interpretation of these tests can be challenging (Sparkes et al., 2016).

Creatinine is widely used to aid diagnosis of renal disease in cats alongside other diagnostic tools including urinalysis. It is produced by muscle and filtered by the glomerulus, although not reabsorbed. This means it is not as affected by pre-renal causes, such as dehydration, unlike urea. However, the interpretation of creatinine is not without challenge. Because creatinine is produced by muscle, muscle mass can affect creatinine levels and should be considered when interpreting creatinine values (Braun et al., 2003). In addition, approximately 75 percent of renal filtering capacity can be lost before elevations in creatinine and urea are seen on serum biochemistry (Finco et al., 1995), so detecting CKD early on is challenging. Indeed, the IRIS staging criteria (2019) indicates that a cat with stage 1 or 2 CKD may have a normal serum creatinine, and to diagnose these earlier stages of renal disease other diagnostics should be considered.

Identifying an SDMA that is persistently elevated above 14µg/dl, proteinuria or other findings including abnormal histopathology results from a renal biopsy may raise suspicion of underlying CKD. Measuring SDMA is a relatively new test that has become available over the last few years and shows promise in identifying CKD in cats at an earlier stage. Concentrations of SDMA have been shown to increase up to 17 months before serum creatinine (Hall et al., 2014), therefore it has a place in aiding diagnosis in cases where creatinine is not elevated but CKD is suspected. SDMA can also be of use in Birman cats, which have been shown to have physiologically high creatinine levels, to avoid over-diagnosing CKD in this breed (Paltrinieri et al., 2018).

Urinalysis is of great importance in the diagnosis of CKD and is recommended for use alongside biochemical tests during investigation of these patients. Detecting the presence of proteinuria is also useful in the early diagnosis of CKD in cats, and the UPC has been shown to be associated with survival in cats (Syme et al., 2006; King et al., 2007).

Conclusion
The early detection of CKD in cats can be difficult, although advancements have been made recently that increase the likelihood of detecting CKD at earlier stages, including the availability of SDMA analysis. A thorough clinical history, along with regular assessments of those cats most at risk of developing CKD, is recommended. Once diagnosis is achieved, CKD should be staged and substaged to appropriately tailor treatment, and appropriate therapeutic interventions should be instigated early in the course of CKD. 

A full reference list can be found online
The POCKIT Central PCR System offers a cost effective sample-in-result-out nucleic acid testing system by integrating magnetic bead-based nucleic acid extraction, robotic arm liquid handling, and insulated isothermal PCR (iiPCR) technologies to offer a fully automatic molecular detection platform.

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Focal epileptic seizures in dogs

Discriminating an epileptiform seizure from other types of episodes is an important first step for diagnosis

Epilepsy is one of the most common chronic neurological diseases in dogs with a reported prevalence of around 0.75 percent in the total population. It is not unusual for general practitioners to be presented a pet with an episode described by the owner as vigorous jerking bodily movements. These episodes can easily be classified as an epileptiform seizure. Hallmarks of a generalised tonic-clonic seizure (GTCS) include involuntary muscle contractions and impaired consciousness along with autonomic signs during the episode such as hypersalivation, urination or defecation. It becomes more challenging when owners present their pet with an episode of abnormal behaviour without the typical clinical manifestations of a generalised seizure. A wide range of abnormal episodes can be seen in dogs, such as facial twitching, clonus of the muscle group of one limb or behavioural changes which are not directly linked to seizure activity. These can be described as focal (previously known as partial) seizures. Many of these clinical signs can also be associated with other pathologies and the first step to diagnosis is to characterise the episode. This is easier said than done, but a better idea can be formed with the aid of owner-recorded videos and a structured step-by-step approach. In addition, it is important to realise which other conditions may mimic focal seizures and how to discriminate them.

What is a focal seizure?
Focal seizures have been defined as abnormal electrical activity arising in a localised group of neurons or networks within one hemisphere (Berendt et al., 2015). They may also progress to generalised seizures in some cases. Clinical signs depend on the brain areas involved and can be highly variable. Similarities have been found with regards to the distribution and semiology of focal seizures between dogs and humans (Berendt et al., 2004). In both, focal seizures have been associated with motor, autonomic and behavioural signs. The literature on semiology in dogs is limited, but common motor signs are head tremors, rhythmic contractions of the facial or masticatory muscles, increased tone or clonus of one extremity and turning of the head to one side. Autonomic signs more frequently seen are lip smacking, hypersalivation and vomiting (Berendt et al., 2004; Packer et al., 2017). Abnormal behaviour is the most challenging presentation as problems in other organ systems can have a similar presentation. In humans, the most recent classification includes the level of awareness, motor and non-motor signs and focal to bilateral tonic-clonic seizures (Figure 1; Berendt et al., 2015). A somatosensory seizure is classified under non-motor signs and could be comparable to some of the behavioural signs seen in dogs. Abnormal skin or vision sensations may result in licking, chewing or “fly-biting”. More complex focal seizures may manifest as bizarre behaviour, such as unprovoked aggression, running uncontrollably or rhythmic barking (Berendt et al., 2004; Packer et al., 2017).

How do I know it is a focal epileptic seizure?
Recognising focal seizures relies on the owner’s report and video footage if available. Given their clinical manifestation is not as characteristic as for generalised tonic-clonic seizures, they can be difficult for an owner to detect. In
addition, the perception of a focal seizure also differs compared to generalised seizures. Owners often believe a focal seizure causes less damage, is less distressing for the dog and has less impact on the quality of their dog’s life, compared to generalised seizures (Packer et al., 2017). The signs appear less dramatic and owners may feel less urged to contact their veterinarian or opt for treatment. Underdiagnosis or lack of treatment may result (as with generalised seizures) in status epilepticus, which can be life-threatening and reflects the importance of recognition by both pet owner and consulting veterinarian.

The first goal is to discriminate an epileptiform seizure from any other type of “episode”. This requires a good understanding of the traits of a seizure. A few examples of these are: (1) they are often followed by a postictal period; (2) they can be associated with autonomic signs (hypersalivation, urination and defecation); and (3) they often occur directly after sleep or may be triggered by stress, noise or flashing lights.

**Which other conditions should I consider?**

In people, the definite diagnosis of seizure activity does not solely rely upon clinical manifestation and should preferably be supported by electroencephalographical (EEG) changes (Berendt et al., 2004). EEG is unfortunately not widely available and is limited to a handful of referral centres. Therefore, we have to rely on alternative methods (Figure 2).

To help determine whether the episode is a true seizure or not, a good understanding of other conditions which
### Table 1

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Focal Seizure</th>
<th>Paroxysmal Dyskinesia</th>
<th>Syncope</th>
<th>Neuromuscular Weakness</th>
<th>Vestibular Attack</th>
</tr>
</thead>
<tbody>
<tr>
<td>How is the animal clinically in between the episodes?</td>
<td>Normal or forebrain signs</td>
<td>Normal</td>
<td>Normal or cardiovascular abnormalities</td>
<td>Normal or generalised weakness, muscle atrophy, decreased spinal reflexes</td>
<td>Normal</td>
</tr>
<tr>
<td>Breed predisposition?</td>
<td>Idiopathic epilepsy (e.g. Beagle, Border Collie, Bernese Mountain Dog, Golden Retriever, Labrador Retriever, Standard Poodle) Myoclonic epilepsy of unknown origin (generally in older dogs, LaFora disease: Miniature Wire-haired Dachshund, Basset Hounds, Beagles and Chihuahuas)</td>
<td>Various breeds, such as: Border Terrier (canine epileptoid cramping syndrome), Cavalier King Charles Spaniel (episodic falling of CKCS), German Shorthaired Pointer (paroxysmal kinesigenic dyskinesia), Labrador Retriever and Jack Russell Terrier (paroxysmal non-kinesigenic dyskinesia)</td>
<td>Chronic valvular disease: small breed dogs (e.g. Miniature Poodle, Cocker Spaniel, Pomeranians, Schnauzers, CKCS) Myocardial disease: large and giant breeds (e.g. Great Danes, Irish Wolfhounds)</td>
<td>Various breeds, such as: Tibetan Mastiffs (hypertrophic neuropathy), Alaskan Malamute (polyneuropathy), Bouvier des Flandres, Siberian Huskies, Rottweilers and Bull Terriers (congenital laryngeal paralysis), Leonberger (inherited polyneuropathy)</td>
<td>Any, older dogs in case of idiopathic vestibular syndrome</td>
</tr>
<tr>
<td>Trigger?</td>
<td>None or flashing lights, anxiety, stress</td>
<td>None or activity, exercise, excitement, stress</td>
<td>Exercise, excitement</td>
<td>Activity, exercise</td>
<td>None</td>
</tr>
<tr>
<td>How long does the episode last?</td>
<td>Seconds to minutes or more than 5 min in case of status epilepticus</td>
<td>Seconds to hours</td>
<td>Seconds</td>
<td>Minutes to hours</td>
<td>Seconds to hours</td>
</tr>
<tr>
<td>Is the animal conscious?</td>
<td>Often conscious but both unconscious and conscious are possible</td>
<td>Conscious even in cases involving all four limbs</td>
<td>Reduced to absent</td>
<td>Normal</td>
<td>Normal or disorientated</td>
</tr>
<tr>
<td>Pre-episodic changes?</td>
<td>Pre-ictal signs may include anxiety, restlessness, increased affection, contact-seeking, withdrawal, hiding, aggressiveness and vocalisation</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Post-episodic changes?</td>
<td>Post-ictal signs may include disorientation, aggressive behaviour, restlessness, pacing, lethargy, deep sleep, hunger, thirst and ataxia</td>
<td>None or tiredness</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Is the episode associated with autonomic signs?</td>
<td>Hypersalivation, defecation and urination present in 23 to 48.1 percent of cases</td>
<td>No</td>
<td>Possible cardiovascular abnormalities</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Muscle tone?</td>
<td>Normal to increased</td>
<td>Hypertonicity (focal or generalised)</td>
<td>Flaccid (whole body)</td>
<td>Often flaccid</td>
<td>Unilateral decrease in extensor muscle</td>
</tr>
<tr>
<td>Do the episodes respond to anticonvulsant treatment?</td>
<td>Possible</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Does the animal also have GTCS?</td>
<td>Often</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Other</td>
<td>Interaction with the owner does not interrupt the episode</td>
<td>Interaction with the owner can alleviate or interrupt the episode</td>
<td>May be accompanied by cough, increased respiratory noise</td>
<td>May be accompanied by dysphagia, dysphonia, regurgitation, dyspnoea</td>
<td>Subtle signs of vestibular disease might persist</td>
</tr>
</tbody>
</table>

**Table (1)** There are several questions which can help discriminate focal seizures from other common disorders which may present in a similar manner. Table adapted from De Risio et al. (2015)
Focal seizures can be very challenging to detect as they may mimic many other conditions and they may be underdiagnosed given they are less distressful for the owner compared to GTCS

may mimic focal seizures is required. One major differential diagnosis is paroxysmal dyskinesias. Paroxysmal movement disorders are a group of conditions that are characterised by episodes of abnormal movement that are self-limiting and painless, lasting from seconds to hours, with the beginning and the end of the movement disturbance being abrupt (Lowrie and Garosi, 2017b). Other conditions, which may mimic seizures, include metabolic disturbances (e.g. hypocalcaemia, tetany), narcolepsy/cataplexy, vestibular attacks or cardiovascular collapse (syncpe). Behavioural changes related to an intrinsic behavioural problem, pain, endocrine diseases or gastrointestinal diseases are also on the list of differentials. The clinical history can already get you a long way and help discriminate between types of episodes (Table 1; De Risio et al., 2015).

Epilepsy and paroxysmal dyskinesia are more often idiopathic, but both can have underlying metabolic or structural brain pathology. These causes should ideally be ruled out before treating a dog for idiopathic epilepsy. A trial therapy can be considered in cases with a normal physical examination and after ruling out metabolic diseases, should referral be declined.

When do I start treatment for focal seizures and which one should I use?
An important thing to note is that a focal seizure is a clinical sign and not a diagnosis. Focal seizures can be primary or secondary and if an underlying brain disease or metabolic disease has been identified, this should be treated concurrently. Although focal seizures may not look as dramatic, underestimation may potentially jeopardise the patient’s quality of life (QoL). Deciding when to start treatment does not differ greatly compared to cases with GTCS and the guidelines according to the International Veterinary Epilepsy Task Force (IVETF), which are available online for free, should be consulted (Bhatti et al., 2015).

As with most forms of epileptic seizure activity, anti-convulsant medications are the cornerstone of therapy. With focal seizures there is, however, limited information available about the benefits of conventional therapy such as phenobarbital and potassium bromide, regardless of the underlying pathology. The only anticonvulsant medication specifically aimed at focal seizures and shown to reduce seizure frequency is felbamate. However, this has only been tested on a small number of dogs (Ruehlmann et al., 2001). A few studies have focused on treatment of myoclonic seizures. Although success appears to be limited, some beneficial response has been seen with the use of levetiracetam (Lowrie and Garosi, 2017a). Having said that, phenobarbital, potassium bromide or imepitoin are still the first choice when GTCS are also involved which is often the case. Although the presentation can be highly variable, as with GTCS the aim of managing epileptic patients with focal seizures is to limit the frequency and intensity of seizures whilst producing minimal side effects.

Focal seizures can be very challenging to detect as they may mimic many other conditions and they may be underdiagnosed given they are less distressful for the owner compared to GTCS. However, early recognition and treatment is important to prevent further evolvement to GTCS and status epilepticus, which can be life-threatening. Anti-convulsant medications are the cornerstone of therapy; however, studies on treatment for focal seizures are limited and trial treatment with several drugs may be required. We hope this report helps the clinician to take the first steps in successfully managing focal seizures by discriminating them from other conditions in order to develop an appropriate treatment plan.

References and further reading
Tritrichomoniasis in the cat

*T. foetus* is a well-known cause of infertility in cattle, but rarely diagnosed in cases of long-term diarrhoea in cats.

**Diagnosis**

Diagnosis can be achieved by faecal testing. The patient should have had a week free from antibiotic or any other medication before sampling and the sample should be freshly passed and diarrhoeic. It can be sent to the lab for PCR testing or examined microscopically in the practice. Gold-standard technique is to flush the colon with about 10ml of sterile saline so that a drop of the sample can be examined promptly in the practice to look for motile trichomonads.

*T. foetus* is a single-celled, flagellated protozoan parasite, found as a venereal pathogen in cattle but in the colon and distal ileum of cats. The “tri” in the name comes from its three anterior flagellae which allow it to be motile. It is pear-shaped and has an undulating membrane which extends along the length of its body. Too much faecal matter inhibits motility of the trophozoites and the pitfall is to distinguish *T. foetus* from the similar *Giardia* as mixed infections do occur. Direct microscopy is the cheapest but least sensitive diagnostic test. Culture in a pouch that contains a selective growth medium is more sensitive than the direct smear and PCR is the most sensitive test available, but is also the most expensive. It gives results on both living and dead trichomonads and a positive test is specific.

**Treatment**

Treatment of *T. foetus* is far from straightforward. Ronidazole is a nitrimidazole like the better-known antiprotozoal metronidazole, but the latter will not clear a *T. foetus* infection. The drawback with ronidazole is that it is not licensed and needs to be made to order for each individual confirmed case. The drug is embryotoxic and possibly teratogenic and carcinogenic so it should not be used in pregnant or nursing cats. If the cat is overdosed, neurological signs such as anorexia, lethargy or seizures may develop but these will subside once the drug is withdrawn. The recommended dose rate is 30mg/kg once in 24 hours for 14 days. The disadvantages of the drug need to be explained to the owner who needs to sign a form giving informed consent to its use. The owner must be advised to wear gloves when handling the drug. Immunocompromised people and pregnant women need to be especially careful.

The relationship between the cat host and *T. foetus* makes a challenging clinical situation. Many cats are asymptomatic; about 88 percent of cats become clinically normal by two years of age but the problem of persistent, soft, smelly faeces can be lifelong.

A full reference list can be found online.
Clinically, lupoid onychitis is an idiopathic condition which only affects the claws of dogs. They become very brittle, dry and separate from the underlying nailbed. They can regrow as misshapen claws. Multiple digits on multiple feet are affected but clinical signs are not noted in any other locations.

Histologically, this is seen as an interface type infiltrate of lymphocytes and plasma cells along the basement membrane of the claw bed and there is often pigmentary incontinence into the underlying connective tissue. In typical cases, apoptosis and vacuolation of basal cells in the epidermis is seen. There is separation of the epidermis from the dermis and the claw loosens and breaks free from the nailbed. The cause of the lesion is unclear but is thought to have an immune-mediated component. Although the condition is known as a lupoid onychitis, antinuclear antibody testing is negative.

Differentials can include trauma, bacterial or fungal infections, neoplasia or other immune-mediated diseases such as vasculitis and drug reactions. However, very few of these conditions typically affect only the digits, but they can affect multiple digits. If infection is present, it is typically secondary but culture and sensitivity will help to direct antibiotic therapy; however, it is important to make a diagnosis of the primary condition as repeated use of antibiotics can select for antibiotic resistance in these cases.

We often receive calls from clients concerning the correct biopsy procedure to make a definitive diagnosis. Biopsy in these cases is not easily obtained. A punch biopsy technique has been described in the literature in which 8mm punch biopsies are taken from affected claw beds; however, amputation of the distal portion of an affected digit, preferably an affected dew claw, is still the preferred sample. The digit can be submitted in normal fixative (10 percent neutral buffered formalin) although you may wish to submit a swab or sloughed claw at the same time for culture and sensitivity to help direct antibiotic therapy for any secondary infection.

Histological examination involves decalcifying the distal part of the digit and taking a longitudinal section through the sample so that we can see the nailbed. A negative histology result does not necessarily rule out the condition in a dog which has compatible clinical signs.

There are a number of therapies described in the literature and it can take several months to find out if they are successful because an entire new nail must regrow while on treatment. The prognosis for complete cure is guarded and long-term/lifelong treatment may be required.

**Getting the best out of your surgical biopsies – symmetrical lupoid onychitis (lupoid onychodystrophy)**
Canine leishmaniosis – an overlooked disease

Sporadic cases of leishmaniosis are appearing across the UK and an understanding of the disease is vital to recognise and manage it effectively.

The causative agent of canine leishmaniosis and (human) infantile leishmaniasis, *Leishmania infantum*, is a protozoan parasite of the family Trypanosomatida transmitted by female phlebotomine vectors (sand flies) (Moreno and Alvar, 2002; Muniesa et al., 2016; Santarém et al., 2020). Other species within the genus (eg *L. donovani* and *L. major*) have also been occasionally diagnosed as causing disease (Kasabalis et al., 2020). Similarly, alternative routes of transmission between domestic dogs have been demonstrated including transplacental, sexual and direct dog-to-dog spread (Kasabalis et al., 2020; Montoya et al., 2020). Canid species including the domestic dog are the main reservoir hosts, but hares and humans can also act as maintenance reservoirs for the parasite.

Canine leishmaniosis is endemic throughout the Mediterranean basin and the southern states of the USA, as well as the continents of South America and Africa (Maia et al., 2009).

With increasing numbers of pet dogs travelling abroad or being rescued to homes in the UK from countries where the parasite and vector are endemic, sporadic cases are appearing across the UK more frequently than ever before. These cases can be challenging, particularly for clinicians who may not have come across such cases before, to suspect, diagnose and manage effectively. Due to the proven zoonotic risk it is essential that leishmaniosis cases are handled appropriately and the following article aims to provide an overview of the condition, the choices for diagnosis and currently available treatment options in the UK.

The canine response to infection

The parasite *L. infantum* is an obligate intracellular parasite and so, when it is inoculated from a sand fly bite into a naïve host, it preferentially infects cells and particularly those of the myeloid lineage (monocytes, macrophages and dendritic cells), triggering a cell-mediated immune response (Barbiéri, 2006; Reis et al., 2010; Toepp and Petersen, 2020).

Phagocytosis of the parasite by neutrophils and macrophages occurs rapidly (Toepp and Peterson, 2020). Once engulfed within the phagolysosome the parasite is either destroyed by the production of oxygen radicals or persists to replicate by engaging antioxidant mechanisms such as superoxide dismutase production (Barbiéri, 2006; Reis et al., 2010, Toepp and Petersen, 2020). Engaged innate cells produce and secrete pro-inflammatory cytokines, chiefly TNF-α, IFN-γ and IL-8, which leads to the recruitment and activation of more phagocytes as well as CD4+ Type 1 T-helper (Th1) cells. At this point of the infection, the number of parasites is well controlled by the host immune response and the patient will show no overt clinical signs (subclinical infection) (Barbiéri, 2006; Reis et al., 2010, Toepp and Petersen, 2020).

Over time, and this can be many years, there is a switch from the early pro-inflammatory response to a more regulated response due to prolonged antigenic stimulation (Toepp and Peterson, 2020). Here, the cytokine IL-10 is increasingly expressed (from initially very low or undetectable levels) which has a negative feedback effect on Th1 cell proliferation and so reduces IFN-γ production and subsequent macrophage activation (Barbiéri, 2006; Reis et al., 2010; Toepp and Petersen, 2020). This state of immune exhaustion is what leads to the development of clinical disease and occurs in about 5 to 10 percent of infected dogs, though the rate is higher in susceptible breeds, such as Foxhounds, due to genetically inherited immune defects (Barbiéri, 2006; Reis et al., 2010; Toepp and Petersen, 2020).

The role of B-cells in subclinical infections is predominately phagocytosis and antigen presentation; what little antibody production occurs allows greater immune-mediated pathogen destruction such as the opsonisation of parasites (Barbiéri, 2006; Reis et al., 2010; Toepp and Petersen, 2020). Once immune exhaustion is reached there is more widespread antibody production and a class switch to IgG. These antibodies form immune complexes with *Leishmania* antigen and C3 complement proteins that can deposit within small blood vessels such as those in the kidney and can lead to organ failure (Gizzarelli et al., 2020).

Diagnosis and clinical signs

Understanding what is known about the immunology of the host response to *L. infantum* by dogs in different stages of the infection processes can help guide clinicians in their choice and interpretation of appropriate diagnostic tests.
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In a subclinically infected dog it would be expected that quantitative antibody measurement in serum samples, for example by enzyme-linked immunosorbent assay (ELISA) or immunofluorescence antibody tests (IFAT, the reference test in most European countries), will demonstrate low levels of circulating specific immunoglobulins (Reis et al., 2010; Muniesa et al., 2016). Since 2015 these tests have typically used recombinant antigen K39 which was shown to have a 100 percent sensitivity and specificity when evaluated on 122 dogs (Reiter-Owona et al., 2016). At this stage, the parasite itself will usually be detectable in whole blood by quantitative PCR due to its presence within circulating monocytes (Muniesa et al., 2016; Marcelino et al., 2020). As the disease progresses to the clinical phase, antibody titres rise and this is quantifiable in serum samples from patients. Cytological or histopathological examination of lesions can also be extremely helpful in establishing a diagnosis by demonstrating a compatible inflammatory pattern and/or parasite amastigotes (Muniesa et al., 2016; Marcelino et al., 2020).

In practice, the highly variable clinical manifestations and relative rarity of the disease complicates the diagnosis (Montoya et al., 2020). Cutaneous leishmaniosis has a common form which presents with skin lesions, observable in over 80 percent of the clinically affected animals. Potential signs are hyperkeratosis, alopecia, papules, pustules, nodules, erosion and ulceration. Peripheral lymphadenomegaly is also commonly found. Visceral leishmaniosis will cause a range of signs, typically systemic and affecting multiple organs (eg weight loss, lethargy, vomiting and diarrhoea or epistaxis). At the latter stages of disease, kidney dysfunction is almost ubiquitous (96 percent in one study (Giapitzoglou et al., 2020) due to the deposition of immune complexes and complement activation. This results in the typical findings associated with chronic kidney disease: polyuria, polydipsia, azotaemia and elevated SDMA concentrations in serum.

When disease is suspected, a thorough history and clinical examination is crucial. Because dogs can be asymptomatic for years, a complete travel history is particularly key.**

**The highly variable clinical manifestations and relative rarity of the disease complicates the diagnosis**

Treatment and prognosis

Once confirmed, the prognosis varies from fair to very poor based on the severity of the clinical signs present (Kasabalis et al., 2020). Signs of chronic kidney disease is a major negative prognostic factor (Montoya et al., 2020).

The results of the most recently published prospective randomised blinded controlled treatment trial found that meglumine antimoniate (100mg/kg subcutaneously every 24 hours for 28 days) was superior to aminosidine (15mg/kg subcutaneously every 24 hours for 28 days) with respect to the proportion of dogs ending the trial free from clinical signs (Kasabalis et al., 2020). Both groups received concurrent allopurinol at 10mg/kg orally every 12 hours for the full six-month duration of the study (Kasabalis et al., 2020). These combinations were reasonably safe and usually lead to clinical remission, amelioration of clinicopathological abnormalities and a reduction of parasitic load (Kasabalis et al., 2020). Notably, IRIS Stage 3 and 4 dogs were excluded from enrolment as they are known to respond poorly to treatment. A lack of clinical response, as well as a relapse whilst on treatment or shortly after, results in a more guarded prognosis (Montoya et al., 2020).

Suspecting and preventing cases

It is advisable to offer testing to any animal imported, especially dogs from endemic countries. A positive result needs to be discussed but does not mean the animal will necessarily ever show clinical signs. As a general rule, any dog presented with peripheral lymphadenomegaly and skin lesions and having travelled in endemic regions should be tested. Prevention of infection is critically important. Convincing clients to protect their pets against an unfamiliar disease will always be more challenging. However, the severity of the clinical signs and implications of treatment should be explained, as well as the zoonotic potential. Any owner enquiring about a pet passport should be asked what part of Europe they are planning to visit. Some basic information about the disease and vector should be provided, and prevention discussed. Sand fly repellent collars are available and a vaccine is licensed for use in the UK (Anon., 2020).

Feline leishmaniosis

Feline infections with *L. infantum* are considered rare compared to canine infections; however, recent studies have shown that they may be common in endemic areas (Maia et al., 2008; Trainor et al., 2010). Currently available guidelines from the Advisory Board on Cat Diseases were published in 2018 (ABCD, 2020).  Cats manifest clinical signs similar to dogs with cutaneous lesions being most common (Maia et al., 2008; Trainor et al., 2010). The process of diagnosis is the same for cats as for dogs though treatment doses are the oral administration of allopurinol at 10 to 20mg/kg every 12 or 24 hours for six months and meglumine antimoniate administered subcutaneously at 50mg/kg every 24 hours for 28 days (Maia et al., 2008; Trainor et al., 2010; ABCD, 2020). Long-term follow-up data and clinical trials in cats are lacking. Preventative ectoparasiticide effective against sand flies and vaccines are licensed for dogs only; however, flumethrin collars were effective in reducing the incidence of feline *Leishmania* infection in one studied endemic area (ABCD, 2020).}

A full reference list can be found [online](#).
Infectious bovine rhinotracheitis (IBR) is a disease of cattle caused by infection with bovine herpesvirus 1 (BoHV-1). Clinical signs after infection with BoHV-1 can be observed in the respiratory, ocular, reproductive and nervous systems. Eight distinct herpesviruses are known to infect cattle, with BoHV-1 being the most common. Being an alphaherpesvirus, a persistent latent infection of BoHV-1 is established in sensory ganglion or pharyngeal tonsils after infection. Various stimuli can remove the virus from dormancy and the resulting excretion ensures infection remains within a herd. Reactivation of the virus in cattle typically occurs when animals are stressed (inclement weather or poor husbandry) or after management events (calving or mixing). Latently infected animals need not shed virus, although, in all but rare cases, they will produce antibodies against BoHV-1.

Clinical signs
IBR is the most common form of BoHV-1 infection resulting in upper respiratory disease in animals, generally aged over six months. The initial presenting signs are often relatively mild, including reduced appetite, pyrexia, milk drop, coughing and dullness, with or without serous oculonasal discharge. Where infections are more severe, coughing can be present for up to three weeks before subsiding. In these cases, mortality can be increased by a secondary bacterial infection producing a severe pneumonia. Complicated cases can be observed to develop congested nasal mucosa followed by halitosis due to the presence of necrotic tissue in the larynx and oesophagus. IBR may affect young calves with a high mortality. These animals may present with encephalitis, enteritis and pneumonia.

Although rare in the UK, venereal transmission of BoHV-1 results in the development of infectious pustular vulvovaginitis (IPV) and infectious pustular balanoposthitis (IPB). This pustular inflammation of the genital mucosa causes oedematous swelling with vesicles and pustules evolving into ulcers (Figure 1). Mid- to late-term abortion is not commonly observed in the UK but can occur up to 100 days after an outbreak of respiratory disease. Between 2012 and 2019, only 21 abortions were confirmed due to IBR foetopathy out of 28,801 sampled (VIDA, 2020). Also uncommon are the digestive presentations seen in calves. Respiratory signs are typically co-observed. Necrotic ulcerative lesions of the oropharynx and oesophagus can be seen on post-mortem. Nervous manifestations appear to be an extension of oropharyngeal infections in calves, and in older cattle may be blood-borne or from the nasal mucosa resulting in encephalitis (Penny et al., 2002).

Diagnosis
The basis of a successful diagnosis of BoHV-1 infection is a combination of serology (detection of antibodies in milk or serum) and virus detection by PCR. If virus detection is the chosen route, only swabs of serous, rather than mucopurulent, discharges should be taken. Swabs of the nasal cavity or conjunctiva should be submitted to the laboratory as soon as possible. Confirmation of the preferred transport media should be sought from the local investigation centre before testing. Bronchoalveolar lavage (BAL) fluid can also be tested but with adequate results being obtained by swabs there should be no indication to perform a BAL in a live animal. Paired “red top” serum samples can be used to show seroconversion via ELISA testing for antibodies. Acute samples at the time of illness followed by convalescent samples two to three weeks later will show a significant increase if infection was the causative agent. Alternatively, convalescent animals can be used to indicate the presence of virus within the individual/
herd. Bulk milk detection of antibodies is useful for the detection/monitoring of IBR at a herd level within dairy enterprises. However, due to the lower sensitivity of ELISAs for IBR gE glycoprotein, a negative result merely implies less than 10 to 20 percent of the herd is positive for IBR. Prior to entering the milking herd, pooled milk samples from heifers can be tested for more specific screening or investigation. Vaginal and preputial swabs can be obtained from early cases of IPV/IPB for virus detection. Post-mortem diagnoses can also be made by a variety of means. Classic IBR resulting in death will produce lesions of necrotising laryngotracheitis (Figure 2), often accompanied by secondary bacterial pneumonia. Tracheal and lung tissue can also be collected in formalin for histopathology. In situ virus can also be shown using immunohistochemistry.

No specific treatment exists for IBR and only supportive treatment of antibiotics and NSAIDs is indicated. Appropriate antibiosis should be selected due to the frequent involvement of Mannheimia haemolytica as a secondary invader. Any animal showing clinical signs should be isolated from the remainder of the herd due to the levels of virus excreted.

**Control and prevention**

The level of control within a herd is specific to each farming enterprise and should feature in the herd health plan. Control of IBR depends upon the initial infection status of the herd. In an ideal scenario, a free herd would remain free by being truly closed with stringent biosecurity protocols in place to prevent introduction of disease. Free herds which cannot remain closed can maintain their status by isolation and antibody testing of purchased animals, along with suitable biosecurity. IBR may be introduced on fomites, so protocols should be in place to deal with this. Various cattle herd certification schemes are available under the Cattle Health Certification Standards (CHeCS) umbrella to provide a guided approach to control and eradication. Infected herds can remove infections without vaccination by culling of seropositive animals and establishing a seronegative breeding herd of uninfected youngstock (Corkish, 1988).

Vaccination can also be used to control infection within a herd or aid in eradication. BoHV-1 vaccines are efficient at preventing clinical disease and reducing virus spread, but latency is not prevented. Live attenuated vaccines are licensed for administration via the intranasal and intramuscular routes. These are used to protect animals at risk. Use of the intranasal route can reduce the clinical signs of disease in the face of an outbreak. Both live and inactivated vaccines are available.

Marker vaccines allow exposure to "wild" virus to be distinguished from vaccinal antibody on serology through the detection of a specific gE glycoprotein. Evidence shows that live gE-deleted vaccines confer higher protection in naïve animals than the inactivated vaccine. However, the inactivated vaccine proved better at reducing virus excretion after recrudescence.

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**References and further reading**


A look through the latest literature

Ability of trained dogs to identify COVID-19 infected samples from human cases
Paula Jendrny and others, University of Veterinary Medicine, Hannover, Germany

The coronavirus pandemic has highlighted the shortcomings of available tests for the virus, particularly the costs of large-scale testing using polymerase chain reaction (PCR) technology. The canine olfactory system is extraordinarily sensitive and has been shown to reliably detect volatile organic compounds associated with a number of important disease conditions. The authors describe a pilot study investigating the ability of dogs to detect evidence of COVID-19 infection in respiratory fluid samples from human patients. After one week’s training, the group of eight detection dogs were able to discriminate between infected and non-infected samples with a diagnostic sensitivity of 82.6 percent and a specificity of 96.3 percent. They conclude that this data shows that dogs may provide a reliable screening method for COVID-19 infections in people.

BMC Infectious Diseases, 20, 536

Investigations into the RHDV2 epidemic in UK rabbits between 2016 and 2018
Nigel Harcourt Brown and others, Crab Lane Veterinary Surgery, Harrogate

Rabbit haemorrhagic disease is a highly contagious and frequently lethal viral disease affecting wild and domestic rabbits. The condition was first reported in China in 1984 and another antigenically distinct form was identified in France in 2010. In the first of two papers, the authors describe the clinical features and gross post-mortem and histopathological findings in a major outbreak of RHDV2 in the UK between November 2016 and December 2018. The second paper discusses the results of PCR analyses and their correlation with vaccination status.

Journal of Small Animal Practice, 61, 416-418 and 61, 487-493

Infectious endocarditis in dogs associated with Bartonella rochalimae
Elijah Ernst and others, North Carolina State University, Raleigh

Bartonella species are a cause of persistent and often subclinical infections of the erythrocytes and endothelium of domestic mammals. There is also increasing evidence of links between bartonellosis and a range of chronic illnesses. The authors outline the clinical observations in dogs infected with an emerging pathogen, Bartonella rochalimae. Their findings confirm an association between this bacterium and cases of infectious endocarditis. Further clinical signs in infected dogs include lameness, antibiotic responsive polyarthropathy and seizures.

Journal of Veterinary Internal Medicine, 34, 1447-1453

Efficacy of an ultraviolet irradiation system in controlling aerosolised pathogens
Jennifer Pearce-Walker and others, University of Arizona, Tucson

Animals confined in veterinary clinics and welfare shelters may potentially be exposed to a range of airborne pathogens. Preventing the spread of aerosolised agents is therefore vital in minimising infection risk and reducing our reliance on antimicrobials. The authors investigated the efficiency of a UV germicidal irradiation unit in killing airborne bacteria and viruses in a simulated heating, ventilation and air-conditioning (HVAC) system. Their results confirm the potential benefits of this technology in supplementing standard disinfection practices.

American Journal of Veterinary Research, 81, 506-513

Prevalence of Rickettsia felis DNA in fleas collected from dogs and cats in the UK
Swaid Abdullah and others, University of Bristol

Rickettsia felis is an emerging bacterial pathogen and the aetiological agent responsible for flea-borne spotted fever (or cat flea typhus), which affects cats, humans and a number of other species. The authors describe a large-scale survey into the prevalence of rickettsial infection in the UK, examining fleas collected from 812 cats and 662 dogs by veterinary practices across the country. PCR analysis showed that 5.7 percent of pooled samples were positive for R. felis DNA, predominantly in samples from the cat flea Ctenocephalides felis although one positive sample was from the dog flea C. canis.

Veterinary Parasitology, 282, 109143
World-leading bovine tuberculosis (bTB) cattle vaccination trials are set to get underway in England and Wales as a result of a major breakthrough by government scientists. These trials enable work to accelerate towards planned deployment of a cattle vaccine by 2025, in the latest milestone to eradicate this highly damaging animal disease. bTB is one of the most difficult and intractable animal health challenges that England and Wales face today. More than 40,000 cattle are slaughtered each year due to infection from bTB. However, a cattle vaccine could become a powerful tool in the battle against the disease following the necessary testing and subsequent approvals to ensure its safety and efficacy.

It is one of several key elements of the long-term bTB strategy to eradicate the disease in England by 2038. Measures include plans to phase out intensive badger culling in England, improve the cattle testing regime, vaccinate more badgers against the disease and improve testing to intercept bTB earlier.

The field trials will be conducted over the next four years on behalf of Defra, the Welsh government and the Scottish government, following 20 years of ground-breaking research into bovine TB vaccines and diagnostic tests.

OV briefings

17 AUGUST 2020
An update on the rollout of Approved Tuberculin Testers (ATTs) into private veterinary businesses to carry out tuberculin skin testing in England

On 18 March 2020 APHA issued Briefing Note 05/20 to inform OVs of the outcome of the pilot to explore the use of Approved Tuberculin Testers (ATTs) in private veterinary businesses to carry out tuberculin skin testing of cattle in England. OVs were informed that the pilot had been successful and that rollout would commence from late 2020, subject to certain conditions being applied. In order to meet these conditions and ensure a smooth transition for all, APHA is implementing new processes and several updates prior to rollout on 2 November 2020.

From 2 November 2020, Approved Tuberculin Testers (ATTs) will be rolled out into private veterinary businesses in England. From this date candidates will be able to register and enrol onto the Official Controls Qualification (Animal Health Paraprofessional) – Approved Tuberculin Tester (OCQ(AHP) – ATT) training on the Improve International Limited AHP website. Veterinary businesses may recruit potential ATTs in advance of the rollout date but no training may commence prior to 2 November 2020.

All veterinary businesses in England will have the opportunity to employ ATTs subject to meeting the requirements. ATTs will only be permitted to carry out testing in England and not in Wales or Scotland. They will be permitted to carry out all skin test types with the exception of tests required for export purposes (including for export of germplasm). No test carried out by an ATT will be acceptable for export certification purposes.

Certifying OVs and practices should take special note of this and advise their clients accordingly. Subcontracted or “locum” ATTs will be permitted, but all ATTs must work within a veterinary-led team and meet the strict veterinary supervision requirements.

Although ATTs can conduct skin tests, responsibility for interpretation of their test results rests with their AVS or deputy (or in exceptional circumstances only by another OV holding the OCQ(V) – TT) who will sign off and submit the tests to APHA. The test submission deadlines are the same as those for OVs.

APHA will monitor all ATT tests submitted to ensure that the signatories are correct. ATTs are responsible for ensuring that the AVS and deputy details on their training record are correct at all times. Authorisation will be suspended or expired in the event that the AVS and deputy requirement is not fully met.

Full instructions and eligibility criteria for ATTs are detailed in the full briefing note: apia.defra.gov.uk/documents/ov/Briefing-Note-2520.pdf

18 AUGUST 2020
Update on the retender of the APHA contract for the provision of veterinary and paraprofessional training, authorisation and assurance services

Training and authorisation for OVs and AHPs is delivered via the contract currently held by Improve International Limited. Following the retender earlier this year, Improve International have been awarded the new contract, which will run for a minimum of five years.

A transition period is now in place, during which Improve International will work closely with APHA to ensure that all the new requirements are implemented and that the transition from one contract to the next is smooth, having minimal impact on OVs and AHPs. The transition period is due to end on 2 November 2020, when the new contract will commence. Any OVs already enrolled on a training course before 2 November will be able to complete the training without interruption.

There are several differences from the current contract and the major changes that will be noticed by OVs and AHPs are detailed in the full briefing note: apia.defra.gov.uk/documents/ov/Briefing-Note-2620.pdf
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Monitoring brucellosis in Great Britain

Reporting of abortions in cattle is essential to maintain the United Kingdom's status as officially brucellosis free

Brucellosis is a contagious zoonotic disease that is notifiable in livestock and can severely impact the livelihood of cattle farmers. It is caused by bacteria from the genus *Brucella*, which contains species of bacteria that cause brucellosis in a number of different animals including cattle, sheep, goats, pigs, cameldids, dogs and cetaceans. Most *Brucella* species have a preference for specific mammalian species but are able to infect a variety (Garin-Bastuji and Blasco, 2018).

Brucellosis in cattle is usually caused by *Brucella abortus*, although *Brucella melitensis* and *Brucella suis* can also cause disease. Whilst the main effects are on the reproductive system, arthritis can occur as a result of the bacteria becoming localised in the joints. The major clinical signs are abortion in late pregnancy, premature births, stillbirths, retained foetal membranes, weak calves and poor reproductive performance (decreased fertility). In bulls, swollen testicles (orchitis) is sometimes seen. In most cases, infection is not obvious until the animal aborts, with abortion storms sometimes seen in affected herds. Cattle can appear to recover and can go on to have healthy calves but often remain infected and continue to shed bacteria, thus remaining a threat to other animals and humans.

The bacterium is present in high numbers in affected calves, foetal membranes and uterine fluids and can last in a cool damp environment for several months, infecting further cattle when ingested or through cuts and contact with mucous membranes (Garin-Bastuji and Blasco, 2018). It is typically spread when an infected animal gives birth.

*B. abortus* can also colonise the milk glands, causing the milk to be infectious. This has historically been a major cause of human infection and pasteurisation has been an important tool in reducing infection rates in people. Brucellosis can cause severe and debilitating disease in humans and prevention of outbreaks in animals is key to the protection of public health.

The UK is officially free of brucellosis (OBF) for cattle (*B. abortus*) and sheep and goats (*Brucella melitensis*) but there is a continual risk to the cattle population from importation of disease and subsequent spread.

**UK OBF status for brucellosis in cattle (B. abortus)**

Brucellosis in cattle (*B. abortus*) is listed in the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code and when isolated must be reported to the OIE. Many EU member states are classified as officially free from brucellosis; current notable exceptions include regions of Spain and Italy, Portugal, Hungary, Bulgaria, Greece and Croatia. Brucellosis in Great Britain (GB) was eradicated in 1979 and OBF status was granted in 1985.

Since eradication there have been two reintroductions via imported cattle (in 1993 and 2003) and an outbreak in Cornwall in 2004 which was contained to a single location, though the origin of infection remains unclear. Prompt action which prevented further disease spread in all cases has meant that this has not affected the GB OBF status. Northern Ireland gained OBF status in 2015 meaning that the entire UK is currently considered OBF. Moving into an era outside of the EU, it is more important than ever that the UK is demonstrably monitoring the national herd for brucellosis and maintaining its OBF status. A surveillance system was implemented throughout GB to meet the
requirements to achieve OBF status and continues to ensure its maintenance. The rest of this article details how this surveillance is undertaken in GB (Box 1); separate arrangements apply in Northern Ireland and the Crown Dependencies.

Surveillance for Brucella abortus in Great Britain
To maintain GB’s OBF status farmers must report any cases they believe to be abortions or premature births to the APHA who will confirm whether an investigation is required. The record of the number of cases reported and investigated is important to enable APHA to demonstrate that the GB surveillance strategy is effective (Foddai et al., 2020a). Also, due to the risk of reintroduction of disease in imported cattle, the strategy targets imported cattle from non-OBF countries for extra testing (Foddai et al., 2020b). These methods are backed up by regular bulk milk testing and the monitoring of bulls used for artificial breeding purposes.

Abortion reporting
Notification of abortions (Box 2) is an essential piece of the GB surveillance programme and it is the main way in which the brucellosis status of the GB beef herd (which constitutes a significant proportion of the whole GB herd) has been monitored since routine brucellosis testing of herds stopped in 2007. In the brucellosis incident in the South West of England in 2004, it was an abortion investigation that brought the presence of *Brucella abortus* to the attention of APHA who were then able to quickly bring the outbreak under control, eradicate disease on the premises and prevent spread to other holdings.

It is a legal requirement that anyone in charge of bovine animals, or anyone else that is aware of an abortion, should report any abortion or premature calving, whether the calf is dead or alive, within 24 hours (an abortion or premature calving is defined as that occurring less than 271 days after service or less than 265 after implantation for embryo transfer). APHA and policy leads are concerned that the number of statutory abortion notifications has been steadily decreasing since 2011. Only 1,238 abortions were reported across GB in 2019, from a national cattle population of just under 10 million animals, of which 2.88 million are adult females in breeding herds.

This drop in reporting may be because there is a misunderstanding regarding the need to report every abortion in all cattle (beef and dairy), a lack of appreciation of the risk of reintroduction, a misconception that abortion reports are not recorded or are rarely investigated or a combination of all of these.

APHA will investigate all reports in beef herds, all imported animals and all first calving heifers, as well as many other cows in dairy herds which they will risk assess when the report is made. Abortions should be reported by the owner/keeper or their vet. All abortion reports (whether they are investigated or not) are also recorded and form part of the evidence for GB’s OBF status. A pilot scheme involving 12 practices is currently underway in the Wessex Veterinary Delivery Partnership area to investigate whether keepers are more likely to report abortions to their own vet rather than to APHA. Clients of these practices can report abortions directly to practice staff by calling their usual number. All other practices and their clients should phone APHA directly on 03000 200301 in England or 0300 3038268 in Wales. In Scotland they should contact the local field service office.

It is vitally important that APHA is able to continue to monitor brucellosis in the country and have sufficient data to demonstrate Great Britain’s OBF status. An inability to do this will put the national herd at risk and affect GB’s ability to trade – this will be more important than ever now we have left the EU. Early detection of disease is also important as a single case of brucellosis left undetected for any period of time could result in a major outbreak and will affect the livelihoods of our cattle farmers. Insufficient data from abortion reporting may lead to a need for an increase in on-farm check blood testing, and the extra costs and inconvenience that this brings. To help to avoid these outcomes please consider brucellosis as a differential for reproductive disease and encourage your clients to report all abortions or premature births.

**References**
Foddai, A., Floyd, T., McGiven, J., Grace, K. and Evans, S. (2020a) Evaluation of the English bovine brucellosis surveillance system considering probability of disease introduction and non-random sampling. Preventive Veterinary Medicine, 176, 104927

**Box (2)** It is important to have vital information to hand when calling to report an abortion.
On-farm slaughter and killing

How do practitioners apply the science of killing to arrange or deliver on-farm killing in a safe and humane manner?

The first article of this series (Veterinary Practice, June 2020) dealt with the principles of humane euthanasia or slaughter on-farm and its legal framework. This second article will explore the practicalities of stunning and killing on-farm to achieve slaughter or euthanasia in a humane and safe way.

When faced with a need for on-farm slaughter or euthanasia of an animal, making the right decisions for the welfare of the animal can be daunting. This series of articles aims to make this less so as, with sufficient knowledge, the veterinarian and client can be confident of a successful and satisfactory outcome for the animal.

Before facilitating or carrying out slaughter or euthanasia on-farm, there will be a number of considerations: crucially that the method chosen maximises the probability of immediate success and minimises risk to personnel. When working with humans and animals, there is always a possibility of the unexpected. However, preparation for the “reasonably foreseeable” is essential. So important are these preparatory arrangements, they are a legal requirement in WATOK. When presented with an animal requiring stunning or euthanasia, initial assessments of the animal, its potential to enter the food chain, the facilities and resources available will determine which methods are best suited to the situation.

If the animal is expected to enter the food chain, an RCVS registered vet must be present at or immediately before slaughter to perform an ante-mortem inspection and be prepared to sign a template form (BCVA, 2010) to that effect. The vet must verify that the animal displays no signs of systemic illness and has experienced an acute and recent catastrophic injury (eg broken leg). Under no circumstances should a vet be tempted to perform the inspection remotely.

Successful killing or stunning requires selection of the correct type of device and power of cartridge to cause brain dysfunction (see part one of this article). In all cattle and larger pigs, care must be taken to select a device which has sufficient power to perform an effective stun on animals with considerable depth of frontal sinus and bone. So, in all instances, refer to the manufacturer’s instructions for type of device and cartridge, and always err slightly on the side of caution.

If in any doubt of the anticipated efficacy of a captive bolt, a free-projectile device is a suitable alternative, providing the operator is competent and holds the appropriate firearms licence. Handguns, humane killers and shotguns must not be used on unrestrained large animals more than one metre distant. Such animals must be killed using a rifle and ammunition appropriate to the given range. Only a well-maintained stunning or killing device should be used and cartridges must be stored in a dry environment. It is worth noting that the law (WATOK) states that a captive bolt gun where the bolt does not “retract to its full extent” may not be used as it is unlikely to deliver an effective stun.

Once a suitable device has been selected, it must be applied in the correct firing position on the skull, as shown in the previous article. Captive bolt devices should generally be applied in contact with the skull, whereas free-projectile firearms are effective at a firing distance of 5 to 30cm for a shotgun, handgun or humane killer, and up to 100 metres with an appropriately powered rifle (HSA, 2016).

To restraint any animal for accurate application of the stunning or killing process, the head should be immobilised using either a handling crush or strong halter tied to a fixed point, or manual restraint, depending on species. Free-standing shots of fractious animals at distance using a rifle must only be undertaken by experienced marksmen due to the inherent risks of animal movement and mis-shots.

Most cattle are only safely handled, unless moribund, in a well-maintained handling crush, but the operator must also have safe access to use the stunning or killing device correctly and subsequently bleed or pith the animal.

Sheep and goats may be restrained more easily using a halter or manual restraint against a solid surface by an assistant. Pigs are less easily restrained in this way, due to their independent nature, although guiding a pig into a corner using a board is appropriate. Sedation may assist in euthanasia, but precludes human consumption. Pig snares are not considered suitable, due to the distress and additional suffering caused, and should only be used as a last resort to permit. If using a free-projectile killing device for any animal, manual restraint by an assistant would be unsafe and must not be considered.

Before restraint, the guns must be loaded, with the safety on and in a safe place within easy reach. Spare cartridges must also be immediately to hand in case of a failed first shot. Wherever possible, cartridges of a higher power load should be available if a second shot is needed, and an alternative captive bolt stunner, in case of mechanical failure with the first. It is recognised, however, that this would not always be the norm when animals are killed on-farm.

Where the animal requires bleeding or pithing to follow stunning, or bleeding for human consumption, these tools must also be immediately to hand. To aid correct disposal of animal by-products, a suitable means of collecting blood...
should be available and all reasonable attempts made to ensure it cannot drain away.

Once the animal is effectively restrained, it must be killed or stunned without delay, the aim being to minimise restless behaviour which might impair accuracy. Effective stunning or killing is recognised by immediate loss of posture, absence of rhythmic breathing and fixed glazed expression; this will be followed by uncontrolled clonic kicking and paddling. In pigs, the movements follow very soon after stunning and are particularly violent; operators and bystanders must take care to avoid personal injury.

Eye movement, corneal reflex, incorrect body posture and presence (or return) of rhythmic breathing indicate a failed stun or kill, or recovery. In both situations, the animal must be immediately re-stunned or re-shot, in a position just above and to the side of the initial shot to deliver a renewed concussive impact to the skull, causing further brain dysfunction and mechanical destruction. Delivering a second shot through the initial point of penetration will not deliver an effective stun.

Clonic kicking as a result of uncontrolled spinal activity presents a challenge in all species. Wherever possible, if the animal is not a ruminant destined for human consumption, it should be pithed to minimise kicking – also killing it through manual destruction of brain and spinal cord. Ruminants must not be pithed if intended for human consumption (The Restriction on Pithing (England) Regulations 2001). But if pithed it will not then be necessary to bleed the animal – removing the need for handling of a necessarily sharp knife and improving operator safety.

Animals which are not free-projectile killed or pithed must be bled, to interrupt the blood supply to the brain causing cerebral death. Bleeding must follow captive bolt stunning without delay, since return to sensibility is possible until brain death is achieved. It is not necessary, or possible, to fully exsanguinate the animal, since blood drains under gravity in the absence of diastolic pressure. Roughly 50 percent of total circulating volume is lost during bleeding (Warris, 1984) and must be collected and disposed of as an animal by-product. For this reason, as well as operational ease, pithing is the preferred method when bleeding is not required for human or animal consumption.

“Sticking” must be performed using a very sharp, sterile knife to ensure that bilateral severance of carotid arteries or originating vessels is complete, facilitating a rapid bleed and fast brain death. A neck or chest cut can be performed, dependent on access to the ventral neck or thoracic inlet; however, it must be remembered that in cattle a neck cut will result in much longer times to brain death due to additional cerebral perfusion from the vertebral arteries. A chest cut in pigs and a neck cut in lambs and goats are favoured (Figure 1). Close monitoring for signs of possible stun recovery during bleeding is essential and if in any doubt as to the efficacy of the stun or bleed, animals must be re-stunned then re-bled.

In compliance with WATOK, no further dressing must be completed for at least 30 seconds after bleeding in cattle, and 20 seconds in pigs, goats, sheep and deer. This ensures that following a “good stick” brain death has been achieved. Heart activity may persist on auscultation for some time, but should not be confused with persistent signs of life.

Once dead, the animal may be prepared for collection and transport to the relevant processing facility. Animals intended for human consumption must be processed within two hours of slaughter to meet food safety requirements. However, if a carcass must be left for a period before collection it should be covered to prevent scavenger access and placed on a solid surface which can later be disinfected with a Defra-approved agent.

Responsibilities for coordinating or performing humane slaughter and killing generally end at the removal of the animal; however, it is nevertheless important to clean any used firearms and knives immediately, as well as clean and disinfect any PPE. Keepers have a statutory requirement to record and/or report the death of the animal and clean the site of operation. It may be of clinical interest to both vet and keeper to enquire of post-mortem findings with the operator or slaughterhouse Official Vet, and some hunt kennels or knackeries are also happy to welcome an informed bystander during processing.

References and useful information


FIGURE (1) Bleeding locations for cattle (A), sheep (B) and pigs (C) © Images credit: Humane Slaughter Association (HSA; hsa.org.uk)
The architecture of the bovine viral diarrhoea (BVD) eradication schemes in Scotland, Wales, Northern Ireland and England is strong and viable. Speaking to Professor Joe Brownlie in August 2020, he credits the discovery of BVD in 1946 as a cause of acute diarrhoea in the USA, followed by worldwide recognition of the role of the virus in respiratory disease, diarrhoea and abortion. Even at a quick glance, the RVC BVD website indicates the sheer volume of work in the UK over the past 40 years contributing to the understanding and development of an eradication programme. Some of the studies involve deep science but each study adds more knowledge and this is continuing today. The ability to eradicate BVD from individual farms within two years was identified for the UK, but national eradication is a tougher task.

The way to achieve eradication is by identifying and removing persistently infected animals (PIs). Reinfection is then prevented by vaccination, high levels of biosecurity and surveillance. It must be heart-warming to the architects of the schemes to hear veterinary surgeons say that “it is easy to test and remove, and doable to eradicate BVD”, “a no-brainer for farmers”. The aspiration in 2016 for BVDFree England was that national eradication was targeted for 2022.

When the COVID-19 restrictions on farm visits were introduced, the effort required to continue towards accreditation by the Cattle Health Certification Standards (CHeCS) was questioned as essential work. Testing of animals before turnout this year was widely missed. The next opportunity is this autumn and Jenny Hull (BCVA BVD lead) is encouraging practices to gear up for considerable activity. Veterinary practices benefitting from the £5.7 million “Stamp It Out” funding have been unable to hold cluster meetings to fulfil the initial requirement of the programme. Some use of online discussion groups has led to a resolution. It is worth noting that the funding runs until the spring of 2021. Efforts are ongoing to flow into further financial support but the activity required has changed somewhat.

As farmers engage with disease control programmes, so the task of individual farm and national eradication becomes more difficult. Within veterinary practices, identifying the clients refusing to engage will become increasingly important. It has been indicated that “the BVDFree England scheme will be run on a voluntary basis until most of the cattle industry is covered by the scheme and at that point a solid case can be presented to the government for collaboration on the introduction of compulsory measures” (Booth et al., 2016). Veterinary surgeons will have a view on the introduction of such measures that could include every calf tag and test (no passport until completed), illegal to move persistently infected cattle and keeping neighbours safe.

Joe Brownlie has also made observations on the role of vaccines. “If talking about just the single BVD component of a multi-component calf respiratory vaccine, then 80 percent protection or above might be adequate to give protection. However, when considering foetal protection, the situation is
Identifying the clients refusing to engage will become increasingly important

There does appear to be a need for a change in awareness. The 2020 BVD farmer survey carried out by Boehringer Ingelheim Animal Health highlighted strengths and weaknesses within the four national schemes. Extracting from the assessment by Matt Yarnold, too many farmers do not cull PIs immediately. However, of the farmers who had previously retained a PI, 90 percent said that they would not do so again. Their experiences include PIs that did not reach a productive size or died and animals that required extensive disease treatments. It is suggested that farmers are becoming less tolerant of neighbours who hold onto PIs. Farmers also report having slipped up with their intended vaccination schemes. Missing key dates has taken place in up to a quarter of herds, leading to gaps in protection.

It is interesting to view the veterinary surgeon presentations for the 2020 BVDZero case awards on YouTube. Paul Crawford presented the case of a herd where there were no incoming animals but which suffered a major BVD outbreak in a naive herd. There were two major indications from this case. Many will remember that during the foot and mouth crisis nearly 20 years ago, one herd that suffered led to neighbours having their cattle shot. Despite the measures to keep the virus out, including disinfectant mats on roads, spraying of vehicles and strict biosecurity, it appeared easy for a virus to spread from farm to farm. The case outlined by Paul showed that his client had 40 other farms next to the fields that held his cattle at different times. Each of his neighbours were potential BVDV sources, with common distancing of cattle is likely to be better understood. Derek Armstrong, lead veterinary science expert of the Agriculture and Horticulture Development Board (AHDB) considers that a stronger disease control mindset may lead to cattle being kept within their group bubble and greater attention given to at-risk trading.

The impact of BVD is not limited to the animals; human stress is a real issue in having to deal with disease but also losing freedom from disease status

It seems likely that the activity of veterinary surgeons and their clients, this winter and coming spring, may make or break the local and national BVD eradication programmes.

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Poultry red mite – not just a commercial chicken problem

As veterinary surgeons, we need to be confident with diagnosing and treating red mite to help owners manage the issue

STEVE SMITH

Steve Smith, BVetMed (Hons), CertZooMed, DipECZM (Avian), MRCVS, is an EBVS European Veterinary Specialist in Avian Medicine and Surgery. He frequently presents on pet chicken illness and prescribing legislation, is an author in the BSAVA Manual of Backyard Poultry Medicine and Surgery and has been seeing pet chickens in practice for the past 12 years.

Poultry red mite, also known as *Dermanyssus gallinae*, is one of the most significant parasites affecting backyard chickens. In commercial layers, 60 to 85 percent of flocks are known to have suffered or be suffering from infestations (Fiddes et al., 2005) and this is starting to trickle into backyard flocks.

Some owners will be familiar with red mite and the common signs and symptoms to look out for, but not all. And with chickens a popular pet choice for the UK population (Sabanoglu, 2020), we as veterinary surgeons need to be confident with diagnosing and treating red mite to help owners manage the issue.

**Spotting red mite**

Red mite is a haematophagous ectoparasite of poultry. The mites themselves are typically 0.5 to 1.5mm in size depending on the lifecycle stage, and are generally either grey or red in colour. They will look red once they have ingested a blood meal.

They commonly reside in cracks and crevices of poultry houses and are most prevalent in warmer conditions. In the UK, infestations are often seen between May and October when temperatures are typically above 10 degrees Celsius, and the red mite lifecycle takes two weeks to complete.

After the eggs are laid, it typically takes up to five days before they take their first feed as protonymphs. They will start to feed most frequently when they reach adult stage, at about 10 days old.

Adult red mites will take multiple feeds. They tend to feed for an hour at a time a day every two to three days, laying more eggs in between this. As red mite levels start to build, you can see how this can affect birds through blood loss and irritation.

It’s also worth noting that if temperatures exceed 25 degrees Celsius, the red mite lifecycle can reduce to just seven days, and below nine degrees Celsius, they will become inactive. However, they can still survive for up to eight months without a blood feed meaning once temperatures start to rise, the problem soon starts to rear its head again.

**Diagnosing red mite**

As well as being very small, red mite are also photophobic meaning they are usually only visible at night. Because the mites are rarely found on the birds during the daytime, this makes it incredibly difficult for owners to physically see the parasites and therefore spot they have a problem.

Finding mites in the environment is a good way to diagnose the issue. Therefore, I often advise owners to place a white sheet on the floor of the coop, when birds go in to roost at night, and wait for at least an hour after dark before shining a torch on the sheet. If red mite are present, they will be crawling across the sheet and visible to the eye.

Red mite will also leave behind a tell-tale ash-like excretion that looks similar to cigarette ash, so suggesting owners look out for this in cracks and crevices of the hen house can help detect the presence of red mite.

It is very unlikely that you will spot red mite on chickens during the day, and therefore if birds are brought into practice you will need to look out for other common clinical signs rather than the physical parasite.

**Common clinical signs of red mite**

There are a number of common signs that indicate red mite may be an issue in birds. If a number of these clinical signs are present in a flock, then treatment is recommended.

**Restless and irritated birds**

Red mite can cause irritation, often making birds restless and generally more irritable through the lack of sleep, which can sometimes manifest in aggression towards other
Poultry red mite – not just a commercial chicken problem

Red mite can cause anaemia which the change in comb and wattle colour can be an indication of. If left untreated, this can result in death in severe cases.

chickens. Least dominant birds tend to suffer more from red mite as they often have the less desirable spot in the poultry house due to the natural pecking order. Owners may also find that chickens become more reluctant to roost at night as this is when red mite are most active.

Drop in egg production
Although this may not be a big concern for owners as much as it would be for a commercial laying flock, a drop in egg production and egg quality can be an indication of red mite.

Pale comb and wattle
A comb that is bright red in colour is an indication of a healthy chicken, so if this colour is different from the norm this is a warning sign. Red mite can cause anaemia which the change in comb and wattle colour can be an indication of. If left untreated, this can result in death in severe cases.

Immunosuppression
Red mite can also cause immunosuppression meaning chickens become increasingly susceptible to other pathogens. This is due to the disturbance at night, causing increased levels of corticosterone and adrenalin circulating in the bloodstream, and a decrease in the amount of beta and gamma globulin levels they have in their system (Thomas et al., 2019).

Prevention and treatment
Red mite is notoriously difficult to maintain control over, as once it takes hold it is generally ingrained within the environment. Cleaning and disinfecting chicken coops regularly is often thought to be an effective way of getting on top of red mite, and it is a good idea to remind owners to keep poultry houses well maintained. Plastic houses can be better for controlling red mite as there are fewer cracks and crevices for mite to reside and they can be easier to clean compared to traditional wooden houses.

Isolating new birds for up to five days before introducing them to the existing flock can also be a good way to help minimise the risk of introducing the parasite into a clean flock. However, external factors that are beyond our control mean the likelihood of red mite is inevitable in most cases.

There are various treatment options on the market which can vary in efficacy. For example, environmental sprays capable of killing adult mite are available, but the duration of activity will be variable and it is difficult to ensure the product reaches all areas of poultry houses where red mites are commonly found.

Fluralaner is an active ingredient commonly used in commercial laying units and has recently also become available to pet chicken owners. Trials with the drug have shown that when birds were treated with two doses of the product seven days apart, kill rate of artificial red mite infestation remained between 92.6 and 100 percent 15 days after the first administration (Brauneis et al., 2017), enough to cover two mite lifecycles or potentially more in warmer weather. One of the unique aspects of this treatment is that it focuses on treating the chickens, rather than just the environment, meaning you can target all mites to achieve total control.

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Supporting each other during the COVID crisis

We must all learn from our experiences and help each other going forwards

TIM MAIR
PRESIDENT, BEVA

The rapid global spread of COVID-19 since the initial outbreak in Wuhan, China, in December 2019 has necessitated significant changes to our behavioural patterns and working practices, including self-isolation, physical distancing and lockdowns. Whilst this is critical to control the virus, it will affect our mental health and well-being.

Studies conducted during other outbreaks found that factors such as boredom, inadequate supplies and information, financial loss and stigma can have negative psychological effects lasting several years. To understand how the coronavirus pandemic is affecting life in the UK, the Office for National Statistics (ONS) has been collecting information on people’s experiences and opinions relating to the pandemic. The results give an insight into how our personal, home and work lives are changing and what the impact is on our well-being and the communities in which we live.

Over the course of the pandemic, the nature and extent of people’s concerns have understandably changed. At the time of writing, the latest ONS report (covering the week ending 2 August 2020) revealed that over 4 in 10 adults reported that the coronavirus was affecting their well-being. Common issues affecting people’s well-being identified in the ONS surveys include worry about possible job loss (14 percent), worry about the future (63 percent), feeling stressed or anxious (56 percent) and feeling bored (49 percent).

BEVA has run two COVID-19 impact surveys, with the second aimed at assessing the mental well-being of equine veterinary surgeons, equine veterinary nurses and veterinary students during the period of the COVID-19 lockdown in the UK in June 2020. The results indicated lower levels of mental well-being among equine veterinary surgeons and equine veterinary nurses during the COVID-19 pandemic compared to the situation prior to the COVID-19 pandemic (as assessed by the results of the RCVS 2019 survey of the veterinary profession). Equine veterinary nurses appeared to be more likely to report lower mental well-being than veterinary surgeons, and furloughed veterinary surgeons reported lower levels of mental well-being than veterinary surgeons that continued working during the lockdown.

In view of the stresses associated with working or being furloughed during the pandemic, these results are perhaps not surprising, but they do highlight the importance of employers providing support to veterinary teams during such events. This is especially important given the well-documented high prevalence of mental ill-health in the veterinary profession, with relatively high risks of occupational stress, burnout, poor psychological well-being and an elevated rate of suicide.

Happily, of the employed veterinary surgeons that completed the BEVA survey, about 70 percent stated that they were satisfied or very satisfied with the support that their employer had been giving them during the pandemic, and only 30 percent were concerned or very concerned about their own personal health and risk of catching COVID-19.

For employers and managers to support a healthy life, they should pay fairly and offer lasting security, ensure good working conditions, enable a good work–life balance and provide training and opportunities to progress. The BEVA/BSAVA recruitment and retention in the veterinary profession survey carried out in 2018 supports these recommendations. The commonest reasons why respondents stated that they were likely to stay in their current jobs were team, location and family, whereas the most commonly cited reasons to leave were work–life balance, management and salary. Creating and maintaining a healthy and supportive team in a veterinary practice takes considerable time and effort.

BEVA can provide help and support in various ways, including our “Leg Up” coaching scheme that pairs those new to the veterinary profession with experienced equine vets who have undergone robust coaching training so that they can provide career-specific coaching in the UK.

As we adapt to the uncertainties caused by the COVID-19 pandemic, supporting our colleagues both in our own practices and beyond is vital. We are united in a shared vulnerability to this invisible pathogen, and we must all learn from our experiences and help each other going forwards.

More information about BEVA’s Leg Up coaching scheme can be found on their website: beva.org.uk/CPD-and-Careers/Career-Coaching
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Infectious respiratory disease: making the right diagnosis

What are the important things to consider when trying to diagnose a respiratory infection in horses?

FLEUR WHITLOCK AND RICHARD NEWTON

Fleur Whitlock, BVetMed (Hons), MRCVS, and Richard Newton, BSc, MSc, PhD, FRCVS, worked as equine vets within the Animal Health Trust (AHT)’s Epidemiology and Disease Surveillance team prior to the AHT’s closure at the end of July 2020. Since then, with ongoing support from the UK equine industry, the team is continuing to work closely with vets and equine industry stakeholders to ensure the health of the equine population. Their work focuses on infectious disease diagnosis, control and prevention.

Outbreaks of respiratory infections on yards are an ever-present threat facing the UK equine population. The saying “prevention is better than a cure” could not be truer in order to avoid the widespread consequences of disease outbreaks. But when faced with a snotty horse in the middle of a busy day of calls, what approach should veterinary surgeons be taking to obtain a diagnosis and why does making the correct diagnosis matter?

An effective approach to diagnosis and control of infectious disease is only possible with a good understanding of the epidemiology of the UK’s most common equine respiratory infections, and there are many online resources to keep you up to date with the latest diagnoses in the UK. This article will focus mostly on equine influenza, equine herpes virus-1 and -4, and strangles (Streptococcus equi).

Which sample and testing method to choose?

Obtaining a diagnosis of the causative agent of an infectious respiratory case/outbreak may appear to be a challenge, particularly if clients are reluctant to sample due to financial constraints. However, a mismanaged outbreak due to a slow or incorrect diagnosis will have a much greater economic and welfare cost and this should be clearly communicated with clients if they appear reluctant in the first instance.

Diagnostic success can be hampered by clients contacting veterinary surgeons too late on in the infectious process, making negative agent detection test results more likely and yard control measures less successful due to widespread exposure having already occurred. Veterinary surgeons should actively encourage owners to understand how to closely monitor their horses, particularly when the risk of exposure to infections may be higher, such as after attendance at an event, and veterinary surgeons must encourage clients to contact them without hesitation if they have any concerns.

The choice of sample and the laboratory technique to use is made under the pressure of many factors in a clinical setting. A clear understanding of optimal sample choice, sample method and diagnostic test is necessary to assist those initial choices and ensure greatest diagnostic gain. Correct interpretation of laboratory results is also paramount.

Agent detection tests

These diagnostic tests identify the infectious agent and therefore are run on samples taken from anatomical sites where the agent is most likely to be present. Factors affecting sampling success include incorrect sample choice, suboptimal sampling technique, incorrect sampling materials used, poor timing of sampling or incorrect diagnostic test choice. Polymerase chain reaction (PCR) is the most frequently used modality for agent detection and this molecular diagnostic test uses limited but specific genetic sequences to identify pathogen DNA or RNA in a sample. PCR is rapid (around two hours, giving rise to the possibility of same day results), relatively simple, relatively cheap and very sensitive (ie detects a small amount of agent and rarely produces false negative results).

The potential incubation and latency periods vary between agents, and careful history taking and physical examination will help determine if agent detection testing will be successful in the specific case presented. Population medicine should always be applied to yards, despite implementation challenges due to multiple owners and veterinary practices being involved. If the case presented is not the most optimal to make a diagnosis through agent detection techniques, additional horses may need to be sampled and may provide a higher likelihood of a successful diagnosis.

Serological tests

Diagnostic testing methods measuring an immunological response to infection are used to analyse samples for the presence of infection-specific antibodies. Their presence demonstrates an immune response (at some point) either to infection by, or after vaccination against, the specific pathogen (many tests cannot readily differentiate responses to infection from those induced by vaccination unless marker vaccines are used).

Optimising testing

Careful history taking will help to determine the most likely differential diagnoses. If agent detection is timed when signs may not be specific and because simultaneous multiple infections can occur, it is advisable to submit swabs to be tested by agent detection for all three endemic diseases. When obtaining a history, case- and population-specific questions should be asked (Table 1). Following history and physical examination, optimal sample methods should then be chosen based on findings of these initial investigations, taking into account each disease’s epidemiology.
**Submission of diagnostic samples**

All sampling materials should be confirmed to be in date prior to use. After taking a swab, it should be placed in an appropriate transport medium for the agent being tested for, to optimise detection of that organism in subsequent laboratory testing, which is usually provided by the receiving laboratory. If no medium is available, a maximum of 7ml of sterile saline in a universal container will suffice. Packaging of biological samples is subject to Health and Safety Executive legislation and the sample must be in a leak-proof primary receptacle, be individually wrapped with absorbent material and placed in a leak-proof secondary packaging material (eg a sealed plastic bag). The outer envelope should be appropriately labelled. A sample should, wherever possible, be received by a testing laboratory within two days of sampling and guaranteed delivery is recommended. Laboratory submission forms should be filled out with as much information as possible to ensure the laboratory is provided with sufficient history to aid result interpretation.

**Result interpretation**

Diagnostic test results can be challenging to interpret and the potential reasons for each obtained result should be considered, with the case’s history being paramount for correct result interpretation. Information from initial investigations and diagnostic tests should be assessed in combination with case factors and factors specific to the entire population in which the case resides. Infectious disease diagnosis is not black and white and veterinary surgeons are encouraged to discuss presentations and results with veterinary epidemiologists to help make a correct diagnosis. Veterinary epidemiologists will also be able to assist in optimal diagnostic choices and control methods.

In reporting serological sample results, positive and negative phrasing is used with caution as a case could have a “negative” serology result but still have the infection, with the most common reason for this being a result of serological sampling in the acute phase of the infection. It is also beneficial to be aware that a titre does not need to be zero for a result to be interpreted as “no evidence of infection”, as each test has its own levels for suspicion of infection.

When interpreting results from paired samples, the original acute serum sample should be tested alongside the second convalescent sample, to provide a valid paired test result. Only samples run on the same test run can be reliably compared due to the possibility of inter-assay variation.

When the original sample is re-run, each assay will have an inter-assay variation value that is deemed to be acceptable. Occasionally, results may fall out of this allowable boundary and laboratories should have internal quality controls implemented to monitor and help prevent such scenarios; where this occurs, paired samples should be retested.

**Preventing disease outbreaks**

Veterinary surgeons are actively encouraged to discuss with clients their approaches to new arrivals, precautions taken at equine events, general yard hygiene, equipment sharing and protocols for visiting personnel. Risk mitigation is integral to equip owners with the best defences against infectious disease outbreaks, ensuring the health, welfare and performance of their horses. Simple discussions at time of routine vaccinations provide a great opportunity to suggest the best approaches to biosecurity, with these being yard specific depending on yard type and facilities available. Given the fact that risk cannot be completely eliminated, a fast, correct diagnosis assists in the implementation of optimal control measures, limiting the negative effects of infectious disease outbreaks.

**Conclusion**

Successful infectious disease diagnosis can be a challenge, but there are a multitude of benefits to obtaining a correct diagnosis. Cases will commonly require both agent detection and serological testing. Obtaining samples for agent detection at the correct time and just prior to instigating treatment enhances the chances of an accurate diagnosis. It is vital to utilise the test in conjunction with the specific case’s history (including vaccination status and reason for testing) and clinical signs. If a test result is unexpected, this should be acknowledged in partnership with the testing laboratory, as all diagnostic testing has the potential for incorrect results. Infectious diseases come with many challenges and veterinary surgeons may feel pressurised in their diagnosis and management, but having a clear understanding of infectious disease epidemiology and laboratory testing options and carrying out sampling in a concise and timely manner will assist to reduce the consequences and stigma of infectious diseases.

For the latest equine infectious disease diagnoses, see [app.jshiny.com/jdata/icc/iccview/](http://app.jshiny.com/jdata/icc/iccview/)
Companion animal obesity is on the rise (PDSA, 2019). There are a huge number of pet foods on the market, all of which make various claims – including the ever popular "this is the best you can give to your pet". Even as a veterinary professional, I find the plethora of foods available mind boggling, so one can only imagine how confusing this is for an owner.

The aim of this article is to help provide tools that can be used to identify what a pet food label means, to look at the various maths around weight loss calculations and to think on how we can use this in our day-to-day weight clinics, including the consistent use of body condition scoring (BCS), muscle condition scoring (MCS) and calculating the kcals in foods that are fed. We will examine how we can incorporate the management of food (therefore calorie) intake with some changes to lifestyle and feeding behaviours, to reflect the more natural feeding habits of our pets and how this can assist in a weight loss programme. I will refer predominantly to the weight management calculations of our canine companions; whilst principles from this can be used for all species, the dietary and behavioural feeding requirements differ hugely between species and need exploring on an individual basis.

Flexibility is key to assist owners in identifying a good diet. The European Pet Food Industry (FEDIAF) and the Pet Food Manufacturers Association (PFMA), the representative body in the UK, provide guidelines for the regulation of pet foods, including tools to help you understand labels. WSAVA also has a collection of nutritional toolkits that provide guidance on interpreting pet food labels. There are two important factors to focus on. First, whether a diet of choice is complete or complementary. Complete diets provide the nutrients required when following the feeding guidelines, whereas complementary foods do not and require feeding of a second source of nutrients to balance the diet. Another really important consideration is fixed versus non-fixed formulas (Case et al., 2011). Fixed formulas are often the premium diets that do not use a variable formula, which is dependent on the availability and market value of the ingredients involved. The consistency of fixed formula foods is advantageous for our calculations for weight loss and weight management. We also need to be aware that a protein source of animal origin in food is of a higher biological value (Case et al., 2011) than protein from a non-animal source.
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jchivers@gordonbrothers.com

Jenni Pearce DipSurv MNAVA
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Weight loss requires a calorie deficit (Pibot et al., 2008), but one balanced to ensure the pet is getting the right amount of all nutrients required. To create a calorie deficit, we need to know how many calories our pet is consuming. Most prescription diets provide their kcal/100g in the product books or online, though you can always call the manufacturer who can provide this information for you. However, if this information is not readily available you can use the modified Atwater calculation (Case et al., 2011). This calculation is useful for estimating the metabolisable energy contributed by carbohydrates, fats and protein in a diet. To carry out the calculation you need to identify the percentage of protein, fats and carbohydrates in the diet. You will find that protein and fats are listed as a percentage in the analytical constituents, but carbohydrates are not. Carbohydrate content has to be calculated. If we assume the analytical constituents add up to 100 percent, we can start by taking away the percentages that are provided to us: 100 percent – percent of protein – percent of fat – percent of fibre – percent of ash – percent of moisture = percent of carbohydrates. Once you have this value you can use your modified Atwater factors:

\[
\begin{align*}
\text{Percent of protein} \times 3.5 &= A \\
\text{Percent of carbohydrates} \times 3.5 &= B \\
\text{Percent of fats} \times 8.5 &= C \\
A + B + C &= \text{kcal/100g of food}
\end{align*}
\]

We now have an awareness of the kcal content of the chosen food, though be mindful that this is an estimate – it is an overestimation of a poor diet with less bioavailable nutrients and an underestimation of a premium diet (Case et al., 2011). Now to calculate the kcal requirements of the pet in question. Our dog’s metabolistic energy requirement (MER) ranges from 130 to 95kcal x BW(kg)^0.75 and is responsible for maintaining weight. The higher value, 130kcal, is referring to a very active, working dog’s lifestyle and 95kcal is for the lifestyle of a more inactive dog (Freeman et al., 2011). For weight loss, I use resting energy requirement (RER), creating the calorie deficit needed for weight loss (Pibot et al., 2008) but providing the nutrient levels and kcal requirements at the lowest level. I calculate the RER on the actual weight, not the ideal weight, and recalculate this at every visit. The RER calculation for a dog is 70 x BW(kg)^0.75, or 30 x BW(kg) + 70 if no scientific calculator is to hand. We expect a weight loss rate of 1 to 2 percent per week (Pibot et al., 2008), so I would always recommend initial weigh-ins every two weeks to ensure not too much weight is being lost and if it is, the diet can be adjusted accordingly.

I am a firm believer in the nine-point BCS as well as the animal’s weight. Whether you use the nine-point or five-point score for dogs and cats, you have to make sure everyone else in the practice is using the same scale. It’s also important to do an MCS, especially when looking at an animal with a BCS score that is under the five on the scale. This will indicate as to whether the dog is actually under-weight or whether it is just exceptionally fit. An accurate BCS can assist us in determining how overweight a pet is and can give us an idea of the ideal weight the pet should be. A rough guide often used is that each score above 5 is equivalent to 10 percent overweight; 8 and 9 (30 percent and 40 percent respectively) are considered obese. We will still get pets who are more than 40 percent overweight in extreme circumstances, but the BCS gives us a starting point and an indication of where we want our target weight to be. It is also so important to teach the owner how to BCS their pet. I often start a consultation by firstly asking if they think their pet is overweight, and then by providing them with a nine-point BCS scale and asking them where they think their pet sits on this scale. This helps them adjust to the fact their pet is overweight and then aids compliance in the long run.

Once you have got your head around the maths and know how to do all of your calculations, history taking becomes important for any dietary adjustments. You need to understand the lifestyle and habits of a pet’s owner, so your suggestions will easily fit into their lives with only small adaptations. WSAVA provides a good example of a diet questionnaire, or you can create your own that’s more befitting of your individual style. Encourage owners to be open and honest so you can get the results you both want.

Weight loss can fail. You can calculate the perfect plan only to find that weight loss still does not occur – do not let that dampen your enthusiasm. Remember, you can refer back to a vet to check for any underlying conditions and check with owners that they are sticking to the plan. Equally, an owner might simply not return for a follow-up appointment or may decide that they do not want to carry on with the clinics; accept this as their choice. Some people will not be changed. This happens to all of us.

Finally, make sure everyone at your clinic is on board; questions about diet and feeding habits and the recording of BCS should become part of the normal clinical exam on all patients. Use the huge variety of tools available to help you navigate through the minefield of foods on the market and to adequately assess the nutritional needs of your patient.

References and further reading
Oakden, J. (2020) Banning the bowl: thinking outside the bowl when it comes to feeding our pets. Veterinary Nursing Journal, 35, 77-79
PFMA (2020) Labelling [online]. Available at: pfma.org.uk/labelling
Nursing tips for the exploratory laparotomy patient

From anaesthesia to post-operative monitoring, there are many considerations when approaching an exploratory laparotomy.

Exploratory laparotomy is commonly performed but there are many tips to optimise its execution and ensure patient safety. Exploratory laparotomy is required for diagnostic, prognostic or therapeutic purposes. Sometimes this will be an emergency procedure, but it can also be indicated following extensive diagnostic work-up. For defined surgical procedures, such as routine cystotomy, the surgical approach can be more defined.

Patient assessment and stabilisation
Thorough physical examination, including recording body weight and body condition score, is essential. Baseline blood work includes a packed cell volume and serum total solids or haematology, alongside a serum biochemistry profile. Further specific blood tests may be indicated. If significant blood loss is anticipated, or a tendency for increased clotting times may be present, then determination of blood-type and assessment of clotting times may be required.

The optimum time for which food is withheld, for adult cats and dogs, has been a matter of discussion in the past 10 years. Overnight fasting has tended to be the approach for elective procedures, but this has been reconsidered as extended fasting can increase the incidence of regurgitation and increases gastric acidity (Savvas et al., 2009). The optimal time to withhold food is suggested to be around six hours. Free access to water should be provided at all times, unless there is protracted vomiting. Intravenous fluid therapy should be provided before anaesthesia to achieve timely correction of dehydration or hypovolaemia.

Anaesthesia considerations
Multimodal analgesia should be employed. Premedication is most appropriate with a pure opioid agonist, alongside a sedative agent depending upon the disposition of the patient. Non-steroidal anti-inflammatory medication may be avoided, for example if there is any concern that gastrointestinal tract ulceration or hypovolaemia are present or anticipated.

Equipment
Use of an equipment checklist ensures items are not missed. Many patients requiring an exploratory laparotomy are higher risk anaesthetic candidates. Specific preoperative preparation will ensure optimal and efficient care and decrease anaesthetic duration.

Self Retaining retractors (eg Balfour or Gossett retractors) are important to allow a thorough visualisation. A suction apparatus is invaluable to allow removal of fluid, blood, exudates and lavage fluid and to control intraoperative contamination. The use of a Poole suction tip, which has a sheath with multiple small holes covering the inner suction tip, is advantageous to allow efficient removal of...
fluid without blockage with omentum. It is wise to monitor
the volume of fluid collected in the reservoir of the suction
apparatus, in particular if there are intraoperative concerns
regarding haemorrhage.

Swabs with radio-opaque markers (Figure 1) are rec-
ommended for all procedures within a body cavity. Large
saline-soaked laparotomy swabs are particularly useful
to protect the edges of the incision, to avoid desiccation
and to pack off viscera and avoid peritoneal contamination
(Figure 2).

Atraumatic intestinal forceps (eg Doyen intestinal forceps)
are used when an enterotomy or enterectomy is performed.
Warm sterile saline may be necessary during an explora-
tory laparotomy; the use of a water bath containing a stock
of sterile saline bottles can help to anticipate this need.

Swab counts must be done before and after surgery. If a
swab count does not tally and the swab cannot be located
by repeat inspection, radiographs can be used to locate it.
It is also prudent to account for all instruments prior to
closure of the abdomen.

Theatre checklist and time out
Introduction of a surgical checklist has been demonstrated
to dramatically reduce mistakes (Tivers, 2015). The surgical
checklist is read aloud at three time points in theatre:

1. Before induction:
   - Check patient identification, procedure to be per-
     formed and site of procedure, medication intoler-
     ances, plan regarding antibiosis (if indicated)
   - Patient resuscitation code is stated

2. Before first incision:
   - Reiterating the procedure to be performed
   - Detailing anticipated risks and adverse events (eg
     hypotension, regurgitation and bradycardia)
   - If biopsies are required, they are listed
   - The number of surgical swabs in the kit are
     checked and noted
   - Each member of the team introduces themselves
     and states their role. This has been demonstrated
to empower the whole team to speak up if they
notice an error and improves patient safety

3. Before leaving theatre:
   - Ongoing plan for analgesia, intravenous fluids,
     blood products, antibiosis if indicated
   - Ongoing monitoring plan (eg monitor tempera-
     ture, pulse and respiration and arterial blood
     pressure every two to four hours for the first 12
     hours post-operatively)
   - Potential post-operative complications are noted

Performing the exploratory laparotomy
Patient aseptic preparation
Surgical preparation of a wide area of the abdomen is
performed to allow an adequate surgical incision, routinely
from xiphisternum to pubis, to be performed. The necessary
clipped area extends from the caudal thorax to the inguinal
area and to 5 to 10cm laterally, usually up to one-third of
the way up the costal arch (Figure 3). For male patients,
the prepuce is generally clipped but not flushed, unless it is
anticipated that a urethral catheter should be passed dur-
ing surgery, for example during the removal of urethral and
cystic calculi. Clipping and initial preparation are performed
in a separate preparation room before moving the patient
into the sterile theatre.

Once moved to theatre, the patient is positioned on the
operating table. Warming blankets and circulating warmed
air can be used to avoid hypothermia. They should remain
turned off until drapes are secured to reduce airflow which
may cause particles to be blown on the prepared surgical
site. Reusable air blankets are available that can be laundered, maintaining standards regarding infection control but avoiding single-use. Basic heat pads and warmed bean bags or fluid bags should be used with great care as they can cause burns, in particular if skin perfusion is reduced due to hypotension.

Four quadrant draping is performed and the drapes are secured using towel clamps. Reusable textile drapes or single-use woven plastic drapes are appropriate; however, if significant lavage is required or peritoneal fluid is present, there may be strikethrough of the textile drapes and secondary draping may be indicated. The use of a plastic adherent drape affords a benefit to minimise strikethrough and wetting of the patient’s body, which would exacerbate hypothermia.

**The surgery**

The abdominal approach extends from xiphoid (the caudal-most cartilage of the sternum) to the pubis. It is important to note that the cranial extent of the approach can result in a defect being created in the diaphragm, resulting in a pneumothorax. The patient’s ventilation should be monitored and intermittent positive pressure ventilation initiated if problems arise; the veterinary surgeon should be alerted to this issue and can then drain the thoracic cavity and repair the defect, allowing spontaneous ventilation to resume.

Once the peritoneal cavity is opened, free peritoneal fluid may be noted and a sample should be obtained with a syringe for cytology and culture, if appropriate. Each veterinary surgeon may have a different approach to performing the exploratory laparotomy; what is important is that it is performed systematically and thoroughly so that no area is overlooked.

**Obtaining biopsies at laparotomy**

Often biopsy samples (fine needle aspirate or Tru-Cut biopsy) may have been obtained preoperatively as part of the diagnostic work-up; sometimes their results may have proved inconclusive or further information is required warranting an exploratory laparotomy. Obtaining biopsies at laparotomy allows direct visualisation of the organ and therefore allows representative samples to be taken from focal lesions, increasing the likelihood of a diagnosis. For vascular organs, there is also improved safety from improved management of haemorrhage. Biopsy of relevant organs should always be taken even if the organs appear grossly normal if the patient’s clinical condition dictates this.

It may be necessary for a feeding tube to be placed at the time of surgery. There are a number of options: oesophagostomy feeding tubes are simple to place and can be removed easily but are not suitable if the patient has been vomiting; gastrostomy feeding tubes are convenient to place when operating within the abdomen and have the added potential to allow gastric decompression to be achieved, but they need to remain in place for at least two weeks following placement. Placement of a surgical peritoneal drain may be indicated, for example if septic peritonitis is present (Figure 4).

It is important to ensure that feeding tubes and drains are clearly labelled before the patient leaves theatre; inappropriate use of the drain to deliver liquid feed is a possible error that would be catastrophic.

**Post-operative monitoring**

Careful post-operative monitoring is important, as documented above. Provision of early oral nutrition is recommended and aids with gastrointestinal healing. Full-thickness gastrointestinal tract incisions carry a risk of septic peritonitis; incidence ranges from 2 percent for incisional biopsy to 10 percent for intestinal resection and anastomosis. It is important that the risks are communicated to the clients before and after surgery. Patients should be monitored for loss of appetite, vomiting, pain or depression and detailed examination by a veterinary surgeon prompted if any concerns arise.

**References and further reading**


Claiming back statutory sick pay under coronavirus

Just as coronavirus has changed the way the world and its economies are working, it has changed how the SSP regime is administered and the level of coverage.

No one is ever meant to get rich – officially at least – from a government support programme. And those that have been on statutory sick pay (SSP) know from first-hand experience just what the government has been and is paying out when someone is signed off sick. And it’s not much.

Just as coronavirus has changed the way the world and its economies are working, it has changed how the SSP regime is administered and the level of coverage.

The Coronavirus Statutory Sick Pay Rebate Scheme – which permits small businesses to claim back up to two weeks of SSP paid per employee under coronavirus-related circumstances. The scheme opened up to claims on 26 May and is accessed via the government’s website. It’s of note that it applies to both current and former employees and, at the time of writing, the scheme has no end date.

Eligibility

The scheme has various eligibility requirements and, of course, employers can only use it if they are claiming for an employee who is eligible for sick pay due to coronavirus.

In detail, employees must have an employment contract, have worked under the contract, have been off for four or more days (including non-working days), earned an average of £120 or more per week, have given the correct notice and have proven their illness if it extends for more than seven days.

The scheme applies dates to employee eligibility so that workers could be claimed for if they started self-isolating on or after 13 March 2020 because someone they live with had coronavirus, were shielding since 16 April 2020 or started self-isolating on or after 28 May 2020 because they were notified by the NHS or public health authorities that they’ve come into contact with someone with coronavirus.

However, the government removed the shielding status as from 1 August. In essence, after this date they have to attend work unless there is some other medical reason which prevents them from doing so.

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Coronavirus has clearly impacted how employees evidence their situation; the result is that they do not have to give their employer a doctor’s “fit note” for them to be able to make a claim. That said, the employer can still ask them to provide either an isolation note from NHS 111 if they are self-isolating and cannot work because of coronavirus, or a letter from the NHS or their GP letter telling them to stay at home for at least 12 weeks because they’re at high risk of severe illness from coronavirus.

It matters not how the employee works for the business: full-time employees, part-time employees, those on agency contracts, employees on flexible or zero-hour contracts and those on fixed term contracts (until the date their contract ends) are all eligible for SSP.

Also, connected companies (and charities) can use the scheme if their total combined number of PAYE employees was fewer than 250 on 28 February 2020.

Procedural matters

It shouldn’t be forgotten that the repayment covers up to two weeks of SSP starting from the first qualifying day of sickness if the criteria above is met. The system allows more than one claim per employee so long as no more than two weeks in total is claimed for.

As to what is paid, it’s not a king’s ransom: from 6 April 2020 it’s £95.85 a week. Further, employers can only claim up to this amount no matter how much sick pay they actually give the employee. HMRC has a “sick pay calculator” on their website to help employers understand the amounts involved.

HMRC requires records to be kept for three years after the date payment is received for the claim. The records must note the dates the employee was off sick, which were qualifying days, why the worker was off work and their National Insurance number. Employers can choose how they keep records of employees’ sickness absence. HMRC may want to see these records if there’s a dispute over payment of SSP.

How to claim

The claiming process is straightforward and is made via the HMRC portal on gov.uk. It’s of note that the SSP must be paid before it’s claimed back. While an employer can run the process, their accountant or payroll provider can also undertake the task if they have PAYE authorisation.

Authorisation can be granted, if it hasn’t been already, via the Government Gateway at bit.ly/2UXjKrx and selecting “manage account”.

Employers must be enrolled in PAYE online to do this and the accountant will need to provide their “agent ID”.

Those unable to use the online system should have received a letter to this effect from HMRC. However, if nothing has been received or the claim cannot be completed online employers can refer to bit.ly/2UWzATi for help. Alternatively, call 0800 024 1222.

Lastly, the bank details where a BACS payment can be paid into must be provided.

To conclude

The process isn’t perfect and isn’t going to go that far in helping workers that are off sick. However, it’s better than nothing and employers need to follow the regime to be able to make a successful claim.

TUC WANTS ACTION ON SSP

SSP is part of the modern employment landscape. The Trades Union Congress (TUC) released a report in May, Testing and Tracing for Covid-19: How to ensure fair access and manage monitoring in the workplace, which advocated the case for all workers having access to tests, but with the data being kept secure.

The report notes that testing and tracing is a central part of the government’s strategy as it seeks to reverse the coronavirus lockdown. However, the TUC believes that the regime can’t just be imposed – instead, it says that “concrete plans from the government are needed, setting out how it will ensure fair and equal access to testing on the one hand, and responsible and proportionate use of people’s data on the other”.

Trust is crucial to the process working properly for “without it,” the TUC says, “the necessary cooperation of working people to make the testing and tracing system work might not be forthcoming or sustained”. The TUC wants government-issued guidance on testing, agreed with unions, to employers on their responsibilities to workers.

The report makes a number of recommendations that relate to pay, paid time off for testing and general data protection regulation-related confidentiality.

Lastly, the TUC thinks that the current level of SSP (£95.85 a week) is inadequate. Instead, it wants the weekly level of sick pay to increase to the equivalent of a week’s pay at the real living wage.

tuc.org.uk/news/workers-need-financial-support-quarantine-testing-and-tracing-work-says-tuc
Staying GDPR compliant

It is important to ensure you have your clients’ consent to send out marketing information via third party appointment reminder services.

What happens if a client does not wish to be contacted or reminded of their appointments?
Firstly, your practice’s privacy notice must be clear, concise, transparent and easily accessible to your clients. This document will contain all the information your client needs to see how your practice handles, processes and stores personal data.

Within your privacy notice (and through general communication with your clients) your clients should be given a preferred option of how they wish to be reminded of appointments, for example, by text message, by email, by letter or by telephone. The privacy policy should detail how your client can request changing the method of communication, for example by them contacting the practice in person or over the phone.

Equally as important is giving your client the option to freely withdraw their consent to receiving appointment reminders. As a practice, you should also be keeping all consents under review and refreshing this consent if anything changes.

Are there different rules if I send leaflets in the post, or text messages and/or emails?
Yes. In this instance prior specific consent must have been obtained from your client in order to direct market via these forums. If you do not have such consent to contact your clients directly, you should ask your clients to “opt-in” the next time they visit the practice, or by them signing and returning a letter confirming the same. You should be wary of emailing your clients asking for this consent, because this in itself could constitute direct email marketing and could therefore breach the GDPR.

Again, you should keep records of all client consent, including the date on which it was given and the content that the consent covers.

What are the three key points that practices should be aware of?

1. If you are sending appointment reminders, make sure you have your client’s consent to do so. If you already have their consent, consider when this was given and whether updated consent is needed.
2. Review your privacy notice and other client communications to ensure that your client easily understands how to give or how to revoke their consent to receiving appointment reminders.
3. Keep accurate records of all client consents received, recording the date such consent was given and the content of that consent.

More than two years have passed since the General Data Protection Regulation (GDPR) came into force and we have already witnessed several fines and warnings to businesses with regards to data compliance. When using client reminder services (even those which are outsourced to third parties) here are some of the issues you should be considering.

My practice already sends out appointment reminders – can I do this and do I need individual client consent to do so?
Most practices operate, or will be thinking about operating, an automated appointment reminder service. However, in order to do so, explicit consent must be obtained from your client before such reminders are sent. Any consent you do obtain needs to be freely given, specific and unambiguous and must be given by an affirmative action, for example a positive “opt-in”, rather than a catch-all “opt-out” tick box. Records must always be kept of the consents that have been obtained.

If your practice uses third-party providers for these appointments, ensure that your privacy notice notifies your clients of these services and also check whether such third-party providers have similar GDPR standards to your own.

If my practice has already obtained consent to send out appointment reminders, how long will this consent last and how often should I ask clients to refresh that consent?
Under the GDPR, you are not required to refresh all consents received, providing these fit the requirements for the GDPR, ie that consent is specific, clear and properly documented and has been freely given on an “opt-in” basis.

If any consents do not comply with the above, or you have not heard from the individual client for some time, you should consider refreshing consent.

All communications and correspondence regarding appointment reminders should contain an option for your client to “opt-out” or at least information on how your client can “opt-out”.

DAN DE SAULLES
HARRISON CLARK RICKERBYS SOLICITORS

Dan De Saulles is part of the commercial team at Harrison Clark Rickerbys. He works with a wide range of clients, from global manufacturers to start-ups and specialist businesses such as vets’ practices. Dan provides sector-specific information to help organisations navigate the GDPR.

It is important to ensure you have your clients’ consent to send out marketing information via third party appointment reminder services.
Pricing matters

Practice owners might not be aware that pricing can be an important part of marketing and branding your business, and not just an accounting function.

It’s not uncommon for veterinary business owners to skim over pricing. It is easy to just look at the cost of services and add a fixed percentage on top, or just copy rates of local competitors to set their own prices.

The fact is that most practices don’t have a pricing strategy and what they often have instead is a random jumble of prices built up over years. Not only that, but anecdotally it is said that veterinarians in the UK often tend to undervalue themselves and undercharge for their services.

This is obviously not a good way to go about things. It’s better to have a pricing strategy to work with, to ensure that you are getting the money you deserve, especially in today’s difficult COVID-climate.

A prosperous veterinary practice is prepared to adjust its strategy over time in order to maintain profitability and competitive advantage.

Charge correctly
Aligning your pricing with your branding and marketing strategy can bring big benefits to your business. How you price yourself can have a direct impact on the success of your business and the type of people you want to attract.

If you have a strategy to do this in place it can help simplify your marketing and make pricing quicker and easier for years to come.

What’s your brand message?
It is important to acknowledge that there is no perfect pricing strategy for practices; you can be equally successful at the top or the lower end of the market. The only thing you need to ensure is that the prices that you charge reflect your business brand. For instance, are you the high-end, high-fee boutique vets, or the friendly value vets? Either way, your pricing needs to accurately express the brand image that you want to portray.

If your pricing and branding diverge, then you’ll be attracting the wrong clients and then leaving them disappointed when the service they receive doesn’t match your brand promise. You could also be missing out on untapped revenue if you’re not charging enough for the quality of service you’re providing.

Prove your value
One thing’s for certain – deciding how much to charge for your product requires a bit more thought than simply calculating your costs and adding a mark-up.

For vets opening a new branch, then one strategy might be to use low prices initially to penetrate a market and get an early foothold.

At established practices that are providing a great service that stands out in the market – for example orthopaedics or top customer service – value-based or premium pricing will better help convey the value you offer.

Value-based pricing means figuring out how much the customer values your service and pricing it accordingly. The premium prices you charge act as a signal to the customer that you provide a higher quality service than your lower priced competitors.

If you are confident that you can offer a better service than your competitors, then don’t be afraid to raise your prices.

Look for consensus
Each year you should meet with your team to discuss and adjust your pricing strategy. A good time to do this can be when you are creating your annual business plan, as you can also check to confirm whether your pricing is aligned with your business goals for the year ahead.

Pricing can be a source of divergence and disagreement between partners, so it’s important to reach a consensus on who you think you are as a business and whether your prices reflect that.

Think ahead
The strategy you decide upon can make or break your business, as the price of your services directly affects the revenues of your company.

Therefore, it is critical to consider which one will best help you achieve your business goals. Your plan does not have to remain fixed forever though; a prosperous veterinary practice is prepared to adjust its strategy over time in order to maintain profitability and competitive advantage.
“Each of those working in the practice have an equally valuable part to play”

There are few things in life that make me really annoyed, but one that really riles me is the pet owner who you hear tearing strips off the receptionist because they’ve been waiting for 15 minutes while you’re dealing with a difficult case in the list before them. Moaning about the time they are wasting when they have such a busy life, complaining that the seats in the waiting room are uncomfortable and how much longer will they be sitting here...? And then they come into you and are all sweetness and light. “Oh don’t worry for the delay, we understand you’re really busy. Thanks for seeing us in any case...” The same happens when they are talking to the nurse – it’s a different kettle of fish completely when it comes to us as the veterinary surgeon, and yet it shouldn’t be at all.

Each of those working in the practice have an equally valuable part to play, whether it’s the receptionist answering the phone or the kennel assistant cleaning up the faecal explosion that accompanies the dog in with vomiting and diarrhoea. But is it seen that way?

Not from a remuneration perspective, certainly, and maybe that’s to be expected. We have spent five or six years at university studying while the nursing assistant is new from school. We are there out of hours for the client – or am I living in the pre-corporate world when we are there to take calls from worried owners late into the evening, a time that some new graduates see as being ancient history?

It’s the kennel cleaner who sits with the dog after the operation, cradling its head in her lap and stroking it to relieve its woes while we are onto the next surgical challenge.

Receptionists are so important as the first voice the caller on the phone hears. A brusque uninterested word or two will put any caller off, while a caring response just encourages a potential client to bring their pet to the practice. But do the people we employ to answer the phone know how important they are?

I often ring one of the practices I visit on my ambulatory ophthalmology referral service to tell them that I am sorry that I’ve been delayed and I’m going to be a few minutes late, to be answered by Marjory who picks up the phone and responds to me by saying “Hello – it’s only reception” to which I tell her that no, she is not “only” a receptionist – she is a key worker, to use a term we’re all used to these days, in that practice at least. And thankfully, after a few tens of times telling her that, she has now changed her tune!

In fact, using the term the key worker has made me realise that in these COVID times perhaps people have become less demanding and more understanding. Asking a vet who was walking past as I was writing this what she thought, she said “Maybe... but there are an equal number who have gone the other way and got more annoying” Ah... maybe I’ve just got my rose-tinted specs on again!

It was Martin Seligman who first coined the term positive psychology in 1998, although interestingly he had done his early work on learned helplessness in dogs who did not seem to recognise opportunities to avoid or escape from unpleasant experiences. His book The Hope Circuit tells his story, as it says on the front cover, “from helplessness to optimism” which is enough to make you want to read it, isn’t it? And maybe that strap-line would be a good one for the present COVID times!
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