Brachycephalic obstructive airway syndrome
An update

Pasture management for sheep
Developing a grazing plan

Equine degenerative joint disease
The most common cause of lameness in horses

Dermatoses of rabbits and rodents
Skin diseases seen in the consultation room

Keeping records
Why it’s important
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UP FRONT...

Welcome to the first issue of Veterinary Practice Today for 2020. As we enter our seventh year and a brand new decade, we would like to thank our authors – both long-established and new – for their expert contributions to our journal. Our industry prides itself on excellence, hard work and integrity, and it is a pleasure to be able to share such valuable and thought-provoking articles within our community.

It is hard to believe that a century has passed since the last ‘20s era, and one aspect of life that has certainly changed since is the popularity of brachycephalic dog breeds. In our cover story, Rachel Hattersley provides an update on recent advances in the diagnosis and management of brachycephalic obstructive airway syndrome. ‘While we tend to lump all brachycephalic dogs under the same heading’ warns Rachel, ‘there are a number of different abnormalities which can be identified and not all dogs will have the same combination of abnormalities’.

In the second part of Helen Ballantyne’s series on nursing care plans, Helen explains how proactive nursing interventions can ‘make life better for everyone’ and how, not only will owners be more likely to adhere to treatment plans, but nurses can enjoy the professional satisfaction of seeing their chronically ill patients flourish. This sentiment is shared in Karen Wild’s article on collaborative appointments, and she reminds practices that while the patient is important, it is the owner who makes the decision about which clinic to visit.

Client collaboration is very much echoed in Owen Atkinson’s inspiring case study on providing good accommodation for housed dairy cows. The study took place over five years in a 500-cow dairy farm in Northern England, and, ‘while a degree of patience might be required’ writes Owen, ‘assisting clients with planned improvements in cow housing can be amongst the most satisfying tasks for a dairy vet’.

We are all amateur photographers these days, and snapping a quick picture of that adorable puppy in the consultation room can make a wonderful photograph for your practice’s social media platforms. However, without adhering to our responsibility to maintain client confidentiality, we could end up offending or losing clients, or worse, be taken to court for publishing an image. In her helpful article, Clara Ashcroft discusses how to use animals in marketing responsibly – and how to avoid potential pitfalls.

Of course, I could not write this ‘Up Front’ without commenting on David Watson’s excellent piece on plastic use in practice. The NHS has been accused of being a “significant polluter”, and, quite rightly, David asks if the veterinary industry is as far behind the curve on the reduction of single-use plastic as the human medical profession. Through skilful research, David concludes that the opportunities to be more ‘green’ are becoming available, but that we must not assume it is someone else’s problem – ‘It is ours’ writes David.

We look forward to continuing to provide our readers with such informative and relevant articles in 2020.

Claire Newton-Ransom
Editor

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David Watson
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17 Brachycephalic obstructive airway syndrome – where are we now and where are we heading?
Rachel Hattersley
There has been a meteoric rise in the popularity of brachycephalic dogs and there is no denying these breeds are here to stay. This article aims to update the reader on recent advances in the diagnosis and management of brachycephalic obstructive airway syndrome.

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Helen Ballantine
In the second article on nursing patients with long-term conditions, the author explains how to optimise chronic nursing care by combining the nursing care plan with communication skills in order to develop a therapeutic relationship with owners.

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Karen Wild
A collaborative approach to preparing a client for their appointment teaches owners what they can do in readiness – getting to know them and their pet and providing a veterinary service that caters to the emotional needs of the pet and owner, as well as the physical.

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30 The games, toys and hobbies which do not mix with animals
Jane Ellison
With Christmas gone, there may be an excess of toys, games, and general kit for hobbies left lying around for those ever-curious companion animals to investigate – some of which could potentially result in severe toxicity.

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The Quo Vadis report published 20 years ago looked at the attitudes, beliefs and lifestyle objectives of veterinary surgeons, as well as client attitudes to the veterinary profession. Now 20 years on what, if anything, has changed?

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Sara Fleck
Vetting of horses has been an important role for equine practitioners for many years, and the expression ‘to vet’ has passed into our general vocabulary with the definition: to make a careful and critical examination.

38 Equine degenerative joint disease
Joanna de Klerk
Degenerative joint disease (DJD) is the most common cause of lameness in the horse and treatment is a frequent task for an equine veterinary surgeon. It is vital that every equine practitioner has a deep knowledge of the synovial joint anatomy and pathophysiology of the disease process.
In November 2019, BEVA supported European Antibiotic Awareness Day with practical advice on antibiotic use and antimicrobial resistance in equine practice. As we recognise the importance of a ‘One Health’ approach to antimicrobial resistance, it is more important than ever that antibiotic use is justified.

Exotics and wildlife

Common dermatoses of rabbits and rodents
Siuna Reid
Skin diseases affecting rodents and rabbits can seem complex. However, there are many simple, cost-effective tests that can be carried out within the practice laboratory providing instant results and increasing client bonding whilst relieving uncomfortable conditions.

Insight: Every life should be precious
It has always been the case that most of the male offspring produced in the dairy and egg industry were superfluous to needs. The huge wastage of life caused by these farming methods is something that needs to be addressed.

Pasture management for sheep
Josephine Child
Efficient use of grass for our 65 million sheep is essential for many reasons; including reduction in feed costs, increased daily live weight gains, parasite management and reducing methane emissions.

Keeping records in veterinary practices
Elaine Fisher
Even in a sector which requires the highest standards of clinical compliance and recording of patient information, the maintenance of employee records can slip down the priority list. Failing to have and maintain accurate and organised files can leave a practice open to inefficiencies, complaints and claims.

Lonely at the top
We talk a lot about the need to have empathy with our clients, but just as important is having empathy with our staff. An empathetic workplace has a direct impact on employee productivity, loyalty and engagement.

The bigger picture: How to use animals in your marketing responsibly
Clara Ashcroft
One of the quickest ways to a pet owner’s heart is to share pictures of animals that visit your practice on social media. Be it a kitten who has come into the practice for its first course of vaccinations, or a Labrador being united with its owners after a lifesaving operation.

Insight: In sickness and in health – are your staff allowed to be ill?
It can take a peculiar amount of courage to call in sick. The ‘guilt’ of leaving teammates to pick up extra work, or the awkwardness of having to ‘justify’ sickness to an unsympathetic boss can often stop an unwell colleague from making that call at all.

Profile
Jennie Jones LLB Hons. Head of the Veterinary Client Mediation Service.
Plastic in practice is not someone else’s problem

According to a YouGov poll earlier this year, among the 82 per cent of the UK population who are trying to cut down on their personal use of plastic, eight out of 10 are watching out for plastic packaging on the fresh fruit and vegetables they buy. A third are reducing plastic in household cleaning products (36 per cent) or home ware (32 per cent). A quarter are considering plastic packaging when purchasing personal care products, such as shampoo or toothpaste (27 per cent) and a fifth are doing so when buying cosmetics.

I am sure many of us fall into those categories. And rightly so. But as veterinary health professionals, do we leave those principles at the practice door? Have you ever paused to consider the plastic elephant in your consulting room?

**NHS call for action**

In 2018, the Government’s then chief medical adviser, Professor Dame Sally Davies, called the NHS a “significant pollutor” after her annual report revealed the Health Service creates 590,000 tonnes of waste a year – more than the entire municipal waste from some European countries, such as Cyprus and Luxembourg.

She pointed out that healthcare organisations create “huge amounts” of waste and that the NHS, the world’s fifth largest employer, must do more to cut its pollutant footprint. Hospitals in England have bought 600 million disposable cups over the last five years. Five percent of all road traffic at any one time is estimated to be on NHS business – be it patients going to and from care, or the NHS’s fleet of vehicles.

Summarising, Dame Sally said: “Everybody has a role to play in cutting pollution; but the NHS has more than a million staff, accounts for one in 20 vehicles on the road and is a big user of single-use disposable plastics. Some trusts are already blazing a trail and I urge others to follow.”

**Frontline plea**

In an article in *bmjonline* in March, core medical trainee at the Royal Cornwall Hospital in Truro, Richard Thorley, asked the question: ‘Recycling in hospitals—couldn’t we do better?’

“It is almost 10 years since an article in the *BMJ*, highlighted the massive potential to reduce waste and scale up recycling in the healthcare environment. But while the rest of society has been relatively successful in trying to reduce the amount of waste sent to landfill, it seems there has been little change to practices in hospitals.

Richard explains: “A few days ago, when I was in the process of inserting an intravenous cannula, a patient commented on the large amount of packaging waste involved, much of which could be recycled. When more extensive, sterile procedures are performed, the volume of waste is even greater.

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Richard explains: “A few days ago, when I was in the process of inserting an intravenous cannula, a patient commented on the large amount of packaging waste involved, much of which could be recycled. When more extensive, sterile procedures are performed, the volume of waste is even greater.

“Over the past year, we’ve witnessed a growing public clamour for less wasteful packaging of consumables. It has been shown that more streamlined packaging can save money, as well as reducing our carbon footprint. The European Parliament is introducing a ban on a variety of single-use items, the British Government is consulting and supermarkets are being forced to redesign their packaging by popular demand to reduce excess waste. Why can’t...
we expect the same from the medical products we use in practice every day?"

The packaging of medical supplies, just like the packaging of foodstuffs and other commercial products, needs to be slimmed down and, where possible, made of sustainable and recyclable materials. But this won’t happen without incentives for manufacturers. When sourcing medical products, the environmental impact should be considered alongside efficacy and cost.

Richard concludes: “As healthcare professionals we have a responsibility to not only treat acute illness, but to promote public health and wellbeing as well. For today’s generation of doctors, there cannot be more critical issues for the world’s health than climate change and pollution. Recycling plays a helpful part in combating these challenges. It is too late for us to set an example; households and businesses around the country are already doing it. We need to catch up.”

In response to a request for a position statement, the RCVS commented: ‘Perhaps surprisingly, environmental sustainability did not come out of the research carried out as part of ‘Vet Futures’ as being something that the profession prioritised. However, in the intervening years, it is something that has come further up the agenda, so the Vet Futures Project Board has agreed a joint RCVS/BVA action around this.

‘It is likely that the focus will be on changes that all practices can make, with a mixture of offering guidance, championing examples of good practice and setting some standards via the RCVS Practice Standards Scheme. The plan will be developed over the coming months.

‘Meanwhile, at the RCVS, we have a very vibrant Green Team which is working to reduce the environmental impact of how we do business, and environmental factors will also be part of our decision-making process when we choose our new headquarters over the next year or so.”

The BVA media office was less forthcoming issuing: ‘Thanks for getting in touch. This is an area that is featured on our priorities for the coming year. It is something that we are alive to and will be developing some resources and guidance around.’

It added: ‘You may be interested in reading more or getting in touch with a vet called Ellie West who has won some awards for her practice and its green credentials’.

More of Ellie later.

The SPVS Board Sustainability Lead welcomed Veterinary Practice Today’s interest in sustainability matters and pointed out that the SPVS/VMG Jan 2020 conference was hosting the profession’s first full day of sustainability CPD.

And finally, NOAH, representing the animal health and veterinary pharmaceutical companies played a straight bat: ‘Consistent with our values of corporate and social responsibility, the animal medicines industry supports a supply chain where protection of the environment is a priority, and is committed to continued engagement on this issue.

‘Product packaging is highly regulated. Companies are required to include certain key pieces of information on the packaging and product packaging is subject to detailed regulatory oversight and is a legal requirement. Changes to the packaging must also be reviewed by the regulatory authorities.

‘Furthermore, where the packaging is in direct contact with the veterinary medicinal product the medicine will have undergone extensive testing to ensure there are no interactions between the packaging and medicinal product that could jeopardise the quality of the medicine and safety of the animals treated with the product. Therefore, the industry requires reliable and consistent material for immediate packaging and any changes need careful planning.

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Ellie's view
She points out that procurement of medical equipment and pharmaceuticals is 25 per cent of the NHS’s total carbon footprint; therefore, reducing the amount you bring on site does matter – especially taking care that you are not inadvertently extracting fossil fuels or producing microplastics or respiratory pollutants.

Incineration of some plastics (PVC, for example) produces dioxins, which are respiratory pollutants; whereas other types can be reduced to carbon dioxide and water only.

Ellie says: “It is always better to follow the waste hierarchy and start with reduced production. Reusable sharps bins and cardboard pharmaceutical bins go a big way to reducing procurement of plastic.”

So from an initial review, it would appear that the veterinary professions and industry are as far behind the curve on the reduction of single-use plastic in practice as the human medical profession. However, this situation is changing rapidly, largely as the result of efforts from individuals such as Ellie West, European Specialist in Veterinary Anaesthesia and Analgesia at Davies Veterinary Specialists – a particularly ‘green’ practice – who achieved Best Green Champion at the Investors in the Environment (iiE) Awards in April 2019.

Ellie has an article on reducing waste accepted for publication in In Practice soon, but she draws our attention to waste segregation posters for more information in the interim; and in a superb initiative, VetSustain is a significant new network of sustainability-minded veterinary professionals, based on a website and Facebook page. This is a highly commendable move in the right direction, being heavily promoted by the BVA, and veterinary practices wishing to ‘make a difference’ should sign up and participate.

Waking up to reality
According to Ellie, manufacturers IMS and JAK have put eco-friendly ranges on their websites. IMS has a plant-based equine rectal glove, and soon should have plant-based disposable aprons. The firm also has a range of plant-based products and reduced plastic packaging products.

Other companies are planning to follow suit; but it is imperative for all veterinary professionals to push suppliers to move the subjects of single-use plastics and sustainability to the top of

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### Table 1. An anaesthesia sustainability checklist

<table>
<thead>
<tr>
<th>Category</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Reduce volatile anaesthetic atmospheric waste | - low fresh gas flows  
- monitoring of inspired oxygen and end-tidal anaesthetic agent concentrations  
- avoid high-impact agents (desflurane, nitrous oxide)  
- consider intravenous and regional techniques  
- invest in waste anaesthetic recycling or destruction. |
| Reduce pharmaceutical waste    | - use pre-filled syringes or pre-packed kits  
- use appropriate-sized vials  
- dispose of pharmaceuticals appropriately  
- replace perioperative injectable with oral medications. |
| Reduce equipment waste         | - only open equipment intended for immediate use  
- purchase reusable or reprocessed equipment  
- adjust stock levels to minimise discard beyond expiry dates; eliminate unnecessary items. |
| Waste segregation              | - evaluate waste handling to move up the waste hierarchy  
- segregate waste strictly, according to legal frameworks  
- recycle where possible, in clinical and non-clinical streams  
- use reusable or non-plastic waste containers  
- minimise packaging. |
| Textiles                        | - use reusable textiles  
- use towels and blankets efficiently. |
| Electronics                     | - do not use unless proven benefit  
- use certified recycling site for disposal. |
| Leadership                      | - develop a sustainability plan and committee, with advocates at local level  
- procure sustainably where possible  
- promote staff engagement with sustainability  
- evaluate travel within your organization  
- promote research into sustainability. |

Around 40 to 60 per cent of NHS theatre waste is recyclable (as domestic waste), but recycling of contaminated waste – whether offensive waste, which can be recycled with the appropriate Environment Agency (EA) permit or pharm/infectious/cyto waste which, legally, must be incinerated – gets trickier. For that, an understanding of waste disposal and segregation legislation helps.

According to the EA, there is very limited waste disposal capacity in this country at the moment, for a number of reasons, and plastics ‘jam’ the system because the incinerators have limits on the amount of energy they can process (not volume), and plastics have a high calorific value.

Ellie says: “It is always better to follow the waste hierarchy and start with reduced production. Reusable sharps bins and cardboard pharmaceutical bins go a big way to reducing procurement of plastic.”

The packaging that is in contact with the veterinary medicine is considered as contaminated and should be disposed of in accordance with local requirements – clinical waste, for example. The BVA has published useful guidance which aligns with the messages companies use to advise customers in the event of queries.

So from an initial review, it would appear that the veterinary professions and industry are as far behind the curve on the reduction of single-use plastic in practice as the human medical profession. However, this situation is changing rapidly, largely as the result of efforts from individuals such as Ellie West, European Specialist in Veterinary Anaesthesia and Analgesia at Davies Veterinary Specialists – a particularly ‘green’ practice – who achieved Best Green Champion at the Investors in the Environment (iiE) Awards in April 2019.

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‘The packaging that is in contact with the veterinary medicine is considered as contaminated and should be disposed of in accordance with local requirements – clinical waste, for example. The BVA has published useful guidance which aligns with the messages companies use to advise customers in the event of queries.’
their agendas – and experience suggests that they will only do so under pressure from practice personnel as the end-users. Nobody else can do it.

A clinical checklist, produced by the American Society of Anesthesiologists7 has been adapted by Ellie and her co-author, Ronald Jones8, which can be used to guide sustainable anaesthetic practices in veterinary practice (Table 1).

More resources are becoming available, such as the UK’s National Institute for Health Research9 framework to minimise waste by improving research design; and metrics to identify health benefit per tonne of carbon dioxide may become a standard part of research reporting. And environmental awareness is slowly being introduced into medical and veterinary curricula, often in association with the wider One Health initiative.

No hiding place
There is, however, much more to be done and the conquest of the plastic mountain in veterinary practice is only beginning. It is a daunting task that requires immediate action. It is not someone else’s problem. It is ours.

References
9. www.nihr.ac.uk

Suggested Additional Resources
(Ellie West)

Chartered Institute for Waste Management (www.ciwm.co.uk) holds an informative waste management conference every year and members of VetSustain can attend.

Davies Veterinary Specialists Sustainability Initiatives quarterly newsletter at https://vetspecialists.co.uk/sustainability/sustainability-initiatives

Davies Veterinary Specialists client newsletter published on World Environment Day at https://vetspecialists.co.uk/sustainability


RECOUP (www.recoup.org) is a charity and leading authority – providing expertise and guidance across the plastics recycling value chain. Its website is worth a look and links plastics recyclers with producers.

Schroeder K et al (2013). Sustainable Healthcare. Wiley Online Library

Webinarvet seminar at www.thewebinarvet.com/webinars/one-practices-journey-towards-environmental-sustainability

Allergic airway disease in dogs and cats

Allergic airway disease in dogs and cats encompasses a broad spectrum of diseases that are somewhat poorly defined, but the clinical signs and pathologic appearances are similar regardless of causes.

Definition and pathogenesis of allergic airway disease

In humans, asthma is defined as a disease of the lower airways that makes affected individuals prone to inappropriate airway narrowing in response to a wide variety of provoking stimuli. The ease with which these airways narrow is termed hyperreactivity. Human asthmatics will develop large numbers of immunoglobulin E (IgE) antibodies in response to various inhaled allergens. These IgE antibodies then cross-link to mast cells in the submucosa of the bronchi and bronchioles of the lung, causing mast cell degranulation. Degranulation leads to the release of several inflammatory mediators that cause immediate airway constriction, as well as a late-phase inflammatory response that takes place several hours later. These mediators are responsible for pulmonary mucosal oedema, smooth muscle hypertrophy of the bronchi and bronchioles, accumulation of pulmonary secretions and airway narrowing.

Allergic airway diseases in dogs and cats commonly include parasitic allergic airway disease, allergic bronchitis (eosinophilic bronchopneumopathy), feline asthma (probably the closest equivalent to the human disease) and the much less common pulmonary infiltrates with eosinophils (PIEs). The pathophysiology of allergic lower airway disease in small animals is less well-understood than human asthma, but it commonly causes mucosal oedema, an increase in the numbers of eosinophils within the airways, airway smooth muscle hypertrophy and constriction, and excessive production of secretions and superinfection of the lungs. Lower airway inflammation is known, or suspected, to be caused by fungi, drugs, bacteria, food proteins, pollens, dust mite proteins and animal dander (Clercx et al, 2000).

There is also a definite sub-group of allergic airway diseases that affect the upper respiratory tract – namely rhinitis, pharyngitis and tracheobronchitis. The clinical signs of this are clearly quite different (Table 1) but the pathogenesis may have similarities.

There is considerable cross-over in the clinical signs, and sometimes in treatment of other common small animal respiratory diseases such as canine and feline bronchitis and bronchopulmonary disease. They should not be classified as allergic in nature because they do not fit all of the above criteria (in particular the overabundance of eosinophils in the airways). However, there is frequent cross-over of the allergic/non-allergic criteria boundaries for many of the diseases. For example, chronic asthma is likely to cause damage to the airways resulting in some neutrophilic inflammation. This may well show on a bronchoalveolar lavage (BAL) as a mixed eosinophilic and neutrophilic inflammation.

Clinical signs

The signs of allergic airway disease depend on where the majority of the inflammation is present (Table 1). A wider differential diagnosis should be considered for all the signs in individual cases, of course.

Just as in humans with ‘hay fever’, it may be possible to see a seasonality to the symptoms if the trigger is an aeroallergen such as pollen. Similarly, the signs may be triggered in a certain area of the normal environment. A small proportion of cases appear to respond to exclusion diets, and there is justification for a diet trial in most cases (Corcoran et al, 1991).

Specific allergic lower airway diseases

Parasitic allergic airway disease

Intestinal parasite migration as well as primary pulmonary parasitism can cause a lower airway allergic inflammatory response. The most common migratory parasite in the canine lungs is Toxocara canis. An allergic reaction (predominantly a type 1 hypersensitivity reaction) can take place in the lower airways and parenchyma of young dogs when this parasite migrates through the lungs as part of its normal.
development. The larvae cause the antigenic stimulation leading to the clinical signs.

Other less common parasites known to migrate through the lungs include Anclylostoma caninum (dogs only) and Strongyloides stercoralis (dogs or cats). Primary lung parasites include Aeulurostrongylus abstrusus, Capillaria aerophila, Filaroide hirthi and Crenosoma vulpis. Diagnosis of these parasites is usually via evidence of ova or larvae in faecal tests (such as Baermann technique) and/or larvae found in tracheal washes.

Dirofilaria immitis (heartworm) and Angiostrongylus vasorum (lungworm) can also cause an allergic response in the lungs (as well as multiple other possible symptoms discussed elsewhere) when larvae and/or eggs of the parasite cause inflammation in pulmonary vessels and parenchyma.

Clinical signs of parasitic allergic airway disease vary markedly from asymptomatic to severe coughing, wheezing and respiratory distress. A complete blood count may or may not show an eosinophilia or basophilia. Chest radiographs can show interstitial infiltrates, bronchial thickening and even alveolar consolidation. Faecal examination may reveal the presence of the parasite but a negative finding does not rule out the possibility of migrating larval airway disease. This is because larvae typically begin to migrate through the lungs before shedding ova into the intestinal tract.

Treatment includes the use of an appropriate anthelminthic medication. In situations where the signs are severe, or fail to resolve completely, an anti-inflammatory dose of prednisolone may be useful.

In all cases where allergy is suspected, it is important to ensure that there is no associated parasitism either through diagnostic testing, therapy or both.

**Canine eosinophilic bronchopneumopathy**

The signalment of this disease is of dogs of a young age (one to five years) with Siberian huskies and Alaskan malamutes over-represented. These dogs are usually in good physical condition but show clinical signs such as coughing, laboured breathing and often a mucopurulent nasal discharge.

Radiographically, these dogs show a diffuse, prominent bronchointerstitial pattern. Forty per cent of cases have alveolar infiltrates (owing to secondary pneumonia in some cases) and 26 per cent have bronchiectasis. A peripheral eosinophilia is present in about 60 per cent of cases. Cytologic findings from BAL or endotracheal wash (ETW) include more than 50 per cent eosinophils in 87 per cent of dogs.

The main treatment for this condition is systemic glucocorticoids with an induction dose of approximately 1mg/kg q12h, although larger dogs often require lower dosages. Culture and sensitivity of the BAL or ETW fluid should be performed in order to rule out a secondary pneumonia which would then require antibiotics. Unless the inciting allergen can be removed from the environment (this is rarely known), it is important for the owner to understand that this is a life-long condition requiring management. Often, low maintenance doses (0.25–0.5 mg/kg q48h) are necessary.

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**Table 1. Clinical signs of allergic airway disease in different regions of the airway**

<table>
<thead>
<tr>
<th>Site of allergic disease</th>
<th>Clinical signs of disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhinitis</td>
<td>Sneezing, nasal discharge, possible accompanying conjunctivitis</td>
</tr>
<tr>
<td>Pharyngitis</td>
<td>Snorting, reverse sneezing, excessive swallowing, gulping, gagging</td>
</tr>
<tr>
<td>Tracheobronchitis</td>
<td>Coughing (often harsh and dry), expiratory dyspnoea, exercise intolerance, increased panting</td>
</tr>
<tr>
<td>Pneumonitis</td>
<td>Coughing (often deep and soft), inspiratory and expiratory dyspnoea, malaise, fever</td>
</tr>
</tbody>
</table>

**Table 2. Management of acute dyspnoea in feline asthma**

<table>
<thead>
<tr>
<th>Glucocorticoid</th>
<th>Dexamethasone SP</th>
<th>0.15-1mg/kg IM or IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronchodilator</td>
<td>Terbutaline</td>
<td>0.01mg/kg IM or SC</td>
</tr>
<tr>
<td>Beta2-receptor agonists</td>
<td>Albuterol</td>
<td>90mcg (inhaled)</td>
</tr>
</tbody>
</table>

**Table 3. Management of chronic feline asthma**

<table>
<thead>
<tr>
<th>Glucocorticoids</th>
<th>Prednisolone</th>
<th>0.5-1mg/kg PO q12h (first 7-14 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fluticasone</td>
<td>Taper over 2-3 months to q24h or EOD</td>
</tr>
<tr>
<td></td>
<td>Methylprednisolone acetate</td>
<td>44-110mcg q12h (inhaled)</td>
</tr>
<tr>
<td></td>
<td>Terbutaline</td>
<td>Administer concurrently with oral prednisolone for first 2-4wks</td>
</tr>
<tr>
<td>Bronchodilator</td>
<td></td>
<td>10-20mg/cat IM or SC q4-12wks Use as a last resort</td>
</tr>
<tr>
<td>Bronchodilator</td>
<td>Theophylline</td>
<td>0.1-0.2mg/kg PO q8-12h or 5U/cat SC (100U/ml syringe) For home administration by owner</td>
</tr>
<tr>
<td>Bronchodilator</td>
<td></td>
<td>Sustained release: 20-25mg/kg PO q24h (PM) Non-sustained release: 4mg/kg PO q8-12h</td>
</tr>
</tbody>
</table>

“A small proportion of cases appear to respond to exclusion diets, and there is justification for a diet trial in most cases”
Feline asthma
Feline asthma is estimated to affect approximately one to five per cent of the feline population. The average age at presentation is four to five years old, however, many cats have a history of chronic signs suggesting that disease onset occurs much earlier in life. Siamese cats are over-represented in some studies, but not others.

There are two major clinical pictures: status asthmaticus and chronic disease, but many cats will show clinical signs that are between the two extremes or display both presentations. Cats in status asthmaticus present with open-mouth breathing, tachypnoea and increased abdominal effort on exhalation. Signs in cats with chronic signs may show a cough, expiratory wheeze and tachypnoea, and it is estimated that 10-15 per cent of asthmatic cats present for vomiting or paroxysmal hacking and coughing rather than respiratory distress.

Seventeen to forty-six per cent of cases show a peripheral eosinophilia. Thoracic radiography typically shows a bronchial or bronchointerstitial lung pattern, and, occasionally, collapse of a lung lobe. It is important to remember, however, that radiographs can be normal in up to 23 per cent of cases.

Bronchoscopy may well be contraindicated in cats with severe asthma and these cases may need to be treated presumptively. However, if bronchoscopy can be performed, it may reveal mucus accumulation and airway hyperaemia, irregularities, collapse and stenosis as well as bronchiectasis. BAL or ETW classically shows eosinophilic inflammation. A cut off of >17 per cent BAL eosinophils has been proposed as suggestive of asthma.

The mainstay of treatment for feline asthma consists of lifelong glucocorticoids with or without bronchodilators as avoidance of allergen is often impossible, even if the allergen is known. Unfortunately, these medications are not effective in all cats, can be associated with adverse side effects, and are contraindicated in some cats with concurrent disease.

Acute dyspnoea management in asthmatic cats usually involves oxygen supplementation, minimal handling and stress reduction, IM or IV dexamethasone SP and IM or SC bronchodilators such as terbutaline and ideally albuterol (rapid onset of action) via a nebulizer inside an oxygen cage (Table 2) (Sharp, 2016).

More chronic management (Table 3) typically includes tapered doses of oral prednisolone, ideally reduced eventually to only inhalational glucocorticoid in the form of fluticasone which has minimal systemic absorption but takes 10-14d to take effect. This is administered using a

“Just as in humans with 'hay fever', it may be possible to see a seasonality to the symptoms if the trigger is an aeroallergen such as pollen”
spacer, such as an aerokat chamber and mask. Many cats (and dogs with allergic airway disease) can gradually be acclimatised to the use of this inhalational drug administration technique.

The future
Allergy testing by intradermal skin testing or serum allergen-specific IgE can be used to identify sensitizing allergens in humans, however, at the moment these are not commonly used in small animal allergic respiratory disease. With appropriate identification, allergy avoidance or, in the future, allergen-specific immunotherapy – the treatment of disease – might be better.

Additionally, Computed Tomography (CT) scans and pulmonary function testing might be helpful to differentiate asthma from other chronic lower airway diseases. The latter is not easy in small animals but various techniques are being trialled, including barometric whole body plethysmography (BWBP).

Possible future treatments for allergic airway disease (not yet tested sufficiently) include allergen-specific immunotherapy, omega-3 fatty acids, inhaled lidocaine, tyrosine kinase inhibitors (blockade of key cell signalling pathways involved in the immunopathogenesis of asthma) and stem cell treatments (Trzil et al, 2014).

PPD Questions

1. Which of the following small animal airway diseases is not regarded as allergic in origin?
   A. feline asthma  
   B. chronic bronchitis  
   C. eosinophilic bronchopneumopathy  
   D. intestinal parasite migration.

2. Which allergic respiratory disease requires antibiotics as part of treatment?
   A. PIE 
   B. feline asthma  
   C. eosinophilic bronchopneumopathy  
   D. parasitic allergic airway disease  
   E. possibly all of the above.

3. Which of the below are not useful in treatment of feline status asthmaticus?
   A. systemic glucocorticoids  
   B. inhaled fluticasone  
   C. IM terbutaline  
   D. oxygen supplementation.

References


Trzil, J.E. et al. (2014). Feline asthma update. VCNA SAP.
Nutritional advice within veterinary practice

The nutrition of our patients is a vital factor in their health and wellbeing, but it can be an area easily overlooked in practice. As veterinary professionals, we need to be able to advise on diet and help clients to give their pet the best nutrition they can. This is, however, a huge area with many factors that need to be considered. It can be the perfect way to utilise the nursing team in a practice setting by offering clinics and advice.

The first time we get the opportunity to address diet with clients is often when they bring in their pets as puppies or kittens, and discussions about this should be a routine part of our meeting at this stage. Nutrition, and what the animal gets in these first few months, is vital if we want to set them up well throughout life. Most practices have a range of high quality life-stage diets that are promoted in these cases, but we need to know confidently why a particular diet is best for our patient. This is what the client will ask, and unless we have a persuasive argument, they will not understand why this is different to the cheaper puppy and kitten foods available.

All these foods – whatever they contain – will be marketed as the right choice for a puppy or kitten, so we need to help clients to understand the differences. The key points we need to address are:

- is the diet complete or complementary? All pet foods must be labelled with one or the other to be sold in the UK. Complete diets contain all the nutrients needed for the pet without any need for supplementation. Complementary diets can only meet a pet’s dietary needs if combined with another food or further supplements.
- should wet or dry food be fed? Wet food has a higher moisture content which can be beneficial in animals needing a higher fluid intake (for example, cats with urinary issues), while dry foods can be beneficial for dental health, as well as being less likely to spoil and go rancid if not immediately eaten.
- how about a raw diet? This is becoming more popular and clients will likely ask this question. If the correct raw ingredients in accurate proportions are used then it can provide a complete and balanced diet; however, this is time-consuming unless purchased from a company selling a complete raw diet.

“We need to know confidently why a particular diet is best for our patient”
“In an ideal world, we should be discussing diet with clients each time they visit the surgery”

- what makes this food ‘premium’ or ‘super premium’ when compared to the other pet foods available? ‘Premium’ and ‘super premium’ descriptions on pet foods are not legally regulated, but the terms often mean that higher quality, more bioavailable sources of nutrition are in the foods – often reducing wastage and making it easier for the animal to get what they need from the food. It can also often mean higher manufacturing standards.
- what is this going to cost? Cost will always be a key factor, but to find an accurate answer to this the cost per day of feeding should always be calculated. A bag of dry food will usually be more expensive than a packet of wet food pouches, but if that bag of food lasts 20 days and the pouches are three–a–day from a pack of 20, they will not last as long and will overall be more expensive.
- will the pet eat it? Palatability is vital and can be an issue for clients who are dependant on the pet’s previous diet. In general, adding a little water to dry diets or warming food slightly to increase the smell can help to aid palatability.
- how often should the diet be fed? Ideally, this should be twice a day for an adult dog, three to four times a day for puppies, and cats prefer to ad-lib feed or have small amounts little and often.
- will the pet get bored of the same food every day? Because we have a wide and varied diet and see food as something linked to socialisation and enjoyment, we can humanise our pets when it comes to their food. It is important to try to remember that animals eat to stop themselves from being hungry and to survive – they are much less concerned with variety. Not to mention the fact that changing their diet can lead to gut upsets.

The importance of discussion

In an ideal world, we should be discussing diet with clients each time they visit the surgery. It doesn’t matter what their pet is in for – understanding what they are fed can provide a link to medical problems. We have seen a surge in obesity in our pets – being willing to ask the right questions when animals come to see us can help to prevent future problems. For example, if an animal with a body condition score of 6/9 is presented for a ‘booster’, little is generally mentioned about diet as they are not hugely overweight. However, if we do enquire, what we may find is that this patient has been switched recently to a diet that we know to be very high in sugars or fats. If we leave it another 12 months before a client is made aware of this, we could have a potential issue where we may be presented with a body condition score of 7/9, 8/9 or even 9/9.

A conversation earlier on can also allow us to address the changing nutritional needs as animals grow and age. The nutrition needed for an animal as it grows is completely different to what it needs when it is an entire adult, after it is neutered, and when it becomes senior – even just in terms of energy requirements. Making clients aware that they will need to think about diet changes at different stages throughout their pet’s life can hopefully reduce any weight gain and other issues of note.

Aside from this, many medical conditions can be significantly improved by better management of diet. Clinical diets are specifically altered so that the nutrition is ideal for aiding and managing the specific disease. These diets are usually fed for specific lengths of time, or they can be lifelong. Some of the conditions that can be aided with nutritional management include:

- renal conditions – animals with renal issues need a higher fluid intake so offering wet diets or dry diets with added water can help to increase water intake. Protein levels are high enough to avoid deficiencies but not so high that they are used as an energy source. It is also in a highly bioavailable form so that it can be utilised without too much excess for the kidneys to manage. Levels of both sodium (salt) and phosphate should be restricted. The use of omega-3 fatty acid supplementation is also now being utilised in many of these cases to try to delay the progression of the condition.
- diabetes – many diabetic animals are also obese so achieving a healthy body condition score is vital. Reducing soluble carbohydrates, avoiding excess proteins and increasing the insoluble carbohydrate (fibre) levels can significantly aid treatment.
- hepatic disease – an increase in biologically available proteins can help to avoid protein malnutrition, but without providing an excess hypothyroidism – diets with strictly controlled iodine levels can be used to help treat hypothyroid cats if fed exclusively, along with control over water sources.
- gastrointestinal issues – many gastrointestinal upsets can be aided with the addition of a highly digestible diet; some can be aided by using a novel single protein source and some require high fibre diets. The variation in conditions linked to particular areas of the gut often need different approaches in dietary management, so this needs to be considered before a standard diet is given out.

Hospitalised patients

As well as the medical assessments, hospitalised patients – with any condition – should have a nutritional assessment as well. Daily energy requirements should be calculated and used to ensure that the food they are eating is enough to allow them to function – but also to recover. It is advised that new, long-term diets are not introduced during hospitalisation as the animal can associate the food with negative experiences within the clinical environment, making it more difficult to keep them on it long-term.

Conclusion

Nutrition can be a minefield in practice, and along with all the other educational and day-to-day issues we have to face, it can be easily missed. The nursing team can be vital in providing the help and advice needed – even more so if a member of that team has a specific interest in nutrition. There are plenty of CPD and further training opportunities available that can potentially lead to a staff member becoming a specific ‘nutritional advisor’ within the practice. These nursing clinics can add real value to a practice, as well as being genuinely rewarding to the team involved as they witness the difference these changes can make to pets and their owners.
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Brachycephalic obstructive airway syndrome – where are we now and where are we heading?

The meteoric rise in the popularity of brachycephalic dogs is no secret, and whatever your opinion on the ethics of the continued breeding of such dogs, there is no denying these breeds are here to stay. This article aims to update the reader on recent advances in the diagnosis and management of brachycephalic obstructive airway syndrome.

Brachycephalic obstructive airway syndrome (BOAS) is an umbrella term for a number of anatomical abnormalities affecting the skull and tissues of the upper respiratory tract which result in an increased resistance to airflow. While we tend to ‘lump’ all brachycephalic dogs under the same heading, there are a number of different abnormalities which can be identified and not all dogs will have the same combination of abnormalities. Thus, not all brachycephalic dogs present with the same type or severity of clinical signs.

Abnormalities are split into primary and secondary abnormalities. Primary abnormalities are those which are identified early in the course of the disease process and may be present before significant clinical signs are identified. These include stenotic nares, aberrant nasal turbinates and increased nasal mucosal contact points, elongation and thickening of the soft palate, macroGLOSSIA, small cross-sectional area of the rima glottis and tracheal hypoplasia. Secondary changes occur as a consequence of long-standing increases in inspiratory pressures and include laryngeal collapse (including eversion of the laryngeal sacculae) and eversion of the tonsils.

History and clinical signs

Broadly speaking, in the author’s experience, there are three main time points where these dogs are presented for assessment:

- in dogs of less than six months of age – usually these dogs have either significant regurgitation or tracheal hypoplasia
- in dogs of six months of age to several years of age
- in older dogs (over five years of age) which can present with more advanced laryngeal collapse.

It has been demonstrated by several studies that owner perceptions of the severity of their pet’s clinical signs, and the effect on quality of life of those pets, can be unreliable (Packer et al, 2019). This can be further exacerbated by the very strong pet-owner bond seen in these breeds. However, not all brachycephalic dogs are affected by BOAS and thus each dog must be assessed on a case-by-case basis.

Clinical signs in dogs affected by BOAS are well documented. These include inspiratory stertor, exercise intolerance, heat intolerance, sleep apnoea/derangement, regurgitation, gastro-oesophageal reflux, syncope and cyanosis. Stridor is often documented in cases where there is significant laryngeal collapse. It is important to take a thorough history as it

“Not all brachycephalic dogs are affected by BOAS and thus each dog must be assessed on a case-by-case basis”
has been documented that some owners may consider some abnormalities (for example, regurgitation or reduced exercise tolerance) to be normal for the breed. Owners should be asked specific questions about their pet’s usual exercise routine and the degree of stertor seen at exercise or excitement; recovery from exercise and whether this alters with changes in ambient temperature; gastrointestinal signs; positions adopted for sleep (for example, sleeping with a toy to keep the oral cavity open); and any history of cyanosis or syncope.

**Diagnosis**
The diagnosis of BOAS is usually made based on a combination of history, clinical signs and examination. These are, however, all to some degree subjective and we as a profession have struggled with identifying an objective and non-invasive method for determining both which dogs require surgical intervention and also for assessing response to surgery. In whole-body barometric plethysmography (WBBP), the dog resides in a perspex chamber and respiration causes barometric pressure oscillations proportional to tidal volume. Flow traces have been shown to differ between both non-brachycephalic and brachycephalic dogs, and also between clinically affected and non-clinically affected brachycephalic dogs (Liu et al, 2016).

Owing to the need for specialised equipment and the time it takes to accurately collect such information, WBBP is currently predominantly used as a research tool. However, the data collected has been used to validate a three-minute exercise tolerance test which can be performed in the clinic setting. The dog is auscultated before and after being exercised at a moderate trot for three minutes. Based on the papers published by the group based at Cambridge Veterinary School, auscultation aims to evaluate two abnormal noises: stertor, which is a lower pitched noise usually associated with the nasopharynx and pharynx; and stridor, which is a higher-pitched noise heard over the larynx. If no noise and mild stertor is auscultated, the dog is considered clinically unaffected (mild is only audible with a stethoscope). If moderate and severe noise is auscultated, the dog is deemed to be clinically affected. Obviously sensible precautions must be taken based on the severity of the dog’s clinical signs and the ambient temperature as to whether it is deemed appropriate to perform such a test.

The sensitivity of clinical examination alone for BOAS diagnosis is reported to be 56.7 per cent pre-exercise test; 70 per cent after a five-minute walk test; and 93.3 per cent after a three-minute trot test (Riggs et al, 2019). The sensitivity of using the presence of laryngeal stridor as a predictor of laryngeal collapse was improved after an exercise test (70 per cent) compared with before the exercise test (60 per cent). Specificity of laryngeal stridor for laryngeal collapse was 100 per cent (pre-exercise and post-exercise).

Physical examination will permit assessment of nares diameter (an example of stenotic nares is seen in Figure 1) but will not allow assessment of the length of the soft palate nor the stage of laryngeal collapse. This must be performed under general anaesthesia. Direct laryngoscopy requires a good light source. When assessing the length of the soft palate, the tongue must be in a neutral position and not pulled rostrally (as this...
will artefactually increase soft palate length). The tip of the epiglottis should touch the caudal most aspect of the soft palate (Figure 2). The soft palate should not be sucked into the entrance to the rima glottis as seen in Figure 3.

In 1957, Leonard described laryngeal saccule eversion in five brachycephalic dogs and concluded this may be a factor in the respiratory issues seen in these patients. In 1960 he further proposed that laryngeal saccule eversion was not an isolated entity but was in fact the first stage of laryngeal collapse. Obstruction of the rima glottis was caused by elongation of the soft palate; thereby increasing negative inspiratory pressure within the larynx. Over time it was proposed that the larynx would undergo changes in response to this negative pressure stress. These changes would occur first in the place of least resistance – the laryngeal saccules – but over time the cuneiform and subsequently corniculate processes would lose their rigidity and collapse medially leading to further obstruction of the rima glottis. Leonard therefore proposed a three-tier grading system:

- **grade I** – eversion of laryngeal saccules (outlined in blue in Figure 4)
- **grade II** – collapse of the cuneiform processes and the aryepiglottic folds
- **grade III** – collapse of the corniculate processes.

In humans, the function of the saccule is unknown but is thought to be involved in lubrication of the vocal folds. At this time, the author recommends removal of the laryngeal saccules if everted, although a recent publication by Hughes (Hughes et al, 2018) reported an increased post-operative complication rate in BOAS dogs post-surgery where laryngeal saccules were removed.

The role of imaging

The use of both radiography and computed tomography (CT) is reported in the investigation of BOAS. Thoracic radiography is usually performed both to allow assessment of tracheal diameter and also to look for evidence of aspiration pneumonia by the identification of air bronchograms (Figure 5). This may be subclinical in some dogs. A ratio based on the tracheal diameter at the level of the thoracic inlet and the depth of the thoracic inlet is reported, but the association between the severity of presenting clinical signs and the ratio is not clear-cut. There is also poor agreement in the ratio calculated depending on measuring method, cut-off value and observer. This is likely owing to the fact that the majority of dogs presenting with BOAS have more than one anatomical abnormality and thus it is hard to isolate the effect of one specific abnormality. Tracheal hypoplasia in some brachycephalic dogs might partially or completely resolve with growth to mature body size (Clarke et al, 2011).

Grand (Grand and Bureau, 2011) reported that dogs with severe brachycephalic airway syndrome had significantly thicker soft palates compared to absent/minimal brachycephalic airway syndrome and control dogs when assessed using CT. An extubated lateral view of the skull can be performed to allow for subjective assessment of soft palate thickness if CT is not available (Figure 6).

CT can also be used to assess the skull and nasal cavity in brachycephalic patients (Figure 7). Heidenreich (Heidenreich et al, 2016) reported that the smallest nasopharyngeal cross-sectional area is located dorsal to the caudal end of the soft palate in both pugs and French bulldogs. Using CT of the skull, Oechtering (Oechtering et al, 2016) reported that rostral aberrant turbinates were common in pugs (90.9 per cent) but less frequent in French (56.4 per cent) and English (36.4 per cent) bulldogs. Caudal aberrant turbinates obstructing the...
nasopharyngeal meatus were commonly found in all breeds (66.7 per cent).

Surgical management
There remains no definitive answer as to the best surgical approach for these patients. Weight loss can have a very positive effect on these dogs and can be recommended prior to surgery if the severity of clinical signs allows for such a delay. The surgical literature is predominantly retrospective and for the most part utilises subjective outcome measures. Despite the fact that the combination of abnormalities identified in each individual dog varies, the majority of dogs undergo similar surgical intervention:

- alarplasty – widening of nares (Figure 8)
- palatoplasty – two main techniques exist for palatoplasty. Traditional palatoplasty involves a stepwise ‘cut and sew’ technique. Use of a CO₂ laser and bipolar sealant devices has also been described in the veterinary literature. Folded flap (Figure 9) was described by Findji et al in 2008. This technique aims to thin as well as shorten the soft palate based on the increased thickness of the soft palate identified on advanced imaging – and it is the author’s preferred technique. However, objective comparison of the two techniques has not been performed and therefore one technique cannot be truly said to be ‘better’ than the other based on the current evidence.
- tonsillectomy – most commonly performed using a harmonic scalpel or a bipolar sealant device.
- laryngeal sacculectomy – this is usually performed using Metzenbaum scissors. It is important to cut the saccule at its base or remnants of the saccule can balloon in to the ventral aspect of the rima glottis.
- laser-assisted turbinectomy (LATE) – removal of the obstructing parts of the chonchae using a diode laser is described (Oechtering et al, 2016). Liu (Liu et al, 2019) reported use of WBBP as part of an established protocol to assess the effectiveness of LATE in dogs that had already undergone conventional multi-level surgery (CMS). The median BOAS index of dogs that were operated on decreased from 67 per cent post-CMS to 42 per cent after LATE. Regrowth of turbinate requiring further LATE surgery is reported in 15 per cent of dogs (Oechtering et al, 2016).
- management of higher grades of laryngeal collapse – partial arytenoidectomy and unilateral arytenoid lateralisation have both been reported.
permanent tracheostomy is reported as a salvage procedure for dogs where other surgical techniques have failed. Major complications were reported in 80 per cent of dogs in a recent small case series.

Post-operative management
Recovery of brachycephalic dogs from anaesthesia and surgical intervention can be very challenging and, infrequently, dogs can die. A slow and controlled recovery is much preferred and intubation should be maintained for as long as it is tolerated. Once extubated, try to keep the head elevated on a sandbag in case of gastrointestinal reflux. The period between extubation and full consciousness is often the most difficult period – particularly if airflow through the nasal cavity is reduced (either owing to blood clots or turbinate conformation). Keeping the oral cavity propted open – either physically by holding the mouth slightly open or by placement of a roll of tape in to the mouth – may improve airflow; particularly in dogs with significant macroglasia, if it is tolerated. Nebulisation using adrenaline (diluted in saline) can be utilised to reduce oedema in dogs which are demonstrating increased inspiratory effort on recovery.

The author generally avoids the use of non-steroidal anti-inflammatoryatories in the post-operative period as the administration of steroids is often required – but opinion does vary on this. Furthermore, some surgeons give steroids routinely, while the author prefers to administer steroids on an ‘as required’ basis. Opioids are administered following surgery based on the Glasgow pain scale. Sedation is often useful post-operatively; given with the aim of preventing patient anxiety which can lead to the development of a deleterious respiratory pattern. Dexmedetomidine is the drug of choice in the author’s institute; either as an intravenous bolus or more commonly as a constant rate infusion. Acepromazine can also be used.

Food and water are usually withheld for 12-24 hours post-operatively and when food is re-introduced, small balls of moist food are offered by hand under supervision. The author routinely administers omeprazole for 14 days post-operatively unless side effects (vomiting and diarrhoea) are encountered. Eye lubricant is applied frequently.

Complications of surgery include haemorrhage, infection and wound healing complications (particularly the nares). However, the three most challenging complications we face when dealing with BOAS patients are the development of pharyngeal/laryngeal swelling, aspiration pneumonia and persistent oesophagitis. Temporary tracheostomy tube placement is required in 5-10 per cent of dogs undergoing conventional multi-level surgery and, subjectively, this rate may be higher if the surgeon is inexperienced as surgery time is likely to be increased, as is tissue handling. If temporary tracheostomy is required, it is usually within the first 24 hours of surgery and therefore it is not recommended that dogs be discharged the same day as surgery unless there are specific extenuating circumstances.

Care of temporary tracheostomy tubes is time-consuming and requires an experienced team. Obstruction of the tube in these dogs can rapidly lead to death and thus 24-hour observation is required. The face and tracheostomy site are nebulised every four hours using either diluted adrenaline or saline. The lumen of the tracheostomy tube should be suctioned using a sterile urinary catheter based on clinical assessment. The author routinely changes the tube once or twice daily. Placement of stay sutures (Figure 10) (the ends of which should be labelled UP and DOWN once the tube has been placed) will greatly facilitate the ease with which the tube can be changed in the conscious patient.

Fenner (Fenner et al, 2019) reported that corrective surgery for BOAS was associated with a marked incidence of postoperative regurgitation. Younger dogs and those with a history of regurgitation were predisposed to postoperative regurgitation. Regurgitation can predispose dogs to the development of aspiration pneumonia.

Outcome
It is important to remember that while surgery can alleviate some of the clinical signs associated with BOAS and improve quality of life, surgery cannot restore normal upper respiratory anatomy in these dogs and owners should be made aware of this. ■ >>

PPD Questions

1. The term stridor is used to describe which noise?
   A. lower pitch noise auscultated over the pharynx
   B. snorting noise associated with obstruction of the nasopharynx
   C. higher pitch noise auscultated over the larynx
   D. choking/gagging noise associated with sleep apnoea.

2. Which pre-surgical assessment has the greatest sensitivity for the identification of clinically affected dogs?
   A. clinical examination
   B. five-minute walking test
   C. three-minute trotting test
   D. direct laryngoscopy.

3. Rostral aberrant turbinates are reported to be most common in which breed?
   A. pugs
   B. French bulldog
   C. Boston terrier
   D. British bulldog.

4. What percentage of dogs will require temporary tracheostomy tube placement post-surgery?
   A. 1 per cent
   B. 5 per cent
   C. 15 per cent
   D. 20 per cent.

5. What is the complication rate reported when performing permanent tracheostomy for management of laryngeal collapse in BOAS dogs?
   A. 20 per cent
   B. 40 per cent
   C. 60 per cent
   D. 80 per cent.
References


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Nursing patients with long-term conditions – communication and collaboration

In the second part of our series on nursing patients with long-term conditions, this article explains how to optimise chronic nursing care by combining the nursing care plan with communication skills in order to develop a therapeutic relationship with owners. Such relationships benefit owners, their animals and – potentially – nurses themselves.

Nursing care plans should be considered an essential tool for supporting the chronic nursing care of patients. There are numerous benefits to creating a patient-specific care plan with the owner of the animal; primarily they will support the health and wellbeing of the patient. A robust care plan for a patient with a long-term condition should offer specific instructions for the owner on care and medications, details of future appointments and sources of further information. If owners can leave the practice with a detailed nursing care plan, they are far more likely to adhere to the treatment regimen – to the benefit of the animal.

However, as useful and as fashionable as they are at the moment, a nursing care plan for the chronic care of an animal is useless when used in isolation. The most detailed care plan can be given to an owner, but without explanation and – most importantly – collaboration, the assumed benefits of increased adherence are unlikely to transpire. Effective nurse-owner communication is essential in developing a care plan that both the healthcare professional and owner are happy with.

A relationship between owner and veterinary nurse that supports effective patient care is essential for the health and wellbeing of a chronically unwell animal and is known as a ‘therapeutic relationship’ (Ballantyne, 2018). Therapeutic relationships in the context of human-centred nursing often focus on the development of patient self-care skills. Nurses work to empower patients to take control of their own healthcare by teaching them about their condition and their associated medication and treatment. Obviously this is different in veterinary medicine as the focus falls onto the owner, but the principles are similar. The veterinary nurse needs to empower and educate owners so they feel confident in managing their pet’s care at home, as well as learning when to ask for help.

It cannot be denied that at times supporting patients with long-term conditions can be challenging for veterinary nurses. Owners will often have very definite assumptions or ideas – the accuracy of which may vary from vaguely useful to potentially dangerous. The author always remembers an owner who insisted on administering six raw eggs a day whenever her dog developed itchy skin. It was advice that she had been given by her hairdresser and, despite the fact it often gave her dog diarrhoea, the owner persisted.

Nurses have a duty of care to ensure that whomever they are working with – be it patients or owners of patients – understands the condition in question, how it is to be treated, and why. Therapeutic relationships where owners are happy to be open and honest with their ideas and assumptions about their pet’s condition allow nurses to gently correct any misconceptions and advise on different care pathways.

A therapeutic relationship will also allow nurse and owner to address some of the more complex elements of caring for a chronically ill animal. In veterinary practice, budget can be a challenging subject, discussions about money can be difficult and a supportive nurse-owner relationship can allow owners to voice any concerns they may have about money. This can potentially avoid bad debts, conflict and complaints that...
may arise through financial misunderstandings.

One of the most important goals of caring for patients who have long-term conditions is to provide a good quality of life. This highly subjective concept may mean different things for owner and vet nurse, and may ultimately lead to discussions about prognosis and decisions about euthanasia. Providing a supportive environment for owners to discuss their concerns about quality of life can have a positive impact on both the health of a patient, and potentially the mental health of an owner who is likely concerned about the long-term impact of their pet’s diagnosis.

Finally, and perhaps most importantly, a therapeutic relationship will facilitate true collaboration between the veterinary team and the owner. It is only through active collaboration that adherence to treatment plans can be supported. The aim should always be that both owner and veterinary nurse agree on the goals of care for the animal. The nurse should ensure that their overall goal of nursing care is the same as the owners. A typical example might be an elderly oncology patient. It is easy for the veterinary nurse – overflowing with expert evidence-based knowledge – to assume that the owner would like a full treatment plan for their animal incorporating surgery, chemotherapy, medication and referral – anything needed to keep them alive. In reality, this might not be the case. Some owners may feel strongly that such interventions will upset their animal and cause them more distress and pain. They may simply want to offer palliation to their beloved pet and support a comfortable quality of life through managing their illness at home.

Other examples include medication, exercise and dietary regimens. There is no value in prescribing anything to be administered three times a day when the owner works twelve-hour shifts. Owners are far more likely to follow instructions that have been adapted to fit in with their life and their own ideas rather than being told what to do with a strict mandate. A collaborative approach should encourage owners to make active, realistic decisions about the care of their animal which can then be formally documented on the care plan.

Empathy and compassion are two of the most important characteristics of a therapeutic relationship. Empathy is considered the ability to understand the situation and associated feelings of another without acknowledging personal feelings. Colloquially referred to as ‘seeing the other point of view’ – it is essential in medicine. Each patient is unique, regardless of the commonality of the diagnosis. The trajectory will always be a little different. Owners will have different values and objectives, animals will have different tolerance levels for intervention and empathy will allow nurses to understand and integrate their clinical knowledge appropriately to the patient in front of them.

“The aim should always be that both owner and veterinary nurse agree on the goals of care for the animal”
Compassion is equally important to empathy. In the context of chronic disease, owners may be grappling with difficult concepts such as quality of life, prognosis and the potential of a life-limiting condition. Compassion and kindness should be the foundation of a robust therapeutic relationship so the owner is more likely to feel at ease to discuss their feelings openly – feelings which may have an impact on the healthcare of their pet.

As well as active empathy and compassion, therapeutic relationships require effective communication skills. Listening is an essential part of effective communication and a skill that is often overlooked. The most empathetic, compassionate nurse in the world will not be able to support any owner appropriately if they do not listen.

When managing long-term conditions, owners are likely to become experts on their pet’s healthcare. Engaged and knowledgeable owners should be treated like another member of the multi-disciplinary team, with their opinions and observations taken seriously. The author advocates using a two-minute rule learned from a human-centred colleague: when meeting a patient, allocate the first two minutes of the conversation to listening to the owner – allowing them to speak freely. Sarah Green Carmichael writes in the Harvard Business Review that listening needs to be mindful. In practice, this means focusing on listening while owners are talking – processing each word and thinking actively on it. Consultation time is precious and must be managed effectively, but allowing the owner the first two minutes should give them the time to offload any concerns and, most importantly, know that you are listening and valuing their input.

In practice, increasingly more veterinary nurses are taking the lead in managing the chronic care of patients with long-term conditions. They are ideally placed to develop robust therapeutic relationships with owners. Conditions such as diabetes, arthritis, renal failure or heart failure are all likely to benefit from proactive, chronic-nursing care plans.

As well as reviewing their communication skills and designing a care plan template, nurses keen to take on the responsibility of supporting patients with long-term conditions need to take into account the practice’s business model and contract. They need to be prepared to charge for their time; for their expert opinion and for their judgement. Longer consultation slots may often allow therapeutic relationships to develop, but they must also be within the realms of the practice’s business model.

Extra training might be beneficial, but there is no need to automatically jump into the first expensive CPD course that is advertised. In the RCVS veterinary nursing personal development record, ‘seeing practice’ and ‘being mentored’ are both recognised CPD activities. When learning and practicing new skills, observing members of the team who are more experienced can be highly valuable – certainly as an initial introduction to a specialist area.

Finally, supporting the care of patients with long-term conditions can be challenging emotionally. The owners of the patient will always hold the final decision and it can be difficult to fulfil the wishes of those who oppose the views of the nurse and the wider veterinary team. Veterinary nurses who are involved with such clients should take time to protect their own mental health. Strategies such as pursuing a healthy lifestyle, as well as debriefing and reflecting on cases with colleagues, may be beneficial in maintaining a sensible work-life balance.

While challenging at times, proactive nursing interventions for chronically ill patients can make life better for everyone. Animals will benefit from comprehensive holistic care, and the owner – enjoying a friendly, informative and supportive interaction – is more likely to adhere to treatment plans.

In turn, veterinary nurses can enjoy the professional satisfaction of seeing their chronically ill patients flourish under the care of their owners. They can take pride in the service they are providing – a service which will contribute towards high levels of patient health and welfare.

“Impact and compassion are two of the most important characteristics of a therapeutic relationship”
Collaborative vet appointments – working with clients to ensure a calm, stress-free consultation

Karen Wild
Dip App Psych CCAB

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Karen has written three books: What your Dog Wants, 21 Days to the Perfect Dog and Being a Dog – all aimed at communicating welfare and training issues to the wider dog-owning public. She is resident behaviour and training feature writer for Dogs Today magazine as well as other UK and international pet titles.

Client loyalty can be ensured by providing a range of services in veterinary practice. The patient may be important, but it’s the owner who makes the decision about which clinic to visit, and this is reflected in their on-going experience with the practice.

Veterinary professionals are under pressure to ensure the wellbeing and recovery of the animals in their care, but rely on owners to comply with ongoing treatments and to make decisions for their pets. Preventive education opportunities are an effective way for vet practices to teach owners far more than just about their pet’s lifestyle, diet and dental care. However, owners may be unlikely to understand the practical details of what a veterinary examination or treatment entails, and thus cannot prepare themselves – nor their pet – for what is to come.

‘Fear of the unknown’ extends not only to pets, but to their owners too.

A collaborative approach crosses this divide by teaching owners what they can do in readiness – getting to know them and their pet and providing a veterinary service that caters to the emotional needs of the pet and owner, as well as the physical.

Routine appointments
In practice, we might see a vaccination as a routine appointment, but for a pet, this is likely to be an annual visit – anything but routine! Offering regular clinics for weigh-ins, flea and tick treatments may help, but building-up confidence in pets needs more than just ‘treatment’ bookings.

What do clients value about visits to the vet?
It is worth surveying clients to find out what they most enjoy – or most worry about – in your practice. Clients have reported listening skills, care and interest, reducing or explaining medical jargon, and involving clients in decision-making as important.

Veterinary surgeons have reported that problematic situations can arise from clients seeking information from other sources such as the internet, and this can provide a barrier to communication (Coe et al, 2008).

How can clients prepare at home for their appointment?
A practice can help a client to prepare for their appointment by considering the following:

- do clients know what is going to happen, where they need to go, and how their pet will be examined?
- does the client need a trainer? How can a client find a trainer that supports positive reinforcement?
- can the practice help the pet with socialising? This can be advised from a puppy’s first visit
- should the client exercise their dog before their appointment?
- should the client keep their pet a little hungry? Treats can make a great distraction
- claw clipping – what is involved? Does the client have appropriate clippers to ‘pretend’ with first?
Can clients be actively encouraged to make regular visits that aren’t related to being handled?
Do clients just see the vet as a ‘go when there’s a problem’ relationship? Can we change this?
Some clients may have a fear of vaccinations owing to anti-vaccination publicity. What is your practice doing to educate on this topic?
Does the owner know to keep the pet carrier in the home frequently, not just on the day of the visit?
Can the owner teach their dog to stand on a slip-free mat such as a yoga mat or non-slip bath mat at home, and then bring this to the consultation?
Does the client require information on consulting a clinical animal behaviourist for help with handling and anxiety?
Can the client request a specific veterinary surgeon or nurse?

What does stress look like?
Behaviourally-aware practices have already taken steps to respond to stress and fear responses in animals. However, clients may still see fear as ‘stubbornness’ or feel pressure that their animal should be on its best behaviour. Pain signals may also be misinterpreted by owners as ‘slowing down’ in an older animal, or fear-related aggression may be punished by owners told to ‘correct’ the problem.

Stress can begin from the moment the cat carrier appears in the home, or the cat is shut in for an impending visit. Should the pet be unwell, they are closer to reaching a threshold of overwhelming stress or panic should the client not read the signs and work to de-escalate any mounting anxiety.

Advise clients of simple, easy-to-notice body signals of pain and fear:
- Reluctance – the animal may move slowly, freeze, or no longer do things willingly
- Hiding
- Stiffening of body posture or a tightly clamped tail or jaw
- Increased vocalisations – barking, whining or jaw shivering
- Clinging to owner
- Shivering
- Shaking as if wet
- Yawning/licking lips in dogs

Owners should be encouraged to inform the vet of their pet’s specific handling likes and dislikes. For example, is their pet wary of strangers or enclosed spaces? Do they tend to overcompensate and become very bouncy – another sign of displaced nervous energy?

Owners can report a ‘touch gradient’ – areas of the body and head that the pet will tolerate or specifically like or dislike. By grading them from 1-5 the vet can work towards the regions of the body that are more sensitive and that need a gradual approach. For example, if the dog enjoys its flank being stroked, the practitioner can work their way from this enjoyable area gradually towards the more sensitive ear or paw.

Ironically, in consultations these stress body signals may have become so familiar to practitioners that they might fail to see that these are not just ‘to be expected’ – however, we can actively help the animal to settle by working with the owner.

How practices can assist
Waiting room stress
Eye contact between pets can be read as confrontational. Cats may already have their own separate area, but other species are also affected by staring or people coming and going. Even other owners, no matter how well-meaning, may attempt to stroke a visiting pet without offering a tasty treat or waiting for that pet to approach them.

If a client is likely to be kept waiting, simply advising them of this delay can help them to make the best decision about where they should wait.

Check-in and out procedures
When clients first arrive, they may benefit from leaving their pet with a carer in the car so that they can inform staff calmly of their arrival. The negative impact of hesitation and not knowing where to go, or queuing up to pay can outweigh the positive efforts of even the most friendly receptionist.

Treats
What kind of food may the animal appreciate as a pleasant association and welcome distraction? One type is not enough – providing a selection is more successful. Dried treats; softer, fresh foods; or pastes may be preferred.

During the examination
Clients might appreciate a commentary of what is being done and why. Discussing
what is being looked for and pointing out normality – and not just the problems – can help to involve the client. It also communicates the value of a visit.

Environmental considerations
Some animals may prefer larger consulting rooms, while others may not appreciate windows. If necessary, pets may need the option of being initially examined in the car.

Calm music
Classical music has been shown to have calming benefits and may block peripheral noises such as doors opening and closing, unfamiliar voices and echoing sounds from other rooms.

No overwhelming smells
Strong scents such as perfumes, hand lotions and alcohol hand cleansers can be aversive. Pheromone products can assist.

Record of ‘emotional health’
A note of the pet’s preferences such as preferred examination room; known FAS (fear, anxiety, stress) triggers; and which distraction techniques work best can be maintained at the forefront of the medical record.

Remove the stigma from pharmaceutical intervention
Details of specific behaviour-assisting pharmaceuticals such as anxiolytics and analgesics are beyond the scope of this article but it is important to consider how their use is introduced.

Clients may feel resistant to use specific medications to help their animals feel calmer prior to and during vet visits. However, client collaboration is essential as he or she can report effectiveness in regard to the pet’s response to the medication, and thus can assist with monitoring of dosage. In addition, should clients not feel fully confident with the results they may be less likely to use such interventions in the future. This may require careful counselling.

How do we know if changes have been successful?
Calm, stress-free appointments will impress both the client and patient – as well as helping to make the practitioner’s role run as smoothly as possible. A few tweaks and changes can make a huge difference to the overall experience.

The best indicator as to how effective any changes have been is client and patient behaviour: client loyalty will build, sign-ups to wellness packages will increase, and most of all, pets will let you know that they simply don’t want to leave.

Owners should be encouraged to inform the vet of their pet’s specific handling likes and dislikes

PPD Questions

1. What kind of records can be kept under the heading ‘emotional health’?

2. What are the main reasons why a pet might not cope well with a vet appointment?

3. Name three ways that a waiting room environment can be improved to reduce stress for client and animal.

References


The games, toys and hobbies which do not mix with animals

With Christmas gone, and the weather not necessarily conducive to outdoor play, there may be an excess of toys, games and general kit for hobbies left lying around for those ever-curious companion animals to investigate. Some items or components may be inert or not present in sufficient quantities to cause issues or concern, but there are also some that could potentially result in severe toxicity.

Play-doh™, Plasticine™ and home-made salt dough
Crafts are one of the ways of keeping children and adults alike occupied over the long winter months; modelling with Play-doh™, Plasticine™ or home-made salt dough may result in dogs (in particular) ingesting the dough or even the model. Of these, home-made salt dough is a particular problem.

Typically, salt dough recipes use a ratio of two-parts flour to one-part salt, which could either be realised as one cup of salt or 100g salt. If a cup of salt is used, the resultant dough would contain 7.9g salt per tablespoon of dough; using 100g salt in a recipe would result in a dough containing 250mg per 1g of dough.

Given that treatment would be required for anything over 0.5g sodium chloride/kg (equivalent to less than one sixteenth of a teaspoon/kg), it is easy to see why salt dough is a very common cause of salt toxicosis in dogs.

Expected clinical effects from a dog ingesting either the dough or the finished figure or article would include vomiting and diarrhoea – both of which may be haemorrhagic – as well as thirst and polyuria; neurological signs may also be present, occurring within an hour in severe cases, or developing over several hours. Emesis would only be recommended if ingestion was very recent (less than 30 minutes) and the dog was asymptomatic. Activated charcoal is not beneficial in these cases as there will not be any advantageous binding.

For large amounts of dough, or dried dough, gastric lavage or surgery should be considered but may not be practical as the animal may be too unwell to tolerate anaesthesia.

Following a very large ingestion of salt dough there may be crystallisation of salt within the stomach (Dockery, 1992) – resulting in continuing absorption of salt (Khanna et al, 1997). This should be suspected if sodium concentrations continue to rise. The sodium concentration should be closely monitored (on admission and every two to three hours thereafter) as well as careful monitoring of the other electrolytes, blood glucose, blood pH, renal function and urine output; it is also essential to monitor fluid status.

Where it is certain that the hypernatraemia has developed very rapidly, it is important to correct the serum sodium over the same time frame. This is because the brain has not had time to adjust to the increased extracellular osmolality, and an equally rapid decrease in sodium concentration should prevent brain intracellular dehydration and shrinkage (Moder and Hurley, 1990).

Cases reported to the VPIS show that vomiting, polydipsia and polyuria are the most common clinical effects, which is to be expected given the levels of salt involved. Many dogs also experience tremor, shaking.

“Following a very large ingestion of salt dough there may be crystallisation of salt within the stomach – resulting in continuing absorption of salt”
or convulsions accompanied by lethargy and weakness, and there may also be the presence of hypernatraemia, hypercalcaemia and hyperchloraeemia. Fatalities were the result of uncontrolled convulsions.

Commerciaally available modelling products such as Play-Doh™, according to the manufacturer’s information, contains 5-15 per cent salt which may be sodium chloride, calcium chloride or potassium chloride. Although there are no records of hypernatraemia from this product (Barr et al, 2004), the amount of salt must be considered in combination with the animal’s weight and the amount ingested. Five grams of product would represent a concern for a dog weighing 10kg or less; emesis should be induced, although again, activated charcoal is of no benefit. Sodium levels should be closely monitored for at least six hours.

Plasticine™ consists primarily of gypsum, a bulking agent, petroleum jelly and lanolin – and as such would not represent a toxic risk, merely a foreign body hazard.

**Slime-based products**

A more recent introduction are slime products, such as Silly Putty™, Flubber™ and Flarp™. These wonderful creations are non-Newtonian fluids and again, can be bought or homemade.

A typical recipe or set of ingredients would include PVA, borax, baking soda, corn starch and a detergent. As such, they are considered to have a low acute toxicity; although there may be dermal effects following prolonged contact with borax or the preservatives, such as isothiazolinones (which are skin sensitisers), in the products.

An ingestion will not require an emetic, although vomiting may have already occurred. As before, there will be no beneficial binding to activated charcoal. If there has been any skin contact, wash the affected area thoroughly with water and a mild detergent, and if there is any skin irritation, treat with conventional measures.

**Paints, glues and glitter**

Other crafts items such as paints, glue and glitter may cause some skin or mild gastric upset if ingested, but require no specific treatments or monitoring apart from skin decontamination if necessary.

**Magnets and batteries**

Many toys contain magnets or batteries, which are often ingested if the toy is chewed or swallowed whole.

A single magnet is not a toxicological risk, but again, would represent a foreign body hazard; it would generally be expected to pass through the gut without any complications, but a mild laxative may be useful in ensuring this. However, with multiple magnets or a single magnet with metallic objects, there would be the risk of gastrointestinal complications; the magnets can interact across the intestinal wall, resulting in pressure necrosis, perforation, adhesions, fistula formation or intestinal obstruction. Gastrointestinal complications should be suspected in any animal with vomiting, diarrhoea, abdominal pain or tenderness, or reduced bowel sounds.

In these situations, an x-ray examination is recommended to confirm ingestion and to determine the location of the magnets; two magnets stuck together may appear as a single object on x-ray (Tavarez et al, 2013). Any magnets in the stomach should be removed by endoscopy; if the objects are beyond the stomach, and the patient is asymptomatic, observation is not necessary, although x-rays should be repeated every 24 hours to monitor progress through the gut. The owner should be advised to return if any gastrointestinal effects develop. If the magnet/metallic objects do not move, surgical removal is recommended. If the objects are seen beyond the stomach and the patient is symptomatic with suspected gastrointestinal complications, an urgent exploratory laparotomy and removal of the magnets is recommended.

Batteries will also often pass uneventfully through the gastrointestinal tract in 24-48 hours and most animals will remain well or develop only mild signs of local irritation. If the battery is chewed, there may be hypersalivation and vomiting. Oral or tongue inflammation, ulceration and burns occur in a small number of cases (7.4 per cent of VPIS cases).

Batteries may also become lodged, and those which open or leak may cause abdominal discomfort and melena.

Button batteries in particular have the potential to become lodged in the oesophagus and cause severe local tissue damage; this has been widely reported in children but has not been reported in animals apart from experimental studies. There is, however, the risk of tissue damage to the stomach and intestines in animals; a fatal case of gastrointestinal perforation (at the ileocolic junction) in a dog has been reported in the literature after ingestion of two button batteries at least four days before surgical removal (Meltzer, 2018).

Of the cases reported to the VPIS, approximately two-thirds remained asymptomatic, and there were no reports of the battery becoming lodged, causing severe gastrointestinal burns or metal toxicity. Amongst symptomatic dogs, vomiting, hypersalivation, lethargy, and oral or tongue ulceration or inflammation and inappetence are the most frequently reported clinical signs.

An asymptomatic animal can probably be observed at home, but the owner must return to the surgery if there are any gastrointestinal signs including anorexia, vomiting, dark stools or abdominal discomfort. If there is concern that the battery may have lodged or there are significant gastrointestinal signs, then x-rays should be taken to

“The procession of soft toys, balls and socks through the canine gastrointestinal tract never ceases to amaze”
determine the location and condition of the battery; the contents are radiopaque which greatly aids the process. As with magnets, surgical removal may be required and the animal should be monitored subsequently for complications (Meltzer, 2018).

Chemistry and perfume sets
Chemistry sets now seem to be a thing of the past, but crystal-growing and perfume-making sets are popular as gifts for enquiring and creative minds.

Commercially available crystal-growing sets generally contain ammonium potassium sulphate – although in small quantities. In cases reported to the VPI of dogs ingesting the chemicals, there are instances of hypersalivation, coughing, vomiting and diarrhoea – although all animals recovered uneventfully with only symptomatic treatment.

Perfume-making sets aimed at children are also unlikely to cause problems in animals, although slime is a common ingredient of these products, and as before, may cause mild oral or dermal irritation. Perfume-combining sets, which are generally not marketed as toys, will contain between 5-10ml bottles of essential oils and a base or carrier oil. The small size of these bottles makes it unlikely for a large amount to be ingested, but as with any essential oil preparation, there would be a risk of aspiration if, following ingestion, an animal experienced coughing, retching or vomiting. Avoid emesis and charcoal in these situations, and if the animal is showing any of those clinical signs, check the lung sounds and, if necessary, perform a chest x-ray.

Fluorescent jewellery and toys
Fluorescent necklaces, bracelets and toys are popular all year round – especially at Halloween, Christmas, bonfire night and at events such as fairs and parties. The chemical contained in these products, dibutyl phthalate, is irritant with an unpleasant taste, and as such the clinical signs following ingestion would include hypersalivation, hyperactivity and aggressive behaviour (Rosendale, 1999).

Frothing and foaming at the mouth, vomiting and lethargy occur occasionally. Exposure to the eye or on the skin will also result in signs of irritancy, pain and a burning sensation.

Emesis would not be required, and oral fluids will help in both diluting the chemical and taking away the taste and sensation. If the chemical has splashed into an eye, thorough irrigation with water or saline should be carried out and, if necessary, a fluorescein stain will highlight any damage. If skin exposure has occurred, again, wash thoroughly and if blistering or erythema develops, topical steroid creams may be required.

Conclusion
There are of course the myriad of foreign body ingestions of toy and game parts, that although are concerning, do not represent a toxicological risk. The procession of soft toys, balls and socks through the canine gastrointestinal tract never ceases to amaze; in a particularly noteworthy incident in 2017, the Monopoly dog was eaten by a dog, causing much merriment and pithy comment from the internet community and social media (Goldman, 2017).

As with everything in the home that our animals can potentially encounter, keep crafts, toys and games stored safely away and always be vigilant for the pet who is keen to join in.

References


“Many toys contain magnets or batteries, which are often ingested if the toy is chewed or swallowed whole”
Quo Vadis?

An unbelievable 20 years ago, in 1999, a report entitled Quo Vadis was published by Veterinary Business Development. In the previous year, 1998, the publication of the RCVS Manpower Survey had provided a good insight into the shape of the veterinary profession at the end of the 20th century, looking at its dynamics and employment trends; but what was still needed was a better understanding of how individuals within the profession actually saw themselves. It was the aim of the Quo Vadis report to answer this question by looking at the attitudes, beliefs and lifestyle objectives of veterinary surgeons, as well as client attitudes to the veterinary profession.

It was the first report of its kind and made fascinating reading. Twenty years on, reading the report again, shows that rather sadly nothing changes – ‘rien ne change’ or in the Latin which is perhaps more appropriate ‘mutantur nihil’.

Back in 1999, Quo Vadis reported that there was a ‘greying’ population and an increase in single-person households – both of which would impact on the profession. It also reported that, ‘There is no doubt that clients are becoming more litigation conscious as well as more knowledgeable and opinionated, much of this being gleaned from TV programmes and the internet, so client expectations have escalated’.

Almost half of the veterinary respondents were finding it difficult to meet both work and personal commitments and six out of 10 were unhappy with their work/life balance. When asked about their job satisfaction, most cited long hours and too much time on call as their primary area of dissatisfaction. Does this all sound familiar?

Back in 1999, they were talking about the wastage of new graduates. The answers from the profession to help solve the problem came back as: better pay/career structure, better teaching/preparation/support and changing the basis for student selection.

When it came to life outside practice, 41 per cent said it was not easy combining the demands of their job with social and family life. The greatest challenges for the profession were cited as, manpower issues – not enough vets, long hours, stress, working conditions, poor career structure, more demanding clients, advice from internet causing client/vet conflict and that the plethora of TV programmes were giving unrealistic client expectations. Does this ring any bells?

Some things were different back then. Only 50 per cent of practices had a fully integrated computer system, shops were only just beginning to be open 24/7 and the internet and social media were very much in their infancy; while only about 10 per cent of clients had pet insurance – fees were considerably lower in those days. The RCVS survey had calculated that 67 per cent of working vets were male, but 54 per cent of vets under 30 years of age were female, indicating that an increasing number of women were entering the profession.

Fast forward 15 years to the BVA/RCVS Vet Futures Report and we find that half of the vets who had graduated within the last eight years reported that their careers had not matched their expectations. A further 10 per cent said they wished to leave the profession entirely. Vets who had been qualified for five years or more were least optimistic about the future – rating their opportunities for career progression less positively than more recent graduates; while only 17 per cent of vets five or more years after graduating thought that their degree had prepared them ‘very well’ for the work they were doing.

While touched upon in the Quo Vadis report, gender balance was discussed in more detail in Vet Futures which looked at the effect of part-time working and the rise of women in the profession. In 1993, 56 per cent of graduates were female, whereas, 10 years later in 2003, it was 70 per cent and by 2013 it was 77 per cent.

Quo Vadis suggested that female vets were more likely to want to work part-time and might be less willing to commit to partnerships and possibly practise for fewer years. In the new century, the number of vets working part-time had been increasing year-on-year – with 19 per cent of vets who responded to the 2014 Vet Futures and RCVS Survey of the Veterinary Profession working part-time, compared with 11 per cent in 2000. Interestingly, the proportion of men undertaking part-time work had more than doubled since 2010, and this trend would, at least in part, have also contributed to the overall increase.

It was concluded that inevitably the trajectory in part-time working would have implications for the number of vets needed to provide services, and working arrangements would need to accommodate increasing demands for flexible working from both men and women.

Twenty years on from Quo Vadis and five years on from Vet Futures and we are still talking about the same issues. Pick up any veterinary publication and you will be confronted with some of the following questions:

- do we have enough vets?
- why are so many young vets leaving the profession?
- should there be a change in the way veterinary students are selected?
- should there be more personal and academic support for both students and new graduates?
- how can we reduce the stress and pressure on the veterinary professionals?
- how can we improve flexible working?

Quo Vadis and the information it provided was, as Alan Leyland, the then SPVS president said, “A gift to the profession.” Twenty years later that gift does not seem to have been unwrapped!
The pre-purchase examination

Buying a horse is a large financial and emotional investment for most owners and many choose to employ a veterinary surgeon to conduct a pre-purchase examination – or ‘vetting’ – on the animal before going ahead with the transaction.

Vetting of horses has been an important role for equine practitioners for many years, and the expression ‘to vet’ has passed into our general vocabulary with the definition: to make a careful and critical examination.

An equine pre-purchase examination (PPE) is carried out at the request of the potential purchaser (or agent) to identify and assess – so far as possible by clinical examination – factors of a veterinary nature that could prejudice the horse’s suitability for its intended use.

**Purpose and scope of PPEs**

The PPE comprises of a recognised format developed jointly by the British Equine Veterinary Association and the Royal College of Veterinary Surgeons (supported by the Veterinary Council of Ireland and Veterinary Ireland). It consists of five stages; in some instances an attenuated two-stage PPE may be performed and, where the horse is considered unsuitable for purchase prior to completion of the exam, not all stages may be completed.

Each PPE is carried out on behalf of a specific prospective purchaser so that the veterinary surgeon’s opinion can be based on that purchaser’s individual needs and their intended use of the horse.

**Conflicts of interest**

Prior to the examination, the identity of both the horse and seller should be ascertained. If as a result of this information the veterinary surgeon feels there may be a conflict of interest, meaning she or he cannot act wholly in the interest of the purchaser, then the veterinary surgeon should decline to perform the examination.

If the veterinary surgeon feels they are able to perform the examination, then the fact that the seller is an existing client of the veterinary practice must be declared to the potential purchaser, and permission sought from the seller to disclose any relevant information that the veterinary practice may hold about the horse (RCVS, 2012).

**The examination**

**Stage 1 – preliminary examination**

This is a thorough, external examination of the animal at rest using visual observation, palpation and manipulation to detect clinically apparent signs of injury, disease or physical abnormality. It includes an examination of the incisor teeth, a thorough examination of the horse’s eyes in a darkened area, and auscultation of the heart and lungs at rest. Examination of the eyes does not include dilating the pupil, but should include examination of internal and external structures (Matthews, 2016).

The standard examination does not include examination of the inside of the prepuce (sheath), a height measurement, examination for pregnancy, or a detailed mouth examination with a speculum. A mouth examination with a speculum (gag) may be included as an additional procedure; however, some dental abnormalities may only be detected by a more detailed examination using sedation and a dental mirror or oroscope.

**Stage 2 – walk and trot in hand**

The animal is walked and trotted in hand to detect abnormalities of gait and action. Ideally this is carried out on firm, level ground. The horse is turned sharply each way and is asked to walk backwards for a few paces. Flexion tests of all four limbs as well as trotting in a circle on a firm surface may be carried out if the examining veterinary surgeon considers it safe and appropriate to do so (BEVA/RCVS, 2018).

**Stage 3 – exercise phase**

The horse is given sufficient exercise to:

- allow assessment of the horse when it has an increased breathing effort and an increased heart rate
- allow assessment of the horse’s gait at walk, trot, canter and, if appropriate, gallop

“**The pre-purchase examination comprises of a recognised format developed jointly by BEVA and the RCVS**”
allow assessment of the horse for the purpose of stage 5.

If ridden exercise is not undertaken, then this stage may be conducted by exercising the horse on the lunge. It should be made clear on the certificate what form of exercise was undertaken.

Stage 4 – period of rest and re-examination
The horse is allowed to stand quietly for a period. During this time the respiratory and cardiovascular systems may be monitored as they return to their resting levels. Vices (stereotypic behaviours) are objectionable habits but are not necessarily detectable during the examination. However, if vices, or evidence of vices, are observed during the examination they should be reported to the purchaser and recorded on the certificate.

Stage 5 – second trot-up
The animal is trotted in hand again to look for any signs of strains or injuries made evident by the exercise and rest stages.

Flexion tests and trotting in a circle
Flexion tests and trotting in a circle on a firm surface are not mandatory parts of the standard procedure, but they can sometimes provide useful additional information about a horse. There may be circumstances when the examining veterinary surgeon concludes that it is unsafe or inappropriate to perform such tests.

In a study by Armentrout et al (2012) proximal hindlimb flexion of 60 seconds was more likely to be called positive than flexion of five seconds. However, there was the likelihood of the same interpretation 74 per cent of the time.

In addition to the duration of flexion, the degree of force applied to the limb and the interpretation of any consequent lameness are both subjective – making standardisation of flexion tests impossible (Chandler, 1991).

Blood sample
A blood sample may be taken for storage (usually for six months) for possible future analysis to detect substances present in the horse’s system at the time of the examination that might have masked any factors affecting the horse’s suitability for the purchaser’s intended use. If a blood sample is not taken, then the reason should be noted on the certificate.

Variations from the standard examination
While there is a recognised format for the examination, the examining veterinary surgeon may vary it where there are good reasons. In circumstances where it is not possible or appropriate to complete all the stages, or where the standard five-stage examination is limited to two stages at the specific request of the purchaser, the variations from the standard procedure should be made clear to the purchaser and on the certificate.

The veterinary surgeon may consider that further investigation of an anatomical or clinical abnormality is required in order to be able to give an accurate assessment of its significance. In these circumstances there may be a need to include a specific aid to diagnosis, and hence prognosis, such as radiography or endoscopy. Agreement of both vendor and potential purchaser is needed (Chandler, 1991).

Radiography is the most common diagnostic procedure performed (61.6 per cent), with views of the front feet requested most often (86.6 per cent) followed by the tarsi (68.1 per cent) (Van Hoogmoed et al, 2003).

Certification
All clinical findings and information that are relevant to the opinion drawn from the PPE must be stated on the pre-purchase examination certificate (and it is advisable that copies of all relevant documents are retained by the veterinary surgeon). The certificate should also include the examining veterinary surgeon’s opinion as to whether or not, on the balance of probabilities, those findings prejudice the horse’s suitability for purchase for its intended use.

The opinion of the examining veterinary surgeon is given in the following format: ‘In my opinion, on the balance of probabilities, the conditions reported above do/ do not prejudice this horse’s suitability for purchase to be used for...’

This wording reflects the fact that there may be other reasonable interpretations of the findings, but it in no way reduces the responsibility of examining veterinary surgeons to examine and observe the horse carefully and to apply to the full their professional knowledge and experience.

If the examining veterinary surgeon considers that the clinical history represents a greater than normal risk of the horse developing...
future problems (for example, recurrence or delayed consequences of a prior condition), this should be indicated on the certificate along with an explanatory note. Despite such observations, the horse may nevertheless be suitable for purchase based on a risk/benefit analysis.

If any additional procedures were carried out at the request of the purchaser (for example, detailed mouth examination, radiography or endoscopy), the results should also be reported and recorded on the certificate, or in an addendum to it. The original records of these procedures (such as radiographs, ultrasonographic images or photographs) should be retained by the examining veterinary surgeon.

Limitations of the examination
Incomplete examinations
If any parts of the five stages are omitted for any reason, the opinion given is based purely upon those parts of the examination that were completed.

If the purchaser requests a two-stage examination, the exam will be limited in its scope and may not detect important clinical factors that could otherwise influence their decision to purchase the horse. Prior to completing a two-stage examination, it is advisable to send the potential purchaser a document explaining the limitations of the two-stage examination. This document may be signed by the potential purchaser to indicate their understanding of these limitations.

Previous treatments
The horse may have received previous or concurrent veterinary treatment unknown to the examining veterinary surgeon. This may be the case even when the examining veterinary surgeon is the seller’s regular veterinary surgeon and has access to clinical records for the horse.

At the time of the examination the horse may have been subject to some previously administered drug or medicament having the effect of masking or concealing some disease, injury or physical abnormality that might otherwise have been clinically discoverable. A blood sample taken at the time of the examination may be used later to seek to determine this.

Conclusion
The PPE provides an assessment of the horse at the time of the examination to help inform the potential purchaser’s decision as to whether or not they should continue with their purchase. It is not a guarantee of a horse’s suitability for the intended use.

The British Equine Veterinary Association provides courses twice a year designed to provide all the essential information to ensure delegates can confidently perform a five-stage PPE in line with the RCVS, BEVA and VDS recommendations. This author highly recommends these courses.

Veterinary Defence Society (VDS) figures from 2001 to 2017 show that just over one in three equine negligence claims involve a PPE. Missed features (including those missed on radiographs) are the most common reason for a claim (38 per cent), followed by lameness (32 per cent) and claims involving sarcoids and melanomas (19 per cent).

Dental claims make up less than five per cent of equine claims. Of the dental claims, most involve ageing and issues with the incisor teeth (2.5 per cent of all claims) with only 1.3 per cent of all equine PPE claims involving the cheek teeth (Pycock, 2018).

It should provide some reassurance that only around one in 500 PPEs result in a negligence claim. Given the complexities of the examination and interpretation of relevant findings, it is testament to the skill of the veterinary surgeons performing the examination – combined with the excellent design of the PPE certificate – that this figure remains low.

PPD Questions

1. What are the two recognised formats for a pre-purchase examination?

Two-stage and five-stage.

2. Are flexion tests and trotting in a circle on a firm surface a mandatory part of the standard pre-purchase examination procedure?

A. yes
B. no.

3. Which of the following procedures is considered a normal part of the pre-purchase examination?

A. radiography of the front feet
B. examination of the incisor teeth
C. examination of the inside of the prepuce (sheath)
D. examination for pregnancy.

4. Which diagnostic procedure is most commonly performed as an addition to the standard pre-purchase examination?

Radiography.

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The most powerful computer for equine and large animal vets
Equine degenerative joint disease

Degenerative joint disease (DJD) is the most common cause of lameness in the horse and treatment is a frequent task for an equine veterinary surgeon (Oke and McIlwraith, 2010). It is vital, therefore, that every equine practitioner has a deep knowledge of the synovial joint anatomy and pathophysiology of the disease process. There is now a multitude of ways to treat and manage DJD – with varying efficacy (Goodrich and Nixon, 2006).

Anatomy and pathophysiology

Degenerative joint disease (DJD) is a term which has been used interchangeably with osteoarthritis (OA) in the equine industry. It is the most common condition which equine vets treat on a day-to-day basis, with more than 41 per cent of lameness caused by DJD in 2016 (Slater, 2016).

It is most commonly seen in hocks, fetlocks and knees. It is a whole-joint disease; whereby the joint gradually degenerates, as the name suggests. It is not curable; however, the process can be slowed. Therefore, having a base knowledge of the anatomy of the joint is useful to be able to treat the disease.

The diarthrodial synovial joint comprises of six elements: the joint capsule, the articular cartilage, the subchondral bone, the ligaments and tendons, the nerves, lymphatics and blood vessels, and the synovial fluid (Raker, Baker and Wheat, 1966). All six elements are involved in the DJD process.

The joint capsule comprises of two layers. The outer layer is dense and fibrous, and its purpose is to protect the inner synovial membrane. The synovial membrane produces hyaluronic acid for the synovial fluid, and macrophages. It is richly supplied with blood vessels, and is well innervated. This means it detects pain and proprioception very well.

The articular cartilage is composed of a polysaccharide matrix, chondrocytes and collagen fibres. It has minimal blood vessels, lymphatics and nerves, and therefore its nutrients come from the synovial fluid and subchondral bone. Its function is as a shock absorber for the joint, owing to the great amount of water it holds. It also provides a smooth surface to allow the joint to glide. Unfortunately, cartilage cannot regenerate well.

The synovial fluid is a transparent or pale-yellow, protein-rich fluid comprising of hyaluronic acid. The functions of the synovial fluid are to allow for constant load-bearing, efficient heat conductivity, lubrication, and elasticity (Horne and Lundvall, 1981).

When a joint has DJD, the cartilage gradually deteriorates and the subchondral bone hypertrophies – reducing the shock absorbing capacity of the joint. In addition, the synovial membrane becomes thickened owing to oedema, and the surrounding soft tissues become devitalised because of the reduction in blood supply. The proliferating synovial membrane (pannus) grows into the joint and starts to become adhered to the cartilage. The synovial fluid can no longer flow normally into the pores of the articular cartilage, leading to deceased nutrition and degeneration. The inflammatory tissues gradually become fibrotic, and eventually calcified, and the joint space becomes obliterated. Needless to say, this whole process is painful, unless the joint becomes entirely ankylosed.

Aetiology

Degenerative joint disease can be triggered for two reasons; either a normal joint is chronically subjected to abnormal forces, or a chronically abnormal joint is subjected to normal forces. A normal, healthy joint, subjected to normal forces, should not develop DJD.

Within those two categories there are many causes for degenerative joint disease. The first and most common is wear and tear. Ridden horses can be subject to an excessive amount of joint stress when jumping or racing. As horses reach old age, many years of this abnormal stress results in the joints having been through far more use than they would have been in the wild.

The next most common cause is poor conformation of the hoof or leg. This can add stress to the joints and predispose to injury despite only normal strain being placed on the leg.

Another cause of DJD is an anomaly within the joint itself. This can be congenital

“DJD is not curable; however, the process can be slowed”
or acquired in origin, and include pathologies such as osteochondrosis dissecans, bone cysts and chip fractures. Early treatment of the pathology – such as removal if warranted – will decrease the severity and speed of onset of the DJD, but once the joint has been subjected to any of these, DJD is eventually inevitable.

Finally, obesity is an overlooked cause of DJD. Excessive weight will lead to increased gravitational forces on the joints. As a result, even a normal joint will be subjected to abnormal forces as it moves. Obesity can also lead to other lameness pathologies, such as laminitis.

Resting a leg more often and shifting weight, are commonly observed. A full orthopaedic examination should be carried out to investigate responses to flexion tests, palpation of joint swelling and observation of muscle wastage.

A thorough history from the owner may also give rise to indications of DJD. They may observe that their horse has lost weight recently, or started to become more reluctant to go forwards or jump. In addition, in severe cases, they may have observed their horse to suffer from sleep deprivation from lack of wanting to lie down to rest. This leads to the horse falling over or swaying when sleeping, and may cause abrasions on the knees or fetlocks.

Symptoms
There are many symptoms which a horse may exhibit when they are suffering from DJD. The main symptom is lameness or stiffness. Subtle changes in behaviour, such as

Treatment
There are many options for an equine practitioner to choose from when treating DJD in their equine patients, and decisions are usually based on factors such as age, cost, the joint involved, stage of DJD, purpose of the horse, and competition regulations (Bolt, 2013).

Non-steroidal anti-inflammatories
NSAIDs are relatively low cost and effective at reducing pain and therefore lameness. They reduce joint inflammation through suppressing prostaglandin synthesis by acting on the cyclooxygenase (COX) pathway. There are dose-dependent toxicity effects which must be considered when they are used, such as renal papillary necrosis and gastrointestinal ulceration.

Corticosteroids
Corticosteroids are excellent anti-inflammatories when injected directly into joints. They suppress inflammatory pathways such as leukocyte margination, migration and accumulation. They also inhibit prostaglandin, leukotriene and thromboxane synthesis.

Unfortunately, in high concentrations, they can degrade articular cartilage through proteoglycan synthesis inhibition, and influence the organisation of the structure of collagens. Therefore, they are not a long-term fix. There is also a risk of septic arthritis from any intra-articular injection, as well as a risk of acute laminitis – although laminitis is a rarer complication than one might assume.

Hyaluronan
Hyaluronic acid (HA) is a component of articular cartilage and synovial fluid. It is best administered intra-articularly, as it improves the viscosity of the synovial fluid and therefore lubrication of the joint. It also has been shown to have anti-inflammatory properties, although the mechanism by which this happens is still unknown.

HA can also be administered intravenously to provide beneficial effects on the metabolism of the cartilage, however, intra-articularly remains the preferable option. 

“Obesity is an overlooked cause of DJD”
Polysulphated glycosaminoglycans and pentosan polysulphate
Polysulphated glycosaminoglycans (PSGAGs) and pentosan polysulphate (PPS) can both be administered through intramuscular injection. PSGAGs can slow the progression of DJD by hindering the degrading effects of prostaglandins and cytokines, as well as improving the metabolic activity of chondrocytes (Goodrich and Nixon, 2006). They are mainly composed of chondroitin sulphate, extracted from cartilage sources such as bovine tracheas.

PPS has similar effects to PSGAGs. It is derived from beech wood hemicellulose and is a heparinoid compound.

Both PSGAGs and PPS are only weak anti-inflammatories, and therefore they should only be used when the goal of treatment is to address cartilage damage, rather than acute synovitis.

IL-1 receptor antagonist protein
Interleukin-1 (IL-1) is one of the main cytokine mediators of DJD. Interleukin-1 receptor antagonist (IL-1Ra) protein can be prepared from patient blood and then administered intra-articularly. This method has been used safely in humans for many years and is now taking up speed in the equine world. Nevertheless, large scale equine clinical trials are still lacking. Results from smaller studies show improvement both clinically and histologically in affected joints.

Tiludronate
Tiludronate is a bisphosphonate used in the treatment of bone spavin (hock DJD) and navicular disease. It works through inducing osteoclast apoptosis and thereby inhibiting bone resorption. Slowing down the bone remodelling allows for a balance to be restored between new bone formation and bone resorption.

Tiludronate also works on macrophages to decrease the number of cytokines and amount of nitric oxide – thereby having anti-inflammatory properties. Nevertheless, administration can still cause abdominal discomfort and therefore NSAIDs are usually concurrently used.

Glucosamine, chondroitin sulphate and other supplements
Oral supplements have been widely used in combination with other treatment modalities for a long time. Their ease of use makes them popular. However, rigid data is still lacking to explain their disease modifying effects.

Glucosamine has a good bioavailability when administered orally, however, the absorption of chondroitin sulphate is still unknown. Studies suggest they work through increasing proteoglycan synthesis from chondrocytes.

Omega oils have been shown to act on the COX pathway, as many anti-inflammatories do. When in a ratio of 1:3 of omega-3:omega-6, they will produce anti-inflammatory effects in arthritic patients (Simopoulos, 2002). This is through producing prostaglandin-E3 rather than prostaglandin-E2, which is less inflammatory.

Methyl sulphonyl methane (MSM), collagen hydrolysate, green-lipped mussel, turmeric and various herbs and minerals are also commercially available – with variable anti-inflammatory effects.

Management
There are many things that an owner can do to support the joint health of their horse. Keeping them slim and fit will reduce gravitational forces on the affected joints and therefore reduces discomfort. When exercising a horse, a long warm-up and cool-down will prevent the joints from feeling sore and stiff. Most horses with DJD can be worked; however, the purpose of the horse may have to be modified. For example, jumping creates more concussion on the joints compared to flatwork, and therefore might need to be avoided.

Plenty of turnout in level, mud-free or non-slippery paddocks will promote healthy and gentle exercise to keep the joints moving. This is essential to stop them from becoming stiff. Keeping the horse warm with rugs and stable shelters in winter will also aid in this.

If poor conformation is playing a role, then working with a farrier to correct any conformational abnormalities will help normalise the forces on the affected joint. Taking

“Most horses with DJD can be worked; however, the purpose of the horse may have to be modified”
off the shoes and managing the horse barefoot, if tolerated, can help improve blood flow down the leg.

When stabled, it should be for the minimal amount of time possible, as standing still for long periods will allow the joints to seize up. Stables should have deep beds and high banks to help the horse to lie down and get up easily. This will prevent sleep deprivation. When feeding the horse in the stable, feeding from a raised hay-net or bucket will be more comfortable if the horse is suffering from DJD affecting the front legs or neck.

Conclusion
Unfortunately, DJD is an incurable and progressive disease, however, there are many treatment options available. In combination with diligent management, the comfort of the horse can be maintained for many years.

PPD Questions

1. In 2016, what percentage of equine lameness cases were diagnosed as degenerative joint disease?
   A. 21 per cent
   B. 31 per cent
   C. 41 per cent
   D. 51 per cent
   E. 61 per cent.

2. The diarthrodial joint comprises of how many elements?
   A. three
   B. four
   C. five
   D. six
   E. seven.

3. What is not a cause of DJD?
   A. conformation
   B. joint abnormalities
   C. wear and tear
   D. obesity
   E. diet.

4. Which treatment modality does not interfere with prostaglandins?
   A. omega oil supplements
   B. hyaluronate
   C. PSGAGs
   D. NSAIDs
   E. corticosteroids.

5. Which is not a method of managing degenerative joint disease?
   A. reduce the frequency of jumping
   B. shorten warming-up and cooling down
   C. raise the food in the stable
   D. minimise stabling time
   E. turn out in a level paddock.

References


Antimicrobial resistance in equine practice – are we doing enough?

In November 2019, BEVA lent its support to European Antibiotic Awareness Day with practical support and advice on antibiotic use and antimicrobial resistance in equine practice. As we recognise the importance of a ‘One Health’ approach to antimicrobial resistance, it is more important than ever that antibiotic use is justified.

In 1928, penicillin – the first commercialised antibiotic – was discovered by Alexander Fleming. While this well-taught fact was drummed into us at school, today we are still trying to develop an effective action plan to tackle the emerging threat of antimicrobial resistance (AMR).

AMR is recognised globally as one of the largest threats to human and animal health, and has been recently classified as a clinical disease in its own right (BEVA, 2019). In 2015, the Global Action Plan on Antimicrobial Resistance was developed, and over half the world’s countries have developed their own national action plan (NAP) in an attempt to limit the growth of resistance so that antimicrobials used in clinical practice can preserve their effectiveness.

Veterinary organisations around the world are aiming to promote responsible antibiotic use, and this is certainly not a new concept in equine practice. It can be a common occurrence to hear an owner say that they have tried treating their horse with leftover antibiotics from “what the vet gave last time” – suggesting at once that they have not only administered antibiotics without veterinary guidance, but also that the original condition was not treated with the full course.

As well as the issues involved with owners self-prescribing, veterinary surgeons can often feel pressured by their clients to prescribe antibiotics, and concerns over cost or time restraints can prevent culture and sensitivity tests. In addition, veterinary practices may not have a written antimicrobial use/stewardship policy or antimicrobial usage guidelines.

In response to the growing concern of AMR, the British Equine Veterinary Association (BEVA) lent its support to European Antibiotic Awareness Day in November 2019 by offering practical advice to horse owners and improving understanding of antimicrobial resistance. This was in addition to the launch of their ‘Antimicrobial Use and Antimicrobial Resistance’ survey in September 2019 – last performed in 2009 – in order to assess any changes in the prescribing of antimicrobials in equine practice during the last decade. The Equine Veterinary Journal – the official research publication of BEVA – is also set to publish a special online collection of previously published articles, Antimicrobials in an Age of Resistance.

BEVA President Tim Mair said: “While antimicrobials remain essential for the health and welfare of horses suffering from bacterial infection, it’s imperative for vets to protect their usage to maintain their effectiveness for the future.”

BEVA has also added further practical elements to its PROTECT ME tool kit – a free resource that encourages effective self-regulation rather than a legislative solution. Based on the acronym ‘PROTECT ME’, the tool kit supports the equine practitioner to consider the following (BEVA, 2019):

- practice policy – developing protocols for antimicrobial usage based on common clinical scenarios
- reduce prophylaxis – developing rational protocols for prophylaxis
- other options – reducing or replacing antimicrobials with other methods for bacterial reduction
- types of drugs and bacteria – selecting appropriate drugs based on empirical use guidelines and using cytology where possible
- employ appropriate drugs based on empirical use guidelines – predicting likely bacteria based on type of infection
- culture and sensitivity – formulating practice policies
- treat effectively – as little as possible, as much as needed
- monitor – audit antibiotic use and resistance; and
- educate – educate your team and your clients on responsible use of antibiotics.

Of course, in order for us to successfully tackle AMR, we need to work collaboratively and away from any ‘blame’ culture. The ‘One Health’ approach relies on medical, veterinary and environmental professionals working together, and the support and understanding of owners. Just as with any ‘invisible’ problem, we must not be tempted to assume that it is for somebody else to sort out, or to persuade ourselves that just because it is not an immediate issue for us now, that it won’t become a catastrophic problem in the future.

On the subject of sales surveillance, Mr Mair commented that: “…data shows that sales of horse-only antibiotics has fallen by 4.3 tonnes (64 per cent) since 2017 and 13.6 tonnes (85 per cent) since 2014. We hope the results of the BEVA survey will provide further optimistic data.”

While this is optimistic data indeed, it begs the question that if we have managed to reduce antibiotic use so significantly over just a few years, what were we prescribing antibiotics for? What do we need to change to make our usage more responsible?

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www.vetsystems.com/rota-manager

The easy and efficient way to manage rotas
Pasture management for sheep

Sixty per cent of UK farmland is only suitable for growing grass. These large areas of ground lock up in the region of 400 million tonnes of carbon. Efficient use of grass for our 65 million sheep is essential for many reasons; including reduction in feed costs, increased daily live weight gains, parasite management and reducing methane emissions.

The UK sheep industry has a unique stratified system to maximise the efficiency of all areas capable of growing grass; from the hill breeds found in the Welsh mountains and Scottish highlands down to the lowland terminal breeds producing high quality, fast-growing lamb.

The most commonly sown grass in the UK is perennial ryegrass. Each individual grass plant, or ‘tiller’, starts off growing one leaf, then a second, third and so on, however there will only ever be three live leaves on a tiller; as the fourth leaf grows, the first dies. Optimum nutrition is found in the 2.5-3 leaf stage, when live leaf surface area of each plant is highest, growth rate is highest and sward yield maximal.

Rate of growth of each leaf depends on time of year, soil type, weather, temperature and management. The rate of grass growth will influence how long it can be grazed for and measuring this helps to utilise grass for optimum nutrition as well as stimulating further grass growth. Despite being the cheapest feed available for ruminants, grass remains vastly underutilised.

Types of grazing systems

Set stocking is the oldest form of grazing management. Sheep are stocked to the grazing depending on expected annual grass yield, but low stocking pressure. Large areas are grazed over a long period of time which reduces management impacts of moving animals regularly, but offers little control over sward heights. Sward should ideally be 6-8cm which is the height at which most plants are likely to be in the 2.5-3 leaf stage, but as rate of grass growth changes through the season, it is difficult to maintain without altering stocking rates.

Hill systems and extensive grazing systems are set stocked but can’t match animal requirements with grass growth throughout the whole season; they are only optimally grazed for a short period of time. They are mostly grazed unevenly – being either overstocked leading to poaching and undernutrition with grass not reaching optimum growth, or understocked leading to poor grass utilisation with lots of dead matter in the sward. Grass utilisation in a set stocked system is often below 50 per cent, with average annual yields being 6t DM/ha.

Rotational systems are based on balancing sward heights and maximising yield of grass while managing levels of parasite risk for different classes of stock. Sheep should aim to go into a sward at 10cm and come out at 4-5cm (slightly higher for weaned stock).
finishing lambs) (Table 1) before pasture is rested for a number of days. Typically, rotations last 20-30 days dependant on season. Using pastures in this way means that each rotation is grazed quite hard but has a long time to recover. Traditional rotational systems can reach grass utilisation levels of 60-65 per cent. Stocking density is higher than in set stocked systems and helps extend the grazing season. More labour is involved in moving stock and providing adequate water to several fields.

Paddock grazing, also known as cell or precision grazing, is a more intensive form of rotational grazing. Swards remain slightly higher, in multiple small paddocks; stocking pressure is high but only for a very short period of time, with sheep typically moving every couple of days. These systems require highest labour inputs for moving fences regularly and monitoring grass growth. Initial set-up costs may be high owing to investments in fencing and water provision. This sort of grazing management has been shown to increase bite rate, step count, intakes and lead to higher daily live weight gain per hectare with the added benefit of reducing carbon emissions by 64 per cent per production unit area (Savian, 2018). These systems improve grass utilisation by up to 80 per cent—allowing for maximal grass regrowth in between short periods of grazing. Annual yields can average 10.2t DM/ha.

Developing a grazing plan
Planning grazing means measuring grass growth using a plate meter or sward stick. Walk each field in a ‘W’ pattern; taking 40 leaf-top measurements and then take an average. Either calculate the provision of the area and allocate livestock accordingly as in Figure 1, or calculate a feed budget of expected demand and estimated grass growth to decide how many paddocks are required.

Parasite management
One of the main reasons for needing effective grazing management is parasites. With a large percentage of sheep farms in the UK experiencing resistance to one or more classes of anthelmintic, it is important to find other strategies to minimise both worm burdens and their production-limiting effects. Grazed pasture looks after the ‘in refugia’ population of parasites. That is, the proportion of parasites present that are not in the animal and therefore not exposed to an anthelmintic treatment. Preserving a susceptible in refugia population is important for preserving activity of anthelmintics. Since 90 per cent of infective L3 larvae is found towards the base of the sward (Van Dijk, 2009), higher sward heights can help to reduce parasitism.

Figure 1. Example calculation.

1. Typical residual target (post graze cover) should be 1500kg DM (AHDB, 2018)
   Using your sward stick measurements (pre-graze cover) calculate the grazing provision available:
   \[
   \text{pre-graze cover} - \text{post graze residual} \times \text{field area} \\
   (2500 \text{ kg DM/ha} - 1600 \text{ kg DM/ha}) \times 2 \text{ ha} = 1800 \text{ kg DM}
   \]

2. Allocation of DM intake varies on stage of lactation from 1-4 per cent bodyweight (AHDB, 2018)
   Ewes with lambs at foot should be allocated 3 per cent bodyweight
   Calculate the livestock allocation:
   \[
   200 \text{ Ewes with lambs at foot} \times 60 \text{ kg body weight} \times 3 \text{ per cent} \\
   200 \times (60 \times 0.03) = 360 \text{ kg DM/day provision}
   \]

3. Calculate how long the grazing will last by dividing step one by step two:
   \[
   1800 / 360 = 5 \text{ days grazing}
   \]
Each grazing system has its advantages for reducing parasitism; set stocked systems have low stocking rates but uneven grazing can cause higher parasite burdens in some areas. Rotational grazing provides a higher sward height for a larger length of time and intends moving sheep on to new pasture every 20-30 days before the nematode life cycle is completed, but pasture contamination will be high. Paddocks or cells are moved every few days, allowing little parasite development but care should be taken that sheep are not moved through all paddocks so quickly that they return to previously grazed paddocks before enough infective larvae has died off on the pasture. This would inadvertently increase parasitism. Since larval development time depends on moisture and temperature, appropriate time to return to a grazed rotation can range from days to weeks. Understanding the factors that affect larval development can be used to categorise

Table 2. Assessing pasture risk for worm control in sheep (AHDB, 2018)

<table>
<thead>
<tr>
<th>Season</th>
<th>High risk</th>
<th>Medium risk</th>
<th>Low risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spring</strong> (ewes and young lambs)</td>
<td>Ewes and lambs grazed in the previous year. High risk of Nematodirus if pasture carried ewes and lambs in the previous spring. Goats grazed the previous year. Store/ewe lambs grazed the previous autumn/winter.</td>
<td>Grazed only by adult non-lactating sheep the previous year. Grazed by ewes and lambs the previous spring, but then conserved and aftermath not grazed by sheep (NB Nematodirus still high risk).</td>
<td>New leys or forage crops. Grazed by cattle or cut for silage or hay in the previous year (no sheep).</td>
</tr>
<tr>
<td><strong>Summer</strong> (ewes and pre-weaned lambs)</td>
<td>Ewes and lambs grazed in the spring.</td>
<td>Grazed only by adult non-lactating sheep in the spring. Grazed by cattle or cut for silage or hay in the spring.</td>
<td>Grazed by cattle or cut for silage or hay only in the first half of the grazing season. Forage crops or arable by-products grown.</td>
</tr>
<tr>
<td><strong>Late season/autumn</strong> (weaned lambs)</td>
<td>Stocked with ewes and lambs all season.</td>
<td>Grazed by cattle since mid-season. Grazed by fit, mature dry ewes since weaning mid-season.</td>
<td>Grazed by cattle or cut for silage or hay only in the first half of the grazing season. Forage crops or arable by-products grown.</td>
</tr>
</tbody>
</table>
“One of the main reasons for needing effective grazing management is parasites”

risk levels of pasture for how infected they might be. This is especially useful post-weaning when ewes can follow lambs in rotation; ensuring cleaner grazing for weaned, fattening lambs. Rotating permanent grazing with arable crops or fields cut for hay or silage will help to keep parasite burdens down (Table 2).

Alternative grass forage crops
Over recent years, there has been more interest in growing and integrating alternative forages into grass to further improve efficiencies. Clover species grow fast and provide high energy and protein levels per hectare of growth, making these swards ideal for finishing lambs.

Chicory and plantain profess to have natural anthelmintic properties; with lambs grazed on chicory-based systems having a lower adult worm burden, even before, and left there until all the ewes have lambed. This makes observation easier and reduces the requirement to move periparturient ewes. Parasite burdens on these pastures are likely to be high owing to relaxation of immunity in the periparturient period and increased egg output by ewes. Carefully selecting swards with herbs and legumes in them around lambing time can increase ewe milk production and, therefore, lamb growth rates compared to ryegrass-dominant pastures alone (Hutton, 2011).

Post-weaning, the best grass available can be used for finishing lambs and poorer yielding fields for drying off ewes. At all stages of the production cycle, body condition scoring of ewes should be used to monitor progress. To increase body condition score by one unit is the equivalent to feeding 1kg/day of good quality grass for ten weeks.

It is also important to establish liver fluke history on the farm through faecal testing, serological testing in lambs, and abattoir reports. This is essential for mapping high-risk pastures, snail habitats and knowing when to avoid them. Highest risk areas might be wet habitats preserved by environmental grazing schemes or where sheep are overwintered on wetland.

Mixed grazing
One strategy to consider is mixed (co-grazing) or sequential grazing of sheep and cattle. Marley et al (2006) found higher lamb growth rates when cattle and sheep were co-grazed through the whole season, and lower faecal egg counts in lambs when sheep followed cattle sequentially in the grazing pattern. Cattle will graze higher sward heights, and legumes in them around lambing time can increase ewe milk production and, therefore, lamb growth rates compared to ryegrass-dominant pastures alone (Hutton, 2011).

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New cow housing – a case study

Every cow deserves a comfy bed, a safe walking surface, clean and stress-free access to feed, and space to have a little ‘me time’. It should not be a big ask, but, oh – how I sometimes despair when I see the inadequate houses which we expect some of our dairy cows to live in.

Of course, it is a reasonable argument that cows should really be outside – grazing the green stuff, chillin’ and shooting the breeze with their herdmates. Nobody likes to see this bucolic scene more than me. Real world economics and year-round demand for level milk supply in the UK means, however, that all-year-housed dairy farms can be a valid alternative system, particularly for the higher input/higher output herds. It is tried and tested, and it can be done very well, with full regard for excellent quality of life for the cows within. Simply put, my own view is that there is a place for both grazing-based and all-year-housed systems; there are pros and cons of both, and both can be done well – or badly from the cows’ perspective.

Background to farm

This article focusses on providing good accommodation for housed cows, using a case study of a 500-cow dairy farm in Northern England.

The farm supplies milk on a supermarket liquid contract. That means that it must have a level supply. The contract specifies that certain welfare, herd health and production efficiency targets must be met, as well as additional medicine stewardship goals – over and above industry standard – or red tractor assurance.

It is a well-run farm. The farmer is in his early 30s, motivated, hard-working and with his own self-imposed standards for cow welfare. This has largely informed his decision to move to the...
Norwegian red breed for his herd. His target milk yield is around 8500 litres per cow per year; with a high fat and protein content (>4.3 per cent and 3.5 per cent, respectively). He has gradually replaced a Holstein herd which tended to yield around 9000 litres per year, but with lower milk solids. He hates to see thin or lame cows, or cows with lesions. He aims to keep cows longer than the national average; maintaining a rolling replacement rate below 20 per cent.

The herd became housed year-round in 2002, having previously grazed in summer months with housing in winter. However, as the herd grew in size – beyond 200 cows – and yields increased beyond 7,000 litres per cow per year, it was becoming increasingly difficult to graze effectively owing to damage to the ground in wet weather and meeting the nutritional requirements of the cows from grazed grass. This is a common scenario.

Like many similar herds, the decision was taken to house cows all year round, the benefits being:
- better control of diet (feeding a very palatable, higher energy density total mixed ration (TMR) with 24-hour feed access)
- better grassland management owing to less poaching
- reduced foot damage from stones during wet weather
- mitigating the unpredictability of adverse weather conditions.

By 2017, the herd size was 500. The milking herd was housed year-round in two groups, highs and lows, and fed two different total mixed rations (TMR). The highs were fed a diet for maintenance plus 33 litres, and the lows fed a diet for maintenance plus 25 litres. A small amount of additional parlour cake was fed during milking which was twice per day through a new rotary parlour.

The problem
Most changes are complex – involving evolution rather than revolution – and a finely-tuned balance between barriers and drivers, opportunity and cost. So, in this instance, things were no different. A new milking cow shed was the result of three years of first dancing around a problem, then embracing it, committing to it, and followed by a lengthy gestation period of various potential solutions with an eventual birth of the new shed. The problem was grumbling and chronic rather than acute. It manifested itself initially in too high an incidence of transition cow disorders – including LDA, endometritis, mastitis and early lactation lameness. Transition management involves the time before and after calving. In this event, the farm had improved pre-calving management, but fresh-calved cows began their lactation in the main milking shed which was deemed to be deficient (Figures 1 and 2) owing to lack of space, poor ventilation and insufficient feed space.

The discussion
During a series of consultation visits, a new fresh-cow facility was mooted. This would allow for a smaller ‘special needs’ group of cows which had:
- at least 70cm feed space per cow
- lower stress/hindrance to access the feed bunk and beds
- new mattress cubicles with no restrictions to the ‘bob space’ (to improve lying times)
- wider passageways: reduced slurry pooling and more overall space per cow

“Most changes are complex – involving evolution rather than revolution – and a finely-tuned balance between barriers and drivers, opportunity and cost”
**Infobox 1**

- total build cost including fixtures, fittings and slurry channels = £70,000
- number of spaces = 40; cost per cow = £1,750
- cost, including finance, over 10 years = £105,000 = £10,500/year
- spread over the whole herd (n = 500), this costs £21/cow/year for 10 years
- at 28ppl, this is equivalent to 75 litres per cow per year.

**Note:** This assumes a milk price of 28ppl (which was the 10-year average for this herd), and that no additional feed cost would be required to produce the extra milk: so-called ‘marginal litres’.

A judgement must be taken as to whether it is fair to assume that a herd is under-performing (owing to housing constraints) such that improvements to housing alone could achieve additional yield without requiring additional feed. In this case, such a modest yield increase of less than one per cent is quite a safe bet owing to expected better transition cow performance, even though each cow would be housed in the new facility for a relatively short period of time. As long as this is achieved, the shed will have paid for itself in 10 years.

**Infobox 2**

- actual cost of shed = £360,000 (£1,800 per new cow space)
- with finance, over 10 years = £540,000
- cost per cow in herd per year (n = 550) = £98
- to break even (and pay back the investment over 10 years) this would require a marginal yield increase of 350 litres/cow/year, or four per cent improvement. Again, two key assumptions have been made:
  - extra yields are marginal litres, requiring no additional feed cost, at net 28ppl
  - all financial benefits are through yield increases alone (so, ignoring further cost benefits which might be likely owing to reduced mastitis, lameness and forced culls).

**Note:** If you do decide to include disease costs in your calculations, be careful you don’t double-count the yield benefits because a large proportion of published disease costs are owing to reduced yield, compared to potential. However, only a proportion of disease costs are attributable to yield, other costs being due to treatment, labour, poorer fertility and higher replacement rates.

The author’s preference is to work with projected yield alterations alone, therefore erring on the side of caution and tempering any unrealistic financial expectations of the farmer. In reality, benefits to morale, job satisfaction and work-life balance nearly always trump financial considerations once sensible improvements to housing have been made in any case.

**Infobox 3**

- total build cost including fixtures, fittings and slurry channels = £70,000
- number of spaces = 40; cost per cow = £1750
- cost, including finance, over 10 years = £105,000 = £10,500/year
- spread over the whole herd (n = 500), this costs £21/cow/year for 10 years
- at 28ppl, this is equivalent to 75 litres per cow per year.

**Note:** This assumes a milk price of 28ppl (which was the 10-year average for this herd), and that no additional feed cost would be required to produce the extra milk: so-called ‘marginal litres’. A judgement must be taken as to whether it is fair to assume that a herd is under-performing (owing to housing constraints) such that improvements to housing alone could achieve additional yield without requiring additional feed. In this case, such a modest yield increase of less than one per cent is quite a safe bet owing to expected better transition cow performance, even though each cow would be housed in the new facility for a relatively short period of time. As long as this is achieved, the shed will have paid for itself in 10 years.

**Infobox 3 Key space and dimension ‘rules’ of the new shed.**

- quicker milking turnaround times (a small group) – again to improve lying times
- better ventilation, so drier beds and better cow comfort
- overall space allowance of 10m² per cow.

An area adjacent to the main milking shed was identified in which to build the new accommodation (**Figure 3**). Rough plans were sketched. A budgeting exercise put the cost of build at £1,750 per cow space for 40 spaces. Payback over 10 years (including interest) was expected if an additional 75 litres of marginal milk could be produced per cow (at 28ppl) (**see Infobox 1 for calculation**). This did not include additional benefits from reduced treatment and culling costs, as well as better fertility.

**The evolution of an idea**

When planning became more intensive with involving the shed builder, it became evident that achieving adequate, natural ventilation would be challenging unless a high structure was built with tall, open sides. This led to plans for a bigger shed footprint than first discussed. This led to thoughts of a bigger group. This led to plans for a new shed large enough for an entire highs group of 275 cows. This led to a conflict: it was impossible to create a shed large enough in the space without compromising the tenets of space allowance which had already been agreed.

The outcome was to build a new shed for 200 cow spaces, but allow free-access to the entire housed area for all cows (that is, a single group as opposed to highs and lows).
The extra cow spaces would allow some de-stocking of the older shed space and, eventually, the removal of spare cubicles to reconfigure the space and allow larger loafing areas.

The big danger
The new shed actually cost £1,800 per cow space, slightly more than the initial budget. The farmer needed to justify this significant £360,000 investment. There would be an obvious temptation: build 200 extra spaces and fill it with 200 extra cows. The author has seen this happen on dairy farms time after time. Or, more frequently yet, successful dairy farmers building their herd size progressively, becoming over-stocked, then needing to build sheds to accommodate the additional cows. The result is always an under-performing herd and a stressed-out farmer.

The conundrum was discussed. The farmer was on board! It was agreed that a modest herd expansion of 50 cows could be safely accommodated without putting undue stress on the new shed, nor the calf and dry cow facilities. See Infobox 2 for the new cost-benefit calculation.

Key features of the new shed
The new shed occupied a space immediately adjacent to the old shed; cows could therefore freely walk between the spaces (Figure 4). It was a four-row design — meaning four rows of cubicles for two rows of feed space. Covered feed passages were on the outside, with one central row of head-to-head cubicles and two outer rows of single cubicles. There were crossovers at either end and in the middle (25 cubicles between a cross-over). See Figure 5 for the layout and the dimensions. A four-row design is usually compatible with adequate feed space, versus a six-row layout.

Infobox 3 gives the key space dimensions. The shed met the main criteria for space, but it also had other important features:
- tall eaves and open sides for ventilation
- a ‘light ridge’ along the roof apex which has air outlets to encourage stack-effect ventilation, and clear perspex panels to make the most of natural light
- smooth-coated feed platform to improve feed intakes and make cleaning of the feed platform easier

“...it became evident that achieving adequate, natural ventilation would be challenging...”

Figure 5. New shed design (not to scale). 200 cubicle spaces. Overall space available to 200 cows = 1896m², 9.5m² per cow; feed space = 143.5m, 0.72m per cow; water space = 21.5m, 0.11m per cow.
Figure 6. New feed platform and feed barrier. The platform is raised 0.2m and covered in a durable smooth coating. The neck rail is adjustable – currently set at 1.3m from the floor (cow-side) and 0.25m forwards.

Figure 7. Passage between cubicles has a central slatted slurry channel. The floor is grooved. Note good cubicle acceptance leading to clear passageways. Cows lie straight because they do not have conflicted head space. The backs of the beds are therefore largely clean.

Figure 8. Wide feed passage with central slatted slurry channel. Reducing potential conflict or competition to access the feed barrier means that cows are likely to make more feed visits per day. Even if overall feed intakes remain the same, a pattern of little-and-often feeding improves rumen pH stability and increased feed efficiency.

Figure 9. Cows are positioned in the cubicles by a low brisket locator. Apart from this, there is no obstruction in front of the cows (the ‘bob zone’). Not only does this encourage straight lying, but it eases getting up and down. This is likely to result in longer lying times and more frequent lying bouts, in turn leading to higher yields and improved foot health.

Figure 10. The shared head space in the head-to-head cubicles. It is critical this is not sacrificed; it should be at least 1.5m wide. The farmer was persuaded to reduce the central passageway width slightly in order to increase the space here; thankfully before he poured the concrete for his cubicle bases. You get only one chance to get this right! He is now rewarded with cleaner beds as cows lie straight. Unsurprisingly, cows do not like lying in each other’s faces.
"The conundrum was discussed. The farmer was on board!"

- central slatted slurry channels along each of the four main passageways, thereby aiding slurry management and reducing slurry waves when the automatic scrapers are in operation. The net effect is a cleaner and drier floor environment; reducing humidity as well as improving foot health (Figures 7 and 8)
- deep cross-grooved floor to reduce slipperiness and improve confidence walking (and reduce risk of slip injuries)
- covered outer feed passage to improve feed hygiene (and enable the shed to become secure from potentially harmful wildlife, such as badgers) (Figure 6).

The shed is not perfect. Some potential improvement points would be:
- deep-bedded cubicles (for example, sand). This would be the single most important, potential improvement point to promote cubicle comfort – increasing lying times and reducing the risk of lameness. The farmer opted for mattresses with sawdust
- deeper parallel-grooved floor; this would have the potential to further reduce slip risks, and hold more liquid which results in a drier walking surface
- a canvas strap at the cubicle fronts – 0.8m above the base – to reduce cows walking through the front of the cubicles (though it is debatable if this really matters, and the farmer reported it was a rare occurrence in any case)
- scratching posts and/or rotary cow brushes. The farmer uses tail paint for heat detection so was reluctant to install brushes because the paint would be rubbed off.

The unexpected outcome
In summer 2018, the new shed was opened for use. Cows were allowed access and voted with their feet; preferring the new shed to the old ones. Unexpectedly, however, within three weeks milk yield had crashed by 1,500 litres per day (worth approximately £12,000 per month!), many cows had scour and two cows had died.

This was unanticipated and, fair to say, a demoralising and somewhat puzzling reward for many hours of planning, months of sleepless nights and long days with shovels, concrete deliveries and monkey wrenches. Not to mention a £360,000 bank loan.

A diagnosis of *Salmonella Dublin* was made. Heat stress during the exceptionally hot summer of 2018 was suggested as a trigger. Cows were vaccinated, nerves were held, and, as these things normally transpire, the storm was ridden out. Just one further cow died, and recovery was thankfully almost as swift as the decline.

One year on
The herd’s annual yield is 8,380 litres – an increase of 290 litres per cow per year. Milk solids have remained constant as has the feed rate. This is just below the 350-litre increase anticipated for break-even after 10 years (Infobox 2).

However, the farmer is delighted with the new shed. His perception is that cows display oestrus better, lameness is reduced and the cows are cleaner. Clinical mastitis cases have reduced from 27 to 22 cases per 100 cows per year. This, despite the fact that the new shed can accommodate less than half of the total milking herd of around 470 (that is, excluding the dry cows). The older shed is under-stocked compared to the number of available cubicles, so is a better environment than the previous. Nevertheless, the farmer notes that lower dominance cows are the ones which inevitably end up in the older shed, given that the entire milking herd is now run as a single group.

To this end, the new shed did not meet the initial purpose which was to provide better accommodation for fresh-calved cows, even though their stocking density has been reduced. To meet this objective, the farmer now plans to build two more sheds of similar design, perpendicular to the new shed, thereby replacing all of the old sheds. This will create 3 x 200-cow groups which would all converge onto a central handling area and collection yard. There would then be the option for a dedicated heifer group, shorter milking turn-around times, and the potential for differential TMR feeding (for example, highs and lows groups). The main benefit, however, will be that all cows will be housed in good accommodation. Again, a modest herd expansion would be anticipated to a milking group of 600 cows and an overall herd size of 690.

Conclusion
The time frame for this story is five years. While a degree of patience might be required, assisting clients with planned improvements in cow housing can be amongst the most satisfying tasks for a dairy vet. Although the financial implications must be considered, it is usually not difficult to justify the investment. The farmer in this case is a good example of someone who is not daunted by such a commitment. His exact words summing up the whole experience were: “It’s a no-brainer. If I expect my cows to give me a living, I have to invest in their welfare. You never get something for nothing; it has been hard work and stressful at times but given the chance, I’d do it all again.” And true to his word, he is! >> Continued overleaf
PPD Questions

1. How much overall floor space should a high-yielding, housed dairy cow have available to her?
   A. ≥ 6.5 m²
   B. ≥ 7.5 m²
   C. ≥ 8.5 m²
   D. ≥ 9.5 m².

2. What is the main reason why ‘bob space’ is important?
   A. it improves the number of feeding bouts
   B. it eases rising and lying, so increasing the number of lying bouts
   C. it reduces dirty beds
   D. it means cows are more likely to lie straight.

3. Farmers sometimes comment that there is no need to have one feed space per cow if feed is available at all times, and there is some experimental evidence that increasing feed space from 50 cm per cow to 70 cm per cow does not increase intakes. What might be reasonable counter-arguments to these perspectives?
   A. cows are herd animals and they prefer to eat at the same time as each other if they can
   B. there is almost always some degree of sorting, so restricted feed space means less dominant cows become ‘second wave’ feeders, and eat a pre-sorted diet when it is first fed out
   C. the more free one can make access to feed, the more feeding bouts a cow is likely to take. One feed space per cow is one aspect of making access easier. More feeding bouts means more frequent but smaller feeds, leading to more stable rumen pH and better diet utilisation, even if overall daily intakes remain the same for the individual
   D. it is important to look after the least dominant cows in the herd – those that are most at risk of negative energy balance such as fresh-calved cows and heifers. Whilst the average intakes across the herd might not alter much, increasing feed space can make a large difference for these high risk individuals.

4. Which of the following could be indicators that the milking-cow housing is inadequate?
   A. lower than expected yields
   B. higher than expected injuries from slipping (for example, >1 per cent bulls per year from injury)
   C. high lameness (for example, >15 per cent mobility score 2 and 3)
   D. lesions (for example, any hair loss or abrasions on hocks, necks, flanks, ribs or spine)
   E. poor fertility (heat expression and/or conception rates)
   F. high mastitis rates (for example, >20 cases per 100 cows per year)
   G. uneven condition scores and low BCS in a proportion of the herd (for example, >1 per cent cows BCS <2)
   H. dirty cows (for example, >5 per cent herd with areas of dirt on any part of their body which is greater than 50 cm diameter)
   I. a high number of cows standing in passageways or cubicles (for example, >15 per cent herd neither lying down nor eating at any time point, excepting disturbance for milking).

5. How might a vet in practice best equip themselves to assist wherever any of the points in question four have been identified?
   A. learn more about ruminant nutrition
   B. get better at surgery and other interventions to correct cows when they are injured or become ill/lame/ketotic/displaced
   C. devise better programmes for fertility management to manage the fallout of acyclic cows and those which do not demonstrate strong oestrus (for example, get up to speed with the latest sync programmes from large scale US dairies)
   D. gain confidence in building design by doing some more CPD in this area.

Further reading

Every life should be precious

It has always been the case that most of the male offspring produced in the dairy and egg industry were superfluous to needs. It is also a matter that a large proportion of the general public are not really aware of – simply because they have not thought through the process of milk or egg production. Nevertheless, the huge wastage of life caused by these farming methods is something that poses an ethical issue.

This dreadful wastage, combined with the current promotion of sustainable farming, may well be the trigger that has prompted our leading veterinary bodies to join forces in suggesting that high welfare UK veal and goat meat should be promoted to help replace the need for the slaughter of unwanted male calves and goats.

The British Veterinary Association (BVA), the British Cattle Veterinary Association (BCVA), the Goat Veterinary Society (GVS) and the British Veterinary Poultry Association (BVPA) have released a joint policy position outlining the issues connected to surplus male offspring in animals produced for eggs and dairy. The policy calls for solutions based on the overriding principle of quality of life taking precedence over lifespan; with the longer-term aim to move away from the production of surplus animals altogether.

An estimated 95,000 calves, 3,000 billy kids and 30 million chicks are slaughtered each year because they are surplus to requirements. The egg and dairy industries have been advised to adopt a ‘3Rs’ (reduce, replace, refine) approach to their rearing and slaughter of such animals.

Reducing the numbers of unwanted male animals would involve selecting for sex as well as increasing the length of time that an animal can produce milk through selective breeding. If these options are not viable, the ‘3Rs’ approach recommends raising male offspring for meat, and comes with the caveat that calves and billy goat kids should be raised within UK high welfare schemes only. In the absence of any reduce or replacement options, vets advise that killing should be undertaken in the most humane way and that all of the animal’s welfare needs must be addressed prior to slaughter.

BCVA president, Professor David Barrett, said: “As we strive for improved sustainability and increase efficient use of resource in food production, we need to use every product from dairying, including calves that can be reared for meat. Our entire industry needs to work together to create a robust supply chain for high quality, farm-assured British dairy beef and veal and we need to help consumers understand they should embrace these products.”

The ideology behind this statement is to be applauded, but the reality of the situation is more complicated. If farmers keep male calves to sell on to be raised for dairy beef or veal, the calves will have to be reared on for at least three to four weeks so that the calf is of a good enough weight to be sold on. This can cost a farmer in the region of £50 in feed bills and this is without the cost of transporting the calf to market and possible vet fees. With the selling price at market often being as low as £25-£40 this option makes little economic sense.

Early disposal can cost less than £10, so pure economics often compel farmers to take this route. Add to this the fact that milk has long been used as a loss leader in supermarkets – squeezing the dairy farmer’s profits and forcing them to make economies – then the early disposal of the unwanted calf simply makes economic sense. A few farms are experimenting with keeping calves with their mothers for longer, but this is an expensive and rarely chosen option.

In the egg industry, male chicks are considered an unwanted by-product of egg production and are killed and disposed of shortly after birth. They should be disposed of according to the Model Code of Practice for the Welfare of Animals: Domestic Poultry which requires chicks to be treated as humanely as those that will be retained or sold.

Adopting a ‘3Rs’ approach is not as simple at it might seem. Unwanted male offspring from both industries do not have the ideal conformity for growing meat producing animals – with sires chosen not for meat but for milk-producing or egg-producing genes, which means that with the exception of veal, meat production will be more costly. Replacing the current system by breeding more female animals may well prove successful in the egg-producing industry, but in the world of dairy, there would then be a surplus of female calves – still not beef breeds and unlikely to be needed for milk production unless dairy herd numbers were much reduced. This is perhaps where the refining procedure comes in. If the public were of a mind to eat less meat and dairy products, it is possible that the industry could be scaled down to a point where, together with sex selection, the wastage is considerably reduced.

However, this scenario is only likely to work if we are all prepared to pay more for our meat and dairy products. At the end of the day, it all comes down to economics – both our own and that of the farmer. Our responsibility as a veterinary profession is to ensure that if some or all of the ‘3Rs’ are adopted, the health and welfare of the animals concerned is the first priority.
Your website is your interactive shop window

The practice website is now one of your most important advertising tools. Anyone looking for a new veterinary practice – even if one has been recommend to them by word of mouth – will still almost certainly ‘check it out’ on the internet. What they see will certainly influence their final decision on where to register their pet.

Over the last 25 years, the number of people using the internet has risen from 16 million in 1995 to 4.3 billion as of March 2019. Figures show that 38 per cent of people will stop engaging with a website if the content or the layout is unattractive; while a staggering 88 per cent of online consumers are less likely to return to a site after a bad experience in using it.

It cannot be over emphasised how important a good, easy to use, informative, dynamic and interactive website is for your practice. Of course it needs to look good, but ease of use is the most important factor in website-user retention.

What makes a good website?
The first thing to consider when setting up a new website is how users think and interact with it. There are some basic rules to follow when looking at your website design.

Ease of navigation
Web pages should be obvious and self-explanatory. Users don’t read – they scan – so provide some fixed points or anchors which will help guide them easily through the content of the page. It is essential to have high quality content – design tends to take second place. The higher the cognitive load and the less intuitive the navigation, the more likely users will leave your site and search for alternatives. Keep things simple, use the ‘three-click-rule’ so that visitors can get the required information within three clicks. Have multiple heading levels and bulleted lists to break the flow of uniform text blocks and use short, concise phrases – getting to the point as quickly as possible.

Informative and dynamic
Websites need to be regularly updated with current and relevant news and information. There is nothing worse than revisiting websites and time after time finding exactly the same text and images. Even if there is no new information to put on the site, making small changes to content and design will refresh the look of the website for users.

Simplicity of design
You want your website to look attractive but simple is best – complicated designs or too many images on the page can distract visitors from the main purpose of your website. Clean and fresh design also helps users to navigate from one page to another seamlessly. Be consistent with your design elements throughout all the website pages. Fonts, sizes, headings, sub-headings and button styles should be the same throughout the website and be both attractive and easy for users to read.
Remove all barriers
Try to keep user requirements minimal. The less action that is required from first-time users to test a website, the more likely they are to continue to use it. Let users explore the site and discover your services without forcing them into sharing private data and filling in long forms. This is especially important with cookie consents, a requirement with GDPR. Make sure the user can easily accept or decline cookies on your website. Remove all barriers; don’t require subscriptions or registrations first.

Testimonials and reviews
Customer testimonials help build trust. They are proof that you already have customers and are a legitimate and established company. However, more importantly, positive reviews and comments help to promote your business and build confidence in the work that you do.

Mobile friendly and tablet friendly
With the ever-growing use of smartphones and tablets, web design must work for a variety of screens. In 2018, 52 per cent of all website traffic was generated through mobile phones, and according to Google, 61 per cent of users are unlikely to return to a site on their mobile if they had trouble accessing it – with 40 per cent going on to visit a competitor’s site instead.

Consider your community
Your website should be designed to create a user community which will also act as an excellent way to promote your practice. Consider what types of community you want to create. Newsletters, community blogs, news articles and links to social networks can all be used to create the community that you want. Your aim should be to create an environment where your users can easily connect to the practice and are encouraged to do so.

Easy communication
It must be easy for users to communicate with the practice via your website and it is wise to provide as many ways as possible to do this. A ‘contact us’ page should include an email address and phone number, as well as a postal address. Increasingly, the option for clients to register and book appointments online is becoming a required feature.

Being able to register themselves and their pet online, as well as booking appointments online makes so much sense – not just for your busy clients, but also for the practice. Reducing time spent on the phone booking appointments will allow your reception team to focus on providing excellent service to the clients in the practice. Booking their pet’s appointment online is a great convenience to so many clients who may not find the time during the opening hours of the practice to make that phone call.
Business Feature

Conscious of the need for greater online interaction between client and practice, AT Veterinary Systems can now offer all their users Spectrum Online which provides real-time online client and pet registration and booking of appointments 24 hours of the day – integrating seamlessly with the practice management system.

The online appointments graphical interface ensures ease of interaction with your clients by way of user-friendly functions and clear communication channels as they progress through the stages of registering and managing their pet’s appointments.

In addition, SMS and email notifications are available within Spectrum Online, not only as an aid to clients, but also as an effective way to reduce missed appointments. Clients will also receive notification and confirmation of appointments via their online account. Appointment cancellation is as simple as appointment booking and can be done by both the client or the practice staff.

Your website is your interactive shop window; when designed well with easy-to-use functions, it can be a significant part of your practice promotion and service. Make your website work for you and your clients.

Online registration and appointment booking

ONLINE APPOINTMENTS WILL ALLOW NEW AND EXISTING CLIENTS TO:

- interact with your practice from home or while on the move
- register their new pets online
- book appointments online
- select date, time and surgeon when booking an appointment
- cancel an appointment if required
- receive progress messages from your practice relating to their online requests.

TO FIND OUT MORE INFORMATION ABOUT SPECTRUM ONLINE AVAILABLE FROM AT VETERINARY SYSTEMS

Telephone: 01359 243 400 or email: enquiries@vetsystems.com
Common dermatoses of rabbits and rodents

Skin disease in both rabbits and rodents is commonly found and frequently seen by owners. This article will discuss common dermatoses of rabbits and rodents, along with appropriate treatment.

Species variations
The skin of mammals is similar throughout the species. There are, however, several adaptations across the species and it is important to be familiar with the species being examined.

Hamsters have bilateral pigmented sebaceous glands on the flanks that are more prominent in the male, and which become more obvious during sexual activity (Siberian hamster with flank gland – Figure 1). Dwarf hamsters have a ventral scent gland. These glands are used during mating and to mark territories.

Gerbils also have ventral scent glands that lie midline (Figure 2) and are often mistaken for the umbilicus. The secretions of this gland are unique to gerbils – making this gland important in scent-marking.

Guinea pigs have several sebaceous glands used for territorial marking. These lie on the dorsum, rump and around the perineal area.

Chinchillas have extremely dense fur (Figure 3 – under microscope) making them popular in the fur trade. Each hair follicle can have up to 90 hairs. Fur slip can occur when handled roughly.

Rabbits have scent glands around the genital area called the Bartholin gland and preputial glands that secrete a yellow, pungent discharge.

General approach
As mentioned above, it is important to be familiar with the species being examined. A little time taken before the consultation will help the clinician prepare for the consultation and will reduce pressure placed on him or her. Familiarity with the species, along with knowledge of breeding age, sexual dimorphism and specific handling techniques all make the consultation a more satisfying experience.

Signalment is important and basic information must be collected such as weight, age and sex, as well as the duration of illness and number of animals affected. If the animal lives as a solitary species, does the owner have other animals where cross-contamination
is a possibility? Often when only one animal is presented, groups need to be treated as a herd and treatment given to all affected.

A detailed history of the animal’s diet and any changes to it are also important, as are any changes to bedding such as sawdust. Some of these materials contain chemicals that can be an irritant to the skin, therefore a recent change could have triggered a new dermatosis.

Clinical examination
A thorough clinical examination is essential. This ensures that the animal is treated as a ‘whole’. Just treating the mites on a rabbit’s back is not sufficient if the underlying cause is dental disease. Once all data has been collected, specific material can be collected to diagnose the dermatoses.

Within the consultation, it is possible to start collecting hair and other samples with the owner present. For some smaller species or those that are harder to examine, or those that have issues sitting still, it may be necessary to admit the pet for examination under sedation or anaesthesia in order to safely collect hair, skin scrapes and tissue.

Many of the tests that can be done within the surgery or consultation are usually cheap to collect and, with practise, can be carried out by the veterinary surgeon in-house. Diagnosis will take longer and may require time set away from the owner after consultations have finished. It is rewarding for the veterinary surgeon – and also for the owner – to ‘see’ down a microscope to the louse, mite or other offending creature that has been causing the disease on their pet.

In-house diagnostic tests

- hair – there are several otoscopes on the market that have a skin adapter (Figure 4). This is excellent for examining the fur, skin and ears of many animals in the consulting room. Hair can also be collected directly for microscopic examination or culture collection – both bacterial and fungal. This can either be done in-house or sent to a laboratory
- sticky tape test – pressing clear sticky tape against parted fur (Figure 5) repeatedly in an area that is affected, can often pick up parasites (Figure 5a)
- skin scrape – some of the larger rodents and rabbits will tolerate this while conscious but many of the smaller animals will need some kind of chemical restraint to prevent injury and pain. Deeper lodged parasites such as Sarcoptes are found using deep skin scrapes (Figure 6 – in-house gram staining)
- material from lesions – crusts and scabs can be sent for culture and sensitivity and also microscopic examination. Fungal culture is also possible. However, as soon as external laboratories are involved, the cost for the client starts to increase and may become prohibitive. Crusts or scabs that have been lifted off – if the surface that is left is moist – can have an impression made with a slide. Unusual cells such as malignancy or fungal cells may be diagnosed if present
- skin biopsy – this would require either local anaesthesia as a minimum with a docile animal, or full anaesthesia
- tru-cut biopsy – picture punches are perfect for

“A detailed history of the animal’s diet and any changes to it are also important, as are any changes to bedding”

Figure 4. Otoscope with skin adapter.

Figure 5. sticky tape test – pressing clear sticky tape against parted fur.

Figure 5a. Sticky tape test – can often pick up parasites.
“Small amounts of effort have far-reaching effects and benefits for the small pets that we see in the consulting room”

full thickness skin. Deep fungal infections, certain neoplasias and mite infections may need this level of testing for diagnosis. 

Parasitic skin disease
Parasitic skin disease is probably one of the most commonly seen skin diseases in general practice. Both rabbits and rodents are commonly affected.

Mites
- Mites are affected by the fur mites Myobia musculi, Myocoptes musculinus and Radfordia affinis. These mites cause pruritis and excoriation of the skin.
- Rats – the rat fur mite is called Radfordia ensifera and is highly pruritic. However, warty, thickened, crusty lesions of the pinnae, nose and tail are caused by Notoedres muris.
- Rabbits are affected by the fur mite Cheyletiella parasitovorax. This is a non-burrowing, zoonotic mite that commonly causes a rash on the forearms and belly of affected children. The life cycle is 14-21 days. Lovenox phobia is also a non-burrowing fur mite, sometimes known as the ‘salt and pepper mite’. It is thought to be non-pathogenic but can appear as heavy infections secondary to poor health.
- Hamsters – the most common mite affecting hamsters is Demodex spp. The mites are spread through suckling from dam to baby.
- Gerbils – similar to hamsters, the most common mite is Demodex meroni causing alopecia and scaling and is seen in immunosuppressed animals. There are two fur mites affecting gerbils: Acarus farris and Liponyssoides sanguineus.
- Guinea pigs – sarcoptic mange. Trixacarus caviae is the most common mite seen in guinea pigs. This burrowing mite causes intense irritation and excoriation and is highly infectious. It is also zoonotic. Demodex caviae affects guinea pigs as does the fur mite Chirodiscoides caviae. Cheyletiella and Notoedres can also affect guinea pigs.

Treatment: ivermectin 0.4mg/kg SC once every 10-14 days /Demodex ivermectin, amitraz baths.

(Figures 7 and 7a – rabbit fur mite.)

Other parasites
The rabbit flea Spilopsyllus cuniculi is the most common rabbit flea. The ‘cat’ flea is also found on rabbits – especially house rabbits. This flea is the most common vector of myxomatosis.

Fipronil has been reported to affect rabbits and should not be used a treatment. Imidacloprid and selamectin can both be safely applied to rabbits.

Lice and ticks can also affect rabbits but are not common. The rabbit louse species is Haemodipsus ventricosus. Guinea pigs are affected by Gliricola porcelli and Gyropus ovalis.

Treatment: imidacloprid.

Myiasis
‘Flystrike’ is unfortunately very common in both house and garden rabbits. It is a condition that is seen most often in the summer months where the presence of the green bottle fly Lucilia spp. is attracted to urine scald and faecal material that collects in the fur around the hind quarters. The life cycle of the green bottle fly is temperature dependent; the turnover of egg laying to hatching larval stages occurs in less than 72 hours. The larvae burrow and eat the damaged skin causing severe maceration, infection and often death of the rabbit. Clostridial infection and release of bacterial endotoxins is thought to contribute to the severity of the condition.

Treatment: the wounds require flushing, removal of all larvae, antibiotics, pain relief and treatment for shock. The wounds need to be monitored for further larvae and necrosis.

Educating owners is vitally important to prevent recurrence. Larval growth inhibitors prevent maggots from developing but do not repel flies. Cyromazine is the active component and is found in rabbit flystrike prevention products.

Bacterial disease
Bacterial disease in rabbits and rodents is often secondary to environmental trauma and wounds. Barbering is also a condition that is seen secondary to environmental stressors in some rodents. Cage-mates bite the whiskers off other cage-mates resulting in a bald appearance. Gerbils, rats,
mice and – to a lesser extent – chinchillas and degus may exhibit barbering behaviour. Rabbits commonly form abscesses secondary to dental disease and bite wounds from other cage-mates. Common bacteria that affect rabbits are Pasteurella multocida and Staphylococcus aureus.

Treatment: correction of the environment and separation of cage-mates is necessary to prevent recurrence. Cleaning of the wounds, culture and sensitivity test with appropriate antibiotic treatment, and flushing of wounds is required. Dental abscesses are more specific.

**Rabbit syphilis**

Rabbit syphilis (Figure 8) is caused by the bacteria Treponema cuniculi. It is a spirochaete and is spread during mating and directly to kits. Most of the clinical signs are seen as skin infections. Lesions can be found around the groin, penis or vulva, but also around the eyes and nose. Rabbits can be asymptomatic carriers and the incubation period is approximately three to six weeks. Diagnosis is by dark-field background microscopy, or silver stains on biopsy.

Treatment: although this disease can be self-limiting, treatment is usually with penicillin G once every seven days for three doses (42,000–84,000 iu/kg).

**Ulcerative pododermatitis**

This is a condition seen in rabbits, guinea pigs, chinchillas and degus. It can be seen in any larger, heavier animal in a poor environment – wet flooring, harsh concrete or wire mesh flooring resulting in pressure necrosis on the feet. The skin becomes reddened and infected and can often result in deep, serious infections of the bone. It is vital to prevent this condition.

Treatment: the feet will need to be padded – removing weight from the feet. Antibiotics and pain relief are required, and the rabbit may need further surgical debridement.

(Figure 9 – chinchilla with early pododermatitis.)

**Fungal disease**

Trichophyton mentagrophytes, Microsporum gypseum and M. canis affect rabbits and rodents. It is generally a non-pruritic infection seen in close contact. It is highly zoonotic – spreading quickly through direct contact and through fomites. Affected areas often have crusting, non-pruritic, alopecic areas on the nose face and ears. Diagnosis is made via culture or trichography.

Treatment: where possible, affected areas should be clipped and cleaned. All in-contact animals should be treated with itraconazole or ketoconazole. The agent and the dose depends on the species affected.

**Viral skin disease**

Myxomatosis

This is a viral disease of rabbits. It is a virus that was first observed in Uruguay in laboratory rabbits in the 19th century. The myxoma virus – a double-stranded DNA pox virus – was released in Australia in a bid to control Oryctolagus cuniculi, the wild rabbit. Initially this was very effective as it is generally almost 100 per cent fatal. The disease has an incubation period of 8–21 days and causes swelling of the eyelids and genial regions. Pyrexia, lethargy, depression, skin nodules and death owing to presumed secondary bacterial infection occur within two weeks.

The disease was also released in France and slowly it spread around Europe and the UK, New Zealand and Chile with varying effects on the wild populations. Invariably, nature’s equilibrium is re-established and rabbits acquire immunity while various strains of the virus became attenuated with a lessor effect. The disease is spread by biting insects such as fleas.

Treatment: there is no cure. Careful nursing with fluid therapy and antibiotics to prevent secondary bacterial sepsis may prevent death. Prevention with a vaccine using attenuated Shope fibroma virus gives cross-immunity.

Rabbits that have been previously vaccinated with the myxomatosis vaccine and are then exposed to the virus can still be affected by the disease – but to a lesser extent. This can either present as scabbing around the nose and ears or as discrete lesions. Attenuated Shope fibroma virus is used in the myxomatosis vaccine and it is this that causes the lesions.

“Skin diseases are varied, however, if a diagnosis can be made it can often lead to a complete resolution of clinical signs”
Hamster polyomavirus
This is a virus seen in Syrian hamsters. It is highly contagious, causing either lymphoma or wart-like lesions around the mouth, eyes, nose and anus. The virus can only be eliminated by culling affected groups and in-contact animals.

Environmental disease
Nasal dermatitis
This is a condition that is seen in gerbils. The top part of the nose is often rubbed raw and is seen secondary to stress when there are too many animals in a cage, or the humidity is too high. Porphyrin pigment collects at the nostrils and the gerbil irritated and rubs the nose – damaging the skin and removing the hair leading to alopecia.

Ringtail
When the humidity drops below 20 per cent annular constrictions occur around the tail resulting in necrosis and death of the tail. This is common in rats and mice.

Tail slip
Degloving occurs after mishandling. This is common in all rodents with tails. Surgical amputation is required.

Fur rings
This is commonly seen in male chinchillas. The combination of smegma and fur collects around the circumference of the penis causing constriction and paraphimosis. Immediate medical and surgical attention is required to prevent permanent damage to the penis.

Fur slip
This is a defence mechanism utilised by chinchillas to evade capture. They shed fur, leaving smooth and clean skin. Regrowth is often slow.

Bite wounds
Any group of animals that are kept inappropriately and in large groups where overcrowding occurs – or the bullying of weaker peers – can lead to bite wounds. Considering many of these animals are herbivores, the wounds seen are often deep and need medical management including antibiotics and pain relief.

(Figure 10 – old wounds on a chinchilla’s ear.)

Neoplasia
Skin tumours are common in rodents. Hamsters are affected by melanomas and also epitheliocytic lymphoma. This particular neoplasm resembles mycosis fungoids and is the second most common neoplasm in hamsters. Clinical signs include dry itchy skin with weight loss and anorexia. There is no treatment.

Gerbils often develop tumours of the ventral scent gland – either adenocarcinomas or squamous cell carcinomas. The lesions are often fast growing and appear as red, raised, circular lesions. Surgical removal is required.

Guinea pigs often present with large benign trichofolliculomas often on the dorsum. Surgical excision is normally curative.

Alopecia
Hamsters commonly suffer from hyperadrenocorticism which presents as bilateral non-pruritic alopecia.

Treatment: metyrapone 8mg/animal orally q24h for 30 days.

Polycystic ovaries
Female guinea pigs and gerbils are prone to forming persistent ovarian cysts leading to high levels of oestrogen. Non-pruritic flank alopecia is the main presenting sign. Surgical ovariohysterectomy is the treatment of choice.

Fur yellowing and urine scald
This can be related to age as in rats, and also to urine scald in rabbits secondary to increased urination, or being unable to move out of the urine once it has been passed.

Scent gland impaction
This is commonly seen in adult, older male guinea pigs. Often the whole anus will become impacted with a white, pungent discharge which sticks to bedding and faeces – further exacerbating the problem. The area needs cleaning daily with mild, warm, soapy baths to keep the area clean and free from discharge.

Conclusion
Diseases affecting rodents and rabbits can seem complex. However, there are many simple, cost-effective tests that can be carried out within the practice laboratory. These can provide instant results and, in effect, increase client-bonding while relieving uncomfortable conditions.

The importance when examining the skin is to be thorough, and to be as transparent to the owner as possible in order to cost a diagnostic plan within the budget of the client.

The prognosis will vary depending on the diagnosis. Sometimes, small amounts of effort have far-reaching effects and benefits for the small pets that we see in the consulting room. Not only is this rewarding to the clinician, it is also satisfying for the client and a relief to the small mammal with the irritating dermatosis.

Skin diseases are varied, however, if a diagnosis can be made it can often lead to a complete resolution of clinical signs.
Primates as pets

All political parties seem to be in agreement that keeping primates as pets is no longer acceptable. Both the Tory and Labour parties have vowed to bring in legislation to this effect, and maybe once the Brexit debate is finally resolved, there will be time to pass new laws making the keeping of primates as pets illegal.

Primates are highly intelligent and complex wild animals. Like humans, they form intricate relationships, experience emotions, and some may be able to call upon past experiences and feelings. It is for all these reasons that they are unsuitable as pets. Despite this, thousands of primates are currently being kept as pets in the UK – many with no other companions or stimulation. This social isolation can cause primates to become depressed; leading to self-mutilation and displaying stressed behaviour such as rocking and self-hugging.

According to figures released by the RSPCA, there are between 4,000 and 5,000 primates currently kept as pets in the UK. Among these include lemurs, monkeys and apes. Like all baby animals, primates look ‘cute’ and appealing when they are young and their appeal as ‘mini humans’ should not be underestimated. However, many can live for 20-40 years and if they are kept in unsuitable conditions such as parrot cages, sheds and aviaries – which is not uncommon - it is hardly surprising that when they mature they can become aggressive and can bite and attack their owners. Some of the most common primates kept as pets are capuchins, guenons, macaques, marmosets, squirrel monkeys, spider monkeys and tamarins.

Currently, primates and other vertebrates are protected by the Animal Welfare Act 2006. The Act makes it an offence to not only cause suffering to an animal, but also for animal owners and keepers to fail to meet the animal’s needs. The five welfare needs include:

- health – protection from pain, injury, suffering and disease
- behaviour – the ability to behave naturally for their species
- companionship – to be housed with, or apart from, other animals as appropriate for the species
- diet – a suitable diet as well as access to fresh, clean water
- environment – a suitable environment for the species.

The Animal Welfare Act 2006 is unable to adequately cover the protection of primates and this led to the Defra Code of practice for the welfare of privately kept non-human primates 2009. This Code of Practice is a guide to the steps that a keeper of primates must take in order to meet the needs of an animal – as required by Section 9 of the Animal Welfare Act 2006.
The code states that: ‘Primates should not be considered as pets in the accepted sense of the word – they are not a species that can be treated as part of the family in the way that a cat or dog might be. They are wild, undomesticated animals that cannot be house-trained or fully tamed’.

The code also sets out guidelines for the welfare of primates kept in captivity and as pets – covering behaviour, physical health, environment, nutrition and care plans and records.

Pet primates are also to some extent covered by the Dangerous Wild Animals Act 1976. The Act aims to ensure that, where private individuals keep dangerous wild animals, they must ensure that there is no risk to the public, as well as (but not seen as so important in the Act) safeguarding the welfare of the animals.

Licences are required for any animal that appears on the schedule of the Act. The schedule includes a number of primate species such as lemurs, capuchins, spider monkeys, macaques and all the great apes. Licences are issued by relevant local authorities, and can only be granted after careful consideration and inspection of the applicant’s premises and suitability. This makes a great deal of sense, but sadly the system is woefully inadequate with non-compliance running between 85-95 per cent. Some authorities seem unaware of their responsibilities regarding the keeping of wild animals, while many lack primate expertise and are unable to identify those species of primate requiring a licence.

Despite the legislation and welfare recommendations, the experience of the RSPCA in rescuing primates has shown that the majority of primates are kept on their own with no companions. A survey carried out on internet sites with primates on sale revealed that 63 per cent of the animals for sale were infants – suggesting that despite the importance of infant primates needing parental care, early separation is a significant problem in pet primates. The RSPCA records also show that 26 per cent of the cages in which they found primates were too small. Primates were found housed in parrot cages in several instances, as well as aviaries and sheds, and only half had access to the outdoors.

It is easy to buy primates online; a quick internet search will provide pet monkeys for sale – albeit at high prices. Baby marmosets can fetch up to £750 each. Sadly, while celebrities share pictures of their pet monkeys on the internet, the public will continue to think that keeping these exotic creatures is acceptable.

Protection for primates cannot come too soon. A home environment cannot provide the needs of these wild creatures. Fifteen European countries have already introduced bans on keeping many species of primates as pets – let’s hope the UK will soon follow suit.

Correction:
‘On being a bee-friendly practice’ by John Hill MVB MRCVS (Veterinary Practice Today, Volume 7 Issue 6).
Veterinary Practice Today included an image of the Asian giant hornet, Vespa mandarinia, and incorrectly titled the image as the Asian hornet, Vespa velutina. A correct image of the Asian hornet, Vespa velutina, is included below (Courtesy The Animal and Plant Health Agency (APHA), Crown Copyright. www.nationalbeeunit.com).
Keeping records in veterinary practices

In a sector which requires the highest standards of clinical compliance and recording of patient information, it is common for the maintenance of employee records to inadvertently slip down the priority list. The stresses and time pressures of running a busy practice mean that personnel files can often become disorganised and key information is not filed according to best practice principles. Failing to have regard to the importance of maintaining accurate and organised files can leave a practice open to inefficiencies, complaints, and claims leading to financial consequences.

What are employment records?
Employment records are a way of establishing and monitoring the relationship between an employee and the employer practice. They can also act as evidence that appropriate and mandatory checks have been carried out, such as right to work checks, qualifications and references.

There are a variety of records which an employer can keep on a personnel file:
- key personal information
- pay details
- job description and contractual terms
- performance targets
- absences
- live grievances or disciplinary action and unexpired warnings
- relevant medical information – detailing any disabilities, medication or health benefits.

Employers need to ensure that all employment files contain only relevant information on the employee’s performance and qualifications, and no personal opinions on that employee as an individual.

Why is keeping employment records important?
Not only is it required by law that practices hold certain information about their employees, the keeping and maintaining of employment records enables the streamlining of the employment process; ranging from recruitment, performance and termination. They also act as evidence of the relationship, and can enable practices to evidence factual circumstances should any form of litigation be threatened or embarked upon – from an employment or regulatory perspective.

With the introduction of the General Data Protection Regulation (GDPR) the importance of establishing and maintaining accurate and up-to-date employment records has become more vital to ensure practices are protected.

What records should your practice keep?
GDPR maintains the Data Protection Act’s notion that ‘[data should] not be kept longer than necessary for the purpose for which it was processed’. But how does this relate to the different elements of personal data placed in the care of HR?

Some records are mandatory by law, and others are optional. It is up to each practice as to which to keep.

Remember that by having an extensive range of relevant information on employees, a practice can collate key data such as employee turnover, absence and training. This gives management a clearer idea about the costs and stability of the practice.

The standard documents practices should look to retain include:
- health and safety – records of induction and fire safety
- hours, holiday, sickness, unauthorised absence and overtime
- training, records of qualifications, CPD, appraisals and performance targets
- medical file – any relevant medical problems that may affect an employee at work, as well as emergency contact numbers and details of accidents that have occurred at work.

During a recruitment process, there is a lot of data collected. Ideally, a practice will want to keep this information for at least six months. This is the period of time during which most employment tribunal claims – including discrimination claims – could be brought against a practice. The data collected during the recruitment process is important for defending any of these potential claims. Because there is a legitimate interest to hold this data for this amount of time, it could easily be argued under GDPR.
that the risk to the applicant is minimal compared to the benefit for the practice to legitimately defend a claim. If you wish to keep an applicant’s CV on file longer than six months, then consent from applicants is recommended.

Data relating to pay-as-you-earn (PAYE), maternity pay or statutory mandatory pay (SMP) need only be kept for three years after an employee leaves a practice, as that is how long HMRC may be interested in the information for conducting reviews or audits.

Data such as employees’ personal records, performance appraisals and employment contracts should be held for six years after they have left. This is partly because of potential employment tribunal claims for the three-month risk period during which terminated employees can bring a claim for unfair dismissal, discrimination, and claims for unpaid wages. Yet it could also be used for defending others claims – for example a workplace personal injury – which can occur many years down the line. Under GDPR, the condition for processing would be legal obligation, or legitimate interest.

An employee’s personnel file should never include random notes, gossip, unfounded rumours, questions, reports, or ‘tattle-tale’ allegations from other employees. To ensure best practice, introduce a privacy notice to inform employees about how and why their data is collected and stored.

**When should a practice start keeping records?**

It is good practice to start keeping records as soon as a relationship between a potential employee and employer commences at the job application stage. For unsuccessful applicants, be clear on how long their records will be retained – and seek their agreement if they wish to be ‘kept on file’ for future opportunities.

There should be no confusion for the practice, employees or candidates in regard to when records will be destroyed. Equally, this ensures the practice has all the information it needs from the beginning of the employment relationship so that sickness, grievances, disciplinary action or performance matters can be recorded.

**How should a practice keep records?**

**Format**
The format in which records are kept is entirely dependent on your practice. Traditional paper files are easy to create but require printing and paper, as well as secure filing space in order to physically store them.

Alternatively, there are a growing number of HR software systems which digitise records; with access via a secure, password-protected portal. This eliminates the cost of printing and secure storage space but the implementation and training that is needed by introducing a new system can also be costly in both money and time.

Practices should weigh up the costs and benefits associated with both formats to establish the best course of action for formatting and storing records. Whatever format used, ensure records are accurate, confidential and easily adaptable in order to cope with changing circumstances.

**How long?**
The length of time in which records should be kept is entirely dependent on the type of document it is and the information that it contains.

The minimum or maximum length of time which an employer has to keep certain documents, or the maximum is legislated – including PAYE and pension contribution records.

For much of the personnel information held, there is not a set length of time for retention or destruction. Practices should make an executive decision of the length of time that they consider appropriate for the categories of document, and apply this consistently.

With the introduction of GDPR, practices must provide a reason for keeping data on individuals. If there is uncertainty, specialist GDPR advice is recommended.

**Where should they be kept?**

Whether in paper files or a digital format, records must be kept secure (either locked away or password protected) and with a clear list of people who have access to them. This ensures that there is limited scope for personal data to be accessed, stolen or accidentally released.

The Information Commissioner’s Office recommends that any devices that have access to practice records should be encrypted in order to limit data breaches if those devices fall into the wrong hands. Organising in an ordered system – such as in alphabetical order or by department – allows for ease of filing and access when trying to locate specific records, as well as limiting the potential for a file to be misplaced or misfiled.

“**There should be no confusion for the practice, employees or candidates in regard to when records will be destroyed**”
Impact of GDPR
Since 25 May 2018, all companies within the UK and the European Union Economic Area have had to comply with the General Data Protection Regulation (which replaces the previous UK Data Protection Act 1998). Non-compliance attracts significant fines.

GDPR allows individuals – including employees – to request to know how, why and what data is being collected about them and to file a complaint if they feel that data about them is being collected or stored for no good reason. It also allows them the right to ‘erasure’, which is when an individual can request that all data that a company holds on the individual be destroyed. This is particularly important as it allows individuals to be ‘forgotten’ if they withdraw their consent for data to be collected on them.

With compliance with GDPR applying across practices – from client records to employee files – practices should already be complying with the stricter standards. It remains good business practice to continually improve by reviewing processes for collecting, processing, storing and destroying data.

By ensuring staff are aware of where data collected is from, who has access to it, why it is collected and where it is stored, a practice can enable compliance with any access requests.

Practices are recommended to complete an information audit in order to take stock of current procedures in place, and to address any discrepancies within the practice. The processes to be adopted by GDPR are more stringent. Penalties for the mishandling of data are substantial.

Top tips for keeping records at your practice
- be accurate and up-to-date in order to avoid mistakes
- constantly review and train staff who handle records to ensure that they are accurate and stringent in their record keeping
- be secure – any breaches of data must be avoided at all costs, but, if it does happen, make sure it is contained and dealt with swiftly, and review your policies and procedures around the security of your records in order to establish how it happened and how it can be avoided in the future.

PPD Questions

1. What should not be included in a personnel file?
   A. employee references detailing their past performance
   B. criminal record checks
   C. notes on allegations against the employee which were unexplored
   D. details of an award of employee of the month.

2. What is the name of the regulation which protects the data of individuals?
   A. General Data Protection Regulation
   B. Data Protection Directive
   C. Advisory Data Protection
   D. Protection of Veterinary Data.

3. Why is keeping records important? Circle all that apply.
   A. because having information on every aspect of all parts of an employee’s life is relevant to the practice
   B. required to by law
   C. helps with internal processes such as recruitment and disciplinary action
   D. to keep track of all the gossip and rumours about each employee in order to use it against them in the future.

4. Where should you keep your records?
   A. in an unlocked filing cabinet in a shared department office
   B. in your personal desk
   C. in the office kitchen
   D. in a secure location with authorised access only.

5. Which of these statements is wrong?
   A. accurate and up-to-date records help to streamline internal processes
   B. GDPR is not relevant to my practice because I do not have many employees
   C. companies are required by law to keep records such as PAYE and pension contributions
   D. practices should have a list of authorised personnel who have access to the company records.

Answers
1. C
2. A
3. B and C
4. D
5. B
Ultralink monitors all aspects of your practice's performance, generating live visual reports and revolutionising the way you view your practice.
Lonely at the top

In the fourth part of this leadership series, two practice managers explore the challenges leaders face – but may not talk about. In this article, they explain the role of empathy in your leadership skill set. Whether you are delivering bad news or receiving it from a member of your team, never underestimate the importance of listening, understanding and compassion.

We talk a lot about the need to have empathy with our clients, but just as important is having empathy with our staff. An empathetic workplace has a direct impact on employee productivity, loyalty and engagement.

**Empathy – what is it?**
Simply put, empathy is the ability to step into someone else’s shoes, to be aware of their feelings and to understand their needs. Empathetic management shows that employees are respected and cared for and is a powerful tool in leadership. It is important to have clear in your mind the difference between empathy and sympathy; they are different and will elicit different reactions from the people you are dealing with. Sympathy is a feeling often of sorrow, pity or compassion for another person. We can all feel sympathy, but feeling empathy is not such an ‘easy’ emotion to feel. Empathy is a stronger emotion – it is the ability to put yourself in the place of another and understand as much as possible someone else’s feelings by identifying with them.

Empathy builds trust, and trust is one of the most important currencies a leader can hold. It means that when they have to deal with difficult situations – particularly if these situations involve difficult issues or conversations and bad news – they are starting from a positive, trustworthy position in the eyes of the employee.

Empathy requires three things: listening, openness and understanding. Empathetic people listen attentively to what they are being told, focussing totally on the person they are talking to and spending more time listening than talking. This helps them to better understand any situation and shows the people involved that they are being heard and recognised. They also ask the right, thoughtful questions to get to the root of a colleague’s problems and, by doing this, they are saying ‘I hear you’, ‘How can I help you?’ and ‘How are we going to sort this out?’.

A business is all about people, and if a practice manager or team leader is able to display an attitude of openness and a real understanding of the feelings of their employees, they will help to create a loyal and dedicated team. Demonstrating empathy takes time and effort. It’s not always easy to understand why an employee thinks or feels the way they do, but by spending more time learning about the needs of their employees, leaders can show they care.

Empathy is a critical part of being able to manage conflict and resolve challenges in the workplace. It is one of the ‘soft’ skills that enables leaders to create bonds of trust and to have an insight into what others are feeling and thinking, as well as helping in the understanding of their reactions and attitudes.

True or ‘active’ listening is one of the keys to successful empathy; it involves listening carefully, paying attention to body language, to tone of voice, to the hidden emotions behind what’s being said and – importantly – leaving judgement behind.

“Empathetic management shows that employees are respected and cared for and is a powerful tool in leadership”
“What happens after the breaking of bad news can often be more important than the conversation itself”

Next we will discuss two common situations where practice managers will require the ability to empathise: giving bad news to an employee, and receiving it.

**Delivering bad news to your employees**

It usually falls to the practice manager to give bad news to employees and it is extremely important to be empathetic on these occasions. The manager’s attitude and emotional skill set will play a vital part in how such difficult situations are resolved.

Bad news can come in many forms; from the ultimate dismissal, to redundancy, short-time working, disciplinary proceedings, a poor performance review or, at their simplest, just refusing an employee’s holiday request. If the practice manager has done the groundwork and can use their empathy skills, then they are in a much better position to deliver bad news in the most compassionate and effective manner.

Preparation is key to successfully delivering bad news, and the most important question to ask yourself is how, if you were in your employee’s position, you would like to hear about it. Carrying out this exercise helps you to see the situation in a different context and starts the empathy process.

Bad news should be delivered with grace and respect. To give the news in person is always best – whether it be in a one-to-one situation, or to a group if all the members are affected. The worst way is by email or text as it is so impersonal, and it also prevents questions and explanations.

Be sure you have all the facts relating to the bad news – know how you are going to deliver it and ensure that you can answer any likely questions from the employee. Consider the impact on the employee – how they may react and what their feelings will be – and try to imagine how you would feel in their shoes. Be very clear about the information you are giving – make sure there can be no misunderstandings.

If there is any good news embedded in the bad, then it’s best to deliver that first. This is also a good tactic when giving constructive criticism. Listen carefully to their responses – which may be emotional or confrontational – but never respond in kind, just listen and allow their feelings to be expressed and do not take any criticism or anger personally.

The next stage is to address their concerns, showing you have listened carefully and are taking their concerns seriously. Always respond truthfully, even if you are unable to resolve issues or make the situation easier. Try to work together to identify a positive outcome and what steps are going to be taken. What happens after the breaking of bad news can often be more important than the conversation itself.

Every time you give bad news, reflect on how you did this. Consider how the conversation went, what the outcome was, how ‘successful’ you think the conversation was, and what you might do differently next time. Learn from mistakes – they will help you to become more empathetic.

Delivering bad news well requires preparation and more than a little courage. It is never easy and even the best leaders will get it wrong on occasion. However, if you are able to empathise with your employee you will find the process considerably easier and so will they.

**Reacting to your employees’ bad news**

As a practice manager or team leader, the time will come when an employee will disclose personal bad news to you. This could be anything from a death in the family, to a diagnosis of illness or handing in their resignation. In order to respond with sensitivity and tact, it is vital to have empathy. It is all too easy to immediately go into ‘work mode’ and to instantly start calculating just how many days this person may need off from work, or how long their notice period is. What we absolutely must not forget, at any stage, is that we are dealing with a person – and one who has most likely worked hard for your practice.

First and foremost, ensure that you are in a private room when having a private conversation. If you share your office with another person, it is worth asking if they can work elsewhere while your conversation takes place. You may not think that having another person in the background is a big deal – they are getting on with their own work after all – but a true empathetic approach would involve appreciating that there may be personal details shared that your team member may not want anyone else hearing. Close the door, turn yourself away from your computer and give them your full and undivided attention. It may have taken this person a lot of courage to come to you, and they may well be in need of your guidance.

The next step is to ‘actively’ listen – fully concentrate on what is being said rather
than just waiting until you next have the opportunity to speak. Observe body language and behaviour, and really try to understand what they are communicating to you. It is not uncommon to hold back when speaking to the ‘boss’, and really giving your full attention – without speaking – can encourage the other person to open up. Again, don’t forget to be human. A genuine and sincere “I’m so sorry to hear this” is just as important now as it is when you hear bad news from a close friend.

Of course, what is ultimately required is a supportive plan of action. Some situations may be relatively straightforward – a resignation for example – but this too requires empathy in order to be handled correctly. Express how sorry you are to hear that they are leaving, but don’t forget to be interested in their next step. Their time at your practice most likely influenced their career progression, and it will appear as if you don’t care if you do not ask. It can also help to enquire if there is anything that you could do to make them stay – the answer may be simple and you may not lose that excellent nurse after all! Whatever you do, do not be tempted to express frustration. No one wants to hear their line manager blaming them for what will now be a difficult rota situation.

If the situation is slightly more delicate, or one that you have not come across before, there is no harm in seeking external advice. You aren’t expected to be a trained counsellor, but you will need to effectively manage the situation. Initially, reassure your team member that you understand and that they have your support, but explain that you will need to ask for advice so that nothing is missed. In a way, this is not dissimilar to how you may work with a client over a complex complaint – you may not immediately have all the answers, but you will certainly find out and will make sure that the situation is remedied. As with the client complaint, sensitive and regular communication is key while you work through it together.

“What we absolutely must not forget, at any stage, is that we are dealing with a person...”

It is also important to keep personal issues confidential – even if other team members ask you politely if their colleague is okay. It is ultimately up to the affected member of staff as to what they share with others, but it can help to ask them if they mind anyone else knowing. They may wish to keep everything private, or they may appreciate you telling everyone for them so that they don’t have to keep explaining themselves.

Unlike when we have to give bad news to others, we usually cannot prepare for when members of our team deliver their bad news to us. However, the trick here is to exercise your humanity. We can get so caught up with process that we can sometimes forget that there are real people at the end of it all.

Empathy is what ultimately unites us – and the messy, uncontrollable aspects of life that don’t always fit neatly into the boxes of employment. An empathetic approach to your team member’s bad news will ensure a collaborative outcome, and will likely result in the most loyal of employees.

Next issue: we share what not to do in a veterinary leadership role.
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The bigger picture – how to use animals in your marketing responsibly

A recent RCVS disciplinary hearing stressed the importance of gaining client consent for photographs and social media posts. Facebook, Twitter and Instagram are brilliant platforms to market your practice and connect with clients, but without adhering to your responsibility to maintain client confidentiality you could end up offending or losing clients, or worse, be taken to court for publishing an image. This article looks at how to use social media responsibly and offers some advice for taking photos that promote healthy pet ownership.

One of the quickest ways to a pet owner’s heart is to share pictures of animals that visit your practice on social media – be it a kitten who has come into the practice for its first course of vaccinations, or a Labrador being united with its owners after a lifesaving operation. With stacks of material available at your fingertips, there’s no need to use stock photography on your social media feeds. Pictures of patients are more personal; they put a face to the practice and are more likely to be shared – especially if they feature the social media user’s beloved pet. Before you reach for the camera, however, it is important to cover all bases and ask for the client’s permission.

A word of warning
In April 2019, a veterinary surgeon practising as a locum in the United Kingdom was reprimanded by the RCVS concerning their failure to obtain consent for posts on social media. Between July 2016 and August 2017, posts were created on social media about animals being treated at practices in which they worked, but without getting permission from clients. On one occasion, a photo was shared of a cat with an accompanying caption of the patient’s surgery and condition. In another, a video of an animal being operated was shared without the consent of the veterinary surgeon.

After considering the available evidence, the RCVS Disciplinary Committee found the vet in question guilty of serious professional misconduct and issued them with a warning. The case made national headlines and sparked discussions in the veterinary press about what it means for the profession as a whole. As Josh Loeb writes in Veterinary Record, ‘the proceeding could be viewed as a ‘test case’ about the vexed question of what is and isn’t possible online’.

RCVS code of professional conduct
In the aforementioned case, the RCVS warned the vet to be fully aware of – and to comply with – the provisions of the RCVS Code of Professional Conduct and its supporting guidance. In particular, that veterinary surgeons ‘must not disclose information about a client or the client’s animal to a third party unless the client gives permission, or animal welfare or the public interest may be compromised.’

It adds that this same principle applies to veterinary professionals when using social media, noting: ‘veterinary surgeons should maintain and protect client confidentiality by not disclosing information about a client or the client’s animal, which could identify them on social media unless the client gives explicit consent. If consent is obtained this should be recorded separately (ideally in the clinical records).’

So how do veterinary professionals go about gaining a client’s consent?
The RCVS recommends that consent should, ideally, be written and compliant with the General Data Protection Regulation (GDPR). In other words, the consent should be freely provided, specific, informed, unambiguous and affirmative. It must also be possible for the client to withdraw their consent easily. Getting the consent in writing means that, should a person dispute why you have used an image of their pet, you have proof that you asked for their permission.

If there is somebody specific within your practice responsible for taking photographs or using social media, ensure they have plenty of permission forms. When they ask the client if they can take a picture of their pet,
they can invite the client to read over the form and sign it at the same time. You could also write it into a registration or appointment form as one of a list of things the client can agree to. This should be very obvious and not written in any small print that the client could miss – ideally your receptionist would make a point of highlighting this verbally when they hand over the form. Being confident about gaining a client’s permission is important because it shows that you respect their privacy. Some clients may refuse to sign the form, but most will be over the moon to see their beloved pet in a newsletter or on the practice Facebook page.

A consent form should include consent to take photographs of the patient and client, consent to use the pet’s name and permission to use and publish photographs both in print and online. The form should also state how long the photographs will be kept on file and whether the practice can alter the photograph.

The client should then sign and date the form, adding the name of the pet they are permitting for.

Marketing your practice
Once you have gained the client’s permission it’s time to start thinking creatively. Staff ‘selfies’ with pets, before and after treatment pictures, and seasonal events are a few examples of content that some veterinary practices are already sharing on social media.

If you’re posting the picture to Instagram, remember to add your location and a strategic hashtag. This way, potential clients can find your business when they search in the local area.

Top tips
You don’t need any expensive photography equipment. For most practices, a simple smartphone can be a great way to capture those precious moments. Why not keep one in the practice that can be used specifically for this purpose?

- When taking a photo, keep in mind that natural light looks best, so try to place the subject near to a window.
- Keep in mind the patient’s behaviour – do not take a photograph when a patient has just woken up from anaesthesia.
- Keep a selection of toys and treats on hand.
- Get to the animal’s level for a more interesting viewpoint – lie on the floor if you have to.
- Clear the background of clutter. You still want it to look like a veterinary practice, but you don’t want the background to be too much of a distraction.

What to avoid
In 2018, the BVA called on advertisers and veterinary practices to give full consideration to the way animals are depicted in their communications. Then BVA president Simon Doherty stressed: “Just like television or print adverts created by big brands, any inappropriate use of imagery in our client-facing communications also has the potential to normalise hereditary defects, poor welfare, and inappropriate diet and housing, as well as drive demand for certain breeds with physical and behavioural problems that are not always recognised by the public. As animal welfare focused profession, it is paramount that vets and vet nurses take the lead in ensuring clients are presented with visuals that support responsible pet ownership and positive animal health and welfare outcomes.”

“In April 2019, a veterinary surgeon practising as a locum in the UK was reprimanded by the RCVS concerning their failure to obtain consent for posts on social media.”
To help veterinary practices promote positive pet welfare, the BVA launched a set of pet advertising guidelines that identify good practice as well as common mistakes when portraying pets. For example, images of animals in human clothing or fancy dress. The guidelines, *Pets in advertising: A social concern* stress that images should, where possible, depict pets in situations that meet their five welfare needs. That is, the need for a suitable environment; the need for a suitable diet; the need to exhibit normal behaviour; the need to be with, or apart from, other animals; and the need to be protected from pain, suffering, injury and disease.

Of course, it’s not always possible to address each of these needs (for example, if the animal isn’t around any food), so the framework has been designed simply to encourage decision-making. It calls on veterinary professionals to consider the following questions before publishing images of animals:

<table>
<thead>
<tr>
<th>Question</th>
<th>Consideration</th>
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<tbody>
<tr>
<td>is the animal shown in a suitable environment for its species and breed?</td>
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<tr>
<td>is the animal shown eating food or near food that is non-poisonous, proportionate to its breed size and conducive to a nutritionally balanced diet?</td>
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<td>does the animal shown have enough space and/or the appropriate enrichment materials to exhibit normal behaviour?</td>
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<td>is the animal housed with, or apart from, other animals appropriate for its species?</td>
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<tr>
<td>does the animal show any physical characteristics that negatively impact on its health and/or cause suffering? (For example, surgically altered characteristics such as cropped ears?)</td>
<td></td>
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<tr>
<td>is the animal safe? (For example, free from injury, pain or stress?)</td>
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The above are all questions that can be applied not just to social media, but also to client hand-outs, website imagery and cardboard cut-outs within the practice. Using the correct imagery promotes healthy pet ownership and it can be great for your practice too. Taking care to ensure the images that you share are responsible can enhance your reputation, improve your overall image and boost client loyalty.

“Using the correct imagery promotes healthy pet ownership and it can be great for your practice too”

References

- Loeb, J (2019) *Social media case has life lesson for all vets*. Accessed on 17 July 2019 at https://veterinaryrecord.bmj.com/content/184/18/537
In sickness and in health – are your staff allowed to be ill?

For anyone who works in practice, it will likely come as no surprise that a recent BVA study confirmed that two-thirds (63 per cent) of veterinary surgeons attended work last year when they did not feel well enough to do so (BVA, 2019). The industry has been accused of having a ‘phone in dead’ policy, but we must do better than this – we have a duty of care to make sure vets are well enough to work.

It can take a peculiar amount of courage to call in sick. The ‘guilt’ of leaving teammates to pick up extra work, or the awkwardness of having to ‘justify’ sickness to an unsympathetic boss can often stop an unwell colleague from making that call at all. So, they wobble in; a blundering mix of analgesia, cold sweats and infectious particles – until the next person falls victim and the cycle continues. This scenario may sound fairly commonplace and is by no means limited to the veterinary industry, however, the BVA is reminding all vets that they have a legal right not to attend work when they aren’t well enough to do so, and that any concerns should be discussed with managers. So, as managers, are we doing enough to support unwell staff, or are we promoting presenteeism?

Results of the BVA ‘Voice of the Veterinary Profession Survey’ – which received over 1,300 responses – found that nearly one in five vets (18 per cent) do not take sick days at all owing to feeling ‘uncomfortable’ about it. We need to question just what we are doing (or not doing) to make our team feel such discomfort about admitting that they need to rest. After all, the very nature of the role could make illness more prevalent than in other occupations. The long hours, the lack of adequate breaks, the stress and the daily exposure to the general public (and common illnesses) all make incidences of sickness likely.

As managers, we could be accused of burying our head in the sand when it comes to providing a satisfactory sickness policy. We have, of course, all most likely experienced a team member who has taken advantage of sick days, and in this way, we can often live in fear of inadvertently encouraging absenteeism. But individual behavioural issues need to be managed individually – the entire team cannot be tarred with the same brush.

However, even if a policy is in place, are we still guilty of advocating a culture where to call in sick is synonymous to misconduct? Perhaps we need to pay attention to how we inform new starters about the sickness policy. Do we say it in a supportive manner, or do we adopt an ‘if you really have to’ tone when explaining the process of calling in sick? How do we report to other team members that a colleague is off? Do we express sympathy, or do we groan that we are now a vet down? It is these nuances in conversation that can ultimately create cultures.

The consequences of working while unwell should not be underestimated. An unwell colleague is putting the health, safety and wellbeing of themselves, their colleagues, their clients and, of course, the patients under their care at risk. And, it appears, there are greater financial losses involved than if a colleague had called in sick: a study from Queen’s University found it costs employers twice as much in productivity losses for employees who come to work unwell than for those who stay at home to rest.

Unsurprisingly, the main reason given by vets for not taking time off to recover from illness is the worry of ‘letting the team down’ and there not being enough staff available to provide effective cover. One survey respondent commented that: “Being ill is not an option. The practice is staff down? It is these nuances in conversation or do we groan that we are now a vet down paradigm.

What we need to do is set a positive example from the top, tangible back-up plans for when we are a shipmate down, and, most importantly, a culture change that gives us all permission to be human.

References


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Industry Profile

Your name: Jennie Jones
LLB Hons
Position: Head of VCMS, Partner at Nockolds Company: Veterinary Client Mediation Service (VCMS)

Why was the VCMS set up?
The Veterinary Client Mediation Service (VCMS) was set up on a trial basis in October 2016. The aim was to provide an independent and impartial resolution for veterinary complaints so that they can be resolved as early as possible.

How is the VCMS funded?
We are funded by the RCVS.

How many complaints does the VCMS deal with each year?
We forecast that we will have received 2,300 enquiries this year. Many of these are complaints at an early stage and owners will contact us seeking guidance or help in communicating with the practice. The VCMS can provide constructive advice on how to raise a complaint to help a practice resolve it swiftly at that level. However, the VCMS will ask the pet owner to follow the practice’s own complaints process before the complaint can come to the VCMS. In October 2019, the VCMS conducted its 1,000th mediation. With a resolution rate of 86 per cent, that’s almost 900 complaints concluded and over 4,800 enquiries answered.

How long does it normally take to resolve a complaint?
When a complaint comes into the VCMS process, the owner and the practice are asked to confirm that they wish to use VCMS complaint mediation and to share all relevant paperwork. They are then assigned to a resolution manager. The resolution manager will then arrange to speak with each party separately. Once those calls have started, the aim is to use the time efficiently to explore the complaint and look at resolutions on the same day. The agreed resolution is confirmed in an agreement which both parties sign before the agreement is implemented.

As the process is based on mediation, the VCMS does not investigate complaints or make any decision on what has happened or who is right or wrong. The focus is on understanding and trying to move the complaint forward to a point where both parties can find an acceptable conclusion. In doing this, the resolution managers need to help each party to understand the other’s point of view, and to ‘stand in their shoes’. This may involve truly listening and understanding the concerns of the other party, recognising the unintentional impact of what has happened, and then sharing your own perspective. To enable this to happen, the parties are not involved in the same telephone call with the resolution manager. The discussions are also confidential and without prejudice, so cannot be used in any subsequent proceedings. This creates a safe space to share your own perspective to then enable you to take on board the viewpoint of other party. Often a party will share a particular recollection or feeling which has not been shared previously, and it will explain and put into context a reaction or their position. This can then be explored sensitively and addressed.

Is there a common theme to the complaints received?
The VCMS captures the nature of the complaint from the owner’s perspective. Complaints involving allegations or worries about a diagnosis are the most frequent issue mentioned.

“The VCMS does not investigate complaints or make any decision on what has happened or who is right or wrong. The focus is on understanding and trying to move the complaint forward to a point where both parties can find an acceptable conclusion”
"As a voluntary and impartial scheme, it is important that parties feel the service is independent, fair and impartial"

This is followed by communication concerns. In fact, the two are closely linked. In the majority of complaints referred to the VCMS, the owner may feel that a diagnosis was delayed, a misdiagnosis resulted in unnecessary or inappropriate treatment, or the treatment path taken was incorrect. Many of these issues involve trust and communication. Over 50 per cent of the resolved complaints conclude with a practice providing a further explanation, an owner accepting the explanation provided or revising protocols to help practices share information and communication with owners at stressful times.

In 2019 we updated our analysis categories, and an updated trend insight will be shared in our forthcoming 2018-19 annual report.

What kind of feedback do you get from clients and vets?
Both pet owners and practices are asked to provide feedback on their experience with the VCMS and also on the outcome. As a voluntary and impartial scheme, it is important that parties feel the service is independent, fair and impartial.

How important is it for practices to spend time reflecting on complaint resolutions?
It is incredibly important for practices to reflect on complaint resolutions when complaints arise. Seeing a complaint as feedback and maximising the opportunity to learn from the situation is key to running an effective and successful practice.

Taking the positives from complaints does not feel easy. In a busy practice, the focus is on dealing with the situation and moving on. Many complaints can give insight which result in small ‘tweaks’ to communication or process, and can avoid issues arising in the future. A complainant can be turned into your loudest evangelist, and involving them constructively in the lessons learned can be powerful.

VCMS also recommends taking practice management and professional development time to review and reflect on your complaint process and approach. Doing so outside of a complaint situation means that practices are better prepared when a complaint is raised, and it may also allow the opportunity to prevent complaints occurring in the first place.

What role can a practice manager play in client mediation and client disputes?
Within the VCMS, any member of the practice can be designated to be involved on behalf of the practice, however, in many complaints it is the practice manager who participates. All the VCMS requires is that they have authority to make a decision on any resolution proposal. Some complaints involve clinical allegations, but issues of this sort have generally been addressed by the practice before the VCMS become involved. If there are outstanding issues, the practice manager can seek guidance from one of the clinical team.

In practice, many complaints are initially handled by the practice manager. As they have generally not been involved in the clinical care, they are a ‘fresh face’ to the situation. This provides an opportunity to listen to the complainant, understand their concerns and explore how these can be addressed.

As with mediation, this does not mean agreeing with the client. Where an error has been made, it is important to be candid and look to find a way to manage the situation, involving the practice or vet’s indemnity insurer to resolve it quickly. In many situations, the issue arises from perception or belief, and you may not feel there has been an error at all. Here, it is important to understand where that belief comes from and to try to explain and manage expectations without being perceived as defensive. Understanding what a client wants and not making assumptions is also important for practice managers, so we listen and take on board, rather than moving straight to financial options.

Empathetic listening, clear process and constructive dialogue will all help to move the complaint forward.

Ensuring that clients are aware of the VCMS is in some regards a sensitive issue. How would you recommend that practices achieve this delicate balance between helping the client with a dispute, but not encouraging everyone to make a complaint?
This is a sensitive issue as the VCMS is not here to encourage complaints. The service is here to provide complaint resolution
when they do arise, and to share learnings from across the sector. VCMS communication is focused on practices and the veterinary team. When dealing with a complaint, it is helpful to have a clear process. The VCMS can be referred to within that process, such as:
  ■ when a client joins the practice and is given information about the practice’s policies; or
  ■ at the point an initial formal complaint is received; or
  ■ at the final response stage.

Each practice will have their own views on when it is appropriate to provide these details. Providing clear information on what happens next and giving options (beyond the RCVS Code of Conduct) can help to show a client that you are taking their concerns seriously as well as helping to manage how and where the complaint may escalate. Without this information, clients will often search for information themselves and may be directed down alternative paths and escalate the complaint unnecessarily.

How does the VCMS liaise with the RCVS to give feedback or suggestions regarding policy making in the Code of Professional Conduct?
On an annual basis the VCMS produces a report which details the activity of the past year, and shares insight on complaint trends and resolutions. Within this, if the VCMS had insight on a particular part of the Code this would be shared within the report, and also in feedback meetings with the RCVS.

The VCMS will also attend veterinary profession and stakeholder events to share insight from a complaint resolution perspective.

What is the future for the VCMS?
After two successful years delivering the full VCMS service, the VCMS will now be focusing on approaching complaint resolution as efficiently as possible so that more practices and pet owners can be helped to diffuse and resolve their complaints.

An ongoing priority is the insight on why complaints arise and how they can be best handled for all involved. In turn, this will enable practices to reduce any negative impact on the team’s wellbeing, as well as embedding a learning culture from the perspective of the team and pet owner, and of course, minimise complaints arising in the first place.
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