Equine matters

Lameness work-ups

The procedure explained



Poisonous plants

10 common plants poisonous to horses



SUMMER 2018

Horse on box rest

How to manage a horse on box rest



An equine surgeon The day-to-day work of an equine surgeon



Itchy horses Managing summer allergies



Working together to build a **Picture of Health**



Vaccination

XLEquine veterinary practices believe that prevention is better than cure. Talk to your local XLEquine veterinary surgeon about preventative healthcare so together we can ensure your horse is a complete **Picture of Health**.

T: 01228 711788 www.xlequine.co.uk

f

Equine

contents

the editor

Hello and welcome to the summer edition of Equine Matters.



As I am writing this, the UK has been enjoying some of the best summer weather most of us can remember! For those of us with horses, we spend so much of

the time working around poor weather conditions and trudging through mud that I think we can safely say life is a lot more fun in the sun! Unfortunately, there are a few conditions which rear their heads whilst it is warm and I for one have seen many horses with skin problems over the last month or two. Jane King from North West Equine gives us an insight into itchy horses in this edition, with a number of useful tips should your horse have struggled with this problem. Similarly, the hard ground has brought a number of lameness problems to light and whilst finding the cause of your horse's lameness can feel like a daunting prospect, Wendy Furness of Scarsdale Vets takes the confusion out of this process with her informative article on how a lameness work-up works!

So once again, I invite you to sit back, relax and enjoy this edition of Equine Matters.

Susan Donaldson Clyde Vets

03

Lameness work-ups explained

Wendy Furness from Scarsdale Vets describes the process of examining the lame horse.

05

Managing the horse on box rest

Clare Smith of St Boniface Vets details the adjustments and requirements for a period of box rest. 09

Safe grazing

Poisonous plants

Liz Bennett of Larkmead Vets highlights ten common trees and plants that are poisonous to horses.



07 Physiotherapy for the equine athlete

Daisy Collins-Gross from Fellowes Farm Equine explains the role of the physiotherapist in reducing pain and optimising performance.

11

Strangles - what you need to know

Mark Tabachnik from Wright & Morten describes the symptoms, control and prevention of this highly infectious disease.

XLVets Equine is a group of 29 equine practices spanning the length and breadth of the UK. We work together to share experience, knowledge, ideas and skills in order to define and deliver the highest standards of equine health, care and welfare.

Summer Edition 2018

19

Summer allergies

Itchy horses

Jane King from North West Equine explains why some horses develop allergies and answers questions on Sweet Itch.



13 Liver disease in the horse

Dominic Alexander of Belmont Farm & Equine explains what can go wrong with the equine liver.

15

Equine neurological conditions

Jim Slaine from Parklands Veterinary Group summarises a range of conditions that affect the equine nervous system.

17

The life of an equine surgeon

Andrew McDiarmid of Clyde Veterinary Group describes his career pathway to becoming a surgeon and his typical day.

Lameness work-ups explained





Wendy Furness MA VetMB CertEP MBA MRCVS Scarsdale Vets

As equine clinicians, lameness is one of the common problems we are asked to assess.

ScarsdaleVets Fequine These investigations can range from very severe lameness, where the horse is non-weight bearing, to very mild lameness that can cause poor performance.



When asked to examine a horse for lameness we would commonly assess the horse in a variety of ways (depending on access to appropriate facilities). We usually take a history first, then the horse is generally palpated (assessed by touch) to assess any abnormalities and areas of tightness or pain, heat and swelling. The horse will also be assessed standing square to view its conformation.

Moving assessment

Next we would usually ask to see the horse move in straight lines in walk (Figure 1) where we assess the following;

- the comfort level of the horse
- how symmetrical are its movements
- if there is a head nod
- what it looks like on the turn
- is there any toe drag
- tail position

This also provides the opportunity to see how relaxed the horse is. If the horse is very wound up then mild lameness can be missed.

In some scenarios a horse is seen walked up and down several times until it is used to its surroundings. It is then seen in trot (unless it is very lame) and the same parameters assessed.

A flat resonant surface is ideal for a trot-up as some lameness is subtle and it's easier to hear a difference in footfall. If appropriate then flexion tests may be used, as well as seeing the horse move backwards and in a tight circle.

Lunging is generally done next on a soft surface (Figure 2). The horse is monitored in walk, trot and canter. Some lameness is greatly accentuated on the lunge and head nods can become more apparent. Overall movement of the horse is assessed on the lunge; how balanced it is (taking into account its age and education), if there is a difference between the reins, what its transitions look like and does it maintain its gait. If appropriate the horse may be lunged on a hard surface in walk and trot. In some circumstances we may also assess ridden and jumping movement, depending on the nature of the issue.

By the end of these initial examinations we will know which limb or limbs are affected and if we can go straight to diagnostic imaging.

Figure 1: The horse is walked and trotted on a firm surface



Figure 2: Lunging is often used in the assessment of lameness

However if, for example, a tendon injury is palpated early on in the process, we may not go through the remainder of the lameness assessment in case the injury is worsened.

There are many cases when a horse without any significant heat or swelling is presented. The vet may have a reasonable idea of statistically likely causes of the lameness based on the history and horse's work patterns, however most of these cases will require nerve or joint blocks to localise the cause of the lameness (Figure 3).



Figure 3: A nerve block being performed

Nerve blocks

Nerve blocks use local anaesthetic placed through the skin around the nerves at various locations on the limb where the nerves are accessible. The principle of the nerve blocks is the local anaesthetic will mask the lameness so you can work out where the pain is coming from via a process of elimination. The area where the nerve block takes place is cleaned, a small needle inserted over the nerve and local anaesthetic injected. The horse is left for a period of time then reassessed using the same surfaces as previously.

If the lameness is no longer present then imaging will take place at the areas below the site of the block. If the

Joint blocks

In some cases, joint blocks may be a more relevant starting point or they may be used to further narrow down a diagnosis after nerve blocks. For joint blocks, the needle and local anaesthetic are placed directly into the joint itself. To perform a joint block, the area is sterilised. Extra precautions need to be taken with joint blocks as any infections within a joint or tendon sheath are life threatening and challenging to treat. Once the local angesthetic has had a chance to take effect then the horse is reassessed to see if the lameness has altered. If it has altered sufficiently then that area is imaged to further the diagnosis. To complicate matters, although joint blocks sound very precise, we have to be careful with interpretation as some joints communicate with each other and local anaesthetic can diffuse to other areas of the limb.

lameness is still present then blocking may continue.

This all sounds very black and white, however, there are times when the lameness is not fully obliterated by the anaesthetic and the vet needs to take a judgement call on whether the lameness has been improved enough for it to be significant or if there may be more than one cause of lameness. Also, horses may vary in their nerve anatomy, local anaesthetic may diffuse away from the site of entry so precision is very important in needle placement. The vet working on the case will be able to explain how the results of the block have been interpreted.

There are some cases that are not suitable for nerve and joint blocks such as if the horse does not tolerate needles. These cases can be investigated using other imaging modalities, such as scintigraphy (bone scan).

Lameness investigation is fascinating. It's often like being a detective and putting clues together from the history, clinical examination and results of blocking. Experience is required for interpretation of the blocks and what they mean for that particular horse and how those results fit with imaging.

Please make sure you allow your vet time to put all the clues together and wait for everything to be completed. Much like a good detective novel, until you put everything together you may get the wrong answer if you jump in before you have all the evidence.

Questions your vet may ask you about your lame horse

How long have you had the horse? What work does your horse do currently? What plans are there for your horse? When was your horse last shod? How long has the horse been lame? What did you notice at the start? What ground is the horse worst on? What saddles do you use and when were they last checked? Which limb(s) do you believe to be

- affected Have you poticed any swelling and
- does this vary?
- Is the lameness worse before, during or after exercise?

Managing the horse on box rest

They are the words you least want to hear from your vet... 'he's going to need box rest'... often for a number of weeks or months.

St Boniface O Equine Vets





Clare Smith BVSc MRCVS St Boniface Vets

While box rest can be essential to allow injuries to heal, it can be a horse owner's worst nightmare. Most horses settle into box rest pretty quickly, and with careful planning it need not be such a headache for horse and owner (Figure 1).

Digestive health and nutritional requirements

A sudden and unexpected period of box rest is often a dramatic change to your horse's normal routine. This abrupt change in diet, from grazing in the field to eating hay or haylage in the stable can result in gastric ulceration, disruption to the microflora of the digestive tract, and impaction colic.

It is well recognised that stress can induce gastric ulceration in susceptible horses. Box rest can certainly be a stressful time especially in the first few days or weeks. Ensuring access to ad-lib forage will encourage saliva production and help to buffer stomach acid, so reducing the risk of ulcer development. If your horse is prone to ulcers, it may be appropriate to use specific preventative medication or supplements as discussed with your vet.

Less exercise means fewer calories burnt, so a horse on box rest will require fewer calories to avoid gaining weight. The aim is to provide enough energy for maintenance and tissue repair, and to try to replicate normal grazing behaviour. In the short term, reducing the volume of food given will be sufficient, with a more gradual change to new feeds over the next week or so if box rest is for a prolonged period of time. Consider changing haylage for good quality hay, and swap competition mix for low energy, high fibre alternatives. Any changes in diet should be carried out gradually, over at least 7 days. Using a probiotic can help support healthy gut microflora through diet and management changes.

Impaction colic is one of the biggest complications of box rest. Horses are designed to move around grazing for up to 17 hours a day. The moisture content in grass is significant and walking around a field encourages gut motility and aids digestion. The abrupt change from grazing to box rest results in slowed digestion and reduced moisture intake, leading to dry intestinal contents which may 'back up' at the U-bend shaped pelvic flexure of the colon. A horse on box rest can be encouraged to drink plenty of water by adding apple juice to its drinking water, placing an apple in water buckets and feeding unmolassed sugar beet. Some horses prefer to drink lukewarm water or will eat a slurry of soaked fibre nuts. Hand picked grass in summer months can provide moisture and interest (Figure 2), but may not be appropriate in all cases - speak to your vet for advice.

Impaction colic is one of the biggest complications of box rest. Horses are designed to move around grazing for up to 17 hours a day.



Figure 1: With careful management, horses can settle well to a period of box rest



Figure 2: Freshly picked grass can be used to supplement hay or haylage

Respiratory health

Horses are designed to spend many hours a day grazing from ground level. This allows drainage of respiratory secretions through the nostrils. Most stabled horses are fed hay from a net for our convenience. There are disadvantages to haynets - the hay or haylage is at 'nose height' meaning any dust or spores are easily inhaled, making respiratory inflammations or allergies more likely. If the respiratory drainage is also reduced, airway infections become more likely. If possible, feeding at least some hay from the floor helps to replicate normal grazing posture, and soaking or steaming hay will reduce the levels of dust and spores.

Does a stable need a roof?

Depending on the reason that your vet has advised box rest, it may be possible to manage a horse outside in a stable-sized patch of grass during the day. Provided he respects electric fencing, this change of scene and allowing grazing behaviour can make rest and recovery a much more enjoyable process. It is worth discussing this option with your vet to see if it is appropriate.





Environmental enrichment

Boredom is a major factor in managing a horse on box rest.

The sudden change from spending all day in a field with their friends, to standing looking at the same four walls can be difficult to adjust to.

Different horses respond differently some may be calmer if they are in a quiet stable tucked away from the hustle and bustle of the main yard, whereas others may prefer to be able to watch what is going on. If your horse gets very distressed on his own, a companion may help. If this is not feasible, a stable mirror can provide a sense of company and interaction.

Trickle feeding using treat balls or hay balls will slow down how quickly your horse eats his feed, providing interest for longer. If a ball is not appropriate due to injury, fibre cubes can be scattered on the floor of the stable rather than being fed from a bucket. Alternatively, hanging carrots and swede on a string from the stable wall can provide entertainment (Figure 3). Simple measures such as hanging multiple haynets at various points in the stable offer the opportunity to mimic grazing behaviour. There are a wide range of commercially available licks and stable toys, and while these can be useful, many are high in sugar, which not only may encourage weight gain but may have an adverse effect on the behaviour of a box rested horse. Used in moderation, for example during dressing changes or while mucking out they can however provide a useful distraction.



Figure 3: Home-made boredom breaker

'Whilst box rest can prove challenging, it is often essential to allow healing of a range of injuries and with care and planning most horses will settle well after the first few days. For more advice on managing your horse on box rest, contact your local XLVets Equine practice.

Physiotherapy for the equine athlete

Fellowes Farm Equine Clinic Ltd V E T E R I N A R Y S U R G E O N S





Daisy Collins-Gross PgDip BSc ACPAT Cat A HCPC MCSP ACPAT Chartered Physiotherapist Fellowes Farm Equine Clinic

Physiotherapy and alternative therapies are fast becoming a popular adjunct for the equine athlete. All equines can benefit from physiotherapeutic intervention, from top level competitors right through to your happy hacking varieties.

Broadly speaking, physiotherapy aims to address disorders in movement and function through exercise, rehabilitation and a combination of evidence based therapies such as massage, manipulation, the use of electrotherapeutic agents, and owner education.

Physiotherapists work closely within the multi-disciplinary team and regularly liaise with veterinary surgeons, farriers, saddle fitters and other professionals. This is to ensure the whole support team is able to effectively manage your horse regardless of its job. With this in mind, physiotherapy is a complementary therapy and should not be seen as a substitute for appropriate veterinary intervention.

Which horses could benefit from physiotherapy?

Often signs that a horse may require or benefit from physiotherapy include poor performance, back pain, or more subtle changes in behaviour such as an alteration in facial expressions, swishing of the tail when being girthed, resistance to accept contact, difficulty changing the rein, bucking or becoming tense when ridden. Saddle slippage is also another indicator that a physiotherapist may be required. Furthermore, ACPAT physiotherapists have the skills and knowledge to accurately assess the intricate interplay between horse, saddle and rider.

The more obvious conditions that benefit from physiotherapy intervention include:

- Back pain syndromes
- Sacroiliac dysfunction
- Tendon injuries
- Muscular strains and injuries
- Wounds
- Neurological conditions e.g. Sweeney
- Arthritis
- Following surgery

Any horse having had a period of box rest will also benefit from physiotherapy to enable a safe and effective return to work.



How does a physiotherapist assess your horse?

The assessment of any equine begins by looking at the static conformation, as this can be a contributory factor in how the horse moves. Conformation may also contribute to performance issues which can create discomfort and imbalance. For example, a horse with a long back conformation may struggle to collect, resulting in a more 'hollow' frame which in turn could predispose to a back pain syndrome. The muscling of the horse will also allow the physiotherapist to establish whether there are areas of asymmetry. Asymmetry in musculature can be an indicator of underlying subtle or chronic lameness, ill-fitting tack, conformational traits or postural dysfunctions.

Following a static observation, the physiotherapist will then observe the horse moving in hand (Figure 1). This includes straight lines at walk and trot, reining back, tight circles and possibly lunging. Ridden exercise will also allow the physiotherapist to build a picture of the potential link between asymmetry, movement and the interaction between horse and rider.

If indicated, a physiotherapist may carry out simple neurological testing.

A full palpatory examination will conclude the assessment; this is where the physiotherapist will feel through the muscles, tendons and ligaments to establish the range of movement, quality, tension, tone and sensitivity of each structure.

The findings of the clinical examination form the basis of a clinically reasoned treatment plan to optimise the horse's performance and reduce pain.



Figure 1: Observing the horse's movement helps the physiotherapist build a clinical picture

What treatments will a physiotherapist offer for your horse?

A combination of treatment techniques may be utilised to reduce pain, increase range of movement and improve neuromuscular control.

Such treatments may include:

- Massage massage has been proven to increase circulation, raise surface temperature to the tissues which improves tissue extensibility, reduces pain, and improves movement and function.
- Manipulation and joint mobilisation - these techniques restore movement to all structures and are aimed at reducing pain, improving movement, reducing inflammation and ultimately improving function (Figures 2 and 3).



Figure 2: Joint mobilisation helps extend the range of movement



Figure 3: Manipulation aims to reduce pain and inflammation

Finally, be aware that the title 'Veterinary Physiotherapist' is not protected. Owners and trainers are strongly encouraged to ask their therapist for their qualifications and training. Physiotherapists registered with the Association of Chartered Physiotherapists in Animal Therapy (ACPAT), have a minimum of five to six years training in a physiotherapy specific qualification, and begin their career in human physiotherapy. Using a human

- Core training and rehabilitation therapeutic exercise is used to improve strength and activation of the abdominal and spinal musculature. Exercises that are useful to improve core muscle activation include baited stretches (carrot stretches), hill work, groundwork, pole work and addressing schooling issues with the assistance of trainers (if necessary). Core training is designed to optimise the horse's ability to flex and lift through its back thereby improving hind limb engagement.
- Electrotherapy/cryotherapy
 modalities electrotherapeutic
 agents such as laser and ultrasound
 can stimulate and facilitate healing
 processes when used appropriately.
 The use of neuromuscular stimulation
 or transcutaneous electrical nerve
 stimulation (TENS) can reduce pain
 and improve function by inducing
 opioid responses and stimulating
 sensory nerve fibres. Cryotherapy
 can be an important modality in
 improving pain, reducing circulation
 and facilitating tissue healing
 processes.
- Education a huge component of a physiotherapist's role is to educate the owner/rider around improving their horse's ability and performance. This is tailored to the job of the horse, whether it's a hack or international athlete. Any rehabilitation programme prescribed for an injured horse should be closely monitored by your veterinary surgeon and ACPAT Chartered Physiotherapist.

trained professional is highly beneficial as their highly developed manual skills are based upon, and refined through, verbal feedback from their human patients.

It is important to note that all physiotherapy intervention should be conducted under the direction of a registered veterinary surgeon. Therefore, your therapist is required by law to request permission from your veterinary surgeon to treat your equine.

Poisonous plants



Liz Bennett BVM&S MRCVS Larkmead Equine Vets

Many plant poisons are cumulative so if your horse eats them with no side effects it doesn't mean you should continue to let it eat them.

Which plants are poisonous?

We all want to keep our horses safe when in their paddock, however would you be able to recognise what plants and trees are poisonous (Figure 1)? Most poisonous plants are not that palatable to horses grazing on good pasture as the animals are usually careful and selective about what they eat. However, poisonous plants can be consumed in times of drought, when pasture is poor or contaminated (Figure 2), when plants or trees are overhanging, or by newly introduced horses or young horses eager for new tastes.



Figure 2: Poisonous plants are more likely to be consumed in poor pasture or times of drought

Plant poisoning should be suspected when a number of horses in a group exhibit similar signs, such as nervousness, incoordination, photosensitivity, colic, diarrhoea or in the very worst case scenario, are found dead.



Figure 1: You may think your paddock is fine, but what plants and trees are surrounding it?

1. Ragwort

Ragwort is probably the most well recognised toxic plant. Its distinctive yellow star shaped flowers mean you can spot it from far away. When it is growing it has a bitter taste and so is rarely eaten, however, when it is wilted or dried it becomes more palatable. The toxins within it cause liver failure and even death (see our Liver disease article on page 13). Eating just one to five kilos over a horse's lifetime may be fatal. Ragwort grows widely on wasteland and verges, and the seeds can travel far in the wind. They grow to form a dense rosette of leaves in the first year, and by the second year produce the bright yellow flowers on tall woody stems. Control is by spraying with herbicide when the plant is in the rosette stage, or manually uprooting them and then burning. Mowing is not helpful as they will grow back more quickly.

When handling ragwort it's important to note that the toxin can also be absorbed through your skin, so ensure you wear gloves. Acute ragwort poisoning is fatal but only occurs if large quantities are ingested. Chronic poisoning takes months or even longer to develop with small doses of the poison gradually accumulating in the liver. Signs of toxicity include loss of appetite, depression, diarrhoea, weight loss, sensitivity to light and occasionally jaundice. Neurological signs can also be seen such as weakness, circling and head pressing. Prevention of ragwort poisoning involves regularly checking your paddocks, and using a reputable and trusted hay supplier. There is a DEFRA code of practice to prevent the spread of ragwort and it should be noted that failure to control the weed can lead to prosecution.

2. Foxglove (Figure 3)

Again this is not palatable fresh, but just 100g dried in hay can be fatal. Symptoms include contracted pupils, convulsions, breathing difficulties and death.



Figure 3: Foxglove

3. Deadly nightshade/Woody nightshade

This plant thrives in dry conditions and sandy soil. It has a white star shaped flower and the fruit looks like a large blackcurrant. This is not normally fatal, but can cause colic, disorientation, unconsciousness, dilation of the pupils and convulsions.

4. Buttercups

A horse would need to eat large amounts of fresh buttercups to be fatal, however, the toxin is bitter tasting and causes mouth ulcers so this is an unlikely scenario. Buttercups can however cause colic and diarrhoea, but the good news is that dried buttercups in hay are harmless.

5. Acorns

Horses love acorns, but they contain tannic and gallic acids which, in large quantities, can cause colic and kidney damage. In the autumn, if large quantities are present in the field, you should move your horse or manually pick up the acorns. Early signs of acorn poisoning include constipation, weight loss, blood in the urine and leg swelling. Activated charcoal, which absorbs toxins from the gut and allows them to be harmlessly excreted, is known to be an effective treatment if given immediately after ingestion.







Figure 4: Yew tree leaves

Figure 5: Sycamore

Figure 6: Laburnum

6. Yew

This is extremely poisonous, both fresh and as fallen leaves and berries (Figure 4). Just 0.5kg can be fatal to a horse. Garden waste being thrown into the paddock is a common cause of poisoning. The plant's toxic alkaloids (taxine A and B) are extremely fast acting and horses have been found dead with the leaves of the tree still in their mouths. Death is caused by cardiac arrest but if seen early, muscle trembling, lack of coordination, breathing difficulties, a slow heart rate and convulsions may be seen. There is no reported treatment.

7. Privet

Many poisons derived from plants are in the form of a chemical compound called glycosides. Privet leaves contain glycosides, but it's the berries that are especially toxic to horses. Eating even small quantities can be dangerous, so again be aware of garden clippings. Signs to look out for are colic, diarrhoea, low body temperature and nervousness.

8. Rhododendron

All parts of the plant are toxic, even if dried and in very small quantities, causing death by failure of the respiratory system and cardiac arrest.

9. Sycamore, maple and other acers (Figure 5)

The helicopter seeds in autumn and saplings in spring contain Hypoglycin-A which causes the recently recognised muscle condition, Atypical Myopathy (AM). Symptoms include muscular stiffness, reluctance to walk, muscle tremors, sweating, depression, high heart rate, dark red urine, weakness and breathing difficulties. Call your vet immediately; AM is a fast killer with a mortality rate of 75-90%. There is no specific treatment, with affected horses given intensive veterinary nursing care and intravenous fluids. To help guard against AM, it is prudent to fence off sycamore trees, remove seeds and seedlings, and ensure horses have access to sufficient supplementary feed to minimise the risk of foraging for alternative foods. Also, be aware that the seeds can travel far in the wind.

10. Laburnum (Figure 6)

This tree produces drooping yellow clusters of flowers. The toxin, cytisine, affects the gastrointestinal tract and nervous system, and the entire tree is poisonous, although the seeds contain the most poison.

Prevention

Uproot poisonous plants before they go to seed. Remove them from the field and burn them. Spot spray small areas and individual plants. Consider professional help for large areas and always seek professional advice when using herbicides. Horses should not be allowed back in to graze until there has been sufficient rainfall to wash the chemicals from the leaves. Keep poisonous trees and hedges fenced off and cut well back. If your paddocks back onto neighbouring gardens make sure none are growing over into your grazing areas, and ensure kind hearted gardeners are not throwing prunings into the paddock.

If you suspect your horse has eaten a poisonous plant call your vet immediately.

Strangles - What you need to know



Strangles

Strangles is a commonly diagnosed infectious disease of horses that can affect any age, sex or breed. It is widely feared within the equine community, both because of its debilitating effects on individual horses, and its impact on equestrian businesses.

What causes Strangles?

Strangles is caused by a bacterium called Streptococcus equi equi. It is highly contagious and can be easily transmitted between horses. Common methods of spread are directly between individual horses, for example nose to nose contact, or contact with infected discharge, such as snot in water troughs. It can also be spread by people via clothes and shoes, or in yard utensils such as feed buckets.

The incubation period between horses being exposed to the disease and showing signs of infection can be anywhere from 2 to 21 days. During this time, a horse may look well, but be potentially spreading the infection to other horses.

How to spot the signs - or lack of them

Classically, horses present with a high fever and loss of appetite. They are often quiet and dull, with a thick snotty discharge (Figure 1). There can be pain and swelling under the jaw and in the throat region - this is due to abscesses forming in the lymph nodes in these areas. Sometimes the lymph nodes can swell, putting pressure on the throat and windpipe so making it difficult for the horse to breathe. Immediate veterinary intervention should be sought if you think this may be the case.



Figure 1: Thick, nasal discharge

Less commonly, horses may develop abscesses in internal organs (known as 'bastard strangles') or swelling of the limbs, under the belly and sheath (known as 'purpura haemorrhagica'). These are serious complications and veterinary advice should be sought.

Infection can spread quickly through a yard, especially if there is a large number of young horses that have not previously been exposed to the disease.

How we treat an infected horse

All horses suffering from Strangles require good nursing care, and anti-inflammatory medication as they will be running a fever and feeling poorly. Hot packing of swollen lymph nodes will encourage developing abscesses to mature and burst. Once this has happened, these areas should be cleaned and flushed.

Antibiotic use is controversial as it can delay the abscesses maturing and bursting. So the decision to use antibiotics should be made on a case-by-case basis. In most cases antibiotics are not necessary, however young or old horses, or those who are suffering from another disease concurrently may benefit from them.

How to deal with an outbreak

Once an outbreak is diagnosed, a yard biosecurity plan will need to be set up in order to prevent Strangles from spreading either to other horses on the yard, or to other establishments.

The first step is to isolate infected horses. This will involve moving them to an area where they are out of contact, and not sharing the same airspace with other horses.

Horses that have been in contact with an infected animal should be monitored for signs of disease. This involves twice daily temperature checks, and examinations for nasal discharge or any other signs of developing illness.

Once a horse is isolated they should be provided with a dedicated groom and stable tools. People should not move from the isolated part of the





Mark Tabachnik BSc(Hons) BVM&S Cert EP Cert VBM MRCVS BAEDT Wright & Morten

Horses that have been in contact with an infected animal should be monitored for signs of disease. yard back into the main block or other horses without disinfecting their boots and changing clothes (Figure 2).

The yard should be closed to new arrivals and any horses on site should be prevented from leaving in order to best contain the infection. It goes without saying that horses should not attend shows or any other events where they could come into contact with others.

It is important to avoid people visiting different yards without taking stringent biosecurity measures. A yard meeting to discuss preventative measures and explain how this will help eradicate the disease is essential to ensure everyone understands the procedures in place. Invite your vet and ask them to explain the practicalities of a good yard biosecurity policy.

The circumstances of every yard and every outbreak will be slightly different guidance from your vet throughout an outbreak is vital.



Figure 2: Stringent cleaning and disinfection is important when dealing with an outbreak

How to tell if and when a horse is contagious

Once a horse recovers from Strangles it will maintain immunity to the infection for a period of time. However, some horses will become carriers of the disease, but will not show any obvious signs. These individuals may retain infection within small pouches in their throats (known as guttural pouches). Within these pouches there may be Strangles bacteria, either in pus, or in small solid lumps of pus called 'chondroids'.

Blood samples can be taken to test for antibodies to the bacterium which causes Strangles. The presence of these antibodies in the blood will suggest that a horse has come into contact with the disease in the

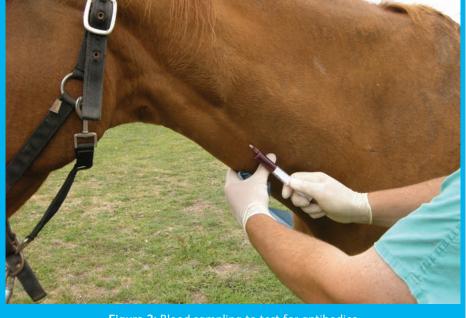


Figure 3: Blood sampling to test for antibodies

recent past, and in this situation further testing to confirm the horse's disease status is required (Figure 3).

To demonstrate a horse is clear of infection, we can pass a long fibre optic camera (endoscope) up the horse's nose to the back of the throat and into the guttural pouches. Once the endoscope is in the pouches, any chondroids or pus can be seen, and if neither of these are observed samples can be taken to test for the bacterium.

Alternatively, your vet can take swabs introduced up into the horse's nose to the back of the throat (the pharynx). Three swabs over a two week period are required to demonstrate a horse no longer has Strangles.

You need to stop it coming back!

Once the yard is clear of Strangles, you will want to prevent it ever coming back again. To do this, it is important to instigate a yard biosecurity policy. This should include a protocol for isolating new arrival horses onto the yard in order to make sure these individuals are not incubating the disease.

Isolation facilities can be very simple (Figure 4). You need to provide an area where the horse is not sharing air-space with any other horses; this can be a corner of a field or a barn away from other horses. Horses can be quarantined here for a period of three weeks.

New arrival horses should have blood samples for Strangles taken the week

before they arrive on the yard. Ideally these should be repeated after ten to fourteen days of the isolation period.



Figure 4: Isolation facilities for new arrivals

You can ask us anything

XLVets Equine has produced a horse biosecurity document; *Plan Prevent Protect* to help you and your vet together design a rigorous biosecurity policy. We understand that Strangles is an emotive and sometimes contentious disease. It's important to always seek veterinary advice if you suspect a case or an outbreak.

Liver disease in the horse

Although not common, there can be many presentations and a number of potential causes of liver disease in the horse.





Dominic Alexander BSc BVMS MRCVS Belmont Farm & Equine Vets

It can be surprising the effect that treatment, including management and dietary changes, can have on managing liver disease.

The liver is a very large organ and performs a number of important functions:

- It filters blood from the digestive tract before it enters the bloodstream.
- It produces important proteins: Albumin that causes fluid to remain within the blood stream instead of leaking out into the tissues.
 Low albumin allows fluid to leak out of the blood vessels - that is when you can see oedema (excess fluid within the tissues).
- It converts blood ammonia to urea that can then be excreted by the kidneys.
- It produces bile to aid fat digestion that is transported to the small intestine via the bile ducts. Interestingly, horses do not have a gall bladder which is common to most other mammalian species, including ourselves.
- It produces platelets that are essential for clotting of the blood.
- It stores glucose in the form of glycogen that can be released on demand.



Figure 1: Ultrasound scanning the liver

Symptoms of liver disease

The liver has a large capacity to cope with disease and to regenerate. Clinical signs of disease typically only show when the damage is so widespread that the liver is no longer able to compensate for the damage.

- Loss of appetite/anorexia
- Weight loss
- Diarrhoea
- Depression
- Fever
- Oedema
- In more severe cases, neurological symptoms may be apparent e.g. staggering, circling, head-pressing, apparent weakness or blindness and seizures/convulsions.
- Photosensitisation (excessive skin sensitivity to sunlight). Apparent sunburn can sometimes be due to liver disease. Liver dysfunction can result in the accumulation of phylloerythrin, a photodynamic by-product of the breakdown of chlorophyll present in green vegetation.

Diagnosis of liver disease

Liver disease can be difficult to recognise in the early stages due to the vague and often subtle clinical signs. It is only once disease progresses that the clinical picture becomes more obvious this is because it is possible to function with up to 70% of the liver's function lost. So by the time the damage reaches this tipping point, progressive liver disease can suddenly present itself as acute disease.

Your veterinary surgeon will take a detailed history of your horse's symptoms and day-to-day management. They will perform a thorough clinical examination. The next step will usually



Figure 2: Liver biopsy in progress

involve taking blood samples to confirm the presence of liver disease. When the liver is stressed or diseased a number of markers within the blood can alter quite dramatically. This information can be used to ascertain how severely the liver is affected. However, in many cases the diagnostic process is significantly enhanced by taking ultrasound scans (Figure 1) and biopsies of the liver (Figure 2). Ultrasonography can be useful to assist in identifying the optimum place(s) to take the biopsies.

Common liver conditions

Liver cells are called hepatocytes and inflammation of the liver is known as hepatitis. Hepatitis can be caused by a number of different things, including the ingestion of chemicals or plant toxins, or following a bacterial, viral or fungal infection. Individual liver cells can be destroyed by inflammation and are then replaced with scar tissue. However, due to the liver's vast reserve capacity, we tend to only see clinical signs when the damage is so widespread that there is no longer enough healthy tissue available to enable it to fulfil its many functions.

Hyperlipaemia

Hyperlipaemia is a condition that results in an excessive amount of fat in the bloodstream. This is usually seen in fat ponies or donkeys who have a sudden and dramatic reduction in food intake, or in cases where appetite is drastically affected, perhaps as a result of another condition. These conditions are life threatening if effective treatment is not started immediately.



Figure 3: Remove suspect ragwort plants before they flower

Ragwort poisoning

Ragwort poisoning (pyrrolizidine alkaloid toxicity) is unfortunately still quite common. The toxins in the ragwort plant cause liver cells to clump together and lose function. Frustratingly, the damage is cumulative and nonreversible so that by the time symptoms are apparent, the disease is already very advanced and effective treatment is difficult and often impossible. The start of the disease may even pre-date the current ownership of the animal. A liver biopsy is usually required to confirm the disease.

Horses rarely eat ragwort in its fresh state on the pasture due to its bitter taste. However, if they are short of grazing they may be forced to. It is suspected that one of the most likely ways that ragwort is consumed is within hay and haylage. Remember, there is no 'safe' amount of ragwort and it should be dug out of the pasture and burnt before it begins to flower (Figure 3). It will only grow back if it is cut.

Less common liver conditions

- Biliary calculi (stones) are rare in the horse and may not cause any symptoms.
- Neoplasia (cancer). Hepatic carcinoma and lymphoma.
- Liver abscess.
- Iron toxicity. This can be due to excess dietary iron or secondary deficiencies of other minerals or a combination of both.

- Mycotoxicosis fungal infection.
- Liver fluke (Fasciola hepatica). Often considered as a condition of sheep and cattle. However, liver fluke can infect many species, including humans.
 Certain pastures, wet, poorly drained and those that are co-grazed with livestock or deer can be risk factors.
- Hydatid cysts. Cysts of the dog tapeworm *Echinococcus granulosus* are common in equine livers in the UK but rarely associated with clinical disease.
- Tyzzer's disease. An acute hepatitis in foals that is often fatal due to a bacterium called *Bacillus piliformis*.
- Equine herpes virus 1. EHV1 can cause abortion, pneumonia and neurological signs in the adult horse. It has also been known to cause necrotising hepatitis in foals.

Treatment of liver disease

The initial cause, if known, needs to be effectively treated. This may involve a variety of therapies including specific vitamin supplementation.

A change in diet is often necessary and your vet may discuss a diet that is higher in carbohydrates and lower in proteins and fat, which put the liver under strain. Alfalfa, beans and leguminous grasses such as clover are high in protein and need to be avoided. Small frequent feeds are often preferred too. Sometimes the biggest problem managing a horse with liver disease is getting the horse to eat enough to regain or maintain weight as appetite is often significantly affected.

Although lacking in horses, there may be some evidence from other species to suggest that Milk Thistle (silymarin) is beneficial in the treatment of liver disease. Milk Thistle is believed to act as an anti-oxidant and free radical scavenger and may suppress scar tissue forming.

Prognosis

One of the most difficult aspects of liver disease is that, in many cases, symptoms do not appear until the disease is fairly advanced. Many horses with liver disease go on to make excellent recoveries and a full return to their previous career. Sadly however, some cases are already too advanced by the time clinical symptoms appear. In these cases, at best, the condition may only be able to be managed; at worst, euthanasia may be considered the most humane option.

Equine neurological conditions





Jim Slaine MVB MRCVS Parklands Veterinary Group

A neurological examination will investigate mentation, behaviour, posture and coordination using a variety of tests. Neurological disorders can be difficult to recognise and diagnose, and are often not the first conclusion that jumps to mind. They can present in many ways and vary significantly in severity. Signs you may recognise could include ataxia (wobbly and uncoordinated), inappetance, head pressing or just a change in behaviour.

Neurological diseases can be related to the skeleton, the nervous system or certain organs in the body therefore there is no single initial definitive test to reach a diagnosis. A thorough clinical examination by your vet will help highlight any neurological deficits/issues and direct further investigations.

A neurological examination will investigate mentation (mental activity), behaviour, posture and coordination using a variety of tests. The tests can be focussed on the cranial nerves of the head or encompass the neck and body as well.

To illustrate the various causes of neurological disease this article will be split into four sections.

Musculoskeletal

Wobblers is perhaps the first condition that springs to many horse owners' minds when neurological disease is mentioned. It is more correctly termed 'Cervical Vertebral Stenotic Myelopathy' (CVSM) and involves compression of the spinal cord in the neck region. The condition tends to present in fast growing horses between 6 months to 3 years but cases are recognised in adult horses. Symptoms may range from stumbling and toe dragging under saddle to overreaching and being generally uncoordinated. Diagnosis will involve full lameness and neurological examinations.



Infectious and Viral

Grass sickness is another disease which is common in Britain but not prevalent in many other areas. It has a high mortality rate and little is known about the exact cause, but research is being undertaken so that cases in the future could be treated successfully. Signs include excess salivation, loss of weight, a narrow base stance and trembling (Figure 1). Grass sickness can present in three forms: acute (fast), subacute (gradual) and chronic (slow). Of these only chronic cases generally survive with intensive supportive care; acute and subacute cases are often euthanased for welfare reasons to avoid unnecessary suffering.

Equine Herpes Virus (EHV) as the name suggests is a viral disease which can present in various ways as there are different strains of the virus. Equine Herpes Virus Types 1 and 4 are the most important with the potential to cause respiratory disease, abortions and neurological disease. It is contagious and, once infected, horses can harbour the virus without showing any visible signs of disease while still shedding it to infect other naïve horses. The neurological form of the disease is the least common; it presents first with fever, lethargy and depression, and progresses over one to six days to weakness and instability, with some horses becoming recumbent or incontinent. Vaccination is available to decrease clinical signs and reduce shedding.



Figure 2: Muscle spasms associated with tetanus infection

Tetanus is not strictly a neurological condition, but it presents similarly as it attacks the nerves which supply muscles (Figure 2). It is caused by a bacterium called *Clostridium tetani* which is found basically everywhere. Tetanus should be considered if vaccinations are not up to date and if the horse has recently had a wound, as the bacteria enters through a break in the skin. Foot abscesses can also be a point of entry for the bacterium. Usually horses become agitated, reluctant to move and stiff, and with an extended neck and tail held straight out behind them. They will be startled by small noises or shadows and can also be sweating with flared nostrils.

Tetanus is unusual in the UK due to vaccination compliance by owners, but if suspected then putting the horse/pony in a dark box and plugging their ears with cotton wool will help to keep them settled until a vet arrives. There is generally a 50-75 % mortality rate, but treatment with antibiotics and Tetanus Antitoxin in combination with sedatives and supportive care can be successful depending on how quickly the disease is diagnosed and the severity of clinical signs.

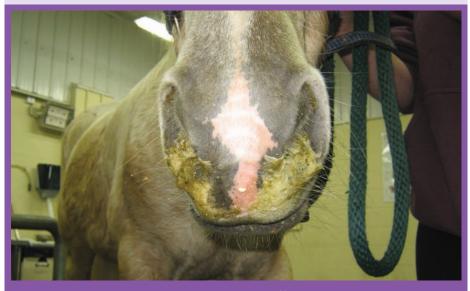
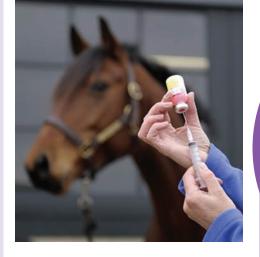


Figure 1: Grass sickness can cause difficulty in swallowing



Trauma

The head contains 12 cranial nerves which may have sensory or motor functions, or in some cases, both. Cranial nerve 7 is the facial nerve and if it becomes damaged then you may see asymmetry of the face. Depending on where the damage is, you may only see a dropped bottom lip on one side, but if the damage affects a different part of the nerve, a droopy ear with a dry eye, due to loss of blink, can be observed. This condition may get better with time but, depending on the extent of damage, the signs may be permanent.

Metabolic

Hepatic encephalopathy is a condition caused secondary to liver disease (see page 13). The liver is responsible for processing many of the body's nutrients and clearing toxins. In liver disease, these processes do not work as well as usual and toxins, such as ammonia, can build up. High ammonia levels in the body can cause changes in the brain leading to mental confusion and stupor. You may see the horse head pressing, yawning frequently, not eating, grinding their teeth and apparent blindness. Your vet can take blood samples to assess liver function. Unfortunately, once liver disease is advanced enough to cause hepatic encephalopathy, the prognosis is very guarded.

What to do if you suspect a neurological problem

If you suspect your horse has a neurological condition you should avoid ridden exercise and keep the horse in a small paddock or a well-bedded stable whilst waiting for the vet. If your horse is behaving abnormally you are encouraged to take a video, as horses aren't always so cooperative when the vet arrives.

The life of an equine surgeon

The role of an equine surgeon in the average equine hospital is far from that of an equivalent human senior surgeon. In the UK there are only a handful of equine vets

who spend 100 % of their time inside an operating theatre. Most of the rest of us are involved in various aspects of the build up to a horse undertaking surgery and subsequent follow up. It has been estimated that, once castrations are excluded, there are only thirty thousand surgeries undertaken on horses in the UK each year. When this is then divided between the 80 or so qualified surgeons, there are not

devetaroup





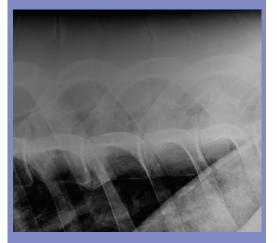
Andrew McDiarmid BVM&S CertES(orth) MRCVS

'Orthopaedic surgery in horses is highly diverse in its nature and may range from surgical exploration of a foot problem to arthroscopic (keyhole) examination and treatment of a joint problem'

enough cases to go round for everyone to undertake more specialist surgery. My day starts typically with the post-operative assessment of horses in the hospital and then continues with the admission of any new patients and investigation of their particular problem. As the most common type of surgery performed in horses is orthopaedic surgery, my daily routine would generally involve a considerable amount of time examining lame horses, a proportion of which would ultimately require surgery. The lameness assessment may involve me undertaking x-rays (Figure 1), ultrasound scans and local anaesthetic nerve blocking techniques. These blocks include the numbing of selected areas of the limb to determine the site of pain causing the lameness (see our lameness article on page 3).



Figure 1: X-rays taken as part of a lameness assessment





Orthopaedic surgery in horses is highly diverse in its nature and may range from surgical exploration of a foot problem to arthroscopic (keyhole) examination and treatment of a joint problem. The advent of keyhole surgery (Figure 2) has revolutionised orthopaedic surgery in horses and in many respects, horses are ideal candidates for this procedure. They have relatively large joints which means usually the whole joint can be visualised easily. Considerable treatment can be undertaken using small instruments and incisions, and there is much less trauma when compared to open surgery. As with many equine surgeons in the UK, arthroscopic surgery constitutes the majority of my surgical caseload.

Since most horses would be classed as athletes, the reduced risk of infection and reduced swelling post-operatively is a massive benefit in allowing a guicker recovery with fewer complications. As well as accessing joints via keyhole surgery, nowadays a number of fractures of the cannon or pastern bones can be repaired by placing metal implants or screws through small stab incisions.



Figure 2: Keyhole surgery for a joint problem

The other common type of surgery undertaken in Clyde Veterinary Group Equine Hospital, and in many other hospitals, is respiratory surgery. Respiratory surgery can be undertaken to increase a horse's performance by improving its oxygen carrying capacity or removing a gross obstruction, and also to treat horses which may have a paralysis (or partial paralysis) of the larynx. Such conditions are often diagnosed by overground endoscopy (Figure 3).



Figure 3: Overground endoscopy helps diagnose respiratory problems

The assessment of horses prior to potential surgery and their subsequent aftercare is a significant proportion of my workload. Indeed some days I might not even see the inside of the operating theatre. Discussing cases with colleagues and vets from other practices and giving advice on possible surgical intervention is also something I would be involved in during the course of the average day. My day ends (often late) with a final assessment of any in-patients and giving instructions on their care to the on-call vet and nurse.

A call back to the hospital is possible at any time of day though, as there are many emergency surgeries which can be required. Colic surgery is usually the most urgent of these. As a young junior surgeon, colic surgery is extremely daunting as the horse has a particularly complicated abdominal cavity with voluminous organs (Figure 4) that are easily twisted or displaced into the wrong position. Due to the sheer size of the structures involved, physical strength is required, but furthermore suturing or removing tissue can be a very lengthy process. Also, horses don't recover from abdominal surgery as quickly as dogs or humans and often require very intensive post-operative care. The surgeon will often be involved in this.

The training I undertook to become an equine surgeon is not untypical of many equine vets. It involved a two year internship (housemanship) at the Liphook Equine Hospital before progressing to specialist focused training. The houseman 'The assessment of horses prior to potential surgery and their subsequent aftercare is a significant proportion of my workload.'



Figure 4: Colic surgery is complicated by voluminous abdominal organs

position allowed me to gain a good grounding in the core techniques required to be an equine vet: X-raying, nerve blocking, assessing medical cases and interacting with clients.

Following undertaking the houseman position I returned to Edinburgh University to undertake a specialist residency in equine surgery and orthopaedics. This position was supervised and allowed me to develop my clinical and surgical skills. The environment at the University was one of continual education. I was fortunate that following my four-year residency programme that I remained as a lecturer and head of large animal orthopaedics, allowing me to pass on my own knowledge and experiences to a further three surgery residents. After six years of lecturing I returned to private practice, where I have continued undertaking considerable equine surgery.

The life of an equine surgeon is more varied than it may seem on the surface and has evolved over the thirty years of my veterinary career and now is a well structured job.

Itchy horses: Summer skin conditions

northwest. equine vets Summer can be a miserable time for some horses and ponies as they spend their time trying to avoid being bitten to death by flies or finding any available solid object to rub on (Figure 1).





Jane King BVetMed MRCVS North West Equine

Management of horses with allergies during the summer months is not always that simple.

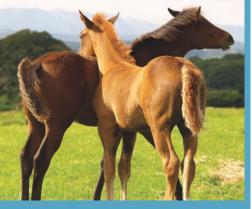


Figure 1: Having a good scratch

The three causes of itching are:

Flies and skin parasites:

Generally flies and midges are more common in the summer, and mites and lice in the winter.

Infections:

Bacterial or fungal skin infections are not normally itchy, but this is not always the case.

Allergies:

This may show as intense itching, or pruritus with the horse rubbing and creating sores. Occasionally it may appear as a condition known as 'urticaria' or 'nettle rash' where wheals develop over the body (Figure 2).



Figure 2: Urticaria or nettle rash

Some keywords explained:

- Allergen: a substance which causes your horse's immune system to over-produce antibodies.
- Allergy: an over-reaction by your horse's immune system resulting in the overproduction of antibodies and ultimately the appearance of symptoms.
- The 'allergic threshold' is a term used to describe the point at which you start to see the symptoms associated with an allergy, such as itching.

Management of horses with **allergies**

Some things your horse may be allergic to:

- Insects: for example *Culicoides* midges.
- Indoor allergens: dust, feed mites and moulds. These allergens will be present all year round.
- Food allergens: these may be cereals, cod liver oil, peas..even carrots!
- Outdoor allergens: grasses, weeds, trees, crops and pollen.

Or a mixture of any or all of the above!



Some horses may have multiple allergies

The allergy threshold: What things contribute to making your horse itch? One way to explain this is to imagine your horse as an empty glass and the things they are allergic to (known as allergens) as different liquids.



Every time your horse comes in contact with an allergen, the glass starts to fill up.



This doesn't cause any problems until you reach the brim of the glass, the 'threshold', at which point the liquid spills everywhere.



In the same way, if your horse is exposed to lots of allergens, or too much of any one in particular, they 'spill over' the threshold and you see symptoms associated with allergy, such as itching.



Diagnosing what your horse is allergic to can be done in the following ways:

Exclusion

Removing the allergen from the diet or environment. This is easily done with food allergies, less so with airborne allergens such as pollens.

Intra-dermal skin testing (IDST)

This is the preferred method used by most dermatologists and involves injecting a tiny amount of many different suspected allergens in a grid on the neck of the horse, then mapping which allergens cause a reaction. This is usually undertaken by a specialist dermatologist.

Blood sampling for antibodies to different allergens

A blood sample can be taken by any veterinary surgeon and sent to a specialist lab for testing. This may not be as accurate as IDST, but the blood tests are certainly useful tools and can be performed at home without specialist equipment. **Tips** to help with the control of allergies in horses

When a horse is found to be hypersensitive to a particular allergen, for example midge saliva, the most logical solution is to prevent the horse reacting to the allergen in question. This sounds great in theory but in reality can prove a little more challenging. The tips below are designed to offer some practical ideas to help reduce exposure and control clinical signs.

- Flyproof garments: There are many good fly rugs on the market. They should fit correctly and have face masks and belly bands if needed. All rugs should be changed frequently as hot weather combined with soiled material next to the skin is a recipe for skin infections.
- Fly and midge prevention: Use a good fly REPELLENT not just an insecticide, with a good residual efficacy. Many products are affected by UV light, sweat and rain. Follow manufacturers' recommendations and target areas most affected, e.g. the belly, mane and tail.
- Turnout schedule: Culicoides midges are most active at dawn and dusk, whereas flies are more of a nuisance during the day. Stabling your horse for part of the day may make their life more comfortable. Avoid fields with standing water. Hilly fields are great as midges are not strong fliers and are blown away by wind.

- Stable environment: Use mesh screens on windows to keep out flies and consider the use of fly traps. Fans to create breeze are also used in some parts of the world.
- Yard and field hygiene: Remove manure frequently to discourage flies.
- Medical therapy: This may be topical, oral or by injection.
- Immunotherapy: Once an allergen(s) has been identified, specialist labs can manufacture an individual hyposensitisation 'vaccine' which is given as a course of injections over a period of weeks. The idea of this 'vaccine' is to expose the horse to tiny amounts of the relevant allergen at regular intervals in a controlled manner to hopefully allow them to become less reactive over time.



Figure 3: A horse with sweet itch



Figure 4: Horses need to be carefully managed during the summer months

'The range of advice and treatments available shows that no one single treatment is effective and affected horses can live a life of misery through the summer months if they are not carefully managed.'

Sweet Itch Q&A

The most common allergic condition we encounter in the summer is sweet itch.

What causes sweet itch?

Sweet itch is an allergic reaction to the bite of the *culicoides* midge. It is not the midge that causes the damage, but the effect of the horse constantly rubbing to alleviate the irritation.

When does it happen?

Sweet itch is seasonal and only affects horses and ponies when the midges are around and the weather is warmer; so it starts in late spring and continues through to the autumn.

What does it look like?

Affected horses and ponies rub their manes, tails and faces on anything they can find in an attempt to relieve the itching brought about by the midge bites. Mild cases may just lose some mane and tail, bad cases will break the skin causing open sores. In chronic cases the skin on the crest may become ridged and thickened (Figure 3).

Is there a cure?

No. The disease can be managed but not cured. Often it gets worse as the pony gets older.

Are there any breeds more susceptible to sweet itch?

Sweet itch is seen more in ponies than horses. It is seen in all our native pony breeds and Arabs. It is also common in the Icelandic pony.

Can I breed from a pony with sweet itch?

There is some evidence that it is inherited so it is best not to breed from affected animals.

Is it catching?

No.

Should I consider buying a pony with sweet itch?

Think carefully before buying an affected pony. They will need careful managing over the summer months and are also harder to sell.

How do I treat it?

You need to prevent the midge coming in contact with the horse's skin and then reduce the horse's response to any bites they do get. Stabling the horse for the part of the day when midges are most active helps. So turn out at night and stable from early morning until dark if possible. Using a fly rug means the affected horse can be turned out for longer periods of time (Figure 4). Fly repellents, of which those containing DEET or permethrins appear most effective. Paraffin oil and bath oils, such as 'Avon Skin So Soft' act as a barrier to stop the midges getting at the horse's skin.

Corticosteroids given orally in tablet form or as an injection by your vet are useful in severe cases where the horse is damaging itself with the constant rubbing. In very rare cases, corticosteroids can cause laminitis in horses and ponies, and so their use should be decided on a case by case basis and with a degree of caution.

Although not licensed for use in horses in the UK, some antihistamines are effective in some horses. Always seek veterinary advice before using human or unlicensed medicines on your horse. Numerous lotions and salves, many containing benzyl benzoate, aloe vera or tea tree can soothe itchy skin.

Some improvement has been seen in some horses given small doses of an imported ringworm vaccine, although this is unlicensed in this country and can only be used under the advice and guidance of your veterinary surgeon.

Feed supplements containing high levels of vitamin B3 or nicotinic acid. This vitamin is also found in brewers yeast. It has anti-inflammatory actions and reduces the immune response to the midge bites.

The range of advice and treatments available shows that no one single treatment is effective, and affected horses can live a life of misery through the summer months if they are not carefully managed.

With thanks to Avacta for the reproduction of Horace the Horse and the Allergic Threshold.

FACEBOOK COMPETITION

MIN £50.00 Joules Gift Card...

GIFT CARD

Can you spot the **three** differences between these two photographs?

Study the photographs and find the three differences in the bottom image. Send us your answers via our Facebook page.

To enter please visit:

www.facebook.com/XLVetsEquine/ and list your three answers in a direct message.

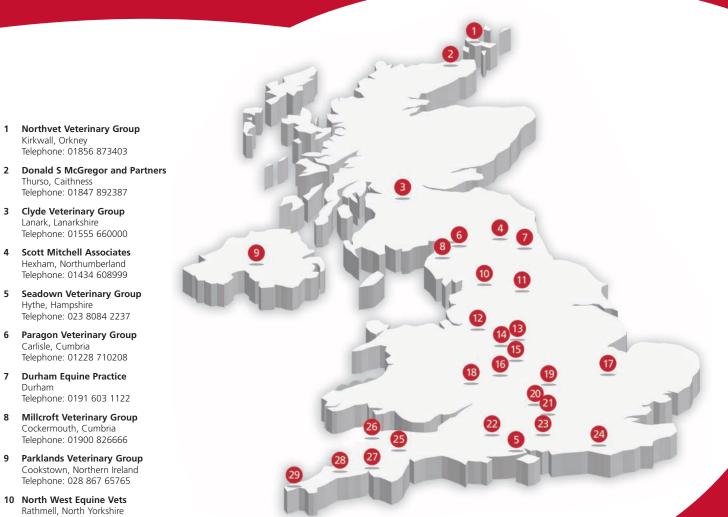
Deadline for entries: 30th September 2018

Good luck!



Competition results will be posted on our Facebook page after the closing date.

Our community of independent equine practices



Telephone: 0808 168 5580 **11 Bishopton Veterinary Group** Ripon, North Yorkshire

Telephone: 01765 602396

- 12 Wright & Morten Macclesfield, Cheshire Telephone: 0845 8330034
- **13** Scarsdale Veterinary Group Derby, Derbyshire Telephone: 01332 294929
- **14 Glenthorne Veterinary Group** Uttoxeter, Staffordshire Telephone: 01889 562164
- **15** Midshire Veterinary Group Nuneaton, Warwickshire Telephone: 02476 384064
- 16 608 Farm & Equine Rowington, Warwickshire Telephone: 01564 783404
- **17 Fellowes Farm Equine Clinic** Huntingdon, Cambridgeshire Telephone: 01487 773333

Equine

- 18 Belmont Vets Hereford, Herefordshire Telephone: 01432 370155
- **19 Buckingham Equine Vets** Milton Keynes, Buckingham Telephone: 01908 560789
- 20 Hook Norton Veterinary Group Banbury, Oxfordshire Telephone: 01608 730085
- 21 Larkmead Veterinary Group Wallingford, Oxfordshire Telephone: 01491 651479
- 22 Endell Veterinary Group Salisbury, Wiltshire Telephone: 01722 333291
- 23 Cedar Veterinary Group Alton, Hampshire Telephone: 01420 82163
- 24 Cliffe Veterinary Group Lewes, East Sussex Telephone: 01273 473232

- 25 St Boniface Veterinary Clinic Crediton, Exeter Telephone: 01363 772860
- 26 Torch Farm & Equine Ilfracombe, Devon Telephone: 01271 879516
- 27 Calweton Veterinary Group Callington, Cornwall Telephone: 01579 383231
- 28 Kernow Veterinary Group Bodmin, Cornwall Telephone: 01208 72323
- 29 Rosevean Veterinary Practice Penzance, Cornwall Telephone: 01736 362215

w

www.xlvets.co.uk