XLEQUINE - BETTER TOGETHER

www.xlequine.co.uk

Louine.co.uk

Inside this issue:

Mud fever

Kissing spines

We focus on kissing spines, a common diagnosis in horses with back pain.



FOCUS

In each issue of **Equine Matters** we feature a brief insight into a selection of the veterinary surgeons who make up XLEquine. Featured in this issue are Anna Jesse, Fiona Elliott and Sinéad Kenna...





St Boniface ⊗ 🕕 Veterinary Clinic 🕑 🍥







Anna Jesse MA VetMB MRCVS



Anna Jesse is a senior assistant veterinary surgeon at St Boniface Veterinary Clinic in mid Devon.

Anna qualified from Cambridge University in 2009 and moved straight to Devon to work in a mixed practice with a significant equine case-load. Having ridden all her life she enjoys working with horses both in and out of work and has a particular interest in dermatology (skin problems). She is currently working towards an RCVS Advanced Veterinary Practitioner qualification in dermatology.

In 2012 Anna joined St Boniface and started to help expand the equine side of this large mixed practice. In December 2014 St Boniface was able to obtain its own equine facilities, and take on another equine vet.

Outside work Anna enjoys walking in the stunning Devon countryside and renovating a recently purchased 15th Century cottage. Anna is a volunteer for a national charity called Contact The Elderly, which helps combat feelings of isolation and loneliness in vulnerable elderly people.

Fiona Elliott BVSc MRCVS



Fiona is a senior assistant equine veterinary surgeon at Hook Norton Veterinary Group in Oxfordshire.

Fiona graduated from Bristol University in 2001 and spent 18 months in Herefordshire in mixed practice, before moving to an equine practice in Essex. She started at Hook Norton Vets in 2004.

She enjoys many aspects of equine practice including anaesthesia and wound management, getting great satisfaction out of working with the competition horse and maximising its potential. Fiona enjoys looking at the whole picture with respect to lameness and performance and so last year completed a post-graduate veterinary course; combining this with acupuncture and conventional veterinary medicine has led to much success in enhancing a horse's performance.

In her free time she runs an equine rehabilitation centre with a cold saltwater hydrotherapy spa with her husband as well as travelling round the country and Europe watching her home-produced horse event internationally.

Sinéad Kenna BVM BVS MRCVS



Sinéad Kenna is an assistant equine veterinary surgeon at Calweton Veterinary Group in East Cornwall.

Sinéad graduated from the University of Nottingham in July of 2015. She started working at Calweton Equine in Callington, Cornwall in August of 2015, doing mostly equine ambulatory work. Her days are spent looking after the horses, ponies and donkeys of East Cornwall and West Devon, and she loves it! Her particular interests lie in lameness and musculoskeletal disorders, and behaviour in horses and ponies.

Outside work Sinéad spends much of her free time working with young and problem horses, riding and competing. She is very lucky to have moved back home to the area in which she grew up, on the edge of Dartmoor. It's a beautiful area and she really enjoys walking the dogs, rock climbing, and her dad's roast dinner!

CONTENTS

AUTUMN EDITION

XLEquine is a novel and exciting initiative Conceived from within the veterinary profession. We are all independently owned, progressive veterinary practices located throughout the United Kingdom committed to working together for the benefit of our clients.

XLEquine member practices

608 Farm & Equine Veterinary Surgeons Ardene House Vet Practice Limited Ashbrook Equine Hospital Belmont Farm and Equine Vets Ltd **Bishopton Veterinary Group** Calweton Veterinary Group Capontree Veterinary Centre Chapelfield Veterinary Partnership Cliffe Veterinary Group Clyde Veterinary Group Donald S McGregor & Partners Endell Veterinary Group Fellowes Farm Equine Clinic Fenwold Veterinary Practice Glenthorne Veterinary Group Hook Norton Veterinary Group Larkmead Veterinary Group Midshire Veterinary Group Limited Millcroft Veterinary Group Northvet Veterinary Group Paragon Veterinary Group Parklands Veterinary Group Penbode Equine Vets **Rosevean Veterinary Practice** Scarsdale Veterinary Group Scott Mitchell Associates Severn Edge Veterinary Group St Boniface Veterinary Clinic Torch Farm and Equine Vets Wensum Valley Veterinary Surgeons Westmorland Veterinary Group Wright & Morten Veterinary Surgeons

Disclaimer: XLVets does not necessarily share the views of contributors. No responsibility can be accepted for opinions expressed by contributors, or claims made by advertisers within this publication.

THE EDITOR

Welcome to the 'Autumn 2015' edition of Equine Matters...

...produced by XLEquine practices.

In this issue we focus on 'kissing spines' including real life surgical case examples. We look at diseases affecting horses as we approach the winter months such as mud fever, dehydration and lymphangitis and provide an insight into nursing the sick donkey. We have chosen to discuss a potential emerging viral disease in West Nile Virus

as well as continue to provide an insight into XLEquine with three more featured veterinary surgeons.

On behalf of XLEquine I would like to wish you all a great autumn and winter season.

Lee Pritchard BVSc CertAVP PGCertVPS MRCVS



CONTENTS

03 Mud fever:

Laura Ruby, Calweton Equine runs us through treatment and prevention of mud fever.

- 05 Practical equine worming: Liz Bennett, Larkmead Vets looks at the latest management of worms.
- 07 Nursing the sick donkey: Louise Pailor, Wright & Morten Veterinary Surgeons provides us with an insight into the problems surrounding nursing and care of the donkey.
- 15 Understanding blood and plasma transfusions: Paul May, Paragon Veterinary Group discusses these life-saving procedures.
- 16 Lymphangitis in horses: Ándrew Illing, Chapelfield Veterinary Partnership looks at the topic of lymphangitis.

17 West Nile Virus: Andrea Kilduff-Taylor, 608 Farm &

Equine provides information on this emerging viral disease.

18 Vet viewpoint:

We view the opinions of our vets on the topic of West Nile Virus.

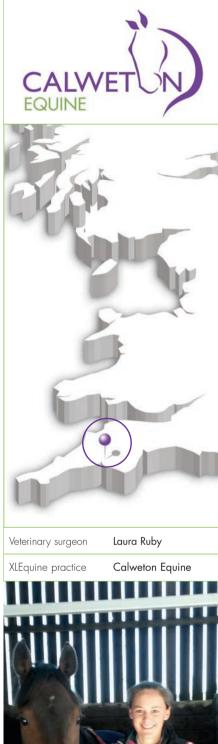
19 Dehydration in horses: Heather Urguhart, Scarsdale Veterinary Group discusses the treatment and prevention of dehydration in horses.

Autumn Feature

- 09 Kissing spines in horses: Colin Mitchell, Scott Mitchell Associates provides us with information on kissing spines and back pain in horses.
- 11 Case study: interspinous ligament desmotomy surgery: Fiona Elliott, Hook Norton Veterinary Group.
- 12 Case study: dorsal spinous process resection surgery: Lee Pritchard, Calweton Equine.
- 13 Equine insurance:

Jane King, Westmorland Veterinary Group discusses insuring your horse including how to make a claim.

MUD FEVER





Laura Ruby BVSc MRCVS, Calweton Equine

Mud fever



Mud fever is a common skin disease affecting the lower part of horses' limbs. It is most often seen during the winter period as cold, wet weather is a predisposing factor. Ongoing wet conditions cause the skin to soften and therefore damage to the skin barrier occurs more easily. Mud fever is the result of infection with the bacterium *Dermatophilus congolensis* following disruption of this skin barrier. Once infection is established, secondary infection with other bacteria such as *Staphylococcus spp* may occur and this can exacerbate the problem.

The heel bulbs and back of the pastern are the most commonly affected areas, although lesions can extend up the limb to the fetlock and the back of the cannon region. Clinical signs vary depending on the stage and severity of infection. In the initial phase the affected area is typically covered in multiple small scabs. These scabs are sometimes tightly adhered to the skin and there may or may not be a discharge associated with them. The skin underlying the scabs is often very inflamed and raw-looking. The disease process can progress if infection tracks through into underlying tissue. In this instance the limb becomes progressively swollen and oedematous, is often painful to touch and a low grade lameness may be seen. Inflammation and infection involving the tissue beneath the skin is known as cellulitis.

Regular inspection of the back of your horse's pasterns is useful for early detection of lesions. If treatment is started as soon as a few small scabs appear then resolution will be much faster than if you wait until the horse is showing significant clinical signs before taking action.

There is some debate as to the best approach for management and treatment of mud fever cases. The controversy lies with whether or not to wash affected areas. As mentioned previously wet, damp conditions are perfect for the bacteria to thrive. However, in the initial phase it is important to remove the scabs and bathe the underlying skin with an antiseptic solution.

The following protocol is recommended for treatment of simple cases of mud fever:

MUD FEVER

1. Removal of scabs

This can be easier said than done with some horses! The scabs that form in a case of mud fever can be very tightly adhered to the underlying skin making it challenging to remove them without objections. Soaking the affected areas can help to soften the scabs and therefore aid removal. Using an antibacterial shampoo in combination with warm water and leaving for around 10-20 minutes for this soaking process should be sufficient in most cases. In those cases where it is still too difficult to remove the scabs, covering with an emollient cream and leaving for a few hours can be beneficial.

2. Cleaning the affected area

Once the scabs have been removed the skin should be bathed with an antibacterial solution; a chlorhexidine based product would be appropriate. Cotton wool or something similar that is disposable should be used, and not an old sponge that is used day to day for various different purposes. It is recommended to leave the solution on the skin for around 10 minutes to allow sufficient contact time for the chlorhexidine to work. This stage of treatment is important for reducing the bacterial load and preventing continued reinfection.

3. Rinse

Rinsing after the contact time is necessary to remove excess shampoo before drying.

4. Dry thoroughly

Drying is a critical stage. It is imperative that if the limb is washed it is dried thoroughly afterwards as leaving a damp environment will aid disease progression and hinder healing. The best way to dry the limb will depend on facilities available and the temperament of your horse. If it is safe to do so then using a hair dryer on a cool setting is very effective, though it should be highlighted to be careful when using electrical equipment around horses, and around water; therefore the temperament of the horse will be a large factor in whether or not this method is suitable. Alternatively, rubbing dry with a clean towel or disposable towel, and/or applying quick dry wraps can work.

5. Clipping

At this stage, when the legs are clean and dry, it is a good opportunity for clipping

around the affected areas. Clipping is helpful for a number of reasons: firstly it makes it much easier to apply topical creams in contact with the lesions, secondly it makes drying of the limb much easier following any subsequent washes, and finally it enables better assessment of response to treatment and identification of new lesions.

6. Application of antibacterial cream

There are numerous different commercial creams and ointments available for treatment of mud fever and it can be a minefield when trying to decide as an owner which is best to buy. It should be noted that the barrier cream used in an attempt to prevent development of mud fever is not an appropriate cream to use for treatment of active lesions. A cream containing an appropriate antimicrobial should be applied to the lesions twice daily; it is helpful if the cream has a thick/sticky consistency as it will stay where it is applied and not run down the foot. It is best to consult your veterinary surgeon to discuss the right cream for your horse.

The above cycle of events will need to be repeated numerous times until full resolution occurs. Initially it is necessary to repeat washes with antibacterial shampoo as new scabs are removed, however when there are no fresh scabs present the washing stage can be left out and the cream reapplied.



If left untreated, secondary infections can occur leading to a raw, inflamed, painful limb



After removal of scabs the skin is often red, inflamed and in some cases will bleed

7. Prevention

As the old saying goes 'prevention is better than cure', so how do you avoid cases of mud fever? There are numerous different ways to minimise the chance of developing mud fever, but the underlying theme in all approaches is keeping the legs as dry as possible. Despite everyone's best efforts fields get poached in the winter and horses inevitably end up standing in muddy fields and walking along muddy tracks. Rotation of paddocks and using electric fencing to section off muddy areas of the field can be helpful, but given the climate we live in it would be a miracle to come through the winter without having experienced any mud! It can be very tempting therefore to wash your horse's legs every time you bring them in. However, over-washing softens the skin barrier, making damage more likely, and each time you wash you are re-establishing the damp environment that the bacteria thrive in.

Mud fever is a condition that will always plague some horses. That said, early detection and prompt treatment should make it self-limiting and allow you to continue your normal activities throughout the winter period.





XLEquine practice



Liz Bennett BVM&S MRCVS, Larkmead Vets

Practical equine worming

Resistance to equine wormers is an increasing problem and blanket treating your horses is no longer considered acceptable. In fact trying to achieve a parasite free horse should not be your aim these days as there are potential benefits to having a low level worm burden. Not only that but if you don't need to worm your horse so frequently you will save on the pennies too!

A high worm burden can cause signs such as a dull coat, poor performance, weight loss, colic, diarrhoea and even death. It is important to get it right.

The worms we are concerned about are:

- Small strongyles (small redworms or cyathostomins) (Figure 1) - the encysted larval stage of this worm hibernates in the lining of the large intestine and can cause problems when they emerge.
- Large strongyles (large redworms) these are not so much of a problem these days as they are easily killed by wormers.
- Tapeworms these can cause severe colic and as eggs only shed intermittently in the faeces can be difficult to detect.
- Roundworms (Figure 2) these are more of an issue in foals as older horses develop immunity.
- Pinworm this worm lays eggs (Figure 3) around your horse's bottom causing severe itching.



Figure 2 – A large roundworm burden in a foal with colic



Figure 1 – Small redworm burden in faeces



Figure 3 – Pinworm eggs seen under the microscope after a sticky tape sample was taken from around the anus

The important factors are:

Pasture Management

Not overstocking your fields (1-1.5 acres per horse) and poo-picking once or preferably twice a week will prevent larvae spreading on to your pasture. This is more effective than any wormer. Muck should be composted well away from grazing areas. It is also useful if you can rotate your grazing, rest paddocks for at least 3 months and cross graze with other species. Harrowing pasture is only useful in dry, hot conditions as eggs and larvae on pasture survive wet, cold conditions.

Worm Egg Counts (WEC)

All you need to do is collect a fresh 'ball' of dropping (about 10g) in a clearly labelled plastic bag or pot and drop it off on the same day at your local XLVets practice. They will be able to perform a faecal worm egg count (WEC). Horses with persistently low or zero WECs do not need to be tested again for six months. Horses with high WECs should be treated and retested in approximately 3 months (depending on worming product used). If your horse has consecutive very high burden WECs they should be tested again post-worming to check for resistance (eggs per gram (epg).

Faecal worm egg counts are not a reliable test for identifying a tapeworm burden. Tapeworms are significantly associated with spasmodic colic and ileal (part of the small intestine) impaction. There is a blood test that can be done as a one off test to check for tapeworms and more recently a saliva test has come on the market. These tests are limited as they cannot discriminate between non-infected horses and those with low levels of infection and interpretation is complicated if horses have been treated for tapeworm in the last 4-6 months.

Praziguantel and double dose pyrantel are both effective in treating tapeworm burdens. WECs are also unable to pick up larval cyathostomin (small redworm) burdens in the gut wall. Large numbers of larvae can accumulate as most wormers are ineffective at killing these immature worms. Large numbers of larvae emerging from the gut wall can cause severe inflammation, diarrhoea and even death. This condition is called larval cyathostominosis. Moxidectin is the only wormer effective against encysted larvae to which resistance has not yet developed therefore an annual treatment with this wormer is recommended in winter.

Worm egg counts >200 epg should be treated with an appropriate wormer.

Using wormers effectively

If your horse's WEC comes back positive, treat with either ivermectin or pyrantel. It is important you accurately assess your horse's weight (with the use of a weigh band or scales) and dose accordingly. If you are using oral syringes, set to the correct dose then remove the syringe cap. Stand at the side of your horse, in front of their shoulder, and open your horse's mouth. Guide the syringe into the corner of their mouth and aim it towards the back of the tongue before dispensing the wormer (do not dispense the wormer at the corner or front of the mouth where the horse may just spit it out). It may be necessary to raise the horse's head briefly to ensure the wormer is swallowed. You can mix wormers into part of your horse's feed, adding something tasty to tempt the horse. Once the wormer has been eaten, the remaining ration can then be fed.

As moxidectin is the only product still effective at killing encysted cyathostomin larvae, it should be reserved for this use only.

Widespread resistance to benzimidazoles now exists and therefore their use should be restricted to premises where its efficacy has been proven using faecal egg count reduction tests.

Chemical Family	Active Ingredient
Benzimidazole	Fenbendazole
Benzimidazole	Mebendazole
Macrocyclic Lactones	lvermectin
Macrocyclic Lactones	Moxidectin
Pyrimidine	Pyrantel
Quinolone derivative	Praziquantel
Combination	lvermectin and Praziquantel
Combination	Moxidectin and Praziquantel

Any new horses brought onto your yard should be wormed with Equest Pramox to target any encysted small redworm larvae and tapeworm burdens. They should have no access to grazing for 72 hours after treatment to prevent contamination of pasture.

Worming of foals

Foals are particularly sensitive to worms as they have no natural immunity and will start to pick up eggs from the environment and the mare's milk from the day they are born. This can result in infection from 2 weeks of age.



To protect your foal it needs to be wormed; Pyrantel, Fenbendazole and Ivermectin are all safe to use in foals and should be alternated to reduce the possibility of resistance developing. Unless the infection pressure is very high (for example on large stud yards), it is advisable to start with the first wormer at approximately 8 weeks and repeat treatment every 6-12 weeks (depending on product used and pasture management). At that point the foal can be treated like the other (adult) horses on the yard. In foals younger than 4 months Moxidectin should NOT be used as it can cause serious side effects.

Pregnant mares should be treated 2 -3 months prior to foaling, to reduce their worm burden and pasture contamination.

Interval dosing

In a busy livery yard or riding school performing faecal egg counts may not be possible, and instead interval dosing may be the only option. This involves using wormers at set intervals throughout the year. In spring use an appropriate wormer for roundworms and tapeworm; throughout the summer grazing season treat for routine worms at the appropriate frequency for the product used; in the autumn treat for tapeworm and in the winter use your larvicidal dose of wormer for the encysted redworm. Always remember to treat all horses on the same day with the same product and record what you have used. The main disadvantage of this strategy is horses being dosed unnecessarily which encourages the development of resistance.

If this article has just opened up a can of worms and left you confused contact your local XLVet practice and they will be happy to advise. Every situation is different and programmes can be tailored to suit your particular need.

Louise Pailor REVN RVN, Wright & Morten Veterinary Surgeons Nursing the sick donkey



Veterinary Surgeons

Many people think of donkey's as small horses but due to the donkeys stoic nature many symptoms can often go undetected until it's too late. Stoicism means that they do not exhibit signs of pain or illness dramatically and often the first signs we see are dullness or inappetance. Any donkey which is thought to be dull, lethargic, low head carriage and "just not right" should be examined by a vet sooner rather than later.

Donkeys requiring nursing care should not be separated from their companions as this will only further stress the donkey. Donkeys form strong bonds with their companions (Figure 1) and a box/stable should be provided to house them both together. The stable should be well ventilated and depending on the time of year, think about the use of rugs or heat lamps.



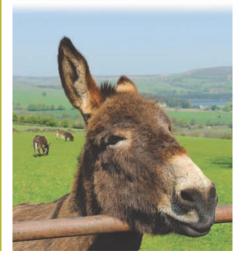
Figure 1 – Donkeys form strong bonds with their companions



Figure 2 – Obesity is a real concern in the donkey population

One of the most common (often fatal) conditions donkeys are susceptible to is hyperlipaemia. This is a condition which can be brought on by stress, management change or illness. Obese donkeys (Figure 2) are at a higher risk but all donkeys can be affected.

Hyperlipaemia occurs when trialycerides (fatty acids from the fat stores) are released into the circulation. These fatty acids then deposit in the liver and kidneys causing organ failure. Any sick or depressed donkey should be tested for hyperlipaemia by means of a simple blood sample. When treating donkeys with hyperlipaemia the prognosis depends on the severity of the blood results. Some donkeys will just require gentle nursing, encouraging voluntary feeding of tempting feeds and access to fresh grass while more severe cases will require feeding via a stomach tube with high energy feeds made into warm gruel or in some cases we use Ready Brek. The more severe cases will require intensive intravenous fluid therapy and the prognosies for these cases are generally poor. With this in mind, prevention of hyperlipaemia is key and as such, weight management is extremely important and obese donkeys should have their food intake reduced slowly.



DONKEY HEALTH

Another complication of obese donkeys is laminitis (Figure 3). This painful condition can be caused by poor foot management, trauma, hyperlipaemia and colic. Laminitis is a painful condition of the feet; signs generally include lameness, weight shifting from foot to foot, a laminitic stance where the donkey will rock back on its heels to try to take the weight off the front of its hoof, lying down and sweating. A common sign exclusive to the donkey is that they will hold alternate forelimbs off the ground; this trait is not seen in other equines. Again, the stoic nature of the donkey means that early signs may often go unnoticed. Nursing of these patients requires them to be confined to a box or stable on a deep soft bed. Make sure food and water are within reach as they are often reluctant to move around. As a first aid measure before the vet arrives homemade foot pads can be applied to the feet using pads of cotton wool or gamgee held in place with a cohesive bandage or duct tape. As discussed previously, ensure his/her companions are close by and can be seen.

Dental examination and treatment in donkeys is often nealected (Figure 4) as they do not regularly wear a bit, so it is easy to forget that their teeth require attention the same as horses do. Sharp enamel overgrowths which may dig in and lacerate the cheeks and tongue can lead to ulceration and a reduced appetite. Quidding can occur where the food is not chewed properly and falls from the mouth and can be found on the floor of the stable. Donkeys with enamel overgrowths can also retain food in their cheeks and develop a 'hamster like' appearance. Older donkeys with poor dentition may find it difficult to eat long fibre forage like hay and straw so chaff can be fed along with other concentrates. These feedstuffs should be dampened to prevent choke.

Nursing the sick donkey can be a time consuming and frustrating task. When feeding try to tempt them with their favourite treats whether this be apples, carrots, bread or even biscuits. Be patient, tie up companions when feeding so you can monitor feed intake. Remove any uneaten food and prepare the next feed with fresh ingredients. Quiet or 'off colour' donkeys should be treated as a veterinary emergency.



Figure 3 – An x-ray of a donkey's foot showing rotation of the pedal bone due to laminitis



Figure 4 – Intra-oral view of a neglected donkey's mouth







XLEquine practice So

Scott Mitchell Associates



Colin Mitchell BVM&S CertEP MRCVS, Scott Mitchell Associates

Kissing spines in horses

Kissing spines, also known as over-riding or impinging dorsal spinous processes, is a common diagnosis in horses with back pain. The exact cause and mechanism of the condition is not fully understood. Medical and surgical treatments are available. Most horses will return to full athletic function after treatment.

Anatomy

The thoracic and lumbar vertebrae of the back each have a bony projection extending upwards from the main bone which surrounds and protects the spinal cord. These projections are known as dorsal spinous processes (DSPs). Kissing spines occurs when the position of the bones of the back alters and the back, very slightly, flattens and lowers towards the ground. DSPs come closer together and impinge on each other in some horses, which results in inflammation and pain.

Clinical signs

Most back pain is likely to be slow or gradual in its onset, so it may be difficult to pinpoint any single incident, for example, a fall at a fence, which then subsequently caused back pain.

The signs may be subtle, such as difficulties with transitions, or reduced jumping ability. More severe cases may show resentment when saddling, girthing, mounting and the horse may make attempts to throw the rider off.



Figure 1 – Needle in place between DSPs prior to steroid injection

KISSING SPINES

Diagnosis

The clinical examination may include trotting up and lunging on firm and soft surfaces, possibly with saddle on. If it is safe to do so, the horse may be assessed when ridden, perhaps by the owner and another rider, for example, a veterinary nurse or instructor. Any other orthopaedic causes of poor performance, for example, lameness, should also be investigated. This is particularly important as low grade, chronic hind limb lameness will, in time, lead to signs of back pain.

X-rays (radiographs) are helpful in assessing the bones of the back, and an ultrasound scan can be helpful to image the soft tissues/ ligaments/muscles as well as the surface of the bones and some joints. (Figures 3 and 4).

Kissing spines can be readily imaged with xrays, but not all horses with kissing spines will have signs of back pain – the x-ray findings may be incidental. That is, the condition is present, but of little/no significance to the horse at that time.

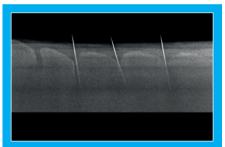


Figure 2 – X-ray showing needles in place between DSPs



Figure 3 – X-ray showing mild kissing spines

If an area of suspicion is found, it is helpful to observe the horse lunged and/or ridden before and after the infiltration of local anaesthetic into the area.

This is a very useful technique which anaesthetises an area to allow the significance of any abnormal imaging to be determined. For example, if kissing spines are suspected from the x-rays, and local anaesthetic is injected into the area, if the horse then moves/is ridden much better after this, there is a strong likelihood that the kissing spines are clinically significant. If this is not possible, or the results are not clear, a bone scan may be the next diagnostic step.

A bone scan/scintigraphy is a technique where a very small amount of a radioactive substance is injected into the horse's vein, before using a sensitive camera to scan the area under investigation. If there is a significant amount of bone remodelling in a diseased area, this will attract an accumulation of the radioactive material. These localised 'hotspots' are then detected by the camera.

A bone scan only gives an indication to where the problem is. If a hotspot is found, and its position corresponds with kissing spines on xrays, it is likely the condition is clinically significant.

Treatment and management

Medical and surgical treatments exist. Usually, medical treatment may only be successful for subtle, mild lesions. Extensive, severe lesions will almost certainly require surgery.

Medical treatments can include injection of steroid into the area of concern. This is often followed by a period of rest, then physiotherapy to build up the back muscles again. Shock wave therapy may also be used.

There are two surgical options commonly used:

1. Cutting the ligament between the DSPs

This is done under standing sedation and local anaesthetic, (Figure 1). Needles are placed, as markers, into the tissues between the DSPs and, once their position is checked by x-rays, (Figure 2), the surgeon will make small 1-2cm incisions adjacent to the marker needles. Scissors are then introduced between the DSPs and the ligaments are cut. The horse is left with several, small incisions and healing is usually fairly rapid and uneventful. Wound aftercare is minimal.

2. Removing the DSPs

This can be done under general anaesthesia or standing sedation and local anaesthesia. This surgery usually involves a larger incision along the middle of the horse's spine and the DSPs which are causing the problem are removed. Sometimes, alternate DSPs are removed to reduce the surgical trauma. There is a larger wound and this will require more time to heal.

With both surgeries, one of the key elements of success is to carefully follow the aftercare and rehabilitation instructions. Physiotherapy is used in most cases to improve blood flow, reduce pain, increase range of movement and reduce scarring/fibrosis in the area.

Lunging exercise with training aids, for example, a 'pessoa', may be recommended. Accurate saddle fit is important once the horse returns to ridden exercise. The use of a mounting block in the future may also be recommended.

Conclusion

Kissing spines is a common incidental, and clinical, finding. A thorough investigation will confirm the significance of the findings. Once an accurate diagnosis is made, there are treatment options available. The majority of horses can return to full athletic function.

Summary

- Variable signs of disease, from subtle to severe
- Common finding on x-rays
- Further investigation needed to accurately diagnose
- Treatment options are available
- Most horses return to full athletic function



Figure 4 – Horse undergoing back radiography

Case study...





Fiona Elliott BVSc MRCVS, Hook Norton Veterinary Group

Interspinous ligament desmotomy

'Cruiser' a 13 year old 2 star eventer presented for problems in right canter, general stiffness and stuffiness riding with a marked loss of topline. Despite a well fitting saddle, regular physiotherapy and good riding he was struggling in his work and was very painful on back palpation.

Radiographs of his back revealed impinging dorsal spinous processes ('kissing spines') in 8 places along his back. (Figure 1) Given the extent of the changes, his owner elected for surgical

management of his 'kissing spines'. He also had mild changes in his hock and sacroiliac joint, these were medicated after surgery.

Interspinous ligament desmotomy is a surgical technique whereby the ligaments in between the dorsal spinous processes in the back are cut. (Figure 2 and 3) A small incision is made to one side of the back and a small portal made through which the ligaments can be incised. The

current theory by which the surgery treats kissing spines is that by releasing tension in the interspinous ligament this in turn reduces stimulation of nerve endings in the ligament attachment to the dorsal spinous process. A feature of the surgical procedure that was not initially predicted was a clear enlargement of the interspinous space post-operatively. The surgery is minimally invasive and performed standing in stocks.

A key feature of the success of the surgery is the management after surgery. 'Cruiser' was placed on box rest to allow the skin incisions to heal, **(Figure 4)** however the day after surgery he began gentle exercise on a horse-walker. After 2 weeks he started walking exercise

on the lunge as well as walking using a Pessoa training aid. By 6 weeks post surgery, 'Cruiser' was walking for 2 hours a day and lunging for an hour a day in walk and trot over poles.

In addition to surgical management of his 'kissing spines' he was treated with physiotherapy, acupuncture and chiropractic treatments. He was fed from the ground to encourage his back to open up and performed carrot stretching exercises daily.

Cruiser won his first event 12 weeks after surgery.

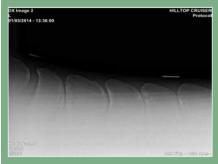


Figure 1 – X-ray of his spine prior to surgery



Figure 2 – Needle placement prior to surgical incision



Figure 3 – An incision is made to one side of the affected interspinous space



Figure 4 – Incision site post-operatively

DSP SURGERY

Case study...

Lee Pritchard BVSc CertAVP PGCertVPS MRCVS, Calweton Equine

Dorsal spinous process resection



Veterinary surgeon	Lee Pritchard
XLEquine practice	Calweton Equine



'Adam' an 11 year old gelding was presented for surgical resection of his 'kissing spines'. He had been showing marked discomfort localised to his back, was lame behind and reared chronically when asked for a right bend. He would disunite in canter whether under saddle or on the lunge.

Radiographs were taken of his thoracolumbar spine revealing a number of impinging dorsal spinous processes. Given the severity of his clinical presentation, 'Adam' was deemed a surgical candidate for dorsal spinous process resection.

In January 2013, 'Adam' underwent dorsal spinous process resection to resolve his back pain. This surgical technique involves removal of the top section of the dorsal spinous process (usually every other dorsal spinous process along the affected part of the back) to remove the source of his back pain. An incision is made along the top of the back directly over the affected area and the soft tissues are dissected down to the tops of the dorsal spinous processes. A retractor is used to hold the soft tissues and skin away from the dorsal spinous processes; once good access has been achieved the bone is completely removed. Once each affected dorsal spinous process has been removed the soft tissues and skin are closed over. Sutures were used to close the skin incision (Figure 1), 'Adam' had three dorsal spinous processes removed in total.

'Adam' recovered well post-surgery and suffered no complications. He had a

single isolated spasmodic colic episode whilst on box rest but this was treated with anti-spasmodics and painkillers to good effect.



Figure 1 – The skin incision after surgery

Post-operative radiographs were taken of 'Adam's' back to assess outcome. Every other dorsal spinous process associated with his back pain has been successfully removed.

After surgery 'Adam' was kept on box rest for 6 weeks with in hand grazing daily (Figure 2). After this period he was allowed turnout in a small paddock. Work started with lunging and long-reining for just 5 minutes daily and progressively built up. 'Adam' was back in full work 5 months after surgery and since this point has shown complete resolution of his back pain.



Figure 2 – Adam' post surgery

Veterinary Group





Equine insurance explained

Introduction

because they just can't seem to help getting into ridiculous scrapes,

responsibility to make sure any policy provides you with the cover

Purposes of equine insurance

Insuring your horse is a good way of budgeting for the unexpected with known premiums and a known excess. Even though Equine Insurance is perceived as expensive, when you consider that the cost of colic surgery runs into thousands of pounds and a recent University of Liverpool survey showed that 25% of people put in some sort of claim on their policy in any one year, insurance represents good value.

Flick through the pages of any equine magazine and you will see there are many companies offering equine insurance. Remember the cheapest policy will also certainly not provide the best cover. Below is an explanation of some of the types of insurance available.

Third party insurance

This is essential for anybody owning or riding a horse. Third party insurance provides cover in the event that your horse causes damage to another person or their property, for example if your horse escapes from his field onto the road and causes an accident. Even worse are the incidents when a horse kicks a person or child, this can happen when just leading a horse in from the field and is not just related to riding injuries.

You may already have this cover on your household insurance if you are a homeowner and it is also provided as a benefit of membership of many equestrian organisations e.g. the British Horse Society. Another good reason to support the BHS!

All risks mortality

ARM or accidental death insures against the loss of animal in the case of sudden and unexpected death or non-survivable accident or illness, for example a displaced broken leg or incurable colic. The cover is very limited and DOES NOT provide cover against humane destruction on welfare grounds in chronic or protracted disease or lameness cases such as laminitis or severe arthritis. In the event of a claim you may be required to have a post mortem performed at your own expense. Vets euthanizing horses follow strict guidelines which may be found on the BEVA website as to what constitutes humane destruction in these circumstances see www.beva.org.uk.

You may be requested to have a two stage or mortality insurance vetting certificate by the insurance company at the inception of the policy.

Veterinary surgeon Jane King XLEquine practice Westmorland

Veterinary Group



Veterinary fee cover

In the unfortunate event that your horse is ill or injured vet fees cover means you will be reimbursed for non routine veterinary treatment and means you can concentrate on getting the best available veterinary treatment. It is important to check the level of vet fees cover that you are buying, this is commonly capped at £5,000 and modern treatments or repeated surgeries do mean that complicated cases can result in vets' bills higher than the cover provided. Premiums can be reduced by having a higher excess.

You will often be asked to provide a recent five stage vetting certificate which is another good reason to have a full vetting done when you purchase a horse. Remember anything significant mentioned on the vetting certificate, i.e. a pre-existing condition will be excluded by the insurance company and this needs to be discussed when the policy is taken out. Complementary treatments such as physiotherapy or remedial therapy may also be covered which again gives your horse the best chance of making a full recovery.

We are keeping our horses into old age more often now; vet fees cover may only be provided to a certain age depending on the company. Some only cover for accidental injury after 20 years of age. Again check the small print.

Loss of use cover

This is the cover you will need if you want to insure the value of your horse should he become unable to do the job you keep him for.

The cover usually provides a percentage of the value of the horse in the event of a successful claim. It is important to specify what activity the horse is kept for and to keep this cover and value updated as your horse progresses through his career for example in affiliated eventing. You can also often specify the percentage of the value you want to insure to help reduce the premium.

It can take a period of time to process a loss of use claim, i.e. to show that the horse has not recovered. It is now routine procedure to have a horse freeze branded with an L in a circle on the left saddle area to show it has had a loss of use claim made on it.

Bloodstock insurance

High value animals and racehorses are often dealt with by specialist companies and have different policy terms and conditions.

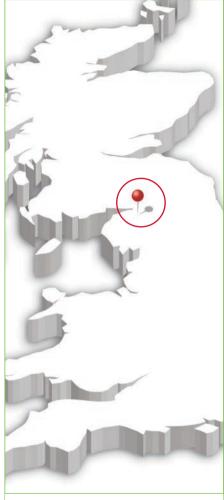
Similarly new born foals may be insured but a neonatal mortality insurance certificate may be required detailing the foal's health status and vital parameters.

Making an insurance claim

If you have a horse that is unwell or injured then you may need to make an insurance claim. This is a fairly simple procedure and we will help make it run as smoothly as possible but here are a few simple tips to help get your claim under way.

- Insurance companies are happier if you inform them about a procedure before you have it done. Obviously this is not always
 possible, especially in the case of the midnight colic or wound. However, if your horse is going to have an elective procedure
 like a lameness investigation then it is best to forewarn the company. They should always be informed if your horse is going to
 undergo an elective anaesthetic.
- 2. If you discuss making a claim with your vet and decide to go ahead then you need to get in contact with your insurance company and request a claim form. At this stage you may not have a diagnosis but can give them an idea of the type of problem.
- 3. Once your claim form arrives, fill in the owner section and make sure you sign it. Decide if you wish the insurance company to pay your vets directly or whether you are going to settle your bill and then reclaim the money from the insurance company.
- 4. Hand or post your claim form in to your vets. This allows the vet to complete their section and get the form sent away to the insurance company.
- 5. Continuations of claims some companies will require a continuation form each time we issue an invoice. Others will allow us to submit the invoices without you having to do anything. If your company requires a form we will get in touch and let you know. You will need to request the form from the company and fill in your section as before and forward it to us.
- 6. Excess you are likely to be expected to pay the excess for your policy at the time of treatment. The excess is usually a set amount of the claim or a percentage that your insurance company will have agreed with you when you started your policy. You may also be required to pay part or all of any livery or hospitalisation fees for your horse depending on your insurance policy, they are all different so please refer back to your policy terms and conditions.
- 7. Some policies do not cover the cost of supplements and alternative therapies that your horse may require. Again please refer back to your policy for your terms and conditions.
- 8. Most insurance companies will cover any one condition for a 12 month period or until the limit for that claim is reached. If your horse has suffered from a related condition, even if you have not placed a claim, then exclusions may have been placed on your policy. It is worth checking this before proceeding with treatment where possible.
- 9. For loss of use claims you are often allowed over 12 months from the onset of the problem to make this decision; check your policy details.





Veterinary surgeon	Paul May
XLEquine practice	Paragon Veterinary Group



Paul May BVMS MRCVS, Paragon Veterinary Group Understanding blood and plasma transfusions

Blood and blood product transfusions are readily available in equine practice, however there are factors to take into account before considering an appropriate product. Transfusions are used to correct fluid loss which may also involve protein and circulating blood cell loss. The transfusion helps treat or prevent shock and improves oxygen delivery to the tissues thereby aiding recovery.

Whole blood transfusion

Indications:

- Emergency use in severe bleeding, e.g. from severe wounds or birth canal damage at foaling.
- Emergency use in a haemolytic (rupture or destruction of red blood cells) crisis, e.g. in autoimmune disease to provide support for the patient to give time for other forms of treatment to become effective.
- Non emergency blood transfusions can be used in chronic anaemia caused by, e.g. gastrointestinal disease, or anaemia of chronic disease where there is suppression of the bone marrow by long term disease.
- When the packed cell volume (volume % of red blood cells in blood) falls below 12% and or the horse's haemoglobin falls below 8g/dl then a blood transfusion may be considered. In general, the more rapid the fall in these measurements, the more severe the signs in the horse. It takes about four days for the bone marrow to respond to an increased need for production of blood cells; the transfusion is aimed at supporting the patient during that gap.

Blood groups

There are eight major blood groups in the horse which are then further divided into sub-types. It is important to identify the blood types and cross match the donor with the recipient to avoid groups that are most likely to cause a reaction. Groups A,C and Q should be avoided as donors, groups D,K,P and U are considered safe for one transfusion.

Plasma transfusion

Indications:

- Failure of transfer of immunity from mother to foal (insufficient colostrum intake)
- Septicaemia in foals
- Protein loss from intestinal disease or surgery
- Fluid imbalance in cases of excessive fluid loss
- Clotting deficiencies

Antibody specific plasma can be used in the prevention and control of specific diseases such as *Rhodococcus equi*, and in the treatment of endotoxaemia that is associated with gut disease or retained placenta in mares.

In foals, an IgG level of less than 8g/l would merit considering a plasma transfusion. The lower the level, the more important the plasma transfusion becomes. Plasma can be prepared from a suitable donor but the availability of a commercially produced, quality product that is free of blood cells and has a guaranteed minimum protein level and in some cases, is antibody specific, means that in practice this is seldom done.

Technique for transfusion

The technique is very similar for blood and plasma transfusions. If possible and timing permits, any fluid deficit should be corrected first. The horse should be restrained so that the product can be administered with the least risk of complications. Sedation may be considered but care must be taken if shock is a component of the condition. The area of the jugular vein is clipped and cleaned on the recipient and an intravenous catheter is inserted. The transfusion is then delivered through an appropriate giving set.

Whole blood should be used within four hours of collection, frozen plasma should be carefully thawed before use according to the manufacturers instructions.

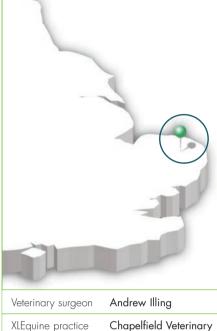
Once transfusion has begun, the delivery rate should be slow for the first 10 minutes. If during this time there are no complications, it is safe to increase the flow rate. If complications are encountered, the rate of delivery is slowed, any supportive treatment is administered and if it is considered safe, the transfusion is resumed.

Complications of transfusion

Whole blood transfusions can produce reactions that may appear as agitation with increased heart and respiratory rates, muscle tremors, swellings in the skin and even collapse. The horse is monitored during transfusion and should these signs be noticed with cross matched blood, appropriate action can be effective if started soon enough.

Plasma transfusions tend not to induce reactions but an increase in respiratory rate and shivering may occasionally be seen. If that is the case, slowing the rate of delivery is usually sufficient to correct the signs.





Partnership Ltd



Figure 1 – Lymphangitis affecting a single hindlimb

Lymphangitis in horses

Andrew Illing VetMB MA MRCVS, Chapelfield Veterinary Partnership Ltd

Lymphangitis describes inflammation of the lymphatic vessels, and typically in horses involves one or more legs but most commonly a single hindleg (Figure 1).

Common causes

- Trauma
- Allergy
- Infection (often superficial wounds to the lower leg)
- Surgery
- Genetic problems with elastic fibres in lymphatics (more common in heavy horse breeds especially Shires and Clydesdales)
- Epizootic Lymphangitis (caused by a fungal infection is not seen in the UK)

The leg receives fluid from the arterial circulation and this fluid drains from the leg by the veins and lymphatic vessels. The deep lymphatic system drains most of the hindlimbs to the pelvic lymph nodes. This is done by smooth muscles in the lymphatic walls as well as external forces like muscle movement, arterial pulsation, contraction of skeletal muscles, and joint and hoof capsule movements. Lymphatic valves prevent back flow.

The main drainage lymph nodes are the pre-femoral, inguinal and popliteal, but if the lymphatics become inflamed they cannot transport the fluid away from the leg efficiently. The complication of inflammation in the leg is that capillaries become leaky and more fluid enters the tissues. Quickly the system becomes overloaded and the leg gets rapidly bigger.

Clinical signs

The leg can have a mild form of fluid accumulation 'lymph-oedema', where fluid passively collects because of gravity at the bottom of the leg. This is passive with no inflammation and is non-painful. This is often a result of long periods of stabling, weight gain or pregnancy. This resolves with light exercise and bandaging.

Lymphangitis is:

- Very painful (the leg may not be able to bear weight)
- The leg is very hot and very swollen (usually a hindleg, but can be a front leg, or more than one)
- The leg may feel doughy (pitting oedema), but painful to touch
- Often the horse is running a temperature, with increased respiratory and heart rates

Where there are skin lesions of the pastern (mud fever), or small abrasions of the skin, such



Figure 2 – Chorioptes mites can cause abrasions in the skin



Figure 3 – Serum weeping from superficial wounds

as Chorioptic mange (Figure 2) aggravation, secondary bacterial infection with *Staphylococcus or Streptococcus* species may lead to a cellulitis infection spreading up the leg. This may cause a secondary lymphangitis with the leg developing ulcers or starting to weep serum (Figure 3).

Diagnosis

Ultrasound or radiographs may be used to rule out fractures or other soft tissue injuries which sometimes give similar symptoms. Confirmation of infection is not always straightforward but swabs may be taken if the skin is weeping serum.

Treatment

- Antibiotics trimethoprim/sulphadiazine or penicillins; usually a long course of medication is needed
- Non-steroidal anti-inflammatories (phenylbutazone, flunixin, meloxicam) reduce inflammation and help to bring the temperature down
- Corticosteroids Dexamethasone (may not be given if there is a specific risk of laminitis)
- Diuretics (remove fluid from the body)
- Frequent gentle exercise and physiotherapy
- Bandaging after having an antiseptic wash if weeping serum

Treatment will often leave the horse with a larger leg, prone to recurrence, due to damage to the lymphatics and the subcutaneous tissues.

EXOTIC DISEASES





XLEquine practice 608 Farm and Equine



Andrea Kilduff-Taylor VetMB BA MRCVS, 608 Farm and Equine

West Nile Virus

A number of outbreaks of West Nile Virus in southern France in 2015 have caused concern, but should we really be worried?

West Nile Virus is a virus mainly affecting birds, humans and horses that is transmitted by mosquitoes (especially Culex species). A bird with the virus cannot pass the disease directly onto another bird. Instead, a bird with the disease is bitten by a mosquito; the mosquito then bites another bird, passing on the disease.

Horses and humans are 'dead-end hosts', meaning that they do not develop high levels of the virus in their bloodstream once infected. This means that a mosquito biting an infected horse or human cannot become infected and pass it onto another animal.

So why worry about the disease at all? Well, in horses, the disease can be deadly. About 10 to 39% of infected horses will develop clinical signs, and once signs have developed, around 30% of these horses will die or require euthanasia. Signs can range from flu-like symptoms (lethargy, fever, lack of appetite) to severe neurological signs. These can include incoordination, muzzle twitching, vision impairment, circling, head pressing, paralysis, convulsions and death. Treatment is basically supportive, including pain relief, fluids and padding around the stable to prevent injury.

Where is this disease located and do we need to worry about it in the UK? West Nile Virus occurs in quite a lot of places:

- Africa
- Europe
- Middle East
- North America

- Central and South America
- West Asia

The most likely route of entry into the UK would be via migrating birds. We definitely have the correct mosquito species in the UK to transmit the disease, so therefore it is probably only a matter of time before the disease is detected in the UK. The transport of horses into the UK presents zero risk if we remember the fact that horses are dead-end hosts and can't pass on the virus.

A bit of history:

West Nile Virus was first identified in the blood of a woman in 1937 in Uganda. It spread to cause outbreaks in Egypt and Israel during the 1950's. In the 1990's, the way the virus behaved seemed to change: a number of outbreaks occurred in the Middle East and southern Europe with a higher percentage of people getting neurological disease than before. In 1999, West Nile Virus reached New York City in the USA, causing a huge epidemic that spread across the whole country over the next few years. It affected birds, horses and humans. Since 1999, over 25,000 cases of West Nile Virus encephalitis (inflammation of the brain) have been reported in US horses. Fortunately, the situation in horses in the USA has improved greatly since the introduction of vaccines against the virus.

Prevention:

There are vaccines available that are licensed for horses in the UK and Europe. These provide good immunity against the virus. Presently there is no need to routinely vaccinate horses in the UK. However, it would make sense to vaccinate horses travelling to areas where West Nile Virus is common.



VET VIEWPOINT...

We view the opinions of our vets on the topic of West Nile Virus

Alistair Couper BVMS MRCVS, Capontree Veterinary Centre



My first thought when asked for my viewpoint about West Nile Virus and whether or not we should be worried about it was that since I couldn't remember anything about it other than the rather obvious clues from the name that it is a viral infection of horses which originates in the West Nile area, my honest answer was that I hadn't got a clue whether I should or should not be worried about it and it was time for some research.

After conducting my research I discovered that there was some good news and bad news to take on board before making my decision. The good news was that although West Nile Virus causes an encephalitis (brain inflammation), only about 10% of infected horses show clinical signs and the virus does not spread directly between horses. The bad news however was that there is no specific treatment available in the UK with affected animals requiring high levels of supportive care and intensive hospitalisation and only about 40-50% chance of survival. Since mosquitoes are no longer completely unheard of in Cumbria I was starting to get a bit worried until I came to the final bit of excellent news that no clinical cases of infected horses have been seen in the UK making it highly unlikely that I will come across it on my rounds in rural Cumbria so I stopped worrying.

Should we be concerned about West Nile Virus in the U.K.?

Will Marshall BVMS MRCVS, Clyde Veterinary Group



With the introduction of bluetongue to the UK in 2007 we should certainly be aware of vector-borne viral diseases affecting our horse population. Although there are no reported cases of WNV in the UK to date, the mosquito responsible for transmitting the virus has been identified here earlier this year; clinical cases have also been reported in countries as close as France and Italy.

Luckily horses with WNV are not contagious to other horses and so the risk to resident UK horses is believed to be low. However, migrating birds from WNV affected countries can affect susceptible native birds. As such, I would not say we should be worried about WNV in the UK at this

point in time. However, it is important that we follow the lead of other countries with naïve populations and instigate our own equine surveillance programme as a method of disease prevention.

Nathalie van Heesewijk BVSc(Hons) MRCVS, Penbode Equine

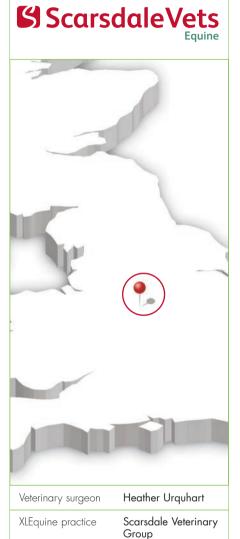


Although no cases of West Nile Virus (WNV) have yet been recorded in the UK, evidence of exposure to the virus has been found in our migratory birds. Neighbouring countries such as France have recently had WNV outbreaks. The main risk of introduction comes from the migratory bird and mosquito population. The *Culex modestus* mosquito is the main WNV vector in Europe. It is present in England, notably in the southeast marshes, where susceptible migratory bird species also flock.

Disease surveillance in host populations is critical, as is increased awareness of the disease to prevent silent spreading. All horses, birds and humans presenting with neurological symptoms compatible with WNV should be tested accordingly.

Should the disease be introduced in the UK, the Department of Environment, Food and Rural Affairs (DEFRA) have developed relevant contingency plans and a vaccine is already available for horses travelling to high risk areas.

Heather Urquhart BVMS CertAVP(EP) MRCVS, Scarsdale Veterinary Group Dehydration in horses





Horses can become dehydrated due to decreased water intake or increased water losses. Reduced intake occurs if water is unavailable, unpalatable or the horse chooses not to drink, such as during periods of cold weather or at competitions. Increased losses can occur via sweating during periods of hot weather or intense exercise, or the gastrointestinal tract during episodes of diarrhoea or colic. Dehydration can be very serious, and in severe cases damage to internal organs can occur; early recognition and treatment is therefore necessary for a successful outcome.

Prevention

Ensure your horse always has a plentiful supply of clean, fresh water, which can be easier said than done especially in the winter months when water troughs and buckets can freeze readily. If you notice your horse is drinking less during winter, try offering warm water to drink, ensure that any bucket feeds are wet, and consider soaking hay.

Many horses at competitions refuse water – try taking water from home, and add chopped apples or other tasty treats to encourage him to drink.

Electrolytes are essential salts including potassium, sodium and chloride that bind to water and aid absorption from the gastrointestinal tract. They are also lost from the body alongside water with diarrhoea or when sweating. Powdered electrolytes can be added to the feed or drinking water, or ready made syringes can be purchased to allow easy administration. Some horses find electrolytes in water unpalatable, so always offer plain water too.

Treatment

Treatment of dehydration involves replacing the fluids and electrolytes that have been lost. The amount of fluid required can be calculated by taking into account how much your horse requires on a daily basis for maintenance, combined with how much has been lost, for example in sweat or diarrhoea. The clinical condition of the horse is also taken into consideration; signs such as a prolonged 'skin tent', dry or tacky mucous membranes, sunken eyes and an increased heart rate can indicate dehydration. Blood and/or urine samples can give additional information. Fluids can be administered orally or intravenously, depending on the clinical signs and the underlying cause – a mildly dehydrated horse, for example after intense exercise, may be able to correct his own fluid balance simply by being offered water +/- electrolytes from a bucket.

Nasogastric intubation permits several litres of fluid to be delivered directly into the stomach, allowing quick correction of mild to moderate dehydration. Electrolytes should be added to aid water absorption. However, the gastrointestinal tract must be able to absorb fluids for this to be effective, so would therefore not be suitable for use in horses with diarrhoea or some types of colic.

In these cases, or where the dehydration is severe, the horse is likely to require admitting to a veterinary hospital, and intravenous fluids given directly into the bloodstream (Figure 1).

Treatment can be stopped when all calculated fluid losses have been replaced, when the horse is clinically normal, or when blood and urine samples indicate a normal hydration status.



Figure 1 – Horse receiving intravenous fluids for rehydration.

equine Excellence in Practice



Lee Pritchard, BVSc, CertAVP, PGCertVPS, MRCVS Calweton Equine

XLEquine and your practice – what does it mean?

Within the veterinary profession there are traditional privately owned practices and others that are part of a larger corporate group. We fall into the first category and as an independent practice, we are owned and run by vets, this means that any decisions that are made come with a sound ethical and clinical backing from the vets on the ground that are treating your horses.

Whilst, like any business there is a need to generate profit, the drive for this is to reinvest in the facilities, equipment and staff who are there to give your equine friends the very best care. A good quality veterinary practice will always be progressive in exploring new ways to deliver excellent care to you as horse owners.

XLEquine is the equine sector of XLVets, a unique group of veterinary practices within the profession. XLVets is a group of high quality practices that spans the length and breadth of the country, from Penzance to Orkney, whose aim is to work collaboratively and cooperatively to share resources, learning and clinical skills.

As a horse owner this gives reassurance that if your pet is treated by a practice carrying the XLEquine brand, you will have the personal approach that you have come to expect from your local independent veterinary practice, but the backing of one of the most respected groups of vets in the country – and the only collaborative group of its kind.



XLEquine practices work together to deliver the best care and share knowledge and skills with you, the horse owner, to ensure together we are equipped to keep your horses well and healthy. XLEquine vets very much focus on helping you keep your horses well, not just treating them when they aren't well. There are many ways you can get involved with XLEquine including our healthcare campaigns such as 'Keep one step ahead' and our practical vet-led training workshops – EquineSkills.

XLEquine provides a quality assurance mark for excellent equine care. We are proud to be associated with XLEquine and hope that you will feel proud of your practice too.



www.xlequine.co.uk

TUMN 2015 QUINE PONY PAGE

IIIS for caring for your old friend



Feeding - your horse or pony may need extra feed in the winter to cope with the weather. They also may need to have soft feeds if their teeth aren't as

good as they used to be. Housing - older horses don't cope as well with the wet and windy weather, so it is important to ensure they have access to shelter and big rugs.

Dental care - every horse should have their teeth checked by the vet at least once per year. Older horses should have theirs checked more frequently to ensure their teeth aren't causing any pain and they can chew effectively.



Foot care - it is important to get your pony's feet checked and trimmed regularly by the farrier.



Vaccination - older horses are like older people, they are more likely to pick up coughs and colds, such as equine flu. It is really important that your veteran pony has their vaccinations yearly even if they don't go anywhere.



Worming - worms can become a problem in older horses because their immune systems don't work so well. Worm egg counts test whether your horse needs worming or not, your vet will advise you of the best treatment if it is needed.

Lameness - horses often start to slow down in older age due to aches and pains caused by arthritis. Get your vet to check them

over at their health check; giving painkillers can be really effective to help them feel more spritely!

Blood tests - a blood sample can be taken to screen your old friend for signs of diseases that are more common in older age.



How many words can you find on the wordsearch below. Circle the words as you find them. ENTER TODAY! GOOD LUCK...

P

Κ Х С L С Т W Ζ G \bigcirc S E Ν E Ρ S А Ζ S G Τ Q M K S \bigcirc G Ν G S С D Ρ Т Ρ В S R В О F Ζ B Ρ Х S Ν A R Ε J L K F N R E Y R L R S F А Ζ S A R D S А В A \bigcirc V С S Т Ε Х E Κ Х \bigcirc 7 Κ Κ С Η Ε Ρ G L A G G Н Α I D Η G D F Ζ S Т N Т F D U G Y S I K Н Ρ R Μ F Ρ R R Т F F R B Н R F Х Ζ M Ζ Х G Y F S G R M

CUDDLES RUGS WORMING

FARRIERY FE TEETH VA

st

come

mpetition

FEEDING VACCINATION

A winner will be chosen from all the correct entries received before the closing date, Friday 27th November. The winner will be revealed in the next issue of Fauine Matters. The editor's decision is final, no correspondence will be entered.

Ν	ORDSEA	RCH	COM	PFTIT	ION
V V	OKDULF		COM		

Postcode

Send your completed entry to: **Equine Matters Competition** XLVets, Carlisle House, Townhead Road, Dalston, Carlisle, CA5 7JF

11 ICK

a horsey

goody bag!

Daytime Telephone Number

Email

XLVets Practice Name

I do not wish to receive further information from XLVets

 $\hfill \square$ I would like to receive further information from XLVets by e-mail

EXCELLENCE IN PRACTICE XLEquine - Better Together

The members of XLVets have worked hard to create what they see as a model of how practices can work together, sharing the latest ideas and passing on savings and joint expertise to clients.

www.xlequine.co.uk



1	608 Farm and Equine Veterinary Surgeons Rowington, Warwickshire Telephone: 01564 783404
2	Ardene House Vet Practice Ltd Aberdeen, Grampian Telephone: 01224 740700
3	Ashbrook Equine Hospital Nr Knutsford, Cheshire Telephone: 01565 723030
4	Belmont Farm & Equine Vets Hereford, Herefordshire Telephone: 01432 370155
5	Bishopton Veterinary Group Ripon, North Yorkshire Telephone: 01765 602396
6	Calweton Veterinary Group Callington, Cornwall Telephone: 01 <i>57</i> 9 383231
7	Capontree Veterinary Centre Brampton, Cumbria Telephone: 016977 2318
8	Chapelfield Veterinary Partnership Norwich, Norfolk

Telephone: 01508 558228

hire	9	Lewes, East Sussex Telephone: 01323 815120	17
	10	Clyde Veterinary Group Lanark, Lanarkshire Telephone: 01555 660000	18
	11	Donald S McGregor & Partners Thurso, Caithness Telephone: 01847 892387	19
	12	Endell Veterinary Group Salisbury, Wiltshire Telephone: 01722 710046	20
	13	Fellowes Farm Equine Clinic Huntingdon, Cambridgeshire Telephone: 01487 773333	21
	14	Fenwold Veterinary Practice Spilsby, Lincolnshire Telephone: 01790 752227	22
	15	Glenthorne Veterinary Group Uttoxeter, Staffordshire Telephone: 01889 562164	23
ship	16	Hook Norton Veterinary Group Banbury, Oxfordshire Telephone: 01608 730085	24

Cliffe Veterinary Group

17	Larkmead Veterinary Group Wallingford, Oxfordshire Telephone: 01491 651479
8	Midshire Veterinary Group Limited Nuneaton, Warwickshire Telephone: 02476 384064
9	Millcroft Veterinary Group Cockermouth, Cumbria Telephone: 01900 826666
20	Northvet Veterinary Group Kirkwall, Orkney Telephone: 01856 873403
21	Paragon Veterinary Group Carlisle, Cumbria Telephone: 01228 710208
	Parklands Veterinary Group

Parklands Veterinary Group Cookstown, Northern Ireland Felephone: 028 867 65765

 Penbode Equine Vets Holsworthy & Okehampton, Devon Telephone: 01409 255549
 Rosevean Veterinary Practice Penzance, Cornwall Telephone: 01736 362215

25	Scarsdale Veterinary Group Derby, Derbyshire Telephone: 01332 294929
26	Scott Mitchell Associates Hexham, Northumberland Telephone: 01434 608999
27	Severn Edge Veterinary Group Aston Munslow, Shropshire Telephone: 01584 841080
28	St Boniface Veterinary Clinic Crediton, Exeter Telephone: 01363 772860
29	Torch Farm and Equine Vets Ilfracombe, Devon Telephone: 01271 879516
30	Wensum Valley Veterinary Surgeons Fakenham, Norfolk Telephone: 01328 864444
31	Westmorland Veterinary Group Kendal, Cumbria Telephone: 01539 722692
32	Wright & Morten Macclesfield, Cheshire Telephone: 08458 330034

XLEquine - We Excel