



# Newsletter

The Arundel Equine Hospital

Spring 2009

## The Arundel Equine Hospital High Goal Challenge Finals



*The teams battle it out in the polo arena*



*Team Novate, the winners of the final, presented with their prizes by the partners*

Sunday 8th March started as a lovely sunny day for the third Finals Day sponsored by the Arundel Equine Hospital, sadly this weather was not to last. The early matches got off to a good start with the crowd enjoying the arena polo tournament; arena polo takes place on an all-weather enclosed arena which is smaller than a traditional polo field and has three players per team. The cold from the developing brisk wind was kept at bay for the spectators by the provision of some warming glasses of Winter Pimms.

The final of the tournament pitted Team Hickstead against Team Novate for the prize. An early start by Novate led to the first chukka ending 9-3 in their favour. A fall by Hickstead number 1, Lucy Field in chukka two thankfully led to no injury to either horse or rider and the teams continued playing in the developing rain. The third chukka saw the wind gather in

strength and the spectators were to see another demonstration of teamwork, this time off the polo field, as the members of the Arundel Equine Hospital swiftly dismantled their marquee before it blew away!

The polo players braved the worsening conditions with the Hickstead team, consisting of Lucy Field, Ben Sim and John Bunn, finding themselves unable to surmount team Novate's early lead. Team Novate members Chas Taylor, Sarah Wiseman and Daniel Acosta eventually won the final in convincing form 19-6.

It was enjoyable for all the staff at the Arundel Equine Hospital to be able to meet clients in a sociable atmosphere and to demonstrate some of the facilities we have at the Hospital. We would like to thank everyone who made the day a success, and who braved the climatic conditions!

### Partners

Paul du Preez  
Ed Lyall  
Rob van Pelt  
Matt Waterhouse

### North Assistants

Paula Broadhurst  
William Marshall  
Alex Clarke  
Philippa Hayes

### South Assistants

Pauline Williams  
Colin Tait  
Gareth Haines  
Suzanne Duncan

### Intern

Tori Ludlow

### Administrative Staff

Lisa Marter (Practice Manager)  
Emma James (Secretary)  
Jay Newman (Credit Controller)  
Vicky Parkinson (Accounts Admin)  
Sarah Rogers (Accounts Admin)

### Reception Staff

Daisy Tipping  
Carol Hill  
Louise Massie  
Theresa Clarke  
Tanya Bricker

### Clinic Staff

Sally Malone (Clinic Manager)  
John Cole (Yard Assistant)  
Alex Wenham (Groom)  
Charlotte Maheu (Groom)

### Veterinary Nurses

Jill Barriff (Head Nurse)  
Emma Poucher  
Alanna Harper  
Vicky Bradford  
Tammy Simpson  
Izzy Brookes

### Laboratory Staff

Suzannah Stacey  
Alison Sandiford  
Jean Pittock  
Mary Garland  
Mary Goldsack  
Elaine Hilder



# A Brief Overview of Artificial Insemination and Embryo Transfer at The Arundel Equine Hospital



The team of stud vets at the Arundel Equine Hospital made up of Ed Lyall, Paula Broadhurst and Philippa Hayes provide a wide range of stud medicine services, including Artificial Insemination (AI) and Embryo Transfer (ET).

AI is the technique used to transfer semen into the uterus of a mare at the correct time in her oestrus cycle in order to obtain a single pregnancy. The semen can be fresh, chilled or frozen and it can mean both stallions in the UK and abroad can be used as well as semen from deceased stallions. The success of an AI program is very dependent not only on the stallion's semen but also on the careful veterinary management of the mare pre and post covering.

The other advantage of AI is that your mare and her foal can be kept at home under your own supervision. Additionally the intensive veterinary management required of mares to successfully perform AI can improve the chances of obtaining a pregnancy as the probability of infection is reduced. The addition of extenders and antibiotics to the semen can also improve the fertility of some stallions by improving the lifespan of the sperm. AI allows for the safe mating of mares or stallions with injuries and can prevent injury to valuable mares and stallions.

The collection of frozen semen can allow a stallion to compete without having to worry about stud duties and temperament changes whilst covering, similarly ET is a technique that has been developed to enable mares to continue to compete while still producing foals. A mare's fertility decreases with age. A mare that is retired from competition in her teenage years may have difficulties in conceiving.

To try and avoid this situation, owners will sometimes breed from fillies at 2 to 3 years of age prior to breaking in, so that they at least have 1 offspring before starting a competition career. Alternatively ET can be used to produce foals while the mare is actively competing. ET involves the careful synchronisation of a donor mare (the mare you want the foal from) with a recipient mare (the

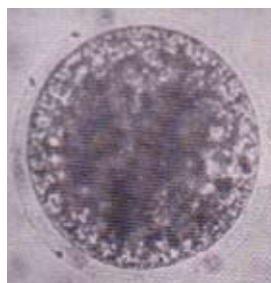
mare we will transfer the pregnancy into). Then on a specific day (usually day 7 to 9 after ovulation), the embryo is carefully flushed out of the donor mare and transferred to the recipient mare. A pregnancy scan is then performed about 1 week later on the recipient mare and subsequent scans as indicated.

The synchronisation of the recipient mare with the donor mare plays a large part in the success rate of this procedure. Therefore we need to start off with a number of potential recipient mares so if some don't respond as hoped we still have others to choose from. Fortunately studies have shown no decrease in the success rate of the transfers, if the embryos are carefully chilled and transported within 24 hours to a facility with a number of recipient mares available. This also reduces the expense of finding, keeping and housing a number of recipient mares by the owner of a donor mare.

In 2008 the stud vet team at The Arundel Equine Hospital performed a number of successful ET by flushing the donor embryo and sending it chilled to a recipient mare facility. The donor mares were covered via AI in their own stable yard, then on the day of flushing brought to Gryffyns Stud where we have the specialised equipment required for flushing and processing the embryo. Once processed properly the embryo is transported chilled to the recipient mares where the embryo is transferred into the mare that was best synchronised with the donor.

Prior to embarking on an AI or ET program with a mare it is important to become aware of all the facts. One of the most important factors to consider is the cost. The transport, keep and veterinary costs of sending the mare to stud must be balanced against the slightly increased veterinary costs of AI or ET combined with the significant savings of keeping the mare at home.

If you are interested in breeding from your mare in 2009 via natural cover, AI or ET contact the AEH now so that one of our dedicated Stud Vet team can explain the process in greater depth to you one on one. Your options and which one of our competitive package deals best suits your individual situation can then be discussed.



*An equine embryo*

## Congratulations

There has been a recent case of engage-itis at the practice. Congratulations to Alex Clarke and Caroline and Colin Tait and Charlie on their recent engagements.

# Equine Grass Sickness



*Horse with grass sickness showing classic 'elephant on a tub' stance*

Equine Grass Sickness (EGS) is a complex disease of the autonomic (involuntary) nervous system that controls and coordinates intestinal movement. Although the cause of EGS remains unknown, recent research into the disease suggests that it may be caused by toxins released from the bacteria *Clostridium botulinum* (which live in the environment). It is thought that these toxins cause damage to the nerves in the gastrointestinal tract and other nerves throughout the horses' body. The clinical signs of disease shown by horses with EGS reflect this nerve damage.

Grass sickness occurs in different forms, although these categories suggest the duration of the illness, they more accurately represent the severity of the damage to the nerves involved. The clinical signs that horses with EGS show depend on the form of the disease they are suffering from.

- Acute Equine Grass Sickness is characterised by its sudden onset of colic signs. Dullness, inappetence, drooling and a difficulty in swallowing normally accompany the colic signs. The affected horse will normally have a high pulse rate (70-120 beats per minute). Muscle tremors and patchy sweating are also often seen.
- Subacute Equine Grass Sickness. The clinical signs in subacute EGS are very similar to those of acute EGS but are usually less severe and tend to develop over a slightly longer period of time.

Horses with acute or subacute EGS unfortunately have a hopeless prognosis for survival and usually have to be put to sleep on humane grounds.

- Chronic Equine Grass Sickness usually has a more prolonged and gradual onset. A progressive weight loss over a period of up to 2 weeks is usually seen producing a "tucked-up" appearance. Horses with chronic EGS adopt a characteristic stance often referred to as "an elephant on a tub" appearance. They are also usually dull and inappetent and may show difficulty when trying to eat. Patchy sweating and muscle tremors are often seen. They may also get a dry crusty nose and pass very dry droppings.

With appropriate intensive nursing a significant number of horses will make a recovery from the chronic form of Equine Grass Sickness.

A diagnosis of Equine Grass Sickness is usually made upon recognising the characteristic clinical signs highlighted above. Repeat examinations may be necessary in order to get to this diagnosis. A definitive diagnosis of the disease can be made by taking biopsies of a portion of the gastrointestinal tract and having them analysed histologically. A general anaesthetic or laparoscopic surgery is required to obtain these biopsies.

Recognised Risk Factors in Equine Grass Sickness and Advice on Avoidance of these Risks.

Young horses (between the ages of 2 and 7) are most at risk from EGS. Older horses are less likely to suffer from the disease. Foals are thought to be protected via antibodies gained from their mothers.

EGS can occur throughout the year but a definite peak is seen in the spring and early summer in the UK.

EGS has been associated with cooler temperatures (7-11°C) and dry weather with irregular ground frosts.

Premises with a high number of horses and where young and old horses are kept together appear to have a higher risk status. Premises with chalk soil appear to have less of a risk when compared to those with sand and loam type soils. EGS is also more likely to occur on premises where the disease has occurred in the past.

The disease is strongly associated with access to grass. Changes in the amount or quality of grass available are associated with the disease. Recent movement to a new pasture or a period of stress are also highly associated with the development of EGS

Disturbance of the pasture such as digging, building activity or mechanical removal of droppings is thought to increase the risk of EGS occurring on a particular pasture.

With the above risk factors in mind the following advice is suggested.

Avoid any changes in the management during the high risk spring period (April-June). This includes moving horses to different pastures, buying new horses from other areas, and changes in diet.

Supplement the diet of horses "at risk" with extra hay or haylage throughout the spring. Avoid digging up or otherwise disturbing the soil.

Consider co-grazing with ruminants which has been shown to help reduce the risk of the disease.

Until the exact cause is known, it is difficult to give sound advice regarding prevention of EGS. In areas where the disease is very prevalent, stabling the animals during the spring and early summer will reduce the likelihood of disease.

Stabling is advisable for a new horse that has been moved onto premises where the disease is known to occur.

If a case occurs amongst a group of horses, it is probably best to move the others out of that field provided this does not involve too much stress associated with transportation or mixing with strange horses. If horses cannot be moved from the pasture then supplementary feeding with hay or haylage may reduce the amount of grass the horses eat.



## Christine Arentshorst leaves for Holland

Many clients will be saddened to hear of the recent departure of Christine from the practice. Christine worked for the Arundel Equine Hospital for five and a half years and has recently moved back to Holland with her fiancé Ed and dog Joepie. We were all sorry to see Christine leave and wish her every happiness with her fiancé back in Holland. She was a valued member of the team and we will miss her greatly as a friend and colleague but one major benefit of the Arundel Equine Hospital is that we are a team and by the very nature of the practice our equine patient's needs will be looked after by other equally able assistants.

## The Importance Of Vaccination

Tetanus, now a rare disease due to vaccination programmes, was diagnosed in a horse in the south of the practice in January. Horses are the most susceptible to this disease of all domestic animals. A very serious, normally fatal disease, tetanus carries a very guarded prognosis. The disease is caused by a group of potent toxins produced by the bacterium *Clostridium tetani*, the spores of which are very resistant in soil and droppings for many years. These toxins target the nerves that supply the horse's muscles. In the majority of cases the bacterium proliferates in wounds, particularly puncture wounds, though foals may be infected via the naval. Puncture wounds of the foot are a particularly well recognised route of entry.

Clinical signs may take weeks to manifest, and can often be distressing to both horse and owner, particularly in the latter stages. They are characterised in the early stages by a stiff gait and an 'over-response' to external stimuli. Spasm of the jaw muscles results in characteristic 'lockjaw', but spasm of the muscles of the neck, body and limbs, with increasing severity soon develops. Other signs include a 'hyper-alert' expression, nostril dilation, salivation, difficulty eating, prolapse of the third eyelid (a membrane that can easily be seen at the inner corner of the eye), and an elevated tail head. Once recumbent, with continuous generalised severe muscle spasms, affected horses usually die from respiratory paralysis and exhaustion over a period of days.

Treatment can be attempted in a selection of early cases and revolves around eliminating the bacterium, e.g. debriding and flushing the wound (not always readily obvious) and reduction of external stimuli (cotton wool in ears, dark box). This is supplemented by intravenous antibiotics (requiring hospitalisation preferably, but transport often not possible due to the nature of the disease), antitoxin, sedation, and intensive nursing.

Prevention as many will know is through routine vaccination. This is often combined with the horses' flu vaccine. Vaccination for tetanus alone is possible for those who choose not to vaccinate for flu in, for example, older horses not mixing with the general horse population. The vaccine is given as two doses 4-6 weeks apart, with a booster 1 year later, then every other year thereafter. Normally foals simply receive tetanus antitoxin rather than the vaccine itself, as they cannot respond to the vaccine. Once the foal is old enough it will receive the tetanus vaccine in conjunction with its flu vaccination. Newborn foals will receive some antibodies in the mare's milk though immunity to tetanus can be further improved by vaccinating the mare with a booster dose 4-6 weeks prior to foaling. Of course good first aid will also help in prevention. Wounds should be cleaned as soon as possible and deeper wounds should be encouraged to drain.

Sadly, the horse in this case was euthanased on humane grounds as it was in the late stages of the disease process.

## Contagious Equine Metritis (CEM)

CEM is a venereal disease of horses, caused by a bacterium called *Taylorella equigenitalis*. It can cause infection of the uterine lining in mares, resulting in a vaginal discharge and reduced fertility. Affected stallions do not usually show clinical signs, but can transmit the disease to mares during natural breeding, or via their semen if the mare is artificially inseminated.

CEM is a notifiable disease in the UK, meaning that by law, DEFRA must be informed if a case is detected; all breeding activities relating to the affected animal and any in-contact horses must then cease until freedom from infection can be re-established.

Thoroughbred studs insist on a negative CEM swab result for all breeding animals entering their premises. BEVA (the British Equine Veterinary Association) and The Horseracing Betting Levy Board Codes of Practice recommend that in order to prevent the introduction of CEM to the UK and to allow early detection should that occur, all non-thoroughbred mares and stallions should be also be swabbed prior to breeding. Swabbing is a quick and painless procedure that can be performed easily where the horse is kept. With recent outbreaks of CEM in the American quarter horse population, the need for vigilance in preventing this disease is more relevant than ever.