

# THE ROYAL (DICK) SCHOOL OF VETERINARY STUDIES



## THE DICK VET EQUINE HOSPITAL

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### SPRING 2014

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### Welcome to our Spring Newsletter



Welcome to our Spring 2014 newsletter. Hopefully you will find some interesting articles and information in the following pages. In this edition we have the usual mix of clinical topics along with some recent research activity and other items of interest. 2013 was an exciting year for us at the Hospital, with several new or returning faces joining our team providing us with a now very stable and experienced surgery team. Mindful of the changes we have produced a contact sheet (enclosed) with this newsletter; please feel free to call or email any one of us directly but its always worth cc'ing in our main hospital email as a backup ([EQH@ed.ac.uk](mailto:EQH@ed.ac.uk)). Coming along to our free CPD days (see information later) is also a good way of meeting our senior clinicians and residents face to face. As we progress through 2014 we will see the further development of our plans to build a new triage, surgical and intensive care facility. Our old surgery areas, although still fit for purpose, are getting a bit frayed at

the edges and will only last another 5 years maximum so University Estates have deemed us a top priority for development. The new surgery/ICU unit will likely sit alongside our hospital barns (which opened in 2000) and we are now at the stage of awaiting the first architect's plans. There are also ambitious plans to conglomerate all of the Edinburgh University advanced and research animal medical imaging on the same site. The benefits to our hospital and thus to our clients will be immense, allowing us access to the most up to date equipment, items we would never be able to afford or maintain as an equine hospital on our own. Of course it also allows us to keep at the very forefront of veterinary clinical research and teaching for years to come. It is worth noting that despite this ambitious project, this has no bearing on our charges to your clients: we aim to fund raise for the vast majority of the building project, as we have successfully done in the past in other clinical areas including equine.

## Standing Surgery: fracture repair

There has been a considerable increase in the number of surgical procedures that can be carried out in the standing sedated horse. Professor Dixon was one of the pioneers of standing dental oral extractions and sinus surgery, having been doing such procedures for more than 15 years. We are always trying to find ways of improving our techniques, reducing costs for clients and reducing the risk of anaesthesia for horses. Recently, Payne and Compston (2012) from Newmarket described excellent results for standing repair of non-displaced cannon and pastern bone fractures, results comparable to repair under general anaesthesia. Avoidance of general anaesthesia in such cases is potentially safer and removes the need to use distal limb casts for anaesthetic recovery, significantly reducing cost and post-operative hospitalisation. Drilling of the glide hole can be accurately monitored (fig. 1) as it is much easier to radiograph the limb in the weight bearing position compared to the normal slightly toe out position of lateral recumbency. Furthermore drill orientation is easier as it is normally parallel to the ground. Fractures amenable to standing repair include incomplete proximal phalanx fractures, non-displaced lateral metacarpal/metatarsal condylar fractures and spiral fractures of the medial metacarpal/metatarsal condyle where lag screws can be inserted



Figure 1: Series of dorsoproximal radiographs of the metatarsus taken during standing lag screw repair of a non-displaced, incomplete proximal phalanx fracture in the Equine Hospital demonstrating accurate placement of glide hole and screw orientation parallel to the joint surface.

through stab incisions into areas with minimal soft tissue coverage.

Disadvantages of standing fracture repair include the inability to treat displaced fractures since accurate reduction cannot be achieved or monitored easily by arthroscopy. There have been questions over the sterility of standing procedures; however none of the 34 horses in the study reported by Payne and Compston (2012) suffered post-operative infection. Movement of the horse can be an issue and therefore speed is important in addition to patient and case selection. Complications can of course still occur and one study has reported a drill bit snapping in the medullary cavity during surgery (Russel and Maclean 2006); the importance of the correct sedation techniques, facilities and experience has therefore been highlighted when considering this technique.



Figure 2: Surgical team carrying out standing lag screw repair of a non-displaced, incomplete proximal phalanx fracture. All personnel are wearing lead gowns to enable rapid acquisition of intra-operative radiographs.

## 'Our charges explained': a document for clients



We are very sensitive to the fact that veterinary care is often considered expensive by equine clients. Nevertheless as part of the University and in keeping with our key aims of education, research and furthering clinical excellence, we are not driven by profit, and aim to keep our charges for this Specialist service as cost effective as possible. Of course providing such equipment, and a 24 hour referral service, does cost something and providing this would not be possible without us covering our costs. With these thoughts in mind we have produced a document for clients entitled 'Our charges explained' which hopefully answers many of the questions they may have about the breakdown of our charges. This document is also freely available on our website at: [edin.ac/1feeGkj](http://edin.ac/1feeGkj)

## Peripheral Caries in Equine Cheek Teeth



Early stage (Grade 1 – involving cementum only) peripheral caries of mandibular cheek teeth

Caries of the infundibulae of the upper cheek teeth has long been recognised. When advanced, it can lead to midline fractures of affected teeth or infection of their apices (roots) that can extend into the overlying sinuses causing chronic sinus infection. Peripheral caries is a more recently recognised disease that appears to be greatly increasing in prevalence in the UK and elsewhere. This type of caries causes a gradual disintegration and fracture of the affected teeth, both upper and lower. Severely affected horses cannot eat properly and may lose weight due to the development of painful periodontal disease, as food becomes impacted between and around affected teeth. The caudal three cheek teeth are preferentially affected, but in advanced cases, the rostral three cheek teeth and even incisors can be affected. The reasons for the increased prevalence

of this disorder are unknown, but the feeding of haylage and high levels of concentrates may be involved. For example, it has been definitively shown that the feeding of home-made haylage made with excessive levels of added preservative acids can cause severe peripheral caries.

Until the aetiology of this disease is more fully understood, it is not possible to give definitive advice on its treatment or prevention, but it has been suggested that severely affected animals should be fed good quality hay rather than haylage. Anecdotally, having owner's lavage their horse's mouth with a 0.1% chlorhexidine mouthwash has also been suggested to be of value. The Dick Vet School is currently undertaking pathological studies into equine dental caries, and will soon start an epidemiological survey of this disorder in our first opinion practice.



Maxillary cheek teeth of a horse that died of non-dental related disorder, showing marked peripheral caries of three caudal maxillary teeth (209-211), with limited caries of the adjacent 208 tooth. Most of the peripheral cementum of the three affected teeth is lost and the underlying enamel is also focally affected

## Equine Endocrinology and Laminitis

If you have tricky and frustrating cases of chronic laminitis/obesity/EMS/PPID, we are always happy to evaluate them and have significant expertise in this area interpreting the clinical signs and biochemical data from these cases. We favour a holistic approach for diagnosis rather than relying on single blood tests as we feel that tests taken at a single time point can sometimes be unreliable, especially in equivocal cases, giving false positives and false negatives. All our tests are run in house and we can offer a reduced cost package for owners that are keen to maintain follow-up. We also make sure that both medicines and orthopaedic specialists evaluate the cases in tandem.

Referral of such cases is incredibly useful to our ongoing laboratory research in this area. Previous newsletters have described research by vet and PhD student Ruth Morgan, supervised by John Keen, on the role of cortisol in laminitis. One important result from our research is that horses with EMS have increased steroid activity in peripheral fat stores which leads to greater cortisol production by the body as a whole; a finding that harks back to the old term for EMS in the 1990's: peripheral Cushing's syndrome. This is a really important finding since it provides evidence that cortisol may be a key factor increasing the risk of laminitis. This of course opens up the door for potential therapies that specifically target cortisol action in the tissues themselves. This study will hopefully be published soon.

If you wish to discuss any potential endocrinopathic laminitis cases please contact john keen: [john.keen@ed.ac.uk](mailto:john.keen@ed.ac.uk)

## Grass sickness case subsidy ceases

For many years The Equine Grass Sickness Fund (EGSF) has generously subsidised the diagnosis and treatment of equine grass sickness (EGS) cases, and contributed to the funding of a dedicated EGS nurse. In the last 20 years, this has facilitated treatment of over 250 horses with chronic grass sickness, with more than 150 of these surviving to discharge. Unfortunately this subsidy is no longer available because the EGSF wishes to direct more funding into EGS research projects. The main focus for funding is the UK-wide study to determine the efficacy of vaccination against *Clostridium botulinum* type C in the prevention of EGS. This 24–30 month duration randomised placebo controlled field trial follows the successful pilot study completed in Scotland last year. Other research projects currently funded by the EGSF include assessment of the intestinal microbiome and the metabolome of EGS horses, and investigation of the role of *Fusarium* mycotoxins in EGS. The EGSF will continue to contribute to the funding of a dedicated EGS nurse

The DVEH will continue its internationally renowned work on the diagnosis, treatment and investigation of EGS, but in the absence of case subsidy, owners of referred cases will be charged for treatment costs.

Anyone wishing to discuss referral of an EGS case should contact Prof Bruce McGorum, Dr Scott Pirie or Dr John Keen.

## Free CPD day

The next free CPD Day will be on 7th May 2014. Topics in the afternoon will be: fetlocks, diagnostic and surgical advances; safe but effective sedation and anaesthesia of recumbent/trapped horses; and castration complications. Look out

for the fliers that will be out soon if you haven't already seen them. Our morning sessions are aimed at refresher or new graduate level and this time will focus on airway endoscopy and radiographic interpretation of the hock.

## Foot and Farriery CPD



The Royal (Dick) School of Veterinary Studies is a leading centre in equine foot health with its dedicated farriery unit, forge and MRI facilities. Come to Edinburgh and learn from our team of experts including world-renowned speakers Chris Colles and Ron Ware. This new CPD day focuses on equine foot health and is aimed at farriers, farriers' apprentices and veterinary surgeons who want to improve their existing skills and knowledge and learn how to perform best practice. Core topics that will be discussed on the day include

- Assessment of foot balance
- Imaging of the foot: from radiography to MRI
- Understanding and managing laminitis
- Corrective farriery for deep digital flexor injuries and collateral desmitis
- Getting the best outcomes from surgery for hoof avulsion and solar penetration injuries
- Remedial farriery following surgery of the hoof capsule

In addition, there will be ample opportunity to discuss difficult cases with the team including a panel discussion forum.

For more information and booking details please visit:  
[www.ed.ac.uk/cpd/farriery](http://www.ed.ac.uk/cpd/farriery)

## Our Clinicians

### Medicine

**Professor Bruce McGorum**  
BSc, BVM&S, Cert EM,  
DipECEIM, MRCVS

**Dr Scott Pirie**  
BVM&S, PhD, Cert EM, Cert EP,  
DipECEIM, MRCVS

**Dr John Keen**  
BVetMed, PhD, Cert EM,  
DipECEIM, MRCVS

**Dr Karen Blissitt**  
BVSc, PhD, DVA, DipECVAA,  
MRCVS

### Surgery

**Professor Paddy Dixon**  
MVB, PhD, MRCVS

**Dr Sarah E. Taylor**  
BVM&S, PhD, Cert ES (Orth),  
DipECVS, MRCVS

**Dr Raphael Labens**  
MagMedVet, MVM, PhD,  
CertES(Orth), DACVS, DECVS,  
MRCVS

**Mr Eugenio Cillan-Garcia**  
DVM, MRCVS

**Mr Richard Reardon**  
BVetMed (Hons), MVM, Cert ES  
(Orth) DipECVS, MRCVS

### Our Residents

**Lucinda Meehan**  
BVSc, MSc, MRCVS

**Justine Kane-Smyth**  
BVM&S, MRCVS

**Rachel Jago**  
BVM&S, MRCVS

**Tim Froydenlund**  
MA, VetMB, MRCVS

**Gemma Pearson**  
BVMS, MRCVS

**Apryle Horbal**  
(postgraduate veterinary  
surgeon)