**EQUINE GASTRIC ULCERATION SYNDROME (EGUS) IN DONKEYS: GASTROSCOPIC FINDINGS AND PREVALENCE.** M. Sgorbini[1], F. Bonelli[1], S. Busechian[2], A. Briganti[1], F. Laus[3], F. Zappulla[2], V. Faillace[3], F. Rueca[2]. [1]Department of Veterinary Sciences, Veterinary Teaching Hospital "Mario Modenato", via Livornese snc, 56122 San Piero a Grado PI, Italy, [2]Department of Clinical Sciences, University of Perugia, Perugia, Italy, [3]School of Biosciences and Veterinary Medicine, University of Camerino, Matelica, MC, Italy

The aim was to present the findings of gastroscopy in a population of adult donkeys. Thirty-nine donkeys (16 jennies, 23 jacks), aged 1–18 years (5.7 ± 5.0, median 3 years) underwent gastroscopy to evaluate the presence of lesions. Inclusion criteria: not athletes and non-working donkeys, breeding animals, no administration of NSAIDs or corticosteroids for at least 20 days immediately prior gastroscopy. Gastroscopy was performed after 15 hour of fasting, under sedation using a portable processor Gastropack and a 300 cm long scope. ESGD lesions were scored 0/4, EGGS was described as presence or absence, anatomical location, distribution, and appearance of lesions. Chi square test and Fisher's exact test were applied to verify differences in the prevalence of ESGD in relation to sex and age (≤4 years and >4 years). Gastric lesions were not present in 19/39 (49%) donkeys, while 20/39 (51%) donkeys showed EGUS; 19/20 (95%) donkeys were affected by ESGD, while 1/20 (5%) donkey showed both ESGD and EGGD. ESGD was 0 in 19/39 (48.7%), 1 in 5/39 (12.8%), 2 in 10/39 (25.6%), 3 in 4/39 (10.2%) and 4 in 1/39 (2.7%) donkeys, respectively. EGGD lesion was a mild depression in the ventral glandular fundus. Statistical analysis showed no differences in relation to sex or age. To the authors' knowledge this is the first report on alive donkeys. Our prevalence was higher then in dead/euthanized donkeys, but similar to sports and pleasure horses. No statistical differences in the prevalence of ESGD in relation with sex or age were detected, in line to literature.

**USEFULNESS OF THREE PORTABLE LACTATE MEASUREMENT DEVICES IN HORSES.** C.C.B.M Munsters[1,2], J. van den Broekc[3], E.W. Siegers[1], M.M. Sloet van Oldruitenborgh-Oosterbaan[1]. [1]Department of Equine Sciences, Faculty of Veterinary Medicine, Utrecht University, CM Utrecht, the Netherlands, [2]Moxie Sport Analysis & Coaching, SR Erp, the Netherlands, [3]Department of Farm Animal Health, Utrecht University, Utrecht, the Netherlands

Since one of the validated hand-held lactate (LA) measurement devices (Lactate Pro) is now out of production, an alternative instrument is needed to be found for equine exercise testing and for use in horses with gastrointestinal disorders. The aim of this study was to evaluate three hand-held LA analyzers (Lactate Pro, Lactate Pro-2 and StatStip Lactate Xpress), and to compare these with the gold standard laboratory assay (sla-LA; DXC-600 Analyser - Beckman Coulterlab). A total of 220 blood samples were collected from the jugular vein of 44 eventing horses during standardized exercise testing. Immediately after collection each blood sample was parallel tested using the three lactate analyzers. The rest of each blood sample was placed in NaF tubes and centrifuged within 8 hours. The plasma was stored at −20°C for laboratory assay. The lactate concentrations for each instrument were compared with the laboratory analysis. All data were statistically evaluated using a linear mixed effect model (Akaike's Information criterium; $t > 2.00$). The Pearson correlations between sla-La and Lactate Pro, Lactate Pro-2 and StatStip Lactate X-press were 0.974, 0.981 and 0.828 respectively. Of the 3 instruments the Lactate Pro 2 provided the closest correlation with the laboratory assay. The predicted values were derived from the formula: log (sla-LA) = 0.27175 + 0.94567*(Lactate Pro-2) or sla-LA = 1.3226* (Lactate Pro-2)0.94567. The predicted value for sla-LA values using the Lactate Pro-2 was 0.992 for an average horse. The Lactate Pro-2 appeared to be a good alternative for the Lactate Pro that is no longer in production.

**EVALUATION OF A WHOLE BLOOD, POINT OF CARE COAGULOMETER IN HORSES.** C.J. Mackenzie[1], G. Pinchbeck[2], C. McGowan[1], H.B. Carslake[1]. [1]Philip Leverhulme Equine Hospital, School of Veterinary Science, University of Liverpool, Veterinary Science, Neston, Wirral, UK, [2]Department of Epidemiology and Population Health, Institute of Infection and Global Health, University of Liverpool, Neston, Wirral, UK

Monitoring of coagulation status offers valuable diagnostic and prognostic information in critically ill horses, but is rarely used in practice. A point of care (POC) coagulometer could offer a rapid and convenient method of evaluating coagulation and enable more routine use. The aim of this study was to evaluate a whole blood POC coagulometer (CoagHD, Diagon) for measurement of prothrombin time (PT) and detection of wider disseminated intravascular coagulation (DIC) in critically ill horses. This prospective observational study evaluated blood samples from 60 horses admitted to an intensive care unit and 20 healthy control horses. PT was measured using the POC coagulometer and compared to measurements from two conventional plasma coagulometers. aPTT, platelets, fibrinogen, ATIII and D-dimers were measured using conventional laboratory analysers and used to determine DIC status. Conventional statistical tests were applied to continuous and binary outcomes. Repeatability of the POC PT assay was good (CV = 3.7%). There was strong to very strong positive correlation ($r = 0.60$–$0.81$) and moderate agreement with fixed and proportional biases between the POC and other plasma PT analysers. All PT assays showed a fair level of agreement with a diagnosis of DIC. The whole blood POC coagulometer displayed high sensitivity (91%) and moderate negative predictive value (73%) but poor specificity (30%) for a diagnosis of DIC. Compared to conventional PT analysers, the POC unit is rapid and convenient, and provides results which could aid in the early detection of DIC in critically ill horses. Further studies examining association with diagnosis and outcome are warranted.

**EFFECT OF SAMPLING TECHNIQUE ON COAGULATION PARAMETERS IN THE HORSE: NEEDLE VERSUS INDWELLING INTRAVENOUS CATHETER.** C.J. Mackenzie[1], C. McGowan[1], G. Pinchbeck[2], H.B. Carslake[1]. [1]Philip Leverhulme Equine Hospital, School of Veterinary Science, University of Liverpool, Veterinary Science, Neston, Wirral, UK, [2]Department of Epidemiology and Population Health, Institute of Infection and Global Health, University of Liverpool, Neston, Wirral, UK

Evaluation of coagulation status is an important component of critical care. Previous studies have demonstrated that sequential monitoring of coagulation status can provide useful prognostic information. To allow ongoing monitoring, patients in veterinary hospitals are often subjected to serial venipuncture. Adverse effects such as increased patient anxiety and trauma to the sampled vessel could be avoided by the use of an indwelling intravenous catheter (IVC) for repeat blood sampling. This has previously been avoided due to concerns that sampling directly from an IVC may alter the accuracy of the results. The aim of this study was to compare coagulation parameters from blood obtained via a needle and via an IVC in critically ill horses. This was a prospective observational study. Blood samples were obtained by both direct venipuncture and from an indwelling IVC in 55 horses admitted to an intensive care unit. Both samples were analysed for the following coagulation parameters: plasma PT, aPTT, ATIII, fibrinogen and D-dimers and whole blood PT. Agreement was assessed using Bland-Altman analysis and Lin's concordance correlation coefficient. There was no fixed bias detected for any of the coagulation parameters. With the exception of ATIII and D-dimers, agreement between sampling methods was good, correlation was substantial ($Rc \geq 0.95$) and clinically comparable outcomes were obtained. IVC blood samples are suitable for the measurement of routine coagulation parameters, apart from ATIII and D-dimers.