Hematologic and Biochemical Reference Intervals in Adult Friesian Horses From North America

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1. Introduction
Friesian horses originated in The Netherlands and have become popular in North America over the past 20 years. Purebred Friesian horses were re-introduced to North America in 1974, and it is estimated that between 10,000 and 12,000 Friesian horses currently reside here. Several well-documented conditions affect the Friesian breed, with ongoing research directed at understanding and reducing their incidence. Because there is little published work on breed-specific reference intervals (RI) in horses, the impact this may have on the care and research in Friesian horses is unknown. The goal of this project was to determine hematologic and biochemical RI for Friesian horses residing in North America.

2. Materials and Methods
American Society for Veterinary Clinical Pathology (ASVCP) guidelines for establishing RI in veterinary species were followed. Strict inclusion and exclusion criteria were established for selection of reference subjects and blood specimen collection and handling. Complete blood counts and biochemistry profiles were performed at IDEXX Laboratories, Columbus, Ohio.

3. Results
Nonparametric RI with 90% confidence intervals were subsequently determined from 123 healthy, adult Friesian horses of either sex. IDEXX’s equine RI are appropriate (transferrable) to Friesian horses for 30 of 37 variables. However, Friesian-specific RI are recommended for hemoglobin, red blood cell...
count, hematocrit, glucose, and lactate dehydrogenase. The use of Friesian RI for other analytes also may lead to more accurate interpretation in health and disease.

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