



SMARTPAK™

COLIC UPDATE

The latest news & research

When it comes to colic, there are lots of proven risk factors, but there are also a number of things that are widely believed to increase your horse's risk, but there's no evidence supporting it. (Believe it or not, weather changes fall into the "never been proven" category!) Because SmartPak™ knows that horse owners want to stay up to date on the latest research, they talked to three veterinarians—Andris J. Kaneps, DVM, PhD, DACVS, DACVSMR; Frank M. Andrews, DVM, MS, DACVIM-LA; and our own Lydia F. Gray, DVM, MA—to find out what new colic research they're most excited about. That new research includes the latest in horse owner knowledge of colic,

the risk of general anesthesia for horses undergoing colic surgery, and the use of FLASH ultrasound in horses.

Horse Owner Knowledge of Colic

Prompt treatment of the colicky horse — whether medically or with surgery — is key to a successful outcome. However, if the horse owner does not recognize signs of colic or if the veterinarian does not perform the most helpful diagnostic tests, appropriate care can be delayed. A group from the UK is surveying owners and vets in order to establish the current level of knowledge, and then is using the findings to fill in the gaps so that horses have the best chance of survival. SmartPak™ Staff Veterinarian and Medical Director Dr. Lydia Gray summarized the project and its results.

The Nottingham Equine Colic Project is a research program based at the University of Nottingham School of Veterinary Medicine and Science in the UK which is working to develop guidelines on the recognition (by horse owners) and diagnosis (by veterinarians) of colic. Most cases of colic are mild and resolve with simple medical treatment, but a small percentage are critical, requiring surgery or euthanasia. Deciding which cases are critical and diagnosing them as quickly as possible is important for the welfare and best outcome for the horse.

The Project administers online surveys to both owners and vets, then publishes their findings in scientific journals or presents their findings at veterinary conferences. One interesting paper is "Colic: Horse owner knowledge and experience," published in *Equine Veterinary Journal* in September 2015.

Of the 1,061 people who responded to this particular questionnaire (all from the UK):

- 6% said they thought they could recognize all types of colic
- 61% said they could recognize most cases
- 30% said they could recognize some but not all cases



Owners said they would assess fecal output, GI sounds, respiratory rate, and heart rate in horses with suspected colic. However, many respondents either did not know or provided incorrect estimates of normal values for clinical parameters:

- 30% were “unsure” of the normal heart rate
- 35% gave heart rate values which were outside reference ranges
- 24% gave appropriate values for normal respiratory rates
- 31% gave normal temperature values

This study showed that owners varied in their ability to recognize colic, and that many had significant gaps in their knowledge of normal vital signs, which will help the Project and others develop appropriate educational materials and training programs.

Anesthesia and Colic Surgery

Colic surgery is commonly conducted with the horse under general anesthesia. The size and weight of the intestines, the frequent need to manipulate the intestinal tract, and the need to conduct a complete evaluation of the abdomen and its contents make general anesthesia necessary. When the need for colic surgery is discussed, owners are rightly concerned about the risks of anesthesia. Dr. Andris Kaneps, an equine surgeon and sports medicine & rehab specialist, has been continuing to follow the topic.

A study¹ of 1,416 horses that had general anesthesia for multiple reasons at the University of Liverpool School of Veterinary Science from 2010 to 2013 tracked mortality and non-life-threatening complications. Anesthesia-related deaths occurred in 1.1% of all cases. Anesthesia mortality occurred in 1.6% of horses undergoing colic surgery. Fractures during recovery were the most common cause of fatalities. Non-life-threatening anesthesia complications included myopathy (“tying up”), nerve injury, and compromise of the airway.

The study suggests that conducting surgery to save your horse with colic should not be influenced by the low risks associated with anesthesia.

FLASH Ultrasound in Horses

Finally, Dr. Frank Andrews, Director of Equine Health Studies Program at Louisiana State University Veterinary Teaching Hospital, gave his insight on the research being done about Fast Localized Abdominal Sonography of Horses (FLASH) Ultrasounds. Examination of the abdomen with ultrasound was first performed in people admitted to the hospital for blunt abdominal trauma. It is now being used with increasing frequency in horses with colic to help pinpoint the cause and determine whether medical treatment or surgery might be best. Researchers stress that no single diagnostic test for colic can provide a fully accurate diagnosis, but that FLASH results should be interpreted in light of other exam findings and the horse’s behavior.

To determine the accuracy of FLASH, a study² was performed on 36 client-owned horses aged 2 to 28 years referred for colic to the University of Liège Veterinary

School in Belgium over a two-month period. Horses had a FLASH ultrasound examination done, within two hours of admission, by five veterinary clinicians without extensive ultrasound experience to determine if FLASH could be used to rapidly determine a diagnosis.

The study showed that FLASH can be used in an emergency clinic or field setting by veterinarians without extensive ultrasound experience to detect major intra-abdominal abnormalities in horses with colic. Dilated small intestines is suggestive of a surgical cause of colic; however, no test is 100% accurate. In addition, a horse with a negative FLASH with persistent colic should be further evaluated.



Get Peace of Mind with ColiCare™

Now that you’ve learned about the latest in colic research, it’s time to protect yourself and your horse because, unfortunately, every horse is at risk for colic. At SmartPak™, we’re on a mission to support healthy horses and happy riders, and that’s why we created ColiCare™. As the #1 veterinarian recommended colic surgery reimbursement program, ColiCare™ is a FREE program that combines veterinary annual physical and dental exams, vaccinations, and a deworming plan with our best digestive supplements to help lower your horse’s risk. In addition, ColiCare™ provides up to \$7,500 of colic surgery reimbursement, should your horse ever need it. By providing this financial support, ColiCare™ makes it easier to provide the care your horse deserves. Call our experts at 1-800-431-3904 or visit SmartPak.com/ColiCare to learn more.

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[1] Dugdale AH, Obhrai J, Cripps PJ. Twenty years later: a single-centre, repeat retrospective analysis of equine perioperative mortality and investigation of recovery quality. *Vet Anaesth Analg*. 2016 Mar;43(2):171-8.

[2] Busoni, V., De Busscher, V., Lopez, D., Verwilghen, D. and Cassart, D., 2011. Evaluation of a protocol for fast localised abdominal sonography of horses (FLASH) admitted for colic. *The Veterinary Journal*, 188(1), pp.77-82.