



## STUDYING MEDICATIONS IN POSTOPERATIVE COLIC HORSES



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Colic is one of the most dangerous disease syndromes of horses. Approximately one in ten colicking horses need surgery to correct an intestinal strangulation, the most severe form of colic. In strangulating colic, a portion of the gut is cut off from blood supply, which injures the gut barrier, allowing leakage of intestinal bacteria and toxins into the bloodstream when the blood flow. These toxins entering the body can lead to shock, often termed endotoxemia, and organ failure, which can be fatal.

The intestine can repair itself after injuries, but veterinarians continue to see high rates of death after surgery due to these complications. For that reason, researchers at North Carolina State University, Michigan State University, and the New Bolton Center at the University of Pennsylvania sought to evaluate postoperative management of colic patients to ensure that horses have the best possible chance of fully recovering. Recent studies have shown that when injured intestine is recovered in the lab, flunixin meglumine paradoxically slows down the repair process and allows increased leaking of bacterial toxins through the gut wall, even though it is a first line effective pain reliever. This is the most common non-steroidal anti-inflammatory drug (NSAID) used in horses to control pain and inflammation after surgery.

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Similar lab studies have shown that a newer NSAID, firocoxib (Equioxx®) allows for better recovery of injured tissue because it targets the enzyme (COX-2) which promotes inflammation, but does not block COX-1 which promotes intestinal repair. Therefore, the researchers believed that firocoxib would be a better choice than flunixin meglumine to manage pain and inflammation after colic surgery to reduce complication rates and ultimately improve survival.

In a two-year study funded by The Grayson -Jockey Club Research Foundation (GJCRF), horses which had surgery to correct small intestinal strangulating colic were given either flunixin meglumine or firocoxib during their recovery in the hospital in a randomized clinical trial. Fewer horses given firocoxib had high levels of a blood marker of inflammation related to leakage of bacterial toxins from the gut as compared to those given flunixin meglumine. Importantly, both NSAIDs effectively treated surgical pain to the same degree. There was not a major difference in survival rates, but this study included 56 horses, and the researchers feel that studying more colic patients will reveal improved survival rates in horses treated with firocoxib. This study shows that firocoxib may be a better first-line medication than flunixin meglumine to treat colicking horses.

In addition, this GJCRF-supported study shows how bigger and better clinical studies can be performed by linking veterinary hospitals to find optimal treatment for horses.

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We are also particularly grateful for the Bertram and Elaine Klein Career Development Award to the lead investigator, Amanda Ziegler, DVM, an up and coming equine veterinary researcher. Dr. Ziegler is completing her PhD, in part using this work, under our direction at NC State University.



## LOOK FOR US AT THE FOLLOWING EVENTS!



### 18th Annual Charity Golf Tournament Saratoga National Golf Club



The 18th Annual Charity Golf Tournament was held on August 14, 2018, at Saratoga National Golf Club. Our 80 golfers represented our best attended tournament in the last few years.





### BEHOLDER VISITS

A big thank you to Spendthrift Farms for arranging private visits with their wonderful “Queen B” - Beholder to the winners of our “Help A Horse Day” drawing. Here are two of our lucky winners. More visits to come!



## SUCCESSFUL KENTUCKY DOWNS DAY FOR GRAYSON

Sponsorships were sold out for all of the five races Kentucky Downs made available for the Fifth Annual Grayson-Jockey Club Research Foundation Day on Saturday, Sept. 1st. Under the unique arrangement offered by Kentucky Downs President Corey Johnsen, Grayson-Jockey Club Research Foundation was invited to solicit sponsorships for five of the individual races on the card, with sponsorship fees retained by the Foundation.

“We appreciate the innovative program Kentucky Downs has offered,” said Jamie Haydon, vice-president, Grayson-Jockey Club Research Foundation. “We are always pleased to support charities within the horse industry,” said Johnsen of Kentucky Downs, which provides trophies for the sponsored races, “and we admire the work of the Grayson-Jockey Club Research Foundation.”

Along with the sponsor of each race, below is the complete list of the winning horses and their connections:

Sponsor	Winning Horse	Owner	Trainer	Jockey
Equibase Company	Campaign	Woodford Racing, LLC.	Steven Asmussen	Julien Leparoux
Rood & Riddle Equine Hospital	Appealing Way	Farfellow Farm, Ltd.	Stephen Lyster	Joseph Rocco Jr.
Starlight Racing	More Fun Again	Timothy C. Thornton	Thomas Proctor	Feargal Lynch
Breeder's Cup	Devious Charm	Tracy Farmer	Mark Casse	Julien Leparoux
Glen Hill Farm <i>One Dreamer Stakes</i>	On Leave	Stuart S. Janney III	Claude McGaughey III	Florent Geroux

## ELIZABETH LOCKE JEWELRY SHOW



**Thursday**

September 13th • 11am- 5:30pm

**Friday**

September 14th • 10am- 5:30pm

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