

Update: 2021 Foal Diarrhea Study.

Researchers at the University of Kentucky's Maxwell H. Gluck Equine Research Center and the Veterinary Diagnostic Laboratory have preliminarily identified a novel Rotavirus associated with diarrhea in very young foals.

This virus could not be detected using current diagnostic tests for equine Rotavirus A and appears to be different than the virus strain used in the currently available commercial vaccine.

Efforts are underway to better characterize the virus and determine its role in the current outbreak of diarrheal disease. Additional investigations are also underway at UK to identify other possible causes, and researchers are sending out an epidemiological survey to farms to better understand the outbreak.

Rotavirus is a serious disease, especially in young foals where fluid and electrolyte losses through watery diarrhea can be life threatening. Timely supportive veterinary medical care is indicated. Both the Gluck Center and the Veterinary Diagnostic Lab recommend strict biosecurity protocols as the best protection strategy at this time. Biosecurity protocols need to be developed for each farm in collaboration with your veterinarian.

The American Association of Equine Practitioners has worked with UK Faculty member Dr Roberta Dwyer, and others, to generate an advisory on rotavirus diarrhea <https://aaep.org/news/aaep-publishes-rotavirus-guidelines>. This website offers useful information about Rotavirus A – the typical rotavirus seen in our horses and the virus the vaccine is based on.

Additional resources relating to biosecurity measures may be found on the Equine Disease Communication Center website here: <https://equinediseasecc.org/biosecurity/disinfection>.

With regard to biosecurity measures against rotavirus it is important:

- to clean surfaces of grease and organic debris
- use disinfectants that are active against this enveloped virus
- replace foot dip container disinfection solution frequently to prevent inactivation by organic debris
- to mix the correct dilution of disinfectant solution carefully – *stronger is not always better!*
- to allow sufficient contact time for disinfection.

Bleach is *not* effective against rotavirus. Peroxygen compound or Phenolic compound disinfectants are recommended. A list of such compounds may be found here

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<https://www.cfsph.iastate.edu/Disinfection/Assets/CharacteristicsSelectedDisinfectants.pdf> but it is important to read the instructions. Examples of such disinfectants include *Rescue*®, *Oxy-Sept 333*®, *Virkon-S*®, *One Stroke Environs*®, *Pheno-Tek II* and *Tek-Trol*. The University of Kentucky does not endorse or promote any commercial products. These names are for informational purposes only.

Personal protective equipment to prevent humans and equipment spreading the disease is critical in controlling disease spread. It is easy to spread rotavirus disease between animals and so humans and equipment such as shared tools or the use of a leaf blower in affected barns should be avoided. The use of gloves, protective gowns or suits, boot covers, disinfecting foot dips etc. are all components of disease control. Unfortunately, there is no 'one size fits all' biosecurity plan and so a protocol must be developed with your veterinarian and farm team to manage the risk and minimize transmitting infection.

See the March 19 news release for more information on this issue at <http://news.ca.uky.edu/article/uk-gluck-center-and-industry-leaders-responding-uptick-foal-diarrhea-cases>.

The research labs of Dr Feng Li and Dr Dan Wang at the Gluck Equine Research Center are currently working on this agent where research efforts are ongoing. Testing is available through UK Veterinary Diagnostic Lab under the guidance of Dr Erdal Erol.

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