

Antibiotic Can Reduce Hospitalization, Prevent Recurrence of Rare Brain Disorder, Analysis Shows

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These findings were reported in the March 25, 2010, edition of the [New England Journal of Medicine](#).

Guy Neff, MD, lead investigator on the study locally and associate professor of medicine, [hepatology](#) and transplant, with colleagues in the digestive diseases division, found that rifaximin significantly reduced the risk of hepatic encephalopathy-related hospitalizations when compared to a placebo drug.

In addition, over a six-month period, treatment with rifaximin helped patients maintain remission for hepatic encephalopathy more effectively than the placebo.

Hepatic encephalopathy, or HE, is a potentially reversible neuropsychiatric abnormality that can result due to liver failure.

"When there is severe damage to the liver, toxic substances that are normally removed by the liver accumulate in the blood and impair the brain," says Neff, director of liver transplantation and a specialist with UC Health. "Signs of HE can include impaired cognition, asterixis—or a wrist tremor—and a decreased level of consciousness including coma, cerebral edema and possibly death."

Rifaximin is approved to treat traveler's diarrhea. On March 24, 2010, the U.S. [Food and Drug Administration](#) also approved this drug for the unrestricted treatment of HE—the first new treatment for the disorder in over 30 years.

Researchers analyzed a randomized, double-blind, placebo-controlled study of 299 patients with a history of HE—meaning patients and researchers were not told whether they were receiving/giving rifaximin or the placebo drug.

They found that patients who took rifaximin as opposed to the placebo had about 50 percent less risk of being hospitalized; also, approximately 58 percent of patients given the drug did not experience recurrence of HE.

"This new data solidly supports the clinical efficacy of rifaximin in reducing the risk of HE-related hospitalization and its ability to prevent patients from redeveloping the illness," Neff says. "As demonstrated in previously published pharmacoeconomic data, reducing recurrent HE events may reduce the need for HE-related hospitalization, thereby potentially decreasing the costs of care, and improving patients' quality of life."

Neff has received honoraria from the makers of rifaximin.

More information: Study paper: content.nejm.org/cgi/reprint/362/12/1071.pdf

Provided by University of Cincinnati

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