

Vaccine for infant tummy bug cuts hospitalizations: CDC

June 9 2014, by Steven Reinberg, Healthday Reporter



Fewer children admitted for severe diarrhea tied to rotavirus, researchers say.

(HealthDay)—Since the introduction of rotavirus vaccine in 2006, the number of kids hospitalized for severe diarrhea has dropped dramatically, a new study finds.

Rotavirus is a common cause of sometimes severe gastrointestinal infections in babies and young [children](#).

However, by 2009-2010, hospitalizations for rotavirus among children under 5 had been reduced by 94 percent due to widespread vaccination, researchers from the U.S. Centers for Disease Control and Prevention found.

"We looked at the impact of rotavirus vaccines, comparing

hospitalizations and emergency department visits during the years after the vaccine was introduced, to the years before the vaccine was introduced," said lead researcher, CDC epidemic intelligence service officer, Dr. Eyal Leshem.

"We saw a substantial reduction in hospitalizations, emergency department visits and outpatient visits after the vaccine was introduced," he said.

The drop in hospitalizations and [emergency room visits](#) for rotavirus also had an impact on U.S. health care costs. During 2007 to 2011, rotavirus vaccination reduced [diarrhea](#)-related health care visits by 1.5 million visits, for a savings of \$924 million, Leshem's group found.

The report was published online June 9 and in the July print issue of *Pediatrics*.

Rotavirus is the most common cause of severe diarrhea disease in young children throughout the world, according to the World Health Organization. WHO estimated that approximately 500,000 children under 5 die each year from rotavirus infections. The vast majority are in low-income countries.

Children who get infected may have severe, watery diarrhea, often with vomiting, fever and stomach pain. Vomiting and diarrhea can last up to eight days. Other symptoms include loss of appetite and dehydration, which can be especially serious in infants and [young children](#), according to the CDC.

There are two oral vaccines approved for rotavirus: Rotarix given in two doses at 2 months and 4 months; and RotaTeq, which requires three doses at ages 2 months, 4 months, and 6 months. After initial vaccination, no booster doses are needed. Both vaccines are safe and

effective, Leshem said.

There are some side effects from the vaccine, most of which are mild, Leshem said. These include mild, temporary diarrhea or vomiting. In some rare cases a condition called intussusception can occur.

Intussusception is a blockage of the bowel that happens in between 1 of every 20,000 to 100,000 children vaccinated, according to the CDC.

Before the [rotavirus vaccine](#) was available, rotavirus caused an estimated 55,000 to 70,000 hospitalizations and 20 to 60 deaths in children under 5 in the United States each year, according the CDC.

In 2010, Leshem noted, 78 percent of children under 1 year old had been vaccinated. "We know these rates are increasing," he added.

For the study, Leshem's team compared the number of vaccinated and unvaccinated children hospitalized for diarrhea before the vaccine was available (2001 to 2006) with the years right after its introduction (2007 to 2011).

The investigators found that among children under 5, as vaccination rates increased hospitalizations decreased. By 2009 to 2010, hospitalizations for rotavirus were reduced 94 percent, and 80 percent in 2010 to 2011. The greatest benefit was seen among 1-year-olds, according to the researchers.

Since the vaccine reduced the amount of rotavirus throughout the population, hospitalizations for unvaccinated kids was also reduced by as much as 77 percent in 2009 to 2010, and by 25 percent in 2010 to 2011, the study authors noted.

An infectious disease specialist who was not involved with the research was not surprised by the study findings.

"There is now proof that the [vaccine](#) is effective," said Dr. Marcelo Laufer, of Miami Children's Hospital.

"In our hospital we have almost stopped seeing rotavirus," he said. "It used to be the number one cause of diarrhea in infants."

Although rotavirus has been largely conquered in the United States thanks to vaccination, in developing countries it can be deadly. Laufer said that in developing countries, dehydration caused by [rotavirus](#) still kills thousands of infants.

More information: For more about [rotavirus](#), visit the U.S. Centers for Disease Control and Prevention.

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Citation: Vaccine for infant tummy bug cuts hospitalizations: CDC (2014, June 9) retrieved 5 February 2024 from <https://medicalxpress.com/news/2014-06-vaccine-infant-tummy-bug-hospitalizations.html>

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