

*This is the first of an ongoing series of health and wellness articles for Ft. Carson Tricare beneficiaries. Dr. Patrin invites you to submit medical topics and health care questions to be addressed in future issues.*



## *Let's Talk About ... Rotavirus*

*This week's article explains why a new vaccine to prevent Rotavirus diarrhea has been postponed.*

### **CDC RECOMMENDS POSTPONING ADMINISTRATION OF ROTAVIRUS VACCINE**

The rotavirus season, winter and spring, is still 4-6 months away in most parts of the United States. Virtually all children will have one or more rotavirus infections in the first 5 years of life. Most cases of diarrhea among children less than 5 years of age are mild and caused by other organisms. Rotavirus is responsible for 5-10% of diarrhea episodes making it the most common organism (germ) causing severe gastroenteritis in infants and young children in the United States. Children between 6 and 24 months of age have the highest risk for getting the severe form of the disease lasting 3 to 9 days. Significant loss of body fluids can result in dehydration, especially dangerous for children less than two years of age. This is why, worldwide, rotavirus is a major cause of childhood deaths with one in 200,000 infants dying from rotavirus diarrhea each year. In the United States, rotavirus is responsible for approximately 500,000 physician visits and 50,000 hospitalizations each year, requiring countless missed work hours for parents, \$264 million in direct medical costs and more than \$1 billion in total costs to society. It is therefore understandable that a recent article in the Mountaineer correctly reported it is hoped the new vaccine will significantly decrease occurrence of the disease.

Rotavirus is very easy to catch. The virus is shed in high concentrations in the stool of infected children and is often transmitted by hand to mouth contact. Other than vaccination, there is no effective way to completely eliminate rotavirus disease or its transmission. Washing with soap and water, while extremely important, does not kill the virus, but does help reduce the spread of rotavirus. To date vaccination has proven to be the most effective means to prevent transmission of rotavirus gastroenteritis.

This month the Centers for Disease Control and Prevention (CDC) announced that health care providers should postpone use of the rotavirus vaccine for infants, at least until November 1999. This decision was based on early surveillance reports of intussusception among some infants who received rotavirus vaccine. Intussusception, a type of bowel obstruction that occurs when the bowel folds in on itself, has occurred in some infants receiving rotavirus vaccine. Since intussusception does occur among infants who have not received rotavirus vaccine, it is not clear that rotavirus vaccine definitely increases the risk of intussusception. Studies were done before the Food and Drug Administration (FDA) licensed rotavirus vaccine for use in the United States,

and the number of cases of intussusception were not significantly higher for children receiving the vaccine than for children not receiving the vaccine. While some children with intussusception have been found to have evidence of prior rotavirus infection, it is not clear the rotavirus infection caused the intussusception. In addition, the number of cases of intussusception do not increase during the winter along with rotavirus gastroenteritis, suggesting that if rotavirus does cause intussusception, it does so infrequently and does not account for the majority of the cases. The vaccine, which often causes a mild case of diarrhea along with the antibodies to fight the real disease, is being held until the CDC finishes investigating even the slightest possibility of a direct link. Evans US Army Hospital, in compliance with the CDC action, will no longer give the rotavirus vaccine until the CDC concludes its evaluation and takes further action.

The vaccine was originally licensed on August 31, 1998, and released for use only by infants at high risk (premature, chronic medical conditions) and those attending daycare. While the exact number is unknown, the number of infants who have been given at least one dose of the vaccine in the United States is estimated to be from 600,000 to 1.8 million. The vaccine is administered as a three dose series. Evans US Army Hospital began using it just this past spring. Parents of children who have been given initial doses of the vaccine at Ft. Carson (eight) have been contacted and informed to watch for the symptoms of intussusception (persistent vomiting, bloody stools, black stools, abdominal bloating or severe colic pain). The rate of intussusception among children receiving the rotavirus vaccine is highest in the first 2-3 weeks after vaccination. Health care providers should be aware of the possible increased risk and consider this diagnosis in children presenting with symptoms coming from other areas where the vaccine may also have been used.

If you know of anyone who has a child who has recently received rotavirus vaccine we suggest they contact their health care provider if their infant develops intestinal symptoms.

More information about Rotavirus and the vaccine may be found on the World Wide Web at: <http://www.cdc.gov/nip/vaers.htm> and <http://www.immunize.org/news.d/rotaqa.htm>.