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Background: In the United States, rotavirus gastroenteritis remains a common disease of children that results in many hospitalizations, clinic visits and medical costs. It is a common cause of morbidity and is associated with a high economic burden in developing countries. Prevention of hospitalizations is the primary target of rotavirus vaccines.

Methods: To update estimates of rotavirus hospitalization rates in the United States, we conducted a retrospective analysis of 10 years of national hospitalization data associated with gastroenteritis and used both direct and indirect methods to estimate the percentage of cases associated with rotavirus gastroenteritis.

Results: During 1993–2002, an average of 18% of all hospitalizations with gastroenteritis among children <5 years old were associated with rotavirus infection as determined by the rotavirus-specific International Classification of Diseases, 9th revision, Clinical Modification code. The annual proportion of rotavirus-associated hospitalizations increased from 15% in 1993–1995 to 21% in 2000–2002. Hospitalizations associated with rotavirus and those associated with nonspecific gastroenteritis had a marked wintertime seasonality and similar age distribution, which peaked among children between 3 and 24 months old. Using indirect estimation methods, 58,000 to 70,000 rotavirus-associated hospitalizations were estimated to occur each year in the United States.

Conclusions: Rotavirus gastroenteritis remains an important cause of hospitalizations in the United States, and the rate has not declined from 1993 through 2002.

Key Words: rotavirus, gastroenteritis, United States, hospitalizations

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