

Death from GI bleeding decreased in United States in past two decades

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The number of patients dying from upper gastrointestinal bleeding has decreased over the past two decades, a result researchers attribute to the advances in medical and endoscopic therapies introduced over the past 20 years, according to a report unveiled today at the American College of Gastroenterology's (ACG) 77th Annual Scientific meeting in Las Vegas. One example of how such advances are impacting patient care is described in a separate case report also presented today on the first use of Hemospray™ (Cook Endoscopy) that saved the life of a pediatric patient with life-threatening internal bleeding.

In the study, "The Inpatient Mortality Rate for Upper Gastrointestinal Hemorrhage (UGIH) is Decreasing in the United States: A Nationwide Analysis Over Two Decades," researchers from Harvard Medical School and Brigham and Women's Hospital analyzed data from the Nationwide Inpatient Sample to determine the incidence, mortality and resource utilization for upper GI bleeding in a nationally representative database. They reported that despite similar patient age and [medical conditions](#), the inpatient mortality rate for total variceal and non-variceal UGIH "steadily decreased" from 1989 to 2009 from 4.69 percent to 2.13 percent. In addition, the proportion of patients who underwent in-hospital [endoscopic therapy](#) has increased from 2 percent to 27 percent, while the length of hospital stay progressively decreased from 4.5 days to 2.8 days over this time period.

"This means we are decreasing mortality from upper GI bleeding, and we are doing so more efficiently than before," said lead investigator Dr.

Marwan Abougergi. "We have also shown that the rate of decline in mortality from upper GI bleeding is faster than then overall decline in mortality for all patients admitted to hospitals. This suggests that improved treatments specific to gastroenterology are responsible for this change. Further studies are needed to clarify this relationship," said Dr. Abougergi.

"Over the past five decades every paper on GI bleeding has reported an unchanged mortality rate between 3 percent and 14 percent from upper GI bleeding despite new endoscopic and medical therapies that have advanced [patient care](#)," said senior investigator Dr. John R. Saltzman, FACG.

"But many of those studies were small and not nationally representative. A database of this scale was needed to accurately delineate the trends in upper GI bleeding outcomes," he said. "We finally are seeing patient benefits from the advanced in medical and endoscopic therapies introduced over the past 20 years."

The study also showed that the overall hospital based economic burden of upper gastrointestinal hemorrhage more than doubled from 3.3 billion dollars in 1989 to more than 7.6 billion dollars in 2009. "This is a very important finding in the current cost-sensitive healthcare environment," added Dr. Saltzman.

Life-Threatening GI Bleeding in 13 Year Old Resolved with Experimental Use of Hemospray™

Dr. Timothy Laurie reported a case of the first use of Hemospray™ (Cook [Endoscopy](#)) in the United States outside of a clinical trial. Dr. Laurie and his colleague Peter Sargon, M.D., at Advocate Lutheran General Hospital were granted permission to use an experimental

hemostasis powder on a young patient.

Dr. Laurie describes the case: "The patient was a courageous young boy who was having a life threatening internal bleed from a large intestinal ulcer with a long segment of inflamed irritated tissue with copious amounts of blood oozing from multiple points along the damaged intestine. Traditional endoscopic techniques were not feasible and interventional radiology angiography was not successful. The patient had a very low platelet count and he had no native ability to clot blood. He was dependent on blood transfusion for survival. I was granted special privileges from our local Institutional Review Board, the U.S. Food & Drug Administration, and the product manufacturer to use a non-FDA approved experimental device as a heroic measure to control bleeding. The Hemospray™ powder was deployed and successfully stopped the patient's [upper gastrointestinal bleeding](#). The patient no longer needed any further blood transfusion and was discharged home after a prolonged complicated hospital course."

Hemospray™ is a granular, mineral blend nanopowder with clotting abilities which acts by increasing the concentration of clotting factors, activating platelets, and forming a mechanical plug on an injured blood vessel. It is currently pending FDA approval for hemostasis of non-variceal peptic ulcer bleeding.

Provided by American College of Gastroenterology

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