

ED Visits by Older Patients Increase in the Weeks After a Disaster

BY KELLIE DESANTIS

Visits to an ED by adults ages 65 years and older increase significantly in the weeks following a disaster, according to a study published in *Disaster Medicine and Public Health Preparedness*.¹

Older adults are vulnerable to the effects of disasters because of their diminished ability to adequately prepare for and respond to the effects of a disaster. Older adults suffering from visual, auditory, proprioceptive, and cognitive impairments are especially vulnerable and have the most difficulty complying with evacuation and preparatory warnings. Individuals with multiple chronic diseases, living in long-term care facilities or suffering from cognitive impairments are among the most vulnerable.

To better understand the impact of natural disasters on this vulnerable population, researchers examined the effects of the 2012 disaster, Hurricane Sandy, on older adults living in New York City (NYC) during the disaster. Researchers turned to the New York State Department of Health (NYSDOH) for data. The NYSDOH compiles a comprehensive database of claims from all ED visits in the Statewide Planning and Research Cooperative System (SPARCS), which is the most complete source for ED utilization in New York state, and includes primary and secondary diagnosis codes and patient addresses.

Researchers evaluated ED utilization by adults 65 years and older in the weeks immediately before and after the Hurricane Sandy landfall. They excluded patients who lived in a nursing home, were incarcerated, or visited an ED associated with a specialty hospital (surgical subspecialty, oncological, or Veterans Administration). By using geographic distribution information available from SPARCS and the NYC Office of Emergency Management evacuation zones, researchers were able to compare the ED utilization for older adults living in the evacuation zones before the landfall of Hurricane Sandy and in the weeks shortly after the storm.

The analysis revealed a significant increase in ED utilization for older adults living in the evacuation zones in the 3 weeks after the storm compared to ED use before the storm. The number of weekly ED visits by older adults from all evacuation zones was 9,852 in



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the weeks before Hurricane Sandy and increased in the first week after the storm to 10,073. Among the most severely impacted were older adults in evacuation zone one, where ED utilization increased from 552 visits to 1,111 visits. The number of ED visits remained elevated for 3 weeks after the storm but returned to normal by the fourth week.

Researchers suggested several reasons for this increase in ED visits, including seeking refuge in the ED as a result of homelessness due to the disaster, the interruption of ongoing care for chronic illness, environmental exposure, and the lack of preparation for the lasting effect of the disaster.

To improve the response to such a disaster in the future, a NYC Hurricane Sandy Assessment report² recommended developing a door-to-door service task force for older adults to improve preparedness for this vulnerable population. The task force would be responsible for implementing an action plan to ensure that healthcare services, communication, and provisions for this population continue without interruption in the weeks following a disaster. Legal and regulatory changes would allow for Medicare recipients to be eli-

gible for “early medication refill” and pre-storm “early dialysis” programs to improve the continuity of care of the chronically ill.

1. Malik S, Lee DC, Doran KM, et al. Vulnerability of older adults in disasters: emergency department utilization by geriatric patients after hurricane sandy. *Disaster Med Public Health Prep.* 2017;1-10. doi:10.1017/dmp.2017.44.
2. The City of New York, Office of the Mayor. Hurricane Sandy After Action Report. Published May 2013. http://www.nyc.gov/html/recovery/downloads/pdf/sandy_aar_5.2.13.pdf. Accessed September 1, 2017.

Digital Rectal Examination of ED Patients with Acute GI Bleeding Cuts Rates of Admissions, Pharmacotherapy, and Endoscopy

BY JEFF BAUER

Patients presenting to the ED with acute gastrointestinal (GI) bleeding who receive a digital rectal examination have significantly lower rates of admissions, pharmacotherapy, and endoscopies, according to a retrospective study published in *The American Journal of Medicine*. Digital rectal examinations are an established part of the physical examination of a patient with GI bleeding, but physicians often are reluctant to conduct such examinations. Previous studies have found that 10% to 35% of patients with acute GI bleeding do not receive digital rectal examinations.

In the current study, researchers analyzed data from the electronic health records (EHRs) of patients ages 18 years and older who presented to the ED of a single institution with acute GI bleeding, as identified by International Classification of Diseases, Ninth Edition codes. They collected patients' medical histories, demographic information, and clinical and laboratory data. ED clinician notes were used to determine which patients received a digital rectal examination. The outcomes researchers assessed were hospital admission, intensive

care unit (ICU) admission, initiation of medical therapy (a proton pump inhibitor or octreotide), inpatient endoscopy (upper endoscopy or colonoscopy), and packed red blood cell (RBC) transfusion.

Overall, 1237 patients presented with acute GI bleeding. Most patients were Caucasian (49.2%) or Hispanic (38.4%), 44.9% were female, and the median age was 53 years.

Slightly more than one-half of patients (55.6%) received a digital rectal examination. In total, 736 patients were admitted—including 222 admissions to the ICU; 751 were started on a proton pump inhibitor or octreotide, 274 underwent endoscopy, and 321 received an RBC transfusion.

Patients were more likely to receive a digital rectal examination if they were older, Hispanic, or receiving an anticoagulant. Patients were less likely to undergo such examinations if they presented with altered mental status or hematemesis. Compared to patients who did not receive a digital rectal examination, those who did were significantly less likely to be admitted to the hospital ($P = .004$), to be starting on medical therapy ($P = .04$), or to undergo endoscopy ($P = .02$). There were no significant differences between these two groups in terms of ICU admissions, gastroenterology consultations, or transfusions.

Researchers suggested that the 44% rate of patients with acute GI bleeding who did not receive digital rectal examinations was higher than had been reported in previous studies. The difference had been the result of relying solely on ED clinician notes for this data, without including notes from admitting or consulting clinicians. The authors also were unable to determine the reasons these examinations

were not conducted.

Shrestha MP, Borgstrom M, Trowers E. Digital rectal examination reduces hospital admissions, endoscopies, and medical therapy in patients with acute gastrointestinal bleeding. *Am J Med.* 2017;130(7):819-825. doi: 10.1016/j.amjmed.2017.01.036.



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