

Improving Interpretation of Initial ED Ultrasound



The need for further imaging studies may be avoided when initial emergency department (ED) ultrasound examinations are interpreted by a radiologist than a nonradiologist, according to a new study by the Harvey L. Neiman Health Policy Institute. The findings are published in Journal of the American College of Radiology.

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For the study, researchers used five percent Medicare data files from 2009 through 2014 to identify cases in which ED patients underwent ultrasound examinations. They determined whether the initial ultrasound was interpreted by a radiologist or a nonradiologist and then summed all additional imaging events occurring within 7, 14 and 30 days of each initial ED ultrasound. The mean number of downstream imaging procedures was calculated by speciality group for each year and each study window.

Analysis of data revealed that of 200,357 ED ultrasound events, 81.6 percent were interpreted by radiologists and 36,788 by nonradiologists. Across all study years, ED patients with ultrasounds interpreted by nonradiologists underwent 1.08 more imaging studies within seven days, 1.22 more imaging studies within 14 days, and 1.34 within 30 days of the initial ED ultrasound event. For both radiologists and nonradiologists, the volume of subsequent imaging decreased over time. Despite that decline, differences in follow-up imaging between radiologists and nonradiologists persisted over time, the researchers noted.

Bibb Allen Jr., MD, FACR, lead study author and chair of the Neiman Institute advisory board, said that higher use of limited ultrasound examinations by nonradiologists or a lack of confidence in the interpretations of nonradiologists may potentially explain this increase in follow-up imaging studies.

Dr. Allen cited the need for further research to determine the causes of the discrepancy since resource use will be a critical metric in federal healthcare reform. The doctor suggests that emerging patterns of care such as point of care ultrasound should include resource use in outcomes evaluation. "Efforts toward improving documentation of findings and archiving of images as well as development of more robust quality assurance programmes could all be beneficial," the author adds.

Source: <u>Harvey L. Neiman Health Policy Institute</u> Image Credit: <u>National Cancer Institute/Bill Branson</u>

Published on: Sun, 26 Feb 2017