

Standard CT protocol for trauma patients leads to overutilization of imaging

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It is unnecessary to scan trauma patients based on a non-focused standard trauma CT protocol, if the patient is transferred for care after already undergoing a focused CT examination based on the patient's history and physical examination, a new study shows.

The study, conducted at the University of Pittsburgh Medical Center reviewed the records of 100 patients who were transferred from another facility. "The standard trauma CT protocol for all level 1 and 2 [trauma patients](#) transferred to our facility includes a CT examination of the head, [cervical spine](#), thoracic spine, lumbar spine, chest, abdomen and [pelvis](#)," said Dr. Matthew Heller, a lead author in the study. "We found that these additional tests generated 463 negative CT examinations. In seven patients, there were minor unexpected acute findings, such as non-displaced rib fractures. However, the findings did not change the treatment of any of these patients," said Dr. Heller.

"In short, scanning patients according to the standard trauma protocol generated hundreds of CT examinations which did not impact the patient's care," said Dr. Heller. On average, we found that the standard trauma protocol generated approximately 5 [CT examinations](#) per patient that were either negative or not clinically significant," he said.

"In our study, we estimate that CT utilization, imaging costs and [radiation dose](#) can be reduced by at least 50% if the standard imaging protocol is replaced by imaging dictated by the patient's history and physical examination findings," Dr. Heller said.

Dr. Heller will present his study at the ARRS annual meeting on April 15 in Washington, DC.

Provided by American Roentgen Ray Society

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