Medical Xpress

Top down approach helps academic medical center reduce unnecessary emergency department X-rays

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An imaging algorithm produced by a radiology department and distributed through the medical director's office, in a top-down fashion, enabled a large, academic medical center to significantly reduce the number of unnecessary cervical spine radiographs (X-rays) in the emergency department, according to a study published in the July issue of the *Journal of the American College of Radiology*.

At the University of Rochester Medical Center in Rochester, NY, it was observed that a large number of routine trauma X-rays of the cervical spine were requested after a CT scan of the cervical spine had demonstrated no significant findings. "In view of the recent increasing awareness of over utilization and concern of the risks from medical radiation, we looked for opportunities to eliminate what we believed were unnecessary or inappropriate exams," said Mark J. Adams, MD, MBA, FACR, lead author of the study.

"With the assistance of our medical director, a clear algorithm for the X-ray evaluation of post CT cervical spines was developed and distributed from the top down to care providers through their respective departments, not directly from the imaging department," said Adams. One year after the implementation of the policy, data demonstrated a significant decrease in the number of unnecessary or inappropriate studies being performed. The number of unnecessary X-ray exams performed was reduced by 83 percent between January 2008 and

January 2009.

"Not only are these X-ray exams unwarranted, they consume valuable resources, add an additional burden to emergency department and radiology staff, and subject patients to unnecessary radiation," said Adams.

"It is hoped that this simple approach can also be used to address other improper use of imaging resources, thereby reducing radiation exposure and improving the efficiency of care in the emergency department and acute care setting," he said.

More information: www.jacr.org

Provided by American College of Radiology

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