

AB134. SOH21AS031. Improving the usage of plain abdominal radiographs in emergency general surgical admissions—a closed loop audit

Tarek Khalil, Darren Porter, Pradeep Patil

Department of General Surgery, Ninewells Hospital and Medical School, Dundee, UK

Background: Abdominal X-rays (AXRs) are a common admission investigation of the General Surgical (GenSurg) patient. The average cost of AXR is £27, with a radiation of 0.7 mSv. They are over requested and out with Royal College of Radiologists (RCR) guidelines. This closed loop audit was done in-order to reduce the number of inappropriate requests. We aim to achieve 70% compliance to RCR-guidelines. This will save money and reduce unnecessary radiation.

Methods: Using the emergency admissions book, a prospective 1 week audit was performed in a large teaching hospital. For all GenSurg admissions, we looked at age, sex, clinical impression, admission AXR request, final diagnosis. Following targeted intervention, a second-cycle 1 week audit was performed.

Results: First cycle (n=69): 44 (63%) patients had an AXR on admission. Then of those (23%) followed the RCR guidelines. Intervention: to increase compliance, team awareness was raised among medical and nursing teams. Second cycle (n=68): 32 (47%) had an AXR on admission. Fourteen of those (44%) followed the RCR guidelines.

Conclusions: Raising awareness of the RCR guidelines has reduced the overall number of AXR, and increased the AXRs requested that adhere to RCR guidelines. However, the improvement is still not an acceptable level. This may

be due to anxiety among junior doctors, and consultant preference. Our next step is to present the findings at a departmental meeting to gain a local consensus for the department, and produce an AXR guideline placed in the GenSurg admissions unit. This will save the hospital £47,736/year, and reduce unnecessary radiation exposure to patients.

Keywords: Abdominal X-ray (AXR); cost; general surgery; radiation; Royal College of Radiologists

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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