

Audit of CT Cervical Spine Imaging in Alert and Stable Trauma Patients

Dr. Ruturaj Vaze

Northampton General Hospital, United Kingdom

Abstract:

Background: During my time as a Senior House Officer in the Emergency Department, I identified a recurring gap in the assessment and management of patients with suspected cervical spine injuries.

These patients are often placed on trauma mattresses with cervical spine immobilisation, resulting in patient discomfort and increased resource burden. This audit was undertaken to evaluate whether CT cervical spine imaging was being requested appropriately, in accordance with the Canadian C-Spine Rule, and whether clinical justification was being adequately documented. The aim was to promote safer imaging practices, minimise unnecessary radiation exposure, and optimise resource use.

Objectives: The audit aimed to:

1. Determine whether CT cervical spine scans were requested in alignment with the Canadian
2. C-Spine Rule.
3. Evaluate the adequacy of clinical justification documented in the notes and scan requests.
4. Identify potentially avoidable imaging.
5. Recommend strategies to improve adherence to evidence-based practice.

Methodology: Fifty consecutive CT cervical spine scans ordered over a 3-month period were retrospectively reviewed.

Exclusion criteria included:

- Patients under the age of 16
- GCS less than 15
- Documented pre-existing spinal injuries or conditions
- Polytrauma scans

Each scan request was evaluated for consistency with Canadian C-Spine Rule criteria. Documentation was reviewed for three core elements: