

## **Audit on Compliance with Ottawa Ankle Rules in Ankle Radiograph Requests**

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**Abstract :** Introduction: Ankle radiographs are frequently requested in Emergency Departments (ED) for patients presenting with traumatic ankle pain. The Ottawa Ankle Rules (OAR) serve as a clinical guideline to determine the necessity of these radiographs, aiming to reduce unnecessary imaging. This audit was conducted to evaluate the adequacy of clinical information provided in radiograph requests in relation to the OAR. Methods: A retrospective analysis was performed on 50 consecutive ankle radiograph requests under ED clinicians' names for patients aged above 5 years, specifically excluding follow-up radiographs for known fractures. The study assessed whether the provided clinical information met the criteria outlined by the OAR. Results: The audit revealed that none of the 50 radiograph requests contained sufficient information to satisfy the Ottawa Ankle Rules. Furthermore, 10 out of the 50 radiographs (20%) identified fractures. Discussion: The findings indicate a significant lack of adherence to the OAR, suggesting potential overuse of radiography and unnecessary patient exposure to radiation. This non-compliance may also contribute to increased healthcare costs and resource utilization, as well as possible delays in diagnosis and treatment. Recommendations: To address these issues, the following recommendations are proposed: (1) Education and Training: Enhance awareness and training among ED clinicians regarding the OAR. (2) Standardised Request Forms: Implement changes to imaging request forms to mandate relevant information according to the OAR. (3) Scan Vetting: Promote awareness among radiographers to discuss the appropriateness of scan requests with clinicians. (4) Regular re-audits should be conducted to monitor improvements in compliance.

**Keywords :** Ottawa ankle rules, ankle radiographs, emergency department, traumatic pain

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