# مؤسسة الإمارات للخدمات الصحية | Emirates Health Services



Audit: Trauma Of The Foot and Ankle X-ray's Requests In Primary Health Care: Can we Improve Compliance with Ottawa Rules and How Useful are They? Done by: Dr. Asma Alblooshi, Emirates health Services, UAE

# Background

Foot and ankle injuries are common clinical conditions treated by physicians in Primary health care and Emergency Departments sitting.

These injuries account for 6–12% of the patients seen in Primary health care and Emergency Departments.

Currently, almost all patients with foot and ankle injuries undergo radiographic examination to exclude fracture; however, fewer than 15% of these patients actually have fractures, thus most of these radiographs are unnecessary.

# Aim

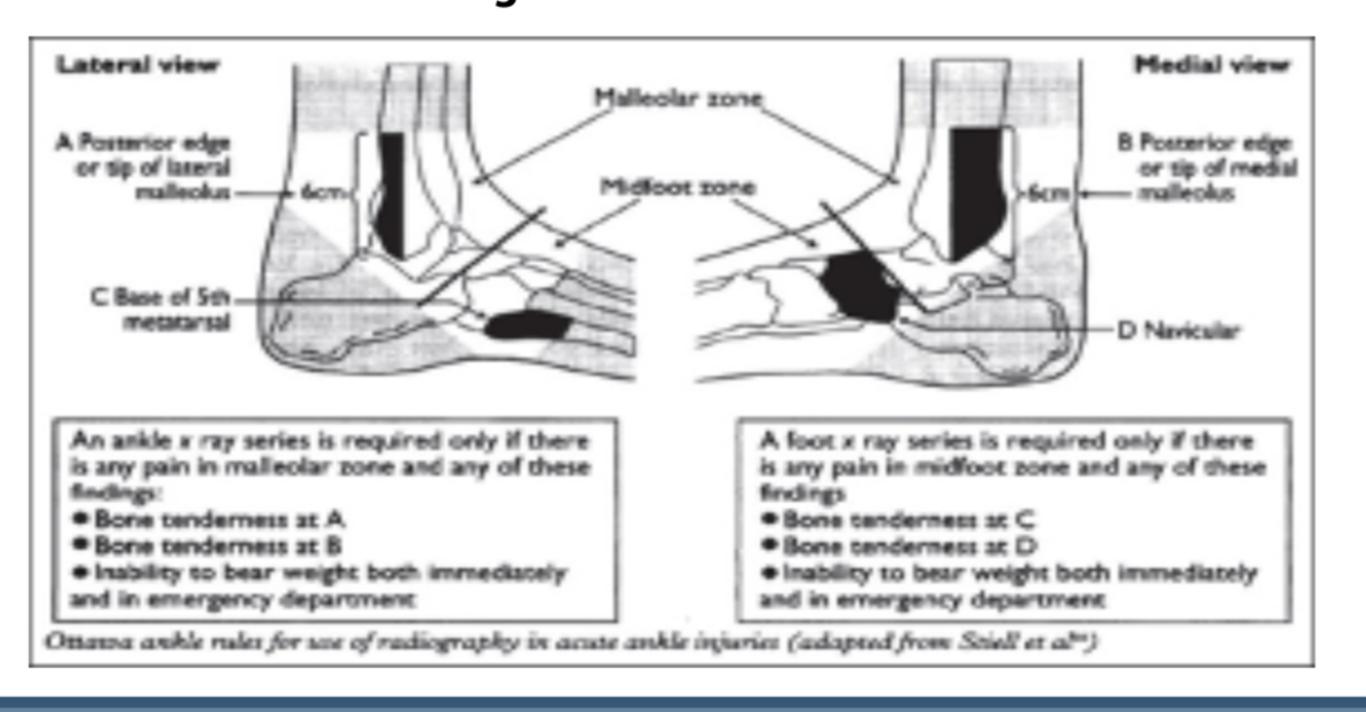
We aimed to improve the quality of care for walking in patient as emergency to the PHC and assess Physicians in Almadina Health center requests for foot and ankle radiographs against Ottawa rules which are the basis of Royal College of Radiologists guidelines.

This Audit aimed to determine if Physicians in Almadina Health center were having the Adequacy of clinical information for the Ottawa rule as an assessment before ordering imaging to the injured patient or not?

#### **Audit Criteria**

5 components of test:

- Bony tenderness a long Distal 6 cm of the posterior edge of fibula or tip if lateral malleolus.
- Bony tenderness a long distal 6 cm of the posterior edge of the tibia / tip of the medial malleolus.
  - Bony tenderness at the base of the 5th metatarsal.
    - Bony tenderness at the navicular.
- Inability to bear weight both immediately after injury and for 4 steps during initial evaluation.



# Methodology

A retrospective case note review was done for one week period (September ,2021). All cases notes were reviewed by the resident to audit against the Ottawa ankle and foot rules. The Audit was conducted confidentially. Recruitment of 277 patients from Xray registry list in Almadinah PHC Excluded: 125 patient The total population included in the audit was 135 people.

### Results

46% fit for the Ottawa ankle rules
47% fit for the Ottawa foot rules
70% of the Physicians were not aware of the rules
98% of those who did not meet the criteria were not having Fractures.

#### Discussion

The OAR have been validated on an international scale and are regarded as a highly sensitive clinical decision tool with the capacity to reduce the number of unnecessary ankle radiographs ordered (Beckenkamp et al., 2017).

## **Set Standards**

Standards were prepared using Ottawa rules and Royal College of Radiologists guidelines.

All ankle x-ray requests for traumatic ankle pain should provide adequate clinical information with reference to the Ottawa ankle rules.

All ankle x-ray requests for trauma should provide adequate clinical information including point tenderness according to Ottawa Rules.

#### Recommendations

- \* Improve documentation in patient's records.
- \* Practitioners should be updated with the changes in the international guidelines by introducing that in one of the monthly / CME lectures.
  - \* Set a Trauma and Emergency National Guideline that Fit Primary health care level and apply it. Re-audit in 12 months.
- \* If X-ray was ordered against the rule, clear justification in the documentation should be stated.

## **Re-Audit**

Re-Audit cycle in 12 months

## **Limitations and Conclusion**

Limitation: Documentation in busy clinics such as in Almadina gave us distorted picture of actual practice. This Audit provides a startingpoint for potential further studyinto the reasons for or against the use of the OAR, particularly amongst GPs This audit demonstrates that the evaluation is sub-optimal in this Group Practice, and measures shall be taken whether individual or institutional-based change strategies are warranted.