

Ottawa Ankle Rules

X-Ray for Acute Injury of the Ankle or Mid-Foot

Scope

This guideline makes recommendations for adults aged ≥ 19 years with acute ankle and mid-foot injuries, presenting for the first time in a clinical setting. This guideline excludes recommendations for patients younger than 19 years, with multiple painful injuries, pregnant, cognitively impaired or with sensory deficits in their lower extremities

Key Recommendations

- Use the Ottawa Ankle Rules (OAR) to exclude fractures and reduce unnecessary imaging.
- Advise patients to seek follow-up care if their pain or ability to bear weight has not improved in five to seven days.

Diagnosis

Historically imaging is ordered for most patients presenting with an ankle and/or mid-foot injury even though only about 15% have clinically significant fractures.

This guideline recommends the use of the OAR when diagnosing ankle and mid-foot fractures and to reduce unnecessary imaging.

Screening

Ankle x-rays are required only if there is pain in the malleolar zone (refer to Figure 1) **as well as** any one of:

- Bone tenderness at A; **or**
- Bone tenderness at B; **or**
- Inability to bear weight both immediately and in the clinical setting (unable to take four steps independently, even if limping).

Foot x-rays are required only if there is pain in the mid-foot zone (refer to Figure 1) **as well as** any one of:

- Bone tenderness at C; **or**
- Bone tenderness at D; **or**
- Inability to bear weight both immediately and in the clinical setting (unable to take four steps independently, even if limping).

Whether or not an x-ray is ordered, it is recommended that the patient seek follow-up care if their pain or ability to bear weight has not improved in five to seven days.

Figure 1: Zones of the Ankle and Mid-Foot According to the Ottawa Ankle Rules

