**Radiography for knee trauma - compliance with the Ottawa Knee Rule**

**Descriptor:**

Audit to evaluate appropriateness of the referrals for knee radiography in acute knee injury with reference to the Ottawa Knee Rule.

**Background:**

Demand for radiological examinations is rising. This puts more pressure on radiology services. The Ottawa Knee Rule has shown potential in reducing the need for radiography in knee trauma. Multiple studies have demonstrated that the Ottawa Knee Rule is highly sensitive in identifying patients who require an x-ray examination to exclude fracture. (1-5)

## The Cycle

**The standard:**

The Ottawa Knee Rule states that knee X-ray is only required after a knee injury and indicated only if patients meet at least one of the five criteria: age 55 or over, tenderness of the fibular head, isolated tenderness of the patella, inability to flex to 90 degrees or inability to bear weight both immediately and at A&E department for 4 steps. The Ottawa Knee Rule has been extensively validated worldwide, and recommended by the iRefer referral guidelines of the Royal College of Radiologists and NICE (6,7).

**Target:**

95% compliance with the referral guidelines.

## Assess local practice

**Indicators:**

At least one out of five criteria of the Ottawa Knee Rule should be demonstrated by clinical history provided by the referrer, to make the referral for knee radiography compliant with the referral guidelines.

**Data items to be collected:**

Referrals from A&E department for knee radiography following knee injury.

**Suggested number:**

100 consecutive referrals.

**Suggestions for change if target not met:**

1. Reminder cards / posters about the Ottawa Knee Rule in the A&E and Radiology departments.

2. Identify compliance and non-compliance among different referrer groups.

3. Present the audit to the A&E department. Educate staff about the Ottawa Knee Rule.

4. Present the audit to radiographers. Educate radiographers about the Ottawa Knee Rules to enable them to identify non-compliant referrals. Non-compliant referrals should be reviewed by the referrer.

5. Re-audit jointly by the A&E and Radiology departments members of staff.

**Resources:**

1. Get the list of 100 consecutive referrals for knee radiography from A&E department. Ask PACS administrator or secretaries for help.

2. Data collection into digital spreadsheet or paper proforma (please see the template attached) – 4 hours.

3. Data analysis – 2 hours.

[**286\_OKR Audit data collection tool.doc**](https://www.rcr.ac.uk/sites/default/files/audit_template/286_OKR%20Audit%20data%20collection%20tool.doc)WORD - 46.5 KB

**References:**

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6. The Royal College of Radiologists. iRefer: Making the best use of clinical radiology. T22 Knee trauma: fall/blunt trauma.
7. Knee pain – assessment NICE CKS <https://cks.nice.org.uk/topics/knee-pain-assessment/>

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