

KNEE ULTRASOUND SCAN:
Should **NOT BE USED** in the assessment of intra-articular pathology (ligamentous and meniscal damage).

*POST TRAUMATIC KNEE PAIN

Clinical Assessment

MRI CONTRAINDICATIONS

- Pacemaker
- CAUTIONS - CONTACT RADIOLOGY PROVIDER**
- Metalware
- Cochlear Implants
- Claustrophobia
- Works with Metal – Orbit check

KEY

Assessment Guide

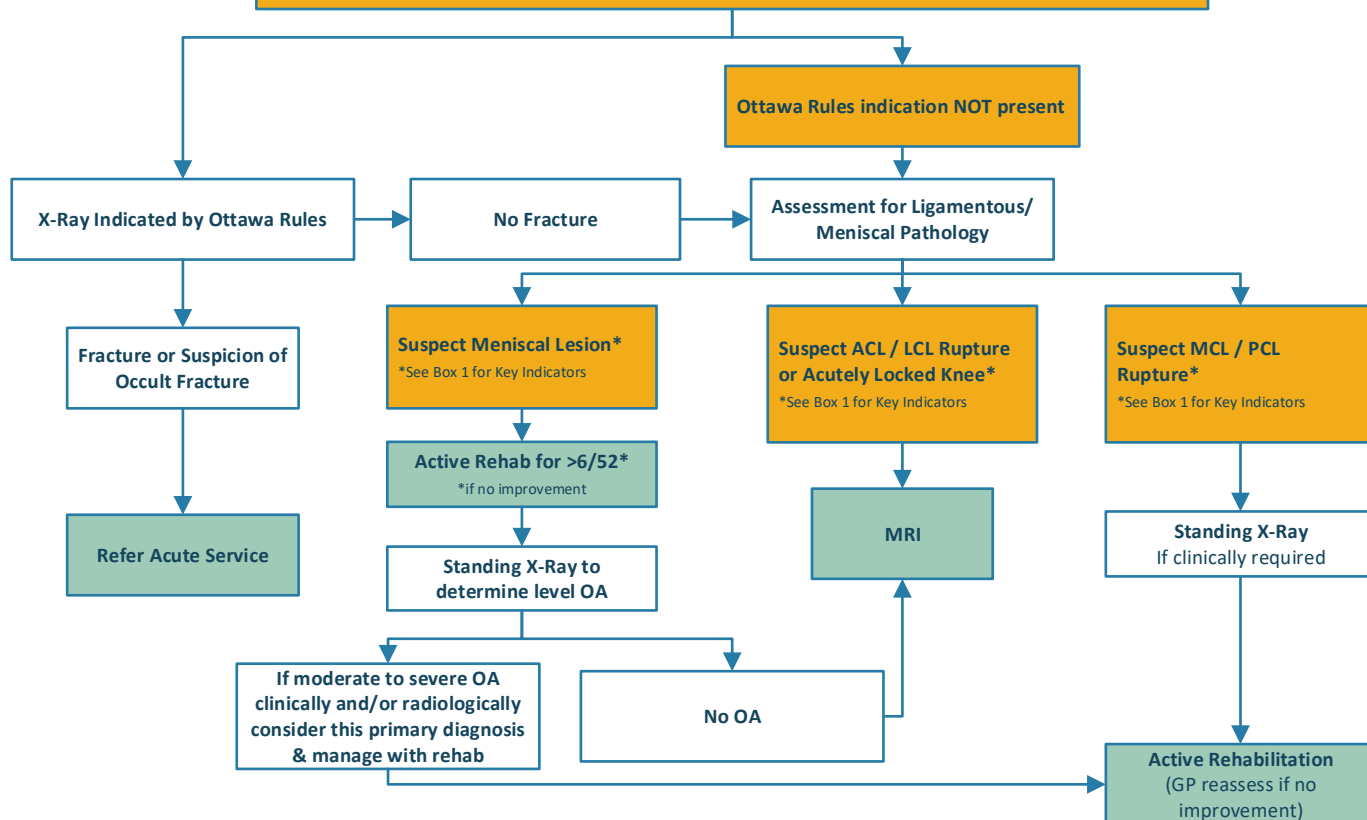
Management Plan

Application of Ottawa Rules

Knee radiographs are indicated when any of the following are present:

- Age 55 years or older
- Tenderness at the head of the fibula
- Isolated tenderness of the patella
- Inability to flex knee to 90 degrees
- Inability to weight bear 4 steps both immediately and in the emergency department

(Exclusion criteria: Age <18 years or initial injury 7 days prior to presentation, recent injuries being re-evaluated and patients with altered levels of consciousness, paraplegia or multiple injuries)



***BOX ONE:** Key factors in the history and clinical examination for the following conditions that would elicit an MRI referral under ligamentous and meniscal injuries:

- Meniscal**
Injury mechanism – rotational element, squatting, cutting or twisting in younger population
Symptoms – Pain, swelling and mechanical symptoms (catching, locking)
Signs – Acutely locked knee, Effusion, joint line tenderness – posterior more clinically relevant (variable sensitivity 55 – 85% depending on site of meniscal pathology)
 Loss of end range extension or flexion
 Thessaly Test / McMurray's Test
- Anterior Cruciate Ligament (ACL) Tear**
Injury mechanism – deceleration, change of direction on a fixed foot, rotational, twisting
Symptoms – Rapid onset of swelling within hours, Audible 'pop' or noise within the knee at the time of injury, Feeling of instability
Signs – Effusion often large within 2-3 hours
 Loss of end range extension
 Lachman's test positive (high sensitivity and high specificity)
 Anterior Draw test positive (high specificity and low sensitivity)
- Posterior Cruciate Ligament (PCL) Tear**
Injury mechanism – posteriorly directed force to the proximal tibia (e.g. dashboard injury or fall onto flexed knee or tackle from the front)
Symptoms – Pain swelling and feeling of instability
Signs – Effusion, Posterior Draw test positive (high sensitivity), PCL sag sign (late sign)
- Postero-Lateral Complex (PLC) Injury**
 Rare but associated with other ligamentous injuries in particular LCL rupture – needs referral
- Medial Collateral Ligament (MCL) Injury**
Injury mechanism – valgus stress, often from a lateral force to the knee
Symptoms – Pain, swelling and feeling of instability
Signs – Effusion, Laxity on valgus stress test in 30° knee flexion, Laxity on valgus stress test in extension indicates higher degree of injury
- Lateral Collateral Ligament (LCL) Injury**
 Rare in isolation
 Laxity on varus stress in extension and in 30° knee flexion