

Manitoba Knee MRI Appropriateness

May 2026



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Serving patients, families, staff, and communities with care.

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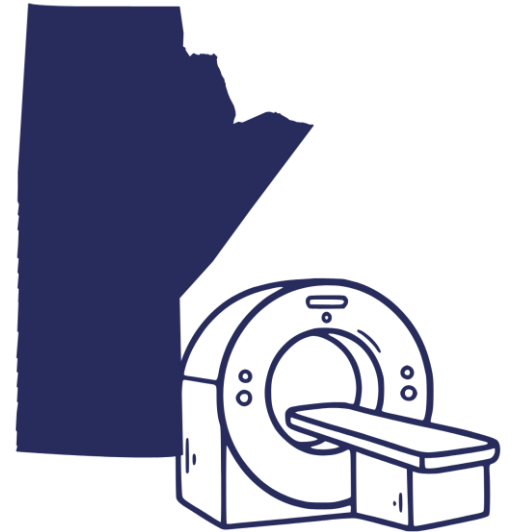
Presenter Disclosure

- Presenters: Christine Peters & Santiago Garcia Giraldo
- Relationships with financial sponsors:
 - Grants/Research Support: None
 - Speakers Bureau/Honoraria: None
 - Consulting Fees: None
 - Patents: None
 - Other: None

Background

Provincial MRI Overview

- Shared Health Diagnostic Services
- Central evaluation & triage
- MRI Requisition volume increased 63% from FY 2018/19 to FY 2024/25
- Reducing MRI wait times is a crucial area of focus.



Primary Care Ordering

- In MB, Primary Care Providers (PCPs) can order an MRI without a referral to a specialist.
- Patient pressure on PCPs to refer.

Background

The Knee MRI Challenge

- ~9,000 Knee MRI exams performed annually; approximately 9% of all MRIs.
- A 2023 Orthopedic Surgeon Case Study retrospectively reviewed 1,542 Knee MRI exams across MB and found 82% were ordered for degenerative symptoms.
- For degenerative symptoms, X-ray is the most appropriate modality.
- **Only 52% of Knee MRI requests mentioned a prior X-ray.**

Choosing Wisely Recommendation



Orthopaedics

- 2 Don't order a knee MRI when weight-bearing x-rays demonstrate osteoarthritis and symptoms are suggestive of osteoarthritis as the MRI rarely adds useful information to guide diagnosis or treatment.**

The diagnosis of knee osteoarthritis can be effectively made based upon the patient's history, physical examination, and plain radiography consisting of weight-bearing posterior-anterior, lateral and skyline views. Ordering MRI scans incurs further waiting times for patients, can cause unnecessary anxiety while waiting for specialist consultation, and can delay MRI imaging for appropriate patients.

Arthroscopy Association of Canada

Objectives

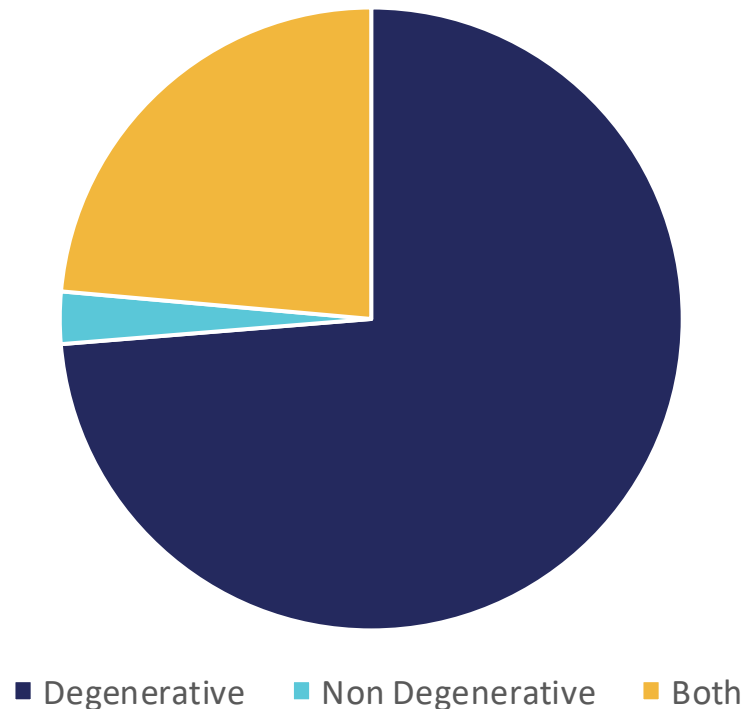
Evaluate and improve the appropriateness of Knee MRI ordering in Manitoba.

- To implement a sustainable, provincial process to decline inappropriate Knee MRI exams that will not provide additional diagnostic or treatment benefits
- Provide more high value care and reduce waits for appropriate scans

The intervention focused particularly on patients over 55 years old.

2nd Case Review- Radiology Resident

MRI Report Review



Compared with total volumes, this equals about 6633 potentially inappropriate scans/year

- **Non-Degenerative**= Tumor, Fracture, AVN, Trauma/Fall/Injury resulting in: Menis/Cart Tear, Ligament injury, Tendon injury
- **Degenerative**= OA/Chond/Menisc Degen, Osteophytes, Tendonitis-osis, Cyst, Menis/Cart Tear, Ligament injury, Tendon injury, Loose/Fragment, Synovitis

Goals of Initiative


- 1. Reduce knee MRIs requests that are unlikely to provide useful diagnostic information, aligned with evidence-based guidelines.*
- 2. Decrease wait times for all patients by eliminating unnecessary MRI orders.*
- 3. Provide decision support for physicians that can be shared with patients to facilitate appropriate orders.*
- 4. Implement a sustainable process to decline inappropriate requests.*


Clinical Practice Guideline & companion form released February 21, 2025

Scope

- This intervention targeted Primary Care providers and non-specialists who can order Diagnostic Imaging
- Companion form sets out clear criteria **that can be declined by central intake**. Physicians can always contact a radiologist to discuss special circumstances.
- Specialists are exempt from these guidelines as it is expected that they are ordering appropriately. Initial data analysis supports this.

Knee MRI Appropriateness Checklist Implementation





MRI KNEE APPROPRIATENESS CHECKLIST
*This checklist is required for all outpatient MRI knee referrals.
 Please include with MRI requisition.*

Patient label placed here, or minimum information below required
 Patient Name: _____
 Date: _____
 Date of Birth (YYYYMMDD): _____
 Gender: _____
 MRN: _____

CHECK ANY/ ALL THAT APPLY:

A. <input type="checkbox"/> Recent Knee X-Rays Recommended For All Patients (weight bearing views)	B. Prior Knee Imaging (supports correlation with MRI images)
Required for: Patients ≥ 55 years old Suspected osteoarthritis History of Trauma Pediatric patients with trauma	What: _____ When: _____ Where: _____

C. MRI is NOT recommended if there is

Moderate to severe osteoarthritis without locking or extension block

MRI is unlikely to alter patient management, and is not needed for orthopedic referral

D. MRI IS recommended for:

Locked knee/Mechanical symptoms (unable to fully extend knee with relaxed muscles)
 Suspected ligamentous injury
 Specify which ligaments: _____
 Persistent swelling/effusion despite conservative therapy for 4-6 weeks
 Suspected soft tissue or bone tumor

E. Consider MRI if ALL the following are present

Absent or mild osteoarthritis
 Persistent unexplained pain for >3 months
 Failed conservative therapy (physiotherapy and anti-inflammatories)
 Patient is surgical/arthroscopy candidate

MRI is indicated if any of box D is checked, or all criteria of box E

F. Additional Clinical Information (please provide any additional information relevant to this request)
Please include arthroscopic and surgical reports

_____ Referring Physician Name _____ Signature _____ Date

DO YOU “KNEE-D” A KNEE MRI?


Most knee pain in older adults is caused by osteoarthritis.
 MRI provides no more helpful information than X-ray for osteoarthritis in knees.

X-ray is the way

Your doctor is providing the best care by not ordering unnecessary imaging tests.


For diagnosis of osteoarthritis in knees, X-ray is the fastest and most appropriate test.

MRI's would mean longer wait times for testing and diagnosis and unnecessary anxiety while waiting for specialist consultations.





When it is osteoarthritis in the knees, the prescription is self-management:

- Relieve pressure from your knees by losing excess weight.
- Engage in physical activity to build support of the knees.
- Use mechanical aids such as canes, crutches or walkers.
- Use heating pads or ice packs as needed.
- Talk to your provider for more options.



Choosing Wisely Canada -
Treating Osteoarthritis
of the Knee Resources

Knee MRI Appropriateness Checklist Implementation

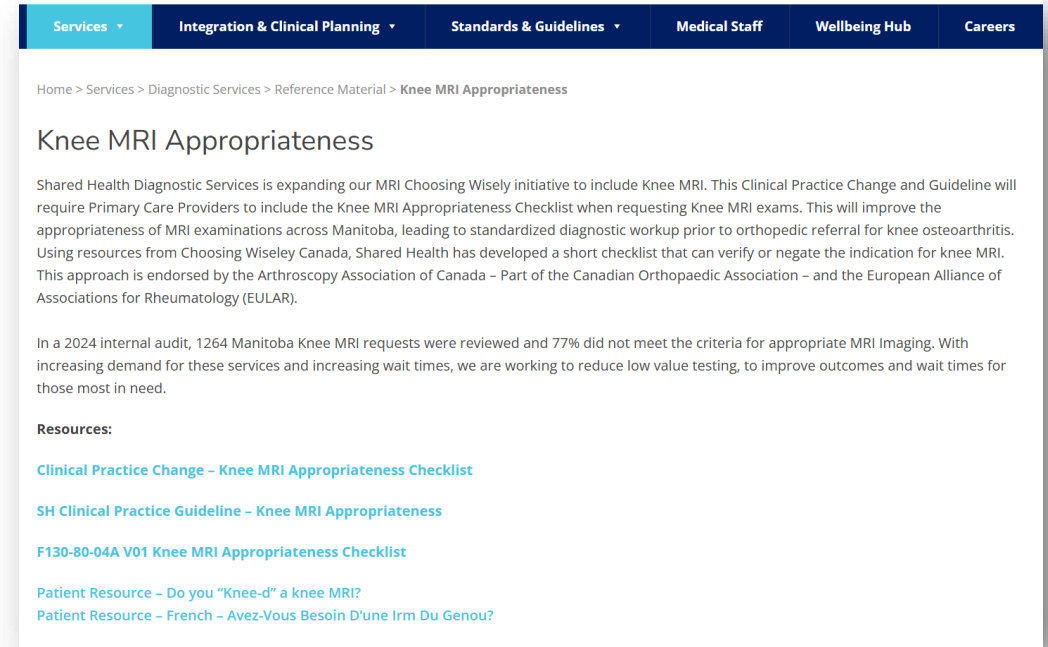


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MRI KNEE APPROPRIATENESS

Improving Appropriate Use of MRI for Knee Imaging



Services ▾ Integration & Clinical Planning ▾ Standards & Guidelines ▾ Medical Staff Wellbeing Hub Careers

Home > Services > Diagnostic Services > Reference Material > Knee MRI Appropriateness

Knee MRI Appropriateness

Shared Health Diagnostic Services is expanding our MRI Choosing Wisely initiative to include Knee MRI. This Clinical Practice Change and Guideline will require Primary Care Providers to include the Knee MRI Appropriateness Checklist when requesting Knee MRI exams. This will improve the appropriateness of MRI examinations across Manitoba, leading to standardized diagnostic workup prior to orthopedic referral for knee osteoarthritis. Using resources from Choosing Wisely Canada, Shared Health has developed a short checklist that can verify or negate the indication for knee MRI. This approach is endorsed by the Arthroscopy Association of Canada – Part of the Canadian Orthopaedic Association – and the European Alliance of Associations for Rheumatology (EULAR).

In a 2024 internal audit, 1264 Manitoba Knee MRI requests were reviewed and 77% did not meet the criteria for appropriate MRI Imaging. With increasing demand for these services and increasing wait times, we are working to reduce low value testing, to improve outcomes and wait times for those most in need.

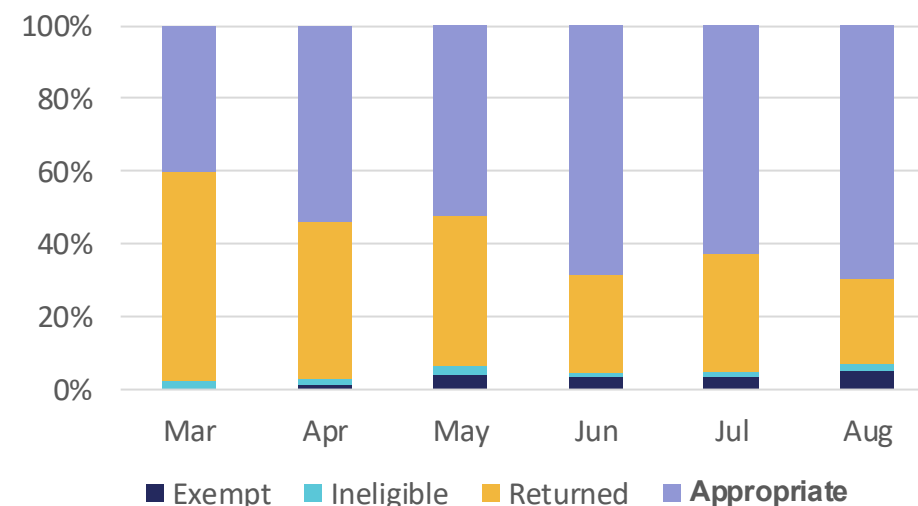
Resources:

- [Clinical Practice Change – Knee MRI Appropriateness Checklist](#)
- [SH Clinical Practice Guideline – Knee MRI Appropriateness](#)
- [F130-80-04A V01 Knee MRI Appropriateness Checklist](#)
- [Patient Resource – Do you “Knee-d” a knee MRI?](#)
- [Patient Resource – French – Avez-Vous Besoin D'une Irm Du Genou?](#)

Measuring & Monitoring

- Increase in percentage of appropriate requisitions.
- Full adoption over several months.
- Clinical & Central Intake systems challenges.

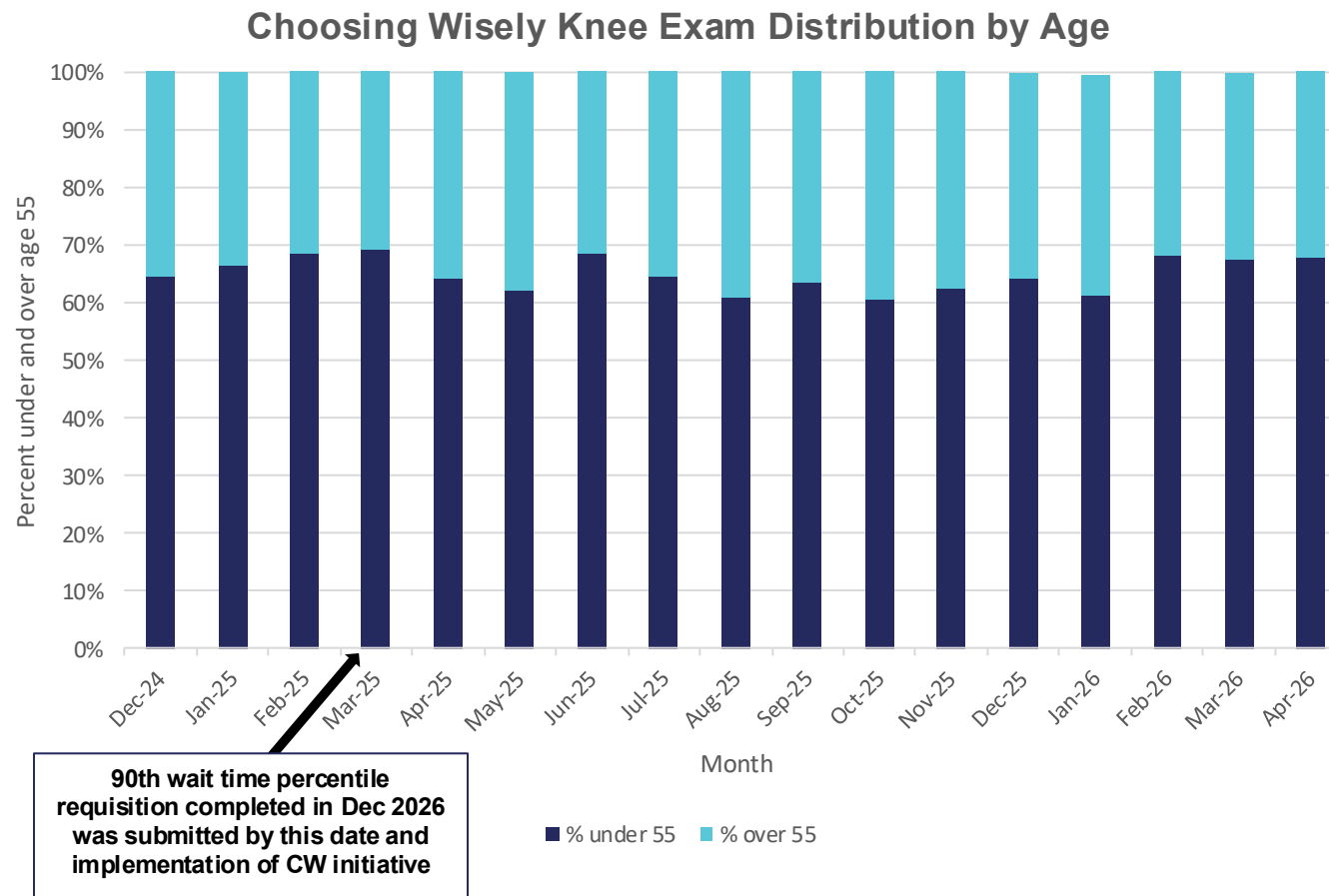
Outcome of Knee MRI Requisitions
March to August 2025



Exempt Specialist order
Ineligible Patient did not meet the clinical ordering criteria
Returned Knee MRI Request did not include the companion form
Appropriate To be completed

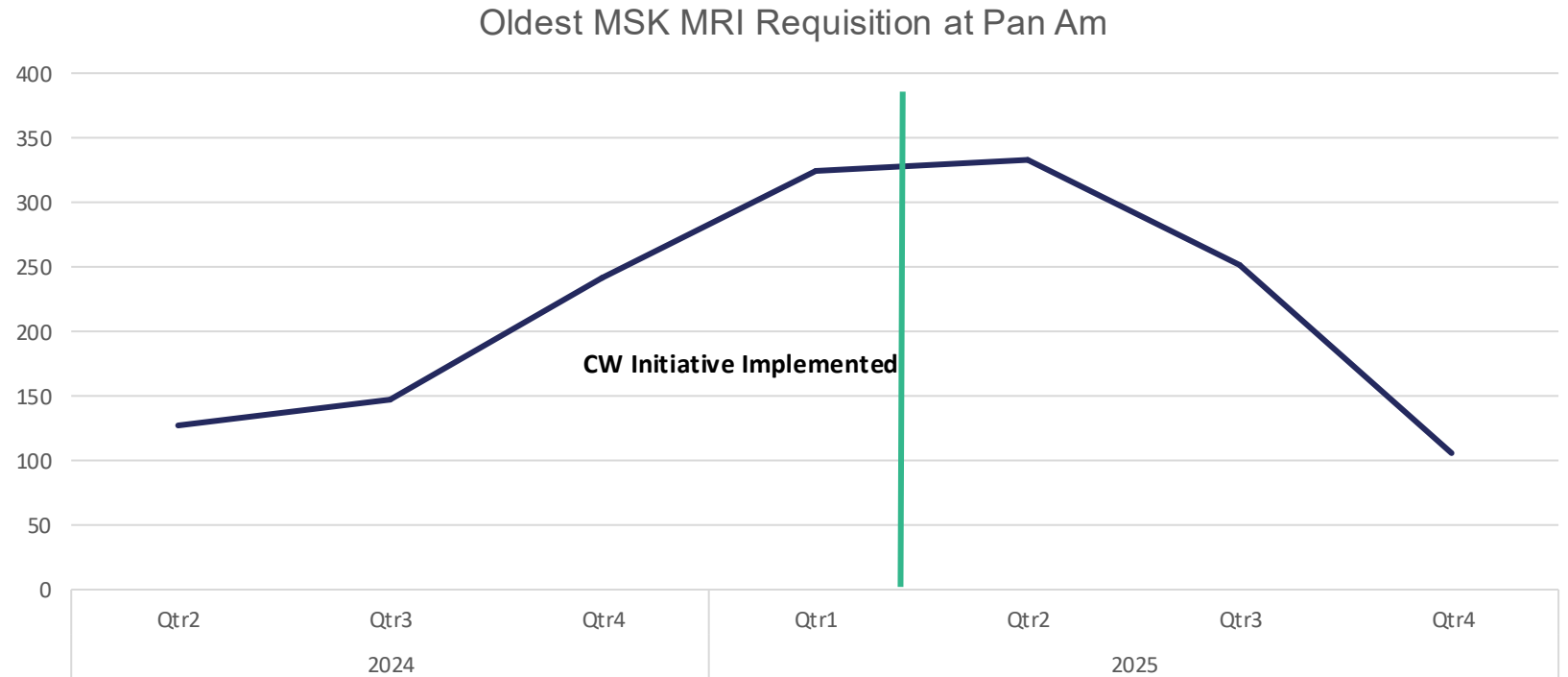
Measuring & Monitoring

- As of April 2026, the majority of scans are on the new process/ form.
- Expecting a decrease in the percentage of patients over 55 requiring MR scans.



Measuring & Monitoring

- Oldest MSK MRI requisition waiting at Pan Am has been decreasing since implementation
- Deep Resolve implemented - March 2025





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Questions?



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