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|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|                               | <b>Clinical Protocol:</b> Non-Traumatic Knee Pain |                                                                                                        |
|                                                                                                                | <b>ORIGINAL EFFECTIVE DATE:</b><br>05/28/2019     | <b>REVIEWED/REVISED DATE(S):</b><br>06/18/2019<br>08/13/2021<br>08/29/2022<br>11/15/2023<br>01/26/2026 |
| <b>PREPARED BY:</b> Ashley Gonzalez, Project Coordinator, UM;<br>CeCe Jones, UM Outpatient Clinical Supervisor |                                                   | <b>APPROVED BY:</b> Richard Sohn, MD, Deputy Chief Medical Officer                                     |

## PROTOCOL OVERVIEW

The knee has the largest articulating surface of any joint. Depending on the activity, this weight-bearing joint can support two to five times a person's body weight. Chronic knee pain affects 25 percent of adults and has a deleterious effect on daily function and quality of life.

This protocol advises on guidelines, indications, and the referral for non-traumatic knee pain.

## INDICATIONS

- 1) Clinical indications for referral include Referral for knee pain may be indicated for **1 or more** of the following:
  - a) Emergent evaluation or management of **1 or more** of the following:
    - i) Fracture (eg, distal femur fracture, tibial plateau fracture)
    - ii) Knee dislocation
    - iii) Locked knee (eg, immobilizer cannot be applied due to decreased range of motion, unable to bear weight)
    - iv) Multidirectional instability
    - v) Neurovascular compromise
    - vi) Septic arthritis
    - vii) Trauma
    - viii) Behavioral health referral for cognitive behavioral therapy
    - ix) Infectious disease referral for evaluation or management of septic arthritis
    - x) Interventional radiology referral for evaluation or management of radiosynovectomy (ie, for hemophilic joint bleed)
  - b) Orthopedic surgery referral for evaluation or management of **1 or more** of the following:
    - i) Abnormal findings on imaging (eg, torn cruciate ligament)
    - ii) Anterior cruciate ligament tear (eg, positive or equivocal anterior drawer sign, Lachman test, pivot shift test)
    - iii) Arthrocentesis needed and difficult to perform
    - iv) Baker cyst in popliteal fossa
    - v) Child with persistent knee pain and normal physical examination
    - vi) Child with new-onset limp

- vii) Failure of nonoperative treatment (eg, NSAIDs, physical therapy)
- viii) Fracture evident or equivocal on plain x-ray
  - ix) Hemophilic joint bleed or arthropathy
  - x) Increasing varus or valgus deformity
  - xi) Knee instability
  - xii) Knee locking, buckling, or giving way
- xiii) Loose body evident on plain x-ray
- xiv) Meniscal tear (eg, joint line tenderness on palpation, positive or equivocal Apley, McMurray, or Thessaly test)
- xv) Osteochondritis dissecans
- xvi) Osteonecrosis
- xvii) Patellar dislocation
- xviii) Posterior cruciate ligament tear (eg, positive or equivocal posterior drawer sign, reversed pivot shift test, sag sign)
- xix) Septic arthritis
- xx) Skeletal dysplasia
- xxi) Synovectomy needed (eg, pigmented villonodular synovitis, rheumatoid arthritis)
- xxii) Tumor
- c) Physical therapy referral for evaluation or management of **1 or more** of the following
  - i) Anterior knee pain (ie, patellofemoral pain syndrome)
  - ii) Gait training with assistive device
  - iii) Instruction on knee taping
  - iv) Meniscal tear
  - v) Muscle weakness (eg, quadriceps weakness)
  - vi) Rehabilitation after procedure (eg, arthroscopy)
- d) Rheumatology referral for evaluation or management of **1 or more** of the following:
  - i) Atypical presentation or presence of comorbid condition (eg, adult with underlying gout, crystalline deposits on imaging)
  - ii) Joint effusion and **1 or more** of the following:
    - (1) Arthrocentesis needed and difficult to perform
    - (2) Bloody effusion on arthrocentesis
    - (3) Synovial or inflammatory disease
    - (4) Unresponsive to conservative care
  - iii) Systemic disease, as indicated by **1 or more** of the following:
    - (1) Eye inflammation (ie, uveitis)
    - (2) Morning stiffness lasting more than 30 minutes
    - (3) Multiple joints involved
    - (4) Recent genital tract infection
    - (5) Recent rash
    - (6) Serum antinuclear antibody positive
    - (7) Serum erythrocyte sedimentation rate or C-reactive protein elevated
    - (8) Serum rheumatoid factor or anti-citrullinated peptide antibody positive

## OSTEOMYELITIS

- Indicated for ANY ONE of the following:

- Patient with diabetes or severe peripheral vascular disease and ANY ONE of the following:
  - Persistent leg pain, even without ulcers present
  - Persistent or worsening ulcer without obvious bone exposure
- Suspected osteomyelitis due to presence of ANY ONE of the following:
  - Pain associated with chills or fever, particularly after trauma or orthopedic surgery
  - Overlying cellulitis that responds poorly to antibiotics
  - Chronic skin ulcer
- Focal lesion seen on bone scan

## SUSPECTED BONE TUMOR

- Indicated for ANY ONE of the following:
  - Abnormal finding on x-ray or bone scan
  - Palpable bony abnormality with normal x-ray
  - Known diagnosis of cancer elsewhere and ANY ONE of the following:
    - Unexplained pain
    - Abnormal x-ray or bone scan
  - Persistent pain or unclear etiology
  - Follow-up after treatment for either primary or metastatic cancer of the bone.

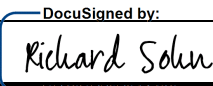
## RECOMMENDED RECORDS

1. History and physical with specific focus on the knee and also history of trauma and whether the pain is acute or chronic in nature
2. Imaging including plain film and MRI
3. Labs including CBC CMP and Vitamin D level
4. Disease specific labs including HA1C
5. Rheumatology specific labs based on clinical exam

## CITATION

1. MCG Health - 29th Edition 2025 [MCG Health - 29th Edition](#)
2. Jinks, C., Jordan, K. and Croft, P. (2002) Measuring the population impact of knee pain and disability with the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC). Pain, 100, 55-64. doi10.1016/S0304-3959(02)00239-7
3. Nguyen US, Zhang Y, Zhu Y, Niu J, Zhang B and Felson DT. Increasing prevalence of knee pain and symptomatic knee osteoarthritis: survey and cohort data. Annals of internal medicine. 2011 Dec 6;155(11): 725-732.

## CLINICAL PROTOCOL REVISION HISTORY

|                     |                                                                                          |                       |                                                                                                                                                                                 |
|---------------------|------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Revised By:</b>  | Ashley Gonzale: UM Project Coordinator;<br>Cece Jones: UM Outpatient Clinical Supervisor | <b>Date:</b> 01/26/26 |                                                                                                                                                                                 |
| <b>Approved By:</b> | Richard Sohn, MD, Deputy Chief Medical Officer                                           | <b>Date:</b> 2/4/2026 | <b>Signature</b> <br><small>DocuSigned by:<br/>Richard Sohn<br/>D748D7527841438...</small> |
| <b>Revised By:</b>  |                                                                                          | <b>Date:</b>          |                                                                                                                                                                                 |
| <b>Approved By:</b> |                                                                                          | <b>Date:</b>          | <b>Signature</b>                                                                                                                                                                |
| <b>Revised By:</b>  |                                                                                          | <b>Date:</b>          |                                                                                                                                                                                 |
| <b>Approved By:</b> |                                                                                          | <b>Date:</b>          | <b>Signature</b>                                                                                                                                                                |

