MedPOINT MANAGEMENT	**Clinical Protocol:** Non-Traumatic Knee Pain	
	ORIGINAL EFFECTIVE DATE: 05/28/2019	**REVIEWED/REVISED DATE(S):** 06/18/2019 08/13/2021
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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

Clinical indications for referral include Referral for knee pain may be indicated for **1 or more** of the following(1):

- Emergent evaluation or management of **1 or more** of the following:
  - Fracture (eg, distal femur fracture, tibial plateau fracture)
  - Knee dislocation
  - Multidirectional instability
  - Neurovascular compromise
  - Septic arthritis
  - Trauma
  - Infectious disease referral for evaluation or management of septic arthritis
  - Interventional radiology referral for evaluation or management of radiosynovectomy (ie, for hemophilic joint bleed)
- Orthopedic surgery referral for evaluation or management of **1 or more** of the following:
  - Abnormal findings on imaging (eg, torn cruciate ligament)
  - Anterior cruciate ligament tear (eg, positive or equivocal anterior drawer sign, Lachman test, pivot shift test)
  - Arthrocentesis needed and difficult to perform
  - Baker cyst in popliteal fossa
  - Child with persistent knee pain and normal physical examination
  - Child with new-onset limp
  - Failure of nonoperative treatment (eg, NSAIDs, physical therapy)
  - Fracture evident or equivocal on plain x-ray
  - Hemophilic joint bleed or arthropathy
  - Increasing varus or valgus deformity
  - Knee instability
  - Knee locking, buckling, or giving way
  - Loose body evident on plain x-ray

        - Meniscal tear (eg, joint line tenderness on palpation, positive or equivocal Apley, McMurray, or Thessaly test)
        - Osteochondritis dissecans
        - Osteonecrosis
        - Patellar dislocation
        - Posterior cruciate ligament tear (eg, positive or equivocal posterior drawer sign, reversed pivot shift test, sag sign)
        - Septic arthritis
        - Skeletal dysplasia
        - Synovectomy needed (eg, pigmented villonodular synovitis, rheumatoid arthritis)
        - Tumor
    - Physical therapy referral for evaluation or management of **1 or more** of the following
        - Anterior knee pain (ie, patellofemoral pain syndrome)
        - Gait training with assistive device
        - Instruction on knee taping
        - Meniscal tear
        - Muscle weakness (eg, quadriceps weakness)
        - Rehabilitation after procedure (eg, arthroscopy)
    - Rheumatology referral for evaluation or management of **1 or more** of the following:
        - Atypical presentation or presence of comorbid condition (eg, adult with underlying gout)
        - Joint effusion and **1 or more** of the following:
            - Arthrocentesis needed and difficult to perform
            - Bloody effusion on arthrocentesis
            - Synovial or inflammatory disease
            - Unresponsive to conservative care
        - Systemic disease, as indicated by **1 or more** of the following:
            - Eye inflammation (ie, uveitis)
            - Morning stiffness lasting more than 30 minutes
            - Multiple joints involved
            - Recent genital tract infection
            - Recent rash
            - Serum antinuclear antibody positive
            - Serum erythrocyte sedimentation rate or C-reactive protein elevated
            - 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

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

CITATION

1. Milliman Care Guidelines, "Ambulatory Care", 24th edition 8/12/2021
2. Jinks C, Jordan K, Croft P. Measuring the population impact of knee pain and disability with the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC). Pain 2002; 100:55.
3. Nguyen US, Zhang Y, Zhu Y, et al. Increasing prevalence of knee pain and symptomatic knee osteoarthritis: survey and cohort data. Ann Intern Med 2011; 155:725.
   American College of Radiology (ACR): ACR Appropriateness Criteria acute trauma to the knee (revised 2019)