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**Musculoskeletal infections** include:

- Septic arthritis
- Osteomyelitis
- Pyomyositis

**Signs and symptoms** concerning for MSK infection include **one or more:**

- Painful fixed joint (psuedoparalysis)
- Point tenderness over the bony metaphysis
- Hip rests in a position of flexion, abduction, and external rotation
- Fever > 38.0C (100.4F)
- Limb pain in absence of trauma
- Refusal to bear weight or use an extremity
- Previous health care visit for the same problem
- Chronic infection: infection >6 weeks with/without drainage

**Kingella kingae**

High index of suspicion:

- Typically 6 months to 4 years of age
- Often indolent course, frequently >3 days of symptoms
- Often well-appearing
- May have preceding viral URI or viral stomatitis infection
- Often attends daycare
- No h/o previous MRSA infection

Diagnosis:

- Joint fluid PCR (preferred)
- Joint fluid culture

**Discharge Considerations**

- Is suspicion for MSK infection low?
- Is pain well controlled?
- Is there access to timely follow-up?
- Lack of social factors limiting care?
- Provider comfort for discharge?

If any "No" consider admission.

**Can pt. be managed at CMH-K?**

- MRI must be obtained in the Emergency Department PRIOR to admission
- Ortho, Hospitalist, ED and ID attending agree case can be managed at CMH-K
- Transfer to Adele Hall campus if MRI is unavailable or pt. requires surgery (typically direct admit)

Assessment and treatment of suspected musculoskeletal (MSK) infection

**Initial evaluation for suspected acute or chronic MSK infection**

- History and physical exam
- Plain radiographs of the affected area
- Hip ultrasound if suspected effusion
- CBC with differential
- Blood Culture
- Infection site culture
- Inflammatory markers (CRP and ESR)

If concern for sepsis or necrotizing fasciitis, please refer to:

- Sepsis CPM
- Necrotizing fasciitis

**Abbreviations (laboratory & radiology excluded):**

- pt. = patient
- CMH-K = Children's Mercy Kansas
- ID = Infectious Disease
- MRSA = Methicillin-resistant Staphylococcus aureus
- MSKI = Musculoskeletal Infection
- Ortho = Orthopedics
- URI = Upper respiratory infection

Is the clinical presentation still concerning for MSKI?

- No
- Consider alternative diagnosis
  - Arrange follow up within 24-48 hours if patient is discharged

Yes

- Consult Ortho
- Determine need for MRI
- Discuss with ID regarding antibiotic timing/need
  - Most common **antibiotics** include clindamycin 10 mg/kg/dose every 6 hours OR if suspected **Kingella kingae**, cefazolin 50 mg/kg/dose every 8 hours

Can the pt. be safely discharged?

Yes

Arrange follow up within 24-48 hours

No

Is the pt. at Adele Hall?

Yes

Admit to General Pediatrics Inpatient consults for ID and Ortho

No

Can pt. be managed at CMH-K per discussion between provider and consultants?

No

Transfer to Adele Hall campus

Yes

Admit Platinum Team Inpatient consults for ID and Ortho