If patient is direct admit from Urgent Care, consult Orthopedics upon arrival to the inpatient unit.
### IV Antibiotic Table

<table>
<thead>
<tr>
<th>Patient Characteristics</th>
<th>Bacterial Targets</th>
<th>Drug</th>
<th>Dose</th>
<th>Max Single Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months - ≤ 4 years and medically stable</td>
<td><em>S. aureus</em>, <em>S. pyogenes</em> (GAS), <em>K. kingae</em></td>
<td>Clindamycin AND</td>
<td>13mg/kg IV q8h</td>
<td>900mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cefazolin</td>
<td>40mg/kg IV q8h</td>
<td>2000mg</td>
</tr>
<tr>
<td>6 months - ≤ 4 years and not fully immunized against H. influenzae or <em>S. pneumoniae</em></td>
<td><em>S. aureus</em>, <em>S. pyogenes</em> (GAS), <em>K. kingae</em>, <em>H. influenzae</em>, <em>S. pneumoniae</em></td>
<td>Clindamycin AND</td>
<td>13mg/kg IV q8h</td>
<td>900mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceftriaxone</td>
<td>75mg/kg IV q24h</td>
<td>2000mg</td>
</tr>
<tr>
<td>&gt; 6 months and ill appearing (Hemodynamically instability OR anticipated/existing need for intensive care)</td>
<td><em>S. aureus</em>, <em>S. pyogenes</em> (GAS), <em>K. kingae</em>, <em>H. influenzae</em>, <em>S. pneumoniae</em></td>
<td>Vancomycin AND</td>
<td>15mg/kg IV q6h</td>
<td>1000mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceftriaxone</td>
<td>75mg/kg IV q24h</td>
<td>2000mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider Clindamycin</td>
<td>13mg/kg IV q8h</td>
<td>900mg</td>
</tr>
<tr>
<td>&gt; 4 years old and medically stable</td>
<td><em>S. aureus</em>, <em>S. pyogenes</em> (GAS)</td>
<td>Clindamycin</td>
<td>13mg/kg IV q8h</td>
<td>900mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider Ceftriaxone</td>
<td>75mg/kg IV q24h</td>
<td>2000mg</td>
</tr>
</tbody>
</table>

1. Recommended vancomycin starting dose. Goal trough 10-15μg/mL. Pharmokinetic service will monitor trough levels and adjust accordingly.

2. Consider adding clindamycin empirically in critically ill patients while waiting for confirmation of therapeutic vancomycin level.

3. If not fully immunized against *H. influenzae* or *S. pneumoniae* OR concern for Lyme disease or Gonorrhea, add ceftriaxone.

### Suggested Antibiotics for PO Transition

<table>
<thead>
<tr>
<th>Bacterial Targets</th>
<th>Drug</th>
<th>Dose</th>
<th>Max Single Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSSA or <em>K. kingae</em></td>
<td>Cephalexin</td>
<td>40mg/kg/dose q8h</td>
<td>1000mg</td>
</tr>
<tr>
<td>MRSA</td>
<td>Clindamycin</td>
<td>13mg/kg/dose q8h</td>
<td>600mg</td>
</tr>
<tr>
<td><em>S. pyogenes</em> (GAS)</td>
<td>Amoxicillin</td>
<td>30mg/kg/dose q8h</td>
<td>1000mg</td>
</tr>
</tbody>
</table>
Osteomyelitis Non-Contrast MRI

1. **Inclusion Criteria**
   - Healthy inpatient age ≥ 2 years with high clinical suspicion for acute osteomyelitis in the upper or lower extremity who can easily perform a 15 minute non-sedate MRI.

2. **Exclusion Criteria**
   - Patient age < 2 years
   - Outpatients
   - Chronic symptoms (>2 weeks)
   - Exclusion sites: spine, chest, pelvis
   - History of sickle cell disease
   - History of immunodeficiency
   - History of JIA or other rheumatologic condition
   - History of prior osteomyelitis in same location
   - History of prior surgery in same location
   - Personal history of cancer, cancer predisposition syndromes, chemotherapy, radiation, bone marrow, or any other prior transplant
   - History of vascular anomaly in area of concern
   - Aggressive bone lesion/changes by plain film (incidental lesion like NOF is okay)

3. **Non Contrast MRI Requirements To Order**
   - Can only be ordered by orthopedics; orthopedics has progress note in Epic
   - Past medical history (PMH) available in Epic to confirm patient’s PMH would not preclude modified protocol
   - Plain film of site has been performed within 24 hours & available on PACS
   - CBC within past 24 hours
   - Specific site must be included in order (Ex: tibia – not lower extremity)

4. **Epic Order**
   - Site (femur, tibia, foot/ankle)
   - Plain films available
   - Only orthopedics can order

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**Patient presents with suspected acute osteomyelitis**

Consult Orthopedic Surgery

Patient meets criteria for MEL Non Contrast MRI

Once all requirements met, Orthopedics to place order for Non Contrast MRI

**Patient taken to MRI per time set by lead MRI technologist**

Potential complications include: Failed Study and/or Additional Sequences Needed. See Workflow Below

**Failed Study:** If patient fails MEL protocol because of need for sedation (or non-diagnostic images) or found not to meet criteria while in MRI, patient will be rescheduled by MRI technologist for standard osteomyelitis protocol as soon as possible.

- Timetable determined by lead MR technologist.
- Whether patient stays in MRI or returns to room in the interim determined by lead MR technologist.
- Order changed in Epic by MR techs to MRI without/with contrast
- Sedation team notified
- All failed studies documented on spreadsheet for age of patient, reasons for fail, ordering orthopedic attending, attending name if not on orthopedic service, time of day, location, and lead MRI tech

**Additional Sequences Needed:** If for treatment decisions, patient requires post contrast sequences after initial MEL study, additional sequences will be performed as soon as possible.

- Timetable determined by lead MR technologist.
- Whether patient stays in MRI or returns to room in the interim determined by lead MR technologist.
- Second MRI order to be placed by Orthopedic Physician.
- If additional sequences needed, initial non-contrast MRI will be dictated and completed separately.
- All studies requiring additional sequences will be documented on spreadsheet for age of patient, reasons for fail, ordering orthopedic attending, attending name if not on orthopedic service, time of day, location, and lead MRI tech

1. Inclusion Criteria
2. Exclusion Criteria
3. Non Contrast MRI Requirements To Order
4. Epic Order