

## Red Flags for Potential Serious Conditions in Patients with Knee, Leg, Ankle or Foot Problems

| <b>Medical Screening for the Knee, Leg, Ankle or Foot Region</b> |                                                                                                                                                                            |                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Condition</b>                                                 | <b>Red Flag<br/>Data obtained during<br/>Interview/History</b>                                                                                                             | <b>Red Flag<br/>Data obtained during<br/>Physical Exam</b>                                                                                                                                                                                                  |
| Fractures <sup>1-4</sup>                                         | History of recent trauma: crush injury, MVA, falls from heights, or sports injuries<br>Osteoporosis in the elderly                                                         | Joint effusion and hemarthrosis<br>Bruising, swelling, throbbing pain, and point tenderness over involved tissues<br>Unwillingness to bear weight on involved leg                                                                                           |
| Peripheral Arterial Occlusive Disease <sup>5-9</sup>             | Age > 55 years old<br>History of type II diabetes<br>History of ischemic heart disease<br>Smoking history<br>Sedentary lifestyle<br>Co-occurring intermittent claudication | Unilaterally cool extremity (may be bilateral if aorta is site of occlusion)<br>Prolonged capillary refill time (>2 sec)<br>Decreased pulses in arteries below the level of the occlusion<br>Prolonged vascular filling time<br>Ankle Brachial index < 0.90 |
| Deep Vein Thrombosis <sup>10,11,17</sup>                         | Recent surgery, malignancy, pregnancy, trauma, or leg immobilization                                                                                                       | Calf pain, edema, tenderness, warmth<br>Calf pain that is intensified with standing or walking and relieved by rest and elevation<br>Possible pallor and loss of dorsalis pedis pulse                                                                       |
| Compartment Syndrome <sup>12-14</sup>                            | History of blunt trauma, crush injury - or -<br>Recent participation in a rigorous, unaccustomed exercise or training activity                                             | Severe, persistent leg pain that is intensified with stretch applied to involved muscles<br>Swelling, exquisite tenderness and palpable tension/hardness of involved compartment<br>Paresthesia, paresis, and pulselessness                                 |
| Septic Arthritis <sup>15</sup>                                   | History of recent infection, surgery, or injection<br>Coexisting immunosuppressive disorder                                                                                | Constant aching and/or throbbing pain, joint swelling, tenderness, warmth<br>May have an elevated body temperature                                                                                                                                          |
| Cellulitis <sup>16</sup>                                         | History of recent skin ulceration or abrasion, venous insufficiency, CHF, or cirrhosis<br>History of diabetes mellitus                                                     | Pain, skin swelling, warmth and an advancing, irregular margin of erythema/reddish streaks<br>Fever, chills, malaise and weakness                                                                                                                           |

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