

## Red Flags for Potential Serious Conditions in Patients with Low Back Problems

| <b>Red Flags for the Low Back Region</b>                                                   |                                                                                                                                                                                                                                       |                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Condition</b>                                                                           | <b>Red Flag<br/>Data obtained during Interview/History</b>                                                                                                                                                                            | <b>Red Flag<br/>Data obtained during Physical Exam</b>                                                                                                                               |
| Back related tumor <sup>1,2</sup>                                                          | Age over 50<br>History of cancer<br>Unexplained weight loss<br>Failure of conservative therapy<br>Age over 50 of history of cancer or failure or conservative therapy                                                                 | Ambiguous presentation in early stages.<br>Constant pain not affected by position or activity; worse with weight-bearing, worse at night.<br>Neurological signs in lower extremities |
| Back related infection (Spinal osteomyelitis) <sup>3</sup>                                 | Recent infection (e.g., urinary tract or skin infection)<br>Intravenous drug user/abuser<br>Concurrent immunosuppressive disorder                                                                                                     | Deep constant pain, increases with weight bearing; may radiate<br>Fever, malaise, and swelling<br>Spine rigidity; accessory mobility may be limited                                  |
| Cauda equina syndrome <sup>1,4</sup>                                                       | Urine retention or incontinence<br>Fecal incontinence<br>Saddle anesthesia<br>Global or progressive weakness in the lower extremities                                                                                                 | Sensory deficits in the feet (L4, L5, S1 areas)<br>Ankle dorsiflexion, toe extension, and ankle plantarflexion weakness                                                              |
| Spinal fracture <sup>1,5</sup>                                                             | History of trauma (including minor falls or heavy lifts for osteoporotic or elderly individuals)<br>Prolonged use of steroids<br>Age over 70<br>Loss of function or mobility                                                          | Point tenderness over site of fracture<br>Exquisitely tender with palpation over fracture site<br>Increased pain with weight-bearing<br>Edema in local area                          |
| Abdominal aneurysm <sup>6,7</sup>                                                          | Back, abdominal, or groin pain<br>Presence of peripheral vascular disease or coronary artery disease & associated risk factors (>50, Smoker, HTN, DM)<br>Symptoms <b>not</b> related to movement stresses associated with somatic LBP | Abnormal width of aortic or iliac arterial pulses<br>Presence of a bruit in the central epigastric area upon auscultation                                                            |
| Kidney disorders <sup>8</sup><br>pyelonephritis<br>nephrolithiasis<br>renal cell carcinoma | Unilateral flank or low back pain<br>Difficulty with initiating urination, painful urination, or blood in the urine<br>Recent of coexisting urinary tract infection<br>Past episodes of kidney stone                                  | Positive fist percussion test over the kidney                                                                                                                                        |

### References:

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