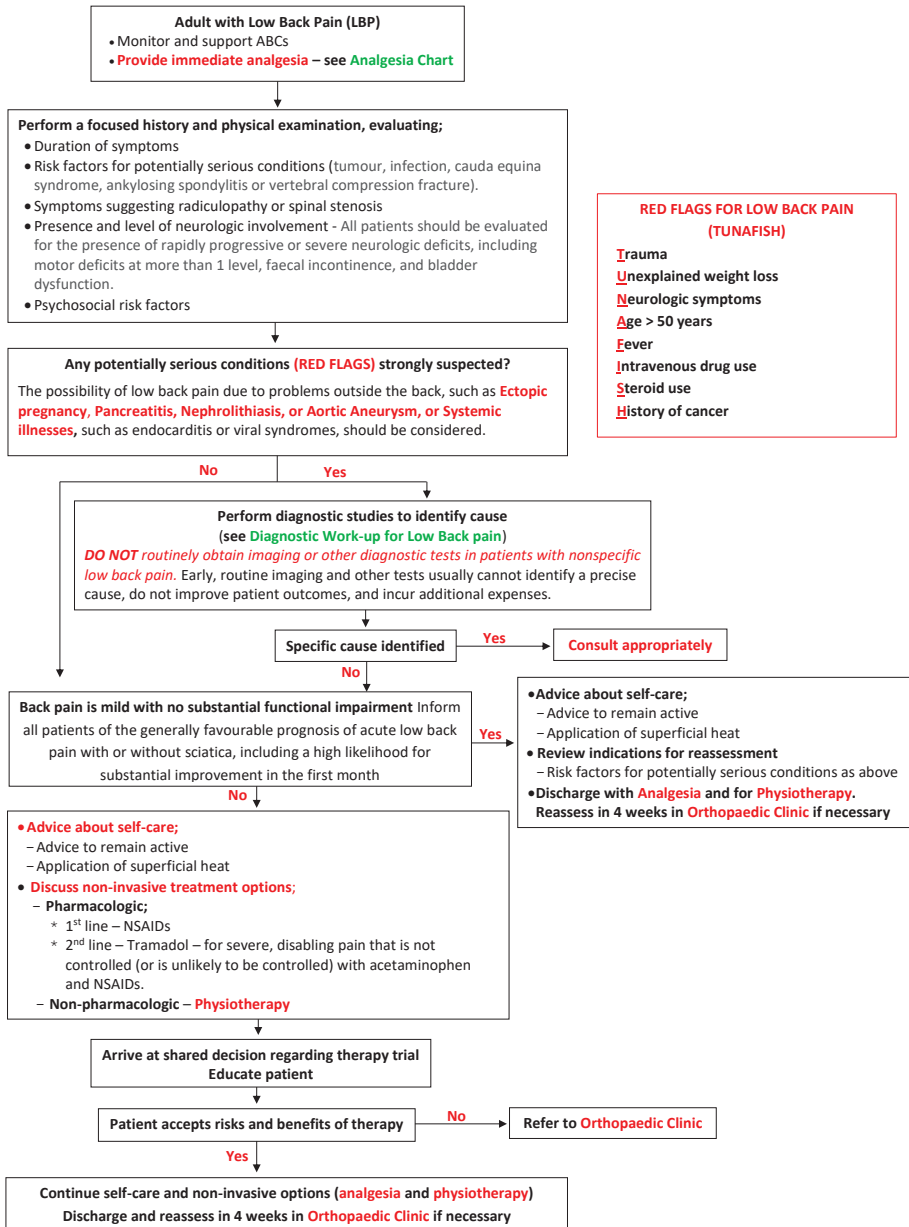


36. Low Back Pain Algorithm

This clinical pathway is intended to supplement, rather than substitute for, professional judgment and may be changed depending upon a patient's individual needs. Failure to comply with this pathway does not represent a breach of the standard of care.



Diagnostic Work-up for Low Back Pain

Possible cause	Key features on history or physical examination	Imaging*	Additional studies*
Cancer	History of cancer with new onset of LBP	MRI	ESR
	Unexplained weight loss Failure to improve after 1 month Age >50 years	Lumbosacral plain radiography	
	Multiple risk factors present	Plain radiography or MRI	
Vertebral infection	Fever Intravenous drug use Recent infection	MRI	ESR and/or CRP
Cauda equina syndrome	Urinary retention Motor deficits at multiple levels Fecal incontinence Saddle anesthesia	MRI	None
Vertebral compression fracture	History of osteoporosis Use of corticosteroids Older age	Lumbosacral plain radiography	None
Ankylosing spondylitis	Morning stiffness Improvement with exercise Alternating buttock pain Awakening due to back pain during the second part of the night Younger age	Anterior-posterior pelvis plain radiography	ESR and/or CRP, HLA-B27
Severe/ progressive neurologic deficits	Progressive motor weakness	MRI	Consider EMG/NCV
Herniated disc (Recommendation 4)	Back pain with leg pain in an L4, L5, or S1 nerve root distribution Positive straight-leg-raise test or crossed straight-leg-raise test	None	None
	Symptoms present >1 month	MRI	Consider EMG/NCV
Spinal stenosis (Recommendation 4)	Radiating leg pain Older age (Pseudoclaudication a weak predictor)	None	None
	Symptoms present >1 month	MRI	Consider EMG/NCV

*Level of evidence for diagnostic evaluation is variable.