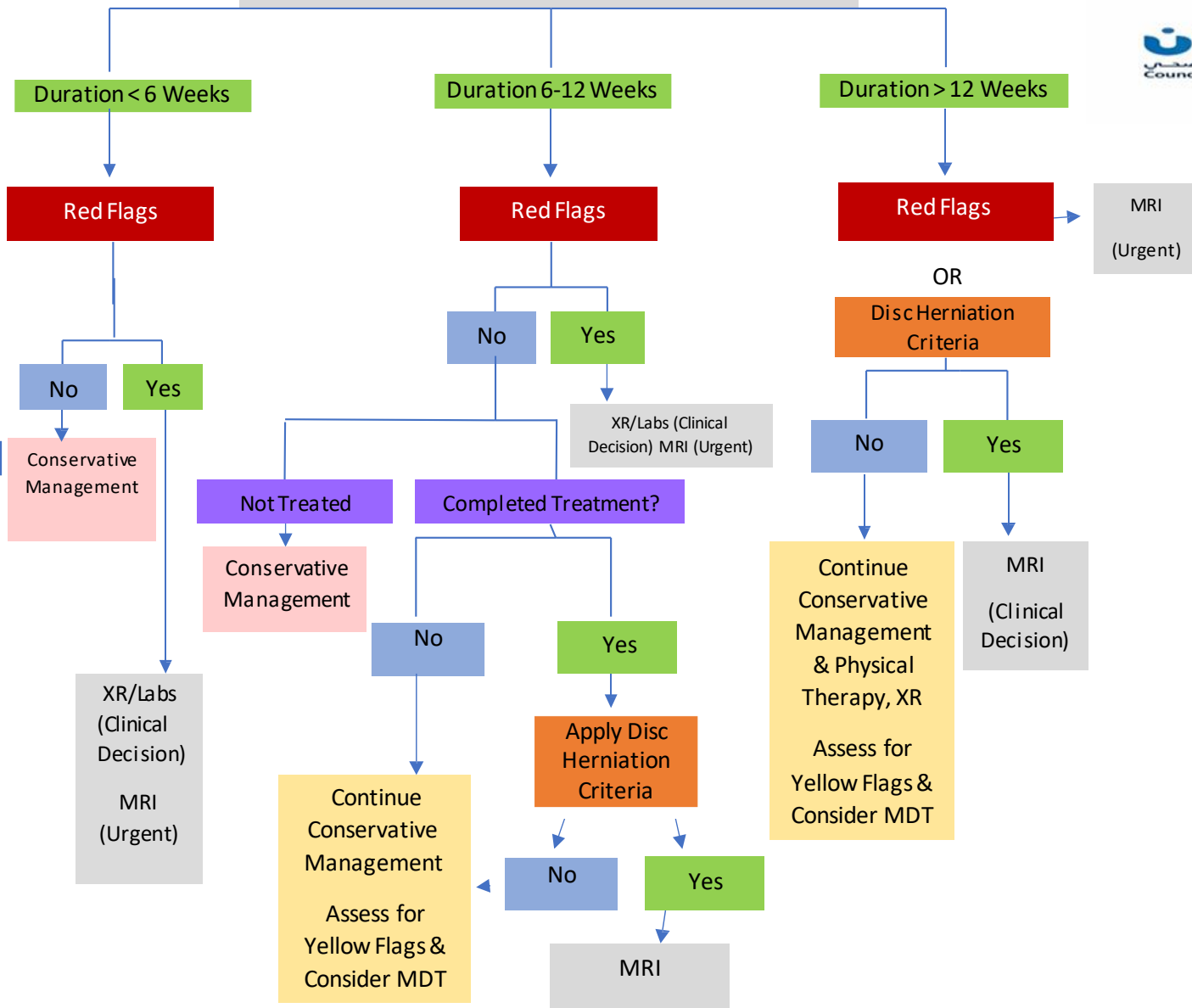


MRI indications for Low Back Pain



Conservative Management of Low Back Pain

- Reassure the patient that prognosis is often good, with most cases resolving with little intervention
- Advise the patient to stay active, avoiding bed rest as much as possible, and to resume normal activities as soon as possible
- Advise the patient to avoid twisting and bending
- Initiate trial of NSAID's and Paracetamol

Yellow Flags (Psychosocial Factors Shown to Be Indicative of Long-Term Chronicity and Disability)	Red Flags (Possible Indicators of Serious Spinal Pathology)
A Negative Attitude That Back Pain Is Harmful or Potentially Severely Disabling	Age of Onset > 50 Years
Fear Avoidance Behavior and Reduced Activity Level	Unrelenting night pain, or pain at rest
An Expectation That Passive, Rather Than Active, Treatment Will Be Beneficial	Fever and Unexplained Weight Loss
A Tendency to Depression, Low Morale, And Social Withdrawal	Bladder or Bowel Dysfunction
Social or Financial Problems	History of Carcinoma
	Severe Osteoporosis, Significant Trauma /Fracture/prolonged steroid use
	Infection, IV drug use, immunosuppressants
	Progressive Neurological Deficit
	Distributed Gait, Saddle Anesthesia
	Previous Spinal Surgery with Worsening Of Neurological Signs/Symptoms

Disc Herniation Criteria (All 3 Must Be Present):

- Leg pain is > than Back pain
- Pain along nerve root distribution/dermatomes
- Positive straight leg raising test <45° OR Positive crossed straight leg raising test OR Motor weakness or sensory loss in a radicular distribution OR EMG/NCS consistent with radiculopathy.

LBP MRI Guidelines: Assessment Tools

Red flags & investigations to consider

Symptoms	Investigation
Neurological: diffuse motor/sensory loss, progressive neurological deficits, cauda equina syndrome	Urgent MRI indicated
Infection: fever, IV drug use, immune suppressed	X-ray and MRI CBC, ESR, CRP
Fracture: trauma, osteoporosis risk/fragility fracture	X-ray and may require CT scan
Tumor: history of cancer, unexplained weight loss, significant unexpected night pain, severe fatigue	X-ray and MRI Referral to Oncology for cytology
Inflammation: chronic low back pain > 3 months, age of onset < 45, morning stiffness > 30 minutes, pain improve with exercise.	Rheumatology Consultation, ANA, RF, CBC, CRP, ESR

Resources

- 1- Bury, Martin Army Community Hospital, Fort Benning, Georgia, Am Fam Physician. 2018 Oct 1;98(7):421-428, <https://www.aafp.org/afp/2018/1001/p421.html>
- 2- American College of Radiology ACR Appropriateness Criteria® Low Back Pain <https://acsearch.acr.org/docs/69483/Narrative/>
- 3 Diagnosis and Treatment of Acute Low Back Pain <https://www.aafp.org/afp/2012/0215/p343.html>
- 4 Mai, Volume 10, Issue 4, December 2020, Pages 269 – 275 , <https://www.atlantis-press.com/journals/iegh/125938834/view>
- 5 Marks, August 2020, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3414626/>
- 6 NINDS, 2020-04-27, How back pain treated, <https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Low-Back-Pain-Fact-Sheet> 7- Daniel, 2020 , red flags and yellow flags, <https://radiopaedia.org/articles/red-and-yellow-flags-for-guiding-imaging-of-lower-back-pain>