I. Acute cervical pain (onset within the past 6 weeks) (*MRI without contrast unless otherwise specified*)

Not appropriate: uncomplicated acute cervical pain (<6 weeks) with or without suspected radiculopathy (no red flags) does not warrant the use of MRI. Radicular symptoms alone, in the absence of objective neurological signs, do not normally indicate a need for an MRI within an early time period.

- ☐ Any new objective neurological signs, either:
  - ☐ Clear cut signs (sensory loss, motor weakness, abnormal reflexes) in a radicular pattern
  - ☐ Evidence of neurologic signs or symptoms suggestive of spinal cord involvement (e.g. bilateral numbness, weakness, or reflex changes in arms)
- ☐ Progressive neurological deficit
- ☐ Evidence of spinal instability or spinal fracture on any other imaging test
- ☐ History of significant trauma, including:
  - ☐ Cranial trauma,
  - ☐ Significant whiplash following high speed impact,
  - ☐ Significant fall
- ☐ Patient not evaluable for 48 hours and suspected cervical trauma
- ☐ Suspicion or objective evidence of (*MRI with or without contrast*):
  - ☐ Malignancy
  - ☐ Infection
  - ☐ Immunosupression
  - ☐ Bone disc margin destruction on plain radiographs

II. Subacute cervical pain (>6 weeks) and no prior MRI for the same episode of cervical pain

- ☐ Any neurological signs or symptoms
- ☐ Prior neck surgery and significant new neurological signs or symptoms
- ☐ Evidence of spinal instability or spinal fracture on any other imaging test
- ☐ Complex congenital anomaly or deformity of the spine
- ☐ Evidence of substantial spinal canal stenosis on other imaging tests[1]

III. Chronic or recurrent cervical pain (>3 months) and prior MRI done for the same episode of cervical pain

- ☐ Significant objective worsening of neurological status by physical exam or electrodiagnostic testing
- ☐ Patient is considered a candidate for cervical spine surgery and either:
  - ☐ Progressive changes in objective neurological findings
  - ☐ At least one year since last cervical MRI (without objective change in neurological signs)
- ☐ Prior cervical spine surgery and either:
  - ☐ New or worsening significant objective neurological findings
  - ☐ Other imaging or clinical findings suggest new adverse effects of surgery

IV. Suspect Cervical Multiple Sclerosis (MS)

☐ Suspicion of cervical MS with objective evidence of neurological signs and symptoms in time and space or definite/probably MS with new onset neurological deficit referable to the cervical spinal cord

References

American College of Radiology (2008). ACR appropriateness criteria: chronic neck pain. Available at: https://www.acr.org/Clinical-Resources/ACR-Appropriateness-Criteria

American College of Radiology (2009). ACR appropriateness criteria: suspected spine trauma. Available at: https://www.acr.org/Clinical-Resources/ACR-Appropriateness-Criteria

Bussieres AE, Peterson C, Taylor JAM. Diagnostic imaging guideline for musculoskeletal complaints in adults- an evidence-based approach—part 3: spinal disorders. J Manipulative Physiol Ther 2008; 31: 33-87.