

SP 27.0 Ordering Advanced Diagnostic Imaging Studies

Approved by Council February 2007
Effective March 1, 2007

Purpose and Objective

To identify when ordering advanced imaging procedures is appropriate and facilitate in making an accurate and timely diagnosis. This will enable the chiropractor to acquire information for the appropriate management of the investigated complaint.

Description of Standard**Overview**

Advanced imaging procedures such as computed tomography (CT), computed tomography with myelography (CT-myelo.), magnetic resonance (MR) imaging, and radionuclide bone scans are occasionally required in chiropractic patients in addition to conventional radiographs.

Advanced imaging should be obtained in patients with a history, examination, or prior tests that strongly suggest a serious condition such as persistent neurologic deficit (e.g. cauda equine) syndrome, infection, cancer or tumor. In addition, these tests should be reserved for patients that fail to respond to a trial of conservative care.

Degree of Skill

Familiarity with the following areas is essential:

- the science, principles and objectives of advanced imaging studies
- the indications of advanced imaging studies,
- contraindications,
- biological effects,
- limitations and hazard, and
- an introduction to interpretation

Obtaining advanced imaging in patients with sciatica arising from disc herniation or spinal stenosis is generally unnecessary unless the patient fails to respond to a trial of four weeks of conservative care. Lack of correlation between symptoms and imaging findings (poor specificity) reduces the value of imaging, especially in low back pain patients.

The following table outlines some indications for advanced imaging procedures. It should be emphasized however, that some clinical scenarios may not be included in this table, and that imaging decisions may need to be determined on a case-by-case basis.

TABLE: Clinical and radiographic indications for advanced imaging in chiropractic patients

Clinical or Radiographic Indication	Imaging Modality			
	MR	CT	CT-myelo	Bone Scan
A. Spine				
Evaluation of neoplasms detected on radiographs	++	+	+	
Determining skeletal distribution of neoplasms or other multifocal skeletal diseases				++
Clinical or laboratory tests suggesting plasma cell myeloma	++			
Myelopathy	++			
Cauda equina syndrome	++		+	



Lumbar radiculopathy with positive straight leg raise test, abnormal reflex, dermatome, or myotome not responding to 4 weeks of conservative care	++			
Cervical radiculopathy with positive neurologic signs not responding to 4 weeks of conservative care	++			
Myelopathy or radiculopathy (as above) when MR is contraindicated		+	++	
Infectious spondylodiscitis	++	+		+
Neural tumors and multiple sclerosis	++			
Post-operative evaluation of arthrodesis		+		
Post-operative evaluation of recurrent disc herniation vs. fibrosis	++ GAD			
Burst fracture or other unstable fractures	+	++		
Suspected occult fracture	+	+		++
Complicated disease processes or findings unexplained by more conservative tests	+	+		

B. Extremities	MR	CT	Bone Scan
Evaluation of neoplasms detected on radiographs	++	+	
Determining skeletal distribution of neoplasms or other multifocal skeletal diseases			++
Internal joint derangements	++		
Osteomyelitis	++	+	+
Osteonecrosis	++		+
Complicated fractures		++	
Suspected occult fracture	+	+	++
Complicated disease processes or findings unexplained by more conservative tests	+	+	

++ first choice; + second choice (must be determined on a case-by-case basis)
GAD, MR imaging obtained with and without gadolinium injection

Enforceability

Any member identified to the Complaints Director as non-compliant in the Standard of Practice related to ordering advanced diagnostic imaging studies will be subject to the investigations and complaints process under Part 4 of the *Health Professions Act*. Identification of noncompliance may occur as a result of Practice Visit process, patient complaint or any other means by which this information may be brought to the attention of the Complaints Director.

