

Evidence Discussion (HD-16.1 - HD-16.4)

EviCore
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Multiple Sclerosis (MS) and Related Conditions

- Magnetic resonance imaging (MRI) is the recommended imaging modality for the diagnosis and monitoring of multiple sclerosis (MS) and other inflammatory diseases of the central nervous system (CNS). Its high sensitivity for the evaluation of inflammatory and neurodegenerative processes in the brain and spinal cord has made it the gold standard for the evaluation of patients with MS.^{4,6}
- Computed Tomography Scan (CT) is not recommended for the evaluation of MS due to inferior soft tissue resolution when compared to MRI.^{1,2,3}
- MRI plays an important role in the following clinical scenarios:
 - establishing the diagnosis of multiple sclerosis (MS) by establishing evidence for dissemination in space and time.^{4,6}
 - diagnostic workup. Approximately 50-90% of patients with MS have spinal cord lesions.⁴
 - detecting optic nerve abnormalities in patients with symptoms concerning for optic neuritis.^{3,6}
 - assessment of treatment response and in monitoring for potential treatment related safety concerns. Management and surveillance intervals are primarily consensus based and have been addressed in several evidence and practice based guidelines.^{4,6}
 - evaluation of other central nervous system (CNS) inflammatory diseases, including autoimmune disseminated encephalomyelitis (ADEM), neuromyelitis optica (NMO), myelin oligodendrocyte glycoprotein antibody-associated disease (MOGAD) and transverse myelitis (TM).^{2,5,8,9}
 - detecting conus medullaris involvement in patients with myelin oligodendrocyte glycoprotein-associated disease (MOGAD) and transverse myelitis.^{2,8,9}

References

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