BlueCross BlueShield of Vermont

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Whole Body MRI
Corporate Medical Policy

File Name: Whole Body MRI
File Code: 6.01.VT201
Origination: 11/15/2018
Last Review: 01/2025
Next Review: 01/2026
Effective Date: 04/01/2025

Description/Summary

Whole-body MRI (WBMRI) has been suggested as an imaging method for both cancer screening and staging and in the area of certain autoimmune disease states. Several studies have demonstrated the ability to detect cancers using WBMRI, but only a small percentage of the cancers are detected using WBMRI alone. The false positive rates are extremely variable and range up to 87%. A recent meta-analysis reported that 31% of 578 screened Li Fraumeni Syndrome patients had investigable lesions but only 7% of patients were subsequently diagnosed with a new malignant neoplasm. False negatives also occur with WBMRI, most frequently in the brain, but also include tumors such as osteosarcoma and adrenocortical carcinoma. This is felt to be primarily due to the limited images used for WBMRI approaches. Substantial variation continues to exist in WBMRI techniques, with lack of consensus around even such basic principles as which anatomic views to use (coronal, sagittal, and/or axial) and whether contrast is important. At this time, the evidence remains too contradictory to support WBMRI as a standard of care for screening of patients outside the clinical trial setting.

WBMRI does have a role in certain circumstances in the diagnosis, follow-up and surveillance of Multiple Myeloma.

Policy

Coding Information

Click the links below for attachments, coding tables & instructions.
Attachment I

When a service may be considered medically necessary

The Plan considers Whole-Body MRI **medically necessary** for the following:

In the Diagnostic Workup and Follow-up/Surveillance of Multiple Myeloma:

- In initial diagnostic workup of Multiple Myeloma, to discern smoldering myeloma from multiple myeloma when whole-body low-dose CT or FDG PET/CT is negative.
- In initial diagnostic workup of Solitary Osseous Plasmacytoma.
- In follow-up/surveillance of Multiple Myeloma.
- In follow-up/surveillance of Smoldering Myeloma.

When a service is considered investigational

Autoimmune disease:

WBMRI has been shown to increase the number of detected lesions in chronic multifocal osteomyelitis and other inflammatory arthridities, but no improvement in outcomes from the use of WBMRI has yet been shown. WBMRI use in evaluating autoimmune disease is considered investigational.

Cancer screening:

WBMRI has not been shown to improve outcomes for cancer screening for any group of patients, including Li-Fraumeni Syndrome. The primary reference cited by providers to support requests for WBMRI in LFS is Villani et al, Lancet Oncol 2011. In this study, the overall screening program was feasible and successful. However, the WBMRI component only detected a single malignancy, which was concurrently detectable on clinical examination. This article does not provide sufficient scientific rationale to justify WBMRI use in Li-Fraumeni patients. WBMRI use in cancer screening is considered **investigational**.

Whole-body MRI is considered **investigational** for all other indications, including, but not limited to, screening asymptomatic patients.

Reference Resources

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2. Villani A, Shore A, Wasserman JD, et al. Biochemical and imaging surveillance in germline TP53 mutation carriers with Li-Fraumeni syndrome: 11 year follow-up of a prospective observational study. Lancet Oncol. 2016 September;17(9):1295-1305. Accessed January 2, 2018. https://www.sciencedirect.com/science/article/pii/S1470204516302492.
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4. Ruijs MWG, Loo CE, van Buchem CAJM, et al. Surveillance of Dutch patients with Li-Fraumeni Syndrome: the life-guard study. JAMA Oncol. 2017 December;3(12):1733-1734. Accessed January 2, 2018. https://jamanetwork.com/journals/jamaoncology/article-abstract/2646794.
5. Mai PL, Khincha PP, Loud JT, et al. Prevalence of Cancer at Baseline screening in the National Cancer Institute Li-Fraumeni Syndrome Cohort. JAMA Oncol. 2017 December;3(12):1640-1645. Accessed January 2, 2018. https://jamanetwork.com/journals/jamaoncology/article-abstract/2646797?redirect=true

6. Kratz CP, Achatz MI, Brugiéres L, et al. Cancer screening recommendations for individuals with Li-Fraumeni Syndrome. Clin Cancer Res. 2017 June;23(11):e38-e45. Accessed January 2, 2018. https://www.medscape.com/medline/abstract/28572266.
7. Greer MC, Voss SD, and States LJ. Pediatric cancer predisposition imaging: focus on whole-body MRI. Clin Cancer Res. 2017 November;23(11):e6-e13. Accessed January 2, 2018. https://www.medscape.com/medline/abstract/28572262.
8. National Comprehensive Clinical Practice Guidelines in Oncology: Multiple Myeloma. Version 2.2020- October 9/2019. Accessed January 2023. https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf
9. National Comprehensive Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic. Version 1.2020- December 4,2019. Accessed January 2020.
10. Carelon Medical Benefits Management clinical appropriateness guidelines and cancer treatment pathways. Oncologic Imaging 2023-04-09. Effective 4/09/2023. Last reviewed 5/09/2022.
11. Messiou C, Hillengass J, Delorme S, et al. Guidelines for acquisition, interpretation, and reporting of whole-body MRI in myeloma: myeloma response assessment and diagnosis system (MY-RADS) Radiology. 2019;291:5–13. doi: 10.1148/radiol.2019181949.
12. Chantry A, Kazmi M, Barrington S, et al. Guidelines for the use of imaging in the management of patients with myeloma. Br J Haematol. 2017;178(3):380–393. doi: 10.1111/bjh.14827. 2017.

Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language, or employer's benefit plan if an ASO group, determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract/employer benefit plan language, the member's contract/employer benefit plan language takes precedence.

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup all non-compliant payments.

Administrative and Contractual Guidance

Benefit Determination Guidance

Prior approval is required and benefits are subject to all terms, limitations and conditions of the subscriber contract.

NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member's health plan

Federal Employee Program (FEP): Members may have different benefits that apply. For further information please contact FEP customer service or refer to the FEP Service Benefit Plan Brochure. It is important to verify the member's benefits prior to providing the service to determine if benefits are available or if there is a specific exclusion in the member's benefit.

Coverage varies according to the member's group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through an Administrative Services Only (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member's employer benefit plan documents or contact the customer service department. Language in the employer benefit plan documents takes precedence over medical policy when there is a conflict.

Policy Implementation/Update information

11/2018	New Policy- Code 76498 considered Investigational in all instances.
01/2020	Policy Reviewed. References Reviewed. Updated policy language and the unlisted code will suspend for medical review. Policy updated to allow for Multiple Myeloma indications.
02/2021	Policy Reviewed. References reviewed. No change to policy statement.
01/2022	Policy Reviewed. No change to policy statement.
01/2023	Policy reviewed; references updated no changes to policy statement.
01/2024	Policy reviewed; references updated no changes to policy statement.
01/2025	Coding table revised; code 76498 will no longer suspend for medical review and will require prior approval.

Eligible providers

Qualified healthcare professionals practicing within the scope of their license(s).

Approved by BCBSVT Medical Directors

Tom Weigel, MD, MBA
Vice President and Chief Medical Officer

Tammaji P. Kulkarni, MD
Senior Medical Director

Attachment I

The following code Requires Prior Approval			
CPT®	76498	Unlisted magnetic resonance procedure (e.g. diagnostic, interventional)	Requires Prior Approval