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## Diagnosis and Management of Idiopathic Environmental Illness/Intolerance (IEI) (i.e., Multiple Chemical Sensitivities) Corporate Medical Policy

File Name: Diagnosis and Management of Idiopathic Environmental Illness/Intolerance (IEI) (ie, Multiple Chemical Sensitivities)  
File Code: 2.01.VT01  
Origination: 06/2016  
Last Review: 04/2023  
Next Review: 04/2024  
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### Description/Summary

Idiopathic environmental illness/intolerance (IEI) (also known as multiple chemical sensitivities or clinical ecology) is typically characterized by recurrent, nonspecific symptoms that either a patient or clinician believes are provoked by low levels of exposure to chemical, biologic, or physical agents. Reported symptoms are wide-ranging and there are no clearly established diagnostic criteria. Various tests (e.g., nutritional assessment) and treatments (e.g., immunoglobulin therapy [IVIg]) have been proposed.

There is a lack of clear diagnostic criteria for idiopathic environmental intolerance and a lack of evidence on the diagnostic accuracy of laboratory or other tests for this condition. Overall, studies using existing criteria have not found that individuals diagnosed with the condition can reliably distinguish between chemical exposure and placebo. Moreover, studies have not consistently found that low-level electromagnetic field exposure affects objective outcomes (e.g., heart rate or cognitive function). In addition, there is a lack of controlled studies to evaluate treatments for idiopathic environmental intolerance. Thus, all tests and treatments for this condition are considered investigational.

### Policy

#### Coding Information

There are no specific procedure codes for testing or treatment of idiopathic environmental illness (IEI). A wide variety of codes could be used.

#### When a service is considered investigational

Laboratory tests designed to affirm the diagnosis of idiopathic environmental illness are considered **investigational**.

Treatment of idiopathic environmental illness/intolerance, including but not limited to intravenous immune globulin (IVIg), avoidance therapy, elimination diets, neutralizing therapy of chemical and food extracts, and oral nystatin (to treat "candidiasis hypersensitivity syndrome") is considered **investigational**.

## Policy Guidelines

Laboratory tests for the diagnosis of idiopathic environmental illness/intolerance may be broadly subdivided into those intended to rule out specific diseases with well-defined presentations and diagnostic criteria and those tests designed to affirm the diagnosis of idiopathic environmental illness/intolerance. For example, a basic diagnostic workup, including a complete blood count, standard panel of chemistry tests, and basic urinalysis (with micro, if indicated) would be considered appropriate as an initial diagnostic step, even in patients with nonspecific symptoms, to rule out well-defined illnesses. Additional tests may be considered medically necessary in patients with more specific symptoms suggestive, for example, of an autoimmune connective tissue disease or infectious mononucleosis. A variety of psychiatric or psychologic assessments may be performed to assess underlying conditions. However, at the present time, no specific tests can confirm the diagnosis of idiopathic environmental intolerance; therefore, a large battery of tests performed for a patient with nonspecific symptoms must be reviewed carefully for medical necessity. For example, the following should be reviewed closely, particularly when ordered simultaneously: laboratory tests of immune function (e.g., lymphocyte transformation, deregulation of the 2,5A RNase L antiviral pathway), lymphocyte subsets (e.g., natural killer cells, CD4, CD8), immunoglobulin levels (e.g., IgG, IgE), levels of trace minerals in the serum or urine (e.g., selenium, manganese, mercury), antibodies for a variety of infectious agents simultaneously, allergy services (including provocation testing), positron emission tomography scans, or neuropsychologic testing and elaborate nutritional assessment, including intracellular micronutrient assays.

In addition, such treatments as IVIG therapy, provocation therapy, or counseling regarding specific avoidance environments or elimination diets would be considered investigational in the absence of specific symptoms.

## Reference Resources

1. Blue Cross and Blue Shield Association Medical Policy Reference Manual: 2.01.01 - Diagnosis and Management of Idiopathic Environmental Intolerance (Archived 5/2015). Accessed 3/2003.
2. UpToDate® Idiopathic environmental intolerance (multiple chemical sensitivity). Literature review current through 5/2022. Accessed 6/2022.
3. Aaron LA, Buchwald D. A review of the evidence for overlap among unexplained clinical conditions. *Ann Intern Med.* 2001; 134(9 Pt 2):868-881.
4. Anderson JA, et al. Position statement on candidiasis hypersensitivity. *Journal of Allergy and Clinical Immunology.* 1986;78:271-273.

5. Bailer J, Witthoft M, Paul C, et al. Evidence for overlap between idiopathic environmental intolerance and somatoform disorders. *Psychosom Med*. 2005; 67(6):921-929.
6. Barsky AJ, Borus JF. Functional somatic syndromes. *Ann Intern Med*. 1999; 130(11):910-921.
7. Dismukes W, et al. A randomized double-blind trial of nystatin therapy for the candidiasis hypersensitivity syndrome. *N Engl J Med*. 1990; 323:1717-1723.
8. Graveling RA, Pilkington A, George JP, et al. A review of multiple chemical sensitivity. *Occup Environ Med*. 1999; 56(2):73-85.
9. Tran MT, Skovbjerg S, Arendt-Nielsen L, et al. Transcranial pulsed electromagnetic fields for multiple chemical sensitivity: study protocol for a randomized, double-blind, placebo-controlled trial. *Trials*. 2013; Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3765111/pdf/1745-6215-14-256.pdf>. Accessed on February 25, 2015.

### Related Policies

Nutrient/Nutritional Panel Testing & Intracellular Micronutrient Analysis  
Selected Blood, Serum and Cellular Allergy and Toxicity Tests

### 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

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

06/2016	New Policy
03/2017	Policy reviewed, no changes in policy statement.
05/2018	Policy reviewed, no changes in policy statement.
06/2018	Policy statement added: Treatment of idiopathic environmental illness/intolerance, including by not limited to intravenous immune globulin (IVIG), avoidance therapy, elimination diets, neutralizing therapy of chemical and food extracts, and oral nystatin (to treat "candidiasis hypersensitivity syndrome") is considered <b>investigational</b> . Updated references.
6/2019	Policy reviewed, no changes in policy statement. Updated references and updated policy guidelines section to affirm the diagnosis of idiopathic environmental/illness section.
6/2021	Policy reviewed. Reference updated. No change to policy statement.
6/2022	Policy reviewed. Minor formatting changes. No change to policy statement.
4/2023	Policy reviewed. Minor grammatical/formatting changes. No change to policy statement.

### Eligible providers

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

Approved by BCBSVT Medical Director(s)

Date Approved

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