

The Department of Vermont Health Access Clinical Criteria

Subject: Cystic Fibrosis Genetic Testing

Last Review: January 31, 2022*

Past Revisions: January 28, 2020, May 10, 2016, June 15, 2015, and July 6, 2017

***Please note: Most current content changes will be highlighted in yellow.**

Description of Service or Procedure

Cystic fibrosis (CF) is an autosomal recessive disorder (i.e. an individual must inherit a copy of a genetic variant from each parent to have the disease). If an individual inherits only one copy, she will not inherit the actual disease but will be a carrier and could pass the disease to her children. If both parents carry the defective gene for CF, there is a 25% chance of producing a child with CF, a 50% chance the child will carry the CF gene but not have CF and a 25% chance the child will not carry the gene and not have CF. Approximately 70,000 individuals are affected by CF worldwide.

The CF gene test uses a blood sample or cells from inside the cheek for DNA analysis to identify the presence of a genetically altered cystic fibrosis transmembrane conductance regulator gene.

Prevalence of CF varies by ethnicity with Caucasians having the highest rates of about 1 in every 3,000 births.

Newborn screening for CF is done in the first 2 or 3 days after birth. If screening is positive, a sweat test is performed to confirm the diagnosis.

The severity of clinical symptoms that may occur in individuals with CF cannot be definitively predicted on cystic fibrosis transmembrane conductance regulator gene variant testing alone.

Genetic testing for CF is not available for the general public.

Disclaimer

Coverage is limited to that outlined in Medicaid Rule or Health Care Administrative Rules that pertains to the beneficiary's aid category. Prior Authorization (PA) is only valid if the beneficiary is eligible for the applicable item or service on the date of service.



Medicaid Rule

Medicaid and Health Care Administrative Rules can be found at <https://humanservices.vermont.gov/rules-policies/health-care-rules/health-care-administrative-rules-hcar/adopted-rules>

7102.2	Prior Authorization Determination
4.101	Medical Necessity for Covered Services
4.104	Medicaid Non-Covered Services
7405	Laboratory and Radiology Services

Coverage Position

Cystic fibrosis testing may be covered for beneficiaries:

- When the CF gene test is prescribed by a licensed medical provider, enrolled in the Vermont Medicaid program, operating within their scope of practice as described on the Vermont Office of Professional Regulation's website*, who is knowledgeable regarding the CF gene test, and who provides medical care to the beneficiary AND
- When the clinical criteria below are met.

* Vermont's Office of Professional Regulation's website: <https://sos.vermont.gov/opr/>

Coverage Criteria

Cystic fibrosis testing may be covered for beneficiaries who:

1. Have clinical symptoms characteristic of CF (pancreatic insufficiency, lung function abnormalities and high sweat chloride test)
2. Have a family history of CF
3. Are couples planning a pregnancy and wish to know if either is a CF carrier
4. Are reproductive partners of persons with CF
5. Desire a prenatal diagnosis to identify a fetus or embryo with CF for purposes of post-delivery care of the newborn.

Considerations: Providers requesting this test should provide pre- and post-test genetic counseling for the beneficiary and family, if applicable.

Early and Periodic Screening, Diagnostic and Treatment (EPSDT): Vermont Medicaid will provide comprehensive services and furnish all Medicaid coverable, appropriate, and medically necessary services needed to correct and ameliorate health conditions for Medicaid members under age 21.

Please note, Vermont Medicaid Clinical Criteria is reviewed based on available literature, evidence-based guidelines/standards, Medicaid rule and policy, and Medicare coverage determinations that may be appropriate to incorporate when applicable.

Clinical criteria for repeat service or procedure

Repeat testing can be performed if the initial results are inconclusive or ambiguous.

Type of service or procedure covered

Cystic fibrosis testing for the general public is not covered.

References

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