**LETTER OF MEDICAL NECESSITY FOR**

**FAMILIAL CHYLOMICRONEMIA GENETIC TESTING**

Date: Date of Service/claim

To: Utilization Review Department

Insurance Company Name, Address, City, State

Re: Patient Name, DOB, ID #

ICD-10 Codes:

The ICD-10 codes listed below are commonly received by Ambry from ordering providers for the testing described in this letter. Ambry provides this information as a customer service but makes no recommendations regarding the use of any diagnosis codes. As a reminder, it is the ordering provider’s responsibility to always determine, for the specific date of service, the appropriate diagnostic codes based on the patient’s signs and symptoms.

Code Description

E78.0  PURE HYPERCHOLESTEROLEMIA

E78.1  PURE HYPERGLYCERIDEMIA

E78.01  FAMILIAL HYPERCHOLESTEROLEMIA

Z83.438  FAMILY HISTORY OF OTHER DISORDER OF LIPOPROTEIN METABOLISM & OTHER LIPIDEMIA

This letter is regarding my patient and your subscriber, referenced above, to request full coverage of medically indicated genetic testing for **familial chylomicronemia syndrome (FCS)** to be performed by Ambry Genetics Corporation.

Familial chylomicronemia syndrome (FCS) is an autosomal recessive disorder that is characterized by extremely elevated triglycerides, recurrent acute pancreatitis, and eruptive xanthomas.1-4 FCS may be mis-diagnosed or underdiagnosed, as elevated triglycerides can have different causes.   Some individuals with FCS present in childhood, while others are not identified until adulthood.

The genetic etiology of FCS is established and is mostly associated with mutations in genes involved in the hydrolysis of chylomicrons and VLDL-containing triglycerides.  **Significant aspects of my patient’s personal and/or family medical history that suggest FCS include:** [check all that apply]

* Recurrent acute pancreatitis
* Very elevated blood triglyceride levels (>10mmol/L or 886 mg/dL for 3 consecutive blood analyses, or >20mmol/L or 1772 mg/dL at least once)
* No response to hypolipidemic treatment
* Chylomicron accumulation in blood
* Eruptive xanthomas
* Severe abdominal pain
* Lipemia retinalis
* Hepatosplenomegaly
* Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The clinical utility of genetic testing for FCS has been recognized and is supported as standard of care**.1,7,8,9**A positive result on this genetic testing would provide a definitive cause for this patient’s FCS and could impact medical management, screening, and prevention of potential complications of this disease.**2, 4,5,6,9Examples of this include:

* Recommending lifelong very low fat diet
* Recommending use of medium-chain triglycerides in cooking
* Individuals with FCS-causing mutations need to avoid agents known to increase endogenous triglyceride and/or chylomicron concentration, such as oral estrogens, diuretics, glucocorticoids, SSRIs, beta-blockers, alcohol, and fish-oil supplements.2
* Typical lipid-lowering drugs, such fibrates, statins, and niacin, are not as effective in FCS2,5; a molecular diagnosis would avoid using these as first-line pharmacotherapy and alternative combination therapy may be recommended.5
* Individuals with a molecular FCS diagnosis may be eligible for alternative therapies (such as ApoC-III inhibitors).5,6
* Patients with FCS should be monitored closely for pancreatitis and the development of complications from acute events.2

Specifically for this patient, the results of the genetic test are necessary to consider in the following areas: [check all that apply]

* Genetic testing could allow immediate management and treatment to anticipate and control common clinical findings based on the results of the testing
* Genetic testing could inform lifestyle modifications for the patient
* Genetic testing could assist in long-term management and monitoring of suspected disease progression based on the results of the testing
* Genetic testing will lead to changes in diagnostic procedures such that more potentially invasive alternative procedures could be avoided, reducing unnecessary tests and cost
* Genetic testing will lead to informed decisions for other family members with similar conditions, or that may be at risk for similar conditions
* Genetic testing could alleviate the need for long-term clinical surveillance in individuals who test negative for any disease-causing variants found in my patient
* Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Due to the risks associated with these mutations and the interventions available to reduce these risks, **I am requesting coverage for this testing as medically necessary care and affirm that my patient has provided informed consent for genetic testing.** I recommend that you support this request for coverage of diagnostic genetic testing for familial chylomicronemia syndrome in my patient.

Thank you for your time and please don’t hesitate to contact me with any questions.

Sincerely,

Ordering Clinician Name (Signature Provided on Test Requisition Form)

(MD/DO, Clinical Nurse Specialist, Nurse-Midwives, Nurse Practitioner, Physician Assistant, Genetic Counselor\*)

\*Authorized clinician requirements vary by state

**Test Details**

Test Name: FCSNext

CPT codes: 81479

Laboratory: Ambry Genetics Corporation (TIN 33-0892453 / NPI 1861568784), a CAP-accredited and CLIA-certified laboratory located at 7 Argonaut, Aliso Viejo, CA 92656

**References**

1. Ramasamy I. Update on the molecular biology of dyslipidemias.  [Clin Chim Acta.](https://www.ncbi.nlm.nih.gov/pubmed/?term=Ramasamy+I%5BAUTHOR%5D+2016+dylipidemia) 2016 Feb 15;454:143-85.
2. Brahm AJ and Hegele RA. Chylomicronaemia--current diagnosis and future therapies.  [Nat Rev Endocrinol.](https://www.ncbi.nlm.nih.gov/pubmed/25732519) 2015 Jun;11(6):352-62.
3. Hegele RA, et al.  Plasma lipoproteins: genetic influences and clinical implications.  [Nat Rev Genet.](https://www.ncbi.nlm.nih.gov/pubmed/19139765) 2009 Feb;10(2):109-21.
4. Hegele RA, et al. The polygenic nature of hypertriglyceridaemia: implications for definition, diagnosis, and management.  [Lancet Diabetes Endocrinol.](https://www.ncbi.nlm.nih.gov/pubmed/24731657) 2014 Aug;2(8):655-66.
5. Chaudhry R, et al. Pharmacological treatment options for severe hypertriglyceridemia and familial chylomicronemia syndrome.  [Expert Rev Clin Pharmacol.](https://www.ncbi.nlm.nih.gov/pubmed/29842811) 2018 Jun;11(6):589-598.
6. Gaudet D, et al. Targeting APOC3 in the familial chylomicronemia syndrome.  [N Engl J Med.](https://www.ncbi.nlm.nih.gov/pubmed/25470695) 2014 Dec 4;371(23):2200-6.
7. Stroes E, et al. Diagnostic algorithm for familial chylomicronemia syndrome.  [Atheroscler Suppl.](https://www.ncbi.nlm.nih.gov/pubmed/27998715) 2017 Jan;23:1-7.
8. Moulin P, et al. Identification and diagnosis of patients with familial chylomicronaemia syndrome (FCS): Expert panel recommendations and proposal of an "FCS score". [Atherosclerosis.](https://www.ncbi.nlm.nih.gov/pubmed/29980054) 2018 Aug;275:265-272.
9. Baass A, et al. Familial chylomicronemia syndrome: an under-recognized cause of severe hypertriglyderidaemia. J of Internal Medicine, 2020, 287; 340–348.