alemtuzumab (Lemtrada®)

**Policy #** 00448

**Original Effective Date:** 01/21/2015

**Current Effective Date:** 01/17/2018

Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the “Company”), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

**When Services May Be Eligible for Coverage**

Coverage for eligible medical treatments or procedures, drugs, devices or biological products may be provided only if:

- Benefits are available in the member’s contract/certificate, and
- Medical necessity criteria and guidelines are met.

Based on review of available data, the Company may consider alemtuzumab (Lemtrada®) for the treatment of relapsing forms of multiple sclerosis to be eligible for coverage.

**Patient Selection Criteria**

Coverage eligibility for alemtuzumab (Lemtrada) will be considered when the following criteria are met:

- Patient has a diagnosis of a relapsing form of multiple sclerosis; AND
- Patient is 17 years of age or older; AND
- Patient has had an inadequate response to 2 disease modifying medications used to treat multiple sclerosis; AND
- Patient is NOT using Lemtrada in combination with other disease modifying medications used to treat multiple sclerosis; AND
- The request is NOT for a third (or subsequent) course of therapy with Lemtrada.

**When Services Are Considered Investigational**

Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.

Based on review of available data, the Company considers the use of alemtuzumab (Lemtrada) when patient selection criteria are not met to be investigational.*

**Background/Overview**

Lemtrada is a CD52-directed cytolytic monoclonal antibody. The antibody binds to CD52, which is a cell surface antigen present on T and B lymphocytes, natural killer cells, monocytes, and macrophages. Following binding to T and B lymphocytes, Lemtrada results in antibody dependent cellular cytolysis and compliment mediated lysis. Lemtrada is dosed at 12mg/day for 5 consecutive days and 12mg/day for 3 consecutive days 12 months after the first treatment course. There is no information present for treatment past the second course.
Multiple Sclerosis
Multiple sclerosis is believed to have an immunologic mechanism that is characterized by demyelination in the brain and spinal cord. This is often expressed by symptoms such as visual and oculomotor abnormalities, weakness, urinary dysfunction, and mild cognitive impairment. Often patients will experience remissions and exacerbations. Treatment can include corticosteroids for acute exacerbations and immunomodulatory (disease modifying) drugs to prevent exacerbations. The most recent wave of disease modifying drugs included oral products such as Gilenya, Tecfidera, and Aubagio. Other disease modifying medications include Copaxone, Avonex, Rebif, Extavia, Betaseron, Plegridy, and Tysabri. Lemtrada is the latest drug to be approved for the treatment of multiple sclerosis. The placement of Lemtrada in the treatment of multiple sclerosis is still evolving and has yet to be determined. However, due to its safety profile, the label does mention that Lemtrada should be used after an inadequate response to two other agents for multiple sclerosis.

FDA or Other Governmental Regulatory Approval
U.S. Food and Drug Administration (FDA)
Lemtrada was approved in November of 2014 for the treatment of patients with relapsing forms of multiple sclerosis. The ingredient, alemtuzumab, was previously approved under the brand name Campath to treat cancer. Campath has since been pulled from the market, however is available directly from the manufacturer.

Rationale/Source
This medical policy was developed through consideration of peer-reviewed medical literature generally recognized by the relevant medical community, U.S. FDA approval status, nationally accepted standards of medical practice and accepted standards of medical practice in this community, Blue Cross and Blue Shield Association technology assessment program (TEC) and other non-affiliated technology evaluation centers, reference to federal regulations, other plan medical policies, and accredited national guidelines.

The efficacy of Lemtrada was demonstrated in 2 studies (Study 1 and Study 2) that evaluated Lemtrada 12mg in patients with relapsing remitting multiple sclerosis. Lemtrada was administered by IV infusion once daily over a 5 day course, then once daily over a 3 day course. Study 1 was a randomized, open label, active comparator study over a 2 year period in patients with relapsing remitting multiple sclerosis. The active comparator arm was interferon beta-1a 44mcg given subcutaneously three times per week. Clinical outcomes measured were the annualized relapse rate (ARR) over 2 years and the time to confirmed disability progression. The ARR was significantly lower in the Lemtrada group as compared to the interferon group (0.26 vs. 0.52, p<0.0001). The proportion of patients with disability progression at year 2 was also statistically lower in the Lemtrada group (13% vs. 21%), p=0.0084). The change in T2 lesion volume from baseline was not statistically significant between the two groups. The setup of Study 2 was similar to that of Study 1. The ARR was significantly lower in the Lemtrada group (0.18 vs. 0.39, p<0.0001). There was no significant difference between the treatment groups for the time to confirmed disability progression and for the primary MRI endpoint.
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References

Policy History
Original Effective Date: 01/21/2015
Current Effective Date: 01/17/2018
01/08/2015 Medical Policy Committee review
01/21/2015 Medical Policy Implementation Committee approval. New policy.
01/07/2016 Medical Policy Committee review
01/22/2016 Medical Policy Implementation Committee approval. No change to coverage.
01/01/2017 Coding update: Removing ICD-9 Diagnosis Codes
01/05/2017 Medical Policy Committee review
01/18/2017 Medical Policy Implementation Committee approval. No change to coverage.
01/04/2018 Medical Policy Committee review
01/17/2018 Medical Policy Implementation Committee approval. No change to coverage.
Next Scheduled Review Date: 01/2019

Coding
The five character codes included in the Blue Cross Blue Shield of Louisiana Medical Policy Coverage Guidelines are obtained from Current Procedural Terminology (CPT®), copyright 2017 by the American Medical Association (AMA). CPT is developed by the AMA as a listing of descriptive terms and five character identifying codes and modifiers for reporting medical services and procedures performed by physician.

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Codes used to identify services associated with this policy may include (but may not be limited to) the following:

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<th>Code Type</th>
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*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

A. Whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. FDA and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or

B. Whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:
   1. Consultation with the Blue Cross and Blue Shield Association technology assessment program (TEC) or other nonaffiliated technology evaluation center(s);
   2. Credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or
   3. Reference to federal regulations.

**Medically Necessary (or “Medical Necessity”) - Health care services, treatment, procedures, equipment, drugs, devices, items or supplies that a Provider, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury, disease or its symptoms, and that are:

A. In accordance with nationally accepted standards of medical practice;

B. Clinically appropriate, in terms of type, frequency, extent, level of care, site and duration, and considered effective for the patient's illness, injury or disease; and

C. Not primarily for the personal comfort or convenience of the patient, physician or other health care provider, and not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury or disease.

For these purposes, “nationally accepted standards of medical practice” means standards that are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, Physician Specialty Society recommendations and the views of Physicians practicing in relevant clinical areas and any other relevant factors.

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NOTICE: Medical Policies are scientific based opinions, provided solely for coverage and informational purposes. Medical Policies should not be construed to suggest that the Company recommends, advocates, requires, encourages, or discourages any particular treatment, procedure, or service, or any particular course of treatment, procedure, or service.