

## Benlysta® (belimumab) (Intravenous)

Document Number: IH-0017

Last Review Date: 04/01/2020

Date of Origin: 01/01/2012

Dates Reviewed: 12/2011, 02/2013, 02/2014, 11/2014, 03/2015, 06/2015, 09/2015 12/2015, 03/2016, 06/2016, 09/2016, 12/2016, 03/2017, 06/2017, 09/2017, 12/2017, 03/2018, 06/2018, 04/2019, 05/2019, 04/2020

### I. Length of Authorization

Coverage will be provided for 12 months and may be renewed.

### II. Dosing Limits

#### A. Quantity Limit (max daily dose) [NDC Unit]:

- Loading Dose (doses administered on days 1, 15 and 29):
  - Benlysta 120 mg SDV for injection: 9 vials per 29 days
  - Benlysta 400 mg SDV for injection: 9 vials per 29 days
- Maintenance Dose:
  - Benlysta 120 mg SDV for injection: 3 vials per 28 days
  - Benlysta 400 mg SDV for injection: 3 vials per 28 days

#### B. Max Units (per dose and over time) [HCPCS Unit]:

- Loading Dose (doses administered on days 1, 15 and 29):
  - 360 billable units per 29 days
- Maintenance Dose:
  - 120 billable units per 28 days

### III. Initial Approval Criteria<sup>1,3,4,9,10,13-15</sup>

- For patients age 18 years and older, patient must have tried and failed, or have a documented contraindication to, subcutaneous Benlysta before the intravenous infusion will be authorized.

#### Universal Criteria

- Patient must not have an active infection; **AND**
- Patient has not received a live vaccine within 30 days before starting or concurrently with Benlysta; **AND**

- Will be used in combination with standard therapy (e.g., anti-malarials, corticosteroids, non-steroidal anti-inflammatory drugs, immunosuppressives); **AND**
- Patient does not have any of the following exclusion criteria:
  - Severe active central nervous system lupus
  - Severe active lupus nephritis
  - Individuals who are on other biologics or IV cyclophosphamide; **AND**

### Systemic Lupus Erythematosus (SLE) †

- Patient is 5 years of age or older; **AND**
- Patient has a confirmed diagnosis of SLE with at least 4 diagnostic features (see list of diagnostic SLE criteria below)\* one of which must include a positive autoantibody test (e.g., anti-nuclear antibody [ANA] greater than laboratory reference range and/or anti-double-stranded DNA [anti-dsDNA] greater than 2 fold the laboratory reference range if tested by ELISA); **AND**
- Patient has failed to respond adequately to at least two (2) standard therapies such as anti-malarials, corticosteroids, non-steroidal anti-inflammatory drugs, immunosuppressives (excluding intravenous cyclophosphamide); **AND**
- Patient has one of the following:
  - Safety of Estrogen in Lupus National Assessment – Systemic Lupus Erythematosus Disease Activity Index (SELENA-SLEDAI) score of 6-12
  - $\geq 2$  British Isles Lupus Assessment Group (BILAG) B organ domain scores

† FDA Approved Indication(s)

#### \*Systemic Lupus Erythematosus Diagnostic Criteria

##### Patient must have at least 4 out of 11 diagnostic SLE features:

1. Malar rash
2. Discoid rash
3. Photosensitivity
4. Oral ulcers
5. Nonerosive arthritis (involving 2 or more peripheral joints)
6. Pleuritis/pericarditis
  - Pleuritis - history of pleuritic pain or rubbing heard by a physician or evidence of pleural effusion
  - Pericarditis - documented by electrocardiogram or rubbing heard by a physician or evidence of pericardial effusion
7. Renal disorder
  - Persistent proteinuria  $> 0.5$  grams/day or  $> 3+$  on urine dipstick
  - Cellular casts (red cell, hemoglobin, granular, tubular, or mixed)
8. Seizures/psychosis
9. Hematologic disorder
  - Hemolytic anemia with reticulocytosis
  - Leukopenia  $< 4,000/\text{mm}^3$  on  $\geq 2$  occasions
  - Lymphopenia  $< 1,500/\text{mm}^3$  on  $\geq 2$  occasions
  - Thrombocytopenia  $< 100,000/\text{mm}^3$  in the absence of offending drugs
10. Immunologic disorder

- Presence of anti-Sm or antiphospholipid antibodies
  - Presence of anti-double-stranded DNA [anti-dsDNA] greater than 2 fold the laboratory reference range if tested by ELISA
11. Positive anti-nuclear antibody [ANA] greater than laboratory reference range

#### IV. Renewal Criteria<sup>1,3,4,7,13-15</sup>

Authorizations can be renewed based on the following criteria:

- Patient continues to meet universal and other indication-specific relevant criteria such as concomitant therapy requirements (not including prerequisite therapy), performance status, etc. identified in section III; **AND**
- Adequate documentation of disease stability and/or improvement as indicated by one or more of the following when compared to pre-treatment baseline:
  - Improvement in the SELENA-SLEDAI score of  $\geq 4$  points; **OR**
  - No new BILAG-A organ domain score or 2 new BILAG-B organ domain scores; **OR**
  - No worsening ( $< 0.30$ -point increase) in Physician’s Global Assessment (PGA) score; **OR**
  - Seroconverted (negative); **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include the following: depression, suicidal thoughts, serious infections, signs or symptoms of progressive multifocal leukoencephalopathy (PML), malignancy, severe hypersensitivity reactions/anaphylaxis, serious infusion reactions, etc.

#### V. Dosage/Administration<sup>1,3,4,13-15</sup>

Indication	Dose
Systemic lupus erythematosus (SLE)	<ul style="list-style-type: none"> <li>• Loading Dose: 10 mg/kg intravenously (by a healthcare provider) every 2 weeks x 3 doses (days 1, 15 and 29)</li> <li>• Maintenance Dose: 10 mg/kg intravenously (by a healthcare provider) every 4 weeks</li> </ul>

#### VI. Billing Code/Availability Information

HCPSC Code:

- J0490 – Injection, belimumab, 10 mg; 1 billable unit = 10 mg

NDC:

- Benlysta 120 mg/5 mL SDV for injection: 49401-0101-xx
- Benlysta 400 mg/20 mL SDV for injection: 49401-0102-xx

#### VII. References

1. Benlysta [package insert]. Rockville, MD; Human Genome Sciences/GlaxoSmithKline; January 2020. Accessed March 2020.
2. Boyce EG, Fusco BE. Belimumab: review of use in systemic lupus erythematosus. Clin Ther. 2012 May;34(5):1006-22. doi: 10.1016/j.clinthera.2012.02.028. Epub 2012 Mar 30.

3. Navarra SV, Guzmán RM, Gallacher AE, et al. Efficacy and safety of belimumab in patients with active systemic lupus erythematosus: a randomised, placebo-controlled, phase 3 trial. *Lancet*. 2011 Feb;377(9767):721-31. doi: 10.1016/S0140-6736(10)61354-2. Epub 2011 Feb 4.
4. Furie R, Petri M, Zamani O, et al. A phase III, randomized, placebo-controlled study of belimumab, a monoclonal antibody that inhibits B lymphocyte stimulator, in patients with systemic lupus erythematosus. *Arthritis Rheum*. 2011 Dec;63(12):3918-30. doi: 10.1002/art.30613.
5. Petri M, Orbai AM, Alarcón GS, et al. Derivation and validation of the Systemic Lupus International Collaborating Clinics classification criteria for systemic lupus erythematosus. *Arthritis Rheum*. 2012 Aug;64(8):2677-86. doi: 10.1002/art.34473.
6. Furie R, Stohl W, Ginzler EM, et al. Biologic activity and safety of belimumab, a neutralizing anti-B-lymphocyte stimulator (BLyS) monoclonal antibody: a phase I trial in patients with systemic lupus erythematosus. *Arthritis Res Ther*. 2008;10(5):R109. doi: 10.1186/ar2506. Epub 2008 Sep 11.
7. Kim SS, Kirou KA, Erkan D. Belimumab in systemic lupus erythematosus: an update for clinicians. *Ther Adv Chronic Dis*. 2012 Jan;3(1):11-23. doi: 10.1177/2040622311424806.
8. Calvo-Alén JI, Silva-Fernández L, Úcar-Angulo E, et al. SER consensus statement on the use of biologic therapy for systemic lupus erythematosus. *Reumatol Clin*. 2013 Sep-Oct;9(5):281-96.
9. Gordon C, Amissah-Arthur MB, Gayed M, et al. The British Society for Rheumatology guideline for the management of systemic lupus erythematosus in adults. *Rheumatol* 2017 Oct 6. doi: 10.1093/rheumatology/kex286.
10. NICE. Belimumab for treating active autoantibody-positive systemic lupus erythematosus: Technology Appraisal Guidance [TAG397]. <https://www.nice.org.uk/guidance/ta397/> Accessed March 2020.
11. American College of Rheumatology Ad Hoc Committee on Systemic Lupus Erythematosus Guidelines. Guidelines for referral and management of systemic lupus erythematosus in adults. *Arthritis Rheum*. 1999;42(9):1785–1796.
12. Lam NC, Ghetu MV, Bieniek ML. Systemic Lupus Erythematosus: Primary Care Approach to Diagnosis and Management. *Am Fam Physician*. 2016 Aug 15;94(4):284-94.
13. Wallace DJ, Stohl W, Furie RA, et al. A Phase II, Randomized, Double-Blind, Placebo-Controlled, Dose-Ranging Study of Belimumab in Patients With Active Systemic Lupus Erythematosus. *Arthritis Rheum*, 61 (9), 1168-78, 2009 Sept 15. doi: 10.1002/art.24699
14. D’Cruz D, Maksimowicz-McKinnon K, Oates J, et al. Efficacy and safety of belimumab in patients of black race with systemic lupus erythematosus: results from the EMBRACE study. 10.1136/lupus-2019-lsm.199
15. Brunner HI, Abud-Mendoza C, Viola DI, et al. Efficacy and Safety of Intravenous Belimumab in Children with Systemic Lupus Erythematosus [abstract]. *Arthritis Rheumatol*. 2018; 70 (suppl 10). <https://acrabstracts.org/abstract/efficacy-and-safety-of-intravenous-belimumab-in-children-with-systemic-lupus-erythematosus/>

16. Stohl W, Schwarting A, Okada M, et al. Efficacy and Safety of Subcutaneous Belimumab in Systemic Lupus Erythematosus: A Fifty-Two-Week Randomized, Double-Blind, Placebo-Controlled Study. *Arthritis Rheumatol*, 69 (5), 1016-1027; May 2017. DOI: 10.1002/art.40049
17. Fanouriakis A, Kostopoulou M, Alunno A, et al. 2019 update of the EULAR recommendations for the management of systemic lupus erythematosus. *Ann Rheum Dis* 2019;78: 736–745.

## Appendix 1 – Covered Diagnosis Codes

ICD-10	ICD-10 Description
M32.10	Systemic lupus erythematosus organ or system involvement unspecified
M32.11	Endocarditis in systemic lupus erythematosus
M32.12	Pericarditis in systemic lupus erythematosus
M32.13	Lung involvement in systemic lupus erythematosus
M32.14	Glomerular disease in systemic lupus erythematosus
M32.15	Tubulo-interstitial nephropathy in systemic lupus erythematosus
M32.19	Other organ or system involvement in systemic lupus erythematosus
M32.8	Other forms of systemic lupus erythematosus
M32.9	Systemic lupus erythematosus, unspecified

## Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD), Local Coverage Determinations (LCDs), and Articles may exist and compliance with these policies is required where applicable. They can be found at: <http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx>. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD/Article): N/A

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
E (1)	CA, HI, NV, AS, GU, CNMI	Noridian Healthcare Solutions, LLC
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC
5	KS, NE, IA, MO	Wisconsin Physicians Service Insurance Corp (WPS)
6	MN, WI, IL	National Government Services, Inc. (NGS)
H (4 & 7)	LA, AR, MS, TX, OK, CO, NM	Novitas Solutions, Inc.

### Medicare Part B Administrative Contractor (MAC) Jurisdictions

Jurisdiction	Applicable State/US Territory	Contractor
8	MI, IN	Wisconsin Physicians Service Insurance Corp (WPS)
N (9)	FL, PR, VI	First Coast Service Options, Inc.
J (10)	TN, GA, AL	Palmetto GBA, LLC
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA, LLC
L (12)	DE, MD, PA, NJ, DC (includes Arlington & Fairfax counties and the city of Alexandria in VA)	Novitas Solutions, Inc.
K (13 & 14)	NY, CT, MA, RI, VT, ME, NH	National Government Services, Inc. (NGS)
15	KY, OH	CGS Administrators, LLC