

# Benlysta® (belimumab) (Intravenous/Subcutaneous)

Document Number: EOCCO-P0017

Last Review Date: 04/07/2025

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, 01/2021, 04/2021, 04/2022, 09/2022, 04/2023, 09/2023, 04/2024, 04/2025

## I. Length of Authorization

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

## II. Dosing Limits

**Max Units (per dose and over time) [HCPCS Unit]:**

**Benlysta SQ [J3590]**

Systemic Lupus Erythematosus (SLE)

- 200 mg weekly

Lupus Nephritis

- Loading dose: 400 mg weekly for 4 doses
- Maintenance dose: 200 mg weekly

**Benlysta IV [J0490]**

All Indications

- Loading Dose: 116 billable units on days 1, 15 and 29
- Maintenance Dose: 116 billable units per 28 days

## III. Initial Approval Criteria

Site of care specialty infusion program requirements are met (refer to [EOCCO Site of Care policy](#)).

**Target Agent(s)** will be approved when ALL of the following are met:

- ONE of the following:
  - The requested agent is eligible for continuation of therapy AND ONE of the following:

**Agent(s) Eligible for Continuation of Therapy**

All target agents are eligible for continuation of therapy

- The patient has been treated with the requested agent (starting on samples is not approvable) within the past 90 days; **OR**

- The prescriber states the patient has been treated with the requested agent (starting on samples is not approvable) within the past 90 days AND is at risk if therapy is changed;  
**OR**
- BOTH of the following:
  - ONE of the following:
    - The patient has a diagnosis of active systemic lupus erythematosus (SLE) WITHOUT active lupus nephritis (LN) AND ALL of the following:
      - The requested agent is FDA labeled or compendia\*\* supported for SLE; **AND**
      - BOTH of the following:
        - ◆ ONE of the following:
          - The patient has ONE of the following:
            - ❖ Has tried and had an inadequate response to hydroxychloroquine;  
**OR**
            - ❖ Has an intolerance or hypersensitivity to hydroxychloroquine; **OR**
          - The patient has an FDA labeled contraindication to hydroxychloroquine;  
**AND**
        - ◆ ONE of the following:
          - The patient has ONE of the following:
            - ❖ Has tried and had an inadequate response to ONE corticosteroid OR immunosuppressive agent (i.e., azathioprine, methotrexate, mycophenolate, cyclophosphamide); **OR**
            - ❖ Has an intolerance or hypersensitivity to ONE corticosteroid OR immunosuppressive agent (i.e., azathioprine, methotrexate, mycophenolate, cyclophosphamide); **OR**
          - The patient has an FDA labeled contraindication to ALL corticosteroids AND immunosuppressive agents (i.e., azathioprine, methotrexate, mycophenolate, cyclophosphamide); **OR**
      - The patient has a diagnosis of active lupus nephritis (LN) AND BOTH of the following:
        - The requested agent is FDA labeled or compendia\*\* supported for LN; **AND**
        - The patient has Class III, IV, or V lupus nephritis confirmed via kidney biopsy; **OR**
      - The patient has another FDA labeled indication for the requested agent and route of administration; **AND**
    - If the patient has an FDA labeled indication, then ONE of the following:
      - The patient's age is within FDA labeling for the requested indication for the requested agent; **OR**

- There is support for using the requested agent for the patient's age for the requested indication; **OR**
  - The patient has another indication that is supported in compendia\*\* for the requested agent and route of administration; **AND**
- If the patient has a diagnosis of active systemic lupus erythematosus (SLE) WITHOUT active LN, then BOTH of the following:
  - The patient is currently treated with standard SLE therapy (i.e., corticosteroids, hydroxychloroquine, azathioprine, methotrexate, mycophenolate, cyclophosphamide); **AND**
  - The patient will continue standard SLE therapy (i.e., corticosteroids, hydroxychloroquine, azathioprine, methotrexate, mycophenolate, cyclophosphamide) in combination with the requested agent; **AND**
- If the patient has a diagnosis of active LN, the patient will be using background immunosuppressive LN therapy (e.g., corticosteroids plus mycophenolate, azathioprine, or cyclophosphamide) in combination with the requested agent; **AND**
- If the requested agent is intravenous (IV) Benlysta, then ONE of the following:
  - The patient is 5 to less than 18 years of age AND ONE of the following:
    - The patient has a diagnosis of active LN; **OR**
    - The patient has tried Benlysta auto-injector (Note: For patients less than 10 years of age, Benlysta auto-injector may be administered by a healthcare professional OR trained caregiver); **OR**
    - There is support for the use of the provider-administered Benlysta IV product over the subcutaneous Benlysta auto-injector product; **OR**
  - The patient is 18 years of age or older AND ONE of the following:
    - The patient has tried self-administered Benlysta (auto-injector or prefilled syringe); **OR**
    - The patient has a diagnosis of active LN AND has NOT yet received 2 doses of Benlysta IV in the health care setting; **OR**
    - There is support for the use of the provider-administered Benlysta IV product over self-administered subcutaneous Benlysta products; **AND**
- The prescriber is a specialist in the area of the patient's diagnosis (e.g., rheumatologist, nephrologist), or the prescriber has consulted with a specialist in the area of the patient's diagnosis; **AND**
- The patient does NOT have severe active central nervous system (CNS) lupus; **AND**
- ONE of the following:
  - The patient will NOT be using the requested agent in combination with Lupkynis; **OR**
  - BOTH of the following:
    - The patient has a diagnosis of active LN; **AND**

- The patient has tried and had an inadequate response to TWO standard therapy courses (e.g., corticosteroids and Benlysta plus mycophenolate, azathioprine, or cyclophosphamide; corticosteroids and Lupkynis plus mycophenolate) and will be using Benlysta in combination with Lupkynis plus mycophenolate (medical records required); **AND**
- ONE of the following (Please refer to “Agents NOT to be used Concomitantly” table§):
  - The patient will NOT be using the requested agent in combination with another immunomodulatory agent (e.g., TNF inhibitors, JAK inhibitors, IL-4 inhibitors); **OR**
  - The patient will be using the requested agent in combination with another immunomodulatory agent AND BOTH of the following:
    - The prescribing information for the requested agent does NOT limit the use with another immunomodulatory agent; **AND**
    - There is support for the use of combination therapy (submitted copy of clinical trials, phase III studies, or guidelines required); **AND**
- The patient does NOT have any FDA labeled contraindications to the requested agent; **AND**
- The requested quantity (dose) is within FDA labeled dosing (or supported in compendia\*\*) for the requested indication

**\*\*Compendia Allowed:** AHFS, or DrugDex 1 or 2a level of evidence

## IV. Renewal Criteria

**Target Agent(s)** will be approved when ALL of the following are met:

- The patient has been previously approved for the requested agent through the plan’s Medical Drug Review process [Note: patients not previously approved for the requested agent will require initial evaluation review]; **AND**
- The patient has had clinical benefit with the requested agent; **AND**
- ONE of the following:
  - The patient has a diagnosis of active systemic lupus erythematosus (SLE) WITHOUT active lupus nephritis (LN) AND BOTH of the following:
    - The patient is currently treated with standard SLE therapy (i.e., corticosteroids, hydroxychloroquine, azathioprine, methotrexate, mycophenolate, cyclophosphamide); **AND**
    - The patient will continue standard SLE therapy (i.e., corticosteroids, hydroxychloroquine, azathioprine, methotrexate, mycophenolate, cyclophosphamide) in combination with the requested agent; **OR**
  - The patient has a diagnosis of active lupus nephritis (LN) AND BOTH of the following:

- The patient is currently treated with background immunosuppressive LN therapy (e.g., corticosteroids plus mycophenolate, azathioprine, or cyclophosphamide); **AND**
- The patient will continue background immunosuppressive LN therapy (e.g., corticosteroids plus mycophenolate, azathioprine, or cyclophosphamide) in combination with the requested agent; **OR**
- The patient has a diagnosis other than active SLE OR active LN; **AND**
- If the requested agent is intravenous (IV) Benlysta, then ONE of the following:
  - The patient is 5 to less than 18 years of age AND ONE of the following:
    - The patient has a diagnosis of active LN; **OR**
    - The patient has tried Benlysta auto-injector (Note: For patients less than 10 years of age, Benlysta auto-injector may be administered by a healthcare professional OR trained caregiver); **OR**
    - There is support for the use of the provider-administered Benlysta IV product over the subcutaneous Benlysta auto-injector product; **OR**
  - The patient is 18 years of age or older AND ONE of the following:
    - The patient has tried self-administered Benlysta (auto-injector or prefilled syringe); **OR**
    - There is support for the use of the provider-administered Benlysta IV product over self-administered subcutaneous Benlysta products; **AND**
- The prescriber is a specialist in the area of the patient's diagnosis (e.g., rheumatologist, nephrologist), or the prescriber has consulted with a specialist in the area of the patient's diagnosis; **AND**
- The patient does NOT have severe active central nervous system (CNS) lupus; **AND**
- ONE of the following:
  - The patient will NOT be using the requested agent in combination with Lupkynis; **OR**
  - BOTH of the following:
    - The patient has a diagnosis of active LN; **AND**
    - The patient has tried and had an inadequate response to TWO standard therapy courses (e.g., corticosteroids and Benlysta plus mycophenolate, azathioprine, or cyclophosphamide; corticosteroids and Lupkynis plus mycophenolate) and will be using Benlysta in combination with Lupkynis plus mycophenolate (medical records required); **AND**
- ONE of the following (Please refer to "Agents NOT to be used Concomitantly" table§):
  - The patient will NOT be using the requested agent in combination with another immunomodulatory agent (e.g., TNF inhibitors, JAK inhibitors, IL-4 inhibitors); **OR**
  - The patient will be using the requested agent in combination with another immunomodulatory agent AND BOTH of the following:

- The prescribing information for the requested agent does NOT limit the use with another immunomodulatory agent; **AND**
- There is support for the use of combination therapy (submitted copy of clinical trials, phase III studies, or guidelines required); **AND**
- The patient does NOT have any FDA labeled contraindications to the requested agent; **AND**
- The requested quantity (dose) is within FDA labeled dosing (or supported in compendia\*\*) for the requested indication

**\*\*Compendia Allowed:** AHFS, or DrugDex 1 or 2a level of evidence

#### §Contraindicated as Concomitant Therapy

##### Agents NOT to be used Concomitantly

Abrilada (adalimumab-afzb)  
 Actemra (tocilizumab)  
 Adalimumab  
 Adbry (tralokinumab-ldrm)  
 Amjevita (adalimumab-atto)  
 Arcalyst (rilonacept)  
 Avsola (infliximab-axxq)  
 Benlysta (belimumab)  
 Bimzelx (bimekizumab-bkzx)  
 Cibinqo (abrocitinib)  
 Cimzia (certolizumab)  
 Cinqair (reslizumab)  
 Cosentyx (secukinumab)  
 Cyltezo (adalimumab-adbm)  
 Dupixent (dupilumab)  
 Ebglyss (lebrikizumab-lbkz)  
 Enbrel (etanercept)  
 Entyvio (vedolizumab)  
 Fasenra (benralizumab)  
 Hadlima (adalimumab-bwwd)  
 Hulio (adalimumab-fkjp)  
 Humira (adalimumab)  
 Hyrimoz (adalimumab-adaz)  
 Idacio (adalimumab-aacf)  
 Ilaris (canakinumab)  
 Ilumya (tildrakizumab-asmn)  
 Imuldosa (ustekinumab-srlf)  
 Inflectra (infliximab-dyyb)  
 Infliximab  
 Kevzara (sarilumab)  
 Kineret (anakinra)  
 Leqselvi (deuruxolitinib)  
 Litfulo (ritlecitinib)  
 Nemluvio (nemolizumab-ilto)

### §Contraindicated as Concomitant Therapy

Nucala (mepolizumab)  
 Olumiant (baricitinib)  
 Omvoh (mirikizumab-mrkz)  
 Opzelura (ruxolitinib)  
 Orencia (abatacept)  
 Otezla (apremilast)  
 Otulfi (ustekinumab-aaaz)  
 Pyzchiva (ustekinumab-ttwe)  
 Remicade (infliximab)  
 Renflexis (infliximab-abda)  
 Riabni (rituximab-arrx)  
 Rinvoq (upadacitinib)  
 Rituxan (rituximab)  
 Rituxan Hycela (rituximab/hyaluronidase human)  
 Ruxience (rituximab-pvvr)  
 Saphnelo (anifrolumab-fnia)  
 Selarsdi (ustekinumab-aekn)  
 Siliq (brodalumab)  
 Simlandi (adalimumab-ryvk)  
 Simponi (golimumab)  
 Simponi ARIA (golimumab)  
 Skyrizi (risankizumab-rzaa)  
 Sotyktu (deucravacitinib)  
 Spevigo (spesolimab-sbzo) subcutaneous injection  
 Stelara (ustekinumab)  
 Steqeyma (ustekinumab-stba)  
 Taltz (ixekizumab)  
 Tezspire (tezepelumab-ekko)  
 Tofidence (tocilizumab-bavi)  
 Tremfya (guselkumab)  
 Truxima (rituximab-abbs)  
 Tyenne (tocilizumab-aazg)  
 Tysabri (natalizumab)  
 Ustekinumab  
 Velsipity (etrasimod)  
 Wezlana (ustekinumab-auub)  
 Xeljanz (tofacitinib)  
 Xeljanz XR (tofacitinib extended release)  
 Xolair (omalizumab)  
 Yesintek (ustekinumab-kfce)  
 Yuflyma (adalimumab-aaty)  
 Yusimry (adalimumab-aqvh)  
 Zeposia (ozanimod)  
 Zymfentra (infliximab-dyyb)

## V. Dosage/Administration

Indication	Dose
Systemic Lupus Erythematosus (SLE)	<p><b><u>Intravenous</u></b></p> <p><b><u>Adult and Pediatric Patients</u></b></p> <ul style="list-style-type: none"> <li>Loading Dose: Administer 10 mg/kg intravenously every 2 weeks for the first 3 doses</li> <li>Maintenance Dose: Administer 10 mg/kg intravenously every 4 weeks</li> </ul> <p><b><u>Subcutaneous</u></b></p> <ul style="list-style-type: none"> <li>Adult Patients (Autoinjector or Prefilled Syringe): Administer 200 mg subcutaneously once weekly</li> <li>Pediatric Patients 5 to less than 18 Years of Age (Autoinjector ONLY): <ul style="list-style-type: none"> <li>Patients <math>\geq 40</math> kg: Administer 200 mg subcutaneously once weekly</li> <li>Patients 15 kg to <math>&lt; 40</math> kg: Administer 200 mg subcutaneously once every 2 weeks</li> </ul> </li> <li><b>Note:</b> For patients transitioning from intravenous therapy, administer the first subcutaneous dose 1 to 4 weeks after the last IV dose.</li> </ul>
Lupus Nephritis (LN)	<p><b><u>Intravenous</u></b></p> <p><b><u>Adult and Pediatric Patients</u></b></p> <ul style="list-style-type: none"> <li>Loading Dose: Administer 10 mg/kg intravenously every 2 weeks for the first 3 doses</li> <li>Maintenance Dose: Administer 10 mg/kg intravenously every 4 weeks</li> </ul> <p><b><u>Subcutaneous</u></b></p> <ul style="list-style-type: none"> <li>Adult Patients (Autoinjector or Prefilled Syringe): Administer 400 mg (two 200 mg injections) subcutaneously once weekly for 4 doses, then 200 mg once weekly thereafter</li> <li><b>Note:</b> A patient may transition from intravenous therapy to subcutaneous therapy any time after the patient completes the first 2 intravenous doses. Administer the first subcutaneous dose of 200 mg 1 to 2 weeks after the last IV dose.</li> </ul>

## VI. Billing Code/Availability Information

### HCPCS Code(s):

- J0490 – Injection, belimumab, 10 mg; 1 billable unit = 10 mg (*applicable to the intravenous formulation only*)
- J3590 – Unclassified biologics (*applicable to the subcutaneous formulation only*)

### NDC(s):

- Intravenous:
  - Benlysta 120 mg/5 mL single-dose vial for injection: 49401-0101-xx
  - Benlysta 400 mg/20 mL single-dose vial for injection: 49401-0102-xx
- Subcutaneous:



– Benlysta 200 mg/mL single-dose prefilled syringe/autoinjector: 49401-0088-xx

## VII. References

1. Benlysta prescribing information. GlaxoSmithKline LLC. June 2024.
2. Lam NC, Ghetu MV, Bieniek ML. Systemic lupus erythematosus: primary care approach to diagnosis and management. *Am Fam Physician*. 2016;94(4):284–294.
3. Guidelines for referral and management of systemic lupus erythematosus in adults. American College of Rheumatology Ad Hoc Committee on Systemic Lupus Erythematosus Guidelines. *Arthritis Rheum*. 1999; 42(9):1785–1796.
4. Yusof MYM, Smith EMD, Ainsworth S, et al. Management and treatment of children, young people and adults with systemic lupus erythematosus: British Society for Rheumatology guideline scope. *Rheumatology Advances in Practice*. 2023;7(3). doi:10.1093/rap/rkad093
5. Fanouriakis A, Kostopoulou M, Andersen J, et al. EULAR recommendations for the management of systemic lupus erythematosus: 2023 update. *Annals of the Rheumatic Diseases*. 2023;83(1):15-29. doi:10.1136/ard-2023-224762
6. Parikh SV, Almaani S, Brodsky S, Rovin BH. Update on Lupus nephritis: Core Curriculum 2020. *American Journal of Kidney Diseases*. 2020;76(2):265-281. doi:10.1053/j.ajkd.2019.10.017
7. Furie R, Rovin BH, Houssiau F, et al. Two-Year, Randomized, Controlled Trial of Belimumab in Lupus Nephritis. *N Engl J Med*. 2020;383(12):1117-1128. doi:10.1056/nejmoa2001180
8. Weening JJ, D’agati VD, Schwartz MM, et al. The classification of glomerulonephritis in systemic lupus erythematosus revisited. *Kidney International*. 2004;65(2):521-530. doi:10.1111/j.1523-1755.2004.00443.x
9. Rovin BH, Ayoub IM, Chan TM, Liu ZH, Mejía-Vilet JM, Floege J. KDIGO 2024 Clinical Practice Guideline for the Management of Lupus Nephritis. *Kidney International*. 2024;105(1):S1-S69. doi:10.1016/j.kint.2023.09.002
10. 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 & Rheumatism*. 2011;63(12):3918-3930. doi:10.1002/art.30613
11. 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. *The Lancet*. 2011;377(9767):721-731. doi:10.1016/s0140-6736(10)61354-2
12. 2024 American College of Rheumatology (ACR) Guideline for the Screening, Treatment, and Management of Lupus Nephritis: Guideline Summary. American College of Rheumatology. Published online November 18, 2024. <https://rheumatology.org/lupus-guideline>

13. Collins CE, Cortes-Hernández J, Garcia MA, et al. Real-World Effectiveness of Belimumab in the Treatment of Systemic Lupus Erythematosus: Pooled Analysis of Multi-Country Data from the OBSERVE Studies. *Rheumatology and Therapy*. 2020;7(4):949-965. doi:10.1007/s40744-020-00243-2
14. Altabás-González I, Pego-Reigosa JM, Mouriño C, et al. Thorough assessment of the effectiveness of belimumab in a large Spanish multicenter cohort of systemic lupus erythematosus patients. *Rheumatology*. 2025;64(1):276-282. doi:10.1093/rheumatology/kead696
15. Nikoloudaki M, Nikolopoulos D, Koutsoviti S, et al. Clinical response trajectories and drug persistence in systemic lupus erythematosus patients on belimumab treatment: A real-life, multicentre observational study. *Frontiers in Immunology*. 2023;13:1-11. doi:10.3389/fimmu.2022.1074044

## 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)

The preceding information is intended for non-Medicare coverage determinations. 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 Determinations (NCDs) and/or Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. Local Coverage Articles (LCAs) may also exist for claims payment purposes or to clarify benefit eligibility under Part B for drugs which may be self-administered. The following link may be used to search for NCD, LCD, or LCA documents: <https://www.cms.gov/medicare-coverage-database/search.aspx>. Additional indications, including any preceding information, may be applied at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD/LCA): 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.
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
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA
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