

Policy Title:	Rituxan (rituximab) and Biosimilar (Truxima, Riabni, Ruxience) Non- Oncology and Non-Hematology Policy (Intravenous)		
		Department:	РНА
Effective Date:	01/01/2020		
Review Date:	09/25/2019, 12/20/2019, 1/29/2020, 8/3/2020, 9/9/2020, 1/28/2021, 3/18/2021, 7/15/2021, 9/23/2021, 1/06/2022, 3/17/2022, 3/2/2023, 12/07/2023, 01/10/2024		

**Purpose:** To support safe, effective, and appropriate use of Rituxan (rituximab), and biosimilars (Truxima, Riabni, Ruxience).

Scope: Medicaid, Commercial, Medicare-Medicaid Plan (MMP)

## **Policy Statement:**

Rituxan (rituximab), and biosimilars (Truxima, Riabni, Ruxience) are covered under the Medical Benefit when used within the following guidelines for non-oncology and non-hematology indications. Use outside of these guidelines may result in non-payment unless approved under an exception process. **Refer to the Rituxan (rituximab), Truxima (rituximab-abbs), Riabni (rituximab-arrx) & Ruxience (rituximab-pvvr) Policy for oncology indications.** 

### **Procedure:**

Coverage of Rituxan (rituximab), and biosimilars (Truxima, Riabni, Ruxience) will be reviewed prospectively via the prior authorization process based on criteria below.

### Summary of Evidence:

Rituximab, a monoclonal antibody targeting CD20 antigen, has demonstrated efficacy and safety in the treatment of several autoimmune diseases, including rheumatoid arthritis (RA), granulomatosis with polyangiitis (GPA), microscopic polyangiitis (MPA), pemphigus vulgaris (PV), and certain hematological malignancies, such as non-Hodgkin's lymphoma (NHL) and chronic lymphocytic leukemia (CLL). The most common adverse reactions in clinical trials infusion-related reactions, fever, lymphopenia, neutropenia, chills, infection, asthenia, nausea, diarrhea, headache, muscle spasms, anemia, and peripheral edema. In addition to infusion-related reactions, there are other boxed warnings such as tumor lysis syndrome, severe mucocutaneous reactions, and PML resulting in death.

## Initial Criteria

• Patient must be screened for HBV infection (i.e., HBsAg and anti-HBc) prior to initiating therapy; AND



- For new start to therapy and requesting Rituxan or Riabni, patient must have failure or intolerable side effects to Ruxience or Truxima OR patients that are currently on treatment with Rituxan or Riabni can remain on treatment OR MMP members who have previously received this medication within the past 365 days are not subject to Step Therapy Requirements; AND
- Patient is not on concurrent treatment with another CD20-directed therapy, TNF-inhibitor, IL-inhibitor, biologic response modifier or other non-biologic agent (e.g., apremilast, abrocitinib, tofacitinib, baricitinib, upadacitinib, deucravacitnib, etc.); **AND**

## Non-Oncology Indications:

## Rheumatoid arthritis (RA)

- Adult patient (18 years or older); **AND**
- Documented moderate to severe disease; **AND**
- Must be used in combination with methotrexate unless the patient has a contraindication or intolerance; **AND**
- Patient tried and failed at least a 3 month trial with ONE oral disease modifying antirheumatic drug (DMARD) (e.g., methotrexate, azathioprine, hydroxychloroquine, sulfasalazine, leflunomide, etc.); **AND**
- Previous trial (or lack of response) for a minimum of 3 months with one or more preferred TNF antagonist at least one of which should be a self-injectable; **AND**
- Physician has assessed baseline disease severity utilizing an objective measure/tool; AND
- Patient has not had treatment with Rituxan in the previous 4 months

### **Pemphigus Vulgaris**

- Patient has a diagnosis of pemphigus vulgaris as determined by the following:
  - One or more of the following clinical features:
    - Appearance of lesions, erosions and/or blisters
    - Nikolsky sign (induction of blistering via mechanical pressure at the edge of a blister or on normal skin)
    - Characteristic scarring and lesion distribution; **AND**
  - Histopathologic confirmation by skin/mucous membrane biopsy; AND
  - Positive direct immunofluorescence (DIF) microscopy result OR presence of autoantibodies as detected by indirect immunofluorescence (IIF) or enzyme-linked immunosorbent assay (ELISA); **AND**
- Patient has moderate to severe disease as assessed utilizing an objective measure/tool (e.g, PDAI, PSS, ABSIS, etc.); **AND**
- Other causes of blistering or erosive skin and mucous membrane diseases have been ruled out; **AND**



• Used in combination with glucocorticoids (e.g., prednisone, prednisolone, etc.)

# Granulomatosis with Polyangiitis (GPA) (Wegener's granulomatosis) and Microscopic polyangiitis (MPA)

- Patient is at least 2 years of age; **AND**
- Used in combination with glucocorticoids (e.g., prednisone, methylprednisolone, etc.)

# Multiple Sclerosis (MS) ‡

- Patient must have a confirmed diagnosis of multiple sclerosis (MS) as documented by laboratory report (i.e., MRI); **AND**
- Patient has a diagnosis of a relapsing form of MS [i.e., relapsing-remitting MS (RRMS)\*, active secondary progressive disease (SPMS)\*\*, or clinically isolated syndrome (CIS)\*\*\*]
- \*\* or \*\*\* See Appendix below

# Autoimmune Hemolytic Anemia (AIHA)

- Patient has warm-reactive disease refractory to or dependent on glucocorticoids; OR
- Patient has cold agglutinin disease with symptomatic anemia, transfusion-dependence, and/or disabling circulatory symptoms

## Systemic Lupus Erythematosus (SLE)

- Patient has a confirmed diagnosis of SLE as evidenced by all of the following:
  - Confirmed SLE classification criteria score ≥ 10\* (*Note: must include clinical and immunologic domains criteria*)Anti-nuclear antibody (ANA) titer of ≥ 1:80 measured via indirect immunofluorescence (IIF) on human epithelial (HEp-2) cells (or an equivalent ANA positive test) at least once; AND
- Patient has failed to respond adequately to at least two standard therapies such as anti-malarials (i.e. hydroxychloroquine, chloroquine), corticosteroids, non-steroidal anti-inflammatory drugs (NSAIDs), aspirin, immunosuppressives (i.e. azathioprine, methotrexate, cyclosporine, oral cyclophosphamide, or mycophenolate); ANDPatient has moderate to severe active disease defined as a Physician's Global Assessment (PGA) score of > 1 AND one of the following:
  - Systemic Lupus Erythematosus Disease Activity Index 2000 (SLEDAI 2K) score of  $\geq 6$
  - Disease activity with ≥ 2 systems with British Isles Lupus Assessment Group-2004 (BILAG) B scores
  - $\geq 1$  system(s) with British Isles Lupus Assessment Group-2004 (BILAG) A score(s)



# Lupus Nephritis

- Patient has disease that is non-responsive or refractory to standard first line therapy [i.e.., mycophenolate mofetil, mycophenolic acid, cyclophosphamide, or calcineurin inhibitors (e.g., tacrolimus)]; **AND**
- Used as a single agent or add-on therapy in combination with mycophenolate mofetil, mycophenolic acid, cyclophosphamide

## Myasthenia Gravis (unrelated to immunotherapy-related toxicity)

- Patient has muscle-specific tyrosine kinase (MuSK)-antibody positive disease; **AND**
- Patient is refractory to standard first-line therapy (e.g., glucocorticoids, azathioprine, mycophenolate mofetil, etc.)

## Continuation of Therapy Criteria:

- Patient continues to meet initial criteria; AND
- Patient is tolerating treatment with absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include the following: severe infusion reactions, tumor lysis syndrome (TLS), severe mucocutaneous reactions, progressive multifocal leukoencephalopathy (PML), viral hepatitis, serious bacterial, fungal, or viral infections, cardiac arrhythmias, renal toxicity, bowel obstruction or perforation; **AND**

## Non-Oncology Indications:

## Rheumatoid arthritis (RA)

- Disease response as indicated by improvement in signs and symptoms compared to baseline such as the number of tender and swollen joint counts, reduction of C-reactive protein, improvement of patient global assessment, and/or an improvement on a disease activity scoring tool [e.g., an improvement on a composite scoring index such as Disease Activity Score-28 (DAS28) of 1.2 points or more or a ≥20% improvement on the American College of Rheumatology-20 (ACR20) criteria]; AND
- Dose escalation (up to the maximum dose and frequency specified below) may occur upon clinical review on a case-by-case basis provided that the patient has:
  - Shown an initial response to therapy; AND
  - Received a minimum of one maintenance dose at the dose <u>and</u> interval specified below; **AND**
  - o Responded to therapy with subsequent loss of response

# Granulomatosis with Polyangiitis (GPA) (Wegener's granulomatosis) and Microscopic polyangiitis (MPA)

• Disease response as indicated by disease control and improvement in signs and symptoms of condition compared to baseline; **AND** 



• A decreased frequency in the occurrence of major relapses (defined by the reappearance of clinical and/or laboratory signs of vasculitis activity that could lead to organ failure or damage, or could be life threatening)

## Pemphigus Vulgaris

- Patient is currently receiving tapering doses of corticosteroids or has discontinued use of corticosteroids; **AND** 
  - Disease response as indicated by complete epithelialization of lesions and improvement in signs and symptoms of condition compared to baseline; **OR**
  - Patient has not experienced continued development of new lesions, continued extension of old lesions, or failure of established lesions to begin to heal despite therapy; **OR**
    - For Relapses ONLY: Patient has previously had active disease control; **AND**
    - Patient has the appearance of 3 or more new lesions a month that do not heal spontaneously within 1 week, or by the extension of established lesions

# Multiple Sclerosis (MS)

 Continuous monitoring of response to therapy indicates a beneficial response\* [manifestations of MS disease activity include, but are not limited to, an increase in annualized relapse rate (ARR), development of new/worsening T2 hyperintensities or enhancing lesions on brain/spinal MRI, and progression of sustained impairment as evidenced by expanded disability status scale (EDSS), timed 25-foot walk (T25-FW), 9-hole peg test (9-HPT)]

### \*<u>Note</u>:

 Inadequate response, in those who have been adherent and receiving therapy for sufficient time to realize the full treatment effect, is defined as ≥ 1 relapse, ≥ 2 unequivocally new MRI-detected lesions, or increased disability on examination over a one-year period.

## Autoimmune Hemolytic Anemia (AIHA)

• Disease response as indicated by improvement in anemia signs and symptoms (e.g., dyspnea, fatigue, etc.) as well as: improvement in laboratory values (Hb/Hct), reduced transfusion needs, and/or reduced glucocorticoid use

## Systemic Lupus Erythematosus (SLE)

• 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-2K; **OR**
- Reduction of baseline BILAG-2004 from A to B or from B to C/D, and no BILAG-2004 worsening in other organ systems, as defined by ≥2 new BILAG-2004 B; OR
- No worsening ( <0.30 points increase) in Physician's Global Assessment (PGA) score;</li>
   OR
- Seroconverted (negative)

## Lupus Nephritis

• Coverage may only be renewed in patients experiencing a disease relapse (e.g., increased serum creatinine, increase in protein urine excretion, decrease in eGFR, etc.)

## Myasthenia Gravis (unrelated to immunotherapy-related toxicity)

Disease response as indicated by a decrease in the daily dose of corticosteroids and/or an improvement in signs and symptoms compared to baseline.

## **Coverage durations:**

- Initial coverage: 6 months
- Continuation of therapy coverage: 6 months, unless otherwise stated in continuation of therapy criteria

Per §§ 42 CFR 422.101, this clinical medical policy only applies to INTEGRITY in the absence of National Coverage Determination (NCD) or Local Coverage Determination (LCD).

## **Policy Rationale:**

Rituxan was reviewed by the Neighborhood Health Plan of Rhode Island Pharmacy & Therapeutics (P&T) Committee. Neighborhood adopted the following clinical coverage criteria to ensure that its members use Rituxan according to Food and Drug Administration (FDA) approved labeling and/or relevant clinical literature. Neighborhood worked with network prescribers and pharmacists to draft these criteria. These criteria will help ensure its members are using this drug for a medically accepted indication, while minimizing the risk for adverse effects and ensuring more cost-effective options are used first, if applicable and appropriate. For INTEGRITY (Medicare-Medicaid Plan) members, these coverage criteria will only apply in the absence of National Coverage Determination (NCD) or Local Coverage Determination (LCD) criteria. Neighborhood will give individual consideration to each request it reviews based on the information submitted by the prescriber and other information available to the plan.

## Appendix



<u>Dissemination in time</u> (Development/appearance of new CNS lesions over time)	Dissemination in space	
	CNS; multifocal)	
<ul> <li>≥ 2 clinical attacks; OR</li> <li>1 clinical attack AND one of the following:         <ul> <li>MRI indicating simultaneous presence of gadolinium-enhancing and non-enhancing lesions at any time or by a new T2-hyperintense or gadolinium-enhancing lesion on follow-up MRI compared to baseline scan</li> <li>CSE apapiting alignal hands</li> </ul> </li> </ul>	<ul> <li>≥ 2 lesions; OR</li> <li>1 lesion <u>AND</u> one of the following:         <ul> <li>Clear-cut historical evidence of a previous attack involving a lesion in a distinct anatomical location</li> <li>MRI indicating ≥ 1 T2-hyperintense lesions characteristic of MS in ≥ 2 of 4 areas of the CNS (periventricular, cortical or juxtacortical, infortantorial or animal ported)</li> </ul> </li> </ul>	
	infratentonal, of spinar cord)	
<ul> <li>Expanded Disability Status Scale (EDSS) score ≥ 3.0; All</li> <li>Disease is progressive ≥ 3 months following an initial rel patients with EDSS ≤5.5 or increase by 0.5 in patients with 0 ≥ 1 relapse within the previous 2 years; OR</li> <li>Patient has gadolinium-enhancing activity OR new o evidenced by MRI</li> </ul>	apsing-remitting course (i.e., EDSS score increase by 1.0 in ith EDSS ≥6); <b>AND</b> r unequivocally enlarging T2 contrast-enhancing lesions as	
<ul> <li>A monophasic clinical episode with patient-reported syminflammatory demyelinating event in the CNS</li> <li>Neurologic symptom duration of at least 24 hours, with a Absence of fever or infection</li> <li>Resembles a typical MS relapse (attack and exacerbation)</li> </ul>	ptoms and objective findings reflecting a focal or multifocal or without recovery but occurs in a patient not known to have multiple sclerosis	
*Classification Criteria for Systemic Lupus Erythematosus (SLE)		
Clinical Score <sup>A</sup>	Clinical Domains and Criteria	
(range: 0-39)		
2	<b>Constitutional:</b> Unexplained fever > 101°F	
	Hematologic:	

	Hematologic:
3	White blood cell count < 4,000/mm <sup>3</sup>
4	Platelet count < 100,000/mm <sup>3</sup> or Autoimmune
	hemolysis
	Neuropsychiatric:
2	Delirium
3	Psychosis
5	Primary generalized seizure or partial/focal
	seizure
	Mucocutaneous +:
2	Non-scarring alopecia or oral ulcers
4	Subacute cutaneous or discoid lupus
8	Acute cutaneous lupus
	Serosal:
5	Pleural or pericardial effusion



6	Acute pericarditis
	Musculoskeletal:
6	Joint involvement with either synovitis involving
	2 or more joints with swelling or effusion OR
	tenderness in 2 or more joints with at least 30
	minutes of morning stiffness
	Renal:
4	Proteinuria > 0.5g/24 hr by a 24-hour urine or
	equivalent spot urine protein-to-creatinine ratio
8	Renal biopsy class II or V lupus nephritis
10	Renal biopsy Class III or IV lupus nephritis
Immunologic Score	Immunologic Domains and Criteria
(range: 0-12)	
2	Presence of antiphospholipid antibodies (i.e.,
	positive lupus anticoagulant, positive anti-82GP1
	antibodies, and/or anti-cardiolipin antibodies at
	medium or high titer)
	Presence of low complement proteins (below lower
3	limit of normal):
4	Low C3 OR low C4
	Low C3 AND C4
2	
6	Presence of anti-Sm and/or anti-dsDNA
6	Presence of anti-Sm and/or anti-dsDNA antibodies
6 A web-based scoring calculator as well as further de	Presence of anti-Sm and/or anti-dsDNA antibodies efinitions of each criterion are available at:

<sup>A</sup>Occurrence on at least one occasion is sufficient to count toward score when all other causes have been ruled out. Count only the highest weighted score within each of the 10 domains (7 clinical and 3 immunologic) and any additional criteria within the same domain will not count.
+ Observed by a physician via clinical exam or photograph review

## Dosage/Administration:

Indication	Dose
RA	1,000 mg on days 1 and 15, repeated up to every 24weeks. May repeat up to every 16 weeks following the previous infusion in patients requiring more frequent dosing based on clinical evaluation.
Pemphigus Vulgaris	Initiation: 1,000 mg on days 1 and 15; OR
	375 mg/m <sup>2</sup> IV weekly for 4 doses
	Maintenance: 500 mg at month 12 and repeat every 6 months thereafter or based on clinical evaluation.
	Relapse
	<ul> <li>1,000 mg IV upon relapse, resumption of glucocorticoids may be considered</li> </ul>



	*Subsequent infusions (maintenance and relapse) should be no sooner than 16 weeks after the previous infusion.
GPA(WG)/MPA	Induction (Pediatric and Adult):
	• 375 mg/m <sup>2</sup> weekly x 4 doses; OR
	• Adults: 1,000 mg IV on days 1 and 15; <b>OR</b>
	• Pediatric (up to a maximum of 1,000 mg per dose):
	o 575 mg/m <sup>2</sup> IV on days 1 and 15 (BSA $\leq 1.5m^2$ )
	$\circ$ 750 mg/m <sup>2</sup> IV on days 1 and 15 (BSA >1.5m <sup>2</sup> )
	Maintenance:
	<ul> <li>Pediatric: 250 mg/m<sup>2</sup> on days 1 and 15, then 250 mg/m<sup>2</sup> every 6 months thereafter based on clinical evaluation</li> <li>Adult: 500 mg on days 1 and 15, then 500 mg every 6 months thereafter based on clinical evaluation <i>*Initial MAINTENANCE infusions should be no sooner than 16 weeks and no later than 24 weeks after the previous infusion if rituximab was used for initial induction therapy.*Initial MAINTENANCE infusions should be initiated within 4 weeks following disease control when initial induction occurred with other standard of care immunosuppressants.</i></li> </ul>
AIHA	Warm-reactive disease
	$375 \text{ mg/m}^2$ weekly for 4 doses in a 6 month period; OR
	1000mg IV days 1 and 15
	Cold agglutinin disease
	375 mg/m <sup>2</sup> IV weekly for 4 doses in a 6 month period
Lupus Nephritis	1,000 mg IV on days 1 and 15
	-OR-
	375 mg/m <sup>2</sup> IV once weekly for 4 doses
Myasthenia Gravis (unrelated to immunotherapy-related toxicity)	1,000 mg IV on days 1 and 15, may repeat a full or partial course every 6 months
	-OR-
	$375 \text{ mg/m}^2$ IV once weekly for 4 doses, may repeat a full or partial course every 6 months
SLE	1,000 mg IV on days 1 and 15
	-OR-
	$375 \text{ mg/m}^2$ IV once weekly for 4 doses
Multiple Sclerosis	1,000 mg IV on days 1 and 15, repeat every 6 months



## Dosing Limits:

Indication	Maximum dose (1 billable unit = 10 mg)
RA	100 units per dose every 14 days x 2 doses in an 18 week period
GPA(WG)/MPA	Induction: 100 units per dose weekly x 4 doses in a 4 month period
	Initial Maintenance: 50 units x 2 doses in a 6 month period
	Subsequent Maintenance: 50 units every 6 months
Pemphigus Vulgaris (PV):	Initiation: 100 units weekly x 4 doses in a 12 month period
	Maintenance and Relapse: 50 units every 16 weeks
Lupus Nephritis & Myasthenia Gravis	100 billable units per dose every 14 days x 2 doses in a 6 month period; $\mathbf{OP}$
toxicity):	100 billable units per dose weekly x 4 doses in a 20-week period
Multiple Sclerosis (MS)	100 billable units every 14 days x 2 doses every 6 months
All other non-oncology indications	100 units per dose weekly x 4 doses in a 6 month period

**Investigational use:** All therapies are considered investigational when used at a dose or for a condition other than those that are recognized as medically accepted indications as defined in any one of the following standard reference compendia: American Hospital Formulary Service Drug information (AHFS-DI), Thomson Micromedex DrugDex, Clinical Pharmacology, Wolters Kluwer Lexi-Drugs, or Peer-reviewed published medical literature indicating that sufficient evidence exists to support use. Neighborhood does not provide coverage for drugs when used for investigational purposes.

### **Applicable Codes:**

Below is a list of billing codes applicable for covered treatment options. The below tables are provided for reference purposes and may not be all-inclusive. Requests received with codes from tables below do not guarantee coverage. Requests must meet all criteria provided in the procedure section.

HCPCS/CPT Code	Description
J9312	Injection, rituximab, 10mg
Q5119	Injection, rituximab-pvvr, biosimilar, (Ruxience), 10mg
Q5115	Injection, rituximab-abbs, biosimilar, (Truxima), 10mg
Q5123	Injection, rituximab-arrx, biosimilar, (Riabni), 10mg

The following HCPCS/CPT code is:

References:

1. Rituxan [package insert]. South San Francisco, CA; Genentech, Inc; June 2023. Accessed November 2023.



- 2. Truxima [package insert]. Incheon, Korea; Celltrion, Inc; February 2022. Accessed November2023.
- 3. Ruxience [package insert]. New York, NY; Pfizer, Inc; November 2021. Accessed November 2023.
- 4. Riabni [package insert]. Thousand Oaks, CA; Amgen, Onc; June 2022. Accessed November2023.
- Neunert C, Lim W, Crowther M, Cohen A, Solberg L Jr, Crowther MA. The American Society of Hematology 2011 evidence-based practice guideline for immune thrombocytopenia. Blood. 117(16):4190-4207.
- 6. Joly P, Mouquet H, Roujeau JC, et al. A single cycle of rituximab for the treatment of severe pemphigus. N Engl J Med 2007; 357:545-52.
- 7. Ahmed AR, Spigelman Z, Cavacini LA et al. Treatment of pemphigus vulgaris with rituximab and intravenous immune globulin. N Engl J Med 2006; 355:1772-9.
- Singh JA, Saag KG, Bridges SL Jr, et al. 2015 American College of Rheumatology Guideline for the Treatment of Rheumatoid Arthritis. Arthritis Care Res (Hoboken). 2015 Nov 6. doi: 10.1002/acr.22783.
- 9. Smolen JS, Landewé R, Bijlsma J, et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update. Ann Rheum Dis. 2017 Mar 6. pii: annrheumdis-2016-210715.
- 10. González-Barca E, Domingo-Domenech E, Capote FJ, et al. Prospective phase II trial of extended treatment with rituximab in patients with B-cell post-transplant lymphoproliferative disease. Haematologica. 2007 Nov; 92(11):1489-94.
- 11. Chamberlain MC, Johnston SK, Van Horn A, et al. Recurrent lymphomatous meningitis treated with intra-CSF rituximab and liposomal ara-C. J Neurooncol. 2009 Feb;91(3):271-7.
- 12. Fakhouri F, Vernant JP, Veyradier A, et al. Efficiency of curative and prophylactic treatment with rituximab in ADAMTS13-deficient thrombotic thrombocytopenic purpura: a study of 11 cases. Blood. 2005;106:1932-37.
- 13. van Dorp S, Resemann H, te Boome L, et al. The immunological phenotype of rituximabsensitive chronic graft-versus-host disease: a phase II study. Haematologica 2011;96(9):1380- 1384.
- 14. Kim SJ, Lee JW, Jung CW, et al. Weekly rituximab followed by monthly rituximab treatment for steroid-refractory chronic graft-versus-host disease: results from a prospective, multicenter, phase II study. Haematologica 2010;95(11):1935-1942.
- 15. Cutler C, Miklos D, Kim HT, et al, "Rituximab for Steroid-Refractory Chronic Graft-VersusHost Disease," Blood, 2006, 108(2):756-62.
- Wolff D, Schleuning M, von Harsdorf S, et al. Consensus Conference on Clinical Practice in Chronic GVHD: Second-Line Treatment of Chronic Graft-versus-Host Disease. Biol Blood Marrow Transplant. 2011 Jan;17(1):1-17. doi: 10.1016/j.bbmt.2010.05.011.
- 17. Gobert D, Bussel JB, Cunningham-Rundles C, et al. Efficacy and safety of rituximab in common variable immunodeficiency-associated immune cytopenias: a retrospective multicentre study on 33 patients. Br J Haematol. 2011;155(4):498-508.
- YW Shin, ST Lee, KI Park, et al. Treatment strategies for autoimmune encephalitis. Ther Adv Neurol Disord. 2017 Aug 16;11:1756285617722347. doi: 10.1177/1756285617722347. eCollection 2018. Review.
- First Coast Service Options, Inc. Local Coverage Determination (LCD): Rituximab (Rituxan®) (L33746). Centers for Medicare & Medicaid Services, Inc. Updated on 9/22/2017 with effective date 10/1/2017. Accessed March 2018.



- National Government Services, Inc. Local Coverage Article: Rituximab (Rituxan®) (effective 2010) -Related to LCD L33394 (A52452). Centers for Medicare & Medicaid Services, Inc. Updated on 9/22/2017 with effective date of 10/1/2017. Accessed March 2018.
- Palmetto GBA. Local Coverage Determination: Rituximab (Rituxan®) (L35026). Centers for Medicare & Medicaid Services, Inc. Updated on 03/02/2018 with effective date of 03/30/2018. Accessed March 2018.
  - Polman CH, Reingold SC, Banwell B, et al. Diagnostic criteria for multiple sclerosis: 2010 Revisions to the McDonald criteria. Ann Neurol. 2011 Feb; 69(2): 292–302. doi: 10.1002/ana.22366.
  - 23. Lublin FD, Reingold SC, Cohen JA, et al. Defining the clinical course of multiple sclerosis: the 2013 revisions. Neurology. 2014 Jul 15;83(3):278-86.
  - 24. Multiple Sclerosis Coalition. The use of disease-modifying therapies in multiple sclerosis: principles and current evidence. 2017 March. http://www.nationalmssociety.org/getmedia/5ca284d3-fc7c-4ba5-b005ab537d495c3c/DMT\_Consensus\_MS\_Coalition\_color. Accessed 4/2018.
  - 25. 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(6):736-745.
  - 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.
  - 27. Gordon C, Amissah-Arthur MB, Gayed M, et al. The British Society for Rheumatology guideline for the management of systemic lupus erythematosus in adults. Rheumatology (Oxford). 2018 Jan 1;57(1):e1-e45. doi: 10.1093/rheumatology/kex286.
  - Narayanaswami P, Sanders DB, Wolfe G, et al. International Consensus Guidance for Management of Myasthenia Gravis: 2020 Update. Neurology. 2021 Jan 19;96(3):114-122. doi: 10.1212/WNL.000000000011124.
  - Jarius, S., Aktas, O., Ayzenberg, I. et al. Update on the diagnosis and treatment of neuromyelits optica spectrum disorders (NMOSD) revised recommendations of the Neuromyelitis Optica Study Group (NEMOS). Part I: Diagnosis and differential diagnosis. J Neurol 270, 3341–3368 (2023). <u>https://doi.org/10.1007/s00415-023-11634-0</u>
  - Fanouriakis A, Tziolos N, Bertsias G, et al. Update on the diagnosis and management of systemic lupus erythematosus. Ann Rheum Dis 2021; 80:14-25. doi:10.1136/annrheumdis-2020-218272
  - Aringer M, Costenbader K, Daikh D, et al. 2019 European League against Rheumatism/American College of rheumatology classification criteria for systemic lupus erythematosus. Arthritis Rheumatol 2019;71:1400–12.



- 32. Lam NC, Brown JA, Sharma R. Systemic Lupus Erythematosus: Diagnosis and Treatment. Am Fam Physician. 2023 Apr 107(4):383-395.
- 33. Yee CS, Cresswell L, Farewell V, Rahman A, Teh LS, Griffiths B et al. Numerical scoring for the BILAG-2004 index. Rheumatology (Oxford) 2010; 49(9):1665-9.
- Gladman DD, Ibanez D, Urowitz MB. Systemic lupus erythematosus disease activity index 2000. J Rheumatol 2002; 29(2):288-91.
- Chessa E, Piga M, Floris A, Devilliers H, Cauli A, Arnaud L. Use of Physician Global Assessment in systemic lupus erythematosus: a systematic review of its psychometric properties. Rheumatology (Oxford). 2020 Dec 1;59(12):3622-3632. doi: 10.1093/rheumatology/keaa383.
- 36. National Government Services, Inc. Local Coverage Article: Billing and Coding: Off-label Use of Rituximab and Rituximab Biosimilars (A59101). Centers for Medicare & Medicaid Services, Inc. Updated on 09/09/2022 with effective date of 11/01/2022. Accessed July 2023.