



SmartPA Criteria Proposal

Drug/Drug Class:	C5 Complement Inhibitors Clinical Edit		
First Implementation Date:	August 4, 2022		
Proposed Date:	October 17, 2023		
Prepared for:	MO HealthNet		
Prepared by:	MO HealthNet/Conduent		
Criteria Status:	⊠Existing Criteria □Revision of Existing Criteria □New Criteria		

Executive Summary

Purpose: Ensure appropriate utilization and control of C5 Complement Inhibitors.

Why Issue Selected:

The complement system, or cascade, is a major component of the immune system which enhances destruction of pathogens and induces a series of inflammatory responses to fight infection. The system includes many plasma proteins that form three major pathways of complement activation (classical, lectin, and alternative). The major components of the cascade include the C1 complex, C2b and C4b fragments, C3 convertase, C3a and C3b fragments, C5a and C5b fragments, and the membrane attack complex comprised of C5b, C6, C7, C8, and C9. Each component plays a role in clearing foreign microbes or initiating inflammatory responses. Soliris® (eculizumab) and Ultomiris® (ravulizumab) are monoclonal antibodies that bind to and inhibit complement protein C5, preventing its cleavage to C5a and C5b.

Soliris was first approved by the FDA in 2007 for the indication of paroxysmal nocturnal hemoglobinuria (PNH). In 2011, it gained the indication of atypical hemolytic uremic syndrome (aHUS). The FDA then approved Soliris for the indications of generalized myasthenia gravis (gMG) in patients who are anti-acetylcholine receptor (AchR) antibody positive and neuromyelitis optica spectrum disorder (NMOSD) in adult patients who are anti-aquaporin-4 (AQP4) antibody positive in 2017 and 2019, respectively. Soliris is administered as an IV infusion and consists of an induction dose followed by maintenance dosing dependent on indication.

Ultomiris was approved by the FDA in 2018 for adult and pediatric patients with PNH, and subsequently approved for aHUS in 2019. In 2022, Ultomiris was also approved for the indication of gMG in patients who are anti-acetylcholine receptor (AchR) antibody positive. Ultomiris is administered as an IV infusion and consists of a weight-based loading dose followed by maintenance dosing.

Due to the high cost and specific approved indications, MO HealthNet will impose clinical criteria to ensure appropriate utilization of C5 Complement Inhibitors.

Program-Specific Information:

;	Date Range FFS 7-1-22 to 6-30-23				
	Drug	Claims	Spend	Avg Spend per Month	Avg Spend per Claim
	SOLIRIS 300 MG/30 ML	134	\$2,571,485	\$214,290	\$19,190

ULTOMIRIS 300 MG/30 ML	0	-	-	-
ULTOMIRIS 300 MG/3 ML	41	\$1,736,594	\$144,716	\$42,356
ULTOMIRIS 1100 MG/11 ML	8	\$453,644	\$37,804	\$56,706

Type of Criteria:	☐ Increased risk of ADE	☐ Preferred Drug List
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Data Sources: ☐ Only Administrative Databases ☐ Databases + Prescriber-Supplied

Setting & Population

- Drug class for review: C5 Complement Inhibitors
- Age range: All appropriate MO HealthNet participants

Approval Criteria

Initial Therapy:

- Must meet all of the following:
 - o Prescribed by or in consultation with an appropriate specialist in the treated disease state
- Must meet one of the following for documented diagnosis of aHUS:
 - o Claim is for Ultomiris; OR
 - Documented adequate trial of Ultomiris (trial defined as 3 claims in the past 12 months)
 - Approval period: 9 months
- Must meet all of the following for documented diagnosis of PNH:
 - Documentation of diagnosis confirmed by laboratory findings (i.e., flow cytometry, lactate dehydrogenase level of 1.5 times the upper limit of normal, bone marrow aspirate and biopsy);
 - One of the following:
 - Participant is transfusion-dependent (Hb ≤ 7 g/dL or Hb ≤ 9 g/dL and experiencing symptoms of anemia); OR
 - Documentation of symptomatic thromboembolic complications (e.g., abdominal pain, shortness of breath, chest pain, end-organ damage);
 - One of the following:
 - Claim is for Ultomiris; OR
 - Documented adequate trial of Ultomiris (trial defined as 3 claims in the past 12 months);
 - Additional approval criteria for Soliris for PNH:
 - Participant is aged 18 year or older
 - Initial approval period: 9 months
- Must meet all of the following for documented diagnosis of gMG:
 - Participant is aged 18 year or older;
 - Myasthenia Gravis Foundation of America clinical classification of class II, III, or IV;
 - Documented positive anti-acetylcholine receptor (AchR) antibody test;
 - Adequate therapeutic trial of 2 immunosuppressants (e.g., glucocorticoids, azathioprine, mycophenolate, tacrolimus, cyclosporine, methotrexate) (90/120 days);
 - One of the following:
 - Documented baseline Myasthenia Gravis Activities of Daily Living (MG-ADL) score of greater than or equal to 6; OR
 - Documented baseline Quantitative Myasthenia Gravis (QMG) score of greater than or equal to 12; AND
 - One of the following:
 - Claim is for Ultomiris; OR

- Documented adequate trial of Ultomiris (trial defined as 3 claims in the past 12 months)
- Initial approval period: 6 months
- Must meet all of the following for documented diagnosis of NMOSD:
 - Claim is for Soliris;
 - Participant is aged 18 year or older;
 - Documented adequate therapeutic trial of Enspryng and Uplizna (trial defined as at least 6 months of therapy for each agent), see NMOSD Clinical Edit for further information regarding criteria for Enspryng and Uplizna;
 - Participant is seropositive for anti-aquaporin-4 (AQP4) antibodies; AND
 - Documented baseline number and frequency of acute attacks
 - o Initial approval period: 9 months

Continuation of Therapy:

- Must meet all of the following:
 - Documented compliance to prescribed drug therapy (defined as 3 claims in past 120 days)
- Additional continuation criteria for documented diagnosis of PNH:
 - Improvement or less than expected decline in fatigue and quality of life;
 - Decrease in transfusion burden;
 - o Increase in Hb levels from baseline; OR
 - Normalization of LDH levels
 - o Continuation approval period: 12 months
- Additional continuation criteria for documented diagnosis of gMG:
 - Clinically significant improvement in MG-ADL score from baseline (defined as at least 2-point improvement in MG-ADL score)
 - Continuation approval period: 6 months
- Additional continuation criteria for documented diagnosis of NMOSD:
 - o Decrease or stabilization in number and frequency of acute attacks from baseline
 - o Continuation approval period: 12 months

Denial Criteria

- Therapy will deny with presence of one of the following:
 - Any approval criteria are not met
- Additional denial criteria for Ultomiris:
 - Participant is currently pregnant

Required Documentation					
Laboratory Results: MedWatch Form:		Progress Notes: Other:	X		

Disposition of Edit

Denial: Exception code "0682" (Clinical Edit)

Rule Type: CE

Default Approval Period

9 months

References

- Soliris (eculizumab) [package insert]. Boston, MA: Alexion Pharmaceuticals, Inc.; November 2020.
- Ultomiris (ravulizumab-cwvz) [package insert]. Boston, MA: Alexion Pharmaceuticals, Inc.; July 2022.
- Liszewski M, Atkinson J. Overview and clinical assessment of the complement system. UpToDate. Overview and clinical assessment of the complement system UpToDate. Accessed December 29, 2021.
- Dunkelberger, J., Song, WC. Complement and its role in innate and adaptive immune responses. Cell Res 20, 34–50 (2010). https://doi.org/10.1038/cr.2009.139. Accessed December 29, 2021.
- Janeway C, Travers P, Walport M, et al. Immunobiology: The Immune System in Health and Disease. 5th edition. New York: Garland Science; 2001. The complement system and innate immunity. Available from: https://www.ncbi.nlm.nih.gov/books/NBK27100/. Accessed December 29, 2021.
- Kessler, R.A., Mealy, M.A. & Levy, M. Treatment of Neuromyelitis Optica Spectrum Disorder: Acute, Preventive, and Symptomatic. *Curr Treat Options Neurol* 18, 2 (2016). https://doi.org/10.1007/s11940-015-0387-9. Accessed December 29, 2021.
- Farmakidis C, Pasnoor M, Dimachkie M, et al. Treatment of Myasthenia Gravis. Neurologic Clinics 36, 311-337 (2018). https://doi.org/10.1016/j.ncl.2018.01.011. Accessed January 3, 2022.
- Brodsky R. Treatment and Prognosis of Paroxysmal Nocturnal Hemoglobinuria. UpToDate. <u>Treatment and prognosis of paroxysmal nocturnal hemoglobinuria</u> <u>UpToDate</u>. Accessed January 3, 2022.
- Sarno, L., Tufano, A., Maruotti, G.M. et al. Eculizumab in pregnancy: a narrative overview. J Nephrol 32, 17–25 (2019). https://doi.org/10.1007/s40620-018-0517-z. Accessed January 3, 2022.

