Beovu® (brolucizumab-dbll)
(Intravitreal)

Document Number: SHP-0497

Last Review Date: 04/04/2022
Date of Origin: 10/28/2019
Dates Reviewed: 11/2019, 10/2020, 10/2021, 04/2022

I. Length of Authorization

Coverage will be provided annually and may be renewed.

II. Dosing Limits

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

- 6 mg single-dose vial for injection: 1 vial per eye every 25 days
- 6 mg single-dose pre-filled syringe for injection: 1 syringe per eye every 25 days

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

Diagnosis	MU for Initial Dosing	MU for Maintenance Dosing
Neovascular age-related macular degeneration (AMD)	12 billable units every 25 days x 3 doses	12 billable units every 56-84 days

(Max units are based on administration to both eyes)

III. Initial Approval Criteria [1]

- Patient must try and have an inadequate response, contraindication, or intolerance to an adequate trial of bevacizumab in either eye prior to consideration of a non-preferred product

Coverage is provided in the following conditions:

- Patient is at least 18 years of age; **AND**

Universal Criteria [1]

- Patient is free of ocular and/or peri-ocular infections; **AND**
- Patient does not have active intraocular inflammation; **AND**
- Therapy will not be used with other ophthalmic VEGF inhibitors (i.e., aflibercept, ranibizumab, pegaptanib, bevacizumab, etc.); **AND**
- Patient's best corrected visual acuity (BCVA) is measured at baseline and periodically during treatment; **AND**

- Patient has a definitive diagnosis of the following:

Neovascular (Wet) Age-Related Macular Degeneration (AMD) † [1]

† FDA Approved Indication(s); ‡ Compendia recommended indication(s); Φ Orphan Drug

IV. Renewal Criteria [1]

Coverage can be renewed based upon the following criteria:

- Patient continues to meet the universal and indication-specific relevant criteria as identified in section III; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include the following: endophthalmitis and retinal detachment, increase in intraocular pressure, arterial thromboembolic events, retinal vasculitis and/or retinal vascular occlusion; **AND**
- Patient has had a beneficial response to therapy (e.g., improvement in the baseline best corrected visual acuity (BCVA), etc.) and continued administration is necessary for the maintenance treatment of the condition

V. Dosage/Administration [1,2]

Indication	Dose
AMD	The recommended dose for Beovu is 6 mg (0.05 mL of 120 mg/mL solution) administered by intravitreal injection monthly (approximately every 25-31 days) for the first three doses, followed by 6 mg (0.05 mL) by intravitreal injection once every 8-12 weeks. – *For many patients, dosing at the every 12 week frequency is sufficient. For some patients who show continued disease activity, increasing the frequency to every 8 weeks may be considered.*

- Decreasing the interval of maintenance doses from 12-weeks to 8-weeks will be allowed if the patient has received all three loading doses and has evidence of disease activity, indicated by one of the following, at (or beyond) treatment-week 16:
  - Decrease in BCVA of ≥ 5 letters compared to baseline; **OR**
  - Decrease in BCVA of ≥ 3 letters and central subfield thickness ≥ 75 µm compared with week 12; **OR**
  - Decrease in BCVA of ≥ 5 letters due to neovascular AMD disease activity compared with week 12; **OR**
  - New or worsening intra-retinal cysts or fluid compared with week 12

VI. Billing Code/Availability Information

HCPCS:

- J0179 – Injection, brolucizumab-dbll, 1 mg; 1 mg = 1 billable unit

NDC:

- Beovu 6 mg/0.05 mL single-dose vial kit with injection components: 00078-0827-xx
- Beovu 6 mg/0.05 mL single-dose pre-filled syringe: 00078-0827-xx

VII. References

1. Beovu [package insert]. East Hanover, NJ; Novartis Pharmaceuticals, Inc.; March 2022. Accessed March 2022.
2. Dugel PU, Koh A, Ogura Y, et al. HAWK and HARRIER: Phase 3, Multicenter, Randomized, Double-Masked Trials of Brolucizumab for Neovascular Age-Related Macular Degeneration. Ophthalmology. 2019 Apr 12. pii: S0161-6420(18)33018-5.
3. Dugel PU, Jaffe GJ, Sallstig P, et al. Brolucizumab versus aflibercept in participants with neovascular age-related macular degeneration: a randomized trial. Ophthalmology. 2017;124:1296e1304.
4. Solomon SD, Chew E, Duh EJ, et al. Diabetic Retinopathy: A Position Statement by the American Diabetes Association. Diabetes Care. 2017 Mar; 40(3):412-418.
5. American Academy of Ophthalmology-Preferred Practice Patterns (AAO-PPP) Retina/Vitreous Panel, Hoskins Center for Quality Eye Care. Diabetic Retinopathy PPP – Update 2017. Nov 2017.
6. American Academy of Ophthalmology-Preferred Practice Patterns (AAO-PPP) Retina/Vitreous Panel, Hoskins Center for Quality Eye Care. Retinal Vein Occlusions PPP – Update 2017. Nov 2017.
7. American Academy of Ophthalmology-Preferred Practice Patterns (AAO-PPP) Retina/Vitreous Panel, Hoskins Center for Quality Eye Care. Age-Related Macular Degeneration PPP – Update 2017. Nov 2017.
8. Royal College of Ophthalmologists. Clinical Guidelines – Retinal Vein Occlusion (RVO) Guidelines – July 2015. Accessed at https://www.rcophth.ac.uk/standards-publications-research/clinical-guidelines.
9. National Government Services, Inc. Local Coverage Article: Billing and Coding: Ranibizumab, Aflibercept and Brolucizumab-dbll (A52451). Centers for Medicare & Medicaid Services, Inc. Updated on 12/20/2019 with effective date of 01/01/2020. Accessed September 2021.
10. American Academy of Ophthalmology Retina/Vitreous Panel. Age-related macular degeneration. San Francisco (CA): American Academy of Ophthalmology (AAO); 2008. 37 p.
11. Intravitreal bevacizumab (Avastin®) treatment of macular edema in central retinal vein occlusion: a short-term study. Retina. 2006 Mar; 26(3): 279-84
12. Epstein DL, Algvere PV, von Wendt G, et al: Bevacizumab for macular edema in central retinal vein occlusion: a prospective, randomized, double-masked clinical study. Ophthalmology 2012; 119(6):1184-1189.

13. Cekic O, Cakir M, Yazici AT, et al: A comparison of three different intravitreal treatment modalities of macular edema due to branch retinal vein occlusion. Curr Eye Res 2010; 35(10):925-929.
14. Moradian S, Ahmadieh H, Malihi M, et al. Intravitreal bevacizumab in active progressive proliferative diabetic retinopathy. Graefes Arch Clin Exp Ophthalmol 2008;246:1699-1705.
15. Short-term safety and efficacy of intravitreal bevacizumab (Avastin®) for neovascular age-related macular degeneration. Retina. 2006 May-Jun; 26(5): 495-511
16. Rich RM, Rosenfeld PJ, Puliafito CA, et al. Short-term safety and efficacy of intravitreal bevacizumab (Avastin) for neovascular age-related macular degeneration. Retina 2006;26:495-511.
17. Avery RL, Pieramici DJ, Rabena MD, et al. Intravitreal bevacizumab (Avastin) for neovascular age-related macular degeneration. Ophthalmol 2006;113:363-72.
18. Ruiz-Moreno JM, Montero JA, Araiz J, et al. Intravitreal anti-vascular endothelial growth factor therapy for choroidal neovascularization secondary to pathologic myopia: six years outcome. Retina. 2015 Dec;35(12):2450-6.
19. Gharbiya M, Giustolisi R, Allievi F, et al. Choroidal neovascularization in pathologic myopia: intravitreal ranibizumab versus bevacizumab--a randomized controlled trial. Am J Ophthalmol. 2010 Mar;149(3):458-64.e1.
20. Iacono P, Parodi MB, Papayannis A, et al. Intravitreal ranibizumab versus bevacizumab for treatment of myopic choroidal neovascularization. Retina. 2012 Sep;32(8):1539-46.
21. The CATT Research Group. Ranibizumab and Bevacizumab for Neovascular Age-Related Macular Degeneration. N Engl J Med 2011; 364:1897-1908
22. Wang E & Chen Y: Intravitreal anti-vascular endothelial growth factor for choroidal neovascularization secondary to pathologic myopia: systematic review and meta-analysis. Retina 2013; 33(7):1375-1392.
23. Scott IU, Bressler NM, Bressler SB, Browning DJ, Chan CK, Danis RP, Davis MD, Kollman C, Qin H; Diabetic Retinopathy Clinical Research Network Study Group. Agreement between clinician and reading center gradings of diabetic retinopathy severity level at baseline in a phase 2 study of intravitreal bevacizumab for diabetic macular edema. Retina.2008 Jan;28(1):36-40.
24. Diabetic Retinopathy Clinical Research Network, Scott IU, Edwards AR, Beck RW, Bressler NM, Chan CK, Elman MJ, Friedman SM, Greven CM, Maturi RK, Pieramici DJ, Shami M, Singerman LJ, Stockdale CR. A phase II randomized clinical trial of intravitreal bevacizumab for diabetic macular edema. Ophthalmology.2007 Oct;114(10):1860-7
25. Diabetic Retinopathy Clinical Research Network, Wells JA, Glassman AR, Ayala AR, Jampol LM, Aiello LP, Antoszyk AN, Arnold-Bush B, Baker CW, Bressler NM, Browning DJ, Elman MJ, Ferris FL, Friedman SM, Melia M, Pieramici DJ, Sun JK, Beck RW. Aflibercept, Bevacizumab, or Ranibizumab for Diabetic Macular Edema. N Engl J Med. 2015 Mar 26; 372(13): 1193–1203.

26. Wells JA, Glassman AR, Jampol LM, et al., for the Diabetic Retinopathy Clinical Research Network. Association of Baseline Visual Acuity and Retinal Thickness with 1-year Efficacy of Aflibercept, Bevacizumab, and Ranibizumab for Diabetic Macular Edema. JAMA Ophthalmol. 2016 Feb;134(2):127-34.

Appendix 1 – Covered Diagnosis Codes

ICD-10	ICD-10 Description
H35.3210	Exudative age-related macular degeneration, right eye, stage unspecified
H35.3211	Exudative age-related macular degeneration, right eye, with active choroidal neovascularization
H35.3212	Exudative age-related macular degeneration, right eye, with inactive choroidal neovascularization
H35.3213	Exudative age-related macular degeneration, right eye, with inactive scar
H35.3220	Exudative age-related macular degeneration, left eye, stage unspecified
H35.3221	Exudative age-related macular degeneration, left eye, with active choroidal neovascularization
H35.3222	Exudative age-related macular degeneration, left eye, with inactive choroidal neovascularization
H35.3223	Exudative age-related macular degeneration, left eye, with inactive scar
H35.3230	Exudative age-related macular degeneration, bilateral, stage unspecified
H35.3231	Exudative age-related macular degeneration, bilateral, with active choroidal neovascularization
H35.3232	Exudative age-related macular degeneration, bilateral, with inactive choroidal neovascularization
H35.3233	Exudative age-related macular degeneration, bilateral, with inactive scar
H35.3290	Exudative age-related macular degeneration, unspecified eye, stage unspecified
H35.3291	Exudative age-related macular degeneration, unspecified eye, with active choroidal neovascularization
H35.3292	Exudative age-related macular degeneration, unspecified eye, with inactive choroidal neovascularization
H35.3293	Exudative age-related macular degeneration, unspecified eye, with inactive scar

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 Local Coverage Articles (LCAs) may exist and compliance with these policies is required where applicable. They can be found at: https://www.cms.gov/medicare-coverage-database/new-search/. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD/LCA):

Jurisdiction(s): 6, K	**NCD/LCD Document (s):** A52451
https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a52451&areaId=all&docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP	

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, 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