



NHS MEDICAL POLICY

Bevacizumab Intravitreal Administration Medicine 2014-001

Bevacizumab is a recombinant humanized monoclonal antibody to vascular endothelial growth factor (VEGF). It is designed to bind to and inhibit VEGF.

Intravitreal administration of bevacizumab may be indicated when 1 of the following is

1	Retinopathy of prematurity
2	Neovascular (wet) age related macular degeneration (AMD)
3	Proliferative diabetic retinopathy with vitreous hemorrhage
4	Proliferative diabetic retinopathy as an adjunctive treatment to vitrectomy or photocoagulation.
5	Diabetic macular edema
6	Macular edema following central or branch retinal vein occlusion (RVO)
7	Neovascular glaucoma
8	Pseudoxanthoma elasticum
9	Rare causes of choroidal neovascularization (angioid streaks, choroiditis [including choroiditis secondary to ocular histoplasmosis], idiopathic degenerative myopia, retinal dystrophies, rubeosis iridis, and trauma)

1. Andreoli CM, Miller JW. Anti-vascular endothelial growth factor therapy for ocular neovascular disease. *Curr Opin Ophthalmol* 2007; 18:502.
2. Arevalo, JF, Wu, L, Sanchez, JG, et al. Intravitreal bevacizumab (avastin) for proliferative diabetic retinopathy: 6-months follow-up. *Eye* 2009; 23:117.
3. Avery RL. Regression of retinal and iris neovascularization after intravitreal bevacizumab (Avastin) treatment. *Retina* 2006; 26:352.
4. Avery RL, Pearlman J, Pieramici DJ, et al. Intravitreal bevacizumab (Avastin) in the treatment of proliferative diabetic retinopathy. *Ophthalmology* 2006; 113:1695.e1.
5. Bakri SJ, Donaldson MJ, Link TP. Rapid regression of disc neovascularization in a patient with proliferative diabetic retinopathy following adjunctive intravitreal bevacizumab. *Eye (Lond)* 2006; 20:1474.
6. Chen E, Park CH. Use of intravitreal bevacizumab as a preoperative adjunct for tractional retinal detachment repair in severe proliferative diabetic retinopathy. *Retina* 2006; 26:699.
7. Diabetic Retinopathy Clinical Research Network, Scott IU, Edwards AR, et al. A phase II randomized clinical trial of intravitreal bevacizumab for diabetic macular edema. *Ophthalmology* 2007; 114:1860.
8. Diabetic Retinopathy Clinical Research Network, Elman MJ, Aiello LP, et al. Randomized trial evaluating ranibizumab plus prompt or deferred laser or triamcinolone plus prompt laser for diabetic macular edema. *Ophthalmology* 2010; 117:1064.
9. Friedlander SM, Welch RM. Vanishing disc neovascularization following intravitreal bevacizumab (avastin) injection. *Arch Ophthalmol* 2006; 124:1365.
10. Isaacs TW, Barry C. Rapid resolution of severe disc new vessels in proliferative diabetic retinopathy following a single intravitreal injection of bevacizumab (Avastin). *Clin Experiment Ophthalmol* 2006; 34:802.
11. Ishikawa, K, Honda, S, Tsukahara, Y, Negi, A. Preferable use of intravitreal bevacizumab as a pretreatment of vitrectomy for severe proliferative diabetic retinopathy. *Eye* 2009; 23:108. Jorge R, Costa RA, Calucci D, et al. Intravitreal bevacizumab (Avastin) for persistent new vessels in diabetic retinopathy (IBEP study). *Retina* 2006; 26:1006.
12. Mason JO 3rd, Nixon PA, White MF. Intravitreal injection of bevacizumab (Avastin) as adjunctive treatment of proliferative diabetic retinopathy. *Am J Ophthalmol* 2006; 142:685.
13. Michaelides M, Kaines A, Hamilton RD, et al. A prospective randomized trial of intravitreal bevacizumab or laser therapy in the management of diabetic macular edema (BOLT study) 12-month data: report 2. *Ophthalmology* 2010; 117:1078.
14. Minnella AM, Savastano CM, Ziccardi L, et al. Intravitreal bevacizumab (Avastin) in proliferative diabetic retinopathy. *Acta Ophthalmol* 2008; 86:683.
15. Mirshahi A, Roohipoor R, Lashay A, et al. Bevacizumab-augmented retinal laser photocoagulation in proliferative diabetic retinopathy: a randomized double-masked clinical trial. *Eur J Ophthalmol* 2008; 18:263.
16. Paccola L, Costa RA, Folgosa MS, et al. Intravitreal triamcinolone versus bevacizumab for treatment of refractory diabetic macular oedema (IBEME study). *Br J Ophthalmol* 2008; 92:76.
17. Rajendram R, Fraser-Bell S, Kaines A, et al. A 2-year prospective randomized controlled trial of intravitreal bevacizumab or laser therapy (BOLT) in the management of diabetic macular edema: 24-month data: report 3. *Arch Ophthalmol* 2012; 130:972.
18. Salam A, DaCosta J, Sivaprasad S. Anti-vascular endothelial growth factor agents for diabetic maculopathy. *Br J Ophthalmol* 2010; 94:821.

19. Shimura M, Nakazawa T, Yasuda K, et al. Comparative therapy evaluation of intravitreal bevacizumab and triamcinolone acetonide on persistent diffuse diabetic macular edema. *Am J Ophthalmol* 2008; 145:854.
20. Smith JM, Steel DH. Anti-vascular endothelial growth factor for prevention of postoperative vitreous cavity haemorrhage after vitrectomy for proliferative diabetic retinopathy. *Cochrane Database Syst Rev* 2011; :CD008214.
21. Soheilian M, Ramezani A, Obudi A, et al. Randomized trial of intravitreal bevacizumab alone or combined with triamcinolone versus macular photocoagulation in diabetic macular edema. *Ophthalmology* 2009; 116:1142.
22. Spaide RF, Fisher YL. Intravitreal bevacizumab (Avastin) treatment of proliferative diabetic retinopathy complicated by vitreous hemorrhage. *Retina* 2006; 26:275.
23. Virgili G, Parravano M, Menchini F, Brunetti M. Antiangiogenic therapy with anti-vascular endothelial growth factor modalities for diabetic macular oedema. *Cochrane Database Syst Rev* 2012; 12:CD007419.
24. Zhao LQ, Zhu H, Zhao PQ, Hu YQ. A systematic review and meta-analysis of clinical outcomes of vitrectomy with or without intravitreal bevacizumab pretreatment for severe diabetic retinopathy. *Br J Ophthalmol* 2011; 95:1216.

CODE REFERENCE (This may not be a comprehensive list of codes to apply to this policy.)

CPT 67028
HCPCS J9035

POLICY HISTORY/REVISION INFORMATION

Date	Action/Description
11/24/2014	Updated code reference.
03/20/2015	Annual review and approval by UM Committee
12/16/15	Annual review and approval by UM Committee
12/14/2016	Annual review and approval by UM Committee
12/13/2017	Annual review and approval by UM Committee
12/13/2018	Annual review and approval by UM Committee
12/12/2019	Annual review and approval by UM Committee
12/10/2020	Annual review and approval by UM Committee
12/10/2021	Annual review and approval by UM Committee
12/21/2022	Annual review and approval by UM Committee
12/20/2023	Annual review and approval by UM/QM Committee