

MODULE 9.3

Avastin (Bevacizumab)

Bevacizumab (Avastin; Genentech, Inc.; South San Francisco, CA) is a full-length murine monoclonal, anti-VEGF antibody.¹ This VEGF-specific inhibitor of angiogenesis is approved for several types of cancer, including colorectal cancer, nonsquamous non - small cell lung cancer, glioblastoma, and metastatic renal cell carcinoma.² Because bevacizumab is not approved by the U.S. Food and Drug Administration for the treatment of diabetic macular edema (DME), intravitreal injection (typically 1.25 mg or 2.5 mg) of bevacizumab for the treatment of this disease is considered an off-label use of the agent in the US.^{1,3}

There are currently no large-scale clinical results to support the use of bevacizumab for the treatment of DME or proliferative diabetic retinopathy (PDR). You will read more about those studies in Module 10.

Bevacizumab is up to 40 times less expensive than either of the other two anti-VEGF agents.⁴ This vast cost differential is often used as a reason to initiate treatment with bevacizumab over other anti-VEGF agents.

References

1. Simo R, Sundstrom JM, Antonetti DA. Ocular Anti-VEGF therapy for diabetic retinopathy: the role of VEGF in the pathogenesis of diabetic retinopathy. *Diabetes Care*. 2014;37:893-899.
2. Avastin [package insert]. South San Francisco, CA: Genentech, Inc; 2014.
3. Arevalo JF, Sanchez JG, Lasave AF, et al. Intravitreal bevacizumab (Avastin) for diabetic retinopathy: The 2010 GLADAOF Lecture. *J Ophthalmol*. 2011;2011:584238.
4. Cheung N, Wong IY, Wong TY. Ocular anti-VEGF therapy for diabetic retinopathy: overview of clinical efficacy and evolving applications. *Diabetes Care*. 2014;37:900-905.