

<b>Title</b>	A systematic review of Intravitreal Bevacizumab for the treatment of diabetic macular edema
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<b>Reference</b>	CADTH Rapid Response Report, May, 2012. ISSN: 1922-8147 (online). Available From: <a href="http://www.cadth.ca/media/pdf/RD0028_RR_avastin_L3_e.pdf">http://www.cadth.ca/media/pdf/RD0028_RR_avastin_L3_e.pdf</a>

**Aim**

To evaluate the effects of intravitreal injection of bevacizumab (Avastin) in the treatment of diabetic macular edema.

**Conclusions and results**

Ten RCTs were included in the review. Results were inconclusive for the effects of bevacizumab on mortality, serious morbidity, activities of daily living, and quality of life. Bevacizumab was shown to improve visual acuity in patients with DME refractory to laser therapy. In patients who had not yet undergone laser therapy, bevacizumab significantly improved visual acuity versus laser therapy in trials lasting up to one year. However, patients experienced more adverse events on bevacizumab than laser. There is insufficient evidence that bevacizumab improves visual acuity to an equal or greater extent than triamcinolone and there is a lack of evidence for the long-term safety of intravitreal bevacizumab.

**Methods**

Relevant studies related to the effects of intravitreal bevacizumab use for diabetic macular edema were identified by peer-reviewed literature searches of bibliographic databases and grey literature sources. Two independent reviewers selected articles for inclusion based on specific criteria and assessed the risk of bias on all selected studies. Meta-analyses were conducted where possible, using RevMan 5.0 and a fixed effect model, where appropriate. Outcomes of interest were all cause mortality, serious adverse events (SAEs), visual acuity, activities of daily living, and quality of life.

**Further research/reviews required**

Large, well-conducted randomized controlled trials of sufficient duration are needed to provide better evidence of the effects of intravitreal bevacizumab compared with other treatments used for diabetic macular edema (DME) and to better define the optimal dose, timing, and duration of treatment with

intravitreal bevacizumab for DME. Also, patient-centred outcomes such as mortality, serious morbidity, and impact on patients' ability to perform activities of daily living and quality of life require greater consideration in future research.

**Written by**

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