



Research Article

A systematic review of the cost-effectiveness of anti-VEGF drugs for the treatment of diabetic retinopathy

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Plain language summary

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Anti-vascular endothelial growth factor medications have been proposed as a treatment for diabetic retinopathy, a common complication of diabetes. In the United Kingdom, the usual treatment for diabetic retinopathy is currently pan-retinal photocoagulation, commonly known as laser therapy. While there is evidence supporting the effectiveness of anti-vascular endothelial growth factor medications for managing diabetic retinopathy, it is unclear whether they represent good value for money.

This study aims to review the existing evidence on the cost-effectiveness (value for money) of treatments for diabetic retinopathy by systematically searching for relevant studies and collating the findings. The results of our review consider two types of diabetic retinopathy: non-proliferative and proliferative.

In patients with proliferative diabetic retinopathy, we found five studies that compared anti-vascular endothelial growth factor medications with laser treatment. These studies suggest that anti-vascular endothelial growth factor medications may help preserve vision but are also more expensive than laser therapy. The authors of these studies expressed doubts about the cost-effectiveness of anti-vascular endothelial growth factor medications. A limitation of most of the studies identified in the review is that they were conducted in the United States, making it challenging to apply their findings to the UK healthcare context.

In patients with non-proliferative diabetic retinopathy, we identified two studies. One compared anti-vascular endothelial growth factor medications with laser therapy but did not provide their findings in a way that could be interpreted. The other study, conducted in the United Kingdom, suggested that early use of laser therapy may help preserve vision and save money. This second study, however, did not investigate the possibility of using anti-vascular endothelial growth factor medications.

Overall, we found few studies evaluating the cost-effectiveness of treatments for diabetic retinopathy. Further research is needed to understand whether anti-vascular endothelial growth factor medications are likely to represent value for money in the United Kingdom.