Intravitreal bevacizumab for the management of rubeosis iridis and neovascular glaucoma

NHS Devon

Commissioning policy

The routine commissioning of bevacizumab intravitreal injection is accepted in Devon for the management of rubeosis iridis and neovascular glaucoma only in the following circumstances.

The decision to offer bevacizumab intravitreal injection is at the discretion of the treating clinician. The patient must be made fully aware that bevacizumab intravitreal injection is an unlicensed product and give informed consent to its use.

- As an adjunct to pan-retinal laser photocoagulation where laser alone has not been effective, or
- As an adjunct to pan-retinal laser photocoagulation if significant neovascularisation of the iridocorneal angle is already present, or
- In the presence of media opacities which prevent the use of pan-retinal laser photocoagulation.

Rationale for the decision

Neovascular glaucoma is a secondary glaucoma which has a poor visual prognosis and a high risk of surgical failure when glaucoma surgery is required. Pan-retinal laser photocoagulation is the standard treatment for eliminating the ischaemia which leads to neovascularisation of the iris (rubeosis iridis) and the iridocorneal angle of the anterior chamber (angle neovascularisation) which if not treated will lead to closure of the iridocorneal angle resulting in elevated intra-ocular pressure.

No randomised controlled trials were identified for bevacizumab, an anti-VEGF drug, for the management of rubeosis iridis or neovascular glaucoma in patients with a history of treatment with pan-retinal laser photocoagulation.

Four published prospective consecutive patient case series and two retrospective reviews of medical records investigated the effect of bevacizumab in patients with a history of treatment with pan-retinal laser photocoagulation. Treatment with bevacizumab resulted in a significant reduction or complete regression of iris neovascularisation, and a significant reduction in intra-ocular pressure from baseline in patients with neovascular glaucoma. A further prospective case series for an alternative anti-VEGF supported these findings and showed no progression of neovascularisation to the iridocorneal angle in patients with rubeosis iridis.

Low quality evidence suggests that early treatment with intravitreal bevacizumab is more likely to have a beneficial effect in patients with angle neovascularisation. The evidence suggests there is no benefit in using intravitreal bevacizumab in patients with advanced glaucoma. The rapid and often complete regression of iris neovascularisation seen following the administration of intravitreal bevacizumab may reduce the risk of haemorrhage during cataract surgery. Low quality evidence has shown that corneal oedema, due to raised intra-ocular pressure, resolved following the administration of intravitreal bevacizumab enabling the use of pan-retinal laser photocoagulation.

Guidance notes on exceptionality

Where the circumstances of treatment for an individual patient do not meet the criteria described above exceptional funding can be sought. Individual cases will be reviewed by the appropriate panel of the ICB upon receipt of a completed application from the patient's GP, consultant or clinician. Applications cannot be considered from patients personally.

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