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Titel des Beitrags: [Economic Short-Term Cost Model for Stereotactic Radiotherapy of Neovascular AMD].

Abstract: Stereotactic radiation therapy (Oraya, OT) is available as a second line therapy for patients who, despite intensive anti-VEGF therapy for neovascular AMD, do not show an improvement in CNV. As OT is expensive (5,308 EUR), the short term economics for starting this therapy were investigated. A short-term cost model was set up in MS Excel with a two year time horizon. On the basis of the data of the randomised, controlled INTREPID pivotal trial and current treatment practice in Germany, the costs were compared of conventional anti-VEGF therapy, with or without a single OT treatment. Patients with an active lesion after initial anti-VEGF therapy and a maximum lesion diameter 7.4 mm(3), the INTREPID trial showed a mean reduction of 3.68 intravitreal injections for 16 Gy radiation versus sham over a time period of 2 years. These 3.68 IVM result in ~ 4,500 EUR direct cost savings. Moreover, due to the higher response rate with 16 Gy radiation, the number of follow-up visits and aids can be reduced, which results in savings between 207 EUR and 1,224 EUR over 2 years. After radiation, fewer anti-VEGF switches for low or non-responders are expected, which is modeled to result in ~ 1.7 fewer injections over 2 years. Due to overall fewer injections, fewer endophthalmitis cases would be expected. However, endophthalmitis and microvascular abnormalities, which can be observed in a few cases, are associated with low or
non-quantifiable costs in this cost-cost comparison model. In summary, cost reductions of between 6,400 and 8,500 EUR are predicted in the model over two years, which have to be compared to the costs of a single application of OT. The short-term economic analysis shows that anti-VEGF therapy combined with OT results in savings above the costs for OT itself over a 2 year time horizon. Overall, the approach gives potential cost reductions, if the appropriate indication is followed.