The goal of the treatment in hyperopic LASIK surgery should be to change the slope of the cornea without inducing aberrations and this change should be stable over time. Hyperopic LASIK has some pearls and this gives us the limitation that we should take into account to get good results:

1) The refraction as the patient has latent hyperopia which should be also corrected.
2) The centration which is still controversial. We advocate centring on the vertex normal of the cornea, a geometrical and reproducible point on the cornea.
3) The created flap exposing the stromal bed should be big enough for covering the total ablation.
4) The ablation profile was we should get smooth transition zones. As most of the ablation occurs at the middle periphery of the cornea we have two transition zones one to the not treated centre of the cornea and the second transition zone to the periphery of the cornea. If we have also astigmatism we will have a transition zone at the middle periphery. We need aspherical profiles and they should take into account that the laser spot efficacy diminishes at the periphery.
5) Regression: after a treatment the cornea is remodelling. New studies show that with an optical zone of 6.25 mm or larger we get stability at 3 months.
6) Biomechanical. The peripheral cornea should not be thinner than the central part of the cornea (inversion of pachymetry progression)
7) Postoperative keratometry reading not higher than 49 Dioptries.

As the laser technology has progressed, we got predicable results. Reviewing the results and taking into account the different parameters as postoperative keratometry and an optical zone of 6.25 mm or larger the upper limit of hyperopic LASIK will be about 6.5 to 7 Diopters in one meridian.

We have also learned from hyperopic Lasik that Presbyopic patients may benefit of inducement of negative spherical aberrations. New profiles use this information to treat presbyopia in hyperopic patients.