

## Humber Coast and Vale

### Refractive Error Commissioning Policy

<b>Intervention</b>	<b>Corrective Surgery, Lens Implants and Laser Treatment for Refractive error (short or long sightedness, astigmatism)</b>
<b>For the treatment of:</b>	<b>Refractive errors</b>
<b>Background</b>	Corrective surgery for refractive error is widely available in the private sector but is not performed as an NHS procedure unless indicated for therapeutic reasons e.g. a specific clinical indication or the inability to wear spectacles due to disability.
<b>Commissioning position</b>	<p>Humber Coast and Vale CCGs do not routinely commission nonessential corrective surgery or lens implants for focusing (refractive) errors such as short-sightedness (myopia), astigmatism, and long-sightedness (hyperopia) because these conditions are usually corrected by wearing spectacles or contact lenses.</p> <p>All requests for corrective surgery, lens implants and laser treatment for refractive error must be considered via the Individual Funding Request (IFR) process and a clear clinical case of need must be evidenced, such as treatment for keratoconus that cannot be corrected by other means</p>
<b>Summary of evidence /rationale</b>	<p>Corrective surgery includes either corneal or lens techniques. Corneal techniques include:</p> <ul style="list-style-type: none"> <li>• LASIK (Laser in-situ keratomileusis). Most common procedure in the UK, performed since the mid-1990s. Not suitable for high degree of myopia.</li> <li>• Wavefront guided LASIK. Reduces the natural irregularities of the eye (which can cause light rays to focus incorrectly), and improves the visual result of the surgery.</li> <li>• PRK (Photo refractive keratectomy). Used since the 1980s, but now mainly used for correcting low degree myopia.</li> <li>• LASEK (Laser-assisted sub-epithelial keratectomy). Similar to PRK but the surface layer of the cornea is retained as a flap which helps prevent complications and speeds up healing.</li> </ul> <p>Laser refractive surgery is generally effective for up to 10 dioptres of myopia, 6 dioptres of hyperopia and 4 dioptres of astigmatism, though the predictability of correction tends to diminish towards the extremes of these ranges. Current evidence suggests that laser surgery for the correction of refractive errors is safe and efficacious for use in appropriately selected patients, including when used to correct refractive error resulting from other forms of ophthalmic surgery (1, 2). The Royal College of Ophthalmologists issued a statement on Standards for Laser Refractive Surgery in 2012 (3).</p> <p>However corrective surgery is considered a cosmetic treatment and compared to the use of spectacles or contact lenses, not an efficient use of NHS resources. Private laser surgery treatment is now offered by many treatment centres, with prices varying from approx £500-£1500 per eye depending on the prescription and the type of surgery involved.</p> <p>Complications of laser refractive surgery include infection, bleeding, over/under correction, corneal haze, glare, halo orburst, corneal damage, retinal detachment and dry eye. However risks which have the potential to cause permanent damage are very rare.</p>

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	<p>A 2005 review (4) of the efficacy of laser treatment found a broadly similar performance for PRK, LASEK and LASIK. People with a milder degree of myopia were more likely to achieve the intended refractive correction. Treatment of hyperopia was less successful than treatment of myopia.</p> <p><b>Intraocular lens implants</b></p> <p>For correction of large myopic refractive errors and moderate or large hyperopic refractive errors, a more predictable correction may be achieved by insertion of an intraocular lens (IOL) implant of the appropriate power.</p> <p>Lens techniques include:</p> <ul style="list-style-type: none"><li>• Insertion of corneal implants</li><li>• Intraocular lens insertion with preservation of the natural lens. (e.g. phakic intraocular lens implants)</li></ul> <p>Current evidence from NICE on the efficacy of corneal implants for the correction of refractive error shows limited and unpredictable benefit. In addition, there are concerns about the safety of the procedure for patients with refractive error. Therefore, corneal implants should only be used for the treatment of refractive error when there is other ocular pathology present e.g. keratoconus (5)</p> <p>There is good evidence for the short term efficacy and safety of phakic IOL insertion, but the long term risks of cataract, corneal damage or retinal detachment remain uncertain and require ongoing audit (6). Other complications of IOL implantation are similar to those of cataract surgery and include infection, poor night vision, glare and eye damage. Eyes with higher refractive errors have a greater risk.</p>
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#### References:

1. NICE IPG 164 (2006) Photorefractive (laser) surgery for the correction of refractive errors (replaces previous guidance on laser in situ keratomileusis (LASIK) NICE IPG 102).
2. NICE IPG385 Laser correction of refractive error following non-refractive ophthalmic surgery (March 2011)
3. The Royal College of Ophthalmologists (2017) Statement on Standards for Laser Refractive Surgery.
4. Murray A, Jones L, Milne A et al. 'A systematic review of the safety and efficacy of elective photorefractive surgery for the correction of refractive error'. University of Aberdeen; 2005.
5. NICE IPG 225 (2007) Corneal implants for correction of refractive error.
6. NICE IPG 289 (2009) Intraocular lens insertion for correction of refractive error, with preservation of the natural lens