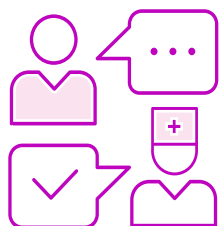


CLINICAL AID: PC-IOL surgery workflow at a glance



1 PREOPERATIVE EVALUATION

Patient-centered assessment



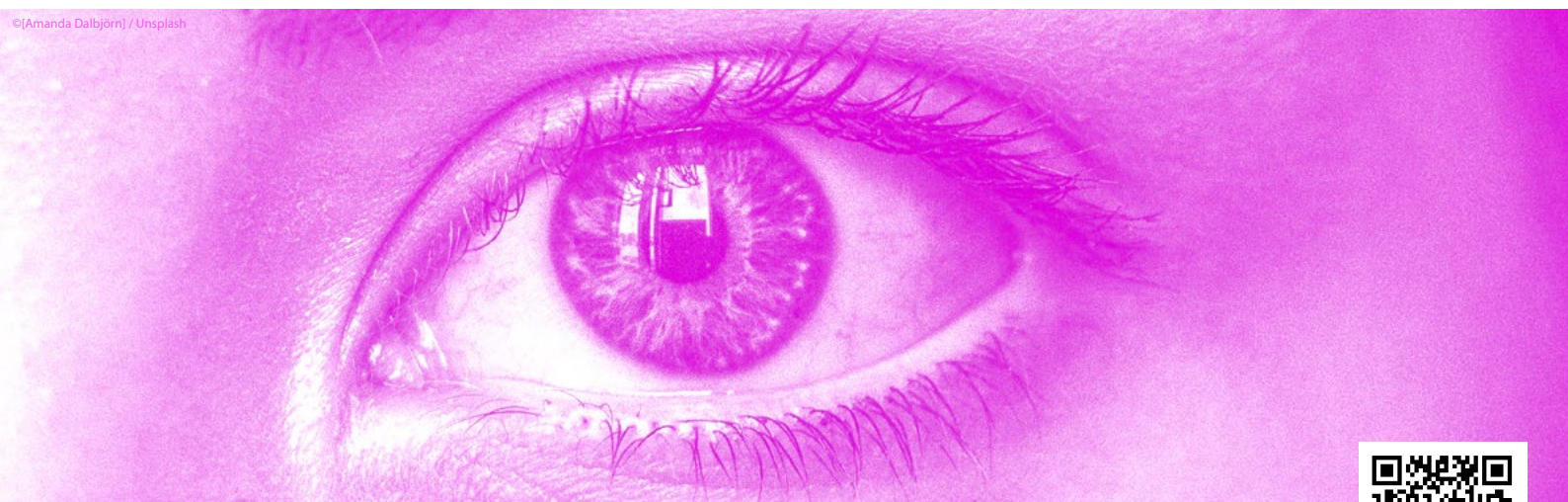
- ☐ Assess visual goals (distance, intermediate, near priorities)¹⁻³
- ☐ Discuss occupational and lifestyle needs (night driving, screen use, hobbies)¹⁻³
- ☐ Evaluate tolerance for glare/halos and reduced contrast sensitivity⁴⁻¹⁰
- ☐ Identify personality traits or perfectionism that may affect satisfaction^{1-3,10}
- ☐ Review previous refractive surgery history (laser in-situ keratomileusis (LASIK), photorefractive keratectomy (PRK), radial keratotomy (RK))¹¹
- ☐ Screen for ocular comorbidities impacting candidacy¹¹⁻¹³

Ocular surface & pathology screening



- ☐ Dry eye disease evaluation and treatment optimization¹²⁻¹³
 - Tear film assessment
 - Corneal staining and meibomian gland evaluation
- ☐ Retina evaluation¹²
 - Macular optical coherence tomography (OCT) screening
- ☐ Optic nerve evaluation¹²
 - Rule out glaucoma, optic nerve atrophy or other pathologies affecting optic nerve function

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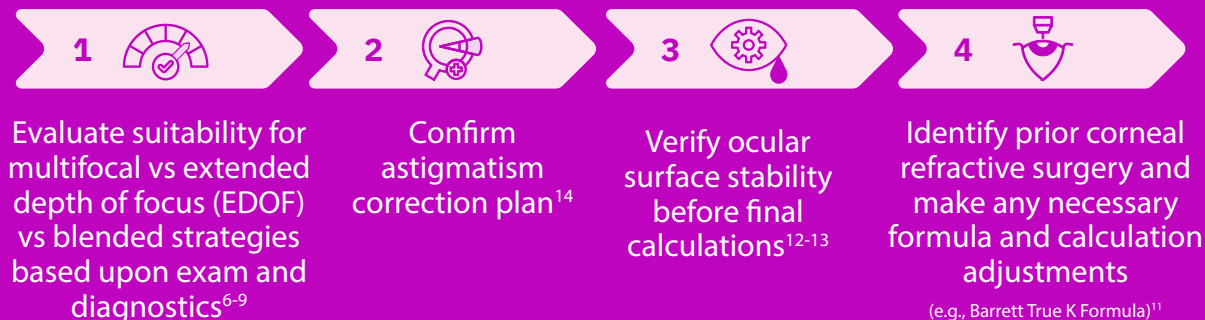
2 ADVANCED DIAGNOSTICS

Preoperative diagnostics



- ☐ Obtain optical biometry and keratometry¹²⁻¹³
 - Repeat if results are inconsistent or ocular surface disease is present
- ☐ Corneal topography/tomography¹¹⁻¹²
 - Ensure normal topography with either astigmatism or regular astigmatism. Rule out ectasia, keratoconus, surface dystrophies or other abnormalities that cause irregular astigmatism
 - Consider assessment of total corneal astigmatism¹⁴
- ☐ OCT macula¹²
 - Ensure no macular pathology, with additional adjunct testing as clinically indicated
- ☐ Screen for conditions that may impact outcomes or satisfaction including,
 - Dry eye disease / ocular surface disease¹²⁻¹³
 - Irregular astigmatism¹¹⁻¹²
 - Macular or retinal disease¹²
 - Glaucoma¹²
 - Prior refractive surgery (LASIK, PRK, RK)¹¹
 - Add macular OCT or other adjunct testing when clinically indicated.¹²
- ☐ Evaluate and treat ocular surface disease prior to final measurements, recognizing that tear film instability can affect biometry and keratometry¹²⁻¹³
- ☐ Consider ocular surface therapy as part of the surgical plan, not as an optional add-on¹²⁻¹³
- ☐ Repeat measurements after ocular surface stabilization or if values are inconsistent and delay final lens calculations until stability is achieved¹²⁻¹³

Refractive planning

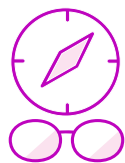


Visual priorities



- ☐ Match intraocular lens (IOL) type to patient goals and risk tolerance^{1-3,6-10}
- ☐ Consider monofocal lenses when contrast sensitivity, low dysphotopsia risk, or night-driving performance is the priority⁴⁻⁷
- ☐ Counsel about the trade-offs of each type of lens design, e.g., dysphotopsias with multifocal IOLs, loss of near vision with monofocal IOLs⁴⁻¹⁰
- ☐ Assess post-refractive patients carefully to ensure candidacy due to higher risk of refractive surprise and possible increased risk of dissatisfaction with poor candidate selection¹¹

Vision goal-guided selection



Patient desires:

- ☐ Full range of vision with a strong near vision demand → consider trifocal/multifocal IOL⁷⁻⁹
- ☐ Range of vision with minimal halo risk → consider EDOF IOLs with expectation of possible reading glasses^{5-6,8}
- ☐ Enhanced monofocal / mini-monovision^{6,8}

3 INTRAOPERATIVE PLANNING

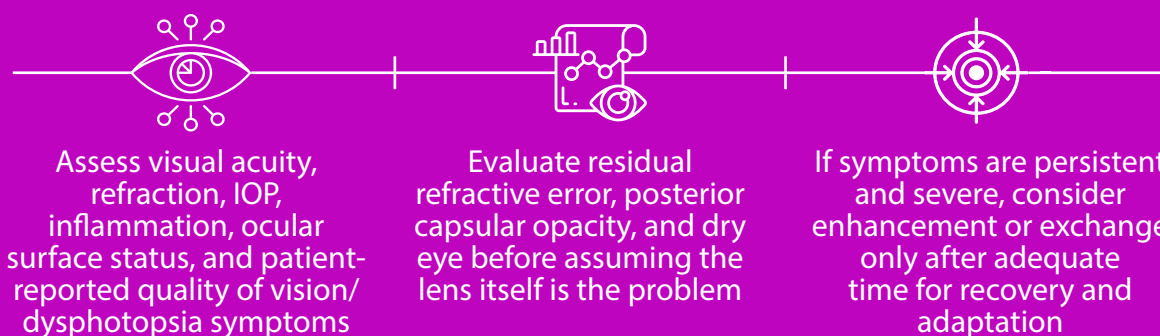
Surgical planning checklist¹⁴



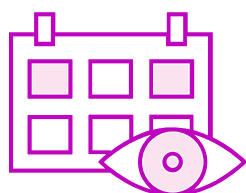
- ☐ Confirm target refraction, dominant eye, and toric axis alignment strategy before surgery
- ☐ Utilize image-guided systems when available to provide intraoperative digital overlay of the steep astigmatic axis and guide toric IOL alignment and limbal relaxing incisions (LRI), reducing cyclotorsion-related error
- ☐ Utilize femtosecond laser systems for toric alignment and astigmatism management when available:
 - Create LRIs for astigmatism management, if appropriate
 - Utilize femtosecond laser imaging to create astigmatism axis marks on the cornea or capsule (if available) to help in toric IOL alignment
- ☐ If advanced technologies are not available, use traditional handheld marking systems to identify and align the astigmatic axis
- ☐ Ensure proper centration and capsulorhexis precision
- ☐ Minimize surgically induced astigmatism
- ☐ Reconfirm IOL model, power, and axis immediately before implantation

4 POSTOPERATIVE FOLLOW-UP

Early postoperative monitoring¹⁵



Longitudinal follow-up



- ☐ Monitor patient satisfaction and spectacle independence⁸⁻¹⁰
- ☐ Evaluate residual refractive error¹⁵
- ☐ Screen for posterior capsular opacification¹⁵
- ☐ Address persistent dysphotopsia early^{5,15}
- ☐ Consider enhancement/exchange only after adaptation period when appropriate¹⁵

Abbreviations

EDOF	Extended depth of focus intraocular lens technology
IOL	Intraocular lens
IOP	Intraocular pressure
LASIK	Laser in-situ keratomileusis
LRI	Limbal relaxing incision
OCT	Optical coherence tomography
PC-IOL	Presbyopia-correcting intraocular lens
PRK	Photorefractive keratectomy
RK	Radial keratotomy

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