



# Quality-Based Procedures Clinical Handbook

Cataract Day Surgery

**MAY 2021 (VERSION 2)**

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# Preface

The Cataract Quality-Based Procedure (QBP) was introduced in April 2012. It was one of the first QBPs introduced in Ontario. This was supported by:

- Feedback from clinicians and hospitals;
- Resource utilization analytics using Canadian Institute for Health Information (CIHI) National Ambulatory Care Reporting System (NACRS) and Comprehensive Ambulatory Classification System (CACS) data; and
- Ontario Case Costing Initiative (OCCI) methodology.

The initial Cataract Day Surgery QBP Clinical Handbook (January 2013) focused on routine cataract day surgery only.

Following the introduction of the Cataract QBP, clinicians identified challenges in maintaining access to non-routine and bilateral cataract day surgery cases outside the QBP cohort. In response to this feedback, the Cataract QBP Clinical Expert Advisory Group was reconvened, and in 2015 the Cataract Day Surgery QBP Clinical Handbook was updated to include criteria related to non-routine and bilateral day surgery cases, revised clinical pathways and new performance indicators.

In April 2016, the Cataract QBP was formally updated to include a Non-Routine and Bilateral subgroup, in addition to the existing Routine Unilateral subgroup.

## May 2021 Revision Summary

In 2020, the COVID-19 pandemic and subsequent directives and guidelines from the Ministry of Health (the Ministry) and Ontario Health in 2020 and 2021 to temporarily ramp down or cease non-emergent and non-urgent surgeries and procedures in hospitals and community settings and increased requirements for infection prevention and control and the reassignment of hospital resources to respond to COVID-19 have collectively had a significant impact on access to cataract surgeries.

While these measures were necessary to ensure that health system resources, staffing and supplies were available to support the response to COVID-19, and while measures implemented by the Ministry (e.g. COVID-19 Surgical Premiums) have supported recovery efforts, as of May 2021 there remains a significant backlog of patients waiting for cataract surgeries and wait times for cataract surgery, which exceeded provincial Wait Time Access Targets (WTATs) prior to the pandemic, reached an all-time high of 328 days (90th percentile) in October 2020.

In June 2020, the Canadian Ophthalmological Society (COS) released a guidance document on Immediately Sequential Bilateral Cataract Surgery (ISBCS). In the preamble, the COS noted that “To address the issues of COVID-19 risk and reduced efficiencies while trying to manage the significant backlog of cataract surgeries, immediately sequential bilateral cataract surgery may be a consideration. Evidence suggests similar visual outcomes and complications for ISBCS and delayed sequential bilateral cataract surgery (DSBCS).” This document is available on the COS web site at: <https://www.cosprc.ca/resource/immediately-sequential-bilateral-cataract-surgery-isbcs-key-points/>

Following the release of this guidance document, clinicians and hospitals informed the Provincial Vision Task Force (PVTf) and the Ministry that the existing Cataract QBP funding model disincentivizes hospitals from providing bilateral cataract surgeries and acts as a financial barrier to address the surgical backlog due to COVID-19.

In December 2020, the COS released a supplement to the June 2020 document titled “Immediate Sequential Bilateral Cataract Surgery (ISBCS) COVID-19 Considerations” to provide additional guidance on the use of ISBCS at <https://www.cosprc.ca/immediate-sequential-bilateral-cataract-surgery-isbcs-covid-19-considerations/>.

In response to these developments, the PVTf has updated the Cataract Day Surgery QBP Clinical Handbook to:

- Further refine the patient groupings to support the uptake of routine bilateral cataract day surgery (changes are summarized in Table 1 below);
- Provide updated recommendations regarding the use of ISBCS (see Section 5.0 Implementation of Best Practices); and
- Provide newer data on system performance for cataract day surgery (see [Section 7.0 Service Capacity Planning](#)).

**Table 1. Summary of May 2021 Updates to Cataract Groups**

| QBP Clinical Handbook (May 2021 Updates)                                                                           | QBP Clinical Handbook (March 2018)                                                           |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Group 1: Routine Unilateral</b><br>No change.                                                                   | <b>Group A (Routine)</b><br>Previously included in 2013 Cataract Surgery QBP handbook        |
| <b>Group 2 (NEW): Routine Bilateral</b><br>Same as previous Group C <u>minus</u> non-routine bilateral procedures. | <b>Group C – Cataract day surgery performed as a bilateral sequential cataract procedure</b> |

|                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Group 3 (NEW): Non-Routine</b></p> <p>Includes non-routine unilateral and non-routine bilateral (i.e. includes previous Groups B1/B2 <u>plus</u> non-routine bilateral procedures).</p> | <p><b>Group B1 – Non-routine cataract day surgery combined with any one of the following:</b></p> <ul style="list-style-type: none"> <li>• Under general anesthesia</li> <li>• Using special devices, instruments or techniques</li> <li>• With corneal procedures that do not meet definition of Integrated Corneal Transplant Care QBP</li> </ul> <p>With anterior vitrectomy procedures that do not meet the definition of the Integrated Retinal Care QBP (not funded as a QBP)</p> |
|                                                                                                                                                                                               | <p><b>Group B2 – Non-routine cataract day surgery combined with any one of the following:</b></p> <ul style="list-style-type: none"> <li>• Performed with glaucoma filtering/drainage procedure</li> <li>• Multiple ophthalmology procedures</li> </ul>                                                                                                                                                                                                                                 |

To summarize, the May 2021 update **moves non-routine bilateral procedures from the bilateral group (Group C) to the non-routine group (Group 3)**. From a coding perspective, there is no change to the inclusion criteria for each group. This update has been implemented by changing the order of the groups (i.e. hierarchical sequence for this QBP).

This update **recognizes the difference in complexity and costs** between routine bilateral and non-routine (unilateral and bilateral) day surgery procedures.

There is **no change** in eligible cataract cases for QBP funding based on NACRS coding criteria.

# 1.0 Purpose

*Provided by the Ministry of Health*

This Clinical Handbook has been created to serve as a compendium of the evidence-based rationale and clinical consensus driving the development of the policy framework and implementation approach for the Cataract QBP.

The clinical recommendations in this document and any subsequent adjustments to the cataract surgery funding model are not intended to take the place of the professional skill and judgment of health care providers. As with all QBPs, hospitals can also supplement volumes as required using their global budgets. Changes to the QBP funding model do not impact physician billing.

## 2.0 Introduction to Quality-Based Procedures

Provided by the Ministry of Health

### 2.1 What are QBPs?

QBPs involve clusters of patients with clinically related diagnoses or treatments. Cataract Day Surgery was chosen as a QBP using an evidence- and quality-based selection framework that identifies opportunities for process improvements, clinical redesign, improved patient outcomes, enhanced patient experience, and potential cost savings.

The evidence-based framework used data from the Discharge Abstract Database (DAD) adapted by the MOHLTC for its Health-Based Allocation Model (HBAM) repository, which preceded the Growth and Efficiency Model (GEM). The HBAM Inpatient Grouper (HIG) groups inpatients according to diagnosis or treatment for most of their inpatient stay. Day surgery cases are grouped in NACRS by the principal procedure they received. Additional data were used from the Ontario Case Costing Initiative. Evidence in publications from Canada and from other jurisdictions and in World Health Organization reports was also used to determine patient clusters and to assess potential opportunities.

The evidence-based framework assessed patients as presented in Figure 1. This framework identified QBPs that have the potential to both improve quality outcomes and reduce costs.

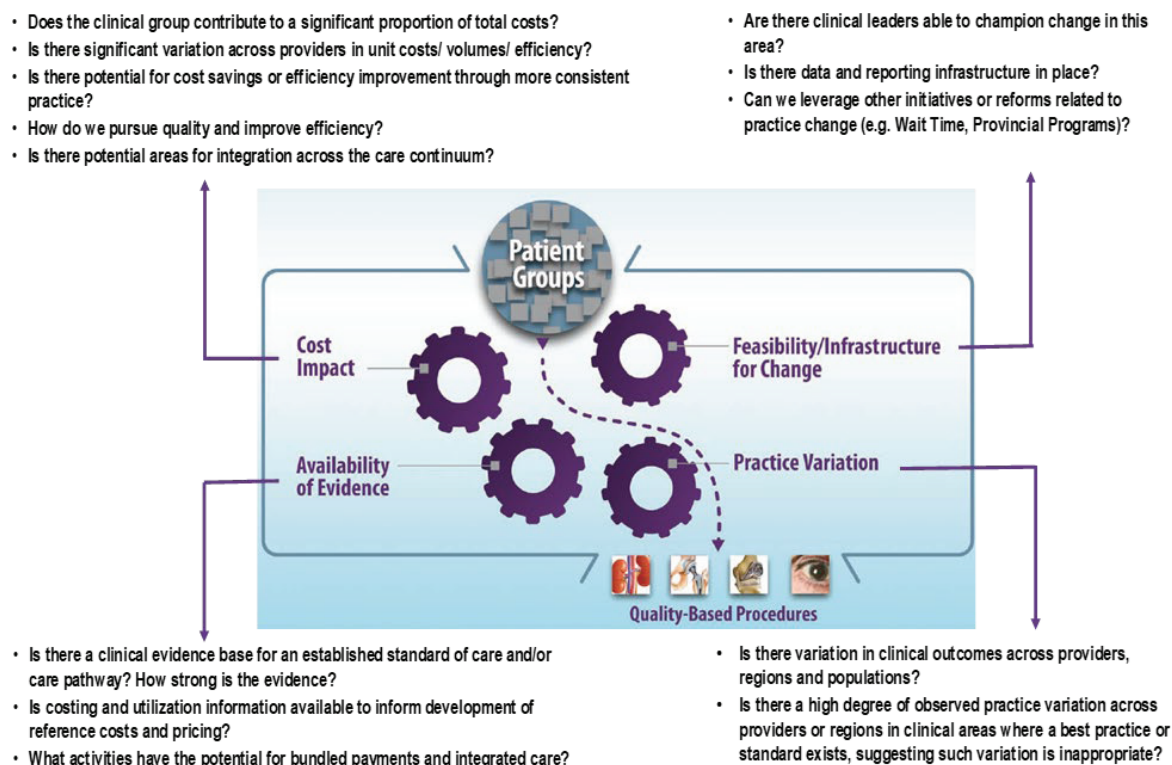


Figure 1: Evidence-Based Framework

## Practice Variation

The DAD stores every Canadian patient discharge (excluding Quebec data), coded and abstracted, for the past 50 years. This information is used to identify patient transition through acute care, including discharge locations, expected length of stay (LOS), and readmissions for every patient on the basis of their diagnosis and treatment, age, sex, comorbidities and complexities, and other condition-specific data. A demonstrated large practice or outcome variance could represent an opportunity to improve patient outcomes by reducing this practice variation and focusing on evidence-informed practice. A large number of “beyond expected days” for LOS and a large standard deviation for LOS and costs are flags to such variation. Ontario has detailed case-costing data for all patients discharged from a case-costing hospital from as far back as 1991, as well as daily resource use and cost data by department, by day, and by admission.

## Availability of Evidence

Much Canadian and international research has been undertaken to develop and guide clinical practice. By use of these recommendations and those of the clinical experts, best-practice

guidelines and clinical pathways can be developed for these QBPs, and appropriate evidence-informed indicators can be established to measure performance.

### **Feasibility/Infrastructure for Change**

Clinical leaders are integral to this process. Their knowledge of the patients and the care provided or required represents an invaluable component of assessing where improvements can and should be made. Many groups of clinicians have already provided rationale-for-care pathways and evidence-informed practice.

### **Cost Impact**

The selected QBP should have no fewer than 1,000 cases yearly in Ontario and represent at least 1% of the provincial direct cost budget. While cases that fall below these thresholds could, in fact, represent opportunity for improvement, the resource requirements to implement a QBP can inhibit the effectiveness for such a small patient cluster, even if some efficiencies could be found. Clinicians might still work on implementing best practices for these patient subgroups, especially if they align with the change in similar groups. However, at this time, there will be no funding implications. The introduction of evidence into agreed-upon practice for a set of patient clusters that demonstrate opportunity as identified by the framework can directly link quality with funding.

## **2.2 How Will QBPs Encourage Innovation?**

Implementing evidence-informed pricing for the targeted QBPs will encourage health care providers to adopt best practices in their care delivery models and maximize their efficiency and effectiveness. Moreover, best practices that are defined by clinical consensus will be used to understand required resource use for the QBPs and further assist in developing evidence-informed pricing.

Implementation of a “price x volume plus quality” strategy for targeted clinical areas will motivate providers to:

- adopt best-practice standards
- re-engineer their clinical processes to improve patient outcomes
- develop innovative care delivery models to enhance the experience of patients

Clinical process improvement can include better discharge planning, eliminating duplicate or unnecessary investigations and paying greater attention to the prevention of adverse events (e.g., postoperative complications). These practice changes, together with adoption of

evidence-informed practices, will improve the overall patient experience and clinical outcomes and help create a sustainable model for health care delivery.

## 3.0 Description of Cataract QBP

This section outlines the patient groups and inclusion/exclusion criteria to be used for the Cataract QBP. As noted in the [Preface](#), in the May 2021 update to the QBP Clinical Handbook, non-routine bilateral cataract surgeries have been moved from the bilateral group to the non-routine group. All other aspects of the Patient Groups and Inclusion/Exclusion Criteria remain the same.

### 3.1 Patient Groups

As of the May 2021 update, the Cataract Day Surgery QBP Clinical Handbook defines three cataract day surgery patient groups: Routine Unilateral, Routine Bilateral and Non-Routine (unilateral and bilateral).

This QBP includes day surgery cases only. Inpatient cataract surgery is excluded from all groups below.

**Group 1 (Routine Unilateral):** This group encompasses patients who have visual impairment, placing the patient at risk of losing the ability to drive (*Highway Traffic Act*) or maintaining current employment, or who have functional impairment secondary to cataracts (e.g. ambulation, quality of life).

**Group 2 (Routine Bilateral):** This group encompasses patients receiving immediate sequential bilateral cataract day surgery in both eyes during the same surgical episode.

**Group 3 (Non-Routine):** This group includes patients who require cataract surgery for the reasons outlined in Groups 1 and 2 and also require one of the following interventions below:

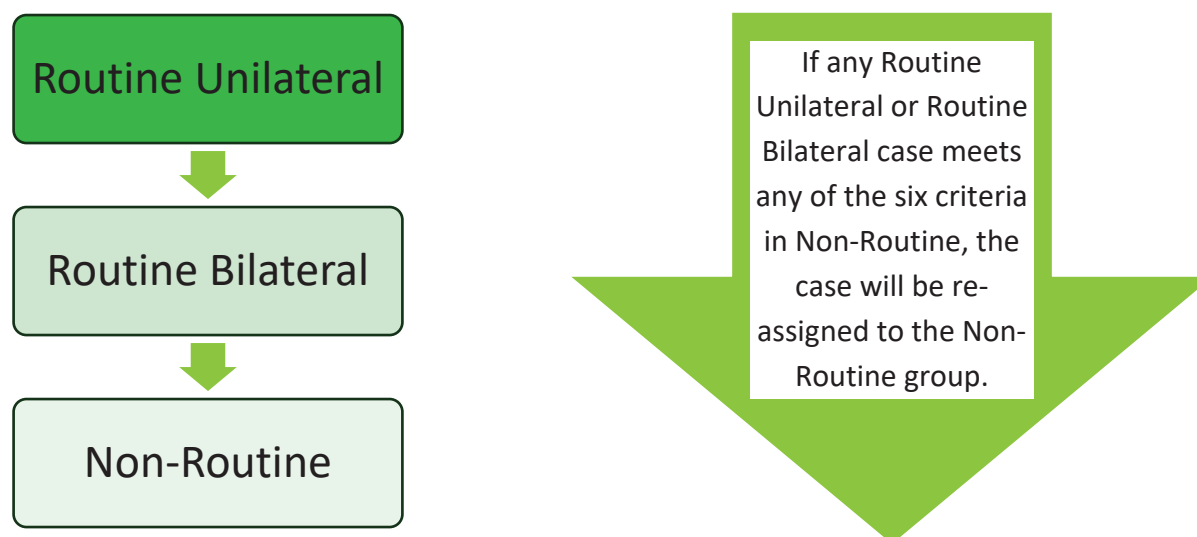
- General anesthesia to perform cataract surgery
- Special devices, instrumentation, and/or techniques to perform cataract surgery
- Corneal procedure which does not meet the criteria for inclusion in the Integrated Corneal Transplant Care QBP Clinical Handbook<sup>1</sup> and is not a limbal relaxing incision, pterygium surgery, artificial cornea implantation (Keratoprosthesis), or limbal stem cell transplant procedure

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<sup>1</sup> The Corneal Transplant QBP was introduced in April 2018.

- Anterior vitrectomy and/or retinal laser/cryotherapy and does not meet criteria for inclusion in the Integrated Retinal Care Clinical Handbook<sup>2</sup>
- Glaucoma filtering/drainage procedure
- Ophthalmic surgery which meets more than one of the criteria outlined in Group 3

The hierarchical sequence for this QBP is as follows:



## 3.2 Inclusion and Exclusion Criteria

The Cataract QBP applies NACRS methodology as follows:

- Main intervention is a lens extraction for cataract, i.e. main intervention starts with “1CL89”
- Functional centre is Operating Room or Day Surgery, i.e. MIS Visit Functional Centre code begins with “7126” or “7136”
- Ontario funded cases, i.e. province issuing hcn= “ON” and responsibility for payment = “01”
- Main intervention is neither cancelled nor performed Out-of-Hospital, i.e. Main Intervention status attribute is not = “A” (abandoned) and Main intervention Out-of-Hospital indicator is not = “Y”

<sup>2</sup> Retinal Care is not funded as a QBP (it continues to be funded through hospital global budgets). Health care providers are encouraged to implement the best practices in the clinical handbook.

### 3.2.1 Inclusion Criteria

| Cataract Groups                                                                                                | Canadian Classification of Health Interventions (CCI) Coding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Group 1: Routine Unilateral</b>                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Unilateral cataract performed as day surgery case                                                              | Principle procedure starts with 1.CL.89 and does NOT fulfil criteria defined below in Group 2 or Group 3 nor fulfil criteria for inclusion in the Integrated Corneal Transplant Care QBP Clinical Handbook or Integrated Retinal Care Clinical Handbook. For instance, cataract surgery performed with Limbal Relaxing Incision using a laser [1.CC.84.RT-AG; 1.CC.84.WK.AG] or using a scalpel or diamond blade [1.CC.84.RT; 1.CC.84.WK] are captured within Group 1.                                                                                                                                             |
| <b>Group 2: Routine Bilateral</b>                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Immediate bilateral sequential cataract procedure performed as a single day surgery case                       | Principle procedure starts with 1.CL.89 with Location Attribute is “B” Bilateral                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Group 3: Non-Routine (unilateral and bilateral cataract day surgery combined with one of the following)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| i. Under general anesthesia                                                                                    | Principle procedure starts with 1.CL.89 with Anaesthetic technique is equal to “1” - General                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ii. Using special devices, instruments or techniques                                                           | <p>Principle procedure starts with 1.CL.89 combined with the following CCI codes:</p> <ul style="list-style-type: none"> <li>• Endoscopic cyclophotocoagulation [1.CG.59.LA-AG ]</li> <li>• Capsular tension rings or ring segments [1.CL.53.LA-FE]</li> </ul> <p>Note: Malyugin rings are a mechanical pupil expansion device that a surgeon can use to gain a wide and unobstructed view of the lens during cataract surgery. These are NOT capsular tension rings as defined here. Hospitals should NOT code Malyugin rings as a capsular tension ring or ring segment (defined as CCI code 1.CL.53.LA-FE.)</p> |

|                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                      | <ul style="list-style-type: none"> <li>• Immediate removal of a damaged/defective intraocular lens [1.CL.55.LA-L^]</li> <li>• Repair of sclera [1.CD.80.^ ^]</li> <li>• Iris fixation / Iris reconstruction [1.CH.80.^ ^]</li> <li>• Goniosynechialysis [1.CH.72.^ ^]</li> <li>• Iris iridectomy [1.CH.87.^ ^]</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| iii. With corneal procedures that do not meet definition of Integrated Corneal Transplant Care QBP Clinical Handbook | <p>Principle procedure starts with 1.CL.89 combined with cornea CCI codes that start with 1.CC*</p> <p><b>EXCEPT FOR:</b></p> <ul style="list-style-type: none"> <li>• Cases with Limbal Relaxing Incision using a laser [1.CC.84.RT-AG; 1.CC.84.WK.AG] or using a scalpel or diamond blade [1.CC.84.RT; 1.CC.84.WK] which are captured within Group 1.</li> <li>• Any cases that meet the definition of Integrated Corneal Transplant Care QBP Clinical Handbook are EXCLUDED from this QBP.</li> <li>• Cases with Limbal Stem Cell Transplant defined as Transplant, Cornea using donor limbal stem cells (1.CC.85.HA-U7-K) or Transfer Cornea including limbal stem cell transplantation from contralateral eye (1.CC.83.LA-XX-A) are EXCLUDED from this QBP.</li> <li>• Cases with Keratoprosthesis (KPro) defined as construction/ reconstruction of cornea using alloplastic corneal implant using a laser (1.CC.84.LA-AH -) or using a scalpel or diamond blade (1.CC.84.LA-LC) are EXCLUDED from this QBP</li> <li>• Cases with pterygium removal defined as the presence of both a pterygium diagnosis [H11.0] and an excision partial cornea intervention (1.CC.87 ^ ^) are EXCLUDED from this QBP.</li> </ul> |
| iv. With anterior vitrectomy procedures that do not meet the definition of the                                       | <p>Principle procedure starts with 1.CL.89 combined with the following CCI codes:</p> <ul style="list-style-type: none"> <li>• Excision total, vitreous using anterior approach with mechanical vitrectomy [1.CJ.52.LL]</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                                               |                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Integrated Retinal Care Clinical Handbook.    | <b>EXCEPT FOR:</b> <ul style="list-style-type: none"> <li>Any cases (including Pars Plana Vitrectomy) that meet the definition of Integrated Retinal Care Clinical Handbook are EXCLUDED from this QBP.</li> </ul>                                                                                                                                                         |
| v. With glaucoma filtering/drainage procedure | Principle procedure starts with 1.CL.89 combined with the following CCI codes: <ul style="list-style-type: none"> <li>Drainage, Sclera[I.CD.52. ^^]</li> <li>Drainage, anterior chamber (of eye) [1.CJ.52.^^]</li> <li>Management of internal device, anterior chamber (of eye) [1.CJ.54.^^]</li> <li>Removal of device, anterior chamber (of eye) [1.CJ.55.^^]</li> </ul> |
| vi. Multiple ophthalmology procedures         | Have cataract day surgery which meets more than one of the criteria outlined in Group 3                                                                                                                                                                                                                                                                                    |

### 3.2.2 Exclusion Criteria

Exclusion criteria for the Cataract QBP are identified as follows:

- Inpatient cataract surgery
- Paediatric cases (patients under 18 years of age) and procedures performed in children's hospitals
- Cataract surgery with insertion of an intraocular telescope defined as '1.CL.89.NP-LO' or '1.CL.89.VR-LO' or '1.CL.89.VO-LO'.
- Cataract surgery that meets the definition of the Integrated Retinal Care Clinical Handbook (March 2018) *\*this procedure is not funded as a QBP*
- Cataract surgery that meet the definition of the Integrated Corneal Transplant Care QBP Clinical Handbook
- Cataract surgery with limbal stem cell transplant, Keratoprosthesis (KPro) or pterygium surgery
- Limbal stem cell transplant defined as '1.CC.85.HA-U7-K' or '1.CC.83.LA-XX-A'
- Keratoprosthesis (KPro) defined as '1.CC.84.LA-AH' or '1.CC.84.LA-LC codes'
- Pterygium surgery defined as presence of both a pterygium diagnosis 'H11.0' and an excision partial cornea intervention '1.CC.87 ^^'

## 4.0 Best Practices Guiding the Implementation of Cataract Day Surgery

Best practice<sup>3</sup> recommendations in the form of Cataract Clinical Pathways have not been revised from those in the previous versions of the QBP Clinical Handbook, as they remain effective. However, ISBCS has been recommended as an opportunity to more rapidly recover from the increased surgical backlog due to COVID-19 and reduce the number of encounters for patients who have the need for bilateral cataract day surgery (see [Section 4.4 Immediately Sequential Bilateral Cataract Surgery](#)). Over time, this will make up an increasing proportion of the cataract surgery performed.

The processes of care for routine unilateral, routine bilateral and non-routine cataract day surgery follow the same clinical pathways, namely:

- Assessment and referral
- Surgical decision to treat
- Surgical treatment and follow-up care.

The pathways outline key clinical processes of care determined by clinical evidence, where available, and through clinical consensus. It is recommended that hospitals or Independent Health Facilities (IHF) offering cataract day surgery must be accredited, meet appropriate surgical standards and participate in Ontario's Wait Time Information System (WTIS).

### 4.1 Assessment and Referral Pathway

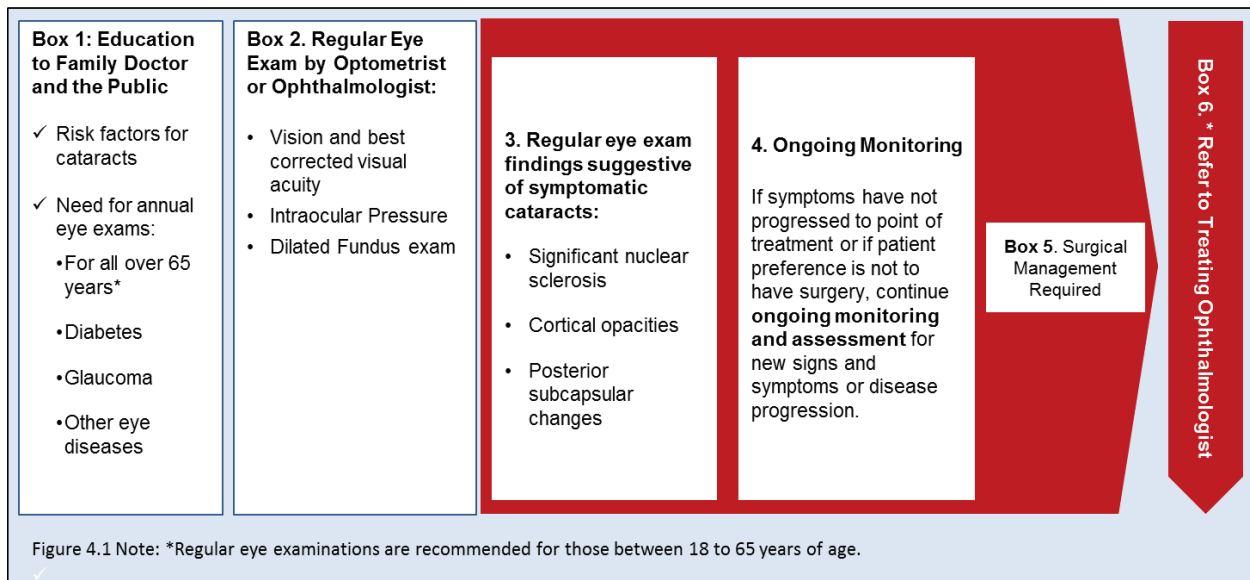
Figure 4.1 outlines processes to assess and refer any cataract surgery patient defined in [Section 3.1 Patient Groups](#).

Clinical findings that warrant referral to a treating ophthalmologist for further diagnostic evaluation and treatment are highlighted in red.

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<sup>3</sup> Best practice refers to a combination of best available evidence and clinical consensus as recommended by the Clinical Expert Advisory Groups.

Figure 4.1 Assessment and Referral Pathway



Education of the public and general practitioners is required with respect to key risk factors for cataracts and the need for annual eye exams for those over 65 years, or those under 65 years with diabetes, glaucoma risk or other eye conditions which necessitate this.

Key risk factors for cataracts include:

- Age and family history of cataracts
- Diabetes, high blood pressure and obesity
- Excessive alcohol consumption and smoking
- Excessive exposure to sunlight and exposure to ionizing radiation (e.g. cancer radiation therapy)
- Previous eye injury or inflammation
- Previous eye surgery
- Prolonged use of corticosteroid medications

*Annual* eye exams should be performed in individuals over 65 years of age or anyone with diabetes, glaucoma risk or other eye conditions which necessitate annual clinical review. Exams should be performed by an optometrist, ophthalmologist or family physician with the training and tools to carry out a comprehensive eye examination.

Although everyone should receive regular comprehensive eye exams, it is important to note that that the Ontario Health Insurance Plan (OHIP) only insures an *annual* eye exam in patients:

- If they are younger than 20 years or over 65 years;
- If they have one or more specific ocular/medical conditions that require regular monitoring; or
- If their primary care provider identifies the patient as needing regular monitoring.

Comprehensive eye examinations should include:

- Vision and best corrected visual acuity measurement;
- Intraocular pressure; and
- Dilated fundus exam.

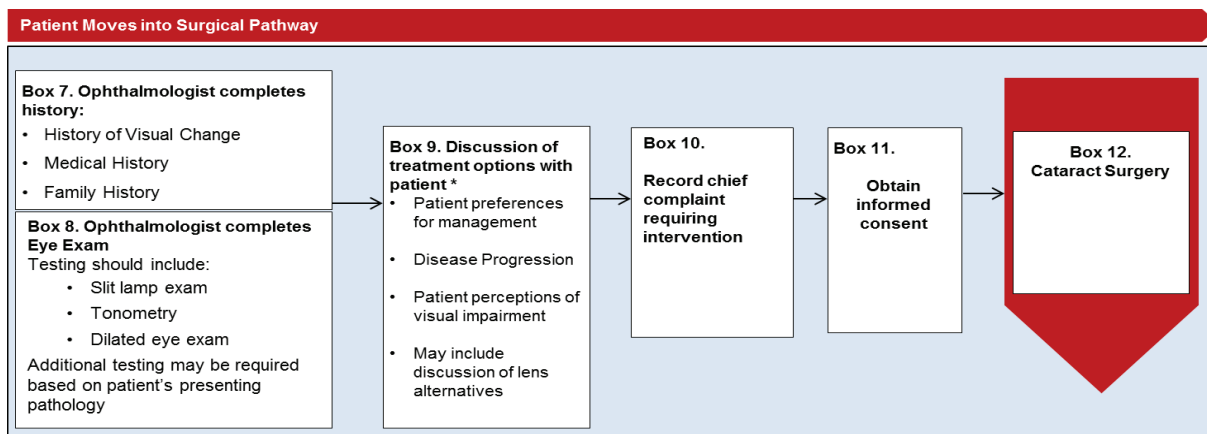
Patients should be referred to an ophthalmologist if eye examination findings are suggestive of symptomatic cataracts or show visually significant nuclear sclerosis, cortical opacities, or posterior subcapsular changes.

Ongoing monitoring and assessment for new signs and symptoms or disease progression should continue if cataract symptoms have not progressed to the point of requiring surgery.

## 4.2 Surgical Decision to Treat Pathway

All patient groups who move into the cataract surgical pathway should undergo the diagnostic exams and clinical and decision-making processes outlined in Figure 4.2.

Figure 4.2 Decision to Treat Pathway



The complete eye exam should include, at a minimum:

- Slit lamp exam
- Tonometry

- Dilated eye exam

Additional testing (e.g. optical coherence tomography, pachymetry) may be required based on the patient's unique presentation.

Discussion of treatment options should consider patient preferences for surgical management, disease progression, and patient's perceptions of visual impairment. The decision for surgery should include obtaining informed patient consent for surgical treatment and recording the patient's chief complaint necessitating intervention.

Patients should be educated about their treatment options. This should include the possibility of immediately sequential bilateral surgery if the patient's condition and circumstances warrant.

Cataract surgery is an insured service in Ontario. OHIP covers the following cataract surgery services: dilated fundus exam, ultrasound test – to measure the length and curvature of the front of the eye, standard mono-focal lens implant, and all surgical costs associated with cataract surgery including equipment, supplies, staffing, and follow-up visit(s).

Patients can pay for optional services (such as specialized diagnostic procedures and special-feature intraocular lenses) that are not covered by OHIP. It is important for the ophthalmologist to discuss these non-insured services with patients in a transparent fashion outlining the reasons these services are being suggested and that they are not a required part of surgery.

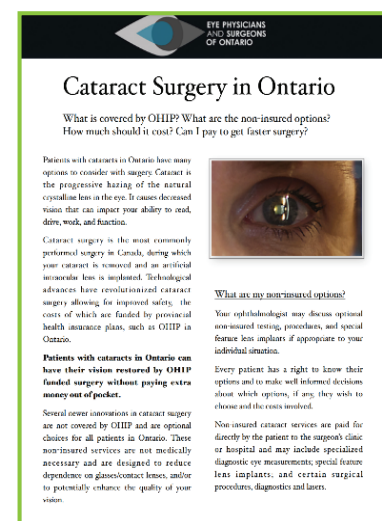
The Eye Physician and Surgeons of Ontario (EPSO) has endorsed a patient information handout on cataract surgery options in Ontario that describes:

- What is covered by OHIP?
- What are non-insured options?
- How much should cataract surgery cost?

This patient education material should be provided to all patients who are considering cataract surgery.

The patient information is available on the EPSO website for download at: <http://c2->

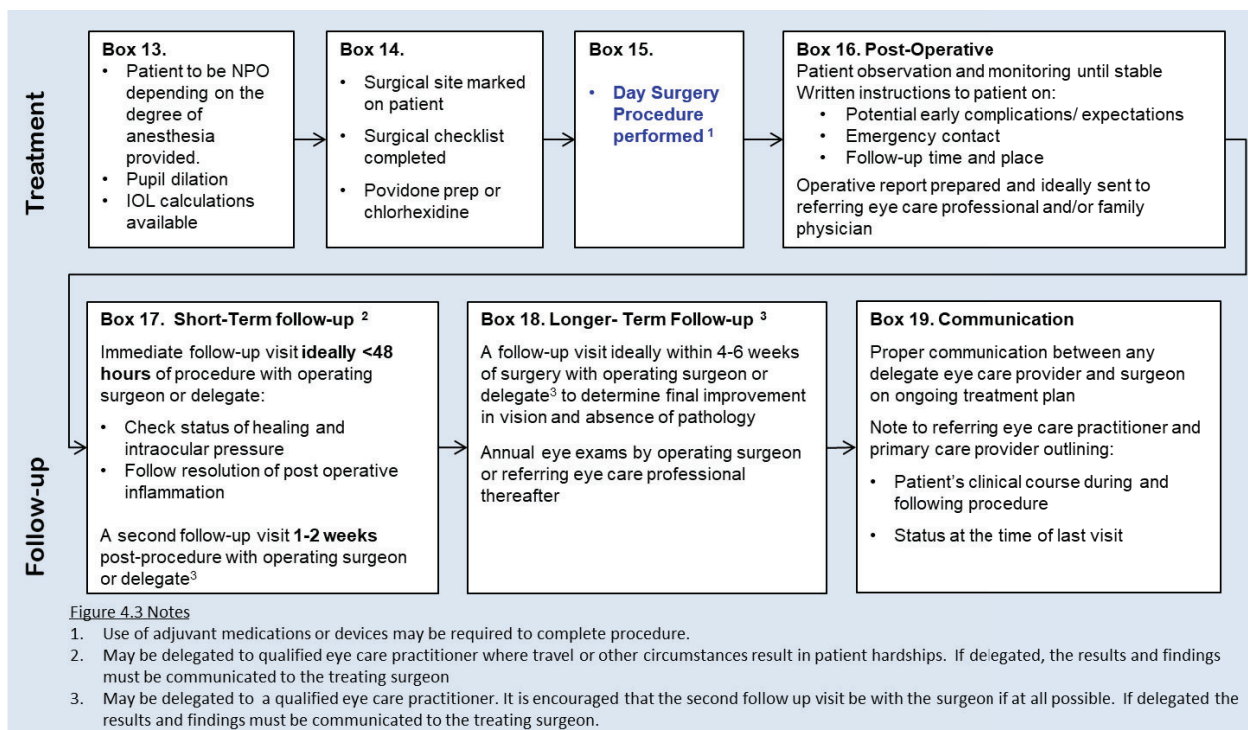
[preview.prosites.com/187380/wy/docs/Cataract%20Surgery%20in%20Ontario%20EPSO%20Patient%20Handout%202015.pdf](http://c2-preview.prosites.com/187380/wy/docs/Cataract%20Surgery%20in%20Ontario%20EPSO%20Patient%20Handout%202015.pdf)



## 4.3 Surgical Treatment and Follow-up Care Pathway

All patient groups that move into the surgical pathway should undergo the diagnostic exams and clinical and decision-making processes outlined in Figure 4.3.

Figure 4.3 Cataract Day Surgery Surgical Treatment and Follow up Care Pathway



## 4.4 Immediately Sequential Bilateral Cataract Surgery

In June 2020, the COS released a guidance document on ISBCS. In the preamble, the COS noted that “To address the issues of COVID-19 risk and reduced efficiencies while trying to manage the significant backlog of cataract surgeries, immediately sequential bilateral cataract surgery may be a consideration. Evidence suggests similar visual outcomes and complications for ISBCS and delayed sequential bilateral cataract surgery (DSBCS).” This document is available on the COS web site at: <https://www.cosprc.ca/resource/immediately-sequential-bilateral-cataract-surgery-isbcs-key-points/>

Therefore, it is recommended that additional consideration be given to treating patients with ISBCS (see also [Section 5.0 Implementation of Best Practices](#)).

Simultaneous bilateral cataract day surgery *may be* indicated for patients when:

- Both eyes meet criteria for surgery, and patient elects to have simultaneous bilateral cataract surgery (for patients with severe disabilities, meeting criteria for surgery for second eye may not be required if there is an expectation that surgery on the second eye will be required in the near future)
- Health issues are present that increase the risks associated with multiple surgeries and anesthesia.

Simultaneous bilateral cataract day surgery *may not be* indicated in patients with:

- Minimal cataract in the second eye (except in cases above);
- Significantly increased risk of infection; or
- Significant corneal, lenticular or retinal abnormalities, which increase risk of later complications.

Safe practice for simultaneous bilateral cataract day surgery requires the following:

- Complete sterile separation of the two procedures is critical, with re-prepping and re-draping between eyes, the use of different sets of instruments and different lots of balanced salt solution, disposables, and ophthalmic viscosurgical devices.
- Where possible, operating room nurses involved in bilateral cataract day surgery should be specifically trained.
- If any complication occurs with the first eye, the second eye should be deferred.
- Processes should be established to ensure surgical planning information (e.g. astigmatism magnitude and axis and Intraocular Lens (IOL) power and type) is clearly linked to the right versus left eye and communicated to and understood by all members of the surgical team.

Pre-operative processes should include documentation for reason and clinical indications for simultaneous bilateral cataract surgery. Post-operative follow-up care processes should include documentation of outcomes.

## 4.5 Non-Routine Cataract Day Surgery

The following section outlines additional considerations to the cataract day surgery clinical pathway outlined in Figure 4.3 for non-routine patients as defined in Group 3.

### 4.5.1 Performed under General Anesthesia

Cataract day surgery under General Anesthesia (GA) *may be* indicated for patients with:

- Extreme patient anxiety
- Inability of the patient to cooperate with the surgical team
- Inability to provide satisfactory local or topical anesthesia
- The presence of disorders that may be better managed under general anesthesia, i.e. severe back pain, postural problems, movement disorders

Cataract day surgery under GA *is usually not* indicated for:

- Surgeon preference in the absence of other indications

Pre-operative processes should include documentation for reason and clinical indications for general anesthesia use. Post-operative follow-up care processes should include documentation of outcomes.

### 4.5.2 Performed with Special Devices, Instrumentation, and/or Techniques

Pre-operative processes should include:

- Documentation on the nature of disease requiring additional devices, instrumentation and/or techniques

Post-operative follow-up care processes should include:

- Assessment of outcomes post surgery
- Documentation of outcomes with use of additional devices, instrumentation and/or techniques

### 4.5.3 Performed with Corneal Procedures

Pre-operative processes should include:

- Nature of corneal disease should be documented
- Appropriate measures should be taken to stabilize disease as necessary
- Pachymetry and specular microscopy, if indicated

Post-operative follow-up care processes should include:

- Follow-up with treating surgeon dependent on clinical course
- Ocular and functional status documented (e.g. vision, corneal clarity)

#### **4.5.4 Performed with Anterior Vitrectomy Procedures**

Pre-operative processes should include:

- Documentation of need for anterior vitrectomy
- Evaluation of retinal status

Post-operative follow-up care processes should include:

- Follow-up with surgeon dependent on clinical course
- Dilated fundus examination to ensure retina is stable

#### **4.5.5 Performed with Glaucoma Filtering/Drainage Procedures**

Pre-operative processes should include:

- Selection of procedure to reach intraocular pressure target following cataract and glaucoma surgery
- Include complete eye examination (including gonioscopy), automated perimetry and optic disc/Retinal Nerve Fiber Layer (RNFL) assessment to establish etiology and stage of glaucoma to guide surgical decision making

Post-operative follow-up care processes should include:

- In eyes at risk of permanent vision loss due to intraocular pressure spike (e.g. advanced glaucomatous optic nerve damage), it is advisable to monitor intraocular pressure on the day of surgery
- Frequency of follow-up with surgeon dependent on clinical course. Best practice for follow up care after glaucoma surgery requires more frequent visits than following routine cataract surgery
- Documentation of ocular and functional status (e.g. intraocular pressure, optic nerve)

#### **4.5.6 Performed with Multiple Ophthalmology Procedures**

Pre-operative processes should:

- Documentation for reason and clinical indications for multiple ophthalmology procedures

Post-operative follow-up care processes should include:

- Frequency of follow-up with surgeon, dependent on clinical course
- Documentation of outcomes

## 5.0 Implementation of Best Practices

The implementation of best practices outlined in this Cataract Day Surgery QBP Clinical Handbook is supported by clinicians, the PVTF and EPSO. Key considerations to support effective implementation of this QBP include:

### 1. Support for Immediately Sequential Bilateral Cataract Surgery

ISBCS can provide benefits for patients and the overall health care system, including:

- Reducing the number of times patients undergo day surgery procedure visits, with similar clinical outcomes<sup>4</sup>;
- Reducing wait times for cataract surgeries; by performing surgery on both eyes in one visit, the total wait time for patients is reduced (no wait for the second eye), and the operating room time that is saved by reducing the number of changeovers will ultimately reduce the waits for those still waiting; and
- Improving the efficient use of health system resources; performing two surgeries in one visit can allow hospitals to treat more patients within existing staff and facility resources.

For these reasons, **the PVTF recommended that ISBCS be considered for select patients, where clinically appropriate.** As of 2019/20, routine bilateral cataract surgeries represented only **0.4%** of cataract surgeries performed in Ontario (see [Section 7.0 Service Capacity Planning](#)). For reference, the rate of ISBCS in Finland is 40% of all cases in many hospitals, while the rate in Sweden is 40%<sup>5</sup>. While the current rate in Ontario is low, this is expected to be an area of volume growth in future, as it represents a significant opportunity to support the recovery from COVID-19 and to continue to support timely access to cataract surgeries and the efficient use of health system resources after the recovery from COVID-19.

Furthermore, **the PVTF recommended that the Ministry update the Cataract QBP funding model to remove any existing financial barriers for hospitals to perform routine bilateral cataract day surgeries.** Given the current low volume for these procedures and subsequent limitations in costing data available, the Ministry should consider enhancements to the existing

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<sup>4</sup> Per the COS, evidence suggests similar visual outcomes and complications for ISBCS and delayed sequential bilateral cataract surgery (DSBCS) (see Preface).

<sup>5</sup> Per the COS document titled “Immediate Sequential Bilateral Cataract Surgery (ISBCS) COVID-19 Considerations” (see Preface).

QBP funding methodology to ensure that there is adequate financial support for hospitals to perform routine bilateral cataract day surgeries.

## **2. Ontario Health regional and provincial level reporting mechanisms are required to identify Toxic Anterior Segment Syndrome after cataract surgery**

Toxic Anterior Segment Syndrome (TASS) is an acute postoperative inflammatory reaction that typically develops within 24 hours after surgery. It is characterized by corneal edema and accumulation of white cells in the anterior chamber of the eye. TASS can cause serious damage to intraocular tissues, resulting in vision loss. Causes of TASS include contaminants introduced into the eye during surgery, usually from surgical equipment or supplies.

Currently, if there is an outbreak of TASS or postoperative infection, the issue is managed at a facility level. A provincial reporting system is needed to identify outbreak clusters and work with treating ophthalmologists and hospitals to prevent additional cases from developing. The prevention of TASS requires careful attention to solutions, surgical devices and sterilization of surgical equipment.

The monitoring system should be set up in Ontario Health Regions with one (or more) lead hospital(s) responsible for collecting information on the cases occurring within local areas and coordinating notification of outbreak incidents to all ophthalmology programs within the Ontario Health Region and across the Province.

## **3. Cataract surgery procedures excluded from the QBP**

Cataract surgery procedures excluded from the QBP will continue to remain in hospital global budgets. Hospitals should manage and maintain access to cataract surgery procedures not included in this QBP or other ophthalmology QBPs.

These procedures will remain in hospital global funding and include:

- Inpatient cataract surgery
- Cataract surgery with insertion of an intraocular telescope ['1CL89NPLO' or '1CL89VRLO' codes]
- Cataract surgery performed with limbal stem cell transplant [1.CC.85.HA-U7-K; OR 1.CC.83.LA-XX-A codes]
- Cataract surgery performed with keratoprosthesis (KPro) [(1.CC.85\*) PLUS 1.CC.84.LA-AH / 1.CC.84.LA-LC codes]
- Cataract surgery performed with pterygium surgery [presence of both a pterygium diagnosis [H11.0] and an excision partial cornea intervention (1.CC.87 ^^)]

## 6.0 What Does This Mean for Multi-Disciplinary Teams?

The role of the multi-disciplinary team should include the following considerations:

### 1. Role in measuring functional outcomes and satisfaction in patients receiving cataract day surgery

Coordination between the treating ophthalmologist, and/or delegated qualified eye care provider (general ophthalmologist, optometrist) is required to support assessment and reporting of functional outcomes and satisfaction in patients who received cataract day surgery.

- Functional vision: a multidisciplinary approach will be required for reporting of functional vision in patients. Optometrists and ophthalmologists will have to work together to obtain and report functional vision acuity measurement before and after cataract surgery. This is an important part of the performance indicators for this QBP.
- Patient satisfaction: this is a key performance metric for this QBP and is implementable by hospitals and clinicians. Collection and communication of patient satisfaction measures will help to ensure delivery of high-quality cataract surgery care.

### 2. Role in maintaining access to non-QBP ophthalmology procedures

Hospital administrators, ophthalmologists, Ontario Health and the Ministry must work together to preserve access to non-QBP ophthalmology procedures. Two major practice areas in ophthalmology are under a QBP funding model, namely:

- Cataract Day Surgery QBP Clinical Handbook (2013, 2015, 2018, 2021)
- Integrated Corneal Transplant Care QBP Clinical Handbook (2015, 2017, 2018)

The PVTF has also developed and/or informed clinical guidance for additional ophthalmology services that are not funded through QBP funding model, namely:

- Integrated Retinal Care QBP Clinical Handbook (2014, 2018)
- Quality Standard for Glaucoma and Patient Guide for Glaucoma Care (2019)

### Integrated Retinal Care

In 2014, the PVTF completed the Clinical Handbook for Integrated Retinal Care. Retinal Care is not funded as a QBP and continues to be funded through hospital global budgets. Health care providers are encouraged to implement the best practices in the Integrated Retinal Clinical Handbook.

### Glaucoma Care

In 2019, Health Quality Ontario, working with the PVTF, released the Ontario Quality Standard for Glaucoma, along with the accompanying Patient Guide for Glaucoma Care. Glaucoma surgery also continues to be funded through hospital global budgets.

Ophthalmology teams should work together to preserve access to retinal, glaucoma and other non-QBP ophthalmology procedures for which funding remains in hospital global budgets.

## 7.0 Service Capacity Planning

Service capacity planning for the Cataract QBP will require that hospitals maintain and increase their cataract surgery volumes. Table 2 shows the number of cataract surgeries in QBP hospitals in 2019/20 that would have met the criteria for the new groupings implemented in the May 2021 revised QBP Clinical Handbook.

**Table 2. 2019/20 Cataract QBP Clinical Cases (using New QBP Groupings)**

| Cataract Groups             | 2019/20 Actual Cases | % of Total Cases |
|-----------------------------|----------------------|------------------|
| Group 1: Routine Unilateral | 121,714              | 96.7%            |
| Group 2: Routine Bilateral  | 560                  | 0.4%             |
| Group 3: Non-Routine        | 3,599                | 2.9%             |
| <b>TOTAL CLINICAL CASES</b> | <b>125,873</b>       | <b>100%</b>      |

*Source: Ministry of Health (NACRS) 2019-20 Clinical Data (excluding non-QBP hospitals)*

Note: Cataract day surgeries are also performed in IHFs and funded separately by the Ministry through IHF funding. These cases are non-QBP funded.

### Cataract QBP New Grad Recruitment Initiative

In November 2017, the PVTF submitted a **Cataract Capacity Plan** to the ministry that outlined key issues related to access to cataract surgery in Ontario and recommendations to address them.

In regards to Ophthalmology Coverage, the plan noted that “there are long wait times for cataract surgery along with insufficient ophthalmology coverage and lack of on call coverage”. To address this issue, the PVTF recommended that “additional volumes should be leveraged to allow recruitment of new ophthalmologists and the development of an on-call coverage plan to deal with access and emergency coverage issues.”

In response to this recommendation, the ministry informed hospitals that incremental cataract QBP volumes would be linked to the recruitment of net new ophthalmology surgeon graduates in select hospital sites across the province.

In 2019/20, the PVTF made significant progress through this initiative and identified 44 net new grad recruitment positions across Ontario in 28 hospitals. The recruitment and ongoing support and retention of new ophthalmology surgeon graduates will continue to play an important role in service capacity planning for cataract surgeries.

## 8.0 Performance Evaluation and Feedback

In order to monitor the implementation of the Cataract QBP and support ongoing quality improvement, the Clinical Advisory Group developed cataract day surgery indicators. The table below defines the indicators to support the monitoring and evaluation of the Cataract QBP.

In introducing QBPs, the ministry has a strong interest in:

1. Supporting monitoring and evaluation of the impact of the introduction of QBPs.
2. Providing benchmark information for clinicians and administrators that will enable mutual learning and promote on-going quality improvement.
3. Providing performance-based information back to Expert Panels to evaluate the impact of their work and update as required in real time.

There was recognition that reporting on a few system-level indicators alone would not be sufficient to meet the Ministry's aim of informing and enabling quality improvement initiatives at the provider level. Therefore, measures that are meaningful to hospitals and clinicians that are interpretable and have demonstrable value in improving the quality of care provided to patients are also of utmost importance.

To guide the selection and development of relevant indicators for each QBP, the Ministry, in consultation with experts in evaluation and performance measurement, developed an approach based on the policy objectives of QBPs and a set of guiding principles. This resulted in the creation of an integrated scorecard with the following six quality domains:

- Effectiveness (including safety)
- Appropriateness
- Integration
- Efficiency
- Access
- Patient-centeredness

The scorecard is based on the following guiding principles:

- **Relevance:** the scorecard should accurately measure the response of the system to introducing QBPs
- **Importance:** to facilitate improvement, the indicators should be meaningful for all potential stakeholders (patients, clinicians, administrators, Ontario Health Regions and the ministry)

- **Alignment:** the scorecard should align with other indicator-related initiatives, where appropriate
- **Evidence:** the indicators in the integrated scorecard need to be scientifically sound or at least measure what is intended and accepted by the respective community (clinicians, administrators and/or policy-decision makers)

A set of evaluation questions was identified for each of the QBP policy objectives outlining what the ministry would need to know in order to understand the intended and unintended impact of the introduction of QBPs. These questions were translated into key provincial indicators resulting in a QBP scorecard (see table below).

The following cataract day surgery indicators have been developed. In total, these indicators reflect the quality of cataract day surgery performed in Ontario.

**Table 3. Cataract Surgery QBP Indicators**

| Quality Domain | What is being measured?                                                                                                                                                                                               | Key provincial indicators                                                                                                                                                                                 | Recommended Cataract Surgery QBP Indicators                                                                                                                                                                                                                                                                                                                                       |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effectiveness  | <p>What are the outcomes of care received by patients?</p> <p>Do results vary across providers?</p> <p>Can any variance be explained by population characteristics?</p> <p>Is care provided without causing harm?</p> | <p>1. Proportion of QBP patients with improved outcomes</p> <p>2. Proportion of QBPs that reduced variation in outcome</p> <p>3. Proportion of QBP patients who avoided adverse events and infections</p> | <p>1. Proportion of patients 18 years of age and older who underwent cataract day surgery in Ontario and subsequently developed complications: †</p> <ul style="list-style-type: none"> <li>• Severe uveitis,</li> <li>• Infectious endophthalmitis,</li> <li>• Retinal detachment or</li> <li>• Capsule rupture</li> </ul> <p>2. Proportion of 18 years of age and older who</p> |

|                        |                                                                                                                        |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                                                                                                                        |                                                                                                                                                                                                                                                                                | <p>underwent cataract day surgery in Ontario and subsequently:</p> <ul style="list-style-type: none"> <li>• Received capsulotomy</li> <li>• Achieved equal or improved visual function (developmental indicator)</li> </ul> <p>* Note: The Advisory Group recommends that the indicator should capture capsulotomy rate over a 3-year period by surgeon, hospital and Ontario Health Regions)</p> |
| <b>Appropriateness</b> | Is patient care being provided according to scientific knowledge and in a way that avoids overuse, underuse or misuse? | <p>4. Proportion of patients who received care aligned with standard QBP pathway</p> <p>5. Proportion of QBP patients that saw a substitution from inpatient to outpatient/day surgery (where appropriate)</p> <p>6. Proportion of QBP patients who received less invasive</p> | <p>3. Proportion of patients 18 years of age and older in Ontario who received pre- and post-operative visual acuity assessment</p> <p>4. Volume of surgeries performed in Ontario among cataract QBP patients 18 years and older as well as the proportion of total cataract day surgeries</p>                                                                                                   |

|                    |                                                                              |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                                                                              | <p>procedures (where appropriate)</p> <p>7. Proportion of QBP patients that saw an increase in discharge dispositions into the community (where appropriate)</p> <p>8. Proportion of QBP patients with reduced lengths of stay</p> | <p>represented by the following age categories: less than 35 years of age (&lt;35), 35-49, 50-64, 65-74, 75-84 and 85 years and older (85+) by Ontario Health Region and by hospital or independent health facility †</p> <p>5. Proportion of patients 18 years of age and older in Ontario receiving cataract day surgery under general anesthesia by hospital</p> <p>6. Proportion of patients 18 years of age and older in Ontario who reported improved visual function after receiving cataract day surgery</p> |
| <b>Integration</b> | Are all parts of the health system organized, connected and working with one | <p>9. Reduction in 30-day readmissions rate (if relevant)</p> <p>10. Improved access to appropriate</p>                                                                                                                            | <p>7. Proportion of patients 18 years of age and older who underwent cataract day surgery in Ontario and</p>                                                                                                                                                                                                                                                                                                                                                                                                         |

|                   |                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                      |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | another to provide high quality care?                                                                                                    | <p>primary and community care (e.g. psychosocial support) following discharge if deemed appropriate</p> <p>11. Improved access to appropriate primary and community care including for example psychosocial support (e.g. personal, family, financial, employment and/or social needs)</p> <p>12. Coordination of care</p> <p>13. Involvement of family</p> | <p>subsequently required emergent care following surgery</p> <p>8. Proportion of patients 18 years of age and older in Ontario who underwent cataract day surgery and were satisfied with knowing how to access after-hours assistance or emergent care</p>                                                                          |
| <b>Efficiency</b> | Does the system make best use of available resources to yield maximum benefit ensuring that the system is sustainable for the long term? | 14. Actual costs vs. QBP price                                                                                                                                                                                                                                                                                                                              | <p>9. Proportion of cataract day surgeries completed within QBP funding</p> <p>10. Proportion of patients 18 years of age and older who:</p> <ul style="list-style-type: none"> <li>• Receive standard intraocular lens</li> <li>• Pay additional fees for optional services (by hospital or independent health facility)</li> </ul> |

|               |                                                                       |                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Access</b> | <p>Are those in need of care able to access services when needed?</p> | <p>15. Increase in wait times for QBPs / for specific QBP populations</p> <p>16. Increase in wait times for other procedures</p> <p>17. Increase in distance patients have to travel to receive the appropriate care related to the QBP</p> <p>18. Proportion of providers with a significant change in resource intensity weights (RIW)</p> | <p>11. Wait time for referral to specialist (Wait 1)</p> <p>12. Wait time for cataract day surgery (Wait 2)</p> <p>13. Wait time by Priority Level (II-IV) by OH Region</p> <ul style="list-style-type: none"> <li>• Proportion of Ontario cataract patients 18 years of age and older whose surgeries were completed within target wait time of 42 days (Priority 2).</li> <li>• Proportion of Ontario cataract patients 18 years of age and older whose surgeries were completed within target wait times. The information pertains only to cases where the target wait time is 84 days (Priority 3).</li> <li>• Proportion of Ontario cataract patients 18 years of age and older whose surgeries were completed within</li> </ul> |
|---------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                             |                                                                                                                                                                                       |                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             |                                                                                                                                                                                       |                                                                                                                                             | <p>target wait time of 182 days (Priority 4).</p> <p>14. Catchment-share of non-routine cataracts and routine cataracts by Institution and by OH Region.</p> <p>15. Distance traveled by Priority 1 patients from their homes to the hospital where cataract day surgery was performed. ₯</p>                                                                                                                                                   |
| <b>Patient-Centeredness</b> | <p>Is the patient/user at the center of the care delivery and is there respect for and involvement of patients' values, preferences and expressed needs in the care they receive?</p> | <p>19. Increased rate of patients being involved in treatment decision</p> <p>20. Coordination of care</p> <p>21. Involvement of family</p> | <p>16. Proportion of patients 18 years of age and older in Ontario who underwent cataract day surgery and were satisfied with:</p> <ul style="list-style-type: none"> <li>• The explanation received about their eye condition and the treatment that was proposed</li> <li>• Their experience on the day of surgery</li> <li>• Being able to understand the instructions for their care of eye including the use of eye medications</li> </ul> |

|  |  |  |                                                                                                                                                                                                      |
|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  | <ul style="list-style-type: none"> <li>• The surgeon's explanation of the benefit of the additional lens features</li> <li>• That the extra cost to purchase the lens with the additional</li> </ul> |
|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

*Note: Indicators marked with “F” have been operationalized in the first Cataract QBP Provincial Scorecard released in 2014. The report can be retrieved from the Ministry Health Data Branch Web Portal at <https://hsimi.on.ca/hdbportal>*

It should be noted that although not explicitly mentioned as a separate domain, the **equity component** of quality of care is reflected across the six domains of the scorecard and will be assessed by stratifying indicator results by key demographic variables and assessing comparability of findings across sub-groups. Where appropriate, the indicators will be risk-adjusted for important markers of patient complexity so that they will provide an accurate representation of the quality of care being provided to patients.

The Ministry and experts recognized that to be meaningful for clinicians and administrators, it is important to tie indicators to clinical guidelines and care standards. Hence, advisory groups that developed the best practices were asked to translate the provincial-level indicators into QBP-specific indicators. In consulting the advisory groups for this purpose, the Ministry was interested in identifying indicators both for which provincial data is readily available to calculate and those for which new information would be required. Measures in the latter category are intended to guide future discussion with ministry partners regarding how identified data gaps might be addressed.

In developing the integrated scorecard approach, the ministry recognized the different users of the indicators and envisioned each distinct set of measures as an inter-related cascade of information. That is, the sets of indicators each contain a number of system or provincial level measures that are impacted by other indicators or driving factors that are most relevant at the Ontario Health Region, hospital or individual clinician level. The indicators will enable the province and its partners to monitor and evaluate the quality of care and allow for benchmarking across organizations and clinicians. This will in turn support quality improvement and enable target setting for each QBP to ensure that the focus is on providing high quality care, as opposed to solely reducing costs.

It is important to note that process-related indicators selected by the expert panels will be most relevant at the provider level. The full list of these measures is intended to function as a ‘menu’ of information that can assist administrators and clinicians in identifying areas for quality improvement. For example, individual providers can review patient-level results in conjunction

with supplementary demographic, financial and other statistical information to help target care processes that might be re-engineered to help ensure that high-quality care is provided to patients.

Baseline reports and regular updates on QBP specific indicators will be included as appendices to each QBP Clinical Handbook. Reports will be supplemented with technical information outlining how results were calculated along with Ontario Health Region and provincial-level results that contextualize relative performance. Baseline reports will also be accompanied by facility-level information that will facilitate sharing of best practices and target setting at the provider-level.

The Ministry recognizes that the evaluation process will be on-going and will require extensive collaboration with researchers, clinicians, administrators and other relevant stakeholders to develop, measure, report, evaluate and, if required, revise and/or include additional indicators to ensure that the information needs of its users are met.

## 9.0 Support for Change

The Ministry, in collaboration with its partners, has deployed a number of field supports for adoption of the QBP funding policy. These supports include:

- Committed clinical engagement with representation from cross-sectoral health sector leadership and clinicians to champion change through the development of standards of care and the development of evidence-informed patient clinical pathways for the QBPs.
- Dedicated multidisciplinary clinical expert group that seek clearly defined purposes, structures, processes and tools which are fundamental for helping to navigate the course of change.
- Strengthened relationships with ministry partners and supporting agencies to seek input on the development and implementation of QBP policy, disseminate quality improvement tools, and support service capacity planning.
- Alignment with quality levers such as the Quality Improvement Plans (QIPs). QIPs strengthen the linkage between quality and funding and facilitate communication between the hospital board, administration, providers and public on the hospitals' plans for quality improvement and enhancement of patient-centered care.
- Deployment of a Provincial Scale Applied Learning Strategy known as IDEAS (Improving the Delivery of Excellence Across Sectors). IDEAS is Ontario's investment in field-driven capacity building for improvement. Its mission is to help build a high-performing health system by training a cadre of health system change agents that can support an approach to improvement of quality and value in Ontario.

We hope that these supports, including this QBP Clinical Handbook, will help facilitate a sustainable dialogue between hospital administration, clinicians, and staff on the underlying evidence guiding QBP implementation. The field supports are intended to complement the quality improvement processes currently underway in your organization.

# 10.0 Provincial Vision Task Force

## Membership

| Member Name          | Affiliation                                                                                                        | Stakeholder Group                    |
|----------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Dr. Phil Hooper      | Access to Care Clinical Lead,<br>Ophthalmology Associate Professor,<br>Western University                          | Co-Chair                             |
| Dr. Jennifer Everson | VP Clinical, West Region, Ontario<br>Health                                                                        | Co-Chair                             |
| Dr. Andy Budning     | Pediatric Ophthalmologist, Sick Kids<br>Trillium Health Partners                                                   | Pediatric Ophthalmology              |
| Allen Pykalo         | Implementation Lead, Provincial<br>Programs Branch                                                                 | MOH Representative                   |
| Dr. Bernard Hurley   | Retina specialist/Program Director,<br>University of Ottawa Eye Institute                                          | Specialist/Academic<br>Ophthalmology |
| Carmine Stumpo       | President and CEO, Orillia Soldiers'<br>Memorial Hospital                                                          | Health Administrator                 |
| Claudia Zanchetta    | Clinical Group Manager, Surgical<br>Information Program, Ontario Health<br>(Access to Care)                        | Access to Care Representative        |
| Heather MacDermid    | Manager (A), Provincial Programs<br>Branch                                                                         | MOH Representative                   |
| Dr. Jerrod Kent      | Northern Community Ophthalmologist,<br>Sudbury; Comprehensive and Oculo-<br>Plastic Surgery, Health Sciences North | Northern Ophthalmology               |
| Jessica Curtis       | Project Manager, Strategic<br>Developments, UHN                                                                    | Project Lead                         |

|                                |                                                                                           |                                          |
|--------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------|
| Dr. Karine Briand              | Community Optometrist, Timmins                                                            | Community Optometry,<br>Northern Ontario |
| Marnie Weber                   | Executive Director, Strategic<br>Developments, UHN                                        | Health Administrator<br>PVTF Admin Lead  |
| Dr. Raj Rathee                 | Community Ophthalmologist, North<br>York                                                  | EPSO Representative                      |
| Dr. Stan Woo                   | Optometrist; Director, School of<br>Optometry & Vision Science, University<br>of Waterloo | Academic Optometry                       |
| Dr. Stephanie Baxter           | Corneal Transplant, Kingston                                                              | Specialist/Academic<br>Ophthalmologist   |
| Dr. Sylvia Rodriguez           | Ophthalmologist, Guelph Community                                                         | Community Ophthalmology                  |
| Kristin Taylor<br>(ex-officio) | Director (A), Provincial Programs<br>Branch                                               | MOH Representative                       |

May 1, 2021