

**Quality ID #388: Cataract Surgery with Intra-Operative Complications (Unplanned Rupture of Posterior Capsule Requiring Unplanned Vitrectomy) – National Quality Strategy Domain: Patient Safety**

**2018 OPTIONS FOR INDIVIDUAL MEASURES:**  
**REGISTRY ONLY**

**MEASURE TYPE:**  
Outcome

**DESCRIPTION:**  
Percentage of patients aged 18 years and older who had cataract surgery performed and had an unplanned rupture of the posterior capsule requiring vitrectomy

**INSTRUCTIONS:**  
This measure is to be calculated when a procedure for cataracts is performed during the performance period. This measure is intended to reflect the quality of services provided for the patient receiving cataract surgery.

*Note: This is an outcome measure and will be calculated solely using registry data.*

- *For patients who receive the surgical procedures specified in the denominator coding, it should be submitted whether or not the patient had a rupture of the posterior capsule during anterior segment surgery requiring vitrectomy.*

**Measure Submission:**

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

**DENOMINATOR:**  
All patients aged 18 years and older who had cataract surgery

**Denominator Criteria (Eligible Cases):**

Patients aged  $\geq 18$  years on date of encounter

**AND**

Patient procedure during the performance period (CPT): 66840, 66850, 66852, 66920, 66930, 66940, 66982, 66983, 66984

**WITHOUT**

Modifier: 55 or 56

**AND NOT**

**DENOMINATOR EXCLUSION:**

History of preoperative posterior capsule rupture: G9759

**NUMERATOR:**  
Patients who experienced an unplanned rupture of the posterior capsule requiring vitrectomy during cataract surgery

**Numerator Instructions:**

**INVERSE MEASURE** - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Submitting that numerator option will produce a performance rate that trends

closer to 0%, as quality increases. For inverse measures, a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control.

**Numerator Options:**

***Performance Met:***

Unplanned rupture of the posterior capsule requiring vitrectomy during cataract surgery (**G9389**)

**OR**

***Performance Not Met:***

No unplanned rupture of the posterior capsule requiring vitrectomy during cataract surgery (**G9390**)

**RATIONALE:**

Although there are numerous complications that can occur after cataract surgery, those resulting in permanent loss of vision are rare. Unplanned anterior vitrectomies are performed following cataract surgery when vitreous inadvertently prolapses into the anterior segment of the eye. This may result in poor visual outcome and additional complications, including retinal detachment. Studies have shown unplanned vitrectomy rates ranging from 1% to 4%. The literature indicates that this complication can occur more commonly for inexperienced surgeons.

**References:**

Olson RJ, Braga-Mele R, Chen SH et al. Cataract in the Adult Eye Preferred Practice Pattern. Ophthalmology. 2017;124:P1-P119.

Schein OD, Steinberg EP, Javitt JC, et al. Variation in cataract surgery practice and clinical outcomes. Ophthalmology 1994;101:1142-52.

Lum F, Schein O, Schachat AP, Abbott RL, Hoskins HD, Steinberg EP. Initial two years of experience with the AAO National Eyecare Outcomes Network (NEON) cataract surgery database. Ophthalmology 2000;107:691-97.

Zaidi FH, Corbett MC, Burton BJ, Bloom PA. Raising the benchmark for the 21st century--the 1000 cataract operations audit and survey: outcomes, consultant-supervised training and sourcing NHS choice. Br J Ophthalmol 2007;91:731-6.

D.F Chang, Cataract Surgery Complication Rates, How are we doing? Cataract and Refractive Surgery Feb 2012  
Chan, FM, Au Eong, KG, Phacoemulsification Cataract Surgery and Unplanned Anterior Vitrectomy - it can be bad news, Eye (2003)17, 679

**CLINICAL RECOMMENDATION STATEMENTS:**

This is an outcome measure. As such, no clinical recommendations are included.

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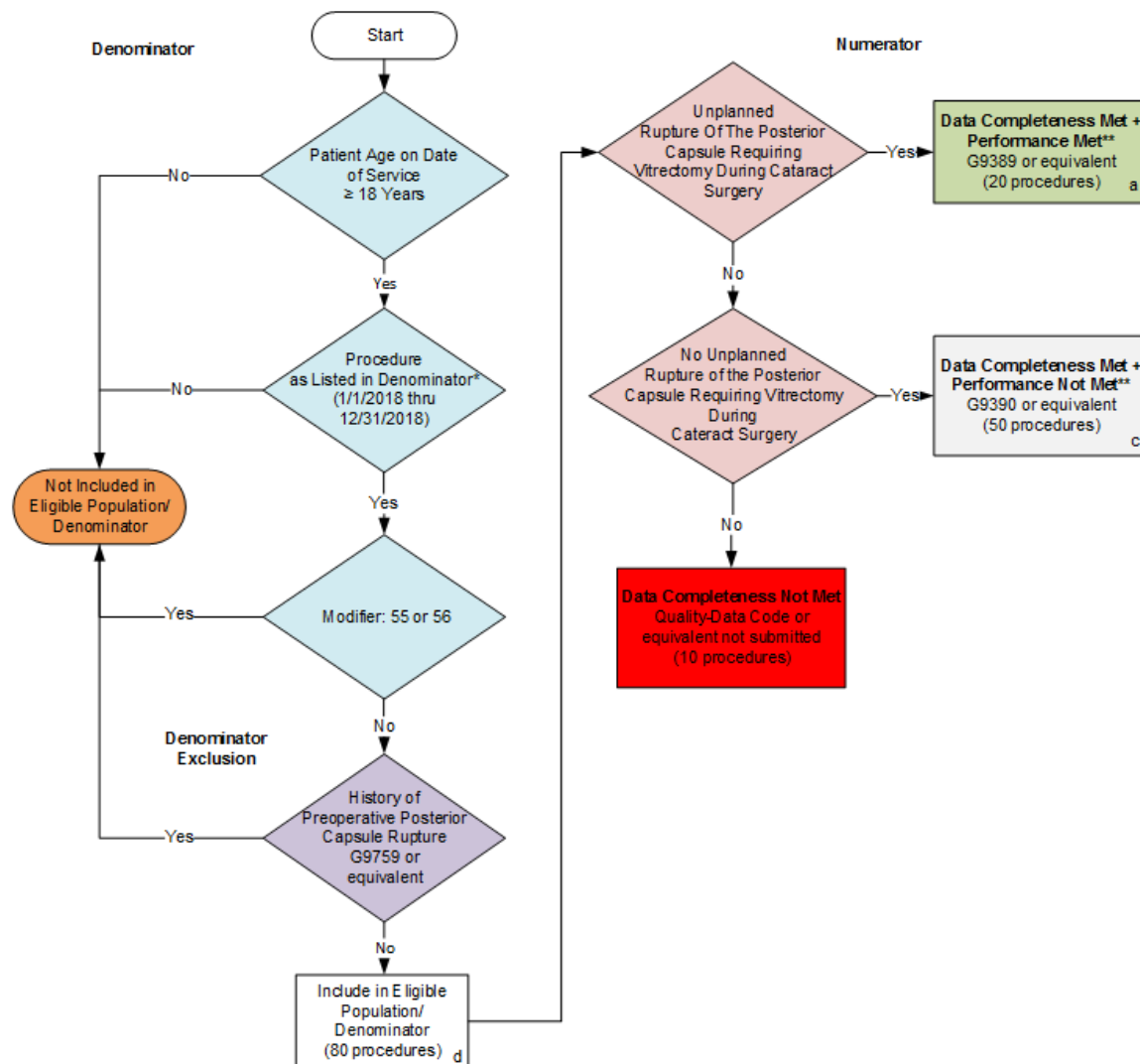
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**2018 Registry Flow for Quality ID #388:  
Cataract Surgery with Intra-Operative Complications (Unplanned Rupture of Posterior Capsule  
Requiring Unplanned Vitrectomy)**



**SAMPLE CALCULATION S:**

**Data Completeness=**  

$$\frac{\text{Performance Met (a= 20 procedures)} + \text{Performance Not Met (c = 50 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = 87.50\%$$

**Performance Rate\*\*=**  

$$\frac{\text{Performance Met (a=20 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{20 \text{ procedures}}{70 \text{ procedures}} = 28.57\%$$

\* See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

NOTE: Submission Frequency: Procedure

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in conjunction with the measure specifications. They should not be used alone or as a  
substitution for the measure specification.

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**2018 Registry Flow For Quality ID**  
**#388: Cataract Surgery with Intra-Operative Complications (Unplanned Rupture of Posterior Capsule Requiring Unplanned Vitrectomy)**

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission.

**NOTE:** *A lower calculated performance rate for this measure indicates better clinical care or control.*

1. Start with Denominator
2. Check Patient Age:
  - a. If Patient Age is greater than or equal to 18 Years on the Date of the Procedure equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Patient Age is greater than or equal to 18 Years on the Date of the Procedure equals Yes, proceed to check Patient Diagnosis.
3. Check Encounter Performed:
  - a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Encounter as Listed in the Denominator equals Yes, proceed to check Without Modifier 55 or 56.
4. Check Modifier 55 or 56:
  - a. If Modifier 55 or 56 equals Yes, do not include in Eligible Patient Population. Stop Processing.
  - b. If Modifier 55 or 56 equal No, include in Denominator Eligible Population.
5. Check Without History of Preoperative Posterior Capsule Rupture:
  - a. If Without History of Preoperative Posterior Capsule Rupture equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Without History of Preoperative Posterior Capsule Rupture equals Yes, include in Denominator Eligible Population.
6. Denominator Population
  - a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 procedures in the Sample Calculation.
7. Start Numerator
8. Check Unplanned Rupture of the Posterior Capsule requiring Vitrectomy:
  - a. If Unplanned Rupture of the Posterior Capsule requiring Vitrectomy equals Yes, include in Data Completeness Met and Performance Met.

- b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 20 procedures in the Sample Calculation.
  - c. If Unplanned Rupture of the Posterior Capsule requiring Vitrectomy equals No, proceed to check No Unplanned Rupture of the Posterior Capsule Requiring Vitrectomy.
9. Check No Unplanned Rupture of the Posterior Capsule Requiring Vitrectomy:
  - a. If No Unplanned Rupture of the Posterior Capsule Requiring Vitrectomy equals Yes, include in Data Completeness Met and Performance Not Met.
  - b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 50 procedures in the Sample Calculation.
  - c. If No Unplanned Rupture of the Posterior Capsule Requiring Vitrectomy equals No, proceed to Data Completeness Not Met.
10. Check Data Completeness Not Met:
  - a. If Data Completeness Not Met equals No, Quality Data Code or equivalent was not submitted. 10 procedures have been subtracted from Data Completeness Numerator in the Sample Calculation.

**SAMPLE CALCULATIONS:**

**Data Completeness=**

Performance Met (a= 20 procedures) + Performance Not Met (c = 50 procedures) = 70 procedures = **87.50%**  
 Eligible Population / Denominator (d=80 procedures) = 80 procedures

**Performance Rate\*\*=**

Performance Met (a=20 procedures) = 20 procedures = **28.57%**  
 Data Completeness Numerator (70 procedures) = 70 procedures