Measure #192 (NQF 0564): Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures – National Quality Strategy Domain: Patient Safety

2017 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Outcome

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of uncomplicated cataract who had cataract surgery and had any of a specified list of surgical procedures in the 30 days following cataract surgery which would indicate the occurrence of any of the following major complications: retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment, or wound dehiscence

INSTRUCTIONS:
This measure is to be calculated each time a procedure for uncomplicated cataract is performed during the performance period. This measure is intended to reflect the quality of services provided for the patients receiving uncomplicated cataract surgery.

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

- *For patients who receive the cataract surgical procedures specified in the denominator coding, claims should be reviewed to determine if any of the procedure codes listed in the numerator were performed within 30 days of the date of cataract surgery.*
- *Patients who have any of the listed significant ocular conditions in the exclusion criteria should be removed from the denominator, and not considered as having a complication within 30 days following cataract surgery.*

Measure Reporting:
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-based 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 and no significant ocular conditions impacting the surgical complication rate

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient encounter during the **performance period** (CPT): 66840, 66850, 66852, 66920, 66930, 66940, 66982, 66983, 66984
WITHOUT
Modifier: 56 or 55
AND NOT
DENOMINATOR EXCLUSION:
Any of the following significant ocular conditions that impact the surgical complication rate

(Patients with documentation of the presence of one or more of the following significant ocular conditions that impact the surgical complication rate prior to date of cataract surgery which is still active at the time of the cataract surgery are excluded from the measure calculation.)

Table 1 - Significant Ocular Conditions

Significant Ocular Condition	Corresponding ICD-10-CM Codes, Procedure Codes, and Medication Identified
Acute and Subacute Iridocyclitis	H20.00, H20.011, H20.012, H20.013, H20.019, H20.021, H20.022, H20.023, H20.029, H20.031, H20.032, H20.033, H20.039, H20.041, H20.042, H20.043, H20.049, H20.051, H20.052, H20.053, H20.059
Adhesions and Disruptions of Iris and Ciliary Body	H21.40, H21.41, H21.42, H21.43, H21.501, H21.502, H21.503, H21.509, H21.511, H21.512, H21.513, H21.519, H21.521, H21.522, H21.523, H21.529, H21.531, H21.532, H21.533, H21.539, H21.541, H21.542, H21.543, H21.549, H21.551, H21.552, H21.553, H21.559, H21.561, H21.562, H21.563, H21.569, H21.81, H21.82, H21.89, H22
Anomalies of Pupillary Function	H57.03
Aphakia and Other Disorders of Lens	H27.10, H27.111, H27.112, H27.113, H27.119, H27.121, H27.122, H27.123, H27.129, H27.131, H27.132, H27.133, H27.139
Burn Confined to Eye and Adnexa	T26.00XA, T26.01XA, T26.02XA, T26.10XA, T26.11XA, T26.12XA, T26.20XA, T26.21XA, T26.22XA, T26.30XA, T26.31XA, T26.32XA, T26.40XA, T26.41XA, T26.42XA, T26.50XA, T26.51XA, T26.52XA, T26.60XA, T26.61XA, T26.62XA, T26.70XA, T26.71XA, T26.72XA, T26.80XA, T26.81XA, T26.82XA, T26.90XA, T26.91XA, T26.92XA
Cataract Secondary to Ocular Disorders	H26.211, H26.212, H26.213, H26.219, H26.221, H26.222, H26.223, H26.229
Cataract, Congenital	Q12.0
Cataract, Mature or Hypermature	H26.9
Cataract, Posterior Polar	Q12.0
Central Corneal Ulcer	H16.011, H16.012, H16.013, H16.019
Certain Types of Iridocyclitis	H20.20, H20.21, H20.22, H20.23, H20.811, H20.812, H20.813, H20.819, H20.821, H20.822, H20.823, H20.829, H20.9, H40.40X0
Chronic Iridocyclitis	A18.54, H20.10, H20.11, H20.12, H20.13, H20.9
Cloudy Cornea	H17.00, H17.01, H17.02, H17.03, H17.10, H17.11, H17.12, H17.13, H17.811, H17.812, H17.813, H17.819, H17.821, H17.822, H17.823, H17.829
Corneal Opacity and Other Disorders of Cornea	H17.00, H17.01, H17.02, H17.03, H17.10, H17.11, H17.12, H17.13, H17.89, H17.9
Corneal Edema	H18.10, H18.11, H18.12, H18.13, H18.20, H18.221, H18.222, H18.223, H18.229, H18.231, H18.232, H18.233, H18.239, H18.421, H18.422, H18.423, H18.429, H18.43
Cysts of Iris, Ciliary Body, and Anterior Chamber	H21.301, H21.302, H21.303, H21.309, H21.311, H21.312, H21.313, H21.319, H21.321, H21.322, H21.323, H21.329, H21.341, H21.342, H21.343, H21.349, H21.351, H21.352, H21.353, H21.359

Significant Ocular Condition	Corresponding ICD-10-CM Codes, Procedure Codes, and Medication Identified
Enophthalmos	H05.401, H05.402, H05.403, H05.409, H05.411, H05.412, H05.413, H05.419, H05.421, H05.422, H05.423, H05.429
Glaucoma	H40.10X0, H40.10X1, H40.10X2, H40.10X3, H40.10X4, H40.1110, H40.1111, H40.1112, H40.1113, H40.1114, H40.1120, H40.1121, H40.1122, H40.1123, H40.1124, H40.1130, H40.1131, H40.1132, H40.1133, H40.1134, H40.1190, H40.1191, H40.1192, H40.1193, H40.1194, H40.1210, H40.1211, H40.1212, H40.1213, H40.1214, H40.1220, H40.1221, H40.1222, H40.1223, H40.1224, H40.1230, H40.1231, H40.1232, H40.1233, H40.1234, H40.1290, H40.1291, H40.1292, H40.1293, H40.1294, H40.1310, H40.1311, H40.1312, H40.1313, H40.1314, H40.1320, H40.1321, H40.1322, H40.1323, H40.1324, H40.1330, H40.1331, H40.1332, H40.1333, H40.1334, H40.1390, H40.1391, H40.1392, H40.1393, H40.1394, H40.1410, H40.1411, H40.1412, H40.1413, H40.1414, H40.1420, H40.1421, H40.1422, H40.1423, H40.1424, H40.1430, H40.1431, H40.1432, H40.1433, H40.1434, H40.1490, H40.1491, H40.1492, H40.1493, H40.1494, H40.151, H40.152, H40.153, H40.159, H40.20X0, H40.20X1, H40.20X2, H40.20X3, H40.20X4, H40.211, H40.212, H40.213, H40.219, H40.2210, H40.2211, H40.2212, H40.2213, H40.2214, H40.2220, H40.2221, H40.2222, H40.2223, H40.2224, H40.2230, H40.2231, H40.2232, H40.2233, H40.2234, H40.2290, H40.2291, H40.2292, H40.2293, H40.2294, H40.231, H40.232, H40.233, H40.239, H40.241, H40.242, H40.243, H40.249, H40.30X0, H40.30X1, H40.30X2, H40.30X3, H40.30X4, H40.31X0, H40.31X1, H40.31X2, H40.31X3, H40.31X4, H40.32X0, H40.32X1, H40.32X2, H40.32X3, H40.32X4, H40.33X0, H40.33X1, H40.33X2, H40.33X3, H40.33X4, H40.40X0, H40.40X1, H40.40X2, H40.40X3, H40.40X4, H40.41X0, H40.41X1, H40.41X2, H40.41X3, H40.41X4, H40.42X0, H40.42X1, H40.42X2, H40.42X3, H40.42X4, H40.43X0, H40.43X1, H40.43X2, H40.43X3, H40.43X4, H40.50X0, H40.50X1, H40.50X2, H40.50X3, H40.50X4, H40.51X0, H40.51X1, H40.51X2, H40.51X3, H40.51X4, H40.52X0, H40.52X1, H40.52X2, H40.52X3, H40.52X4, H40.53X0, H40.53X1, H40.53X2, H40.53X3, H40.53X4, H40.60X0, H40.60X1, H40.60X2, H40.60X3, H40.60X4, H40.61X0, H40.61X1, H40.61X2, H40.61X3, H40.61X4, H40.62X0, H40.62X1, H40.62X2, H40.62X3, H40.62X4, H40.63X0, H40.63X1, H40.63X2, H40.63X3, H40.63X4, H40.811, H40.812, H40.813, H40.819, H40.821, H40.822, H40.823, H40.829, H40.831, H40.832, H40.833, H40.839, H40.89, Q15.0
Hereditary Corneal Dystrophies	H18.50, H18.51, H18.52, H18.53, H18.54, H18.55, H18.59
High Hyperopia	H52.00, H52.01, H52.02, H52.03
Hypotony of Eye	H44.40, H44.411, H44.412, H44.413, H44.419, H44.421, H44.422, H44.423, H44.429, H44.431, H44.432, H44.433, H44.439, H44.441, H44.442, H44.443, H44.449
Injury to Optic Nerve and Pathways	S04.011A, S04.012A, S04.019A, S04.02XA, S04.031A, S04.032A, S04.039A, S04.041A, S04.042A, S04.049A

Significant Ocular Condition	Corresponding ICD-10-CM Codes, Procedure Codes, and Medication Identified
Open Wound of Eyeball	S05.10XA, S05.11XA, S05.12XA, S05.20XA, S05.21XA, S05.22XA, S05.30XA, S05.31XA, S05.32XA, S05.50XA, S05.51XA, S05.52XA, S05.60XA, S05.61XA, S05.62XA, S05.70XA, S05.71XA, S05.72XA, S05.8X1A, S05.8X2A, S05.8X9A, S05.90XA, S05.91XA, S05.92XA
Pathologic Myopia	H44.20, H44.21, H44.22, H44.23, H44.30
Posterior Lenticonus	Q12.2, Q12.4, Q12.8
Prior Pars Plana Vitrectomy	67036, 67039, 67040, 67041, 67042, 67043 (patient with history of this procedure)
Pseudoexfoliation Syndrome	H40.1410, H40.1411, H40.1412, H40.1413, H40.1414, H40.1420, H40.1421, H40.1422, H40.1423, H40.1424, H40.1430, H40.1431, H40.1432, H40.1433, H40.1434, H40.1490, H40.1491, H40.1492, H40.1493, H40.1494
Retrolental Fibroplasias	H35.171, H35.172, H35.173, H35.179
Senile Cataract	H25.89
Traumatic Cataract	H26.101, H26.102, H26.103, H26.109, H26.111, H26.112, H26.113, H26.119, H26.121, H26.122, H26.123, H26.129, H26.131, H26.132, H26.133, H26.139
Use of Systemic Sympathetic Alpha-1a Antagonist Medication for Treatment of Prostatic Hypertrophy	Patient taking tamsulosin hydrochloride: G9503
Uveitis	H44.111, H44.112, H44.113, H44.119, H44.131, H44.132, H44.133, H44.139
Vascular Disorders of Iris and Ciliary Body	H21.1X1, H21.1X2, H21.1X3, H21.1X9

NUMERATOR:

Patients who had one or more specified operative procedures for any of the following major complications within 30 days following cataract surgery: retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment, or wound dehiscence

Numerator Instructions: Codes for major complications (e.g., retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment, or wound dehiscence): 65235, 65860, 65880, 65900, 65920, 65930, 66030, 66250, 66820, 66825, 66830, 66852, 66986, 67005, 67010, 67015, 67025, 67030, 67031, 67036, 67039, 67041, 67042, 67043, 67101, 67105, 67107, 67108, 67110, 67141, 67145, 67250, 67255

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. Reporting 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: Surgical procedure performed within 30 days following cataract surgery for major complications (e.g., retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment or wound dehiscence) (G8627)

OR

Performance Not Met: Surgical procedure not performed within 30 days following cataract surgery for major complications (e.g., retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment or wound dehiscence) (G8628)

RATIONALE:

1. Scientific basis for assessing short-term complications following cataract surgery

Complications that may result in a permanent loss of vision following cataract surgery are uncommon. This short-term outcome of surgery indicator seeks to identify those complications from surgery that can reasonably be attributed to the surgery and surgeon and which reflect situations which - if untreated - generally result in significant avoidable vision loss that would negatively impact patient functioning. Further, it seeks to reduce surgeon burden and enhance accuracy in reporting by focusing on those significant complications that can be assessed from administrative data alone and which can be captured by the care of another physician or the provision of additional, separately coded, post-operative services. Finally, it focuses on patient safety and monitoring for events that, while hopefully uncommon, can signify important issues in the care being provided. For example, the need to reposition or exchange an intraocular lens (IOL) reflects in part "wrong power" IOL placement, a major patient safety issue.

In order to achieve these ends, the indicator excludes patients with other known, pre-operative ocular conditions that could impact the likelihood of developing a complication. Based on the results of the Cataract Appropriateness Project at RAND, other published studies, and one analysis performed on a national MCO data base, the exclusion codes would preserve over 2/3 of all cataract surgery cases for analysis. Thus, this provides a "clean" indicator that captures care for the large majority of patients undergoing cataract surgery.

2. Evidence for gap in care

The advances in technology and surgical skills over the last 30 years have made cataract surgery much safer and more effective. An analysis of a single company's database (commercial age MCO) demonstrated that the rate of complications found for this indicator was approximately 1 to 2%. Nevertheless, as noted above, the occurrence of one of these events is associated with a significant potential for vision loss that is otherwise

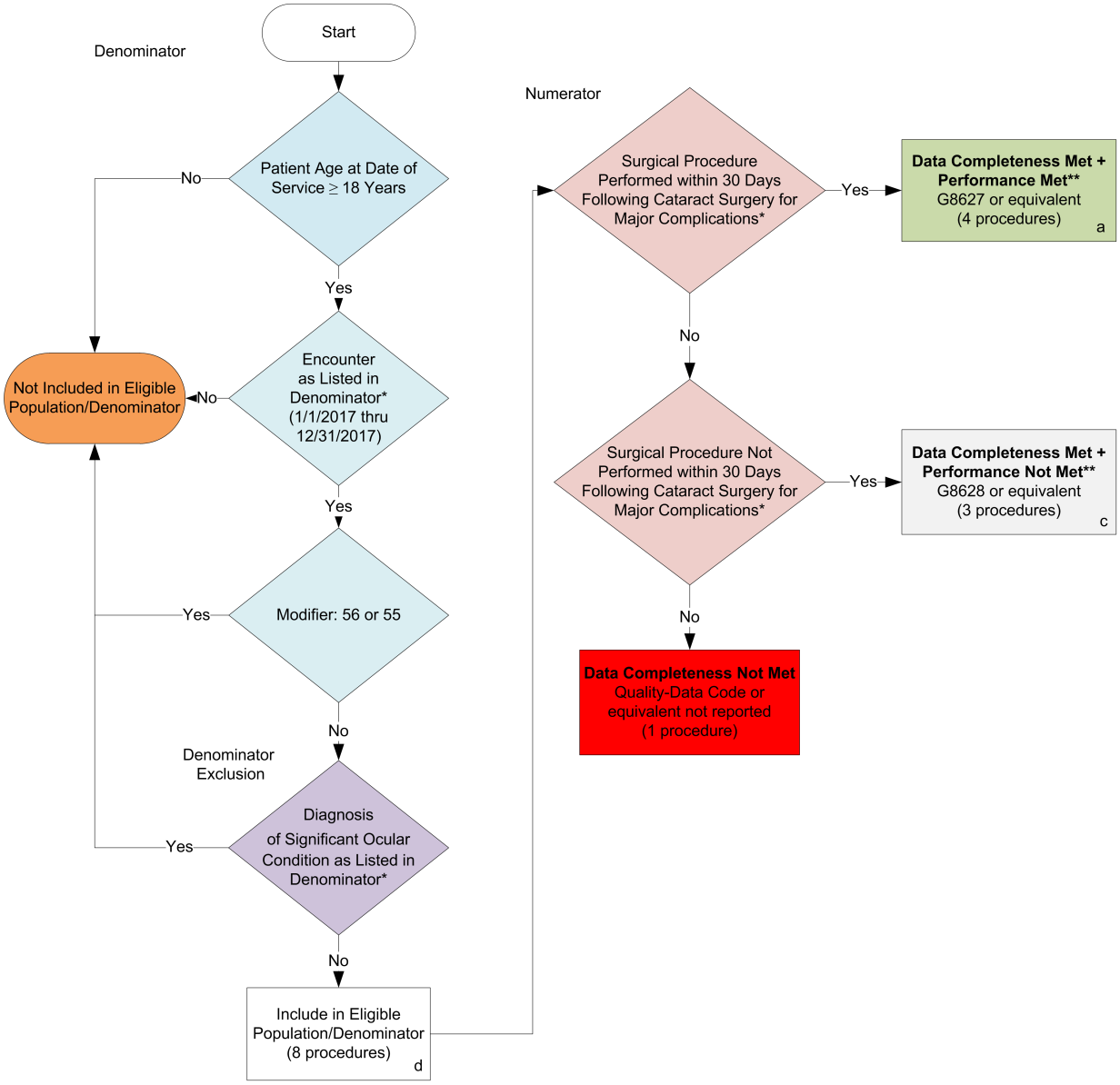
avoidable. Furthermore, with an annual volume of 2.8 million cataract surgeries in the US, a 2% rate would mean that over 36,000 surgeries are accompanied by these complications (2/3 of 56,000 surgeries).

A study of more than 220,000 Medicare beneficiaries who underwent cataract surgery between 1994 and 2006 found that more than 1,000, or about 0.5%, of patients had at least one severe post-operative complication (AAO, 2011).

A systematic review on the incidence of acute endophthalmitis indicated a postoperative rate of endophthalmitis of 0.128% (Taban, 2005). Additionally, a review of Medicare claims data between 1994-2006, reported a one-year postoperative rate of retinal detachment of 0.26% (Stein, 2011).

CLINICAL RECOMMENDATION STATEMENTS:
This is an outcome measure. As such, there are no statements in the guideline specific to this measurement topic.

2017 Registry Individual Measure Flow
#192 NQF #0564: Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=4 procedures) + Performance Not Met (c=3 procedures) = 7 procedures = **87.50%**

Eligible Population / Denominator (d=8 procedures) = 8 procedures

Performance Rate=

Performance Met (a=4 procedures) = 4 procedures = **57.14%**

Data Completeness Numerator (7 procedures) = 7 procedures

*See the posted Measure Specification for specific coding and instructions to report this measure.
**A lower calculated performance rate for this measure indicates better clinical care or control.
NOTE: Reporting Frequency: Procedure

v1

2017 Registry Individual Measure Flow
#192 NQF #0564: Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in reporting this Individual Measure.

1. Start with Denominator
2. Check Patient Age:
    a. If the Age is greater than or equal to 18 at Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
    b. If the Age is greater than or equal to 18 at Date of Service and equals Yes during the measurement period, 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 Modifier: 56 or 55.
4. Check Modifier: 56 or 55:
    a. If Modifier: 56 or 55 equals Yes, do not include in Eligible Patient Population. Stop Processing.
    b. If Modifier: 56 or 55 equals No, proceed to check Patient Diagnosis.
5. Check Patient Diagnosis:
    a. If Diagnosis Significant Ocular Condition as listed in the denominator equals Yes, do not include in Eligible Patient Population. Stop Processing.
    b. If Diagnosis of Significant Ocular Condition as listed in the denominator equals No, include in Eligible Patient 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 8 procedures in the sample calculation.
7. Start Numerator
8. Check Surgical Procedure Performed within 30 Days Following Cataract Surgery for Major Complications:
    a. If Surgical Procedure Performed within 30 Days Following Cataract Surgery for Major Complications 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 4 procedures in Sample Calculation.

c. If Surgical Procedure Performed within 30 Days Following Cataract Surgery for Major Complications equals No, proceed to Surgical Procedure Not Performed within 30 Days Following Cataract Surgery for Major Complications.

9. Check Surgical Procedure Not Performed within 30 Days Following Cataract Surgery for Major Complications:

   a. If Surgical Procedure Not Performed within 30 Days Following Cataract Surgery for Major Complications 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 3 procedures in the Sample Calculation.

   c. If Surgical Procedure Not Performed within 30 Days Following Cataract Surgery for Major Complications 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 not reported. 1 procedure has been subtracted from data completeness numerator in the sample calculation.

SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=4 procedures) + Performance Not Met (c=3 procedures) = 7 procedures = **87.50%**
Eligible Population / Denominator (d=8 procedures) = 8 procedures

Performance Rate=
Performance Met (a=4 procedures) = 4 procedures = **57.14%**
Data Completeness Numerator (7 procedures) = 7 procedures