Quality ID #389: Cataract Surgery: Difference Between Planned and Final Refraction
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Patient Reported Functional Outcomes

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Outcome – High Priority

DESCRIPTION:
Percentage of patients aged 18 years and older who had cataract surgery performed and who achieved a final refraction within +/- 1.0 diopters of their planned (target) refraction

INSTRUCTIONS:
This measure is to be calculated each time a cataract procedure 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 MIPS eligible clinician, group, or third party intermediary submitted data.

- For patients who receive the surgical procedures specified in the denominator coding, it should be reported whether or not the patient had a difference between planned and final refraction.
- Include only procedures performed through September 30 of the performance period. This will allow the post-operative period to occur before third party intermediaries must submit data to CMS.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are 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 by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

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

**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
**W**ithout
Modifier: 55 or 56

NUMERATOR:
Patients who achieved a final refraction (spherical equivalent) of +/- 1.0 diopters of their planned (target) refraction (spherical equivalent) within 90 days following cataract surgery. The refraction planned and final refraction values should correspond to the eye that underwent the cataract procedure.
Numerator Options:

Performance Met:
Patient achieves final refraction (spherical equivalent) 
+/- 1.0 Diopters of their planned refraction within 90 days of surgery (G9519)

OR

Performance Not Met:
Patient does not achieve final refraction (spherical equivalent) +/- 1.0 Diopters of their planned refraction within 90 days of surgery (G9520)

RATIONALE
Refractive Outcome is important to the patient and to the surgeon. Planned refraction is something the surgeon and patient discuss at the time of assessment for cataract surgery and is a way to align patient and surgeon expectations of the outcome. Comparing actual outcome to predicted outcome is a valuable measure of success.

Results of multiple large studies of cataract surgery have repeatedly demonstrated positive outcomes. The ASCRS National Cataract Database reported that at 3 months postoperatively 74.6% of patients were within ±1.0 D of target spherical equivalent. The American Academy of Ophthalmology National Eyecare Outcomes Network (NEON) database (n=7626) also found similar rates of success, with seventy-eight percent of patients were within ±1.0 D of target spherical equivalent. Kugelberg and Lundstrom published outcomes data from the Swedish registry and found in routine cataract surgeries 75% to 90% of patients ended up with refraction within 1 Diopter of the target refraction. The study describes factors that influenced refractive outcome as older age and use of a clear corneal incision. Another 2009 study by Gale and colleagues reported outcomes improving from 79.7% to 87% within 3 measurement cycles and the authors suggested that a benchmark standard of 85% be established.

References:
Gale, RP , Johnston, RL, Zuberbuhler, B, McKibbin, M, Benchmark Standards for refractive Outcomes After Cataract Surgery, Eye (London) 2009 Jan;23 (1) 149-52

CLINICAL RECOMMENDATION STATEMENTS:
This is an outcome measure. As such, no clinical recommendations are included.

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2019 Registry Flow for Quality ID #389:
Cataract Surgery: Difference Between Planned and Final Refraction

```text
Denominator

Start

Patient Age on Date of Encounter ≥ 18 Years

No

Not Included in Eligible Population/Denominator

Yes

Encounter as Listed in the Denominator* (1/1/2019 thru 9/30/2019)

No

Modifier 55 or 56

Yes

Include in Eligible Population/Denominator (69 procedures) d

Numerator

Patient Achieves Final Refraction (Spherical Equivalent) ± 1.0 Dioptries of Their Planned Refraction Within 90 Days of Surgery

Yes

Data Completeness Met + Performance Met G9519 or equivalent (40 procedures)

No

Patient Does Not Achieve Final Refraction (Spherical Equivalent) ± 1.0 Dioptries of Their Planned Refraction Within 90 Days of Surgery

Yes

Data Completeness Met + Performance Not Met G9520 or equivalent (30 procedures)

No

Data Completeness Not Met the Quality Data Code or equivalent was not submitted (10 procedures)
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Sample Calculations:

Data Completeness =
Performance Met (a=40 procedures) + Performance Not Met (c=30 procedures) = 70 procedures = 87.50%

Eligible Population / Denominator (d=69 procedures) = 69 procedures

Performance Rate =
Performance Met (a=40 procedures) / 69 procedures = 57.14%

Data Completeness Numerator (70 procedures) = 70 procedures

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

NOTE: Submission Frequency: Procedure

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The measure diagrams are developed by AHRQ as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specifications.
2019 Clinical Quality Measure Flow Narrative for Quality ID #389:
Cataract Surgery: Difference Between Planned and Final Refraction

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

1. Start with Denominator

2. Check Patient Age:
   a. If Patient Age on Date of Encounter is greater than or equal to 18 Years equals No, do not include in Eligible Population. Stop Processing.
   b. If Patient Age on Date of Encounter is greater than or equal to 18 Years equals Yes, proceed to check Encounter Performed.

3. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, proceed to check Modifier: 55 or 56.

4. Check Modifier: 55 or 56:
   a. If Modifier: 55 or 56 equals Yes, do not include in Eligible Population. Stop Processing.
   b. If Modifier: 55 or 56 equal No, include in Eligible Population.

5. Denominator Population:
   a. Denominator Population is all Eligible Procedures 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.

6. Start Numerator

7. Check Patient Achieves Final Refraction (Spherical Equivalent) +/- 1.0 Diopters of Their Planned Refraction Within 90 Days of Surgery:
   a. If Patient Achieves Final Refraction (Spherical Equivalent) +/- 1.0 Diopters of Their Planned Refraction Within 90 Days of Surgery 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 40 procedures in the Sample Calculation.
   c. If Patient Achieves Final Refraction (Spherical Equivalent) +/- 1.0 Diopters of Their Planned Refraction Within 90 Days of Surgery equals No, proceed to check Patient Does Not Achieve Final Refraction +/- 1.0 Diopters of Their Planned Refraction Within 90 days of Surgery.

8. Check Patient Does Not Achieve Final Refraction (Spherical Equivalent) +/- 1.0 Diopters of Their Planned Refraction Within 90 Days of Surgery:
a. If Patient Does Not Achieve Final Refraction (Spherical Equivalent) +/- 1.0 Diopters of Their Planned Refraction Within 90 Days of Surgery 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 30 procedures in the Sample Calculation.

c. If Patient Does Not Achieve Final Refraction (Spherical Equivalent) +/- 1.0 Diopters of Their Planned Refraction Within 90 Days of Surgery equals No, proceed to check Data Completeness Not Met.

9. Check Data Completeness Not Met:

a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 procedures have been subtracted from the Data Completeness Numerator in the Sample Calculation.

**SAMPLE CALCULATIONS:**

Data Completeness = Performance Met (a=40 procedures) + Performance Not Met (c=30 procedures) = 70 procedures = 87.50%

Performance Rate = Performance Met (a=40 procedures) = 40 procedures = 57.14%

Data Completeness Numerator (70 procedures) = 70 procedures