

Measure 389: Cataract Surgery: Difference Between Planned and Final Refraction

Reporting Options: Registry, Cataracts Measures Group

Quality Domain: Effective Clinical Care

Description: Percentage of patients who achieve planned refraction within ± 1.0 D

Instructions: This measure is to be calculated when a procedure for cataracts is performed in the sample during the reporting 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 in the sample, it should be reported whether or not the patient had a difference between planned and final refraction.
- Include only procedures performed through November 30 of the reporting period. This will allow the post-operative period to occur before registries must submit data to CMS.

Denominator Instructions:

- Total number of uncomplicated cataract surgeries with one month follow up at least 21 days after cataract procedure.
- The patient has received his or her corrective lens prescription.
- Clinicians who indicate modifier 55, postoperative management only OR modifier -56, preoperative management only, will not qualify for this measure.

CPT Codes: 66840, 66850, 66852, 66920, 66930, 66940, 66982, 66983, 66984

Category II Codes:

G9391 Patient achieves refraction ± 1 D for the eye that underwent cataract surgery measured at the one month follow up visit

or

G9392 Patient does not achieve refraction ± 1 D for the eye that underwent cataract surgery, measured at the one month follow up visit

Patients with eye diseases other than cataract for the eye that underwent the cataract procedure are excluded from the measure calculation.

Diagnosis Codes:

Corresponding ICD-9-CM Codes [for use 1/1/2015-9/30/2015]

364.00, 364.01, 364.02, 364.03, 364.04, 364.05, 368.01, 368.02, 368.03, 940.0, 940.1, 940.2, 940.3, 940.4, 940.5, 940.9, 366.33, 370.03, 364.21, 364.22, 364.23, 364.24, 364.3, 363.43, 363.72, 363.61, 363.62, 363.63, 363.30, 363.31, 363.32, 363.33, 363.35, 364.10, 364.11, 371.01, 371.02, 371.03, 371.04, 371.00, 371.03, 371.04, 371.20, 371.21, 371.22, 371.23, 371.43, 371.44, 362.50, 362.51, 362.52, 362.53, 362.54, 362.55, 362.56, 362.57, 360.20, 360.21, 360.23, 360.24, 360.29, 362.07, 362.01, 362.02, 362.03, 362.04, 362.05, 362.06, 377.51, 377.52, 377.53, 377.54, 377.75, 363.10, 363.11, 363.12, 363.13, 363.14, 363.15, 363.00, 363.01, 363.03, 363.04, 363.05, 363.06, 363.07, 363.08, 365.10, 365.11, 365.12, 365.13, 365.14, 365.15, 365.20, 365.21, 365.22, 365.23, 365.24, 365.31, 365.32, 365.51, 365.52, 365.59, 365.60, 365.61, 365.62, 365.63, 365.64, 365.65, 365.81, 365.82, 365.83, 365.89, 365.41, 365.42, 365.43, 365.44, 365.60, 365.61, 365.62, 365.63, 365.9, 365.64, 365.65, 365.81, 365.82, 365.83, 365.89, 363.50, 363.51, 363.52, 363.53, 363.54, 363.55, 363.56, 363.57, 371.50, 371.51, 371.52, 371.53, 371.54, 371.55, 371.56, 371.57, 371.58, 362.70, 362.71, 362.72, 362.73, 362.74, 362.75, 362.76, 950.0, 950.1, 950.2, 950.3, 950.9, 369.10, 369.17, 369.11, 369.18, 369.12, 369.13, 369.14, 369.15, 369.16, 379.51, 871.0, 871.1, 871.9, 921.3, 871.2, 871.3, 871.4, 871.5, 871.6, 871.7, 377.10, 377.11, 377.12, 377.13, 377.14, 377.15, 377.16, 377.30, 377.31, 377.32, 377.33, 377.34, 377.39, 362.12, 362.16, 362.18, 371.70, 371.71, 371.72, 371.73, 377.41, 379.11, 379.12, 360.11, 360.12, 360.13, 360.14, 360.19, 362.20, 362.27, 362.21, 362.22, 362.23, 362.24, 362.25, 362.26, 362.81, 362.82, 362.83, 362.84, 362.85, 362.89, 363.20, 363.21, 363.22, 360.20, 360.21, 371.60, 371.61, 371.62, 369.00, 369.07, 369.01, 369.08, 369.02, 369.03, 369.04, 369.05, 369.06, 360.00, 360.01, 360.02, 360.03, 360.04, 361.00, 361.07, 361.01, 361.02, 361.03, 361.04, 361.05, 361.06, 362.31, 362.32, 362.35, 362.36, 379.04, 379.05, 379.06, 379.07, 379.09, 362.41, 362.42, 362.43, 360.11, 360.12

Corresponding ICD-10-CM Codes [for use 10/01/2015-12/31/2015]

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, H53.011, H53.012, H53.013, H53.019, H53.021, H53.022, H53.023, H53.029, H53.031, H53.032, H53.033, H53.039, 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, T26.42M, T26.50M, T26.51XA, T26.52XA, T26.60XA, T26.61XA, T26.62M, T26.70XA, T26.71XA, T26.72XA, T26.80XA, T26.81XA, T26.82XA, T26.90XA, T26.91XA, T26.92XA, H26.211, H26.212, H26.213, H26.219, H26.221, H26.222, H26.223, H26.229, H16.011, H16.012, H16.013, H16.019, 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, H35.33, H31.411, H31.412, H31.413, H31.419, H31.301, H31.302, H31.303, H31.309, H31.311, H31.312, H31.313, H31.319, H31.321, H31.322, H31.323, H31.329, H31.001, H31.002, H31.003, H31.009, H31.011, H31.012, H31.013, H31.019, H31.021, H31.022, H31.023, H31.029, H31.091, H31.092, H31.093, H31.099, A18.54, H20.10, H20.11,

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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. 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.¹ The study describes factors that influenced refractive outcome as older age and use of a clear corneal incision. High volume ophthalmology departments showed a significant difference in absolute prediction error.² 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.³

References:

- 1, 2. Kugelberg, M.A. and Lundstrom, M, **Refractive Outcome After Cataract Surgery, Cataract & Refractive Surgery Today Europe**, May 2009:
 3. Gale, RP, Johnston, RL, Zuberbuhler, B, McKibbin, M, **Benchmark Standards for refractive Outcomes After Cataract Surgery, Eye** (London) 2009 Jan;23 (1) 149-52, Kugelberg M, Lundstrom M. **Factors related to the degree of success in achieving target refraction in cataract surgery.** J Cat Refr Surg 2008;34(11):1935-39., Massachusetts Eye and Ear Infirmary, Harvard Medical School. *Ophthalmology Quality & Outcomes Report 2013.*, Lum F, Schein O, Schachat AP, Abbott RL, Hoskins HD, Steinberg EP. *Initial two years of experience with the AAO Nation Eyecare Outcomes Network (NEON) cataract surgery database.* Ophthalmology 2000;107:691-97
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