Quality ID #461: Leg Pain After Lumbar Discectomy/ Laminectomy
– National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes
– Meaningful Measure Area: Functional Outcomes

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Patient Reported Outcome – High Priority

DESCRIPTION:
For patients 18 years of age or older who had a lumbar discectomy/laminectomy procedure, leg pain is rated by the patient as less than or equal to 3.0 OR an improvement of 5.0 points or greater on the VAS Pain scale at three months (6 to 20 weeks) postoperatively

INSTRUCTIONS:
This measure is to be submitted **each time** a patient undergoes a lumbar discectomy/laminectomy during the denominator identification period. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

NOTE: *This measure is a target-based measure with two ways to meet the numerator; either a postoperative VAS Pain score that is less than or equal to 3.0 OR an improvement of 5.0 points or greater from the preoperative to postoperative score. It is expressed as a proportion or rate. Patients having received a lumbar discectomy/laminectomy procedure who are not assessed for leg pain postoperatively remain in the denominator and are considered as not meeting the target. The measure intent is that MIPS eligible clinicians will submit all denominator eligible procedures forperformance calculation.*

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 as 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:
Patients 18 years of age or older as of January 1 of the denominator identification period who had a lumbar discectomy/laminectomy procedure performed during the denominator identification period

Definitions:
Denominator Identification Period - The twelve-month period in which eligible patients have a procedure. This allows for enough time for a follow-up assessment to occur during the performance period. The denominator identification period includes dates of procedure of 1/1/2019 to 12/31/2019.

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years by January 1 of the Denominator Identification Period
AND
Patient procedure during the denominator identification period (CPT): 63005, 63012, 63017, 63030, 63042 and 63047

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AND NOT
DENOMINATOR EXCLUSIONS:
Patient had any additional spine procedures performed on the same date as the lumbar discectomy/laminectomy: G9948
AND NOT
Patient had cancer, fracture or infection related to the lumbar spine OR patient had idiopathic or congenital scoliosis: G9945

- Patients with a diagnosis of lumbar spine region cancer at the time of the procedure – The following codes would be sufficient to define the Denominator Exclusion (G9945) of lumbar spine region cancer: C41.2, C41.4, C79.51, C79.52, D16.6, D16.8, D48.0, D49.2

- Patients with a diagnosis of lumbar spine region fracture at the time of the procedure – The following codes would be sufficient to define the Denominator Exclusion (G9945) of lumbar spine region fracture: M48.44XA, M48.45XA, M48.46XA, M48.47XA, M48.48XA, M48.54XA, M48.55XA, M48.56XA, M48.57XA, M48.58XA, S22.060A, S22.060B, S22.061A, S22.061B, S22.062A, S22.062B, S22.068A, S22.068B, S22.069A, S22.069B, S22.070A, S22.070B, S22.071A, S22.071B, S22.072A, S22.072B, S22.078A, S22.078B, S22.079A, S22.079B, S22.080A, S22.080B, S22.081A, S22.081B, S22.082A, S22.082B, S22.088A, S22.088B, S22.089A, S22.089B, S24.103A, S24.104A, S24.113A, S24.114A, S24.133A, S24.134A, S24.143A, S24.144A, S24.153A, S24.154A, S32.000A, S32.000B, S32.001A, S32.001B, S32.002A, S32.002B, S32.008A, S32.008B, S32.009A, S32.009B, S32.010A, S32.010B, S32.011A, S32.011B, S32.012A, S32.012B, S32.018A, S32.018B, S32.019A, S32.019B, S32.020A, S32.020B, S32.021A, S32.021B, S32.022A, S32.022B, S32.028A, S32.028B, S32.029A, S32.029B, S32.030A, S32.030B, S32.031A, S32.031B, S32.032A, S32.032B, S32.038A, S32.038B, S32.039A, S32.039B, S32.040A, S32.040B, S32.041A, S32.041B, S32.042A, S32.042B, S32.048A, S32.048B, S32.049A, S32.049B, S32.050A, S32.050B, S32.051A, S32.051B, S32.052A, S32.052B, S32.058A, S32.058B, S32.059A, S32.059B, S32.10XA, S32.10XB, S32.110A, S32.110B, S32.111A, S32.111B, S32.112A, S32.112B, S32.119A, S32.119B, S32.120A, S32.120B, S32.121A, S32.121B, S32.122A, S32.122B, S32.129A, S32.129B, S32.130A, S32.130B, S32.131A, S32.131B, S32.132A, S32.132B, S32.139A, S32.139B, S32.14XA, S32.14XB, S32.15XA, S32.15XB, S32.16XA, S32.16XB, S32.17XA, S32.17XB, S32.19XA, S32.19XB, S32.2XXA, S32.2XXB, S32.9XXA, S32.9XXB, S34.101A, S34.102A, S34.103A, S34.104A, S34.105A, S34.109A, S34.111A, S34.112A, S34.113A, S34.114A, S34.115A, S34.119A, S34.121A, S34.122A, S34.123A, S34.124A, S34.125A, S34.129A, S34.131A, S34.132A, S34.139A, S34.3XXA

- Patients with a diagnosis of lumbar spine region infection at the time of the procedure – The following codes would be sufficient to define the Denominator Exclusion (G9945) of lumbar spine region infection: M46.25, M46.26, M46.27, M46.28, M46.35, M46.36, M46.37, M46.38, M46.45, M46.46, M46.47, M46.48, M46.55, M46.56, M46.57, M46.58

- Patients with a diagnosis of lumbar idiopathic or congenital scoliosis – The following codes would be sufficient to define the Denominator Exclusion (G9945) of idiopathic or congenital scoliosis: M41.05, M41.06, M41.07, M41.08, M41.115, M41.116, M41.117, M41.125, M41.126, M41.127, M41.25, M41.26, M41.27, Q67.5, Q76.3

NUMERATOR:
All eligible patients whose leg pain is less than or equal to 3.0 OR an improvement of 5.0 points or greater on the VAS Pain scale at three months (6 to 20 weeks) postoperatively

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Definitions:

Measure Assessment Period (Performance Period) - The period of time following the procedure date in which a postoperative VAS pain scale score is obtained.

Preoperative Assessment VAS Pain - A preoperative VAS pain scale score can be obtained from the patient any time up to three months pre-operatively, inclusive of the date of the procedure. Assessment scores obtained via a telephone screening or more than three months before the procedure will not be used for measure calculation.

Postoperative Assessment VAS Pain - A postoperative VAS pain scale score can be obtained from the patient three months (6 to 20 weeks) after the date of the procedure. Assessment scores obtained via a telephone screening or prior to 6 weeks and after 20 weeks postoperatively will not be used for measure calculation.

Visual Analog Scale - A visual analog scale is a continuous line indicating the continuum between two states of being. A copy of the tool can be obtained below or at the following link Visual Analog Scale Tool.

Leg Pain Target #1 - A patient who is assessed postoperatively at three months (6 to 20 weeks) after the procedure who rates their leg pain as less than or equal to 3.0.

Leg Pain Target #2 - A patient who does not meet Leg Pain Target #1 is assessed both preoperatively within 3 months prior to the procedure AND postoperatively at three months (6 to 20 weeks) after the procedure AND the improvement is greater than or equal to 5.0 points

NUMERATOR NOTE: *It is recommended that both a preoperative and postoperative be administered to the patient increasing the chances that one of the numerator targets will be met. The following situations are those in which the numerator target cannot be reached and Performance Not Met G9949 is submitted.*

- *VAS Pain Scale is not administered postoperatively at three months (6 to 20 weeks)*
- *Leg pain is measured using a different patient reported tool or via telephone screening*
- *Postoperative VAS Pain Scale is administered less than six weeks or more than 20 weeks (3 month window)*
- *Postoperative VAS value is greater than 3.0 and no valid preop to measure change*
- *Preoperative VAS Pain Scale (to measure change) is administered beyond the three month timeframe prior to and including the date of procedure (e.g. 6 months before procedure)*

Numerator Options:

Performance Met: Leg pain measured by the Visual Analog Scale (VAS) at three months (6 – 20 weeks) postoperatively was less than or equal to 3.0 **OR** Leg pain measured by the Visual Analog Scale (VAS) within three months preoperatively AND at three months (6 - 20 weeks) postoperatively demonstrated an improvement of 5.0 points or greater **(G2140)**

OR

Performance Not Met: Leg pain was not measured by the Visual Analog Scale (VAS) at three months (6 – 20 weeks) postoperatively **(G9949)**

OR

Performance Not Met: Leg pain measured by the Visual Analog Scale (VAS) at three months (6 – 20 weeks) postoperatively was greater than 3.0 **AND** Leg pain measured by the Visual Analog

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Scale (VAS) within three months preoperatively AND at three months (6 - 20 weeks) postoperatively demonstrated less than an Improvement of 5.0 points **(G2141)**

RATIONALE:

Mechanical low back functional status (LBP) remains the second most common symptom-related reason for seeing a physician in the United States. Of the US population, 85% will experience an episode of mechanical LBP at some point in their lifetime. For individuals younger than 45 years, LBP represents the most common cause of disability and is generally associated with a work-related injury. It is the third most common reason for disability for individuals older than 45 years. The prevalence of serious mechanical LBP (persisting > 2 week) is 14%, while the prevalence of true sciatica is approximately 2%.

Overall, spine surgery rates have declined slightly from 2002-2007, but the rate of complex fusion procedures increased 15-fold, from 1.3 to 19.9 per 100,000 Medicare beneficiaries. Complications increased with increasing surgical invasiveness, from 2.3% among patients having decompression alone to 5.6% among those having complex fusions. After adjustment for age, comorbidity, previous spine surgery, and other features, the odds ratio (OR) of life- threatening complications for complex fusion compared with decompression alone was 2.95 (95% confidence interval [CI], 2.50-3.49). A similar pattern was observed for rehospitalization within 30 days, which occurred for 7.8% of patients undergoing decompression and 13.0% having a complex fusion (adjusted OR, 1.94; 95% CI, 1.74-2.17). Adjusted mean hospital charges for complex fusion procedures were US $80,888 compared with US $23,724 for decompression alone (Deyo, R. JAMA 2010). The MNCM Spine Surgery Measure development workgroup developed patient reported outcome measures for two populations of patients undergoing different lumbar spine procedures, a more complex procedure (lumbar fusion) and a second procedure that represented the most common procedure CPT code 63030 for the most common diagnosis of disc herniation. In 2018, the development workgroup reconvened and redesigned the measure construct to a target-based measure and additionally expanded the denominator for this measure to include all lumbar discectomy laminectomy procedures.

Rationale for measure construct and calculation change:

Target score based on 2016 study in the Spine Journal Fetke, TF et al "What level of pain are patients happy to live with after surgery for lumbar degenerative disorders?" This study compared the Core Outcomes Measures Index (COMI) and symptom well-being questions to two 0 to 10 graphic ratings scales for back and leg pain. Most spine interventions decrease pain but rarely do they totally eliminate it. Reporting of the percent of patients achieving a pain score equivalent to the "acceptable symptom state" may represent a more stringent target for denoting surgical success in the treatment of painful spinal disorders. For disc herniation, this is less than or equal to 2, and for other degenerative pathologies it is less than or equal to 3. The OR benchmark of change (5.0) derived from MNCM data (3 years); the average change in points of patients that did achieve the target of less than or equal to 3.0.

Rationale for the expansion of the denominator and addition of exclusions:

During the original development of this measure, the intent was to have a homogeneous population procedure that represented the most common procedure CPT code 63030 for the most common diagnosis of disc herniation. This strategy did not translate well from ICD-9 to ICD-10 diagnosis codes and the volume of eligible denominator patients dropped significantly. In 2018, the MNCM development workgroup reconvened for measure construct redesign and adopted a broader denominator population; all applicable discectomy laminectomy procedure codes and not limited by a type of diagnosis (includes all). With this decision, the workgroup decided to adopt the same exclusions for the spine fusion population and added exclusions for spine related cancer, acute fracture or infection, neuromuscular, idiopathic or congenital scoliosis.

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CLINICAL RECOMMENDATION STATEMENTS:

Journal of Neurosurgery guidelines indicate that there is no evidence that conflicts with the previous recommendations published in the original version of the guideline. This recommendation is for the use of reliable, valid and responsive outcomes instrument to assess functional outcome in lumbar spinal fusion patients. It is recommended that when assessing functional outcome in patients treated for low-back pain due to degenerative disease, a reliable, valid, and responsive outcomes instrument, such as the disease-specific Oswestry Disability Index (ODI), be used (Level II evidence).

MEASURE CALCULATION EXAMPLE:

Patient	Pre-op VAS	Post-op VAS	Post-op ≤ 3.0?	If No, (Pre-op minus Post-op)	If No, Met Improvement Target of ≥ 5.0?	Met Numerator Target?
Patient A	8.5	3.5	No	5.0	Yes	Yes
Patient B	9.0	2.5	Yes	na	na	Yes
Patient C	7.0	0.5	Yes	na	na	Yes
Patient D	6.5	8.0	No	-1.5	No	No
Patient E	8.5	2.0	Yes	na	na	Yes
Patient F	7.5	1.5	Yes	na	na	Yes
Patient G	9.0	4.5	No	4.5	No	No
Patient H	5.5	7.5	No	-2.0	No	No
Patient I	9.0	5.0	No	4.0	No	No
Patient J	7.0	2.5	Yes	na	na	Yes
Rate						**60%**

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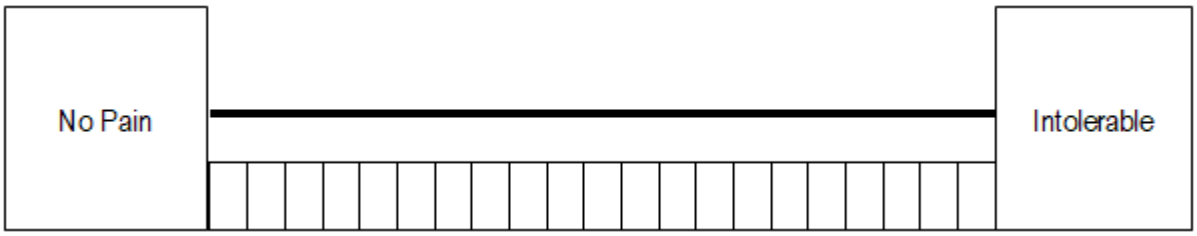
MEASURE TOOL:

Visual Analog Scale (VAS): A visual analog scale is a continuous line indicating the continuum between two states of being.

Visual Analog
Pain Scale
Leg Pain:

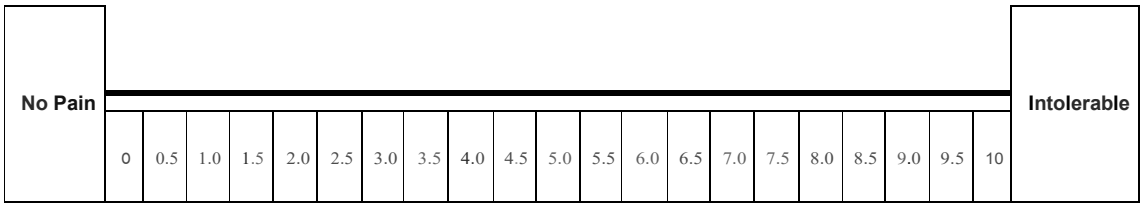
How severe is your **Leg** pain today?

Please place an "X" in a box below the line to indicate how bad you feel your leg pain is today. Please select
("X") only ONE box.



The tool must contain the end points of "No Pain" and "Intolerable". The tool must not display the actual numbers to the patient. It is not acceptable to substitute a numeric rating scale (e.g.; to ask the patient on a scale of one to 10 what number would you use to rate your pain).

Below is the key for MIPS eligible clinicians to utilize in order to convert patient's "X" to a number for measuring change. Do not use this scale for patient completion. The corresponding numeric value is used for measurement of improvement. The numeric equivalent has 21 possible points from 0 to ten with 0.5 intervals (e.g.; 0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0).



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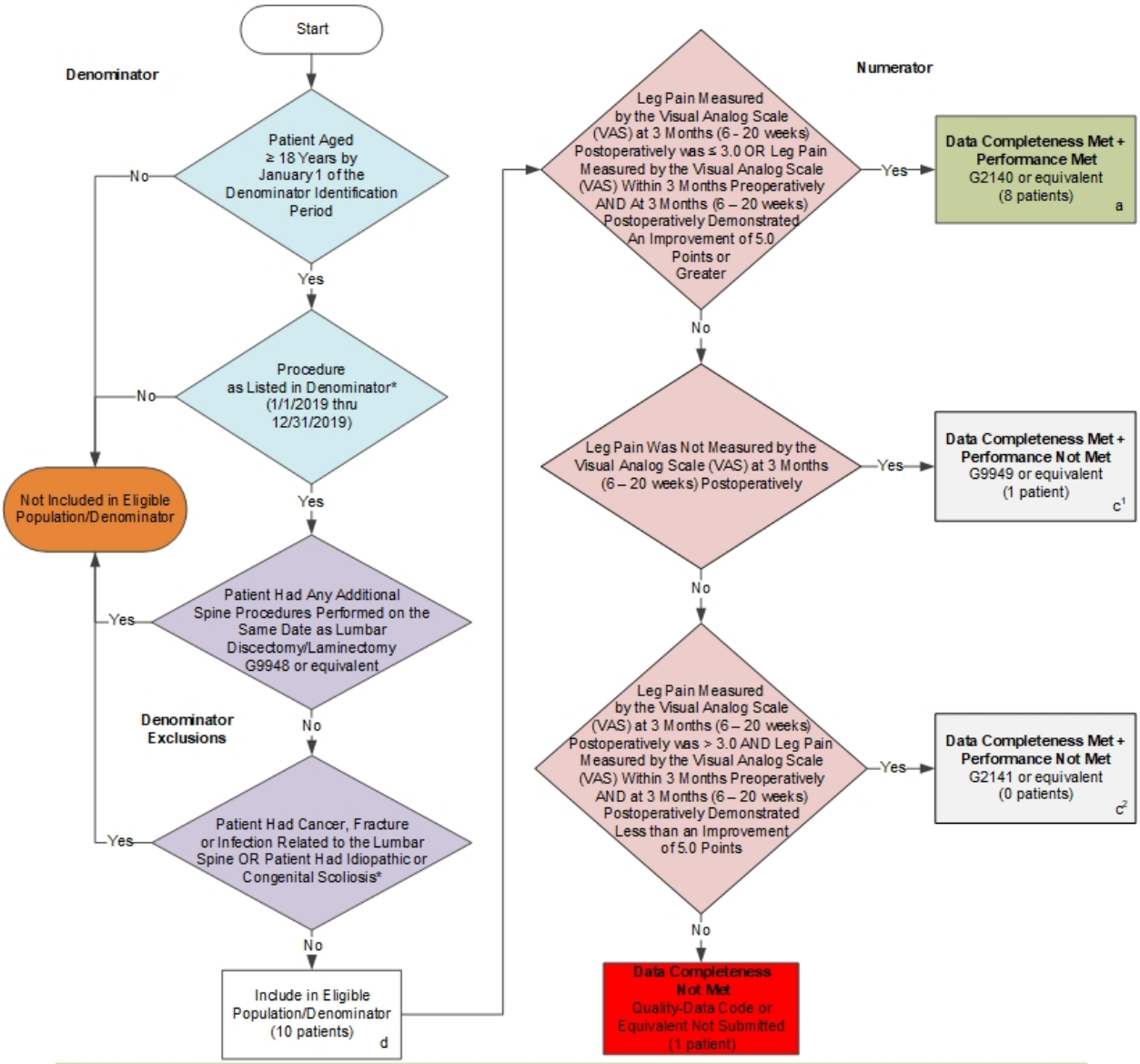
2020 Clinical Quality Measure Flow for Quality ID #461: Leg Pain After Lumbar Discectomy/Laminectomy

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=8 patients) + Performance Not Met (c^1+c^2=1 patient) = 9 patients = **90.00%**

Eligible Population / Denominator (d=10 patients) = 10 patients

Performance Rate=

Performance Met (a=8 patients) = 8 patients = **88.89%**

Data Completeness Numerator (9 patients) = 9 patients

*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Outcome

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2020 Clinical Quality Measure Flow Narrative for Quality ID #461: Leg Pain After Lumbar Discectomy/Laminectomy

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 18 Years by January 1 of the Denominator Identification Period equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 18 Years of age by January 1 of the Denominator Identification Period equals Yes, proceed to check Procedure Performed.
3. Check Procedure Performed:
    a. If Procedure Performed as Listed in Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Procedure Performed as Listed in Denominator equals Yes, proceed to Patient Had Any Additional Spine Procedures Performed on the Same Date as the Lumbar Discectomy/Laminectomy.
4. Check Patient Had Any Additional Spine Procedures Performed on the Same Date as the Lumbar Discectomy/Laminectomy:
    a. If Patient Had Any Additional Spine Procedures Performed on the Same Date as the Lumbar Discectomy/Laminectomy equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Patient Had Any Additional Spine Procedures Performed on the Same Date as the Lumbar Discectomy/Laminectomy equals No, proceed to check Patient Had Cancer, Fracture or Infection Related to the Lumbar Spine OR Patient Had Idiopathic or Congenital Scoliosis.
5. Check Patient Had Any Cancer, Fracture or Infection Related to the Lumbar Spine OR Patient Had Idiopathic or Congenital Scoliosis:
    a. If Patient Had Cancer, Fracture or Infection Related to the Lumbar Spine OR Patient Had Idiopathic or Congenital Scoliosis equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Patient Had Cancer, Fracture or Infection of the Lumbar Spine OR Patient Had Idiopathic or Congenital Scoliosis equals No, include in 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 10 patients in the Sample Calculation.
7. Start Numerator
8. Check Leg Pain Measured by the Visual Analog Scale (VAS) at 3 Months (6 - 20 Weeks) Postoperatively was less than or equal to 3.0 OR Leg Pain Measured by the Visual Analog Scale (VAS) Within 3 Months Preoperatively AND At 3 Months (6 – 20 weeks) Postoperatively Demonstrated an Improvement of 5.0 Points or Greater:

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a. If Leg Pain Measured by the Visual Analog Scale (VAS) at 3 Months (6 - 20 Weeks) Postoperatively was less than or equal to 3.0 OR Leg Pain Measured by the Visual Analog Scale (VAS) Within 3 Months Preoperatively AND At 3 Months (6 – 20 weeks) Postoperatively Demonstrated an Improvement of 5.0 Points or Greater equals Yes, Include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate Not Met in the Sample Calculation listed at the end of this document. Letter a equals 8 patients in the Sample Calculation.

c. If Leg Pain Measured by the Visual Analog Scale (VAS) at 3 Months (6 - 20 Weeks) Postoperatively was less than or equal to 3.0 OR Leg Pain Measured by the Visual Analog Scale (VAS) Within 3 Months Preoperatively AND At 3 Months (6 – 20 weeks) Postoperatively Demonstrated an Improvement of 5.0 Points or Greater equals No, proceed to Leg Pain Was Not Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively.

9. Check Leg Pain Was Not Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively:

   a. If Leg Pain Was Not Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively equals Yes, include in Data Completeness Met and Performance Not Met.

   b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness and Performance Rate Not Met in the Sample Calculation listed at the end of this document. Letter c^1 equals 1 patient in the Sample Calculation.

   c. If Leg Pain Was Not Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively equals No, proceed to Leg Pain Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively was greater than 3.0 AND Leg Pain Measures by the Visual Analog Scale (VAS) Within 3 Months Preoperatively AND at 3 Months (6 – 20 weeks) Postoperatively Demonstrated less than an Improvement of 5.0 Points.

10. Check Leg Pain Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively was greater than 3.0 AND Leg Pain Measures by the Visual Analog Scale (VAS) Within 3 Months Preoperatively AND at 3 Months (6 – 20 weeks) Postoperatively Demonstrated less than an Improvement of 5.0 Points:

    a. If Leg Pain Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively was greater than 3.0 AND Leg Pain Measures by the Visual Analog Scale (VAS) Within 3 Months Preoperatively AND at 3 Months (6 – 20 weeks) Postoperatively Demonstrated less than an Improvement of 5.0 Points equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in Data Completeness in the Sample Calculation listed at the end of this document. Letter c^2 equals 0 patients in the Sample Calculation.

    c. If Leg Pain Measured by the Visual Analog Scale (VAS) at 3 Months (6 – 20 weeks) Postoperatively was greater than 3.0 AND Leg Pain Measures by the Visual Analog Scale (VAS) Within 3 Months Preoperatively AND at 3 Months (6 – 20 weeks) Postoperatively Demonstrated less than an Improvement of 5.0 Points equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted.

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SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=8 patients) + Performance Not Met (c^1+c^2=1 patient) / Eligible Population / Denominator (d=10 patients) = 9 patients / 10 patients = **90.00%**

Performance Rate=

Performance Met (a=8 patients) / Data Completeness Numerator (9 patients) = 8 patients / 9 patients = **88.89%**

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