



SUPPLEMENTAL GUIDE

Orthopedic Measures:

Measure Specifications and Process Intelligence Performance Engine (PIPE) Data Portal Calculation

Version 1.1

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SUMMARY OF CHANGES

<p>Measure Specifications</p>	<ul style="list-style-type: none"> • Clarifying language added to data search details for the Event criteria of the Eligible Population in all measure specifications. • Value set reference codes added to all measure specifications. • Added references for the Numeric Pain Rating Scale (NPRS) assessment tool in the Back and Leg Pain measure specifications for the Spinal Surgery: Lumbar Fusion and Spinal Surgery: Lumbar Discectomy/Laminectomy measure suites. • Clarifying language added to the data search details for Required Exclusions in the Spinal Surgery: Lumbar Fusion and Spinal Surgery: Lumbar Discectomy/Laminectomy measure suites. • Required exclusion for the Spinal Surgery: Lumbar Discectomy/Laminectomy measure suite narrowed from ‘any additional spine procedures performed on the same date’ to only lumbar spine fusion procedures performed on the same date as the lumbar discectomy/laminectomy.
<p>Other</p>	<ul style="list-style-type: none"> • NPRS references added to Spine Surgery flow charts and to the Patient Reported Outcome (PRO) Assessment Handling section of this guide.

SPINAL SURGERY: LUMBAR FUSION

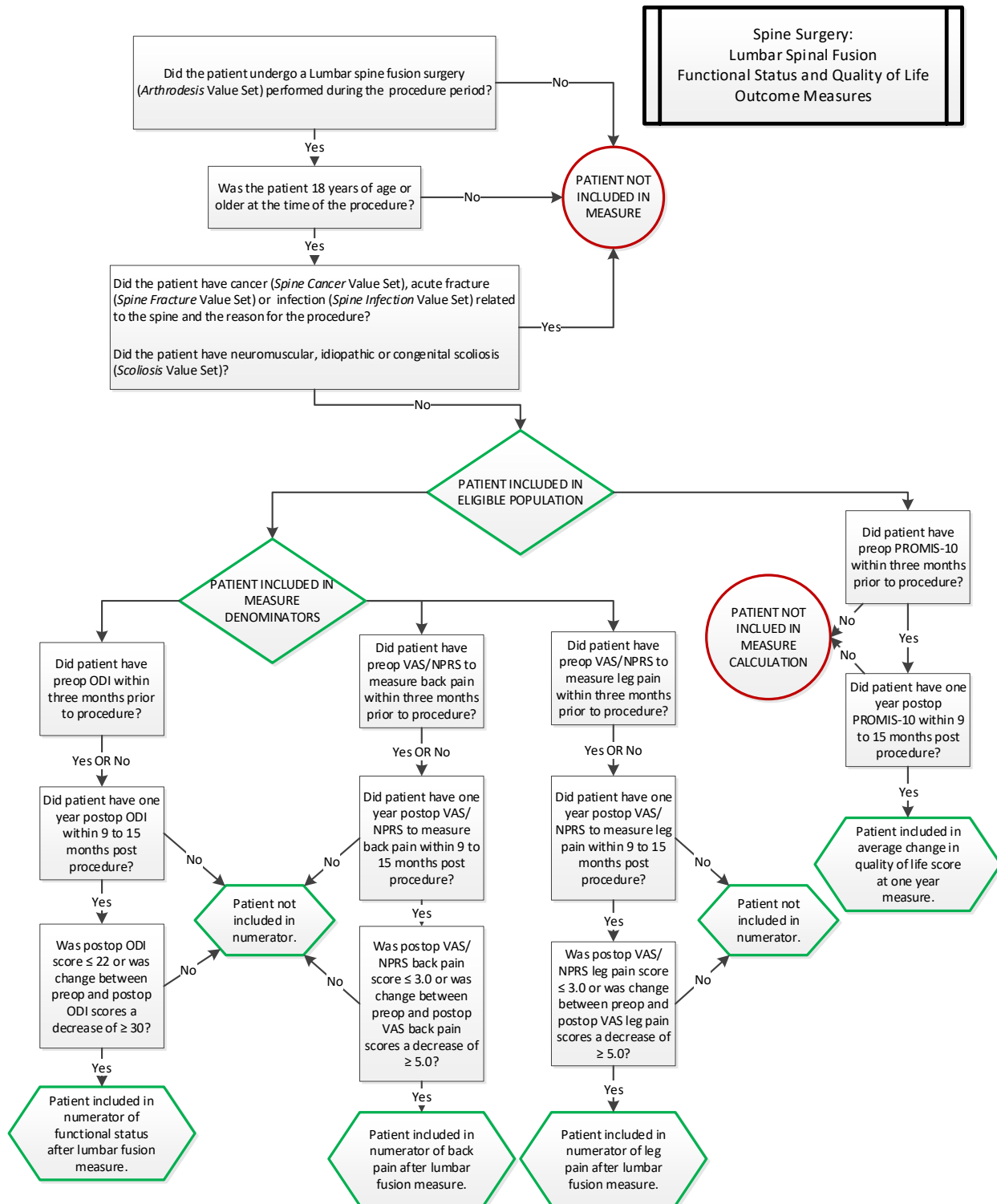
Summary of Changes	<ul style="list-style-type: none"> • Clarifying language added to data search details for the Event criteria of the Eligible Population in all measure specifications. • Value set reference codes added to all measure specifications. • Added references for the Numeric Pain Rating Scale (NPRS) assessment tool in the Back and Leg Pain measure specifications for the Spinal Surgery: Lumbar Fusion and Spinal Surgery: Lumbar Discectomy/Laminectomy measure suites. • Clarifying language added to the data search details for Required Exclusions in the Spinal Surgery: Lumbar Fusion and Spinal Surgery: Lumbar Discectomy/Laminectomy measure suites. 	
ELIGIBLE POPULATION IDENTIFICATION		
Measurement Period	<p>Procedure Period: twelve months</p> <ul style="list-style-type: none"> • <i>Where last day of procedure period is 15 months (counted by whole months) prior to end of measurement year.</i> • <i>EXAMPLE if Measurement Year was 2023 calendar year</i> <ul style="list-style-type: none"> ○ <i>Procedure Period: Oct 1, 2021 through Sept 30, 2022 (15 months [counted by whole months] after 9/30/2022 procedure = 12/30/2023)</i> <p>Preoperative Assessment Period: up to three months prior to procedure, including date of procedure (<i>counted by whole months, using procedure as anchor</i>)</p> <p>Postoperative Assessment Period: between 9 and 15 months (<i>counted by whole months</i>) after procedure</p> <ul style="list-style-type: none"> • <i>EXAMPLE if procedure was 9/30/2022</i> <ul style="list-style-type: none"> ○ <i>Preoperative Assessment Period: 6/30/2022 through 9/30/2022</i> ○ <i>Postoperative Assessment Period: 6/30/2023 through 12/30/2023</i> • <i>Most recent assessment(s) in patient specific assessment period(s) are used.</i> 	
Eligible Population	Event	Lumbar spine fusion surgery (<i>LSF-01 Arthrodesis Value Set</i>) performed during the procedure period <ul style="list-style-type: none"> • <i>Searches Lab/Procedure and Encounter data for most recent procedure in the procedure period</i>
	Ages	18 years or older on date of procedure

Required Exclusions	<p>The following exclusions must be applied to the eligible population:</p> <ul style="list-style-type: none"> • Patient had cancer (<i>LSF-02 Spine Cancer Value Set</i>), acute fracture (<i>LSF-03 Spine Fracture Value Set</i>) or infection (<i>LSF-04 Spine Infection Value Set</i>) related to the spine and the reason for the procedure <ul style="list-style-type: none"> ○ <i>Searches Encounter data for three months prior to and including the date of procedure;</i> OR ○ <i>Searches Problem List for Start/ Active date up to three months prior to and including the date of the procedure; if End/ Inactive date present, must be after the date of the procedure</i> ○ <i>Counted by whole months, using procedure as anchor; same logic as Preoperative Assessment Period</i> • Patient had neuromuscular, idiopathic, or congenital scoliosis (<i>LSF-05 Scoliosis Value Set</i>) <ul style="list-style-type: none"> ○ <i>Searches Problem List for Start/ Active date any time prior to procedure; if End/ Inactive date present, must be after the procedure</i>
MEASURE CALCULATION	
Measure	<i>Functional Status After Lumbar Fusion</i>
Description	<p>The percentage of patients aged 18 years and older whose functional status after lumbar fusion surgery was less than or equal to 22 OR who had an improvement of 30 points or greater on the Oswestry Disability Index (ODI) [<i>PRO Assessment Code 13 (summary score) or Code 14 (individual responses)</i>] at one year postoperatively (9 to 15 months).</p>
Denominator	<p>The eligible population</p>
Numerator	<p>At one year (9 to 15 months) postoperatively:</p> <ul style="list-style-type: none"> • ODI score is less than or equal to 22 <p>OR</p> <ul style="list-style-type: none"> • Improvement (<i>decrease</i>) of 30 points or greater compared to the preoperative ODI score <ul style="list-style-type: none"> ○ <i>A lower ODI score indicates a better functional status. Comparison of pre and postoperative scores to identify decrease is postop minus preop.</i>
Measure Scoring	<p>Rate/Proportion</p>
Interpretation of Score	<p>Higher score indicates better quality</p>
Measure Type	<p>Outcome</p>

Measure	<i>Back Pain After Lumbar Fusion</i>
Description	The percentage of patients aged 18 years and older whose back pain after lumbar fusion surgery was less than or equal to 3.0 OR who had an improvement in back pain of 5.0 points or greater on the Visual Analog Scale (VAS) or Numeric Pain Rating Scale (NPRS) [<i>PRO Assessment Code 15 + Area of the body assessed Code 3</i>] one year postoperatively (9 to 15 months).
Denominator	The eligible population
Numerator	At one year postoperatively (9 to 15 months): <ul style="list-style-type: none"> • VAS or NPRS back pain score is less than or equal to 3.0 <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Improvement (<i>decrease</i>) of 5.0 points or greater compared to the preoperative VAS or NPRS back pain score <ul style="list-style-type: none"> ○ <i>A lower score indicates a better pain status. Comparison of pre and postoperative scores to identify decrease is postop minus preop.</i>
Measure Scoring	Rate/Proportion
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome
Measure	<i>Leg Pain After Lumbar Fusion</i>
Description	The percentage of patients aged 18 years and older whose leg pain after lumbar fusion surgery was less than or equal to 3.0 OR who had an improvement in leg pain of 5.0 points or greater on the Visual Analog Scale (VAS) or Numeric Pain Rating Scale (NPRS) [<i>PRO Assessment Code 15 + Area of the body assessed Code 4</i>] one year postoperatively (9 to 15 months).
Denominator	The eligible population
Numerator	At one year (9 to 15 months) postoperatively: <ul style="list-style-type: none"> • VAS or NPRS leg pain score is less than or equal to 3.0 <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Improvement (<i>decrease</i>) of 5.0 points or greater compared to the preoperative VAS or NPRS leg pain score <ul style="list-style-type: none"> ○ <i>A lower score indicates a better pain status. Comparison of pre and postoperative scores to identify decrease is postop minus preop.</i>
Measure Scoring	Rate/Proportion
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome

Measure	<i>Lumbar Fusion: Average change in health-related quality of life</i>
Description	The average change (preoperative to one year postoperative [9 to 15 months]) in health-related quality of life for patients 18 years of age or older who had lumbar fusion procedure
Denominator	Patients within the eligible population whose health-related quality of life was measured by the PROMIS-10 [<i>PRO Assessment Code 18 + PRO Assessment Tool Version Code 1 or 2 (to determine calculation logic)</i>] within three months preoperatively AND at one year (9 to 15 months) postoperatively
Numerator	<p>The average change (preoperative to one year postoperative [9 to 15 months]) in health-related quality of life for all patients in the denominator</p> <ul style="list-style-type: none"> • <i>Calculation of ‘average change’</i> <ul style="list-style-type: none"> ○ <i>Calculate individual patient T-Scores for Physical Health and Mental Health for preop and postop assessments.</i> ○ <i>Calculate change in T-Score for Physical Health and Mental Health for each patient (postop minus preop)</i> ○ <i>Calculate average of all individual patient T-Score changes for Physical Health and Mental Health (sum of T-Score changes by category divided by count of denominator population)</i>
Measure Scoring	<p>Number</p> <p>Results are reported by:</p> <ul style="list-style-type: none"> • Average change in health-related quality of life – Physical Health • Average change in health-related quality of life – Mental Health
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome

Chart 1: Lumbar Fusion Measure Calculation Algorithm



SPINAL SURGERY: LUMBAR DISCECTOMY/LAMINECTOMY

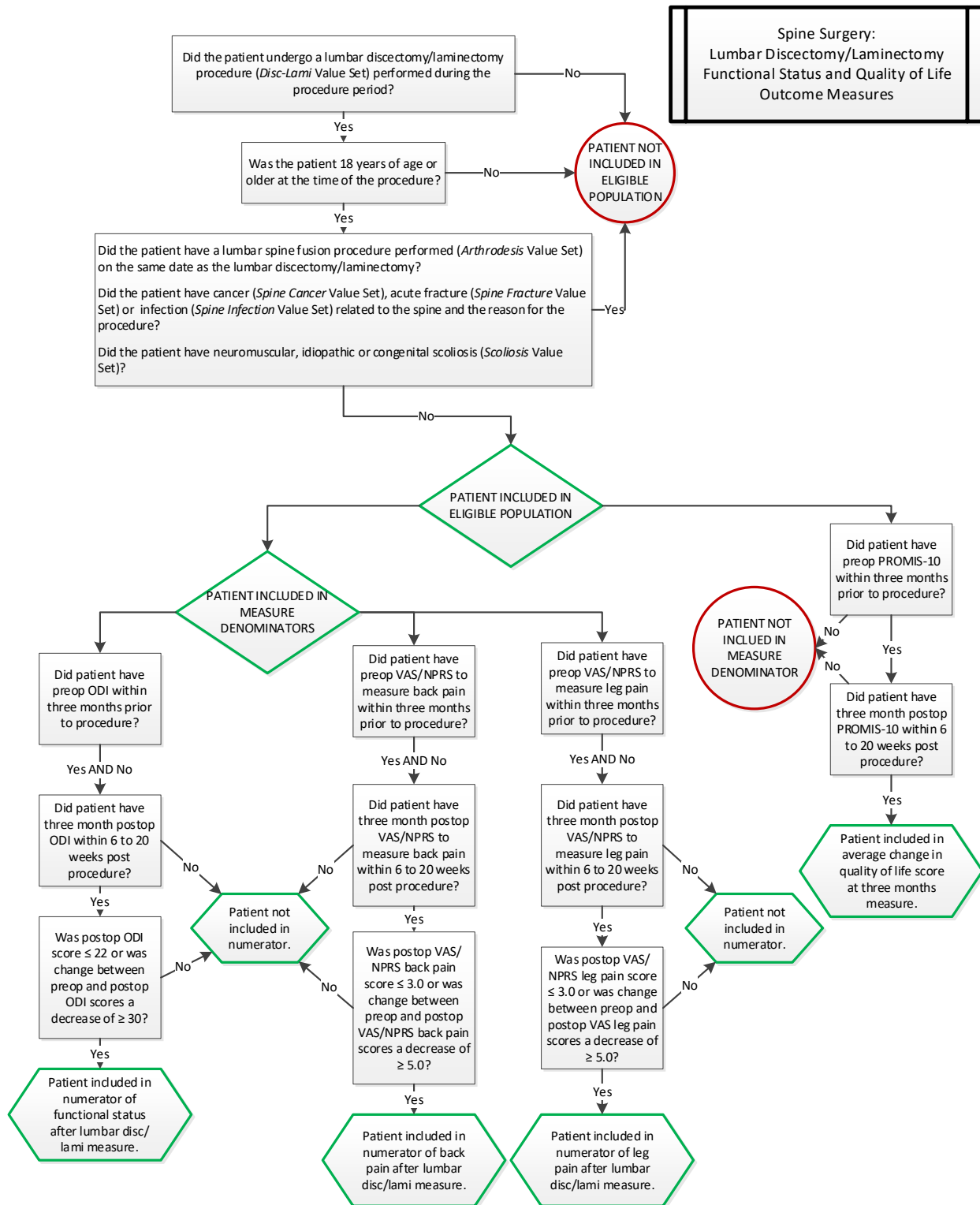
Summary of Changes	<ul style="list-style-type: none"> Clarifying language added to data search details for the Event criteria of the Eligible Population in all measure specifications. Value set reference codes added to all measure specifications. Added references for the Numeric Pain Rating Scale (NPRS) assessment tool in the Back and Leg Pain measure specifications for the Spinal Surgery: Lumbar Fusion and Spinal Surgery: Lumbar Discectomy/Laminectomy measure suites. Clarifying language added to the data search details for Required Exclusions in the Spinal Surgery: Lumbar Fusion and Spinal Surgery: Lumbar Discectomy/Laminectomy measure suites. Required exclusion for the Spinal Surgery: Lumbar Discectomy/Laminectomy measure suite narrowed from ‘any additional spine procedures performed on the same date’ to only lumbar spine fusion procedures performed on the same date as the lumbar discectomy/laminectomy. 	
ELIGIBLE POPULATION IDENTIFICATION		
Measurement Period	<p>Procedure Period: twelve months</p> <ul style="list-style-type: none"> Where last day of procedure period is 20 weeks (20 * 7 days) prior to end of measurement year. EXAMPLE if Measurement Year was 2023 calendar year <ul style="list-style-type: none"> Procedure Period: August 14, 2022 through August 13, 2023 (20 weeks [20 * 7 days] after 8/13/2023 procedure = 12/31/2023) <p>Preoperative Assessment Period: up to three months prior to procedure, including date of procedure (count by whole months, using procedure as anchor)</p> <p>Postoperative Assessment Period: between 6 (6 * 7 days) and 20 (20 * 7 days) weeks after procedure</p> <ul style="list-style-type: none"> EXAMPLE if procedure was 8/13/2023 <ul style="list-style-type: none"> Preoperative Assessment Period: 5/13/2023 through 8/13/2023 Postoperative Assessment Period: 9/24/2023 through 12/31/2023 Use most recent assessment(s) in patient specific assessment period(s) 	
Eligible Population	Event	Lumbar discectomy/laminectomy procedure (DISC-01 Disc-Lami Value Set) performed during the procedure period <ul style="list-style-type: none"> Searches Lab/Procedure and Encounter data for most recent procedure in the procedure period
	Ages	18 years or older on date of procedure

Required Exclusions	<p>The following exclusions must be applied to the eligible population:</p> <ul style="list-style-type: none"> • Patient had a lumbar spine fusion procedure performed (<i>LSF-01 Arthrodesis Value Set</i>) on the same date as the lumbar discectomy/laminectomy <ul style="list-style-type: none"> ○ <i>Searches Lab/Procedure data and Encounter data</i> • Patient had cancer (<i>LSF-02 Spine Cancer Value Set</i>), acute fracture (<i>LSF-03 Spine Fracture Value Set</i>) or infection (<i>LSF-04 Spine Infection Value Set</i>) related to the spine and the reason for the procedure <ul style="list-style-type: none"> ○ <i>Searches Encounter data for three months prior to and including the date of procedure; OR</i> ○ <i>Searches Problem List for Start/Active date up to three months prior to and including the date of the procedure; if End/Inactive date present, must be after the date of the procedure</i> ○ <i>Count by whole months, using procedure as anchor; same logic as Preoperative Assessment Period</i> • Patient had neuromuscular, idiopathic, or congenital scoliosis (<i>LSF-05 Scoliosis Value Set</i>) <ul style="list-style-type: none"> ○ <i>Searches Problem List for Start/Active date any time prior to procedure; if End/Inactive date present, must be after the procedure</i>
MEASURE CALCULATION	
Measure	<i>Functional Status After Lumbar Discectomy/Laminectomy</i>
Description	The percentage of patients aged 18 years and older whose functional status after lumbar discectomy/laminectomy surgery was less than or equal to 22 OR who had an improvement of 30 points or greater on the Oswestry Disability Index (ODI) [<i>PRO Assessment Code 13 (summary score) or Code 14 (individual responses)</i>] at three months postoperatively (6 to 20 weeks).
Denominator	The eligible population
Numerator	<p>At three months (6 to 20 weeks) postoperatively:</p> <ul style="list-style-type: none"> • ODI score is less than or equal to 22 <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Improvement (<i>decrease</i>) of 30 points or greater compared to the preoperative ODI score <ul style="list-style-type: none"> ○ <i>A lower ODI score indicates a better functional status. Comparison of pre and postoperative scores to identify decrease is postop minus preop.</i>
Measure Scoring	Rate/Proportion
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome

Measure	<i>Back Pain After Lumbar Discectomy/Laminectomy</i>
Description	The percentage of patients aged 18 years and older whose back pain after lumbar discectomy/laminectomy surgery was less than or equal to 3.0 OR who had an improvement in back pain of 5.0 points or greater on the Visual Analog Scale (VAS) or Numeric Pain Rating Scale (NPRS) [<i>PRO Assessment Code 15 + Area of the body assessed Code 3</i>] three-months postoperatively (6 to 20 weeks).
Denominator	The eligible population
Numerator	At three months postoperatively (6 to 20 weeks): <ul style="list-style-type: none"> • VAS or NPRS back pain score is less than or equal to 3.0 <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Improvement (<i>decrease</i>) of 5.0 points or greater compared to the preoperative VAS or NPRS back pain score <ul style="list-style-type: none"> ○ <i>A lower score indicates a better pain status. Comparison of pre and postoperative scores to identify decrease is postop minus preop.</i>
Measure Scoring	Rate/Proportion
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome
Measure	<i>Leg Pain After Lumbar Discectomy/Laminectomy</i>
Description	The percentage of patients aged 18 years and older whose leg pain after lumbar discectomy/laminectomy surgery was less than or equal to 3.0 OR who had an improvement in leg pain of 5.0 points or greater on the Visual Analog Scale (VAS) or Numeric Pain Rating Scale (NPRS) [<i>PRO Assessment Code 15 + Area of the body assessed Code 4</i>] three months postoperatively (6 to 20 weeks).
Denominator	The eligible population
Numerator	At three months (6 to 20 weeks) postoperatively: <ul style="list-style-type: none"> • VAS or NPRS leg pain score is less than or equal to 3.0 <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Improvement (<i>decrease</i>) of 5.0 points or greater compared to the preoperative VAS or NPRS leg pain score <ul style="list-style-type: none"> ○ <i>A lower score indicates a better pain status. Comparison of pre and postoperative scores to identify decrease is postop minus preop.</i>
Measure Scoring	Rate/Proportion
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome

Measure	<i>Lumbar Discectomy/Laminectomy: Average change in health-related quality of life</i>
Description	The average change (preoperative to three months postoperative) in health-related quality of life for patients 18 years of age or older who had lumbar discectomy/laminectomy procedure
Denominator	Patients within the eligible population whose health-related quality of life was measured by the PROMIS-10 [PRO Assessment Code 18 + PRO Assessment Tool Version Code 1 or 2 (to determine calculation logic)] within three months preoperatively AND at three months (6 to 20 weeks) postoperatively
Numerator	<p>The average change (preoperative to three months postoperative) in health-related quality of life for all patients in the denominator</p> <ul style="list-style-type: none"> • <i>Calculation of 'average change'</i> <ul style="list-style-type: none"> ○ <i>Calculate individual patient T-Scores for Physical Health and Mental Health for preop and postop assessments.</i> ○ <i>Calculate change in T-Score for Physical Health and Mental Health for each patient (postop minus preop)</i> ○ <i>Calculate average of all individual patient T-Score changes for Physical Health and Mental Health (sum of T-Score changes by category divided by count of denominator population)</i>
Measure Scoring	<p>Number</p> <p>Results are reported by:</p> <ul style="list-style-type: none"> • Average change in health-related quality of life – Physical Health • Average change in health-related quality of life – Mental Health
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome

Chart 2: Lumbar Discectomy/Laminectomy Measure Calculation Algorithm



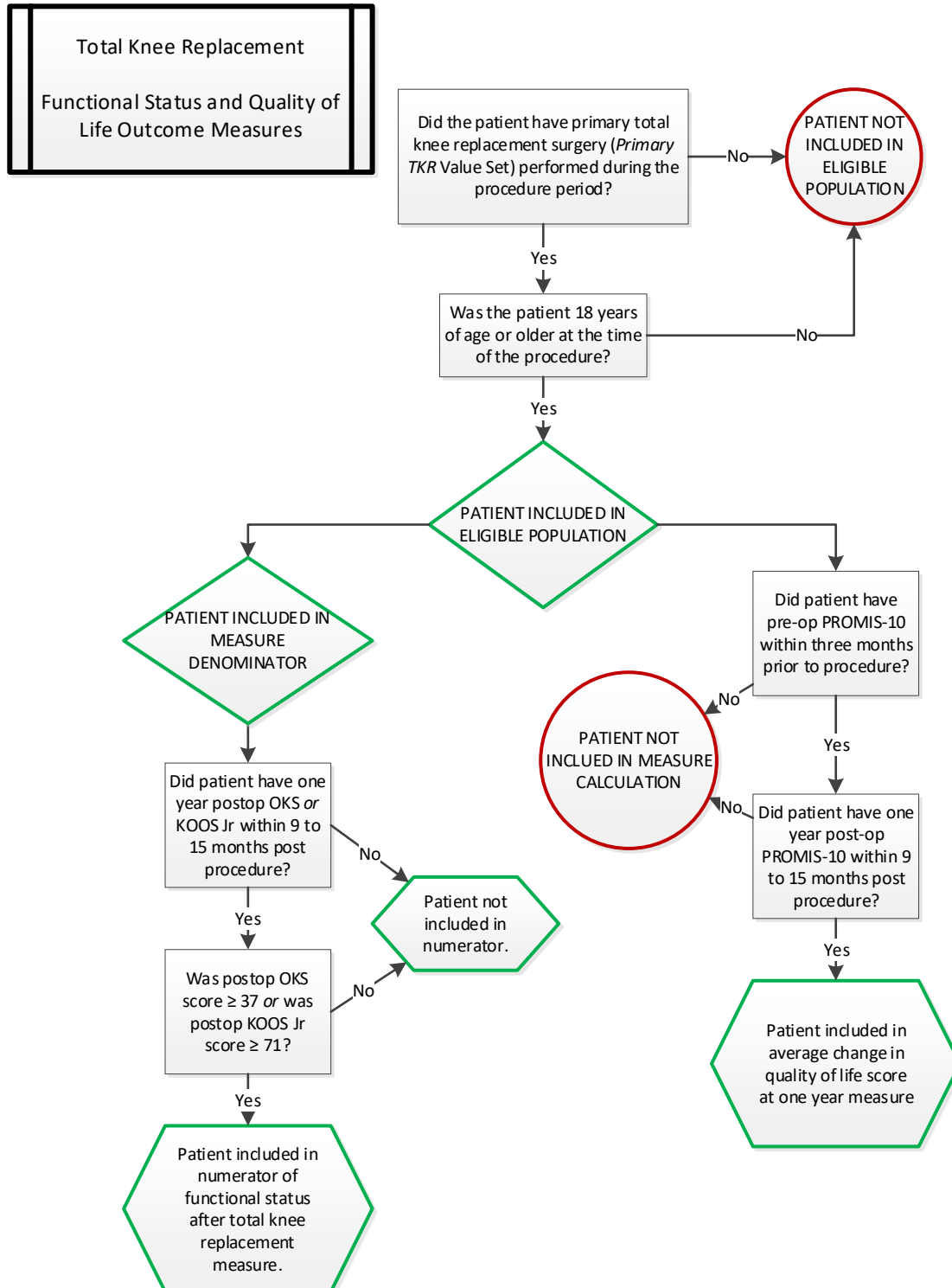
TOTAL KNEE REPLACEMENT

Summary of Changes	<ul style="list-style-type: none"> • Clarifying language added to data search details for the Event criteria of the Eligible Population in all measure specifications. • Value set reference codes added to all measure specifications. 	
ELIGIBLE POPULATION IDENTIFICATION		
Measurement Period	<p>Procedure Period: twelve months</p> <ul style="list-style-type: none"> • <i>Where last day of procedure period is 15 months (count by whole months) prior to end of measurement year.</i> • <i>EXAMPLE if Measurement Year was 2023 calendar year</i> <ul style="list-style-type: none"> ○ <i>Procedure Period: Oct 1, 2021 through Sept 30, 2022 (15 months [count by whole months] after 9/30/2022 procedure = 12/30/2023)</i> <p>Preoperative Assessment Period: up to three months prior to procedure, including date of procedure (<i>count by whole months, using procedure as anchor</i>)</p> <p>Postoperative Assessment Period: between 9 and 15 months (<i>count by whole months</i>) after procedure</p> <ul style="list-style-type: none"> • <i>EXAMPLE if procedure was 9/30/2022</i> <ul style="list-style-type: none"> ○ <i>Preoperative Assessment Period: 6/30/2022 through 9/30/2022</i> ○ <i>Postoperative Assessment Period: 6/30/2023 through 12/30/2023</i> 	
Eligible Population	Event	<p>Primary total knee replacement surgery (TKR-01 Primary TKR Value Set) performed during the procedure period</p> <ul style="list-style-type: none"> • <i>Searches Lab/Procedure and Encounter data for most recent procedure in the procedure period</i>
	Ages	18 years or older on date of procedure
Exclusions	NONE	

MEASURE CALCULATION	
Measure	<i>Functional Status After Primary Total Knee Replacement</i>
Description	The percentage of patients 18 years of age and older who had a primary total knee replacement surgery and who scored a 37 or greater on the Oxford Knee Score (OKS) tool [PRO Assessment Code 16] OR a 71 or greater on the KOOS JR tool [PRO Assessment Code 17] one-year (9 to 15 months) postoperatively.
Denominator	The eligible population
Numerator	<p>At one year (9 to 15 months) postoperatively:</p> <ul style="list-style-type: none"> OKS [PRO Assessment Code 16] summary score is greater than or equal to 37 <p>OR</p> <ul style="list-style-type: none"> KOOS JR [PRO Assessment Code 17] interval score is greater than or equal to 71 <p><i>If laterality is indicated on <u>both</u> procedure (Lab/Procedure File Data Element Position 9) and PRO assessment tool (PRO Assessment File Data Element Position 15), laterality must match (Left to Left [1=1], Right to Right [2=2])</i></p> <ul style="list-style-type: none"> <i>Laterality does not need to be considered if not indicated on <u>both</u> procedure and PRO assessment tool.</i> <p><i>Use most recent assessment(s) in patient specific assessment period(s).</i></p>
Measure Scoring	Rate/Proportion
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome

Measure	<i>Primary Total Knee Replacement: Average change in health-related quality of life</i>
Description	The average change (preoperative to one year postoperative [9 to 15 months]) in health-related quality of life for patients 18 years of age or older who had primary total knee replacement procedure
Denominator	Patients within the eligible population whose health-related quality of life was measured by the PROMIS-10 [PRO Assessment Code 18 + PRO Assessment Tool Version Code 1 or 2 (to determine calculation logic)] within three months preoperatively AND at one year (9 to 15 months) postoperatively.
Numerator	<p>The average change (preoperative to one year postoperative [9 to 15 months]) in health-related quality of life for all patients in the denominator</p> <ul style="list-style-type: none"> • <i>Calculation of 'average change'</i> <ul style="list-style-type: none"> ○ <i>Calculate individual patient T-Scores for Physical Health and Mental Health for preop and postop assessments.</i> ○ <i>Calculate change in T-Score for Physical Health and Mental Health for each patient (postop minus preop)</i> ○ <i>Calculate average of all individual patient T-Score changes for Physical Health and Mental Health (sum of T-Score changes by category divided by count of denominator population)</i> • <i>If laterality is indicated on two or more of the procedure (Lab/ Procedure File Data Element Position 9), preoperative PRO assessment tool (PRO Assessment File Data Element Position 15), and/or postoperative PRO assessment tool (PRO Assessment File Data Element Position 15), laterality must match (all left [1] or all right [2])</i> <ul style="list-style-type: none"> ○ <i>Laterality does not need to be considered if not indicated on <u>at least two</u> specified elements.</i> ○ <i>EXAMPLE: Laterality indicated on procedure (L), most recent preoperative assessment (L) and most recent postoperative assessment (R). Matching preoperative assessment may be used. Search for the next most recent postoperative assessment with either a.) matching laterality or b.) blank laterality. If none found, the procedure has no valid postoperative assessment.</i> • <i>Use most recent assessment(s) in patient specific assessment period(s).</i>
Measure Scoring	<p>Number</p> <p>Results are reported by:</p> <ul style="list-style-type: none"> • Average change in health-related quality of life – Physical Health • Average change in health-related quality of life – Mental Health
Interpretation of Score	Higher score indicates better quality
Measure Type	Outcome

Chart 3: Total Knee Replacement Measure Calculation Algorithm



PATIENT REPORTED OUTCOME (PRO) ASSESSMENT HANDLING

Oswestry Disability Index (ODI) [PRO Assessment Code 13 & 14]

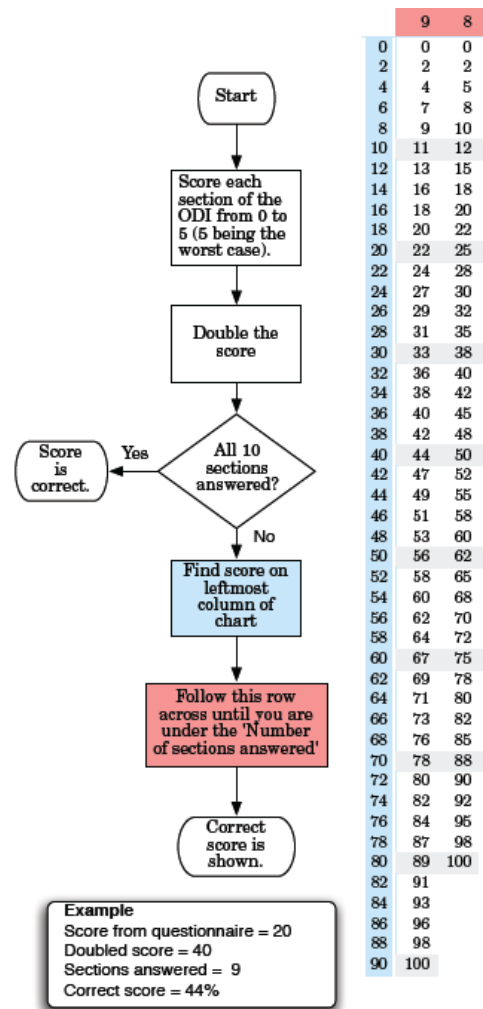
ODI Code 13 – Summary Score

- If ODI Summary Score submitted [PRO Assessment Code 13, Element Position 5], no score calculation is needed.
- Only submitted summary scores [Code 13] with whole values between 0 and 100 are acceptable. Summary scores outside this range are not used for numerator calculation.

ODI Code 14 – Individual Responses

- The ODI contains ten items. Scoring is 0-5 for each item. A maximum score of 50 is possible.
- If all sections are completed, the score obtained by individual patients is then multiplied by 2, and this will provide a percentage score.
- If responses are omitted, the percent score can be calculated by using the table below.
- If more than two responses are omitted (seven or less items completed) the tool is invalid and will not be used for measure calculation.
- Only whole values 0 through 5 are acceptable for individual responses [Code 14]. Values outside this range are considered blank.

Code	Score
0	0
1	1
2	2
3	3
4	4
5	5



Visual Analog Scale (VAS) or Numeric Pain Rating Scale (NPRS) [PRO Assessment Code 15]

- Submitted score [Element Position 5] is used in conjunction with Area of the Body Assessed field [Element Position 15; 3 = Back, 4 = Leg] to determine the measure to which the score applies.
- If area of the body not indicated, score is not used.
- Only values 0 through 10 in half increments (0, 0.5, 1, 1.5, etc.) are acceptable. Scores outside this range are not used for numerator calculation.

Oxford Knee Score (OKS) [PRO Assessment Code 16]

- Only summary score [Element Position 5] submitted. No score calculation performed.
- Only whole value scores 0 – 48 are acceptable. Summary scores outside this range are not used for numerator calculation.

Knee Injury and Osteoarthritis Outcome Score for Joint Replacement (KOOS JR) [PRO Assessment Code 17]

- Seven item assessment tool.
- If any responses are omitted (less than seven items completed) the tool is invalid and is not used for measure calculation.
- Only whole values 0 through 4 are acceptable for individual responses. Values outside this range are considered blank.

Tool Scoring Process:

- Score each individual response.
- Sum responses into raw score.
- Convert raw score into interval score.

Scoring for Element Positions 5-11	
Code	Score
4	4
3	3
2	2
1	1
0	0

Conversion of Raw Scores to Interval Scores

Raw Summed Score (0-28)	Interval Score (0-100)	Raw Summed Score (0-28)	Interval Score (0-100)	Raw Summed Score (0-28)	Interval Score (0-100)	Raw Summed Score (0-28)	Interval Score (0-100)	Raw Summed Score (0-28)	Interval Score (0-100)
0	100.000	6	70.704	12	57.140	18	42.281	24	24.875
1	91.975	7	68.284	13	54.840	19	39.625	25	20.941
2	84.600	8	65.994	14	52.465	20	36.931	26	15.939
3	79.914	9	63.776	15	50.012	21	34.174	27	8.291
4	76.332	10	61.583	16	47.487	22	31.307	28	0.000
5	73.342	11	59.381	17	44.905	23	28.251		

PROMIS Global Health - 10 (PROMIS-10) Short Form [PRO Assessment Code 18]

- The PROMIS Global Health short form is a 10-item instrument that is scored into a Global Physical Health component and Global Mental Health component.
- If any responses are omitted (less than 10 items completed) the tool is invalid and is not used for measure calculation.
- Only whole values 1 through 5 are acceptable for individual responses in Element Positions 5-13. Values outside this range are considered blank.
- Only whole values 0 through 10 are acceptable for individual responses in Element Positions 14. Values outside this range are considered blank.

Tool Scoring Process:

1. Score each individual response.
2. Sum specific responses into raw component scores.
3. Convert raw component scores into component T-Scores.

Scoring v1.1 individual responses [PRO Assessment Tool Version Code 1]

- *PGH1 Health:* Element Position 5
- *PGH2 Quality:* Element Position 6
- *PGH3 Physical:* Element Position 7
- *PGH4 Mental:* Element Position 8
- *PGH5 Satis Social:* Element Position 9
- *PGH9 Soc Activities:* Element Position 10
- *PGH6 Phys Activities:* Element Position 11

Scoring for Element Positions 5-11	
Code	Score
5	5
4	4
3	3
2	2
1	1

- *PGH10 Emotional:* Element Position 12
- *PGH8 Fatigue:* Element Position 13

Scoring for Element Positions 12-13	
Code	Score
5	1
4	2
3	3
2	4
1	5

- *PGH7 Pain*: Element Position 14

Scoring for Element Position 14	
Code	Score
0	5
1	4
2	4
3	4
4	3
5	3
6	3
7	2
8	2
9	2
10	1

Scoring v1.2 individual responses [PRO Assessment Tool Version Code 2]

- *PGH1 Health*: Element Position 5
- *PGH2 Quality*: Element Position 6
- *PGH3 Physical*: Element Position 7
- *PGH4 Mental*: Element Position 8
- *PGH5 Satis Social*: Element Position 9
- *PGH9 Soc Activities*: Element Position 10
- *PGH6 Phys Activities*: Element Position 11
- *PGH10 Emotional*: Element Position 12
- *PGH8 Fatigue*: Element Position 13

- *PGH7 Pain*: Element Position 14

Scoring for Element Positions 5-13	
Code	Score
5	5
4	4
3	3
2	2
1	1

Scoring for Element Position 14	
Code	Score
0	5
1	4
2	4
3	4
4	3
5	3
6	3
7	2
8	2
9	2
10	1

Calculating Raw Component Scores (v1.1 and v1.2)

<p>Global Physical Health Raw Score is sum of:</p> <ul style="list-style-type: none"> • <i>PGH3 Physical</i>: Element Position 7 • <i>PGH6 Phys Activities</i>: Element Position 11 • <i>PGH8 Fatigue</i>: Element Position 13 • <i>PGH7 Pain</i>: Element Position 14 	<p>Global Mental Health Raw Score is sum of:</p> <ul style="list-style-type: none"> • <i>PGH2 Quality</i>: Element Position 6 • <i>PGH4 Mental</i>: Element Position 8 • <i>PGH5 Satis Social</i>: Element Position 9 • <i>PGH10 Emotional</i>: Element Position 12
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Conversion of Raw Component Scores to Component T-Scores (v1.1 and v1.2)

Physical		
<i>Short Form Conversion Table</i>		
Raw.Score	T.Score	SE*
4	16.2	4.8
5	19.9	4.7
6	23.5	4.5
7	26.7	4.3
8	29.6	4.2
9	32.4	4.2
10	34.9	4.1
11	37.4	4.1
12	39.8	4.1
13	42.3	4.2
14	44.9	4.3
15	47.7	4.4
16	50.8	4.6
17	54.1	4.7
18	57.7	4.9
19	61.9	5.2
20	67.7	5.9

*SE = Standard Error

Mental		
<i>Short Form Conversion Table</i>		
Raw.Score	T.Score	SE*
4	21.2	4.6
5	25.1	4.1
6	28.4	3.9
7	31.3	3.7
8	33.8	3.7
9	36.3	3.7
10	38.8	3.6
11	41.1	3.6
12	43.5	3.6
13	45.8	3.6
14	48.3	3.7
15	50.8	3.7
16	53.3	3.7
17	56.0	3.8
18	59.0	3.9
19	62.5	4.2
20	67.6	5.3

*SE = Standard Error