

SECONDARY MEASURES IN FOTO

In the FOTO¹ Patient Outcomes system, a secondary measure is a patient-reported outcome measure (PROM) that is available for optional use in addition to the standard FOTO primary measure. *(A primary measure is the standard PROM used for a particular patient condition or category. The primary measure is used for patient-level reporting and comparative benchmarked reporting. For more information, see Primary Measures in FOTO.)* Secondary measures, formerly known as optional surveys, serve as adjunctive to primary measures and provide patient-level data to assist with clinical assessment and decision-making.

How to add Secondary Measures to a FOTO patient episode

Secondary measures may be pre-selected in the Administrative Defaults for application to ALL patients. Alternatively, they may be selected on a patient-by-patient basis during the Episode Creation process, depending on the body part/condition/impairment.

Availability

Availability for some secondary measures is limited to certain care types or orthopedic body regions to reduce respondent burden for clinics that opt to pre-select secondary measures. For example, the STarT tool is only available for Lumbar (Low Back), Neck, and Thoracic body parts. This availability by care type is indicated near the bottom of the description for each secondary measure.

Scoring and Reporting

Secondary measures will be automatically scored and surfaced on the FOTO Patient Specific Reports. Users may also opt to surface the patient responses to the questions through the Administrative defaults.

Crosswalks

Crosswalks are available for certain secondary measures as indicated below. For further details, see the Appendix A.

¹ FOTO = Focus on Therapeutic Outcomes®

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Activities-specific Balance Confidence (ABC) Scale

The ABC Scale, also known as the ABC-16, is a self-report measure of balance confidence. The patient responds to 16-items in which they are asked to rate their confidence in performing several activities without losing balance or experiencing unsteadiness. Response options are on a scale of 0 to 100 with 0 defined as no confidence and 100 as complete confidence. The score is calculated using a summative scoring method by adding item response values and then dividing by the total number of items.

Instructions:

For each of the following activities, please indicate your level of balance confidence by choosing one of the points on the scale below from 0% to 100%.

If you do not currently do the activity, try and imagine how confident you would be if you had to do the activity. If you normally use a walking aid to do the activity or hold onto someone, rate your confidence as if you were using these supports.

Questions:

1. How confident are you that you will not lose your balance or become unsteady when you walk around the house?
2. How confident are you that you will not lose your balance or become unsteady when you walk up or down stairs?
3. How confident are you that you will not lose your balance or become unsteady when you bend over and pick up a slipper from the front of a closet floor?
4. How confident are you that you will not lose your balance or become unsteady when you reach for a small can off a shelf at eye level?
5. How confident are you that you will not lose your balance or become unsteady when you stand on tip toes and reach for something over your head?
6. How confident are you that you will not lose your balance or become unsteady when you stand on a chair and reach for something over your head?
7. How confident are you that you will not lose your balance or become unsteady when you sweep the floor?
8. How confident are you that you will not lose your balance or become unsteady when you walk outside the house to a car parked in the driveway?

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9. How confident are you that you will not lose your balance or become unsteady when you get into or out of a car?
10. How confident are you that you will not lose your balance or become unsteady when you walk across a parking lot to the mall?
11. How confident are you that you will not lose your balance or become unsteady when you walk up or down a ramp?
12. How confident are you that you will not lose your balance or become unsteady when you walk into a crowded mall where people rapidly walk past you?
13. How confident are you that you will not lose your balance or become unsteady when you are bumped into by people as you walk through the mall?
14. How confident are you that you will not lose your balance or become unsteady when you step onto or off an escalator while you are holding onto a railing?
15. How confident are you that you will not lose your balance or become unsteady when you step onto or off an escalator while holding onto parcels such that you cannot hold onto the railing?
16. How confident are you that you will not lose your balance or become unsteady when you walk outside on icy sidewalks?

Available for all care types except for the Balance impairment when the FOTO Balance Confidence is maintained as the default/recommended the primary measure to avoid duplicate questions for the patient.

Used with permission: Dr. Anita Myers, Department of Health Studies and Gerontology, University of Waterloo, Waterloo, Ontario Canada and Lynda Powell, physiotherapist

References:

1. Myers AM, Fletcher PC, Myers AH, Sherk W. Discriminative and evaluative properties of the activities-specific balance confidence (ABC) scale. J Gerontol A Biol Sci Med Sci. Jul 1998;53(4):M287-294.
2. Myers AM, Powell LE, Maki BE, Holliday PJ, Brawley LR, Sherk W. Psychological indicators of balance confidence: relationship to actual and perceived abilities. J Gerontol A Biol Sci Med Sci. Jan 1996;51(1):M37-43.

3. Powell, L.E., & Myers, A.M. (1995). The activities--specific balance confidence (ABC) scale. Journal of Gerontology: MEDICAL SCIENCES, 50A(1), M28--M34.

Abbreviated ABC (ABC-6)

The Abbreviated ABC, also known as the ABC-61, is a short version of the full-length ABC-16 Scale (see above description of the ABC Scale). Response options and scoring are the same as for the ABC-16.

Questions:

1. How confident are you that you will not lose your balance or become unsteady when you stand on tip toes and reach for something above your head?
2. How confident are you that you will not lose your balance or become unsteady when you stand on a chair and reach for something above your head?
3. How confident are you that you will not lose your balance or become unsteady when you are bumped into by people as you walk through the mall?
4. How confident are you that you will not lose your balance or become unsteady when you step onto or off an escalator while you are holding onto a railing?
5. How confident are you that you will not lose your balance or become unsteady when you step onto or off an escalator while holding onto parcels such that you cannot hold onto the railing?
6. How confident are you that you will not lose your balance or become unsteady when you walk outside on icy sidewalks?

Available for all care types except for the Balance impairment when the FOTO Balance Confidence is maintained as the default/recommended the primary measure to avoid duplicate questions for the patient.

Reference:

1. Peretz C, Herman T, Hausdorff JM, Giladi N. Assessing fear of falling: Can a short version of the Activities--specific Balance Confidence scale be useful? *Movement Disorder Society*. 2006 Dec 21 (12): 2102--5. PMID: 1699140.

Balance Confidence (BC)

The FOTO Balance Confidence (BC) patient-reported outcome measure (PROM) assesses perceived balance confidence. It is available in FOTO as 1) the primary PROM for patients set up in the Neurological care type/Balance impairment and 2) a secondary PROM for patients set up in other care type/impairment/body part categories.

Selecting the BC PROM as a secondary measure is clinically advantageous in that this measure offers an efficient screening for patients who were referred to rehabilitation for non-related balance problems.

Background:

The FOTO BC PROM was developed, based on the legacy 16-items from the Activities Balance Confidence Scale (ABC)¹⁻³, using advanced measurement methods known as Item-response theory (IRT). IRT allows administration of this measure using computer adaptive testing (CAT) which reduces patient burden (fewer questions) while maintaining high measurement precision. (Avg 4.6 items, median 4)

The FOTO BC PROM was reported to be reliable, valid, responsive to change, and efficient, with excellent score coverage.⁴ Briefly, all original 16 legacy ABC items were retained in the IRT development model. Reliability estimate was excellent (≥ 0.95). Negligible floor and ceiling effects and no item differential item functioning (DIF) were observed. Change score effect size was moderate (0.58). Simulated CAT scores were generated using an average of 4.7 items (median=4, range 4 to 10) and correlated highly with scores derived from the full legacy ABC item bank ($r=0.99$).

Scoring and interpretation:

Scoring is based on the *T-score* metric, with patients centered on a mean of 50 and a standard deviation of 10. Higher scores represent better perceived balance confidence.

Fall risk score cut point: A FOTO Balance Confidence t-score of 53.7 is statistically equivalent to a score of 67% (raw score 107) on the original ABC Scale. A statistically-based conversion method was used to arrive at this score equivalent. Note: While the FOTO BC was developed using the ABC Scale's patient-facing questions and response options, these are 2 different measurement metrics [scales] with different scoring methods; thus, scores between the BC and traditional ABC are not directly comparable.

Available for Neurological and Orthopedic Care Types.

The FOTO Balance Confidence was developed using items from the Activities-specific Balance Confidence (ABC) Scale. Anita Myers, PhD is the developer and copyright holder of the ABC Scale.

References:

- Powell LE, Myers AM. The Activities-specific Balance Confidence (ABC) Scale. *J Gerontol A Biol Sci Med Sci*. Jan 1995;50A(1):M28-34.
- Myers AM, Powell LE, Maki BE, Holliday PJ, Brawley LR, Sherk W. Psychological indicators of balance confidence: relationship to actual and perceived abilities. *J Gerontol A Biol Sci Med Sci*. Jan 1996;51(1):M37-43.
- Myers AM, Fletcher PC, Myers AH, Sherk W. Discriminative and evaluative properties of the Activities-specific balance confidence (ABC) scale. *J Gerontol A Biol Sci Med Sci*. Jul 1998;53(4):M287-294.
- Deutscher D, Kallen MA, Werneke MW, Myers, A, Hayes D. Reliability, Validity and Efficiency of an Item Response Theory-based Balance Confidence Patient Reported Outcome Measure. *APMR* 2022 103(12);e65. doi:<https://doi.org/10.1016/j.apmr.2022.08.597>

Comprehensive Care for Joint Replacement (CJR)

This survey includes items that Centers for Medicare and Medicaid Services (CMS) requested from those participating in Comprehensive Care for Joint Replacements (CJR) model for orthopedic total hip and knee arthroplasty. Eight questions are administered at Intake.

Questions and patient response options:

1. What is your admission date?

mm/dd/yyyy

2. Is your surgery the result of a fracture?

Yes

No

3. What is your race?

0 = White

1 = Black or African-American

2 = Asian

3 = American Indian or Alaska Native

4 = Native Hawaiian or Other Pacific Islander

4. Are you Hispanic or Latino?

0 = No

1 = Yes

5. How comfortable are you filling out medical forms by yourself?

4 = Extremely

3 = Quite a bit

2 = Somewhat

1 = A little bit

0 = Not at all

6. What amount of pain have you experienced in the last week in your other knee/hip?

0 = None

1 = Mild

2 - Moderate

3 - Severe

4 - Extreme

7. Have you been taking narcotic pain medicine for your knee/hip for 90 days or more?

0 = No

1 = Yes

8. My BACK PAIN at the moment is:

0 = None

1 = Very mild

2 = Moderate

3 = Fairly severe

4 = Very severe

5 = Worst imaginable

Available for the Orthopedic care type for hip and knee body parts.

Disabilities of the Arm, Shoulder and Hand (DASH)

The DASH is a 30-item, patient self-report measure of physical function and symptoms in patients with musculoskeletal disorders of the upper limb. Scores are calculated using a summative method and are presented on a “disability” scale from 0 to 100 in which higher scores indicate higher/worse disability.^{1,2} . To help emphasize the disability scale, in contrast with “ability” measures provided in FOTO in which higher scores indicate higher/better functional ability, the DASH scores are reported as a percentage on the Patient Specific Report (PSR) using a 100 (0% ability) to 0 (100% ability) scale. For example, on the PSR the DASH score = 48.7% which indicates overall moderate ability performing physical tasks.

Instructions:

Your clinician has requested that you also answer the following 30 questions about your symptoms and ability to perform certain activities.

Please rate your ability to do the following activity in the last week. If you did not have the opportunity to perform an activity in the past week, please make your best estimate on which response would be the most accurate. It doesn't matter which hand or arm you use to perform the activity; please answer based on your ability regardless of how you perform the task.

DASH items:

1. Open a tight or new jar
2. Write
3. Turn a key
4. Prepare a meal
5. Push open a heavy door
6. Place an object on a shelf above your head
7. Do heavy household chores (e.g., wash walls, wash floors)
8. Garden or do yard work
9. Make a bed
10. Carry a shopping bag or briefcase
11. Carry a heavy object (over 10 lbs.)
12. Change a lightbulb overhead

13. Wash or blow dry your hair
14. Wash your back
15. Put on a pullover sweater
16. Use a knife to cut food
17. Recreational activities which require little effort (e.g., cardplaying, knitting, etc.)
18. Recreational activities in which you take some force or impact through your arm, shoulder or hand (e.g., golf, hammering, tennis, etc.)
19. Recreational activities in which you move your arm freely (e.g., playing Frisbee, badminton, etc.)
20. Manage transportation needs (getting from one place to another)
21. Sexual activities
22. During the past week, to what extent has your arm, shoulder or hand problem interfered with your normal social activities with family, friends, neighbors or groups
23. During the past week, were you limited in your work or other regular daily activities as a result of your arm, shoulder or hand problem

Please rate the severity of the following symptoms in the last week.

24. Arm, shoulder or hand pain
25. Arm, shoulder or hand pain when you performed any specific activity
26. Tingling (pins and needles) in your arm, shoulder or hand
27. Weakness in your arm, shoulder or hand
28. Stiffness in your arm, shoulder or hand
29. During the past week, how much difficulty have you had sleeping because of the pain in your arm, shoulder or hand
30. I feel less capable, less confident or less useful because of my arm, shoulder or hand problem

Patient response options:

- No difficulty
- Mild difficulty

- Moderate difficulty
- Severe difficulty
- Unable.

Cautions:

The 30-item DASH is subject to potential patient survey fatigue and incomplete surveys due to high number of questions.^{3,4} In addition, Bot et al. observed that patients who complete all DASH questions are different from patients who do not complete all DASH questions, which may affect the interpretation of DASH scores.⁵ To avoid incomplete DASH questionnaires, Bot et al. recommended computer adaptive testing (CAT) measures for assessing upper limb conditions.⁵

To help reduce patient survey fatigue, incomplete surveys, and patient response burden using the DASH for your patients, keep in mind that patients set up in the Orthopedic care type for shoulder or elbow/wrist/hand will be administered the FOTO Elbow/Wrist/Hand PROM via computer adaptive testing. If you need the traditional DASH score, such as to report for payer requirements, consider enabling the crosswalk for the DASH instead of selecting the full DASH.

Available for Upper Extremity body parts in the Orthopedic, Industrial, and Pain Management care types. Also available for Upper Quadrant Edema in the Cardiovascular/Pulmonary care type.

Crosswalks available: FOTO Shoulder to DASH and FOTO Elbow/Wrist/Hand to DASH

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References

1. Hudak P, Amadio PC, Bombardier C, and the Upper Extremity Collaborative Group. Development of an Upper Extremity Outcome Measure: The DASH (Disabilities of the Arm, Shoulder, and Hand). American Journal of Industrial Medicine 1996; 29:602-608.
2. Marx RG, Bombardier C, Hogg-Johnson S, Wright JG. Clinimetric and psychometric strategies for development of a health measurement scale. Journal of Clinical Epidemiology, 1999; 52(2):105-11.
3. <http://www.dash.iwh.on.ca/references> accessed February 7, 2018
4. https://support.gainsight.com/SFDC_Edition/Surveys/Survey_Design/Reasons_for_Low_Survey_Response_Rate#Survey_Fatigue

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5. Bot A.G.J. et al. Factors associated with incomplete DASH questionnaires. *Hand* 2013;8:71-76.

Quick DASH

The QuickDASH is a shortened version of the DASH (described above) with 11 items about physical function and symptoms in patients with musculoskeletal disorders of the upper limb.^{1,2} As with the DASH, it is a “disability” scale from 0 to 100 in which higher scores indicate higher/worse disability. To help emphasize the disability scale, in contrast with “ability” measures provided in FOTO in which higher scores indicate higher/better functional ability, the Quick DASH scores are reported as a percentage on the Patient Specific Report (PSR) using a 100 (0% ability) to 0 (100% ability) scale. For example, on the PSR the Quick DASH score = 25.2% which indicates overall low ability performing upper extremity physical tasks.

Instructions:

Your clinician has requested that you also answer the following 11 questions about your symptoms and ability to perform certain activities.

Please answer every question based on your condition in the last week. If you did not have the opportunity to perform an activity in the past week, please make your best estimate on which response would be the most accurate. It doesn't matter which hand or arm you use to perform the activity; please answer based on your ability regardless of how you perform the task.

Quick DASH items:

1. Open a tight or new jar
2. Do heavy household chores (e.g., wash walls, floors)
3. Carry a shopping bag or briefcase
4. Wash your back
5. Use a knife to cut food
6. Recreational activities in which you take some force or impact through your arm, shoulder or hand (e.g., golf, hammering, tennis, etc.)
7. During the past week, to what extent has your arm, shoulder or hand problem interfered with your normal social activities with family, friends, neighbors or groups
8. During the past week, were you limited in your work or other regular daily activities as a result of your arm, shoulder or hand problem
9. Arm, shoulder or hand pain
10. Tingling (pins and needles) in your arm, shoulder or hand

11. During the past week, how much difficulty have you had sleeping because of pain in your arm, shoulder or hand

Patient response options:

- No difficulty
- Mild difficulty
- Moderate difficulty
- Severe difficulty
- Unable

Available for Upper Extremity body parts in the Orthopedic, Industrial, and Pain Management care types.

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References

1. Beaton DE, Wright JG, Katz JN, and the Upper Extremity Collaborative Group. Development of the QuickDASH: Comparison of three item-reduction approaches. *Journal of Bone and Joint Surgery* 2005a; 87A(5):1038-1046.
2. <http://www.dash.iwh.on.ca/references> accessed February 7, 2018

DASH Work

The DASH-Work survey is an optional addition to the DASH. See description and references for the DASH above. Similar to the DASH and Quick DASH, the DASH Work scores are reported as a percentage on the Patient Specific Report (PSR) using a 100 (0% ability) to 0 (100% ability) scale. For example, on the PSR the DASH Work score = 75.8% which indicates overall high ability performing work upper extremity physical tasks.

Instructions & questions:

First, please indicate what your job/work is: (describe job/work using free text box).

Next section:

In this section, we will ask 4 questions about the impact of your arm, shoulder or hand problem on your ability to work (including homemaking if that is your main work role).

First, please indicate what your job/work is:

Please select the number that best describes your physical ability in the past week. Did you have any difficulty:

- Using your usual technique for your work?
- Doing your usual work because of arm, shoulder or hand pain?
- Doing your work as well as you would like?
- Spending your usual amount of time doing your work?

Patient response options:

- No difficulty
- Mild difficulty
- Moderate difficulty
- Severe difficulty
- Unable.

Available for Upper Extremity body parts in the Orthopedic, Industrial, and Pain Management care types.

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Depression Subscale of the Symptom Checklist Back Pain Predictive Model (SCL BPPM)

The Depression Subscale of the Symptom Checklist Back Pain Predictive Model (SCL BPPM) was developed and validated by Dionne et al.^{1,2} Screening patients for psychosocial distress using the SCL BPPM measure has been advocated by clinical practice guidelines.³ The SCL BPPM presents simple mathematical decision rules based on scores from the Symptom Checklist-90-Revised depression (10-item) and somatization (7-item) subscales to categorize patients with low back pain by low, intermediate, and high risk of developing chronic functional limitations.² Depression subscale scores reported on the Patient Specific Report are calculated using a summative scoring method and range between 0-4/4. Higher scores indicate higher depressive symptoms.

Questions:

1. In the last day, how much were you distressed by: worrying too much about things
2. In the last day, how much were you distressed by: feeling no interest in things
3. In the last day, how much were you distressed by: feelings of worthlessness
4. In the last day, how much were you distressed by: feelings of guilt
5. In the last day, how much were you distressed by: feeling lonely or blue
6. In the last day, how much were you distressed by: feeling low in energy or slowed down
7. In the last day, how much were you distressed by: sleep that is restless or disturbed
8. In the last day, how much were you distressed by: feeling everything is an effort
9. In the last day, how much were you distressed by: blaming yourself for things
10. In the last day, how much were you distressed by: feeling hopeless about the future

Patient response options:

- Extremely
- Quite a bit
- Moderately
- A little bit
- Not at all
- Don't know

Interpretation:

Dionne et al published decision rules to predict 2-year functional limitation outcomes for patients with low back pain.^{1,2} However, her classification rules required both scores from the depression and somatization subscales. With that said, our research and clinical experience using the SCL BPPM scores during clinical practice⁴ suggested 3 classification risk patterns* as follows:

Low risk: patients are classified as low psychosocial risk if average depression summative score = 0-1/4.

Medium risk: patients are classified as medium psychosocial risk if average depression summative score = 2/4

High risk: patients are classified at high psychosocial risk if average depression summative score >3/4.

* Validation of the above risk level categories are required.

Treatment monitoring

Initial psychosocial risk level assessments observed during the initial evaluation should not be over-interpreted. Serial risk assessments at different points during the episode of care are recommended for treatment monitoring. Evidence suggests treatment monitoring should begin within the first 2 weeks after the initial evaluation.⁵ Serial assessments using the SCL BPPM depressive symptom subscale are important to identify patients who may continue to be at increased risk for poor outcomes and who may require additional psychosocial screening or prompt a referral to healthcare specialists trained in managing patients with recalcitrant psychosocial issues. Evidence has demonstrated large reductions in baseline depressive symptom distress risk during the episode of care when patients are treated by physical therapists skilled in managing patients with chronic musculoskeletal low back pain conditions and these reductions in risk levels are associated with good outcomes at rehabilitation discharge.⁴

Available for all care types.

References:

1. Dionne CE. Psychological distress confirmed as predictor of long-term back-related functional limitations in primary care settings. J Clin Epidemiol. 2005;58:714-718. <http://dx.doi.org/10.1016/j.jclinepi.2004.12.00512>.
2. Dionne CE et al. Predicting long-term functional limitations among back pain patients in primary care settings. J Clin Epidemiol 1997;50:31-43.

3. Rossignol M et al. An interdisciplinary guideline development process: the Clinic on Low-back pain in Interdisciplinary Practice (CLIP) low-back pain guidelines. *Implement Sci.* 2007;2:36.
<http://dx.doi.org/10.1186/1748-5908-2-36>.
4. Werneke MW et al. Change in Psychosocial Distress Associated With Pain and Functional Status Outcomes in Patients With Lumbar Impairments Referred to Physical Therapy Services. *JOSPT* 2011;41:969-980.
5. Werneke MW et al. Associations between interim patient-reported outcome measures and functional status at discharge from rehabilitation for non-specific lumbar impairments. *Qual Life Res* 2019.
<https://doi.org/10.1007/s11136-019-02314-6>.

Dizziness Handicap Inventory (DHI)

The DHI was developed using to evaluate the self-perceived handicapping effects imposed by vestibular system dysfunction.¹ Scores are calculated using a summative scoring method and are presented as 3 sub-scores (functional, physical, emotional) and a total score.

Scores range from 0 to 100 and are presented in FOTO as lower scores = low functioning/high handicap and higher scores = high functioning/low handicap. Score presentation has been modified in this manner to allow greater clinician ease in interpreting DHI alongside commonly used functional ability scales.

Questions:

1. Does looking up increase your problem?
2. Because of your problem, do you feel frustrated?
3. Because of your problem, do you restrict your travel or recreation?
4. Does walking down an aisle in a supermarket increase your problem?
5. Because of your problem, do you have difficulty getting in or out of bed?
6. Does your problem restrict your participation in social activities such as going out to dinner, going to movies, dancing, or to parties?
7. Because of your problem, do you have difficulty reading?
8. Does performing more ambitious activities like sports, dancing, household chores such as sweeping or putting away dishes increase your problem?
9. Because of your problem, are you afraid to leave your home without having someone accompany you?
10. Because of your problem, have you been embarrassed in front of others?
11. Do quick movements of your head increase your problem?
12. Because of your problem, do you avoid heights?
13. Does turning over in bed increase your problem?
14. Because of your problem, is it difficult for you to do strenuous housework or yard work?
15. Because of your problem, are you afraid that people may think you are intoxicated?
16. Because of your problem, is it difficult for you to go for a walk by yourself?
17. Does walking down a sidewalk increase your problem?

18. Because of your problem, is it difficult for you to concentrate?
19. Because of your problem, is it difficult to walk around your house in the dark?
20. Because of your problem, are you afraid to stay home alone?
21. Because of your problem, do you feel handicapped?
22. Has your problem placed stress on your relationship with members of your family or friends?
23. Because of your problem, are you depressed?
24. Does your problem interfere with your job or household responsibilities?
25. Does bending over increase your problem?

Patient response options:

- Yes
- Sometimes
- No

Available for all care types except for the Vestibular impairment (within Neuro care type) when the FOTO Dizziness Functional and Positional Status are maintained as the default/recommended the primary measure to avoid duplicate questions for the patient.

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Reference:

1. Jacobson GP, Newman CW. The Development of the Dizziness Handicap Inventory. Arch Otolaryngol Head Neck Surg 1990; 116:424--427.

Dizziness Emotional Status (DES)

Background: The Dizziness Handicap Inventory (DHI) is a 25-item questionnaire that was developed using classical test methods. Modern analytical methods identified three separate domains, indicating that the DHI items (questions) should not be used to provide a single overall score. Based on these findings, and after applying item response theory methods, three new PROMs were developed from the DHI items: the FOTO Dizziness Functional Status (DFS), Dizziness Positional Status (DPS) and Dizziness Emotional Status (DES). The DFS and DPS are primary measures in the FOTO system. DES is provided as a secondary measure.

What is it: The DES was designed as a two-item screening measure to reduce response burden for patients who likely do not have significant emotional impacts related to their vestibular/dizziness condition.

How it works: When responding to the DES, the patient will first receive two questions which serve as a screening to determine if more questions are warranted. If patient responses to the first two screening questions are “no,” then no further questions will be asked. If the patient responds “Yes” or “Sometimes” to either of the first two questions, the additional four questions will be asked.

Questions (The first 2 questions are the screening questions):

1. Because of your problem, are you depressed?
2. Because of your problem, have you been embarrassed in front of others?
3. Because of your problem, do you feel frustrated?
4. Because of your problem, are you afraid people may think you are intoxicated?
5. Because of your problem, is it difficult for you to concentrate?
6. Has the problem placed stress on your relationships with members of your family or friends?

Patient response options:

- Yes
- Sometimes
- No

Scoring and Interpretation: If both responses to screening questions #1 and #2 are No, the patient is categorized as emotional negative, and the DES T-score printed on the Patient Specific Report (PSR) =

58. All other patients will be administered 4 additional DES questions #3, #4, #5, and #6. If the total DES T-score from all 6-items > 55, the patient is categorized as emotional negative.

The DES (as well as DPS and DFS) are scored on a T-score metric, with patients centered on a mean of 50, with a standard deviation of 10. Higher scores represent higher functional, positional, or emotional status (higher is better). For patients who respond to all six items, the MDC = 8.

Available in the Neurological care type.

Reference: (manuscript in development)

EAT-10 (A Swallowing Screening Tool)

The EAT-10 is a disease-specific 10-item survey developed as a screening tool to assist in the early identification of dysphagia or swallowing problems.¹ The instrument may be utilized to document the initial dysphagia severity and monitor the treatment response in persons with a wide array of swallowing disorders. Swallowing problems are underrecognized by most clinicians and frequently underreported by patients. The prevalence for this disorder has risen during the COVID-19 pandemic and is exceeding 50% and 84% of stroke and Parkinson patients respectively. Clinical practice guidelines have recommended patient-reported outcomes measures for screening patients suspected of swallowing difficulties.²

The EAT-10 has displayed excellent internal consistency, test-retest reproducibility, and criterion-based validity.¹ EAT-10 showed a highly significant mean improvement with intervention resulting in EAT-10 score reductions between 10 to 19 points indicating excellent criterion-based validity.¹

Instructions:

The next 10 questions will help measure any swallowing difficulties you may be experiencing. To what extent do you experience the following problem?

Questions:

1. My swallowing problem has caused me to lose weight.
2. My swallowing problem interferes with my ability to go out for meals.
3. Swallowing liquids takes extra effort.
4. Swallowing solids takes extra effort.
5. Swallowing pills takes extra effort.
6. Swallowing is painful.
7. The pleasure of eating is affected by my swallowing.
8. When I swallow food sticks in my throat.
9. I cough when I eat.
10. Swallowing is stressful.

Patient response options:

0 = no problem

1

2

3

4 = severe problem

Scoring and interpretation:

All 10 questions result in a summative score ranging between 0-40 with higher score indicating higher swallowing impairment. Normative data suggest that an EAT-10 score of 3/40 or higher is abnormal.¹

Available for Neurological, Pediatric, and Speech Care Types.

The EAT-10 form is protected by copyright laws (© Société des Produits Nestlé SA 2009)

References:

1. Belafsky PC, Mouadeb DA, Rees CJ, Pryor JC, Postma GN, Allen J, Leonard RJ. Validity and Reliability of the Eating Assessment Tool (EAT-10). *Annals of Otology Rhinology & Laryngology* 2008;117(12):919-924.
2. Mattei A et al. Guidelines of clinical practice for the management of swallowing disorders and recent dysphonia in the context of the COVID-19 pandemic. *European Annals of Otorhinolaryngology, Head and Neck diseases*. 2020;137:173–175.

Education Level

Education level is a single question to assess the patient's highest level of educational attainment. Education is a widely used indicator of socioeconomic status in health research. Education screening has been recognized and recommended as an important social need determinant and is included in the Social Needs Screening Toolkit. [www.healthleadsusa.org.] This toolkit shares the latest research on how to screen and importantly question patients for social needs. This toolkit was supported by recent guidelines from the Institute of Medicine and Centers for Medicare & Medicaid Services.

Question: What is the highest level of education you have completed?

Patient response options:

Less than high school degree

High school degree or equivalent

Trade/technical/vocational training

Some college but no degree

Associate's degree

Bachelor's degree

Master's degree

Other advanced degree beyond a Master's

Prefer not to answer

Available for all care types.

Employment Module

The Employment Module is a detailed 2-part survey i.e., employment questions during the initial evaluation (13 items) and employment questions at status (11 items). The module is an informational survey only (does not produce a score) which provides more detailed information on the patient's current employment and work history status. This module is recommended for patients who are not working but eligible to work or the payer type is worker compensation. Although the module does not generate a score many of the individual questions are considered important to determine the patient's risk for delayed return-to-work. For more information on risk for delayed RTW and interventions to optimize outcomes refer to APTA's recent clinical practice guidelines on assessing and managing restricted work participation.¹ Additional work-related questions to identify risk for poor outcomes were published by Nicholas et al.²

Employment questions at Initial Evaluation and patient response options:

1. Are you employed by same employer as you were when you acquired the problem for which you are seeking treatment?

Yes

No

2. Are you working?

Yes

No

3. Are you performing same job?

Yes

No

4. Do you have pain at work?

Yes

No

5. At work are you working

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Full-Time

Part-Time

6. At work are you working

Full-Duty

Restricted Duty

7. How many days have you been on restricted duty?

(Enter days)

8. Are you not working due to your condition?

Yes

No

9. How many days have you lost from work?

(Enter days)

10. If you are not presently employed, is it because you:

Were previously employed and are receiving disability benefits for your condition.

Are unemployed

Are retired

Are a student

Other

11. Have you been off work and required treatment for the same problem within the last 6 months?

Yes

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12. Have you previously received workers' compensation benefits?

Yes

No

13. Are you currently working OR do you have a job you will be returning to when you are well enough?

Yes

No

At status:

1. Has employment status changed since this episode began?

Yes

No

2. Are you employed by same employer as you were when you acquired the problem for which you are seeking treatment?

Yes

No

3. Are you working?

Yes

No

4. Are you performing same job?

Yes

No

4. Do you have pain at work?

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Yes

No

5. At work are you working

Full-Time

Part-Time

6. At work are you working

Full-Duty

Restricted Duty

7. How many days have you been on restricted duty?

(Enter days)

8. Are you not working due to your condition?

Yes

No

9. How many days have you lost from work?

(Enter days)

10. If you are not presently employed, is it because you:

Were previously employed and are receiving disability benefits for your condition.

Are unemployed

Are retired

Are a student

Other

11. Are you currently working OR do you have a job you will be returning to when you are well enough?

Yes

No

Available for all care types.

References:

1. Daley D et al. Clinical Guidance to Optimize Work Participation After Injury or Illness: The Role of Physical Therapists. JOSPT 202;5:CPG1-CPG102.
2. Nicholas MK, Linton SJ, Watson PJ et al. Early Identification and Management of Psychological Risk Factors (“Yellow Flags”) in Patients With Low Back Pain: A Reappraisal. Phys Ther 2011;91:737-753.

FACIT Fatigue Scale

The Functional Assessment of Chronic Illness Therapy – Fatigue subscale (FACIT-F version 4) is a 13-item measure that assesses self-reported fatigue and its impact upon daily activities and function. The questionnaire was originally designed to assess fatigue/tiredness and its impact on daily functioning in people with cancer; it has now been widely evaluated for many other chronic diseases.¹⁻⁴ The scores range 0-52 with a higher score indicating less fatigue.

Instructions:

Below is a list of statements that other people with your illness have said are important. Indicate your responses as it applies to the past 7 days.

Questions:

1. I feel fatigued
2. I feel weak all over
3. I feel listless (“washed out”)
4. I feel tired
5. I have trouble starting things because I am tired
6. I have trouble finishing things because I am tired
7. I have energy
8. I am able to do my usual activities
9. I need to sleep during the day
10. I am too tired to eat
11. I need help doing my usual activities
12. I am frustrated by being too tired to do the things I want to do
13. I have to limit my social activity because I am tired

Patient response Options:

Not at all

A little bit

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Somewhat

Quite a bit

Very much

Available for all care types.

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References:

1. Cella, D., Yount, S., Sorensen, M., Chartash, E., Sengupta, N., & Grober, J. (2005). Validation of the Functional Assessment of Chronic Illness Therapy Fatigue Scale relative to other instrumentation in patients with rheumatoid arthritis. *J Rheumatol*, 32(5), 811–819.
2. Cella, D., Lai, J. S., & Stone, A. (2011). Self-reported fatigue: One dimension or more? Lessons from the Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) questionnaire. *Support Care Cancer*, 19(9), 1441–1450. <https://doi.org/10.1007/s00520-010-0971-1>.
3. Lai JS, Cella D, Change CH, Bode RK, Heinemann AW. Item banking to improve, shorten and computerize self-reported fatigue: an illustration of steps to create a core item bank from the FACIT-Fatigue Scale. *Qual Life Res*. 2003;12:485-501.
4. Webster, K., Cella, D., & Yost, K. (2003). The functional assessment of chronic illness therapy (FACIT) measurement system: properties, applications and interpretation. *Health and Quality of Life Outcomes*, 1(79), 1-7.

Fall History

Older people in contact with healthcare professionals should be asked routinely whether they have fallen in the past year and asked about the frequency, context and characteristics of the fall/s regardless of the patient's diagnosis and reason for seeking rehabilitation.^{1,2}

The Fall History is a short 3-item fall screening. If any 1 item is checked, observe the patient for balance and gait deficits during the initial evaluation including more comprehensive fall risk screening PROMs such as the ABC PROM as well as clinical performance tests e.g., TUG, BESTest, and BBS. If abnormalities of gait and/or balance deficits are observed, the patient should be offered a multifactorial falls risk assessment and intervention program.³

Questions and patient response options:

1. Have you fallen in the past year?

Yes

No

2. Did you sustain injury from the fall?

Yes

No

3. Have you had two or more falls in the past year?

Yes

No

Available for all care types.

References:

1. Avin KG et al. Management of Falls in Community Dwelling Older Adults: Clinical Guidance Statement From the Academy of Geriatric Physical Therapy of the American Physical Therapy Association. *Phys Ther* 2015;95:815-834.

2. Lamb SE, Bruce J, Hossain A, et al. Screening and intervention to prevent falls and fractures in older people. N Engl J Med 2020;383:1848-59. DOI: 10.1056/NEJMoa2001500
3. National Institute for Health And Care Excellence (NICE). Falls in older people: assessing risk and prevention Clinical guideline Published: 12 June 2013 www.nice.org.uk/guidance/cg161

Fear Avoidance Beliefs Questionnaire for Physical Activity (FABQ-PA) and Work Activity (FABQ-W)

Background:

The original-legacy FABQ, published by Waddell et al.,⁶ is a well-established, valid and reliable, and commonly used measure to assess the domain of fear-avoidance beliefs about physical and work activities. Briefly, the FABQ-PA and the FABQ-W were developed using classical test methods. The original FABQ-PA contains 5 questions, although 1 question is not used in scoring, and the original FABQ-W contains 11 items although only 7 questions were used in scoring.⁶

Development of single item screenings:

Hart et al.⁴ developed single item screening versions of the FABQ-PA and FABQ-W using a modern measurement science method called item-response theory (IRT). The purposes for the single-item screen and CAT administration were to reduce patient response burden and provide efficient and accurate screening to help prompt further testing or management strategy modifications to improve outcomes.

While the original FABQ study population targeted individuals with low back pain,⁶ Hart and colleagues⁴ presented literature review findings suggesting that fear avoidance beliefs are relevant for a wide variety of neuromusculoskeletal conditions,³ including those with and without pain. Thus, small wording modifications were made to FABQ items to eliminate references to the back.

Additionally, the response scale was modified by adding word descriptors to previously undefined sections of the response scale, and the number of response options was reduced from 7 to 5. This was done based on analytic findings of the original scale and to improve psychometric performance.⁴

IRT analyses were performed using data from 17,804 episodes of individuals with a variety of neuromusculoskeletal conditions.⁴ Analytic results included that 3 items from the FABQ-PA and 10 from the FABQ-W fit the IRT model and were thus selected for inclusion.

For each scale, a single item that provided maximum information at the median of the scale was selected as the single item screen question. The single item screening question for the FABQ-PA is "I should not do physical activities which (might) make my pain worse" and the single item screening question for the FABQ-W is "I cannot do my normal work with my present pain."

FABQ-PA Questions

1. I should not do physical activities which (might) make my pain worse.

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2. Physical activity might harm me”
3. I cannot do physical activities which (might) make my pain worse”

How the FABQ-PA screening works

If the patient selects somewhat disagree or completely disagree for the single item screening question for physical activity, no more questions will be administered and the patient is classified as low fear avoidant.

If the patient selects unsure, somewhat agree, or completely agree for the first physical activity screening question, questions #2 and #3 are administered. If the total score is > 44/100 the patient is classified as elevated fear.

Scoring reported on Patient Specific Report for FABQ-PA

Scoring is reported on FOTO’s Patient Specific Report using two scores. The first score is based on the IRT-based FABQ-PA screening results and ranges from 0-100. The second score is placed in () and is based on Waddell’s original FABQ-PA scores from 0-24. Higher scores for both measures indicate higher fear-avoidance beliefs.

Interpretation for FABQ-PA

A useful cut point for identifying patients with elevated fear-avoidance beliefs of physical activity using the IRT FABQ-PA is 44/100. Patients with scores < 44/100 are classified as low fear. When a patient has an elevated score (i.e. =>44),⁴ evidence suggests that targeting these patients with management strategies based on the biopsychosocial model increases the probability of good functional status outcomes at rehabilitation discharge.⁵

A useful cut point for identifying patients with elevated fear using the original FABQ-PA is 15/24. Patients with scores < 15/24 are classified as low fear.²

FABQ-W Questions (full FABQ-W item bank)

1. I cannot do my normal work with my present pain
2. My work is too heavy for me,
3. Do not think I will be back to my normal work within 3 months,
4. I have a claim for compensation for my pain,

5. My work might harm me,
6. My work aggravated my pain,
7. My work makes or would make my pain worse,
8. I should not do my work with my present pain,
9. I cannot do my normal work until my pain is treated.
10. I do not think that I will ever be able to go back to my normal work.

How the FABQ-W screening works

If the patient selects somewhat disagree or completely disagree for the work screening question, no more questions will be administered and the patient is classified as low work fear avoidant.

If the patient selects unsure, somewhat agree, or completely agree for the work screening question, the FABQ-CAT is administered. If the total score is $> 55/100$ the patient is classified as having elevated fear avoidance beliefs for work.

Scoring reported on Patient Specific Report for FABQ-W:

Level of Fear-Avoidance Beliefs-Work is reported on the Patient Specific Report using two scores. The first score is based on the IRT/CAT FABQ-W screening results and ranges from 0-100. The second score is placed in () and is based on Waddell's original FABQ-W scores from 0-42.

Interpretation for FABQ-W:

A useful cut point for identifying patients with elevated fear-avoidance beliefs of work activity using the IRT-based FABQ-W is 55/100. Patients with scores $< 55/100$ are classified as having low fear of work activities. When a patient has an elevated score (i.e., ≥ 55),⁴ evidence suggests that targeting these patients with multidisciplinary management strategies based on the biopsychosocial model increases the probability of good functional status and return to work outcomes at rehabilitation discharge.⁵

A useful cut point for identifying patients with elevated fear using the original FABQ-W is 30/42 as recommended by George et al.² Patients with scores $< 30/42$ are classified as having low fear.

Patient response options for FABQ-PA and FABQ-W:

Completely disagree

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Somewhat disagree

Unsure

Somewhat agree

Completely disagree

Available for all care types

References:

1. Daley D et al. Clinical Guidance to Optimize Work Participation After Injury or Illness: The Role of Physical Therapists Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability and Health From the Academy of Orthopaedic Physical Therapy of the American Physical Therapy Association. JOSPT 2021;51(8):CPG1-CPG102. doi:10.2519/jospt.2021.0303
2. George SZ, Fritz JM, Childs JD. Investigation of elevated Fear-Avoidance Beliefs for patients with low back pain: A secondary analysis involving patients enrolled in physical therapy clinical trials. JOSPT 2008;38:50-58.
3. George SZ, Stryker S. Fear-avoidance beliefs and clinical outcomes for patients seeking outpatient physical therapy for musculoskeletal pain conditions. J Orthop Sports Phys Ther. 2011;41:249-259.
4. Hart DL, Werneke MW, George SZ, Matheson JW, Wang YC, Cook KF, Mioduski JE, Choi SW. Screening for elevated levels of fear-avoidance beliefs regarding work or physical activities in people receiving outpatient therapy. Phys Ther. 2009;89(8):770-785.
5. Stearns ZR et al. Screening for Yellow Flags in Orthopaedic Physical Therapy: A Clinical Framework. JOSPT 2021;51:459-469.
6. Waddell G, Newton M, Henderson I, Somerville D, Main CJ. A fear-avoidance beliefs questionnaire (FABQ) and the role of fear-avoidance beliefs in chronic low back pain and disability. Pain. 1993;52):157-168.

Global Rating of Change (GROC)

This Global Rating of Change (GROC) scale is commonly used in clinical research and is designed to quantify a patient's improvement or deterioration over time.^{1,2} GROC has been traditionally used as an external anchor or criterion of patient change. For example, Stratford et al³ using a 15-point (-7 to +7) scale defined important improvement as (+)5 points or more and deterioration as (-)5 points or less.

There are two 15-point GROC measures available in FOTO: Patient-rated and Clinician-rated GROC.

Patient-rated GROC

A patient-rated GROC is available as a secondary measure and is administered at Status assessments using the following question:

Please rate your overall change during the treatment for this condition. Use the center '0' as the overall level of your condition at the beginning of treatments in this facility.

Response options:

The patient is presented with a 15-point scale ranging from -7 to +7 in which -7 is defined as Much Worse, 0 as Same and +7 as Much Better.

Clinician-rated GROC

A clinician-rated GROC with a corresponding 15-point scale is available as a Staff Discharge option and may be set as a default from the administrative screens for Patient Survey and Staff Discharge.

Available for all care types.

References:

1. Jaeschke R et al. Ascertaining the Minimal Clinically Important Difference. *Clinical Trials* 1989;10:407-415.
2. Kamper SJ. Interpreting Outcomes 3— Clinical Meaningfulness: Linking Evidence to Practice. *JOSPT* 2019;49:677-678.
3. Stratford PW, Binkley JM, Solomon P, Gill G, Finch E, Assessing change over time in patients with low back pain. *Phys Ther* 1994;74:528-533.

HDQLIFE Neuro-QoL Swallowing Difficulties

This measure may be selected as either a Secondary Measure or in the Speech care type as a Primary Measure. It is provided in the Short Form administration mode. (IRT-based item banks may be administered to patients using either computer adaptive test (CAT) or short form modes.) The 6-items (questions) are from the full item bank of 15 items.

If the patient is unable to respond to the questions independently, when using the FOTO Outcome Management system, be sure to register Proxy or Recorder on the Episode Details page.

The HDQLIFE Swallowing Difficulties version 2.0 item bank examines the effect that problems with swallowing (preparatory, oral, and pharyngeal) and choking have on eating and overall well-being.

The score metric for this measure is Item Response Theory (IRT), a family of statistical models that link individual questions to a presumed underlying trait or concept of swallowing difficulties represented by all items in the item bank. A score of 50 is the average with a standard deviation (SD) of 10. Therefore, a T-score of 40 is one SD below the mean, and a T-score of 60 is one SD above the mean. A higher Neuro-QoL T-score represents more of the concept being measured. For negatively worded concepts, such as HDQLIFE Swallowing Difficulties, a T-score of 60 is one SD worse than average. The possible range of T-scores is for the is approximately 41 to 77, and the Standard Error ranges across the scale from approximately 2 to 6.

The HDQLIFE Swallowing Difficulties has thus far been validated on a single neurological condition, Huntington's Disease. This measure is offered by FOTO due to the apparent relevance (face validity) to other conditions that experience swallowing difficulties, as identified by a clinician panel of speech-language pathologists. Data collection through FOTO may lead to validation studies for additional neurological conditions.

The full HDQLIFE Swallowing Difficulties item bank consists of 15 functional questions. Because it is an IRT-based measure, the 6 short form items map to the full 15 item metric.

Available in the Speech, Pediatric, and Neurological care types. Also available for the Neck body part in the Orthopedic care type.

Reference: HDQLIFE Swallowing Difficulties Scoring Manual

To view the questions, or for further information, visit www.healthmeasures.net or contact support@fotoinc.com.

Hip injury and Osteoarthritis Outcome Score (HOOS) JR

The HOOS, JR was developed from the original long version of the Hip injury and Osteoarthritis Outcome Score (HOOS) survey using Rasch analysis.¹ The HOOS, JR contains 6 items from the original 40-item HOOS survey and asks for the patient's view about his or her hip. The HOOS, JR provides a valid, reliable, and responsive measure of hip health for patients undergoing THA. This short-form PROM is patient relevant and efficient.² Scores on the Patient Specific Report are reported on a scale from 0-100 with higher scores indicating better hip health.

Questions:

"This information will help us keep track of how you feel about your hip and how well you are able to do your usual activities. If you are unsure about how to answer a question, please give the best answer you can."

1. Pain
2. What amount of hip pain have you experienced the last week during the following activities:
3. Going up or down stairs
4. Walking on an uneven surface
5. Rising from sitting
6. Bending to floor/pick up an object
7. Lying in bed (turning over, maintaining hip position)
8. Sitting

Patient response options:

None

Mild

Moderate

Severe

extreme

Available in the Orthopedic care type for Hip.

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References:

1. <https://www.hss.edu/hoos-jr-koos-jr-outcomes-surveys.asp>
2. Lyman S et al. Validation of the HOOS, JR: A Short-form Hip Replacement Survey. Clin Orthop Relat Res 2016;474(6):1472-82.

Incapacity Status Scale (ISS)

The Incapacity Status Scale (ISS) is part of the Minimal Record of Disability in Multiple Sclerosis (MS). The scale was developed specifically to assess disability for adults with MS. Incapacity Status Scale scores are summative and range between 0-48; higher scores = greater incapacity due to MS. Prior research examined the possibilities of using a summation process on scores from the ISS measure.^{1,2} Based on their research results, the authors reported that summing scores of the ISS conceals important information on communication disorders and on bladder, bowel and sexual dysfunctions. In addition, reliance of the ISS scoring on the use of aids and adaptive devices was found to be a major source of variation.^{1,2}

Instructions:

Please select the level of difficulty, if any, you have with the following activities.

Questions:

1. Stair Climbing. Walking up and down a flight of 12 stairs.
2. Mobility. Walk 150 feet without rest on level ground or indoors.
3. Transfers. Transfer to and from toilet, chair, wheelchair and bed.
4. Bowels. Able to manage constipation and control bowels.
5. Bladder. Able to control bladder function.
6. Toileting. Able to manage clothing and personal hygiene related to toileting
7. Bathing. Able to transfer in and out of tub or shower and bathe self.
8. Dressing. Able to dress and undress using standard clothing, shoes, or uses devices (long shoehorns, button hook, zipper extenders) to dress self.
9. Grooming. Able to brush teeth, comb hair, shave and apply cosmetics.
10. Eating. Able to use standard utensils to feed self and consume solids and fluids.
11. Vision. Able to read print finer than standard newspaper print with glasses if needed.
12. Speech. Able to speak clearly for communication with others.

Response options vary per question.

Available in the Neurologic care type.

References

1. Mertin J et al. A Critical evaluation of the incapacity status scale. Acta Neurologica Scandinavica 1984: <https://doi.org/10.1111/j.1600-0404.1984.tb02556.x>
2. Minderhoud JM et al. Proposal for summing the incapacity status or environmental status scores. Acta Neurologica Scandinavica 1984: <https://doi.org/10.1111/j.1600-0404.1984.tb02558.x>

Jaw Functional Limitation Scale (JFLS)

The JFLS has 20 items that address three levels of functional limitation including mastication (6 items), jaw mobility (4 items), and verbal and emotional expression (8 items) and a global score for the total measure.¹ Subscale and global scale scores range 0-10. Scoring is based on 18 of the 20 items. Two items* (yawning and swallowing) are not included in scoring of subscales or the global score. However, they are included on the patient specific report to provide additional clinician information such as to cue the clinician to ask additional questions.

Items per Subscale

Mastication	Mobility	Expression
Chew tough food	Open wide enough to bite from a whole apple	Talk
Chew hard bread		Sing
Chew chicken	Open wide enough to bite into a sandwich	Putting on a happy face
Chew crackers	Open wide enough to talk	Putting on an angry face
Chew soft food	Open wide enough to drink from a cup	Frown
Eat soft food requiring no chewing		Kiss
		Smile
		laugh

Patient response options:

Scale ranges from 0 “No Limitation” to 10 “Severe Limitation”.

Note: Consider using the FOTO Jaw Functional Status Scale (JFSS) instead of the JFLS. The JFSS provides a modern science PROM using the JFLS items (questions). The JFSS provides reduced patient response burden (average 5 patient questions using CAT) with measurement precision advantages of modern science methods. The JFSS is used as the primary measure for the Orofacial categories in the Orthopedic and Neurologic care types. The JFSS is also available as a secondary measure and is available for patients who are not set up in an Orofacial category.

Available in the Neurologic care type except for the Orofacial impairment. Also available in the Orthopedic, Industrial, and Pain Management care types for Shoulder, Neck, Ribs-Trunk, Thoracic Spine body parts and the NOC-musculo-skeletal disorder impairment.

Reference:

1. Ohrbach R, Larsson P, List T. The Jaw Functional Limitation Scale: development, reliability, and validity of 8-item and 20-item versions. *J Orofacial Pain*. 2008;22(3):219-230.

Jaw Functional Status Scale (JFSS)

The JFSS was developed by applying item-response theory (IRT) methods to the original Jaw Functional Limitation Scale (JFLS) items. The full IRT-based item bank of the JFSS contains 13 items. The JFSS is administered in FOTO using computer adaptive testing. Using CAT, patients experience an average of 5.6 questions (median =5, minimum = 4, maximum = 8), with 75% of patients responding to less than 8 items. CAT scores correlate highly (0.98) with scores derived from the full item-bank.

The Jaw Functional Status Scale item bank

Location (low to high)	Item Name	Item Label
1	TOUGH	Chew tough food
2	APPLE	Open wide enough to bite from a whole apple
3	SANDWC	Open wide enough to bite into a sandwich
4	YAWN	Yawn
5	LAUGH*	Laugh
6	KISS	Kiss
7	OPNTLK	Open wide enough to talk
8	CHICKN	Chew chicken (e.g., prepared in oven)
9	SMILE	Smile
10	TALK	Talk
11	FROWN	Frown
12	SOFT	Chew soft food (e.g., macaroni, canned or soft fruits, cooked vegetables, fish)
13	NOCHEW	Eat soft food requiring no chewing (e.g., mashed potatoes, apple sauce, pudding, pureed food)

*CAT starting item

Scoring, Scaling, and Interpretation of Scores and Score Change of the JFSS

Scoring is based on the T-score metric, with patients centered on a mean of 50 and a standard deviation of 10. Interpretation of T-scores are based on these values. For example, a score of 60 reflects functional status that is 1 standard deviation above the average patient.

Higher scores represent better function (higher scores are better). T-scores range 15-67 (using CAT).

Risk Adjusted Predicted Score Change is a sophisticated clinical interpretation parameter and uses one of the most advanced predictive models in the rehab therapy space. On the individual patient level, this value represents the average amount of change experienced by patients with the same traits.

Minimum Detectable Change (MDC): 5 t-score points (MDC80/MDI90)

Standard Error of Measurement (SEM): 3 t-score points

Reliability: 0.91 (CAT reliability)

Further research to establish additional parameters like Minimum Clinically Important Improvement (MCI) and functional staging will be next steps in this work.

Available in all care types except Wound and in all /sub-categories body part/impairments except Orofacial.

Reference: (manuscript in progress)

Knee injury and Osteoarthritis Outcome Score (KOOS), JR

The KOOS, JR was developed from the original long version of the Knee injury and Osteoarthritis Outcome Score (KOOS) survey using Rasch analysis.^{1,2} The KOOS, JR contains 7 items from the original 42-item KOOS survey. KOOS, JR provides a single score representing “knee health” as it combines pain, symptoms, and functional limitations in a single score. Scores on the Patient Specific Report are reported on a scale from 0-100 with higher scores indicating better knee health. The KOOS Jr is patient-relevant and efficient. Recent evidence supports the internal consistency, external validity (versus KOOS and WOMAC domains), responsiveness, and floor and ceiling effects of the KOOS, JR.³

Instructions:

This survey asks for your view about your knee. This information will help us keep track of how you feel about your knee and how well you are able to do your usual activities. If you are unsure about how to answer a question, please give the best answer you can.

Questions:

Stiffness

The following question concerns the amount of joint stiffness you have experienced during the last week in your knee. Stiffness is a sensation of restriction or slowness in the ease with which you move your knee joint.

1. How severe is your knee stiffness after first waking in the morning?

Pain

What amount of knee pain have you experienced the last week during the following activities?

2. Twisting/pivoting on your knee
3. Straightening knee full
4. Going up or down stairs
5. Standing upright

Function, Daily Living

The following questions concern your physical function. By this we mean your ability to move around and to look after yourself. For each of the following activities please indicate the degree of difficulty you have experienced in the last week due to your knee.

6. Rising from sitting
7. Bending to floor/pick up an object

Patient response options:

None

Mild

Moderate

Severe

Extreme

Available in the Orthopedic care type for Knee.

References:

1. <http://www.koos.nu/>
2. <https://www.hss.edu/hoos-jr-koos-jr-outcomes-surveys.asp>
3. Lyman S et al. Validation of the KOOS, JR: A Short-form Knee Arthroplasty Outcomes Survey. *Clinical Orthopaedics and Related Research* 2016;474:1461–1471.

Level of Pain Last 24 Hours

This numeric pain rating scale is commonly used by clinicians to help assess the patient's average level of pain over the last 24 hours. The single item question ranges from 0 [No Pain] to 10 [Worst possible pain]. This numeric pain intensity question helps the clinician to understand certain aspects of the patient's pain and maybe used for patients of all ages and conditions. A change of 2 pain points is considered a minimal clinically important difference.¹ For patients who consistently rate their pain levels > 8/10, yellow flag psychosocial screening tools are recommended.

Question and patient response options:

Rate the level of pain you have had in the past 24 hours

10 Worst possible pain

9

8

7

6

5

4

3

2

1

0 No Pain

Clinical interpretation of chronic pain (>90 days)

International Association for Study of Pain defined chronic musculoskeletal pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage. It is important to recognize that the patient's pain rating maybe influenced by the patient's perception of threat and fear of pain in the absence of tissue damage.²

Evidence recommends the following treatments for clinicians managing chronic musculoskeletal pain: 1) de-medicalizes the patient's pain, 2) differentiates pain & suffering, and 3) incorporates pain education with a multi-modal intervention including exercise and graded exposure to physical activities using a cognitive behavioral approach.⁵ For patients experiencing chronic musculoskeletal pain the role of the clinician is not to fix the problem but to act as a coach working closely with the patient to return to function while controlling pain.^{3,4}

Available in all care types.

References:

1. Childs JD, Piva SR, Fritz JM. Responsiveness of the numeric pain rating scale in patients with low back pain. *Spine (Phila Pa 1976)*. 2005;30:1331-1334.
2. [Home / Healthcare professionals / Pain Management: Roadmap to Revolution](#) – Steven Z. George – 21st John H.P. Maley Lecture. 2016
3. Lee TH. Zero pain is not the goal. *JAMA*. 2016; 315(15):1575-1577
4. Nijs J, Roussel N, van Wilgen CP, Köke A, Smeets R. Thinking beyond muscles and joints: therapists' and patients' attitudes and beliefs regarding chronic musculoskeletal pain are key to applying effective treatment. *Man Ther*. 2013;18:96-102.
5. Vlaeyen JWS and Morley S. Cognitive-Behavioral Treatments for Chronic Pain: What Works for Whom? *Clin J Pain* 2005;21:1-8.

Lower Extremity Functional Scale (LEFS)

The Lower Extremity Functional Scale (LEFS) is a questionnaire containing 20 questions about a person's ability to perform everyday tasks to evaluate the functional impairment of a patient with a disorder of one or both lower extremities.¹ The LEFS scale ranges between 0-80 with higher scores indicating less disability.

Caution

To help reduce redundancy and burden for your patients, keep in mind that patients set up in the Orthopedic care type for lower extremity conditions (e.g., hip, knee, ankle, foot) will already receive several LEFS questions. (Specifically, the LEFS items comprise the item bank for the FOTO Lower Extremity Physical Function, or LEPF, which is administered by computer adaptive testing as a FOTO Primary Measure for patients in the Orthopedic care type with lower extremity conditions.) If you need the traditional 0-80 scoring of the LEFS, such as to report for payer requirements, consider enabling the crosswalk for the LEFS instead of adding the full LEFS to your patient's survey.¹

Instructions

Today, do you or would you have any difficulty at all with:

Questions

1. Any of your usual work, housework, or school activities.
2. Your usual hobbies, recreational or sporting activities.
3. Getting into or out of the bath.
4. Walking between rooms.
5. Putting on your shoes or socks.
6. Squatting.
7. Lifting an object, like a bag of groceries from the floor.
8. Performing light activities around the home.
9. Performing heavy activities around the home.
10. Getting into or out of a car.
11. Walking 2 blocks

12. Walking a mile.
13. Going up or down 10 stairs (about 1 flight of stairs).
14. Standing for 1 hour.
15. Sitting for 1 hour.
16. Running on even ground.
17. Running on uneven ground.
18. Making sharp turns while running fast.
19. Hopping.
20. Rolling over in bed.

Patient response options:

- Extreme Difficulty or Unable to Perform Activity
- Quite a Bit of Difficulty
- Moderate Difficulty
- A Little Bit of Difficulty
- No Difficulty

Available in the Orthopedic, Industrial, and Pain Management care types for lower extremity body parts, pelvis, and lumbar. Also available for Lower Quadrant Edema in the Cardiovascular and Pulmonary care type.

Crosswalk available: FOTO LEPF to LEFS for orthopedic lower extremity body parts and pelvis.

Reference:

1. Binkley JM, Stratford PW, Lott SA, Riddle DL. The Lower Extremity Functional Scale (LEFS): scale development, measurement properties, and clinical application. North American Orthopaedic Rehabilitation Research Network. Phys Ther. 1999 Apr;79(4):371-83.
2. Deutscher D, Kallen MA, Hayes D, Werneke MW, Mioduski JE, Tucker CA, Cook KF. The Lower Extremity Physical Function (LEPF) Patient-Reported Outcome Measure (PROM) was Reliable, Valid, and Efficient for Patients with Musculoskeletal Impairments. APMR 2021;102:1576-1587. <https://pubmed.ncbi.nlm.nih.gov/33684367>

Lymphedema Life Impact Scale (LLIS)

Lymphedema Life Impact Scale (LLIS) was developed as a comprehensive condition-specific instrument to assess the effects of lymphedema in any extremity. The LLIS is a patient-reported multi-domain PROM consisting of 18-items assessing physical, psychosocial, and functional impairments caused by lymphedema.

Evidence demonstrated that the LLIS is a valid and reliable tool for the assessment of severity of extremity impairment among patients with lymphedema.² Minimal clinically important difference for the LLIS was 7.3 and minimal detectable change (95% CI) = 11.5.² In a recent systematic review, the authors identified 17 lymphedema-specific PROMs including the LLIS. Although the systematic review briefly described the initial development and validation of these condition-specific PROMs, there were no subsequent research identified using these PROMs in a clinical study.¹ Future research examining patient input is needed to gain better insight into the impact and responsiveness of using LLIS PROM in the clinical management of patients experiencing lymphedema conditions.

Instructions:

The following LLIS questions will ask you about symptoms or problems reported by many individuals with lymphedema. Please indicate to what extent these problems associated with your lymphedema have affected you in **the past week**. Select the number which best describes your symptom level.

Questions and Patient response options

I. Physical Concerns (NOTE: If swelling and symptoms are the same in both limbs, rate them the same; otherwise, rate only the worst limb)

1. The amount of pain associated with my lymphedema is:

0 (no pain), 1, 2, 3, or 4 (severe pain)

2. The amount of limb heaviness associated with my lymphedema is:

0 (no heaviness), 1, 2, 3, or 4 (extremely heavy)

3. The amount of skin tightness associated with my lymphedema is:

0 (no tightness), 1, 2, 3, or 4 (extremely tight)

4. The size of my swollen limb(s) seems:

0 (normal size), 1, 2, 3, or 4 (extremely large)

5. Lymphedema affects the movement of my swollen limb(s):

0 (normal movement), 1, 2, 3, or 4 (extremely limited)

6. The strength in my swollen limb(s) is:

0 (normal strength), 1, 2, 3, or 4 (extremely weak)

II. Psychosocial Concerns

7. Lymphedema affects my body image (how I think I look):

0 (not at all), 1, 2, 3, or 4 (completely)

8. Lymphedema affects my socializing with others.

0 (no interference), 1, 2, 3, or 4 (interferes completely)

9. Lymphedema affects my intimate relations with spouse or partner (rate 0 if not applicable).

0 (no interference), 1, 2, 3, or 4 (interferes completely)

10. Lymphedema “gets me down” (i.e., I have feelings of depression, frustration, or anger due to the lymphedema).

0 (never), 1, 2, 3, or 4 (constantly)

11. I must rely on others for help due to my lymphedema.

0 (not at all), 1, 2, 3, or 4 (completely)

12. I know what to do to manage my lymphedema.

0 (good understanding), 1, 2, 3, or 4 (no understanding)

III. Functional Concerns

13. Lymphedema affects my ability to perform self-care activities (i.e., eating, dressing, hygiene).

0 (no interference), 1, 2, 3, or 4 (interferes completely)

14. Lymphedema affects my ability to perform routine home or work-related activities.

0 (no interference), 1, 2, 3, or 4 (interferes completely)

15. Lymphedema affects my performance of preferred leisure activities.

0 (no interference), 1, 2, 3, or 4 (interferes completely)

16. Lymphedema affects the proper fit of clothing/shoes.

0 (fits normally), 1, 2, 3, or 4 (unable to wear)

17. Lymphedema affects my sleep.

0 (no interference), 1, 2, 3, or 4 (interferes completely)

IV. Infection Occurrence

18. In the past year, I have become ill with an infection in my swollen limb requiring oral antibiotics or hospitalization.

0, 1x, 2x, 3x, or 4+

Scoring

Note: question #18 is not included in the LLIS scoring methods described below.

There are 2 options for LLIS scoring methods:

1. First 17 questions result in a summative score ranging between 0-68 with higher score indicating greater impairment.
2. First 17 questions result in a summative score ranging between 0% to 100% with higher percentage indicating greater impairment. The % score is calculated by sum total of first 17 questions divided by the # of answered questions and multiplied by 25.

Interpretation²

Higher scores or percentages indicate greater impairment.

Available for Cardiovascular and Pulmonary Care Type care type.

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References:

1. Beelen LM, et al. Patient-Reported Outcome Measures in Lymphedema: A Systematic Review and COSMIN Analysis. *Ann Surg Oncol* 2021;28(3):1656–1668.
2. Weiss J & Daniel T. Validation of the Lymphedema Life Impact Scale (LLIS): A condition-specific measurement tool for persons with lymphedema. *Lymphology* 2015;48:128-138.

Modified Fatigue Impact Scale (MFIS)

The Modified Fatigue Impact Scale (MFIS) was specifically developed for patients diagnosed with multiple sclerosis (MS) and has been recommended by the Neurology Section of the American Physical Therapy Association's Multiple Sclerosis Taskforce.^{1,2} Fatigue occurs in approximately 80% of individuals with MS. The full-length 21 item MFIS is available in FOTO and generates 3 subscales (physical, cognitive, and psychosocial functioning) assessing the patient's perceived effect of fatigue during the last 4 weeks. Scores range between 0-84 with higher scores indicating greater impact of fatigue.

Questions

Because of my fatigue during the past 4 weeks:

1. I have been less alert.
2. I have had difficulty paying attention for long periods of time.
3. I have been unable to think clearly.
4. I have been clumsy and uncoordinated.
5. I have been forgetful.
6. I have had to pace myself in my physical activities.
7. I have been less motivated to do anything that requires physical effort.
8. I have been less motivated to participate in social activities.
9. I have been limited in my ability to do things away from home.
10. I have had trouble maintaining physical effort for long periods.
11. I have had difficulty making decisions.
12. I have been less motivated to do anything that requires thinking.
13. My muscles have felt weak.
14. I have been physically uncomfortable.
15. I have had trouble finishing tasks that require thinking.
16. I have had difficulty organizing my thoughts when doing things at home or at work.
17. I have been less able to complete tasks that require physical effort.
18. My thinking has been slowed down.
19. I have had trouble concentrating.

20. I have limited my physical activities.

21. I have needed to rest more often or for longer periods.

Patient response options

- Almost Never
- Rarely
- Sometimes
- Often
- Always

Interpretation

- Physical Subscale: score range between 0-36
- Cognitive Subscale: score range between 0-40
- Psychosocial Subscale: score range between 0-8
- Total overall MFIS Score: score range from 0-84*

The MFIS psychometric properties were recently summarized by Miskovic et al. ³

*Caution: MFIS cannot be used to interpret the total overall score of fatigue.³

Available in all care types.

References:

1. Fisk JD, Ritvo PG, Ross L, Haase DA, Marrie TJ, Schlech WF. Measuring the functional impact of fatigue: initial validation of the fatigue impact scale. Clin Infect Dis. 1994 Jan;18 Suppl 1:S79-83. doi: 10.1093/clinids/18.supplement_1.s79. PMID: 8148458.
2. Téllez N et al. Does the Modified Fatigue Impact Scale offer a more comprehensive assessment of fatigue in MS? Mult Scler 2005 11: 198.
3. Miskovic A et al. Measurement Characteristics and Clinical Utility of the Modified Fatigue Impact Scale in Individuals With Multiple Sclerosis. APMR 2018;99:213-214.

Modified (Oswestry) Low Back Pain Disability Questionnaire

This measure assesses disability due to low back pain using a multi-domain set of questions.^{2,3} Scores range from 0 to 100 with higher scores representing greater disability. This version was modified from the original Oswestry Disability Index² by replacing the question about sexual life with a question about employment/homemaking.³

Caution:

To help reduce redundancy in administering multiple PROMs & physical activity questions for your patients, keep in mind that patients set up in the Orthopedic care type for lumbar conditions are administered the FOTO Lumbar Primary Measure using computer adaptive testing (LCAT). Evidence published by Hart et al⁴ demonstrated that the accuracy/precision of the LCAT scores are equal to or greater than the legacy Modified Oswestry scores while significantly reducing the patient's time to answer all questions. The LCAT estimated time to complete <2 minutes compared to 169 seconds for Modified Oswestry.¹ If you need the traditional 0-100 disability scoring of the Modified Oswestry, such as to report for payer requirements, consider enabling the crosswalk for the LCAT instead of adding patient burden by administering the legacy Modified Oswestry.

Questions & Patient Response options:

Pain Intensity

- I can tolerate the pain I have without having to use pain medication
- The pain is bad, but I can manage without having to take pain medication
- Pain medication provides me with complete relief from pain.
- Pain medication provides me with moderate relief from pain.
- Pain medication provides me with little relief from pain.
- Pain medication has no effect on my pain.

Personal Care (Washing, Dressing, etc.)

- I can take care of myself normally without causing increased pain.
- I can take care of myself normally, but it increases my pain.
- It is painful to take care of myself, and I am slow and careful.
- I need help, but I am able to manage most of my personal care.

- I need help every day in most aspects of my care.
- I do not get dressed, wash with difficulty, and stay in bed.

Lifting

- I can lift heavy weights without increased pain.
- I can lift heavy weights, but it causes increased pain.
- Pain prevents me from lifting heavy weights off the floor, but I can manage if the weights are conveniently positioned (e.g., on a table).
- Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned.
- I can lift only very light weights.
- I cannot lift or carry anything at all.

Walking

- Pain does not prevent me from walking any distance.
- Pain prevents me from walking more than 1 mile.
- Pain prevents me from walking more than ½ mile.
- Pain prevents me from walking more than ¼ mile.
- I can only walk with crutches or a cane.
- I am in bed most of the time and have to crawl to the toilet.

Sitting

- I can sit in any chair as long as I like.
- I can only sit in my favorite chair as long as I like.
- Pain prevents me from sitting for more than 1 hour.
- Pain prevents me from sitting for more than ½ hour.
- Pain prevents me from sitting for more than 10 minutes.
- Pain prevents me from sitting at all.

Standing

- I can stand as long as I want without increased pain.
- I can stand as long as I want, but it increases my pain.
- Pain prevents me from standing more than 1 hour.
- Pain prevents me from standing more than ½ hour.
- Pain prevents me from standing more than 10 minutes.
- Pain prevents me from standing at all.

Sleeping

- Pain does not prevent me from sleeping well.
- I can sleep well only by using pain medication.
- Even when I take pain medication, I sleep less than 6 hours.
- Even when I take pain medication, I sleep less than 4 hours.
- Even when I take pain medication, I sleep less than 2 hours.
- Pain prevents me from sleeping at all.

Social life

- My social life is normal and does not increase my pain.
- My social life is normal, but it increases my level of pain.
- Pain prevents me from participating in more energetic activities (e.g., sports, dancing)
- Pain prevents me from going out very often.
- Pain has restricted my social life to my home.
- I have hardly any social life because of the pain.

Traveling

- I can travel anywhere without increased pain.
- I can travel anywhere, but it increases my pain.
- My pain restricts my travel over 2 hours.

- My pain restricts my travel over 1 hour.
- My pain restricts my travel to short necessary journeys under ½ hour.
- My pain prevents all travel except for visits to the physician/therapist or hospital.

Employment/Homemaking

- My normal homemaking/job activities do not cause pain.
- My normal homemaking/job activities increase my pain, but I can still perform all that is required of me.
- I can perform most of my homemaking/job duties, but pain prevents me from performing more physically stressful activities (e.g., lifting, vacuuming).
- Pain prevents me from doing anything but light duties.
- Pain prevents me from doing even light duties.
- Pain prevents me from performing any job or homemaking chores.

Available in Orthopedic, Industrial, and Pain Management care types for Lumbar, Neck, Pelvis, Thoracic, and available in the Pelvic Floor care type.

Crosswalk available: FOTO Low Back (“Lumbar CAT”) to Modified (Oswestry) (orthopedic care type/lumbar body part only).

References

1. Brodke et al. PROMIS PF CAT Outperforms the ODI and SF-36 Physical Function Domain in Spine Patients. *Spine* 2017;42:921-929.
2. Fairbank JC, Couper J, Davies JB, O’Brien JP. The Oswestry Low Back Pain Disability Questionnaire. *Physiotherapy*. 1980;66:271–273.
3. Fritz JM, Irrgang JJ. A Comparison of a Modified Oswestry Low Back Pain Disability Questionnaire and the Quebec Back Pain Disability Scale. *Phys Ther*. 2001;81:776-788.
4. Hart DL, Stratford PW, Werneke MW, Deutscher D, Wang Y-C. Lumbar computerized adaptive test and modified Oswestry Low Back Pain Disability Questionnaire: relative validity and important change. *JOSPT* 2012;42(6):541-51.

Neck Disability Index (NDI)

The Neck Disability Index (NDI) measures disability due to neck pain with scores reported on a scale of 0-100 with higher scores indicating greater disability.¹

Caution

To help reduce redundancy in administering multiple PROMs & physical activity questions for your patients, keep in mind that patients set up in the Orthopedic care type for Neck conditions are administered the FOTO Neck Functional Status (standard primary measure) using computer adaptive testing (Neck-CAT).^{2,3} The Neck-CAT is not only precise and accurate estimating the patients' physical abilities related to their neck condition but also efficient reducing the patient's time to answer all questions. If you need the traditional 0-100 disability scoring of the NDI, such as to report for payer requirements, consider enabling the crosswalk for the Neck-CAT instead of adding patient burden by administering the legacy NDI.

Questions and patient response options:

Pain Intensity

- I have no pain at the moment.
- The pain is very mild at the moment.
- The pain is moderate at the moment.
- The pain is fairly severe at the moment.
- The pain is very severe at the moment.
- The pain is the worst imaginable at the moment.

Personal Care (Washing, Dressing, etc.)

- I can look after myself normally without causing extra pain.
- I can look after myself normally, but it causes extra pain.
- It is painful to look after myself, and I am slow and careful.
- I need some help, but manage most of my personal care.
- I need help every day in most aspects of self--care.
- I do not get dressed, I wash with difficulty and stay in bed.

Lifting

- I can lift heavy weights without extra pain.
- I can lift weights, but it gives extra pain.
- Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently positioned, for example on a table.
- Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned.
- I can lift very light weights.
- I cannot lift or carry anything at all.

Reading

- I can read as much as I want to with no pain in my neck.
- I can read as much as I want to with slight pain in my neck.
- I can read as much as I want with moderate pain in my neck.
- I can't read as much as I want because of moderate pain in my neck.
- I can hardly read at all because of severe pain in my neck.
- I cannot read at all.

Headaches

- I have no headaches at all.
- I have slight headaches which come infrequently.
- I have moderate headaches which come infrequently.
- I have moderate headaches which come frequently.
- I have severe headaches which come frequently.
- I have headaches almost all the time.

Concentration

- I can concentrate fully when I want to with no difficulty.

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- I can concentrate fully when I want to with slight difficulty.
- I have a fair degree of difficulty in concentrating when I want to.
- I have a lot of difficulty in concentrating when I want to.
- I have a great deal of difficulty in concentrating when I want to.
- I cannot concentrate at all.

Work

- I can do as much work as I want to.
- I can only do my usual work, but no more.
- I can do most of my usual work, but no more.
- I cannot do my usual work.
- I can hardly do any work at all.
- I can't do any work at all.

Driving

- I can drive my car without any neck pain.
- I can drive my car as long as I want with slight pain in my neck.
- I can drive my car as long as I want with moderate pain in my neck.
- I can't drive my car as long as I want because of moderate pain in my neck.
- I can hardly drive at all because of severe pain in my neck.

Sleeping

- I have no trouble sleeping.
- My sleep is slightly disturbed (less than 1 hr sleepless).
- My sleep is mildly disturbed (1 – 2 hrs sleepless).
- My sleep is moderately disturbed (2 – 3 hrs. sleepless).
- My sleep is greatly disturbed (3 – 5 hrs sleepless)
- My sleep is completely disturbed (5 – 7 hrs sleepless).

Recreation

- I am able to engage in all my recreation activities with no neck pain at all
- I am able to engage in all my recreation activities with some pain in my neck
- I am able to engage in most, but not all of my usual recreation activities because of the pain in my neck.
- I am able to engage in a few of my usual recreation activities because of pain in my neck.
- I can hardly do any recreation activities because of pain in my neck.
- I can't do any recreation activities at all.

Available in the Orthopedic and Pain Management care types for, Neck, Shoulder, and Thoracic Spine.

Crosswalk available: FOTO Neck-CAT to NDI

References:

1. Deutscher et al. Clinical Interpretation of the Neck Functional Status Computerized Adaptive Test. JOSP 2019;49:875-886.
2. Vernon H, Mior S. The Neck Disability Index: a study of reliability and validity. J Manipulative Physiol Ther. 1991 Sep;14(7):409-15. Erratum in: J Manipulative Physiol Ther 1992 Jan;15(1):followi. PMID: 1834753.
3. Wang YC, Cook KF, Deutscher D, Werneke MW, Hayes D, Mioduski JE. The development and psychometric properties of the patient self-report Neck Functional Status Questionnaire (NFSQ). JOSP 2015;45:683-692. <https://doi.org/10.2519/jospt.2015.5640>.

Net Promoter Score (NPS)

The Net Promoter Score (NPS) is the percentage of customers rating their likelihood to recommend a company, a product, or a service to a friend or colleague. The NPS is calculated as a score of 9 or 10/10 ("Promoters") minus the percentage rating of customers rating at 6 or below/10 ("Detractors"). Scores of 7 or 8/10 are considered passive and not included when calculating the NPS. For example, if 10% of patients are detractors, 20% are passive and 70% of patients are promoters, your NPS score would be $70 - 10 = 60$. Your NPS could range from (-)100 to (+)100. The ideal score would be (+)100, based on 100% of customers being promoters.

Question:

How likely is it that you would recommend this facility to a friend or colleague?

Patient Response Options:

The patient is presented with a 0-10 rating scale with 0 defined as Not at all likely, 5 as Neutral, and 10 as Extremely likely.

Interpretation:

Patients fall into one of 3 categories to establish an NPS score:^{1,2}

Promoters (9 or 10)– Typically loyal and enthusiastic customers.

Passives (7 or 8)– They are satisfied with your service but not happy enough to be considered promoters.

Detractors (0-6)– Customers who have had a negative experience with your company.

A free text **Comment** field is also available when selecting the Net Promoter Question with Comment. This secondary measure should be used for all episodes when subscribed to the Marketing Suite as the scores and comments are displayed in the NPS Dashboard.

The Net Promoter Question and the Net Promoter Question with Comment are each available as Administrative Defaults for all episodes or can be added from the Secondary Measures list during the patient set-up process.

Available for all care types.

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References:

1. 2016 Satmetrix Systems, Inc. All rights reserved. Net Promoter, Net Promoter Score, and NPS are trademarks of Satmetrix Systems, Inc., Bain & Company, Inc., and Fred Reichheld.
2. <https://www.qualtrics.com/experience-management/customer/measure-nps/>

[Neuro-QoL - background](#)

Neuro-QoL (Quality of Life in Neurological Disorders) is a system of self-report measures that assesses the physical, mental, and social effects of neurological conditions for adults and children. Neuro-QoL measures were typically developed and validated using modern science methods like item-response theory. Administration modes include computer adaptive testing, short form, or static full item bank for smaller banks. All Neuro QoL scores except Neuro QoL-Communication are reported as T-scores on the Patient Specific Report.

Several Neuro-QoL measures are available in FOTO, including those described below. To view additional Neuro-QoL measures, or for more information, visit <https://www.healthmeasures.net/explore-measurement-systems/neuro-qol>

Neuro-QoL – Ability to Part in Social Roles and Activities (SRA)

Questions: Full item bank (administered by computer adaptive testing)

In the past 7 days...

1. I can keep up with my family responsibilities
2. I am able to do all of my regular family activities
3. I am able to socialize with my friends
4. I am able to do all of my regular activities with friends
5. I can keep up with my social commitments
6. I am able to participate in leisure activities
7. I am able to perform my daily routines
8. I can keep up with my work responsibilities (include work at home)
9. I have trouble meeting the needs of my family
10. I have to limit my regular family activities
11. I am able to do all of the family activities that people expect me to do
12. I am able to do all of the family activities that I want to do
13. I am able to maintain my friendships as much as I would like
14. I can do everything for my friends that I want to do
15. I am able to do all of the activities with friends that people expect me to do
16. I feel limited in my ability to visit friends
17. I am able to do all of the activities with friends that I want to do
18. I feel limited in the amount of time I have to visit friends
19. I have to limit the things I do for fun at home (like reading, listening to music, etc.)
20. I am able to do all of my regular leisure activities
21. I have to limit my hobbies or leisure activities
22. I am able to do my hobbies or leisure activities
23. I am able to do all of the community activities that I want to do
24. I am able to do all of the leisure activities that people expect me to do
25. I have to do my hobbies or leisure activities for shorter periods of time than usual for me

26. I have to limit social activities outside my home
27. I have trouble keeping in touch with others
28. I can do all the leisure activities that I want to do
29. I am able to do all of the community activities that people expect me to do
30. I am able to go out for entertainment as much as I want
31. I have to limit the things I do for fun outside my home
32. I am doing fewer social activities with groups of people than usual for me
33. I am able to run errands without difficulty
34. I am able to do all of my usual work (include work at home)
35. I am accomplishing as much as usual at work for me (include work at home)
36. My ability to do my work is as good as it can be (include work at home)
37. I can do everything for work that I want to do (include work at home)
38. I have trouble doing my regular chores or tasks
39. I am able to do all of the work that people expect me to do (include work at home)
40. I am limited in doing my work (include work at home)
41. I have to do my work for shorter periods of time than usual for me (include work at home)
42. I am able to do all of my usual work
43. I am limited in doing my work
44. I am able to do all of the work that people expect me to do
45. I have to do my work for shorter periods of time than usual for me

Patient responses options

- Never
- Rarely
- Sometimes
- Often
- Always



Scoring:

NeuroQOL-SRA scores are reported as T-scores ranging between 21.99 - 63.77 with higher scores indicating better social roles and activity ability

Available for the Neurological, Speech, Pelvic Floor, and Cardiovascular and Pulmonary care types.

Neuro-QoL – Communication

Neuro-QoL Communication is available as a 5-item short form in FOTO as a primary measure in the Speech care type and as a secondary measure across all care types.

Questions:

1. How much DIFFICULTY do you currently have:
2. writing notes to yourself, such as appointments or 'to do' lists?
3. understanding family and friends on the phone?
4. carrying on a conversation with a small group of familiar people (e.g., family or a few friends)?
5. organizing what you want to say?
6. speaking clearly enough to use the telephone?

Patient response options

- None
- A little
- Somewhat
- A lot
- Cannot do

Scoring:

On the Patient Specific Report, reported scores range from 0-25 with higher scores indicating better communication ability.

Available for the Neurological and Speech care types.

Neuro-QoL Fatigue

Questions: Full item bank (administered by computer adaptive test):

In the past 7 days...

1. I felt exhausted
2. I felt that I had no energy
3. I felt fatigued
4. I was too tired to do my household chores
5. I was too tired to leave the house
6. I was frustrated by being too tired to do the things I wanted to do
7. I felt tired
8. I had to limit my social activity because I was tired
9. I needed help doing my usual activities because of my fatigue
10. I needed to sleep during the day
11. I had trouble starting things because I was too tired
12. I had trouble finishing things because I was too tired
13. I was too tired to take a short walk
14. I was too tired to eat
15. I was so tired that I needed to rest during the day
16. I felt weak all over
17. I needed help doing my usual activities because of weakness
18. I had to limit my social activity because I was physically weak
19. I had to force myself to get up and do things because I was physically too weak

Patient response options:

- Never
- Rarely
- Sometimes
- Often

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- Always

Scoring:

NeuroQOL-Fatigue scores are reported as T-scores ranging between 79.27 - 28.28 with lower scores indicating less fatigue with activity.

Available for the Neurological, Speech, Pelvic Floor, and Cardiovascular and Pulmonary care types.

Neuro-QoL Lower Extremity (Mobility)

Question: Full item bank (administered by computer adaptive test):

1. Are you able to get on and off the toilet?
2. Are you able to step up and down curbs?
3. Are you able to get in and out of a car?
4. Are you able to get out of bed into a chair?
5. Are you able to push open a heavy door?
6. Are you able to run errands and shop?
7. Are you able to get up off the floor from lying on your back without help?
8. Are you able to go for a walk of at least 15 minutes?
9. How much difficulty do you have standing up from an armless straight chair (e.g., dining room chair)?
10. How much difficulty do you have sitting down on and standing up from a chair with arms?
11. How much difficulty do you have moving from sitting at the side of the bed to lying down on your back?
12. How much difficulty do you have standing up from a low, soft couch?
13. How much difficulty do you have going up and down a flight of stairs inside, using a handrail?
14. How much difficulty do you have walking on uneven surfaces (e.g., grass, dirt road or sidewalk)?
15. How much difficulty do you have walking around one floor of your home?
16. How much difficulty do you have taking a 20-minute brisk walk, without stopping to rest?
17. How much difficulty do you have walking on a slippery surface, outdoors?
18. How much difficulty do you have climbing stairs step over step without a handrail? (alternating feet)?
19. How much difficulty do you have walking in a dark room without falling?

Patient response options:

- Without any difficulty
- With a little difficulty Or
- No difficulty
- A little difficulty

FOTO PATIENT OUTCOMES

- With some difficulty
- With much difficulty
- Unable to do
- Some difficulty
- A lot of difficulty
- Can't do

Scoring:

NeuroQOL-Lower Extremity scores are reported as T-scores ranging between 15.70 - 62.28 with higher scores indicating better function with lower extremity activity

Available for the Neurological and Speech care types.

Neuro-QoL Pediatric Cognitive Function

The Neuro-QoL Pediatric Cognitive Function v2.0 8-item short form contains items from the full Functioning item bank (14 items). It was developed for use with individuals aged 8-17 although clinicians may choose to use it with different ages when the question content is clinically relevant. It assesses perceived difficulties in everyday cognitive abilities such as memory, attention, concentration, processing speed and organization skill.

Scores will be reported as T-scores where the mean is 50 and the standard deviation is 10. Therefore, a person with a T-score of 40 is one SD below the mean. Thus, a person who has a T-score of 60 is one SD above the average of the referenced population, which was, for the pediatric cognitive function measure, a general reference population.

A higher Neuro-QoL T-score represents more of the concept being measured. For positively- worded concepts like Cognitive Function, a T-score of 60 is one SD better than average. The possible range of T-scores for the is 21-65, and the standard error for each potential score ranges 2-5.

This measure is available in FOTO as both a primary measure in the Pediatric care type and as a secondary (optional).

Questions: 8-item short form:

1. I forget schoolwork that I need to do
2. I sometimes forget what I was going to say
3. I react slower than most people my age when I play games
4. I forget things easily
5. I have trouble remembering to do things (e.g., school projects).
6. It is hard for me to concentrate in school
7. I have trouble paying attention to the teacher
8. I have to work really hard to pay attention or I will make a mistake

Patient response options:

- Not at all
- A little bit

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 **FOTO** PATIENT OUTCOMES

- Somewhat
- Quite a bit
- Very much

Scoring:

Neuro-QoL Pediatric Cognition Function scores are reported as T-scores ranging between 21.4 - 64.5 with higher scores indicating better cognitive function.

Available for the Neurological, Pediatric, and Speech care types.

Neuro-QoL Positive Affect and Well-Being

Questions: Full item bank (administered by computer adaptive test):

Lately

1. I had a sense of well-being
2. I felt hopeful
3. My life was satisfying
4. My life had purpose
5. My life had meaning
6. I felt cheerful
7. My life was worth living
8. I had a sense of balance in my life
9. Many areas of my life were interesting to me
10. I was able to enjoy life
11. I felt a sense of purpose in my life
12. I could laugh and see the humor in situations
13. I was able to be at ease and feel relaxed
14. I looked forward with enjoyment to upcoming events
15. I felt emotionally stable
16. I felt lovable
17. I felt confident
18. I had a good life
19. My life was peaceful
20. I was living life to the fullest
21. In most ways my life was close to my ideal
22. I had good control of my thoughts
23. Even when things were going badly, I still had hope

Patient response options:

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FOTO PATIENT OUTCOMES

- Never
- Rarely
- Sometimes
- Often
- Always

Scoring:

NeuroQOL-Pos Affect and Well-being scores are reported as T-scores ranging between 23.14 - 71.51 with higher scores indicating better affect and well-being.

Available for the Neurological and Speech care types.

Neuro-QoL Upper Extremity

Questions: Full item bank (administered by computer adaptive test):

1. Are you able to turn a key in a lock?
2. Are you able to brush your teeth?
3. Are you able to make a phone call using a touch--tone key pad?
4. Are you able to pick up coins from a tabletop ?
5. Are you able to write with a pen or pencil?
6. Are you able to open and close a zipper?
7. Are you able to wash and dry your body?
8. Are you able to shampoo your hair?
9. Are you able to use a spoon to eat a meal?
10. Are you able to put on a pullover shirt?
11. Are you able to take off a pullover shirt?
12. Are you able to remove wrappings from small objects?
13. Are you able to open medications or vitamin containers (e.g., childproof containers, small bottles)?
14. Are you able to open previously opened jars?
15. Are you able to hold a plate full of food?
16. Are you able to pull on trousers?
17. Are you able to button your shirt?
18. Are you able to trim your fingernails?
19. Are you able to cut your toenails ?
20. Are you able to bend down and pick up clothing from the floor?

Patient response options:

- Without any difficulty
- With a little difficulty
- With some difficulty

- With much difficulty
- Unable to do

Scoring:

NeuroQOL-Upper Extremity scores are reported as T-scores ranging between 14.55 - 56.84 with higher scores indicating better function with lower extremity activity

Available for the Neurological and Speech care types.

OSPRO-ROS 10 (Review of Systems 10-items)

The 10-item version of the Optimal Screening for Prediction of Referral and Outcome Review of Systems (OSPRO-ROS 10) is provided in FOTO.

Questions:

1. Have you recently experienced abnormal sensations (e.g., numbness, pins and needles)?
2. Have you recently experienced headaches?
3. Have you recently experienced night pain?
4. Have you recently experienced sustained morning stiffness?
5. Have you recently experienced light-headedness?
6. Have you recently experienced trauma (e.g., a motor vehicle accident, a fall)?
7. Have you recently experienced night sweats?
8. Have you recently experienced constipation?
9. Have you recently experienced easy bruising?
10. Have you recently experienced changes in vision?

Patient response options:

- Yes
- No

Interpretation:

If even just one response is yes to any of the above questions, this is interpreted as a positive screen for potential red flags in identifying systemic pathology. If the patient's OSPRO-ROS 10 score $>1/10$, a thorough investigation/review by the evaluating clinician for the patient's cardiovascular, pulmonary, gastrointestinal, urogenital, endocrine, nervous, integumentary, and musculoskeletal systems are required.

If all responses are no (score=0/10), this score is interpreted as a negative screen for potential red flags. However, for patients having a negative response to the 10-item screening tool, clinicians may elect to administer the OSPRO-ROS 23 to be fully confident that further review of systems is not indicated.^{1,2}

Caution:

Interpretation of the OSPRO-ROS screening tool should be considered preliminary until further research examines the OSPRO-ROS tool accuracy for identifying systemic pathology.²

Available in all care types.

Used with permission from George SZ, Beneciuk JM, Bialosky JE, et al. Development of a review-of-systems screening tool for orthopaedic physical therapists: results from the Optimal Screening for Prediction of Referral and Outcome (OSPRO) cohort. J Orthop Sports Phys Ther. 2015;45:512-526. <https://doi.org/10.2519/jospt.2015.5900>. @Journal of Orthopaedic & Sports Physical Therapy®

References:

1. George SZ, Beneciuk JM, Bialosky JE, et al. Development of a Review-of-Systems Screening Tool for Orthopaedic Physical Therapists: Results from the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. J Orthop Sports Phys Ther. 2015;45(7):512-526.
2. George SZ et al. Optimal Screening for Prediction of Referral and Outcome (OSPRO) for Musculoskeletal Pain Conditions: Results from the Validation Cohort. JOSPT 2018;48:460-475.

Örebro Musculoskeletal Pain Screening Questionnaire (Short form)

The Örebro Musculoskeletal Pain Screening Questionnaire (ÖMSPQ) Short form was developed as a screening tool to assist in the early identification of yellow flags for patients at risk for the development of chronic work loss and disability due to the pain.¹ The short form, a 10-item multi-domain index, was developed using the items and domains from the full length ÖMSPQ.²

The ÖMSPQ has been validated for use for a wide range of orthopedic musculoskeletal pain conditions.² Evidence demonstrates that the short form has satisfactory psychometric properties and predictive validity for patients experiencing spinal pain. Although the ÖMSPQ Short form has been recommended for clinical use in patients with non-spinal musculoskeletal pain, future research validating the short form for non-spinal populations is required.

Instructions

Information from the next 10 questions helps us understand your problem better, and it especially helps us evaluate the possible long-term consequences your pain may have. It is important that you read each question carefully and answer it as best you can. There are no right or wrong answers. Please answer every question. If you have difficulty, select the answer that best describes your situation.

Questions and Patient response options:

How long have you had your current pain problem?

Patient responses: Scale: 0 to 10. Score 0 (0-1weeks), Score 1 (1-2weeks) etc., 3-4weeks, 4-5weeks, 6-8weeks, 9-11weeks, 3-6months, 6-9 months, 9-12 months, and score 10 (over 1 year).

How would you rate the pain that you have had during the past week?

Patient responses: Scale: 0 (no pain) to 10 (*Pain as bad as it could be*)

I can do light work for an hour.

Patient responses: Scale: 0 (Can't do it because of pain problem) to 10 (*Can do it without pain being a problem*)

I can sleep at night.

Patient responses: Scale: 0 (Can't do it because of pain problem) to 10 (*Can do it without pain being a problem*)

How tense or anxious have you felt in the past week?

Patient responses: Scale 0 (Absolutely calm and relaxed) to 10 (As tense and anxious as I ever felt)

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How much have you been bothered by feeling depressed in the past week?

Patient responses: Scale 0 (*Not at all*) to 10 (*Extremely*)

In your view, how large is the risk that your current pain may become persistent? Patient responses: Scale 0 (*No risk*) to 10 (*Very large risk*)

In your estimation, what are the chances you will be working your normal duties in 3 months?

Patient responses: Scale 0 (*No chance*) to 10 (*Very large chance*)

An increase in pain is an indication that I should stop what I'm doing until the pain decreases.

Patient responses: Scale 0 (*Completely disagree*) to 10 (*Completely agree*)

I should not do my normal work with my present pain?

Patient responses: Scale 0 (*Completely disagree*) to 10 (*Completely agree*)

Scoring

All 10 questions result in a summative score ranging between 0-100 with higher score indicating higher impairment. Scores for items #3, 4, and #8 are reversed in order for all the questions to be oriented in the same direction.

Interpretation¹

Impairment is considered high if the Örebro Short form raw score > 50/100. Scores \leq 50/100 indicate low impairment risk.

Available for all body parts in orthopedic, pain management, and industrial care types.

Available in both English and Spanish (USA)

References:

Linton, S. J., Nicholas, M., MacDonald, S. Development of a Short Form of the Örebro Musculoskeletal Pain Screening Questionnaire. *Spine* 2011;36:1891–1895. doi: 10.1097/BRS.0b013e3181f8f775

Linton SJ, & Boersma K. Early identification of patients at risk of developing a persistent back problem: the predictive validity of the Örebro Musculoskeletal Pain Questionnaire. *Clin J Pain* 2003;19:80–86.

Oswestry Disability Index (ODI)

The Oswestry Disability Index version 2.0 is provided and assesses disability due to low back pain using a multi-domain set of questions.² Scores range from 0 to 100 with higher scores representing greater disability. A response selection for the question about Sex Life is not required; the patient is able to select 'Next' for this question only with scoring adjusted accordingly.

Caution:

To help reduce redundancy in administering multiple PROMs & physical activity questions for your patients, keep in mind that patients set up in the Orthopedic care type for lumbar (low back) conditions are administered the FOTO Lumbar Primary Measure using computer adaptive testing (LCAT). Evidence published by Hart et al³ demonstrated that the accuracy/precision of the LCAT scores are equal to or greater than the Oswestry questionnaire while significantly reducing the patient's time to answer all questions. The LCAT estimated time to complete <2 minutes compared to 169 seconds for ODI.¹ If you need the traditional 0-100 disability scoring of the ODI, such as to report for payer requirements, consider enabling the crosswalk for the LCAT instead of adding patient burden by administering the legacy ODI.

Instructions:

Please complete the next 10 questions from the Oswestry Disability Index. Please answer every section. Mark one box only in each section that most closely describes you today.

It is designed to give your clinician additional information as to how your back (or leg) trouble has affected your ability to manage in everyday life.

Questions and patient response options:

Pain Intensity

- I can tolerate the pain I have without having to use pain killers.
- The pain is bad but I manage without taking pain killers.
- Pain killers give complete relief from pain.
- Pain killers give moderate relief from pain.
- Pain killers give very little relief from pain.
- Pain killers have no effect on the pain and I do not use them.

Personal Care

- I can look after myself normally without causing extra pain.
- I can look after myself normally but it causes extra pain.
- It is painful to look after myself and I am slow and careful.
- I need some help but manage most of my personal care.
- I need help every day in most aspects of self care.
- I do not get dressed wash with difficulty and stay in bed.

Lifting

- I can lift heavy weights without extra pain.
- I can lift heavy weights but it gives extra pain.
- Pain prevents me from lifting heavy weights off the floor but I can manage if they are conveniently positioned for example on a table.
- Pain prevents me from lifting heavy weights but I can manage light to medium weights if they are conveniently positioned.
- I can lift only very light weights.
- I cannot lift or carry anything at all.

Walking

- Pain does not prevent me walking any distance.
- Pain prevents me walking more than 1 mile.
- Pain prevents me walking more than 0.5 miles.
- Pain prevents me walking more than 0.25 miles.
- I can only walk using a stick or crutches.
- I am in bed most of the time and have to crawl to the toilet.

Sitting

- I can sit in any chair as long as I like.

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- I can only sit in my favorite chair as long as I like. □
- Pain prevents me sitting more than 1 hour.
- Pain prevents me from sitting more than 0.5 hours.
- Pain prevents me from sitting more than 10 minutes.
- Pain prevents me from sitting at all.

Standing

- I can stand as long as I want without extra pain.
- I can stand as long as I want but it gives me extra pain.
- Pain prevents me from standing for more than 1 hour.
- Pain prevents me from standing for more than 30 minutes.
- Pain prevents me from standing for more than 10 minutes.
- Pain prevents me from standing at all.

Sleeping

- Pain does not prevent me from sleeping well.
- I can sleep well only by using tablets.
- Even when I take tablets I have less than 6 hours sleep.
- Even when I take tablets I have less than 4 hours sleep.
- Even when I take tablets I have less than 2 hours of sleep.
- Pain prevents me from sleeping at all.

Sex Life

- My sex life is normal and causes no extra pain.
- My sex life is normal but causes some extra pain.
- My sex life is nearly normal but is very painful.
- My sex life is severely restricted by pain.
- My sex life is nearly absent because of pain.

- Pain prevents any sex life at all.

Social Life

- My social life is normal and gives me no extra pain.
- My social life is normal but increases the degree of pain.
- Pain has no significant effect on my social life apart from limiting energetic interests such as dancing.
- Pain has restricted my social life and I do not go out as often.
- Pain has restricted my social life to my home.
- I have no social life because of pain.

Traveling

- I can travel anywhere without extra pain.
- I can travel anywhere but it gives me extra pain.
- Pain is bad but I manage journeys over 2 hours.
- Pain restricts me to journeys of less than 1 hour.
- Pain restricts me to short necessary journeys under 30 minutes.
- Pain prevents me from traveling except to the doctor or hospital.

Available in Orthopedic, Industrial, and Pain Management care types for Lumbar Spine, Neck, Pelvis, Hip, Thoracic Spine and available in the Pelvic Floor care type.

References:

1. Brodke et al. PROMIS PF CAT Outperforms the ODI and SF-36 Physical Function Domain in Spine Patients. Spine 2017;42:921-929
2. Fairbank JCT, Pynsent PB. The Oswestry Disability Index. Spine. 2000;25(22):2940-2953.
3. Hart DL, Stratford PW, Werneke MW, Deutscher D, Wang Y-C. Lumbar computerized adaptive test and modified Oswestry Low Back Pain Disability Questionnaire: relative validity and important change. JOSPT 2012;42(6):541-51.

Pain Catastrophizing Scale (PCS)

This yellow flag screening tool assesses pain catastrophizing cognitions. Pain catastrophizing cognitions are extremely negative appraisals (thoughts) about pain, and its impact on one's life now and in the future. It includes magnification of pain and its impact, helplessness, rumination, and beliefs about the worst-case scenarios.¹ The PCS was developed and validated by Sullivan.²

Questions and patient response options:

Indicate the degree to which you have this thought or feeling when you are experiencing pain:

1. I worry all the time about whether the pain will end.
2. I feel I can't go on.
3. It's terrible and I think it's never going to get any better.
4. It's awful and I feel that it overwhelms me.
5. I feel I can't stand it anymore.
6. I become afraid that the pain will get worse.
7. I keep thinking of other painful events.
8. I anxiously want the pain to go away.
9. I can't seem to keep it out of my mind.
10. I keep thinking about how much it hurts.
11. I keep thinking about how badly I want the pain to stop.
12. There's nothing I can do to reduce the intensity of the pain.
13. I wonder whether something serious may happen.

Patient response options:

- not at all
- to a slight degree
- to a moderate degree
- to a great degree
- all the time

Scoring

Each question is scored from 0-4. Scores are 0 (not at all), 1 (to a slight degree, 2 (to a moderate degree), 3 (to a great degree), and 4 (all the time).

The PCS scale consists of 3 subscale scores for the following domains: rumination, magnification, and helplessness. The total PCS score is computed by summing responses to all 13 items and range from 0 – 52. Domain subscales are computed by summing specific patient responses to the following questions: questions 8, 9, 10, 11 (rumination), questions 6, 7, and 13 (magnification) and questions 1, 2, 3, 4, 5, 12 (helplessness)

All 3 PCS domain subscales are administered when the optional PCS measure is selected in FOTO. Total PCS score, the 3 PCS subscale scores, PCS risk levels, and patient-reported question responses are reported if selected on the Patient Specific Report.

Interpretation²

A total PCS score of > 30/52 represents a clinically relevant level of catastrophizing which is associated with a high risk of poor outcomes.

PCS subscale scores > 11/16, >5/11, and > 13/24 are considered elevated for rumination, magnification, and helplessness respectively. Elevated scores are associated with less-than-optimal treatment outcomes.

Available in all care types.

Reference:

1. Amtmann D et al. University of Washington Concerns About Pain (UW-CAP) Users Guide. Version 1.0. Updated April 30th, 2019
2. Sullivan, Michael JL, Ph.D. PCS Manual. Department of Psychology, Medicine and Neurology, School of Physical & Occupational Therapy McGill University, Montreal, Quebec H3A 1B1. Copyright 1995, 2001, 2004, 2006, 2009

Pain Disability Index (PDI)

This 7-item multi-domain index assesses patient self-report disability due to pain.² Patient's response to each item ranges from 0 (no disability) to 10 (worst disability). The total summative PDI score ranges between 70 (maximum disability) to 0 (no disability). The total summative PDI score and scores for each PDI item are reported on the Patient Specific Report.

Evidence supports the reliability and validity of the PDI as a brief measure of pain-related disability.³ The interpretation of change score depends on PDI baseline score. For example, in a recent study, the authors reported that patients with a PDI baseline score of ≤ 27 should decrease minimal 7 points, patients with a baseline score between 28 and 42 should decrease minimal 15 points, and patients with a baseline score ≥ 43 should decrease minimal 20 points.¹

Instructions:

Please select the number on the scale which describes the level of disability you have experienced in each area OVER THE PAST WEEK. Select "0" if a category does not apply to you.

Questions:

1. Family/Home Responsibilities: This category refers to activities related to the home or family. It includes chores or duties performed around the house (e.g. yard work, house cleaning) and errands or favors for other family members (e.g. driving the children to school).
2. Recreation: This category includes hobbies, sports, and other similar leisure time activities.
3. Social Activity: This category refers to activities which involve participation with friends and acquaintances other than family members. It includes parties, theater, concerts, dining out, and other social functions.
4. Occupation: This category refers to activities that are a part of or directly related to one's job. This includes non--paying jobs as well, such as housewife or volunteer worker.
5. Sexual Behavior: This category refers to the frequency and quality of one's sex life.
6. Self-Care: This category includes activities which involve personal maintenance and independent daily living (e.g. taking a shower, driving, getting dressed).
7. Life-Support Activity: This category refers to basic life--supporting behaviors such as eating and sleeping



Patient response options:

0 (no disability) to 10 (worst disability)

Available in all care types.

References:

1. Beemster T et al. The interpretation of change score of the pain disability index after vocational rehabilitation is baseline dependent. *Health and Quality of Life Outcomes* 2018;16: <https://doi.org/10.1186/s12955-018-1000-1>
2. Pollard CA. Preliminary validity study of the pain disability index. *Percept Mot Skills*. 1984;59(3): 974.
3. Tait RC et al. The Pain Disability Index: psychometric properties. *Pain* 1990;40:171-182.

Pain Module

The Pain Module consists of 7 multi-factorial pain domains:

- Pain Intensity
- Pain Constancy
- McGill Short Forms
- Activities that increase pain
- Activities that decrease pain
- Pain at Night
- Body Diagram

The clinic in the Administrative settings may select which mini-module(s) will be administered. All or any one of the mini-modules may be selected.

Similar to the optional survey “ Level of Pain Last 24 Hours,” it is important to recognize that the patient’s pain ratings maybe influenced by the patient’s perception of threat and fear of pain in the absence of tissue damage.¹ Therefore, clinical caution is required when interpreting pain solely from a biomedical viewpoint. Both physical and psychosocial factors should be assessed in order to accurately interpret pain. In many cases, especially for patients experiencing chronic musculoskeletal pain the role of the clinician is not to fix the problem but to act as a coach working closely with the patient to return to function while controlling pain.^{2,3} Evidence recommends the following treatments for clinicians managing chronic musculoskeletal pain: 1) de-medicalizes the patient’s pain, 2) differentiates pain & suffering, and 3) incorporates pain neuroscience education with multi-modal interventions including exercise and graded exposure to physical activities using a cognitive behavioral approach.⁴

References:

1. [Home / Healthcare professionals / Pain Management: Roadmap to Revolution – Steven Z. George – 21st John H.P. Maley Lecture. 2016](#)
2. Lee TH. Zero pain is not the goal. JAMA. 2016; 315(15):1575-1577
3. Nijs J, Roussel N, van Wilgen CP, Köke A, Smeets R. Thinking beyond muscles and joints: therapists’ and patients’ attitudes and beliefs regarding chronic musculoskeletal pain are key to applying effective treatment. Man Ther. 2013;18:96-102.
4. Vlaeyen JWS and Morley S. Cognitive-Behavioral Treatments for Chronic Pain: What Works for Whom? Clin J Pain 2005;21:1-8.

Domains:

1. Intensity

Rate the level of pain you have had in the past 24 hours.

- Over the past month, how would you rate your pain when it was the best?
- Over the past month, how would you rate your pain when it was the worst?

Patient response options:

For each Intensity question, the patient is presented with a 0-10 rating scale with 0 defined as “No Pain” and 10 as “Pain as bad as it can be.”

2. Constancy

Is your pain constant?

- Yes
- No

If response to Constancy question is No – Please select:

the percentage of time you experienced pain in the past 24 hours? 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 10%, or None

Select the number of days over the past week you experienced this pain. i.e., 7, 6, 5, 4, 3, 2, 1, or None

Enter the number of weeks you have had this pattern of pain. (number pad presented)

3. McGill Short Form Quality:

Select the qualities of your pain:

- Throbbing
- Shooting
- Stabbing
- Sharp
- Cramping

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- Gnawing
- Hot-Burning
- Aching
- Heavy
- Tender
- Splitting
- Tiring--Exhausting
- Sickening
- Fearful
- Punishing-cruel

For each response on the quality of pain, the patient is asked – Please rank the quality of your [quality] pain.

- Severe
- Moderate
- Mild

4. Activities that increase pain

Select all of the activities that increase your pain.

- Laying
- Sleeping
- Walking
- Running
- Lifting
- Pushing or pulling
- Gripping
- Lifting overhead
- Rest

- Other
- None

5. Activities that decrease pain

Select all the activities that reduce your pain

Bending

Sitting

Standing

Laying

Sleeping

Walking

Running

Lifting

Pushing or pulling

Gripping

Lifting overhead

Rest

Other

None

6. Pain at Night

Does pain keep you awake or wake you at night?

Always

Sometimes

Never

Caution: The question “Pain at night” has also been identified as one of 23 screening items for red flags.¹ If the patient reports that pain always keeps him or her awake, additional red flag screening is recommended.

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Reference:

1. George SZ et al. Development of a Review-of-Systems Screening Tool for Orthopaedic Physical Therapists: Results From the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. JOSPT 2015;512-526.

7. Body Diagram

Body diagrams are used to document symptoms and can also serve as a proxy to assess psychological influence.² The clinical utility of body diagrams with low symptom distribution may be improved by concomitant assessment of distress such as pain catastrophizing.¹

References:

1. Rhon DI et al. Unique Contributions of Body Diagram Scores and Psychosocial Factors to Pain Intensity and Disability in Patients With Musculoskeletal Pain. JOSPT 2017;47:88-96.
2. Ransford AO et al. The pain drawing as an aid to the psychologic evaluation of patients with low back pain. Spine 1976;1:127-134.

The areas selected on the Body Diagram are reported as text on the Patient Specific Report (PSR). In addition, if designated by the clinic's FOTO administrator, a graphical depiction of the body map/diagram may also be displayed on the PSR.

Please select the area(s) where you are experiencing pain.

Available in all care types.

Patient Acceptable Symptom State (PASS)

The Patient Acceptable Symptom State (PASS) is a single item that asks the patient whether their current state is acceptable. It supports the goal of incorporating patient perspectives into research and clinical decision-making. The PASS is recommended for use in compliment to the primary patient-reported outcome measure of function and it's established properties such as the FOTO Functional Status Change scores, the FOTO Risk-Adjusted Predicted Change scores and, when available, the minimal clinically important improvement (MCII or MCID) values for each FOTO measure.

Different versions of the wording for the PASS exist in the literature.¹⁻⁴ This version was recommended by the Outcome Measures in Rheumatoid Arthritis Clinical Trials (OMERACT) special interest group² as the preferred condition-general wording: Taking into account all you have to do during your daily life, your level of pain, and your functional impairment, do you consider that your current state is satisfactory? Given that complete consensus about the wording has yet to be reached in the literature, a small modification was made by breaking up the question into 2 sentences for the purposes of reducing the reading level.

Question:

Take into account all you have to do during your daily life, your level of pain, and your functional impairment. Do you consider that your current state is satisfactory?

If selected, the PASS item will be administered at each Status assessment. There is no scoring. The PASS is a single question with response options of yes and no.

Available in all care types.

References:

1. Christie A, Dagfinrud H, Garratt. AM, et al. Identification of shoulder-specific patient acceptable symptom state in patient with rheumatic diseases undergoing shoulder surgery. J Hand Ther. 2011;24:53-61
2. Dougados M, Luo MP, Maksymowych WP, et al. Evaluation of the patient acceptable symptom state as an outcome measure in patients with ankylosing spondylitis: data from a randomized controlled trial. Arthritis & Rheumatism. 2008;59(4):553-560.

3. Kavcheck AJE, Cook C, Hegedus EJ, Wright AA. Identification of cut-points in commonly used hip osteoarthritis-related outcome measures that define the patient acceptable symptom state (PASS). *Rheumatol Int.* 2013;33:2773-2782.
4. Tubach F, Ravaud P, Beaton D, Boers M, Bombardier C, Felson DT, et al. Minimal clinically important improvement and patient acceptable symptom state for subjective outcome measures in rheumatic disorders. *J Rheumatol* 2007;34:1188–93.

Patient History (Full)

This module is the full patient history survey asking the patient about their medical history and may be used to supplement the clinical interview documentation. The number of questions may vary between 16 – 25+ depending on the patient responses. The Patient History survey is also available in a short version I.e., Patient History (Short) described below.

The results of patient responses are reported on the Patient Specific Report (PSR). In addition to that, blanks are available on the PSR for free-text comments to be entered by the clinician for:

prescription drug names

non-prescription drug names

Religious or cultural practices

Special diet requirements

Up to 4 patient goals may be entered

Onset / History of illness may be entered.

Note: Other health problems (medical comorbidities are documented in the FOTO survey at admission for all patients).

Questions:

Personal habits influence your treatment, please select your current or past habits:

Smoking

Alcohol

Substance abuse

Other

None

Please select the highest level of education you have completed:

Grade School

1st Grade,

2nd Grade,

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3rd Grade,

4th Grade,

5th Grade,

6th Grade,

7th Grade,

8th Grade

High School

9th Grade,

10th Grade,

11th Grade,

12th Grade

College

1 Year, 2 Years, 3 Years, 4 Years, 5 or more years

Post College

1 Year, 2 Years, 3 Years, 4 Years, 5 or more years

What is your preferred learning style?

Verbal

Reading

Doing

Watching

None of the above

Please select the description of your living situation:

I live at home alone

I live at home with my spouse

I live at home with my spouse and kids

I live at home with others

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I live in a community housing such as an assisted living facility

Other

Do you have any religious or cultural practices that we should know about?

Yes

No

Do you have any special diet that we should know about?

Yes

No

Have you recently had a significant change in your weight?

Yes

No

[If yes] Regarding your weight change, was it a...

Gain

Loss

No

Is your current problem the result of an accident?

Yes

No

[If the answer above is Yes] – Please select the type of accident:

Automobile

Work

Home

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Other

[If response to accident question is Yes] – Please give the date of your accident: __/__/____

What testing have you had for this problem?

X--Rays

MRI

CT Scan

Myelogram

None

[For each of the above selected tests, the patient is asked:] What were you told about the results of (selected test)?

Nothing

There was a problem

There was nothing wrong

What treatment have you had for this problem?

Physical Therapy

Occupational Therapy

Speech Therapy

Chiropractic

Surgery

Acupuncture

None

[For each of the above selected treatments, the patient is asked:] After the (selected treatment) were you...

Worse

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Same

Better

What prescription medications are you taking for this problem?

Pain killer

Muscle relaxer

Antibiotic

Anti--Inflammatory

Unknown

Other

None

What non--prescription medicine are you taking for this problem?

Aspirin

Ibuprofen

Antacid

Other

None

Since your problem began, describe the current trend of the most prominent symptoms:

Getting worse

Staying the same

Getting better

Please mark all of the symptoms you are experiencing.

Pain

Swelling

Paralysis

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Tingling

Numbness

Other

None of the above

When are you scheduled to see the doctor who referred you here for treatment?

[Number pad to input date of appointment.] If date is not known, Touch to Continue may be selected.

(Female Only)

Are you pregnant?

Yes

No

How many children have you delivered?

[Number pad response]

Available in all care types.

Patient History (SHORT)

The Patient History (Short) is an abbreviated 8-item survey. If it is designated by the administrator, it will be administered when the user selects Patient History from the Secondary Measures list upon setting up a patient episode. To designate the Patient History (Short), access your Administrator settings >> Company Details page >> Core Survey Options.

Note: Other health problems (medical comorbidities are documented in the FOTO survey at admission for all patients).

Questions:

1. Personal habits influence your treatment; please select your current or past habits:

Smoking

Alcohol

Substance abuse

Other

None

2. What is your preferred learning style? Select as many as you choose.

Verbal

Reading

Doing

Watching

3. Do you have any religious or cultural practices that we should know about?

Yes

No

4. Do you have any special diet that we should know about?

Yes

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No

5. What prescription medications are you taking for this problem?

Pain killer

Muscle relaxer

Antibiotic

Anti--Inflammatory

Unknown

Other

None

6. What non--prescription medicine are you taking for this problem?

Aspirin

Ibuprofen

Antacid

Other

None

7. Since your problem began, describe the current trend of the most prominent symptoms:

Getting worse

Staying the same

Getting better

8. Please mark all of the symptoms you are experiencing.

Pain

Swelling

Paralysis

Tingling

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Numbness

Other

Available in all care types.

Patient Satisfaction

This module is defaulted as on, but users may opt to disable it in the Administrative settings. It forms the basis for benchmarked rankings.

Questions

1. Based on your experience at this facility, select which response you would give to a friend, "I was..."
2. Based on your experience at this facility, how satisfied were you with information you were given about your condition?
3. Based on your experience at this facility, how satisfied were you with the amount of your input in setting treatment goals?
4. How satisfied were you with the availability of convenient appointments at this facility?
5. How satisfied were you with access to this facility location?
6. Based on your experience at this facility, how satisfied were you with the level of courtesy and respect shown to you?
7. Based on your experience at this facility, how satisfied were you with treatments for your condition?
8. How satisfied were you with overall results of your treatment at this facility?

Response options

Very Satisfied

Somewhat Satisfied

Neither Satisfied nor Dissatisfied

Somewhat Dissatisfied

Very Dissatisfied

The FOTO patient satisfaction survey has not been published but many of the satisfaction questions are commonly found in many other satisfaction surveys. In addition, clinicians report that this satisfaction survey is feasible and efficient to administer. Survey results are useful to assess patients' satisfaction with clinic facility, staff, and treatments rendered.

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Patient Satisfaction Free Text Comments

This option provides patients with a 250-character free text box to enter comments about their satisfaction. The patient's free text entry will be shown on the Patient Specific Report.

Available in all care types.

Patient Specific Functional Scale (PSFS)

When the PSFS² is selected, the patient will be asked at Intake to identify 3 activities “that you are unable to do or have difficulty with because of your problem.” For each activity, the patient is asked to rate the difficulty on a scale from 0 (unable to perform) to 10 (able to perform at prior level). Time to complete the PSFS is on average < 4 minutes.¹ At Status, the patient is presented with each identified activity and asked to rate their present difficulty level on the 0 to 10 scale. The MDC of the PSFS has been found to range between 1.0 and 2.5 PSFS points.¹ Stratford et al reported for patients with chronic low back pain, the average PSFS MCID scores for 3 activities is 0.8 (“small change”), 3.2 (“medium change”), and 4.3 (“large change”).² Published MDC and MCID values vary by impairment type.^{1,3}

PSFS instructions and patient responses:

Please list 3 important activities that you are unable to do, or with which you are having considerable difficulty, as a result of the problem that brings you to this clinic.

Available in all care types.

PHQ-2 (Patient Health Questionnaire)

The PHQ-2 (Patient Health Questionnaire) is a 2-item screening tool which asks the patient about the frequency of depressed mood and inability to enjoy previously pleasurable activities over the past two weeks.¹ It contains the first two items of the PHQ-9. The PHQ-2 can be administered to patients 12 years and older. The PHQ-2 is a validated yellow flag screening measure to identify patients experiencing depressive symptoms.

Questions:^{1,4}

Over the past two weeks, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things?
2. Feeling down, depressed, or hopeless?

Patient response options:

Not at all

Several days

More than half the days

Nearly every day

Interpretation:

Scores are calculated using a summative scoring method and score results reported on the Patient Specific Report range between 0-6/6. Higher scores indicate higher depressive symptoms.

While the Kroenke et al ¹ identified a PHQ-2 cutoff score of 3 as the optimal cut point for screening purposes in a primary care setting, the authors further stated that a cut point of 2 would enhance sensitivity, whereas a cut point of 4 would improve specificity. A score of 3 was shown to have 82.9% sensitivity, whereas a score of 2 had a 92.7% sensitivity.¹ For reasons of clinical interpretation, the clinician should be aware that a higher sensitivity is particularly valuable for screening purposes since it indicates the level of confidence in ruling out a condition.

Treatment monitoring

Initial psychosocial risk level assessments observed during the initial evaluation should not be over-interpreted. Serial risk assessments at different points during the episode of care are recommended for

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treatment monitoring.³ Evidence suggests treatment monitoring should begin within the first 2 weeks after the initial evaluation.³ Serial assessments using the PHQ-2 are important to identify patients who may continue to be at increased risk for poor outcomes and who may require additional psychosocial screening or prompt a referral to healthcare specialists trained in managing patients with recalcitrant psychosocial issues. Reductions in baseline depressive symptoms and risk during the episode of care are observed when patients are treated by physical therapists skilled in managing patients with chronic pain conditions.²

Available in all care types.

References

1. Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener. *Med Care*. 2003;(41):1284-1294.
2. Werneke MW et al. Change in Psychosocial Distress Associated With Pain and Functional Status Outcomes in Patients With Lumbar Impairments Referred to Physical Therapy Services. *JOSPT* 2011;41:969-980.
3. Werneke MW et al. Associations between interim patient-reported outcome measures and functional status at discharge from rehabilitation for non-specific lumbar impairments. *Qual Life Res* 2019. <https://doi.org/10.1007/s11136-019-02314-6>
4. Whooley MA, Avins AL, Miranda J, Browner WS. Case-finding Instruments for Depression: Two Questions Are as Good as Many. *J Gen Intern Med*. 1997;12:439-445.

PHQ-9 (Patient Health Questionnaire)

The PHQ-96 is a patient self-report version of the PRIME-MD diagnostic instrument for common mental disorders.¹ The PHQ-9 is the depression module, which scores each of the nine DSM-IV criteria as "0" (not at all) to "3" (nearly every day). It has been validated for use in primary care.^{4,5}

The PHQ-9 (Patient Health Questionnaire) is not intended to be used as a yellow flag screening tool but intended for use by medical physicians for diagnosis and monitoring of depression. This measure may also be used in multi-disciplinary or pain management rehabilitation facilities to monitor the severity of depression and monitor response to treatment in at-risk populations.^{2,3}

CAUTION:

If the patient's response to PHQ question # 9 is either several days, more than half of days, or everyday which asks about suicidal ideation, be prepared to implement your organization's policy for such a scenario, such as an immediate call to the patient's referring physician or immediate referral to a mental health specialist.

Questions:

Over the last two weeks, how often have you been bothered by:

1. Little interest or pleasure in doing things?
2. Feeling down, depressed, or hopeless?
3. Trouble falling or staying asleep, or sleeping too much?
4. Feeling tired or having little energy?
5. Poor appetite or overeating?
6. Feeling bad about yourself - or that you are a failure or have let yourself or your family down?
7. Trouble concentrating on things, such as reading the newspaper or watching television?
8. Moving or speaking so slowly that other people could have noticed?
Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual?
9. Thoughts that you would be better off dead, or of hurting yourself in some way?

Patient response options:

Not at all

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Several days

More than half the days

Nearly every day

Interpretation:

Scores are calculated using a summative scoring method and score results reported on the Patient Specific Report range between 0-27/27. Higher scores indicate higher depression.

None: scores 0-4

Mild: scores 5-9

Moderate: scores 10-14

Moderately severe: scores 15-19

Severe: scores > 19/27

Validity has been assessed against an independent structured mental health professional (MHP) interview.^{4,5} PHQ-9 score ≥ 10 had a sensitivity of 88% and a specificity of 88% for major depression.¹

Available in all care types.

References

1. Cameron IM, Crawford JR, Lawton K, et al; Psychometric comparison of PHQ-9 and HADS for measuring depression severity in primary care. Br J Gen Pract. 2008 Jan;58(546):32-6. doi: 10.3399/bjgp08X263794.
2. de Man-van Ginkel JM, Gooskens F, Schepers VP, et al; Screening for poststroke depression using the patient health questionnaire. Nurs Res. 2012 Sep-Oct;61(5):333-41.
3. Haddad M, Walters P, Phillips R, et al; Detecting depression in patients with coronary heart disease: a diagnostic evaluation of the PHQ-9 and HADS-D in primary care, findings from the UPBEAT-UK study. PLoS One. 2013 Oct 10;8(10):e78493. doi: 10.1371/journal.pone.0078493.
4. Kroenke K, Spitzer RL, Williams JB; The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. 2001 Sep;16(9):606-13.
5. Maurer DM; Screening for depression. Am Fam Physician. 2012 Jan 15;85(2):139-44.
6. <http://patient.info/doctor/patient-health-questionnaire-phq-9>

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Pelvic Floor Distress Inventory (PFDI) - 20

The Pelvic Floor Distress Inventory -Short Form 20¹ is a patient self-report survey in which the patient is asked about twenty symptoms and much the symptoms impact the patient.

(Note: This is a different measure from the “FOTO PFDI” which stands for Pelvic Floor Dysfunction Index. The FOTO PFDI is a static, 6-item measure administered as part of a standard pelvic floor assessment in FOTO. For more information, contact support@fotoinc.com.)

Scores are reported as a Summary score (0-300 scale) and 3 sub-scales (0-100):

Pelvic Organ Prolapse Distress Inventory (POPDI -6)

Colorectal-Anal Distress Inventory (CRAD-8)

Urinary Distress Inventory (UDI-6)

Summary Score: higher scores indicate great distress due to symptoms.

Questions:

Note: For each question that the patient answers “yes” to experiencing the symptom, “If yes, how much does it bother you?” is also asked.

1. Do you usually experience pressure in the lower abdomen?
2. Do you usually experience heaviness or dullness in the pelvic area?
3. Do you usually have a bulge or something falling out that you can see or feel in your vaginal area?
4. Do you ever have to push on the vagina or around the rectum to have or complete a bowel movement?
5. Do you usually experience a feeling of incomplete bladder emptying?
6. Do you ever have to push up on a bulge in the vaginal area with your fingers to start or complete urination?
7. Do you feel the need to strain too hard to have a bowel movement?
8. Do you feel you have not completely emptied your bowels at the end of a bowel movement?
9. Do you usually lose stool beyond your control if your stool is well formed?
10. Do you usually lose stool beyond your control if your stool is loose?
11. Do you usually lose gas from the rectum beyond your control?

12. Do you usually have pain when you pass your stool?
13. Do you experience a strong sense of urgency and have to rush to the bathroom to have a bowel movement?
14. Does part of your bowel ever pass through the rectum and bulge outside during or after a bowel movement?
15. Do you usually experience frequent urination?
16. Do you usually experience urine leakage associated with a feeling of urgency, that is, a strong sensation of needing to go to the bathroom?
17. Do you usually experience urine leakage related to coughing, sneezing, or laughing
18. Do you usually experience small amounts of urine leakage (that is, drops)?
19. Do you usually experience difficulty emptying your bladder?
20. Do you usually experience pain or discomfort in the lower abdomen or genital region?

Patient response options:

For questions regarding if a patient is experiencing a symptom.

No

Yes

Regarding how much symptoms the patient is experiencing both the patient,

Not at all

Somewhat

Moderately

Quite a bit

Available in the Pelvic Floor care type.

Reference:

1. M.D. Barber, MD, MHS, M.D. Walters, MD, R.C. Bump, MD. Short forms of two condition--specific quality--of--life questionnaires for women with pelvic floor disorders (PFDI--20 and PFIQ--7). American Journal of Obstetrics and Gynecology 2005; 193: 103--13.

Pelvic Floor Impact Questionnaire (PFIQ) - 7

The Pelvic Floor Impact Questionnaire -Short Form 7¹ is a patient self-report survey in which the patient is asked how much the symptoms related to urinary or bladder impairment have impacted functional activities over the last three months.

PFIQ-7 is made up of scores from scales: UIQ--7, CRAIQ-7, POPIQ-7. Each scale is scored separately and as part of a composite score. The range of scores is 0 -100, with the composite score ranging 0-300, and higher scores indicate greater impact of symptoms.

Questions:

Over the last 3 months, how do symptoms or conditions related to your bladder or urine usually affect your:

2. Ability to do household chores (cooking, cleaning, laundry)?
3. Ability to do physical activities such as walking, swimming, or other exercise?
4. Entertainment activities such as going to a movie or concert?
5. Ability to travel by car or bus for a distance greater than 30 minutes away from home?
6. Participating in social activities?
7. Emotional health (nervousness, depression, etc.)?
8. Feeling frustrated?

Patient response options:

Not at all

Somewhat

Moderately

Quite a bit

Available in the Pelvic Floor care type.

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1. M.D. Barber, MD, MHS, M.D. Walters, MD, R.C. Bump, MD. Short forms of two condition--specific quality--of--life questionnaires for women with pelvic floor disorders (PFDI--20an d PFIQ--7). American Journal of Obstetrics and Gynecology 2005; 193: 103--13.

Pelvic Floor Prolapse/Urinary Incontinence Sexual Functioning Questionnaire (PISQ-12)

The Pelvic Floor Prolapse / Urinary Incontinence Sexual Function Questionnaire (PISQ-12)¹ measures sexual function related to incontinence or pelvic organ prolapse. The range of scores is 0 - 48, and a lower score is better.

Questions:

2. How frequently do you feel sexual desire? This feeling may include wanting to have sex, planning to have sex, feeling frustrated due to lack of sex, etc.
3. Do you climax (have an orgasm) when having sexual intercourse with your partner?
4. Do you feel sexually excited (turned on) when having sexual activity with your partner?
5. How satisfied are you with the variety of sexual activities in your current sex life?
6. Do you feel pain during sexual intercourse?
7. Are you incontinent of urine (leak urine) with sexual activity?
8. Does fear of incontinence (either stool or urine) restrict your sexual activity?
9. Do you avoid sexual activity because of bulging in the vagina (the bladder, rectum or vagina falling out)?
10. When you have sex with your partner, do you have negative emotional reactions such as fear, disgust, shame or guilt)?
11. Does your partner have a problem with erections that affects your sexual activity?
12. Does your partner have a problem with premature ejaculation that affects your sexual activity?
13. Compared to orgasms you have had in the past, how intense are the orgasms you have had in the last six months?

Patient response options questions #1-11:

Always

Usually

Sometimes

Seldom

Patient response options question #12:

Much less intense

Less intense

Same intensity

More intense

Never

Available in the Pelvic Floor care type.

Reference:

1. Rogers, R., Coates, K., Kammerer-Doak, D., Qualls, C. A short form of the Pelvic Organ Prolapse / Urinary Incontinence Sexual Questionnaire (PISQ--12). *Int Urogynecol J*(2003) 14: 164 – 168.

PROMIS – background

PROMIS® is an NIH-funded initiative to develop and validate patient reported outcome measures (PROMs).¹ PROMIS stands for Patient Reported Outcomes Measurement Information System, which is a system of highly reliable, precise measures of patient–reported health status for physical, mental, and social well–being. PROMIS® measures assesses what patients are able to do and how they feel by asking a number of questions.

PROMIS scores will be reported as T-scores where the mean is 50 and the standard deviation is 10. Therefore, a person with a T-score of 40 is one SD below the mean. For PROMIS measures such as the Physical Function measure, a score of 50 is the average for the United States general population with a standard deviation of 10 because calibration testing was performed on a large sample of the general population. For example, for positively worded PROMIS tools such as Physical Function, a higher PROMIS T-score represents more of the concept being measured. A physical function T-score of 40 is one SD worse than average and T-score of 60 is one SD above average.

References:

1. Cella D et al. The Patient-Reported Outcomes Measurement Information System (PROMIS): Progress of an NIH Roadmap Cooperative Group During its First Two Years. *Med Care* 2007;45:S3-S11.

PROMIS Cognitive Function

The PROMIS Cognitive Function is an item response theory-based measure that assesses patient- (or proxy-) perceived cognitive function.¹ Facets include mental acuity, concentration, verbal and nonverbal memory, verbal fluency, and perceived changes in these cognitive functions. The extent to which cognitive impairments interfere with daily functioning, and the impact of cognitive dysfunction on quality of life are also assessed.

The 8-item short form version of the PROMIS Cognitive Function v 2.0 is provided as both a Speech primary measure and a secondary measure in FOTO. The 8-items (questions) are from the full item bank of 32 items. If the patient is unable to answer the questions independently, when using the FOTO Outcome Management system, be sure to register Proxy or Recorder on the Episode Details page.

Questions:

In the past 7 days:

1. My thinking has been slow
2. It has seemed like my brain was not working as well as usual
3. I have had to work harder than usual to keep track of what I was doing
4. I have had trouble shifting back and forth between different activities that require thinking
5. I have trouble concentrating
6. I have had trouble forming thoughts
7. I have had trouble adding or subtracting numbers in my head
8. I have had to work really hard to pay attention or I would make a mistake

Response options:

Never

Rarely (Once)

Sometimes (Two or three times)

Often (About once a day)

Very often (Several times a day)

Score interpretation:

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The possible range of T-scores is for the PROMIS Cognitive Function 8-item short form is approximately 23 to 64.

References:

1. The PROMIS Cognitive Function Scoring Manual, 6/25/2019
2. Healthmeasures.net

PROMIS Global Health

The PROMIS Global Health short form version 1.1 contains 10 questions assessing multiple domains.¹

Questions and patient response options:

1. In general, would you say your health is:

- Excellent
- Very good
- Good
- Fair
- Poor

2. In general, would you say your quality of life is:

- Excellent
- Very good
- Good
- Fair
- Poor

3. In general, how would you rate your physical health?

- Excellent
- Very good
- Good
- Fair
- Poor

4. In general, how would you rate your mental health, including your mood and your ability to think?

- Excellent

- Very good
 - Good
 - Fair
 - Poor
5. In general, how would you rate your satisfaction with your social activities and relationships?
- Excellent
 - Very good
 - Good
 - Fair
 - Poor
6. To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?
- Completely
 - Mostly
 - Moderately
 - A little
 - Not at all
7. In the past 7 days, how would you rate your pain on average?
- (Response options are presented as 0-10 rating scale with 0 defined as No Pain and 10 as Worst Imaginable Pain.)
8. In the past 7 days, how would you rate your fatigue on average?
- None
 - Mild
 - Moderate
 - Severe

- Very severe
9. In the past 7 days, In general, please rate how well you carry out your usual social activities and roles? (This includes activities at home, at work and in your community, and responsibilities as a parent, child, spouse, employee, friend, etc.)
- Excellent
 - Very good
 - Good
 - Poor
 - Never
10. In the past 7 days, how often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?
- Rarely
 - Sometimes
 - Often
 - Always

Interpretation:¹⁻³

When all questions are answered by the patient, the PROMIS Global Health results printed on the Patient Specific Report include 6 scores:

1. Physical Health T-score from questions 3, 6, 7, and 8 above
2. Mental Health T-score from questions 2, 4, 5, and 10 above
3. Physical Health Raw Score. This score is considered normal if > 13
4. Mental Health Raw Score – this score is considered normal if > 11.
5. Global Health = patient response to question #1 above i.e., excellent, very good, good, fair poor.
6. Satisfaction with Social Roles = patient response to question #9 above i.e.,

Available in all care types.

References:

1. PROMIS Network. Scoring PROMIS Global Short Form. Scoring PROMIS Global Short Form manual (12/16/10). Available at <http://www.nihpromis.org/software/assessmentcenter>.
2. Hays RD, Bjorner J, Revicki RA, Spritzer KL, Cella D. Development of physical and mental health summary scores from the Patient Reported Outcomes Measurement Information System (PROMIS) global items. *Qual Life Res.* 2009;18(7):873-880.
3. Weaver KE, Forsythe LP, Reeve BB, et al. Mental and physical health-related quality of life among U.S. cancer survivors: population estimates from the 2010 national health interview survey. *Cancer Epidemiol Biomarkers Prev.* 2012;21(11):2108-2117.

PROMIS Pain Interference

The PROMIS Pain Interference item banks assess self-reported consequences of pain on relevant aspects of one's life.¹ This includes the extent to which pain hinders engagement with social, cognitive, emotional, physical, and recreational activities. Pain Interference also incorporates items probing sleep and enjoyment in life, though the item bank only contains one sleep item. The pain interference questions are universal rather than condition-specific. All assess pain interference over the past seven days.

The PROMIS Pain Interference Adult version 1.0 short form 6b is provided in FOTO. The 6-items (questions) are from the full item bank of 40 items. If the patient is unable to answer the questions independently, when using the FOTO Outcome Management system, be sure to register Proxy or Recorder on the Episode Details page.

Instructions:

In the past 7 days

Questions:

1. How much did pain interfere with your enjoyment of life?
2. How much did pain interfere with your day-to-day activities?
3. How much did pain interfere with your ability to concentrate?
4. How much did pain interfere with your enjoyment of recreational activities?
5. How much did pain interfere with doing your tasks away from home (e.g., getting groceries, running errands)?
6. How often did pain keep you from socializing with others?

Patient response options:

- Very much Always
- Quite a bit Often
- Somewhat Sometimes
- A little bit Rarely

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- Not at all Never

Score interpretation:

A higher PROMIS T-score represents more of the concept being measured. For negatively-worded concepts like pain interference, a T-score of 60 is one SD worse than average. By comparison, a pain interference T-score of 40 is one SD better than average. The possible range of T-scores is for the Pain Interference Adult version 1.0 short form 6b is approximately 41 to 78, and the Standard Error ranges across the scale from approximately 2 to 6.

Available in all care types.

References:

1. The PROMIS Pain Interference Scoring Manual, 2/28/2019
2. www.healthmeasures.net

PROMIS Pediatric Mobility

This measure may be selected as either a Secondary Measure or in the Pediatric care type as a Primary Measure. It focuses on activities of physical mobility such as getting out of bed or a chair to activities such as running. It was developed for use with individuals aged 5-17 although clinicians may choose to use it with different ages when the question content is clinically relevant.¹ It is provided in the short form 8a administration mode. [IRT-based item banks may be administered to patients using either computer adaptive test (CAT) or short form modes.] The 8 items were selected from the full PROMIS Pediatric Mobility which contains 24 items.

If the patient is unable to respond independently, such as for younger ages, or is uncomfortable responding, a parent or guardian may respond on the patient's behalf; be sure to register Proxy or Recorder on the Episode Details page.

Instructions:

In the past 7 days

Questions:

1. I could do sports and exercise that other kids my age could do.
2. I could get up from the floor
3. I could keep up when I played with other kids
4. I could move my legs
5. I could stand up by myself.
6. I could stand up on my tiptoes
7. I could walk up stairs without holding on to anything.
8. I have been physically able to do the activities I enjoy most.

Patient response options:

With no trouble

With a little trouble

With some trouble

With a lot of trouble

Not able to do

Score interpretation:

A higher PROMIS T-score represents more of the concept being measured. Thus, for this positively worded concept like Pediatric Mobility, the T-score of 60 is one SD better than average, and a T-score of 40 is one SD worse than average. The possible range of T-scores for this pediatric mobility measure is 14-59. The Standard Error for scores using the PROMIS Pediatric Mobility short form ranges from approximately 3 to 7 points across the scale.

Available in Neurological, Orthopedic, and Pediatric care types.

References:

1. PROMIS Physical Function Scoring Manual 7/18/2019
2. Healthmeasures.net

PROMIS Pediatric Upper Extremity

This measure may be selected as either a Secondary Measure or in the Pediatric care type as a Primary Measure. It focuses on activities that require use of the upper extremity (shoulder, arm, and hand) such as writing, using buttons, or opening containers.¹ It was developed for use with individuals aged 5-17 although clinicians may choose to use it with different ages when the question content is clinically relevant. It is provided in a short form 8a administration mode. [IRT-based item banks may be administered to patients using either computer adaptive test (CAT) or short form modes.] The 8 items were selected from the full PROMIS Pediatric Upper Extremity which contains 34 items.

If the patient is unable to respond independently, such as for younger ages, or is uncomfortable responding, a parent or guardian may respond on the patient's behalf; be sure to register Proxy or Recorder on the Episode Details page.

Instructions:

In the past 7 days

Questions:

1. I could button my shirt or pants.
2. I could open a jar by myself.
3. I could open the rings in school binders.
4. I could pour a drink from a full pitcher
5. I could pull a shirt on over my head by myself
6. I could pull open heavy doors.
7. I could put on my shoes by myself.
8. I could use a key to unlock a door

Patient response options:

With no trouble

With a little trouble

With some trouble

With a lot of trouble

Not able to do

Score interpretation:

A higher PROMIS T-score represents more of the concept being measured. Thus, for a positively worded concept like Upper Extremity (physical function), a T-score of 60 is one SD better than average, and a T-score of 40 is one SD worse than average. The possible range of T-scores for this measure is 10-57. The Standard Error for scores using the PROMIS Pediatric Upper Extremity short form ranges from approximately 3 to 7 points across the scale.

Available in Neurological and Pediatric all care types. Also available in the Orthopedic care type for upper extremity body parts.

References:

1. PROMIS Physical Function Scoring Manual 7/18/2019
2. Healthmeasures.net

PROMIS Physical Function (PF)

The PROMIS Physical Function (PF) is an item response theory-based measure that assesses patient-perceived ability for physical activities.¹ This includes the functioning of one's upper extremities (dexterity), lower extremities (walking or mobility), and central regions (neck, back), as well as instrumental activities of daily living, such as running errands.

The PROMIS PF is available in FOTO for administration using computer adaptive testing. The PF item bank contains 165 functional questions (items).

Score interpretation:

A higher PROMIS T-score represents more of the concept being measured. For positively worded concepts like physical function, the higher the score, the better the physical function. The score is represented by the T-score, a standardized score with a mean of 50 and a standard deviation (SD) of 10. Thus, for Physical Function, a T-score of 60 is one SD better than average. By comparison a physical function T-score of 40 is one SD worse than average. The possible range of T-scores for the PROMIS Physical Function, administered via CAT, is 20-71.

References:

1. PROMIS Physical Function Scoring Manual 7/18/2019
2. Healthmeasures.net

PROMIS PF Upper Extremity (UE)

The PROMIS PF Upper Extremity (UE) is the same measure (score metric) as the PROMIS PF.¹ The only difference is that for the UE version, the item bank is limited to those items that pertain to the upper extremity. Some clinicians may prefer the PROMIS UE for their patients whose condition only affects the function of their upper extremities so that these patients don't have to answer questions that don't pertain to them.

If the patient is unable to answer the questions independently, when using the FOTO Outcome Management system, be sure to register Proxy or Recorder on the Episode Details page.

Score interpretation:

A higher PROMIS T-score represents more of the concept being measured. For positively worded concepts like PF UE, the higher the score, the better the upper extremity physical function. The score is represented by the T-score, a standardized score with a mean of 50 and a standard deviation (SD) of 10. Thus, for UE physical Function, a T-score of 60 is one SD better than average. By comparison a UE physical function T-score of 40 is one SD worse than average. The possible range of T-scores for the PROMIS PF UE, administered via CAT, is 15-61.

Available in the Orthopedic, Industrial, and pain management all care types for upper extremity body parts. Also available in Neurological and Cardiovascular and Pulmonary care types for all impairments.

References:

1. PROMIS Physical Function Scoring Manual 7/18/2019
2. Healthmeasures.net

PROMIS Sleep Disturbance

The PROMIS Sleep Disturbance is an item-response theory-based measure which assesses self-reported perceptions of sleep quality, sleep depth, and restoration associated with sleep.¹ The full item bank contains 27 items. While it is available as an 8-, 6-, and 4-item short form, for use in the FOTO system we selected the 4-item version for the purpose of reasonable precision and greater efficiency as a secondary outcome measure.

Instructions:

In the past 7 days

Questions:

1. My sleep was refreshing
2. I had a problem with my sleep.
3. I had difficulty falling asleep
4. My sleep quality was...

Patient response options:

Not at all Very poor

A little bit Poor

Somewhat Fair

Quite a bit Good

Very much Very good

Score interpretation:

In general, a higher PROMIS T-score represents more of the concept being measured. For negatively-worded concepts like Sleep Disturbance, a T-score of 60 is one SD worse than average. By comparison, a Sleep Disturbance T-score of 40 is one SD better than average. The Standard Error for scores using the 4 item short form range from approximately 3 to 5 points across the scale.

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Available in all care types.

For more information, visit healthmeasures.net and search for the PROMIS Sleep Disturbance in the Search and View measures section.

Reference: PROMIS Sleep Disturbance Scoring Manual 7/8/2015

MIPS Quality Process Measures

For providers who are participating in MIPS via claims-based reporting.

Measure 131, Pain Assessment Prior to Initiation of Patient Treatment and Follow Up

Description: Pain location, quality, and intensity will be assessed for patients who are 18 years of age or older and have the payment source Medicare B on the Patient Intake and Patient Status.

Questions:

Select the qualities of your pain:

Throbbing

Shooting

Stabbing

Sharp

Cramping

Gnawing

Hot--Burning

Aching

Heavy

Tender

Splitting

Tiring--Exhausting

Sickening

Fearful

Punishing--cruel

For each response on the quality of pain, the patient is asked – Please rank the quality of your (quality) pain.

Severe

Moderate

Mild



Please select the area(s) where you are experiencing pain.

[Includes a diagram of the body on which as many areas of pain as necessary may be selected.]

Available in all care types.

Measure 154, Falls Risk Assessment

Questions

Have you fallen in the last year?

Yes

No

If yes:

Did you sustain an injury from the fall?

Yes

No

Have you had 2 or more falls in the last year?

Yes

No

Referral

The Referral question may be activated in your Administrative Defaults to be asked of all patients or it can be selected during the patient set-up process.

Question:

Are you aware that you do not need a referral from your doctor to receive physical therapy treatment?

Patient Response Options:

Yes

No

Available in all care types.

Referral Source

The Referral Source question be activated in your Administrative Defaults to be asked of all patients or it can be selected during the patient set-up process.

Question:

How did you hear about us?

Patient response options (select all that apply):

Physician/Physician office

Friend or family member

Website

Social Media

Employer

Sporting event

School/Athletic trainer

Insurance provider

Other

If Other is selected another question “Please specify Other” is asked. A free text box (up to 250 characters) is displayed.

Available in all care types.

Rivermead Post-Concussion Symptoms Questionnaire (RPQ)

The Rivermead Post-Concussion Symptoms Questionnaire (RPQ) is a 16-item condition-specific measure for patients who have sustained a concussion or other form of traumatic brain injury.^{1,2} The purpose of the RPQ is to determine the presence and severity of symptoms related to these conditions. The RPQ was found to be reliable and appropriate for clinical use for screening adults for post-acute concussion symptoms.² In addition, recent research found that the RPQ is a reliable and valid patient self-report measure that can be used as a screening tool for individual assessment of long-term post-concussion symptoms in both traumatic brain trauma and orthopedic populations.¹

Questions:

The patient is asked rate the severity of 16 symptoms:

1. Headaches
2. Feelings of Dizziness
3. Nausea and/or Vomiting
4. Noise Sensitivity, easily upset by loud noise
5. Sleep Disturbance
6. Fatigue, tiring more easily
7. Being Irritable, easily angered
8. Feeling Depressed or Tearful
9. Feeling Frustrated or Impatient
10. Forgetfulness, poor memory
11. Poor Concentration
12. Taking Longer to Think
13. Blurred Vision
14. Light Sensitivity, Easily upset by bright light
15. Double Vision
16. Restlessness

Patient response options:

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Not experienced at all

No more of a problem

A mild problem

A moderate problem

A severe problem

Scoring:

Scores will range from 0 to 64 with a higher score indicating greater symptom severity.

Available in all care types.

References:

1. Bajalla S et al. Is the Rivermead Post-Concussion Symptoms Questionnaire a Reliable and Valid Measure to Assess Long-Term Symptoms in Traumatic Brain Injury and Orthopedic Injury Patients? A Novel Investigation Using Rasch Analysis. *Neurotrauma Reports* 2020;1: <https://doi.org/10.1089/neur.2020.0017>
2. King NS, Crawford S, Wenden FJ, Moss NE, Wade DT (Sep 1995). "The Rivermead Post Concussion Symptoms Questionnaire: A measure of symptoms commonly experienced after head injury and its reliability". *J. Neurol.* 242 (9): 587-92.

Roland Morris Disability Questionnaire (RMDQ)

The Roland-Morris Disability Questionnaire (RMDQ) is a patient self-report measure that assesses physical disability due to low back pain.³ It was developed using 24 items selected from the Sickness Impact Profile. The stem for these 24 items was changed to “because of my back pain.”

The scores range from 0 to 24 with higher scores indicating greater disability. If the patient answers Yes to an item a score of 1 is assigned. The total # of items with Yes = the total RMDQ score/24.

Evidence supports the RMDQ as a reliable and valid tool to assess the impact of LBP on physical functioning.¹ However, the RMDQ is a lengthy survey with increased patient response burden. To help reduce redundancy in administering multiple PROMs & physical activity questions for your patients, keep in mind that patients set up in the Orthopedic care type for low back pain conditions are administered the FOTO Lumbar Primary Measure using computer adaptive testing (LCAT). Evidence published by Hart et al² demonstrated the accuracy/precision of the LCAT scores while significantly reducing the patient’s time to answer all questions. The LCAT estimated time to complete <2 minutes

Instructions:

When your back hurts, you may find it difficult to do some of the things you normally do. People have used the following sentences to describe themselves when they have back pain. When you read them, you may find that some stand out because they describe you today. As you read each sentence, think of yourself today. When you read a sentence that describes you today, select Yes. If the sentence does not describe you, then select No. Remember, select Yes to the sentence if you are sure that it describes you today.

Questions:

1. I stay at home most of the time because of my back.
2. I change positions frequently to try and get my back comfortable.
3. I walk more slowly than usual because of my back.
4. Because of my back, I am not doing any of the jobs that I usually do around the house.
5. Because of my back, I use handrails to get upstairs.
6. Because of my back, I lie down to rest more often.
7. Because of my back, I have to hold on to something to get out of an easy chair.
8. Because of my back, I try to get other people to do things for me.
9. I get dressed more slowly than usual because of my back.

10. I only stand up for short periods of time because of my back.
11. Because of my back, I try not to bend or kneel down.
12. I find it difficult to get out of a chair because of my back.
13. My back is painful almost all the time.
14. I find it difficult to turn over in bed because of my back.
15. My appetite is not very good because of my back pain.
16. I have trouble putting on my socks (or stockings) because of the pain in my back.
17. I only walk short distances because of my back pain.
18. I sleep less well because of my back.
19. Because of my back pain, I get dressed with help from someone else.
20. I sit down for most of the day because of my back.
21. I avoid heavy jobs around the house because of my back.
22. Because of my back pain, I am more irritable and bad tempered with people than usual.
23. Because of my back, I go up stairs more slowly than usual.
24. I stay in bed most of the time because of my back.

Patient response options:

Yes (score = 1)

No (score = 0)

Available in the Orthopedic care type for Lumbar and Thoracic.

References:

1. Burbridge C et al. Measuring the impact of chronic low back pain on everyday functioning: content validity of the Roland Morris disability questionnaire. *Journal of Patient-Reported Outcomes* (2020) 4:70
<https://doi.org/10.1186/s41687-020-00234-5>
2. Hart DL, Stratford PW, Werneke MW, Deutscher D, Wang Y-C. Lumbar computerized adaptive test and modified Oswestry Low Back Pain Disability Questionnaire: relative validity and important change. *JOSPT* 2012;42(6):541-51.

3. Roland M, Fairbank J. The Roland-Morris Disability Questionnaire and the Oswestry Disability Index. Spine. 2000;25(4):3115-3124.

Self-Efficacy Scale

Self-efficacy is considered a psychosocial measure of resilience and indicates a patient's overall confidence in the ability to cope and self-manage symptoms, stresses or limitations associated with a painful condition.^{1,2,4} Yellow flag screening tools to assess a patient's self-efficacy have been recommended.⁶

One common measure recommended to screen for self-efficacy is the Chronic Pain Self-Efficacy scale developed and validated by Anderson et al.² An exploratory factor analysis of this measure identified 3 factors: self-efficacy for pain management (PSE), self-efficacy for coping with symptoms (CSE), and self-efficacy for physical function (FSE). The overall number of items for the measure is 22 and 5, 8, and 9 items for pain management, coping with symptoms, and physical function subscales respectively.

The Self Efficacy Scale available in FOTO, is a slightly modified version adapted from the Chronic Pain Self-Efficacy Scale.^{2,5} One, two, or all 3 self-efficacy subscales may be selected in FOTO. The FOTO self-efficacy scale omits reference to the term "chronic", added a patient response option for Not Applicable (NA). The response scale for each question ranges from 0 (Very Uncertain) to 10 (Very Certain) with the label "Moderately Uncertain" added to the middle of the scale. The language (patient instructions) was based on an article by Lorig et al.⁵ Responses are transformed into a 0 to 100 scale with higher scores indicating greater self-efficacy. For example, self-efficacy for coping with symptoms (CSE) = 54.8, scale 0 – 100.

Scoring:

Each subscale (PSE-Pain, FSE-Physical Function, CSE-Coping with Symptoms) is scored separately by taking the mean of the subscale items. The mean score for each subscale administered is reported on the Patient Specific Report. Not all subscales need to be selected or used by the clinician.

Missing scores: If one-fourth or less of the data are missing, the score is a mean of the completed data. If more than one-fourth of the data are missing, no score is calculated.

Self-Efficacy for Pain Management (PSE)

Instructions:

We would like to know how your current problem for which you are seeking rehabilitation affects you. For each of the following questions, please check the number, which corresponds to your certainty that you can now perform the following tasks. If the activity does not apply to you, check "NA".

Questions:

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1. How certain are you that you can decrease your pain quite a bit?
2. How certain are you that you can continue most of your daily activities?
3. How certain are you that you can keep your pain from interfering with your sleep?
4. How certain are you that you can make a small-to-moderate reduction in your pain by using methods other than taking extra medications?
5. How certain are you that you can make a large reduction in your pain by using methods other than taking extra medications?

Patient response options:

1 Very uncertain

2

3

4

5 Moderately uncertain

6

7

8

9

10 Very certain

N/A

Self-Efficacy for physical function (FSE)

Instructions:

We would like to know how confident you are in performing certain daily activities. For each of the following questions, please check the number, which corresponds to your certainty that you can perform the tasks as of now, without assistive devices or help from another person. Please consider what you routinely can do, not what would require a single extraordinary effort. If the activity does not apply to you, check "NA".

Questions:

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1. How certain are you that you can walk ½ mile on flat ground?
2. How certain are you that you can lift a 10-pound box?
3. How certain are you that you can perform a daily home exercise program?
4. How certain are you that you can perform your household chores?
5. How certain are you that you can shop for groceries or clothes?
6. How certain are you that you can engage in social activities?
7. How certain are you that you can engage in hobbies or recreational activities?
8. How certain are you that you can engage in family activities?
9. How certain are you that you can perform the work duties you had prior to the onset of your condition for which you are seeking rehabilitation? (For homemakers, please consider your household activities as your work duties.)?

Patient response options:

1 Very uncertain

2

3

4

5 Moderately uncertain

6

7

8

9

10 Very certain

N/A

Self-Efficacy for Coping with Symptoms (CSE)

Instructions:

In the following questions, we would like to know how you feel about your ability to control your symptoms of the problem for which you are seeking rehabilitation. For each of the following questions,

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please check the number, which corresponds to the certainty that you can now perform the following activities or tasks. If the activity does not apply to you, check "NA".

Questions:

How certain are you that you can control your fatigue?

How certain are you that you can regulate your activities so as to be active without aggravating your physical symptoms (e.g., fatigue, pain)?

How certain are you that you can do something to help yourself feel better if you are feeling blue?

As compared to other people with medical problems like yours, how certain are you that you can manage your pain during your daily activities?

How certain are you that you can manage your physical symptoms, so you can do the things you enjoy doing?

How certain are you that you can deal with the frustration of your medical problems?

How certain are you that you can cope with mild to moderate pain?

How certain are you that you can cope with severe pain?

Patient response options:

1 Very uncertain

2

3

4

5 Moderately uncertain

6

7

8

9

10 Very certain

N/A

Available in all care types.

References

1. Ahmed SA, Shantharam G, Eltorai AEM, Hartnett DA, Goodman A, Daniels AH. The effect of psychosocial measures of resilience and self-efficacy in patients with neck and lower back pain. *The Spine Journal* 2019;19:232-237
2. Anderson KO, Dowds BN, Pelletz RE, Edwards WT, Peeters-Asdourian C. Development and initial validation of a scale to measure self-efficacy beliefs in patients with chronic pain. *Pain*. 1995;63:77-84.
3. Arnstein P, Caudill M, Mandle CL, Norris A, Beasley R. Self efficacy as a mediator or the relationship between pain intensity, disability and depression in chronic pain patients. *Pain*. 1999;80:483-491.
4. Ferrari S, Chiarotto A, Pellizzer M, Vanti C, Monticone M. Pain self-efficacy and fear of movement are similarly associated with pain intensity and disability in Italian patients with chronic low back pain. *Pain Practice* 2016;16:1040-1047.
5. Lorig K, Chastain RL, Ung E, Shoor S, Holman HR. Development and evaluation of a scale to measure perceived self-efficacy in people with arthritis. *Arthritis and Rheumatism*. 1989;32(1):37-44.
6. Stearns ZR et al. Screening for Yellow Flags in Orthopaedic Physical Therapy: A Clinical Framework. *JOSPT* 2021;51:459-469.

Scoliosis Research Society-22 (SRS-22)

The Scoliosis Research Society-22 (SRS-22) is a multi-domain patient self-report health-related quality of life questionnaire (22 items) specific to adolescent idiopathic scoliosis.^{1,2} Each question is scored on a scale from 1 –5 with lower scores indicating worse quality of life. The Patient Specific Report reports the total SRS-22 score (up to 4 decimals) as well as scores for each of the six SRS-22 domains (up to 2 decimals) i.e., Function, Pain, Self-Image, Mental Health, Non-management, and Satisfaction. The total SRS-22 core is the average of the 6 domain summative scores.

Instructions:

The following additional questions will help with the careful evaluation of your back. It is important that you answer each of these questions yourself. Please select the one best answer to each question. (Slightly modified wording for computer-administered)

1. Which one of the following best describes the amount of pain you have experienced during the past 6 months?

None

Mild

Moderate

Moderate to severe

Severe

2. Which one of the following best describes the amount of pain you have experienced over the last month?

None

Mild

Moderate

Moderate to severe

Severe

3. During the past 6 months, have you been a very nervous person?

None of the time
A little of the time
Some of the time
Most of the time
All of the time

4. If you had to spend the rest of your life with your back shape as it is right now, how would you feel about it?

Very happy
Somewhat happy
Neither happy nor unhappy
Somewhat unhappy
Very unhappy

5. What is your current level of activity?

Bedridden
Primarily no activity
Light labor and light sports
Moderate labor and moderate sports
Full activities without restriction

6. How do you look in clothes?

Very good
Good
Fair
Bad
Very bad

7. In the past 6 months, have you felt so down in the dumps that nothing could cheer you up?

Very often

Often

Sometimes

Rarely

Never

8. Do you experience back pain when at rest?

Very often

Often

Sometimes

Rarely

Never

9. What is your current level of work/school activity?

100% normal

75% normal

50% normal

25% normal

0% normal

10. Which of the following best describes the appearance of your trunk, defined as the human body except for the head and extremities?

Very good

Good

Fair

Poor

Very Poor

11. Which one of the following best describes your pain medication use for back pain?

None

Non-narcotics weekly or less (e.g., aspirin, Tylenol, Ibuprofen)

Non-narcotics daily

Narcotics weekly or less (e.g. Tylenol III, Lorcet, Percocet)

Narcotics daily

12. Does your back limit your ability to do things around the house?

Never

Rarely

Sometimes

Often

Very Often

13. Have you felt calm and peaceful during the past 6 months?

All of the time

Most of the time

Some of the time

A little of the time

None of the time

14. Do you feel that your back condition affects your personal relationships?

None

Slightly

Mildly

Moderately

Severely

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15. Are you and/or your family experiencing financial difficulties because of your back?

Severely

Moderately

Mildly

Slightly

None

16. In the past 6 months, have you felt down hearted and blue?

Never

Rarely

Sometimes

Often

Very often

17. In the last 3 months, have you taken any days off of work, including household work, or school because of back pain?

0 days

1 day

2 days

3 days

4 or more days

18. Does your back condition limit your going out with friends/family?

Never

Rarely

Sometimes

Often

Very often

19. Do you feel attractive with your current back condition?

Yes, very

Yes, somewhat

Neither attractive nor unattractive

No, not very much

No, not at all

20. Have you been a happy person during the past 6 months?

None of the time

A little of the time

Some of the time

Most of the time

All of the time

21. Are you satisfied with the results of your back management?

Very satisfied

Satisfied

Neither satisfied nor unsatisfied

Unsatisfied

Very unsatisfied

22. Would you have the same management again if you had the same condition?

Definitely yes

Probably yes

Not sure

Probably not

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Definitely not

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References:

1. Asher M, MinLai S, Burton D, Manna B. The Reliability and Concurrent Validity of the Scoliosis Research Society-22 Patient Questionnaire for Idiopathic Scoliosis. Spine. 2003;28(1):63-69.
2. SRS-22 HRQL Bibliography link: <https://www.srs.org/UserFiles/file/outcomes/bibliography.pdf>

Somatization Subscale of the Symptom Checklist Back Pain Predictive Model (SCL BPPM)

The Somatization Subscale of the Symptom Checklist Back Pain Predictive Model (SCL BPPM) was developed and validated by Dionne et al.^{1,2} Screening patients for psychosocial distress using the SCL BPPM measure has been advocated by clinical practice guidelines.³ The SCL BPPM presents simple mathematical decision rules based on scores from the Symptom Checklist-90-Revised depression (10-item) and somatization (7-item) subscales to categorize patients with low back pain by low, intermediate, and high risk of developing chronic functional limitations.^{1,2} Somatization scores reported on the Patient Specific Report are calculated using a summative scoring method and score results range between 0-4/4. Higher scores indicate higher somatization of symptoms.

Questions:

In the last day, how much were you distressed by: faintness or dizziness

In the last day, how much were you distressed by: a lump in your throat

In the last day, how much were you distressed by: feeling weak in parts of your body

In the last day, how much were you distressed by: heavy feelings in your arms or legs

In the last day, how much were you distressed by: trouble getting your breath

In the last day, how much were you distressed by: hot or cold spells

In the last day, how much were you distressed by: numbness or tingling in parts of your body

Patient response options:

Extremely

Quite a bit

Moderately

A little bit

Not at all

Don't know

Interpretation:

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Dionne et al published decision rules to predict 2-year functional limitation outcomes for patients with low back pain.^{1,2} However, the authors' classification prediction rules required both scores from the depression and somatization subscales. With that said, our research and clinical experience using the SCL BPPM scores during clinical practice⁴ suggested 3 classification risk patterns* as follows:

Low risk: patients are classified as low psychosocial risk if average somatization summative score = 0-1/4.

Medium risk: patients are classified as medium psychosocial risk if average somatization summative score = 2/4

High risk: patients are classified at high psychosocial risk if average somatization summative score >3/4.

* Validation of these risk level patterns is pending.

Treatment monitoring:

Initial psychosocial risk level assessments observed during the initial evaluation should not be over-interpreted. Serial risk assessments at different points during the episode of care are recommended for treatment monitoring. Evidence suggests treatment monitoring should begin within the first 2 weeks after the initial evaluation.⁵ Serial assessments using the SCL BPPM depressive symptom subscale are important to identify patients who may continue to be at increased risk for poor outcomes and who may require additional psychosocial screening or prompt a referral to healthcare specialists trained in managing patients with recalcitrant psychosocial issues. Evidence has demonstrated large reductions in baseline depressive symptom distress risk during the episode of care when patients are treated by physical therapists skilled in managing patients with chronic musculoskeletal low back pain conditions and these reductions in risk levels are associated with good outcomes at rehabilitation discharge.⁴

Available for all care types.

References:

Dionne CE. Psychological distress confirmed as predictor of long-term back-related functional limitations in primary care settings. J Clin Epidemiol. 2005;58:714-718. <http://dx.doi.org/10.1016/j.jclinepi.2004.12.00512>.

Dionne CE et al. Predicting long-term functional limitations among back pain patients in primary care settings. J Clin Epidemiol 1997;50:31-43.

1. Rossignol M et al. An interdisciplinary guideline development process: the Clinic on Low-back pain in Interdisciplinary Practice (CLIP) low-back pain guidelines. *Implement Sci.* 2007;2:36.
<http://dx.doi.org/10.1186/1748-5908-2-36>
2. Werneke MW et al. Change in Psychosocial Distress Associated With Pain and Functional Status Outcomes in Patients With Lumbar Impairments Referred to Physical Therapy Services. *JOSPT* 2011;41:969-980.
3. Werneke MW et al. Associations between interim patient-reported outcome measures and functional status at discharge from rehabilitation for non-specific lumbar impairments. *Qual Life Res* 2019.
<https://doi.org/10.1007/s11136-019-02314-6>.

[SPARE \(Screening for Pain vulnerability and Resilience\) - background](#)

The Optimal Screening for Prediction of Referral and Outcome Yellow Flag (OSPRO-YF) assessment tool is a multidimensional screening tool for general and pain-related psychological distress, or "yellow flags."¹ The OSPRO-YF assesses three domains:

1. fear avoidance (the item bank consists of 28 items selected from the Fear-Avoidance Beliefs Questionnaire for physical activity (FABQ-PA, 1 item), Fear Avoidance Beliefs Questionnaire-work (FABQ-work, 1 item), the Pain Catastrophizing Scale (PCS, 10 items), the Tampa Scale of Kinesiophobia (TSK-11, 4 items), the Pain Anxiety Symptoms Scale (PASS, 12 items), and the Chronic Pain Acceptance Questionnaire (CPAQ, 1 item),
2. negative mood (the item bank consists of 12 items selected from the Patient Health Questionnaire (PHQ-9, 1 item) and the State-Trait Anxiety Inventory (STAI) Self Evaluation Questionnaire (SEQ-11 items), and
3. negative coping (pain self-efficacy, pain acceptance, self-efficacy for rehabilitation).

New measures for each domain i.e., fear avoidance, negative mood, and negative coping were developed and re-titled as Screening for Pain vulnerability and Resilience (SPARE) Fear Avoidance (FA), SPARE Negative Mood (NM), and SPARE Negative Coping (NC). Each new SPARE measure was renamed to make a distinction between the new measures and the OSPRO-YF.

Research development for each SPARE measure resulted in 3 administration modes: a computerized adaptive test and two fixed format short forms (10, 8 or 4 items). The 4-item short form for each new measure is available as secondary measure in FOTO. The 4 items were selected from the full bank of 28, 12, 12 items for fear avoidance, negative mood, and negative coping respectively.

SPARE Fear Avoidance

Questions and patient responses:

Please rate the truth of each statement as it applies to you.

1. Before I can make any serious plans, I have to get some control over my pain

Always true

Almost always true

Often true

Sometimes true

Seldom true

Very rarely true

Never true

2. When I hurt, I think about the pain constantly
3. I find it difficult to calm my body down after periods of pain
4. I go immediately to bed when I feel severe pain

Patient response options for questions, #2, #3, and #4 range between 5 (Always) and 0 (Never)

Interpretation:

Scores for SPARE-FA are reported as T-scores on the Patient Specific Report and range between 37-76. A T-score of 50 represents the average (mean) fear avoidance score and a T-score of 60 is one SD above the mean. Higher T-scores indicate higher (worse) fear avoidance. T-scores of 60 or above should be flagged for having elevated levels of fear avoidance. A change score of 9.4 points from the intake score is required to reach a minimal detectable improvement at a 90% level of confidence. Initial rehabilitation treatment decisions based on SPARE T-score categorization:

For patients with T-scores less than 60, initial treatment focuses on patient education on self-management, encouragement, and appropriate advice to remain active, including return to work and exercises.³

For patients flagged for elevated fear-avoidance with T-scores > 60, initial treatment focuses on cognitive behavioral strategies such as graded physical activity exposure, coping skills, motivational

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interviewing, pain neuroscience education, and self-management.³ Clinicians managing patients experiencing elevated pain-related fears require necessary skills in the assessment and management of complex pain disorders. Some patients may require a referral to other health care providers e.g., mental health-care specialists.

Available in all care types.

References:

1. Lentz TA, Beneciuk JM, Bialosky JE, et al. Development of a Yellow Flag Assessment Tool for Orthopaedic Physical Therapists: Results From the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. *J Orthop Sports Phys Ther.* 2016;46(5):327-343.
2. Lentz TA, Kallen MA, Deutscher D, George SZ. Efficient Screening for Fear of Movement in Outpatient Settings: Short Form and Computer Adaptive Tests for Fear Avoidance and Negative Pain Coping. *Phys Ther.* 2022 Jan 12 <https://pubmed.ncbi.nlm.nih.gov/35022785/>
3. Stearns ZA et al. Screening for Yellow Flags in Orthopaedic Physical Therapy: A Clinical Framework. *JOSPT* 2021;51:459-469.

SPARE Negative Mood

Negative mood is an important risk factor for poor clinical outcomes among individuals with musculoskeletal pain. The NM tool is used to screen for negative mood such as depression, anxiety, and anger in patients attending physical therapy for orthopedic musculoskeletal conditions. The NM short form was reported to be reliable and valid and appropriate for clinical use.²

Questions and patient response options

Over the last 2 weeks, how often have you been bothered by any of the following problems?

1. Poor appetite or overeating

Nearly every day

More than half the days

Several days

Not at all

Read each statement and select the appropriate one to indicate how you generally feel.

2. I am content

3. I feel secure

4. I feel like a failure

Patient response options for questions #2, #3, and #4 are: almost always, Often, Sometimes, or Almost never.

Interpretation:

Scores for SPARE-NM are reported as T-scores on the Patient Specific Report and range between 39 - 75. A T-score of 50 represents the average (mean) negative mood score and a T-score of 60 is one SD above the mean. Higher T-scores indicate higher (worse) negative mood. T-scores of 60 or above should be flagged for having elevated levels of negative mood. A change score of 9.7 points from the intake score is required to reach a minimal detectable improvement at a 90% level of confidence.

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References:

1. Lentz TA, Beneciuk JM, Bialosky JE, et al. Development of a Yellow Flag Assessment Tool for Orthopaedic Physical Therapists: Results From the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. *J Orthop Sports Phys Ther.* 2016;46(5):327-343.
2. Lentz TA, Kallen MA, Deutscher D, George SZ. Development of Reliable and Valid Negative Mood Screening Tools for Orthopaedic Patients with Musculoskeletal Pain. *Clin Orthop Relat Res.* 2022 Feb 1;480(2):313-324.
<https://pubmed.ncbi.nlm.nih.gov/34878414/>

SPARE Negative Coping

Questions and patient responses

Please rate how confident you are that you can do the following things at present, despite the pain.

1. I can still do many of the things I enjoy doing, such as hobbies or leisure activity, despite pain
2. I can do most of the household chores (e.g., tidying-up, washing dishes, etc.), despite the pain
3. I can enjoy things, despite the pain
4. I can cope with my pain in most situations

Patient response options for all 4 questions range from score 6 (Not at all Confident) to score 0 (Completely Confident)

Interpretation:

Scores for SPARE-NC are reported as T-scores on the Patient Specific Report and range between 35- 80. A T-score of 50 represents the average (mean) negative coping score and a T-score of 60 is one SD above the mean. Higher T-scores indicate higher (worse) negative coping. T-scores of 60 or above should be flagged for having elevated levels of negative coping. T-scores < 60 indicate that the patient has positive coping skills. A change score of +7.7 points from the intake score is required to reach a minimal detectable improvement at a 90% level of confidence.

For patients with T-scores less than 60, initial treatment focuses on patient education on self-management, encouragement, and appropriate advice to remain active, including return to work and exercises.

For patients flagged for elevated negative coping with T-scores > 60, initial treatment focuses on cognitive behavioral strategies, enhancing coping skills, motivational interviewing, pain neuroscience education, and self-management.³ Clinicians managing patients experiencing elevated pain-related fears require necessary skills in the assessment and management of complex pain disorders. Some patients may require a referral to other health care providers e.g., mental health-care specialist.

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References

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1. Lentz TA, Beneciuk JM, Bialosky JE, et al. Development of a Yellow Flag Assessment Tool for Orthopaedic Physical Therapists: Results From the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. *J Orthop Sports Phys Ther.* 2016;46(5):327-343.
2. Lentz TA, Kallen MA, Deutscher D, George SZ. Efficient Screening for Fear of Movement in Outpatient Settings: Short Form and Computer Adaptive Tests for Fear Avoidance and Negative Pain Coping. *Phys Ther.* 2022 Jan 12 <https://pubmed.ncbi.nlm.nih.gov/35022785/>
3. Stearns ZA et al. Screening for Yellow Flags in Orthopaedic Physical Therapy: A Clinical Framework. *JOSPT* 2021;51:459-469.

STarT Back Screening Tool

The Keele Subgroups for Targeted Treatment (STarT) Back Screening Tool (<http://www.keele.ac.uk/sbst/>) is used to target treatments and profile individual risk of developing chronic low back pain. This tool was the innovation of Keele University and published by Hill et al.³ Patients experiencing low back pain are allocated during the initial evaluation into Low, Medium and High risk categories. This categorization informs prognosis and clinical decision-making on subsequent treatment. It is recommended that matched treatments are prescribed according to the patients' level of risk. Clinical and cost effectiveness for screening and prescribing interventions matched to the patients' risk classification determined by using the STarT tool have been demonstrated.⁴ The STarT survey is a multidomain biopsychosocial screening measure and consists of 9 questions.³

Questions and patient response options:

1. Overall, how bothersome has your back pain been in the last 2 weeks?

Not at all

Slightly

Moderately

Very much

Extremely

For each of the following, please cross one box to show whether you agree or disagree with the statement, thinking about the last 2 weeks.

2. My back pain has spread down my leg(s) at some time in the last 2 weeks.
3. I have had pain in the shoulder or neck at some time in the last 2 weeks.
4. It's really not safe for a person with a condition like mine to be physically active.
5. In the last 2 weeks, I have dressed more slowly than usual because of my back pain.
6. In the last 2 weeks, I have only walked short distances because of my back pain.
7. Worrying thoughts have been going through my mind a lot of the time in the last 2 weeks.
8. I feel that my back pain is terrible and that it's never going to get any better.
9. In general in the last 2 weeks, I have not enjoyed all the things I used to enjoy.

Patient response options for questions #2 through #9 are agree or disagree.

Scoring:

Item 1 is scored as positive if “very much” or “extremely” bothered is marked.

Items 2-9 are scored as positive if “agree” is marked.

Total scores range from 0-9.

STarT risk classification:^{3,4}

Low Risk: patients are classified into the “low risk” category if the overall STarT survey score is <4/9.

Medium risk: patients are classified into “medium risk” category if the overall total STarT survey score is > 4/9 and the psychosocial STarT subscale score is < 4/5. The STarT psychosocial subscale items are 1, 4, 7, 8 and 9.

High risk: patients are classified into the “high risk” category if the psychosocial subscale score is >4.

Interpretation:^{3,4}

Low risk: patients are considered low risk for poor pain and functional outcomes and minimal long-term musculoskeletal health problems: There are no significant physical and psychosocial barriers and a quick recovery is anticipated.

Medium risk: patients are considered at risk for potentially developing poor treatment outcomes and long-term musculoskeletal health problems. Both physical and psychosocial barriers to recovery exist.

High risk: patients are considered at high risk for poor outcomes, continued and costly health care expenditures, and long-term health disability. Important psychosocial barriers to recovery are identified.

Recommended rehabilitation treatment decisions based on STarT risk classifications:^{3,4}

Low risk: initial treatment focuses on patient education on self-management and appropriate levels of activity, including return to work and exercises. In addition, a patient pamphlet e.g., the Back Book, and a short educational video e.g., Get BackActive are recommended. Low-risk patients are scheduled for one session including assessment and education.

Medium risk: initial treatment following evidence-based interventions according to clinical practice guidelines are recommended. Interventions include active patient self-management education,

exercise, and manual techniques as well as addressing potential psychosocial barriers to recovery. The number of treatment visits scheduled are based on the therapist's clinical judgement.

High risk: initial treatment is based on a biopsychosocial approach combining physical and cognitive behavioral strategies, motivational interviewing, and active self-management to address patients' misconceptions regarding their pain beliefs and behaviors. Education based on modern pain neuroscience concepts are recommended. Clinicians managing patients at high risk require necessary skills in the assessment and management of complex pain disorders. Some patients may require a referral to other health care providers e.g., mental health-care specialist.⁵

Treatment monitoring

Serial STarT risk assessments at different points during an episode of care are recommended for treatment monitoring. Evidence suggests treatment monitoring should begin within the first 2 weeks after the initial evaluation.⁷ Serial STarT survey assessments are important to identify patients who may continue to be at increased risk for poor outcomes and who may require additional psychosocial screening or prompt a referral to healthcare specialists trained in managing patients with recalcitrant psychosocial issues. Evidence has consistently demonstrated large reductions in baseline STarT psychosocial risk levels during the episode of care when patients are treated by physical therapists skilled in managing patients with chronic musculoskeletal pain conditions and these reductions in STarT risk levels are associated with good outcomes at rehabilitation discharge.^{1,6}

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The copyright (©2007) of the STarT Back Tool and associated materials are owned by Keele University, the development of which was partly funded by Arthritis Research, United Kingdom. The tool is designed for use by health care practitioners, with appropriate treatment packages for each of the stratified groups. The tool is not intended to recommend the use of any particular product. This is a licensed tool (©2007 Keele University) that may not be modified or copied. The STarT Back Tool was designed to be used in conjunction with matched treatment pathways, to ensure that all patients have access to the right support. Keele University, Arthritis Research UK and their affiliates designed the STarT Back Screening Tool (Tool) for use by health care providers. The Tool was designed to be used by clinicians to aid the clinical reasoning processes of a health care practitioner, including consideration of Red Flags; and designed to direct patients to the matched treatment approaches. Whilst any development of the STarT Back Tool (Tool) can be used by the general public, the Tool was not designed for use by the general public and the results should be interpreted in consultation with a health care practitioner. Validity of the Tool has been established for paper versions of the questionnaire, not for the electronic versions in the App. Users are referred to the Tool bibliography for scientific papers relating to validity and utility of the Tool. Keele University and Arthritis Research

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UK do not endorse or recommend any of the service providers or third parties who may support or develop the Tool in any way.

Available in Orthopedic, Industrial, Pain Management and Wound care types for Lumbar, Neck and Thoracic body parts.

References:

1. Beneciuk JM, Fritz JM, George SZ 2014 The STarT Back Screening Tool for prediction of 6-month clinical outcomes: Relevance of change patterns in outpatient physical therapy settings. *JOSPT* 2014;44:656–664.
2. Fritz JM, Beneciuk JM, George SZ. Relationship between categorization with the STarT Back Screening Tool and prognosis for people receiving physical therapy for low back pain. *Physical therapy*. May 2011;91(5):722-732.
3. Hill JC, Dunn KM, Lewis M, et al. A primary care back pain screening tool: identifying patient subgroups for initial treatment. *Arthritis Rheum*. May 15 2008;59(5):632-641.
4. Hill JC, Whitehurst DG, Lewis M, et al. Comparison of stratified primary care management for low back pain with current best practice (STarT Back): a randomised controlled trial. *Lancet*. Oct 29 2011;378(9802):1560-1571.
5. Stearn ZA et al. Screening for Yellow Flags in Orthopaedic Physical Therapy: A Clinical Framework. *JOSPT* 2021;51:459-469.
6. Werneke MW et al. Association between changes in function among patients with lumbar impairments classified according to the STarT Back Screening Tool and managed by McKenzie credentialed physiotherapists. *Physio Theory & Pract* 2018; <https://doi.org/10.1080/09593985.2018.1490839>.
7. Werneke MW et al. Werneke MW et al. Associations between interim patient-reported outcome measures and functional status at discharge from rehabilitation for non-specific lumbar impairments. *Qual Life Res* 2019. <https://doi.org/10.1007/s11136-019-02314-6>
8. Werneke MW et al. Associations between interim patient-reported outcome measures and functional status at discharge from rehabilitation for non-specific lumbar impairments. *Qual Life Res* 2019. <https://doi.org/10.1007/s11136-019-02314-6>

Stroke Impact Scale (SIS) - background

The purpose of the SIS is to evaluate how stroke has impacted your patient's disability and health-related quality of life after stroke.¹⁻³ The Stroke Impact Scale (version 3.0) is a patient self-report questionnaire which provides a total of 59 questions assessing 8 domains plus a single-item question about recovery. Either 1 or all 8 domains may be administered. The score for each domain is summative ranging 0 (unable/low ability) -100 (no limitations/high ability). Domain summative scores are reported as a percentage (%) on the Patient Specific Report for each domain administered. There is no total SIS summative score from all domain sub-scores together. For chronic stroke, the standard error of measurement (SEM), minimal detectable change (MDC), and minimal clinically important difference (MCID) values for ADL domain are 6.3, 17.3, and 5.9 respectively [ref link = <https://www.sralab.org/rehabilitation-measures/stroke-impact-scale>].

The 8 SIS domains and recovery question content are shown below.

SIS Strength Domain

Questions:

1. In the past week, how would you rate the strength of your arm that was most affected by your stroke?
2. In the past week, how would you rate the strength of your grip of your hand that was most affected by your stroke?
3. In the past week, how would you rate the strength of your leg that was most affected by your stroke?
4. In the past week, how would you rate the strength of your foot / ankle that was most affected by your stroke?

Patient response options:

A lot of strength

Quite a bit of strength

Some strength

A little strength

No strength at all

SIS Memory and Thinking Domain

Questions:

1. In the past week, how difficult was it for you to remember things that people just told you?
2. In the past week, how difficult was it for you to remember things that happened the day before?
3. In the past week, how difficult was it for you to remember to do things (e.g. keep scheduled appointments or take medication)?
4. In the past week, how difficult was it for you to remember the day of the week?
5. In the past week, how difficult was it for you to concentrate?
6. In the past week, how difficult was it for you to think quickly?
7. In the past week, how difficult was it for you to solve everyday problems?

Patient response options:

Not difficult at all

A little difficult

Somewhat difficult

Very difficult

Extremely difficult

SIS Emotions Domain

Questions:

1. In the past week, how often did you feel sad?
2. In the past week, how often did you feel that there is nobody you are close to?
3. In the past week, how often did you feel that you are a burden to others?
4. In the past week, how often did you feel that you have nothing to look forward to?
5. In the past week, how often did you blame yourself for mistakes that you made?
6. In the past week, how often did you enjoy things as much as ever?
7. In the past week, how often did you feel quite nervous?
8. In the past week, how often did you feel that life is worth living?
9. In the past week, how often did you smile and laugh at least once a day?

Patient response options:

None of the time

A little of the time

Some of the time

Most of the time

All of the time

SIS Communication Domain

Questions:

1. In the past week, how difficult was it to say the name of someone who was in front of you?
2. In the past week, how difficult was it to understand what was being said to you in a conversation?
3. In the past week, how difficult was it to reply to a question?
4. In the past week, how difficult was it to correctly name objects?
5. In the past week, how difficult was it to participate in a conversation with a group of people?
6. In the past week, how difficult was it to have a conversation on the telephone?
7. In the past week, how difficult was it to call another person on the telephone, including selecting the correct phone number and dialing?

Patient response options:

Not difficult at all

A little difficult

Somewhat difficult

Very difficult

Extremely difficult

SIS Activities (ADL/IADL) Domain

Questions:

1. In the past two weeks, how difficult was it to cut your food with a knife and fork?
2. In the past two weeks, how difficult was it to dress the top part of your body?
3. In the past two weeks, how difficult was it to bathe yourself?
4. In the past two weeks, how difficult was it to clip your toenails?
5. In the past two weeks, how difficult was it to get to the toilet on time?
6. In the past two weeks, how difficult was it to control your bladder (not have an accident)?
7. In the past two weeks, how difficult was it to control your bowels (not have an accident)?
8. In the past two weeks, how difficult was it to Do light household tasks / chores (e.g. dust, make a bed, take out garbage, do the dishes)?
9. In the past two weeks, how difficult was it to go shopping?
10. In the past two weeks, how difficult was it to do heavy household chores (e.g. vacuum, laundry, or yard work)?

Patient response options:

Not difficult at all

A little difficult

Somewhat difficult

Very difficult

Could not do at all

SIS Mobility Domain

Questions:

1. In the past two weeks, how difficult was it to stay sitting without losing your balance?
2. In the past two weeks, how difficult was it to stay standing without losing your balance?
3. In the past two weeks, how difficult was it to walk without losing your balance?
4. In the past two weeks, how difficult was it to move from a bed to a chair?
5. In the past two weeks, how difficult was it to walk one block?
6. In the past two weeks, how difficult was it to walk fast?
7. In the past two weeks, how difficult was it to climb one flight of stairs?
8. In the past two weeks, how difficult was it to climb several flights of stairs?
9. In the past two weeks, how difficult was it to get in and out of a car?

Patient response options:

Not difficult at all

A little difficult

Somewhat difficult

Very difficult

Could not do at all

SIS Hand Function Domain

Questions:

1. In the past two weeks, how difficult was it to use your hand that was most affected by your stroke to carry heavy objects (e.g. a bag of groceries)?
2. In the past two weeks, how difficult was it to use your hand that was most affected by your stroke to turn a doorknob?
3. In the past two weeks, how difficult was it to use your hand that was most affected by your stroke to open a can or jar?
4. In the past two weeks, how difficult was it to use your hand that was most affected by your stroke to tie a shoelace?
5. In the past two weeks, how difficult was it to use your hand that was most affected by your stroke to pick up a dime?

Patient response options:

Not difficult at all

A little difficult

Somewhat difficult

Very difficult

Could not do at all

SIS Participation/Role Function Domain

Questions:

1. During the past four weeks, how much of the time have you been limited in your work (paid, voluntary, or other)
2. During the past four weeks, how much of the time have you been limited in your social activities?
3. During the past four weeks, how much of the time have you been limited in quiet recreation (crafts, reading)?
4. During the past four weeks, how much of the time have you been limited in active recreation?
5. During the past four weeks, how much of the time have you been limited in your role as a family member and / or friend?
6. During the past four weeks, how much of the time have you been limited in your participation in spiritual or religious activities?
7. During the past four weeks, how much of the time have you been limited in your ability to control your life as you wish?
8. During the past four weeks, how much of the time have you been limited in your ability to help others?

Patient response options:

None of the time

A little of the time

Some of the time

Most of the time

All of the time

SIS Recovery question

The last SIS survey question assesses recovery. Recovery is measured by administering this single question which will be asked only at Status/Discharge.

Question:

On a scale of 0 to 100, with 100 representing full recovery and 0 representing no recovery, how much have you recovered from your stroke?

Patient response options:

Scale ranges 0 to 100 with 0 labeled as No Recovery and 100 as Full Recovery.

All SIS domains are available in the Neurological, Speech, and Cardiovascular and Pulmonary care types.

References:

1. Link: <https://movement-revolution.com/wp-content/uploads/Stroke-Impact-Scale.pdf>
2. Link: <https://www.sralab.org/rehabilitation-measures/stroke-impact-scale>
3. Mulder M & Nijland R. Stroke Impact Scale. J Physiotherapy 2016;62:117.

Telehealth Question(s)

The telehealth survey consists of a minimum of 1 question and a maximum of 2 questions.

1st Question:

How many of your current therapy visits have taken place over the internet or by phone (telehealth) instead of in the clinic?"

Patient response options:

None

Few

Most

All

If the patient responded that TR was administered during the episode of care, the 2nd question will be asked.

2nd Question:

Which of these was used in your telehealth care? (select all that apply).

Patient response options:

Video call, audio call (without video)

text or or email messaging

links to video materials (like YouTube clips)

other

Evidence supports the effectiveness and efficiency of telerehabilitation interventions and rehabilitation outcomes compared to traditional in-person office visit care.¹⁻³

Available for all care types

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References:

1. Jette A. Phys Ther PodCast July 2021: <https://www.apta.org/apta-and-you/news-publications/podcasts/2021/during-the-covid-19-pandemic-one-size-does-not-fit-all>
2. Werneke MW, Deutscher D, Grigsby D, Tucker CA, Mioduski JE, Hayes D. Telerehabilitation During the Covid-19 Pandemic in Outpatient Rehabilitation Settings: A Descriptive Study. Phys Ther 2021;101:1-11. <https://pubmed.ncbi.nlm.nih.gov/33848335>
3. Werneke MW, Deutscher D, Hayes D Grigsby D, Mioduski JE, Resnik LJ. Is Telerehabilitation a Viable Option for Patients With Low Back Pain? Associations Between Telerehabilitation and Outcomes During the COVID-19 Pandemic. Phys Ther 2022, pzac020, <https://doi.org/10.1093/ptj/pzac020>

Traumatic Injuries Distress Scale (TIDS)

The Traumatic Injuries Distress Scale is a 12-item self-report tool intended for prognostic risk in patients with acute (< 4 weeks from injury) non-catastrophic musculoskeletal trauma.^{2,3} TIDS measure is a non-regional dependent tool. TIDS is interpreted as both a total summed score (0-24) or as 3 separate summed subscale scores: Uncontrolled Pain (0-8), Negative Affect (0-12), and Intrusion/Hyperarousal (0-4). Higher total and subscale scores indicate higher risk for poor pain interference and pain severity outcomes at 1-year. Using growth mixture modeling (GMM) analyses^{1,3} recovery trajectories over 12 months were identified for pain interference outcome as follows: Rapid Recovery, Delayed Recovery, and Little or No Recovery, and 2 recovery trajectories were identified for pain severity outcome as either Rapid Recovery or Little or No Recovery.

Questions:

Rate the extent to which you have been bothered by the following symptoms since your accident:

1. Difficulty maintaining your concentration
2. Difficulty thinking about anything other than the pain
3. A feeling of being overwhelmed by pain or other symptoms
4. Flashbacks of the accident while you're awake that feel very real
5. Feeling "wound up," agitated, or scared when in a place that reminds you of the accident (eg, in a car, at work, or on a slippery surface)
6. Frustration at your inability to control your pain
7. Loss of motivation to get up and start a new day
8. Pain that lasts an entire day without easing
9. Loss of interest in your appearance
10. Difficulty doing the things that you would normally enjoy
11. Feeling "numb" or disengaged, as if you were watching the world through a window
12. Anger directed at others

Patient response options:

Never

Occasionally

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Often

All of the Time

TIDS scoring

Each question is scored from 0-2. Scores are 0 (Never), 1 (Occasionally), and 2 (Often or All of the Time). All 3 TIDS subscales are administered when the optional TIDS survey is selected using FOTO. Total TIDS score, the 3 subscale scores, and patient-reported question responses, if requested, are printed on the Patient Specific Report.

Interpretation⁴

Total TIDS score:

Low risk: TIDS scores < 3/24 predicts good recovery with a high range of accuracy at 87% to 98% for identifying patients with a good recovery.

Moderate risk: TIDS scores between 4-10/24

High risk: TIDS scores > 11/24.

Prediction accuracy for identifying patients at high-risk ranges between 55% to 68% of patients. TIDS is more useful for identifying those at low risk than it is for identifying those in the higher risk category.

TIDS subscale scores:

For those deemed moderate to high risk, optimal TIDS subscale scores were: Uncontrolled Pain = 3/8 (Sn = 0.74, Sp = 0.53), Negative Affect = 3/12 (Sn = 0.71, Sp = 0.58), and Intrusion/Hyperarousal = 1/4 (Sn = 0.71, Sp = 0.68).

Initial rehabilitation treatment decisions based on TIDS total and subscale scores ⁴

Low risk: minimal intervention(s) and few treatment visits are recommended. Similar to patients classified into low risk by the STarT tool, patients should receive education on self-management and appropriate advice to stay active and levels of exercise.

Moderate – high risk: The following interventions, targeting each subscale domains, are recommended:

Uncontrolled Pain: interventions focus on symptoms control.

Negative Affect: interventions focus on management of negative mood

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Intrusion/Hyperarousal: interventions focus on anxiety/post-traumatic stress symptom management

Available in all care types.

References:

1. Lee JY, Walton DM, Tremblay P, May C, Millard W, Elliott JM, et al. Defining pain and interference recovery trajectories after acute non-catastrophic musculoskeletal trauma through growth mixture modeling. *BMC Musculoskelet Disord* 2020; 21:615. <https://doi.org/10.1186/s12891-020-03621-7>. PMID: 32943021
2. Walton DM, Krebs D, Moulden D, et al. The Traumatic Injuries Distress Scale: A new tool that quantifies distress and has predictive validity with patient-reported outcomes. *J Ortho Sports Phys Ther.* 2016; 46(10):920-928.
3. Walton DM, Carroll LJ, Kasch H, et al. An overview of systematic reviews on prognostic factors in neck pain: results from the international collaboration on neck pain (ICON) project. *Open Orthop J.* 2013;7:494
4. Walton DM, Elliott JM, Lee J, Fakhereddin M, Seo W. Identification of clinically-useful cut scores of the Traumatic Injuries Distress Scale (TIDS) for predicting rate of recovery following musculoskeletal trauma. *PLOS ONE* 2021;16(3):e0248745. <https://doi.org/10.1371/journal.pone.0248745>.

APPENDIX A: Cross-walks for Secondary Measures

Cross-walked scoring (linking methods)¹⁻³ originated, primarily, in the field of Educational Psychology and in recent years crossed over into the field of healthcare PROMs. For example, a large list of cross-walks has been established using PROMIS and other PROMs.⁴ Statistically equivalent score-linking between an IRT-based PROM and a suitable legacy PROM is produced using advanced psychometric methods. The approach results in a cross-walk table that facilitates the conversion of a legacy PROM score to the metric of the IRT-based PROM.

References

1. Albano AD, Rodriguez MC. Statistical equating with measures of oral reading fluency. J of Sch Psych 50 (2012) 43–59.
2. Albano AD. R Package ‘equate’ (Version 2.0-3): Observed-Score Linking and Equating. October 21, 2014.
3. Albano AD. equate: An R Package for Observed-Score Linking and Equating. October 21, 2014.
4. PROsetta Stone Linking Patient-Reported Outcome Measures. <https://www.prosetta.org/>. Accessed January 15, 2022.

For more information about crosswalks, contact support@fotoinc.com.

If you have activated a Crosswalk and also have the corresponding secondary measure set as a default, the Crosswalk score will not be included on the patient specific report; the Secondary Measure detail/score will surface only.

Score CROSSWALKS Available in FOTO for Secondary Measures

Crosswalk from...	To
FOTO Low Back (Orthopedic/Lumbar)	Modified (Oswestry) Low Back Disability Questionnaire
FOTO Elbow/Wrist/Hand (Orthopedic/Elbow, Wrist, Hand)	Disabilities of Arm, Shoulder, Hand (DASH)
FOTO Shoulder (Orthopedic/Shoulder)	DASH
FOTO Neck (Orthopedic/Neck)	Neck Disability Index (NDI)
FOTO LEPF* (Orthopedic/all LE body parts)	Lower Extremity Functional Scale (LEFS)
FOTO LEPF* (Orthopedic/Hip)	HOOS Jr
FOTO LEPF* (Orthopedic/Knee)	KOOS Jr

*The FOTO LEPF has the LEFS questions as its item bank. That is, LEPF is an item-response theory version of the LEFS and is administered by computer adaptive testing. (*Deutscher D, Kallen MA, Hayes D et

al. The Lower Extremity Physical Function Patient-Reported Outcome Measure Was Reliable, Valid, and Efficient for Patients With Musculoskeletal Impairments. APMR 2021;102:1576-1587.)

APPENDIX B: Availability by Body Part/Impairment – Quick Reference for Commonly Used Secondary Measures

The availability for these commonly used Secondary Measures is limited to certain body part or impairment categories. These can be set for all patient episodes from the Administrator side and placed in the required field or be included on the individual patient episode creation.

CJR (Comprehensive Care for Joint Replacement) - Available for the Orthopedic care type

Hip

Knee

DASH (30 Items) – Available for Upper Extremity Orthopedic, Industrial & Pain Management Body Parts. Also available for Upper Quadrant Edema in the Cardiovascular and Pulmonary care type.

Elbow

Wrist

Hand

Shoulder

Upper Quadrant Edema

Quick DASH – Available for Upper Extremity Orthopedic, Industrial & Pain Management Body Parts

Elbow

Wrist

Hand

Shoulder

DASH Work – Available for Upper Extremity Orthopedic, Industrial & Pain Management Body Parts

Elbow

Wrist

Hand

Shoulder

HOOS, Jr. - Available in the Orthopedic care type

Hip

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KOOS, Jr - Available in the Orthopedic care type

Knee

Lower Extremity Functional Scale (LEFS) - Available in Orthopedic, Industrial, Pain Mngt care types. Also available for Lower Quadrant Edema in the Cardiovascular and Pulmonary care type.

Ankle

Foot

Hip

Knee

Lower Leg (w/o Knee)

Lumbar

Pelvis

Upper Leg

Lower Quadrant Edema

Oswestry 2.0 - Available in Orthopedic, Industrial, and Pain Management care types

Lumbar

Neck

Pelvis

Hip

Thoracic Spine

Pelvic Floor

Modified Oswestry - Available in Orthopedic, Industrial, and Pain Management care types

Lumbar Spine

Neck

Pelvis

Thoracic Spine

Pelvic Floor

Neck Disability Index (NDI) - Available in the Orthopedic and Pain Management care types

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Orofacial

Neck

Shoulder

Thoracic

Roland Morris - Available in the Orthopedic care type

Lumbar

Thoracic

STarT Back Screening - Available in Orthopedic, Industrial, Pain Management and Wound care types

Lumbar

Neck

Thoracic

APPENDIX C: Secondary Measures by Topic

- I. Balance and Fall-risk**
 - a. ABC Scale
 - b. Abbreviated ABC
 - c. MIPS Measure 154 Falls Risk Assessment

- II. Cognitive function**
 - a. Neuro QoL Pediatric Cognitive Function
 - b. PROMIS Cognitive Function

- III. Communication: Neuro QOL Communication**

- IV. Concussion: Rivermead Post-Concussion Symptoms**

- V. Dizziness (Vestibular)**
 - a. Dizziness Emotional Status
 - b. Dizziness Handicap Inventory

- VI. Edema: Lymphedema Life Impact Scale (LLIS)**

- VII. Fatigue**
 - a. FACIT Fatigue Scale
 - b. Modified Fatigue Impact Scale Measure
 - c. Neuro QOL Fatigue

- VIII. Functional Ability/Functional Limitation**
 - a. Disabilities of the Arm, Shoulder and Hand (DASH)
 - b. DASH - Quick DASH
 - c. DASH - Work DASH
 - d. HOOS Jr
 - e. Incapacity Status Scale
 - f. Jaw Functional Limitation Scale
 - g. KOOS Jr
 - h. Lower Extremity Functional Scale

- i. Modified Oswestry Disability Index
 - j. Neck Disability Index
 - k. Neuro QoL Lower Extremity
 - l. Neuro QoL Upper Extremity
 - m. Oswestry Disability Index
 - n. Pain Disability Index
 - o. Patient Specific Functional Scale
 - p. PROMIS Physical Function
 - q. Roland Morris Disability Questionnaire
- IX. Global rating of change**
- a. Clinician
 - b. Patient
- X. Health-related Quality of Life**
- a. PROMIS Global Health
 - b. Neuro-QoL Positive Affect and Well-Being
 - c. Scoliosis Research Society
- XI. MIPS Claims-based Reporting**
- a. Measure 131 Pain assessment
 - b. Measure 154 Falls risk
- XII. Multiple Sclerosis**
- a. Incapacity Status Scale
 - b. Modified Fatigue Impact Scale Measure
- XIII. Pain**
- a. Level of Pain in Last 24 Hours
 - b. Pain Disability Index
 - c. Pain Module
 - i. Activities that Increase
 - ii. Activities that Reduce
 - iii. Body Diagram

- iv. Constancy
 - v. Intensity
 - vi. McGill
 - vii. Pain at Night
 - d. PROMIS Pain Interference

- XIV. Pediatric**
 - a. Neuro QoL Pediatric Cognitive Function
 - b. PROMIS Pediatric Mobility
 - c. PROMIS Pediatric Upper Extremity

- XV. Pelvic floor**
 - a. Pelvic Floor Distress Inventory -Short Form
 - b. Pelvic Floor Impact Questionnaire -Short Form
 - c. Pelvic Floor Prolapse / Urinary Incontinence Sexual Function Questionnaire

- XVI. Red Flag Screening: OSPRO-ROS**

- XVII. Referral and Referral Source**

- XVIII. Satisfaction**
 - a. Net Promoter Score
 - b. Net Promoter Score & text comments
 - c. Patient Acceptable Symptom State
 - d. Patient Satisfaction
 - e. Patient Satisfaction (free text comments)

- XIX. Sleep: PROMIS Sleep Disturbance**

- XX. Social Determinants of Health and other Demographic questions**
 - a. Comprehensive Care for Joint Replacement
 - b. Employment Information
 - c. Optimal Demographic Questions
 - d. Patient Education Level
 - e. Patient History Full
 - f. Patient History Short

XXI. Stroke

- a. Stroke Impact Scale
 - i. Activities of Daily Living
 - ii. Communications
 - iii. Emotions
 - iv. Hand Function
 - v. Memory and Thinking
 - vi. Mobility
 - vii. Participation/Role Function
 - viii. Recovery
 - ix. Strength

XXII. Swallowing:

- a. Neuro QOL Swallowing Difficulty

XXIII. Telehealth**XXIV. Yellow Flag Screening (single psychosocial domain)****a. Catastrophizing**

- i. Pain Catastrophizing Scale

b. Depressive symptoms

- i. PHQ-2
- ii. PHQ-9
- iii. SCL BPPM Depression Subscale
- iv. SPARE Negative Mood

c. Fear-avoidance

- i. FABQ-PA
- ii. FABQ-Work
- iii. SPARE Fear Avoidance

d. Self-Efficacy/Resilience

- i. Coping with Symptoms
- ii. Pain Management
- iii. Physical function
- iv. SPARE negative coping

e. Somatization

- i. SCL BPPM Subscale

XXV. Yellow Flag (multiple psychosocial domains)

- a. Orebro
- b. STarT

c. Traumatic Injuries Distress Scale