OPTUM®

Satisfaction & Outcome Acquisition Program (SOAP)

Provider Resource Guide

Table of Contents

Section

1

Introduction: Satisfaction & Outcome Acquisition Program (SOAP) [Back to Table of Contents]

National Challenge

There are a variety of market dynamics highlighting the need to make patient satisfaction and outcome data regarding health care services more transparent to consumers. Consumers play a large part in the changing market landscape, as they will continue to have an increasing role in their health care decision-making, including selection of their health care provider. This trend towards greater transparency highlights the need for providers to have more in-depth knowledge of what drives consumer health care decision-making.

Another major driver of change is the Patient Protection and Affordable Care Act of 2010, which brings significant and sweeping changes to how patients, providers, and payers interact, access, and pay for health care. There is increasing pressure from the U.S. government and employer groups to shift the focus of our health care system to improving outcomes, lowering costs, understanding consumer satisfaction, and increasing overall access to care. As an example, the Affordable Care Act (ACA) has led the Centers for Medicare & Medicaid Services (CMS) to introduce the use of the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Clinician and Group Survey to assess beneficiaries' experience with Accountable Care Organizations (ACOs), medical homes, and medical groups. CMS is also being required to publicly report on patient experience with ambulatory care on its Physician Compare Website (http://www.medicare.gov/find-a-doctor/provider-search.aspx).

Since the mid 1990's Optum® Physical Health (Optum) has supported the use of outcome measures as well as implemented patient satisfaction surveys. More recently, in response to consumers' interest, Optum has developed an initiative to collect patient satisfaction and outcome data to share with consumers. Prior to any data being shared with consumers, providers will have an opportunity to review the information.

The Satisfaction & Outcome Acquisition Program

The Satisfaction & Outcome Acquisition Program (SOAP) initiative promotes delivery of high quality care, through the acquisition and reporting of satisfaction and outcomes data. Obtaining baseline and discharge outcome scores during care at a clinic is crucial.

Optum recommends and makes available the following patient self-report measures:

- **STarT** Back Screening Tool (SBST)
- **Neck Index** Neck Disability Index (NDI)
- **Back Index** Oswestry Disability Index (ODI)
- **DASH** Disabilities of the Arm, Shoulder and Hand
- **LEFS** Lower Extremity Functional Scale

The objectives of this initiative are:

1. **Achieve measureable improvements in quality:** Increase health care providers' insight of patient outcomes and the patient experience, allowing more objective and actionable information, highlighting opportunities for continuous quality improvement (CQI).

2. **Create consumer awareness for patient satisfaction and clinical outcomes:** Combining consumer ratings/reviews that measure consumer satisfaction along with outcomes data, allows consumers to assess and compare patients' experiences and outcomes among health care providers. This aids the consumer in their decision-making when selecting a health care provider.

Section

2

SOAP Initiative – Quick Reference Guide

[Back to Table of Contents]

Note: See related manual sections for detailed information

For each patient…

1. Follow current processes for reporting patient care planning to Optum by submitting the clinical Patient Summary Form (PSF)
2. Register the patient for the Consumer Assessment of Health care Providers and Systems (CAHPS®) Clinician and Group Survey (see Section 3 for instructions)
3. Patient completes the STarT Back Screening Tool (SBST) and one or more of the most appropriate outcome measure tools:
    - Oswestry Back Disability Index (ODI)
    - Neck Disability Index (NDI)
    - Lower Extremity Functional Scale (LEFS)
    - Disability of the Arm, Shoulder and Hand (DASH)
4. Score the tools:
    - SBST:
        - http://provider-backaid.optumhealth.com/
        - http://www.keele.ac.uk/sbst/onlinetool/
        - STarT Back Questionnaire App (for smart phones and tablets)
    - Oswestry, NDI, LEFS and DASH have easy-to-use scoring applications available on the provider Web portal:
        - http://www.myoptumhealthphysicalhealth.com
        - Enter your user name (six-digit Optum provider ID)

- Enter your password (unique password supplied by Optum)

5. Complete and submit the clinical PSF using the provider Web portal, ensuring all outcome measure scores have been documented on the PSF:

    - http://www.myoptumhealthphysicalhealth.com

        – Enter your user name (six-digit Optum provider ID)

        – Enter your password (unique password supplied by Optum)

6. Administer treatment and report patient care management as per your office's standard procedures for your patients

7. Remind patient to complete CAHPS survey as the end of an episode of care approaches

8. At the end of each month, access and complete the PSR (See Section 10 for details)

    - http://www.myoptumhealthphysicalhealth.com

        – Enter your user name (six-digit Optum provider ID)

        – Enter your password (unique password supplied by Optum)

9. If you need assistance or have questions regarding the SOAP initiative, please call (800) 873-4575 and ask to speak with your assigned support clinician.

Section

3

CAHPS® Survey [Back to Table of Contents]

An important element of the SOAP initiative is obtaining feedback from patients regarding their health care experience. The Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Clinician and Group Survey is an initiative of the Agency for Healthcare Research and Quality (AHRQ): http://cahps.ahrq.gov/.

The CAHPS Clinician & Group Survey is a satisfaction questionnaire that allows patients to rate the provider's care and service. By encouraging patients to register and complete a survey following an episode of care, you will receive valuable feedback on your performance. Patients are more likely to participate in the survey process when their treating provider requests feedback using an independent survey company and all survey responses are kept confidential.

The survey asks about patient experiences with a health care provider from the moment they walk into a provider's office until the end of the episode of care. It also includes patient experiences with phone calls or other contact that they had with office personnel. Reporting on experience, not just "satisfaction," produces more objective and actionable information for improvement.

The Clinician & Group Survey is based on questions that ask patients to report their experiences concerning:

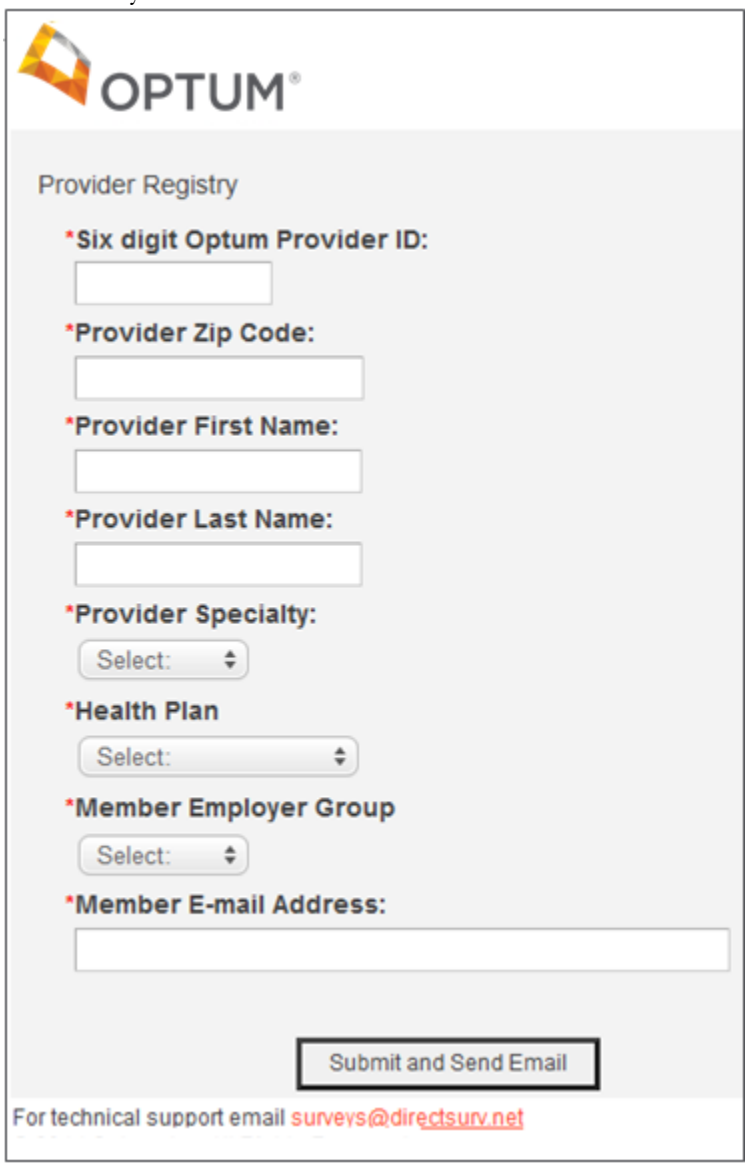
- Ease of scheduling and timeliness of appointments
- Availability of information about conditions and treatments
- Patient-provider communication: did the provider explain something in a way patients understood?
- Courtesy and responsiveness of provider staff
- Treatment outcomes

Patients care about how well their health care provider communicates and whether the office staff is polite and helpful. They want care to be available when they need it. This can help those who are sick get better and patients who are healthy stay healthy.

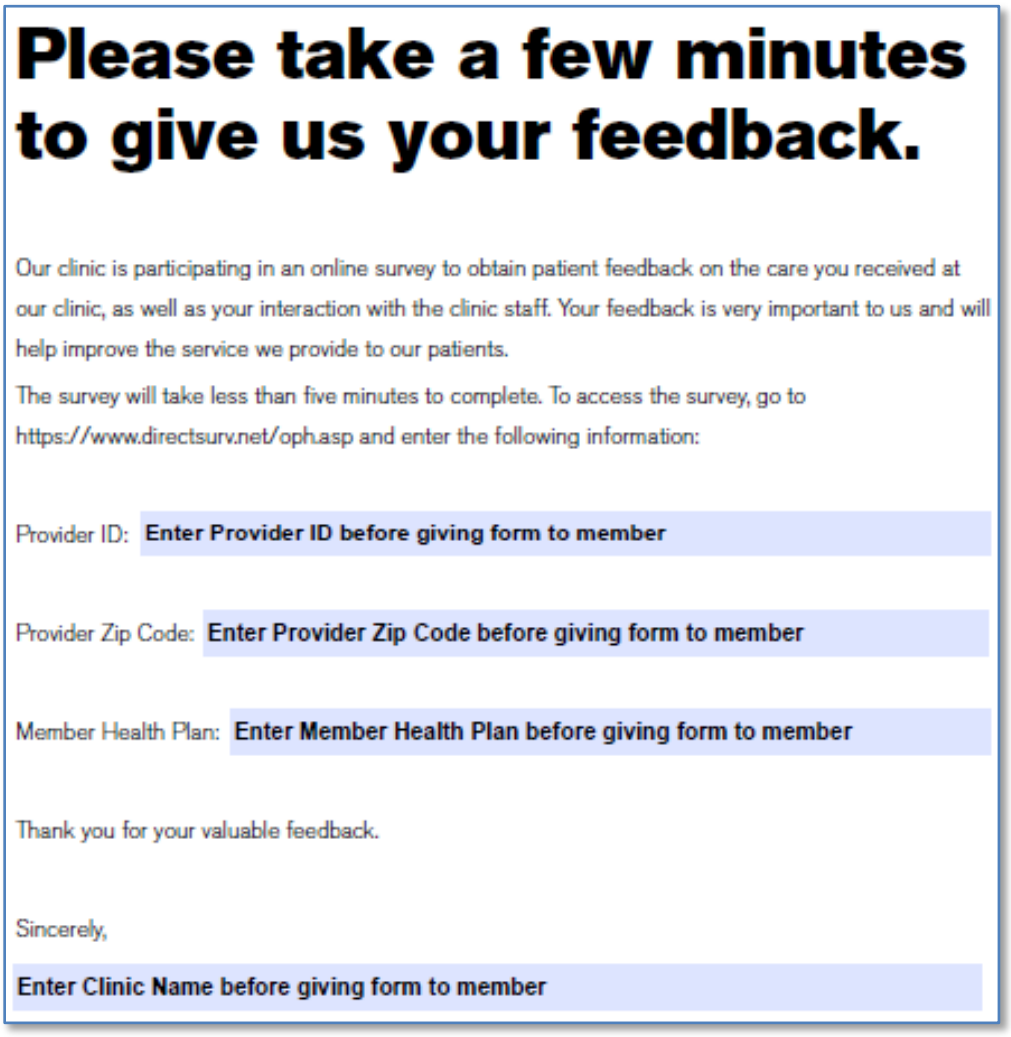
Registering for the CAHPS Survey

There are 2 options for participating in the registration process:

1. **Your office registers patient.** This is the ***preferred process***, when patients are willing to share their email.
   - Log on to the survey Website *(see below)*
   - https://www.directsurv.net/2008/Survey.aspx?s=9c30d0fb2a5546799fc7b3f36e972929
   - Enter your Optum six-digit provider ID, ZIP Code, member health plan, member employer group and patient email address
   - Click "Submit and Send Email"
   - Patient will receive an email from the survey vendor with a link to launch the survey
   - Tip: Add Website URL to your Favorites



2. **The patient self-registers.** For patients who do not have or do not want to provide an email address.
    - Complete the patient registration form *(see below)*
    - http://go.optumhealth.com/optumhealth/cahps/CAHPSform.pdf
    - Enter your Optum six-digit provider ID, ZIP Code and member health plan
    - Print the form for the patient
    - Patient follows instructions to self-register and completes the survey online



Please take a few minutes to give us your feedback.

Our clinic is participating in an online survey to obtain patient feedback on the care you received at our clinic, as well as your interaction with the clinic staff. Your feedback is very important to us and will help improve the service we provide to our patients.

The survey will take less than five minutes to complete. To access the survey, go to https://www.directsurv.net/oph.asp and enter the following information:

Provider ID: **Enter Provider ID before giving form to member**

Provider Zip Code: **Enter Provider Zip Code before giving form to member**

Member Health Plan: **Enter Member Health Plan before giving form to member**

Thank you for your valuable feedback.

Sincerely,

Enter Clinic Name before giving form to member

How you and your office personnel introduce the CAHPS survey registration process to patients makes a difference in their willingness to participate. Feedback from others suggests that using phrases containing negative connotations e.g., "There's a survey I have to do with you"… "There's a survey we are supposed to complete…" etc. undermines participation in the CAHPS survey process.

An example of an approach that conveys the value of participating in the CAHPS survey is, "It's important to me that you are supported and getting what you need from our interactions. To help me know how best to support you now and in the future, I'd like to arrange for you to have an opportunity to complete a confidential survey. The survey is performed by an independent organization at the end of planned care. It asks questions that are important

to patients about their experiences with our office care. Please do not feel rushed into deciding, if you have any concerns."

The following steps describe how to access and review a Tutorial on the CAHPS survey process, on the Optum® provider portal:

1. Go to www.myoptumhealthphysicalhealth.com
2. Enter your Optum six-digit provider ID & password
3. Click "Tools & Resources"
4. Click "Patient Satisfaction CAHPS Survey Tutorial"

Section

4

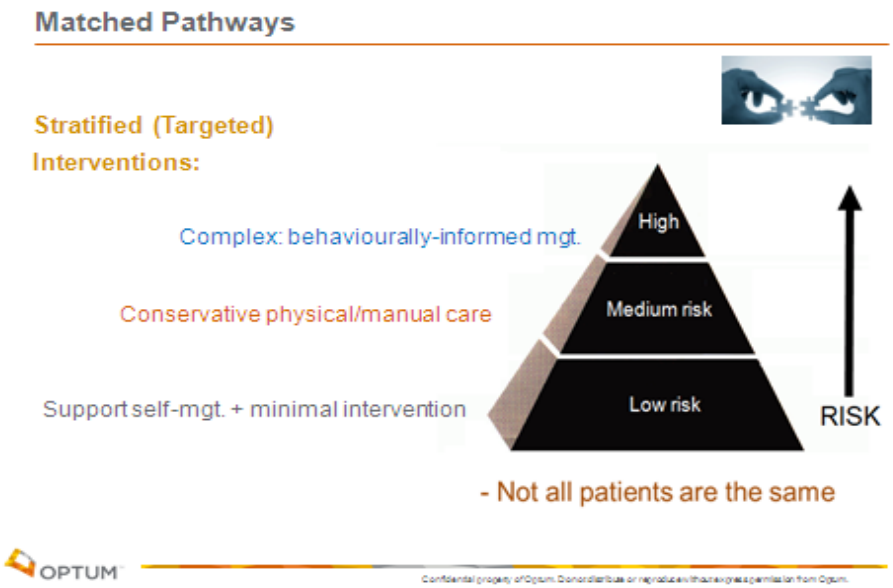
STarT Back Screening Tool [Back to Table of Contents]

Overview

The **Start Back Screening Tool (SBST)** was originally developed at Keele University (http://www.keele.ac.uk/sbst/) for use in primary care to prospectively identify and stratify individual patients with low back pain (LBP) according to their risk of chronicity. It is a nine-item questionnaire that takes less than two-minutes to complete. The SBST has been modified so that the instrument can be applied to patients with a range of musculoskeletal pain problems. It can easily be administered as part of the initial intake data at the point of care e.g., a chiropractor's or therapist's office.

The psychometric properties of the SBST are sufficient to allow for patients with LBP to be placed with confidence into one of three categories (low, medium, high). The validity of the SBST for other musculoskeletal disorders has not been established but is viewed as clinically sensible. This 'subgrouping' system has been aligned with evidence-based treatment approaches tailored to mitigate those factors influencing or confounding recovery. Figure 1 offers a visual depiction of the model.

Figure 1:



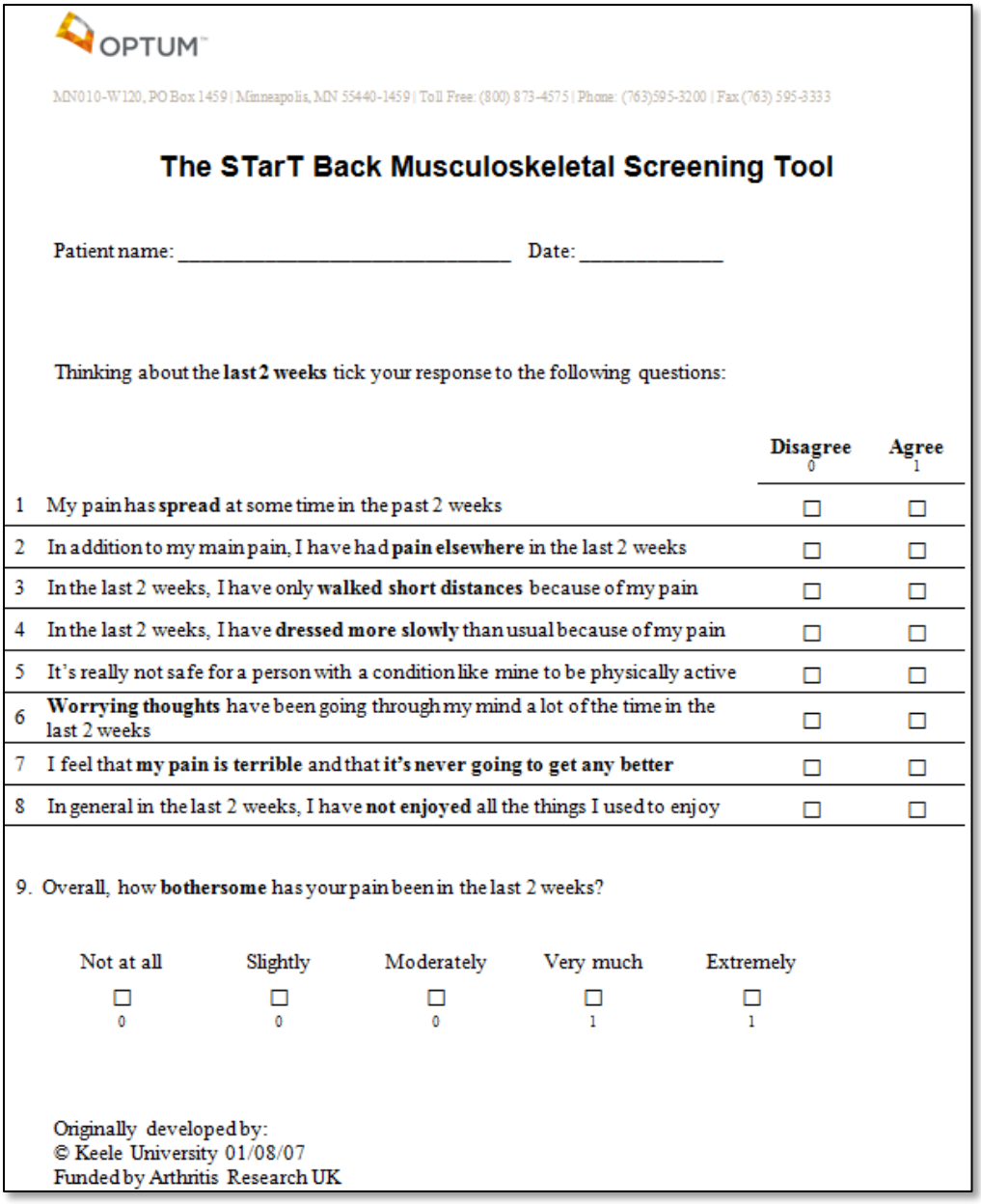
Administration

The SBST is recommended in addition to one or more of the functional outcome tools and needs to be completed only once at the beginning of an episode of care. The SBST is not regarded as a suitable proxy for standardized patient-reported functional outcomes e.g., Oswestry Back Disability Index.

The SBST can be printed, so that patients can complete a paper copy. Click on this hyperlink to open a printable version of the SBST: STarT Back Musculoskeletal Screening Tool - Printable Version

The SBST (Figure 2) consists of 9 items that typically can be completed in less than 2 minutes. The last 4 items represent a distress (yellow flags) sub-scale.

Figure 2:



OPTUM

MN010-W120, PO Box 1459 | Minneapolis, MN 55440-1459 | Toll Free: (800) 873-4575 | Phone: (763)595-3200 | Fax (763) 595-3333

The STarT Back Musculoskeletal Screening Tool

Patient name: _____ Date: _____

Thinking about the **last 2 weeks** tick your response to the following questions:

		Disagree 0	Agree 1
1	My pain has **spread** at some time in the past 2 weeks	☐	☐
2	In addition to my main pain, I have had **pain elsewhere** in the last 2 weeks	☐	☐
3	In the last 2 weeks, I have only **walked short distances** because of my pain	☐	☐
4	In the last 2 weeks, I have **dressed more slowly** than usual because of my pain	☐	☐
5	It's really not safe for a person with a condition like mine to be physically active	☐	☐
6	**Worrying thoughts** have been going through my mind a lot of the time in the last 2 weeks	☐	☐
7	I feel that **my pain is terrible** and that **it's never going to get any better**	☐	☐
8	In general in the last 2 weeks, I have **not enjoyed** all the things I used to enjoy	☐	☐

9. Overall, how **bothersome** has your pain been in the last 2 weeks?

Not at all	Slightly	Moderately	Very much	Extremely
☐ 0	☐ 0	☐ 0	☐ 1	☐ 1

Originally developed by:
© Keele University 01/08/07
Funded by Arthritis Research UK

There is also a commercial app STarTBack Screening App that can be downloaded for use with smartphones and tablets.

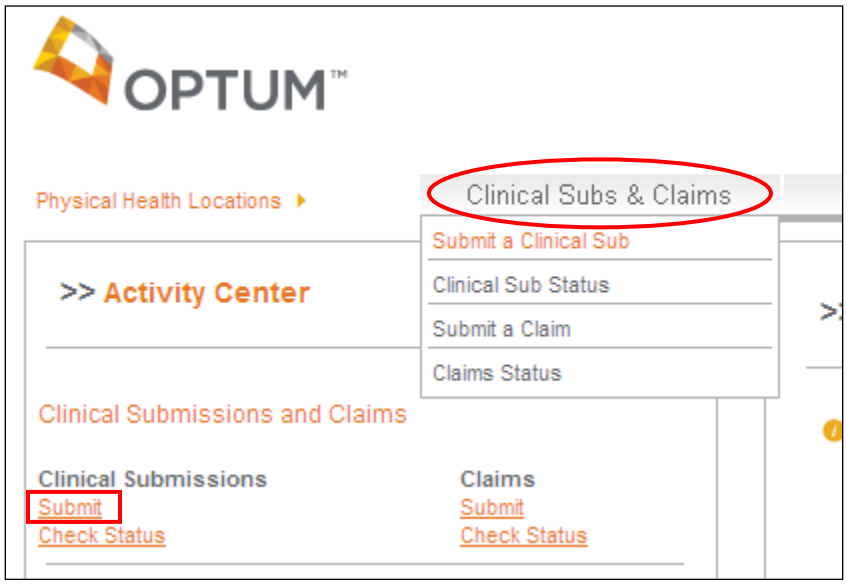
Once the patient has completed the SBST, the results should be recorded within the Optum electronic Patient Summary Form (PSF).

The PSF can be accessed by logging onto the Optum Provider Web Assist Portal:
www.myoptumhealthphysicalhealth.com

Once login is complete, follow these steps:

1. Go to **Clinical Subs & Claims** (Figure 3)
2. Click on **Submit a Clinical Sub**
3. **OR** click Submit below the term **Clinical Submissions**

Figure 3:

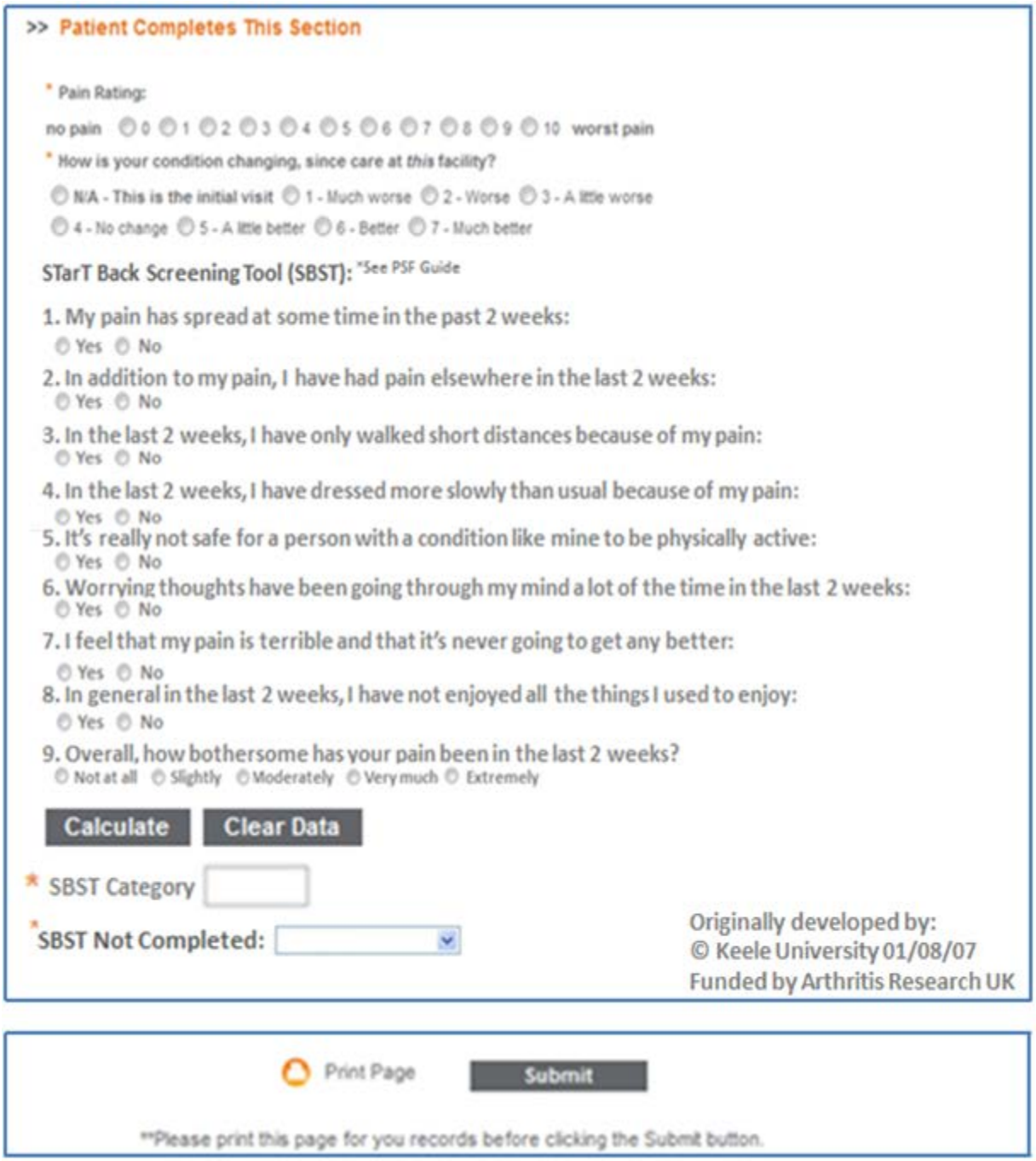


The SBST is located in the **Patient Completes This Section** (Figure 4). By clicking on the "Calculate" button, the SBST will be automatically scored and the category (low, medium or high) will be recorded.

The SBST may not be reported for some patients. For these situations, please record the reason in the drop down list of the "SBST Not Completed" portion of the PSF.

Note: In order to submit the PSF, either the SBST must be calculated or the reason for not administering the SBST must be recorded.

Figure 4:


>> Patient Completes This Section
* Pain Rating:
no pain 0 1 2 3 4 5 6 7 8 9 10 worst pain
* How is your condition changing, since care at this facility?
N/A - This is the initial visit 1 - Much worse 2 - Worse 3 - A little worse
4 - No change 5 - A little better 6 - Better 7 - Much better
STarT Back Screening Tool (SBST): *See PSF Guide
1. My pain has spread at some time in the past 2 weeks:
Yes No
2. In addition to my pain, I have had pain elsewhere in the last 2 weeks:
Yes No
3. In the last 2 weeks, I have only walked short distances because of my pain:
Yes No
4. In the last 2 weeks, I have dressed more slowly than usual because of my pain:
Yes No
5. It's really not safe for a person with a condition like mine to be physically active:
Yes No
6. Worrying thoughts have been going through my mind a lot of the time in the last 2 weeks:
Yes No
7. I feel that my pain is terrible and that it's never going to get any better:
Yes No
8. In general in the last 2 weeks, I have not enjoyed all the things I used to enjoy:
Yes No
9. Overall, how bothersome has your pain been in the last 2 weeks?
Not at all Slightly Moderately Very much Extremely
Calculate
Clear Data
* SBST Category
* SBST Not Completed:
Originally developed by:
© Keele University 01/08/07
Funded by Arthritis Research UK
Print Page
Submit
**Please print this page for you records before clicking the Submit button.

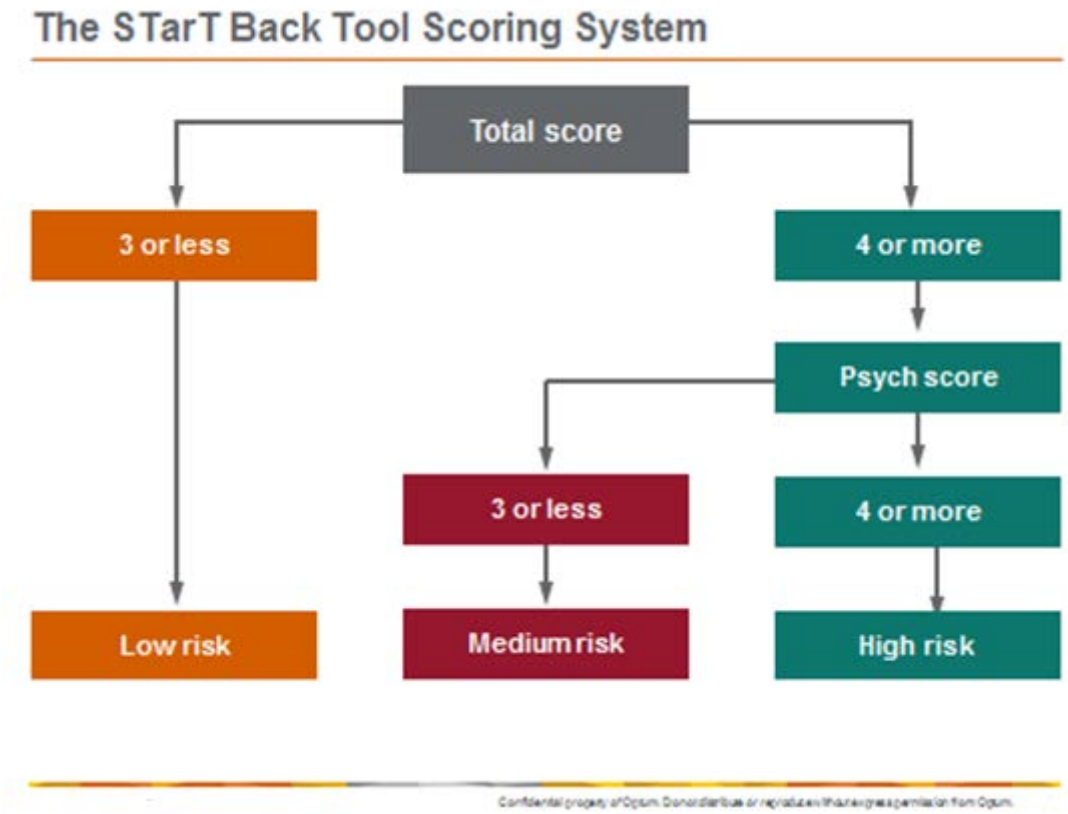
Scoring

The scoring scheme is straightforward and does not require a clinician. Questions left blank are scored "0". The PSF and the mobile app both automatically calculate the SBST score and category.

The *Overall* score is used to separate the low- risk patients from the medium-risk subgroup. Scores range from 0-9 and are produced by adding all positive (1) items. Patients who achieve a score of 0-3 are classified into the low-risk subgroup. Those with scores of 4-9 are allocated to the medium-risk subgroup. (Figure 5)

The *Psychological Distress* sub-score is derived by totaling the score from questions 5–9. These last five items measure fear, anxiety, catastrophizing, depression & bothersomeness (bothersomeness responses are positive for "very much" or "extremely" bothersome back pain). Subscale scores range from 0 to 5 with patients scoring 4 or 5 being classified into the high-risk subgroup.

Figure 5:



Interpretation

This table offers a high level summary of the SBST categories, their characteristics and evidence-based targeted interventions.

Score	Category	Prognosis/Characteristics	Approach
3 or less	Low Risk *40% (26–42)*	• **Low risk of chronicity** • Favorable prognosis • Able to maintain most usual daily activities • Can manage pain pretty well on their own	•**Reassurance** •**Self-management** •**Advice sheet** •**Brief educational video**
4 or more with distress score of 3 or less	Medium Risk *(40%) (25–48)*	• **Physical obstacles to recovery** • Less favorable prognosis/moderate risk of chronicity • Likely experiencing noticeable challenges in ADLs • Optimal recovery achieved using treatments that control pain and/or target physical limitations (manipulation, exercise, OTC)	•Low risk treatment **AND** •**Exercises** •**Manual therapy** •**Return to work advice** •**Medication compliance**
4 or more with distress score of 4 or more	High Risk *20% (8–27)*	• **Psychological obstacles to recovery** • Unfavorable prognosis for normal recovery • Combination of physical challenges **AND** negative psychological response • Treatments target combination of physical and behavioral approaches	•Medium risk treatment **AND** •**Cognitive behavioral treatment (CBT) approach:** – to reduce disability and pain, improve psychological functioning (coping skills) to manage ongoing/future episodes

The distribution of each risk category has been calculated from an analysis of empirical studies where the SBST was used as a screening tool. The median percentiles are reported with the range in parentheses.

Individuals categorized as being at low risk of chronicity, typically can self-manage their episodes with limited skilled intervention. Those in the medium-risk category typically benefit from skilled intervention to best resolve physical/functional limitations, which place individuals at risk of a sub-optimal outcome. Interventions commonly performed by chiropractors, physical and occupational therapists are appropriate for this subgroup. Individuals categorized at high-risk of a poor outcome manifest psychological barriers in addition to physical/functional limitations. More complex interventions that target both psychological distress and physical impairments are generally targeted for this subgroup.

Please consult the Keele University Website (http://www.keele.ac.uk/sbst/) or your designated Optum support clinician for additional information regarding the SBST.

Section

5

Oswestry Back Disability Index & Neck Disability Index [Back to Table of Contents]

Overview

The **Oswestry Back Disability Index (ODI)** and **Neck Disability Index (NDI)** are self-administered questionnaires that have been designed to assess the impact of specific conditions (i.e. low-back pain, neck pain) on patients' ability to perform typical daily functions (intensity of pain, personal care, ability to walk, ability to sit, ability to stand, social life, sleep quality, ability to travel, and the changing degree of pain). These offer a valid and reliable way to measure and accurately assess changes in patients' function (disability). They have been extensively tested, showed good psychometric properties, and applicable in a wide variety of settings.

Due to the variation in patient presentation, the ability to measure degree of functional limitations is important:

- To understand the impact of a patient's condition;
- To tailor the support and information patients need to be successful self-managers;
- Provide "quantifiable" information that can assist in setting obtainable treatment goals; and
- To have a marker for quality care

Administration

The ODI and NDI are first administered as part of your clinic's intake information for an episode of care (baseline). The average completion time is three-minutes. Periodic assessments using the same measurement tool should take place during the course of care. As an example, the ODI and NDI may be repeated based on the chart below or just prior to patient discharge:

Attribute	Instrument	Acute Chronic
Function (Disability)	Neck or Back Index	**Acute** – Baseline + at least every 2 weeks **Chronic** – Baseline + at least every 4 weeks

If a patient cannot complete the ODI or NDI themselves, you may read each statement to them and have them verbally state their agreement. Read each statement exactly as it appears on the survey. Do not add, remove or interpret words. Provide the member with the list of possible responses after each question. If a member does not know the answer, does not believe it applies, or refuses to respond, leave that question blank. Allow the member time to respond; don't rephrase or interpret the question for a quicker response.

Scoring

Both indexes use the following scoring procedure:

The index consists of 10 sections. The heading of each section contains an activity of daily living (ADL) or pain descriptor. Beneath the heading of each section are six statements describing increasing levels of disability or severity of pain. A value ranging from 0 (no disability or pain) to 5 (total disability or severe pain) is assigned to each statement.

For each section, the patient selects the one statement that most closely describes pain intensity, or how the condition affects the ability to perform the ADL described.

To facilitate scoring, the value of each statement corresponds to the number preceding the statement.

The raw score out of 50 is obtained by adding the values of the statements selected in all of the sections. If the patient has answered all 10 sections, the raw score can be multiplied by two to obtain the % Disability.

Example 1:

A patient selects a statement in each of the 10 sections of the index and these add up to 16. Since the patient chose a statement in each section, you can just multiply this score by two to get the % Disability:

Index Score = 16 (total scored) x 2 = 32% disability

For those cases when the patient does not respond to every section, the index score is calculated by adding the values of the statements selected in all of the sections, dividing this total by the maximum possible value of the sections and multiplying the result by 100:

$$\textbf{Index Score} = \frac{\text{Total value of all statements selected}}{\text{Maximum possible value (\# of sections with a statement selected x5)}} \times 100$$

Example 2:

A patient selects a statement in only 9 of the 10 sections and these add up to 16. Since the patient chose a statement in only 9 sections the maximum possible value of the sections is 45 (9 sections x 5). Therefore:

$$\textbf{Index Score} = \frac{16 \text{ (total scored)}}{45 \text{ (total possible)}} \times 100 = 36\% \text{ disability}$$

If a patient selects two or more statements in one section, use the statement with the highest value when calculating the index score. The score(s) from the index(es) should then be transferred to the appropriate box on the Patient Summary Form. The index score from the initial evaluation is the baseline for subsequent re-assessments of the patient's condition. The re-assessment or final evaluation index score is compared with the initial score and previous re-assessment scores to document change in the patient's functional status.

Interpretation

The index scores should be correlated with a patient's evaluation (history and examination), the SBST classification, as well as any additional diagnostic testing to develop a patient-centered treatment plan. Remember that interpreting the ODI and NDI involves more than tallying the points and calculating a total. These indexes are excellent tools for identifying realistic, short-term goals with patients e.g., improve sitting ability from 30 minutes to one-hour within one-week.

The information obtained from the ODI/NDI and the SBST (see Section 4) can be viewed as complementary. Together prognostic triage (SBST) and the assessment of functional limitations (ODI/NDI) provide a more holistic or bio-psychosocial understanding of a person's healthcare needs. This approach takes into account the complex interactions between the physiologic/anatomic components of a physical disorder, and how the patient interprets and responds to pain including coping strategies.

This assessment is the most significant because:

- A higher ODI/NDI score does not always mean there is a greater injury or a more complex condition
- A person's emotional/psychological response to pain has been shown to be a key prognostic risk factor
- Treatment strategies can be "tailored" to overcome identified barriers to recovery

According to the original research on these questionnaires, general grading schemes were developed to categorize the severity of scores as follows:

For the Oswestry Low Back Index:

% Disability Score	Level of Disability	Description
0-20%	Minimal Disability	- Copes with most daily living activities - Usually no treatment is needed, apart from self-care advice on lifting, sitting, posture, physical fitness, and diet.
20-40%	Moderate Disability	- Experiences more pain/problems with sitting, lifting, and standing. - Travel and social life more difficult - May be off work - Conservative management usually helps
40-60%	Severe Disability	- Pain is the main problem, but travel, personal care, social life and sleep are also affected.
60-80%	Crippled	- Pain impinges on all aspects of life at home and at work
80-100%	Bedbound	- Careful observation should be made during the exam as these patients are typically: • Bed-bound or • Exaggerating symptoms

For the Neck Disability Index:

Raw Score (Out of 50)	% Disability (Out of 100)	Level of Disability
0 – 4	0 – 8%	no disability
5 -14	10 – 28%	mild
15 – 24	30 -48%	moderate
15 – 34	50 – 68%	severe
Above 34	Above 68%	complete disability

Assessing Treatment Response

Functional outcomes measures like the ODI and NDI provide valid and reliable information about clinical improvement or the lack thereof during an episode of care. These tools translate patient data into objective (quantified) measures of treatment response. Psychometric testing supplies the health care provider with a basis for making informed judgments about meaningful clinical improvement, treatment success and appropriate care management.

The minimal clinically important change (MCIC) is the smallest change in the ODI/NDI that a patient usually considers to be worthwhile. The MCIC for both the ODI and the NDI can be assessed in either absolute or relative terms. A 10% absolute change (e.g., 60% → 50%), or a 30% relative change (e.g., 50% → 35%) represents MCIC. Patients, who are not achieving at least MCIC with care, should be evaluated for the appropriateness of a change in management approach, and/or referral, and/or discharge.

Effective care management, which equates to ***treatment success***, is typically calculated as ≥50% relative change (e.g., 50% → 25% ODI score = a 50% relative change). Patients who do not achieve treatment success may not be suitable candidates for periodic chronic care management (supportive care). More likely, these patients may benefit from referral to an alternative treatment approach.

The likelihood of a patient's responsiveness to treatment can generally be identified early during care management e.g., within the first two weeks. For those patients exhibiting a positive response to treatment, recovery patterns for a range of musculoskeletal conditions (including spine-related disorders) show that clinically meaningful change is usually detectable within the first two weeks of the index visit. After four to six weeks of care management many patients with common musculoskeletal disorders exhibit >50% of improvement in pain and/or function. Further clinically meaningful improvement usually does not take place beyond 12 weeks.

Practical Application

Patients gauge the severity of their conditions by the limitations they have on everyday activities. Thus, they evaluate the effectiveness of our treatment plans on the improvement of their activity level. Patient satisfaction with our care is found to increase when the healthcare provider focus on how symptoms are affecting their lives and understand the specific concerns that they have.

It may be helpful to understand not only what activities are painful or limited, but understand how difficult, how important, and how often the activity is required to be performed. For example, someone with low back pain who identifies sitting as limited and painful and works in a sedentary office environment will place greater importance on this function as compared to someone with a similar complaint but works at a job where they stand all day. Understanding these variables helps providers focus on the patient, the functional difficulties they are having and set realistic and attractive/valuable goals for the patient.

Please consult with your designated Optum support clinician for additional information regarding the Oswestry or Neck Disability Index. Additional information on treatment effectiveness and limitations on these instruments as well as a downloadable copy may be accessed on the Optum provider portal.

1. Go to www.myoptumhealthphysicalhealth.com
2. Enter your Optum six-digit provider ID & password
3. Scroll over the drop-down menu "Clinical Resources"
4. Click "Clinical Forms"

Section

6

Lower Extremity Functional Scale

[Back to Table of Contents]

Overview

The Lower Extremity Functional Scale (LEFS) was developed to evaluate the functional impairment of a patient with a disorder of one or both lower extremities. The LEFS is a self-report, condition-specific questionnaire. It is comprised of 20 questions about a person's ability to perform everyday tasks that involve balance, coordination, functional mobility, occupational performance, quality of life, range of motion and strength.

The LEFS can be used as a measure of initial function, ongoing progress and outcome (effectiveness of an episode of care), as well as to set functional goals. It has been proven to yield reliable and valid measurements.

Administration

The LEFS is first administered as part of your clinic's intake information for an episode of care (baseline). The average completion time is three to five minutes by the patient and 30 seconds to score by the health care provider. The LEFS may be repeated during care and just prior to patient discharge:

If a patient cannot complete the LEFS themselves, you may read each statement to them and have them verbally state their agreement. Read each statement exactly as it appears on the survey. Do not add, remove or interpret words. Provide the member with the list of possible responses after each question. Allow the member time to respond; don't rephrase or interpret the question for a quicker response.

Scoring

Patients answer the question "Today, do you or would you have any difficulty at all with:" in regards to twenty different activities. Patients select an answer from the following scale for each activity listed:

0. Extreme Difficulty or Unable to Perform Activity
1. Quite a Bit of Difficulty
2. Moderate Difficulty

3. A Little Bit of Difficulty

4. No Difficulty

LEFS is scored by summation of all responses (one answer per section). If a patient selects two or more statements in one section, use the statement with the highest value when calculating the index score. The LEFS **raw score is the final score** and should be compared to a total possible score of 80 as a reference point.

$$\text{(Score} = \frac{\text{sum of responses}}{80}\text{)}$$

THE LOWER EXTREMITY FUNCTIONAL SCALE

We are interested in knowing whether you are having any difficulty at all with the activities listed below because of your lower limb Problem for which you are currently seeking attention. Please provide an answer for each activity.

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

	Activities	Extreme Difficulty or Unable to Perform Activity	Quite a Bit of Difficulty	Moderate Difficulty	A Little Bit of Difficulty	No Difficulty
1	Any of your usual work, housework, or school activities.	0	(1)	2	3	4
2	Your usual hobbies, re creational or sporting activities.	(0)	1	2	3	4
3	Getting into or out of the bath.	0	(1)	2	3	4
4	Walking between rooms.	0	1	(2)	3	4
5	Putting on your shoes or socks.	0	1	2	(3)	4
6	Squatting.	0	(1)	2	3	4
7	Lifting an object, like a bag of groceries from the floor.	0	1	2	(3)	4
8	Performing light activities around your home.	0	1	(2)	3	4
9	Performing heavy activities around your home.	0	(1)	2	3	4
10	Getting into or out of a car.	0	1	(2)	3	4
11	Walking 2 blocks.	0	1	(2)	3	4
12	Walking a mile.	0	(1)	2	3	4
13	Going up or down 10 stairs (about 1 flight of stairs).	0	(1)	2	3	4
14	Standing for 1 hour.	0	1	(2)	3	4
15	Sitting for 1 hour.	0	1	2	(3)	4
16	Running on even ground.	(0)	1	2	3	4
17	Running on uneven ground.	(0)	1	2	3	4
18	Making sharp turns while running fast.	(0)	1	2	3	4
19	Hopping.	(0)	1	2	3	4
20	Rolling over in bed.	0	1	2	3	(4)
	Column Totals:					

Minimum Level of Detectable Change (90% Confidence): 9 points **SCORE: (29) / 80**

Reprinted from Binkley, J., Stratford, P., Lott, S., Riddle, D., & The North American Orthopaedic Rehabil ch Network, The Lower Extremity Functional Scale: Scale development, measurement properties, and clinical application, Physical T 79, 4371-383, with permission of the American Physical Therapy Association.

$$\text{Score} = \frac{\text{sum of responses}}{80} = \frac{29}{80}$$

The raw score from the index should then be transferred to the appropriate box on the online PSF. In the example above, this would be the raw score of 29. The index score from the initial evaluation is the baseline for subsequent re-assessments of the patient's condition. The re-assessment or final evaluation index score is compared with the initial score and previous re-assessment scores to document change in the patient's functional status.

Interpretation

The maximum possible score is 80 points, indicating very high function. The minimum possible score is 0 points, indicating very low function. So, the lower the score the greater the patient disability.

- The minimal detectable change (MDC) is 9 scale points. Therefore, change of more than 9 points on the LEFS represents a true change.
- The minimal clinically important difference (MCID) is 9 scale points. This means that a change of greater than 9 points is a clinically meaningful functional change.
- There is an error of +/- 5 points. This means that an observed score is within 5 points of a patients "true" score.
- Percent of maximal function = (LEFS score) / 80 * 100

Assessing Treatment Response

Similar to the ODI and NDI, the LEFS can provide valid and reliable information about clinical improvement or the lack thereof during an episode of care. The information gained from the LEFS, affords the health care provider with objective (quantified) measures of treatment response. The LEFS supplies the health care provider with a basis for making informed judgments about meaningful clinical improvement, treatment success and appropriate care management, including setting treatment goals.

The minimal clinically important change (MCIC) is the smallest change in the LEFS that a patient usually considers to be worthwhile. The MCIC for the LEFS can be assessed by an absolute change of +/- 9 scale points (e.g., 60% → 69%). Health care providers can be confident that a change of 9 scale points or more is not only a true change, but a clinically meaningful functional change in the patients' status. Patients, who are not achieving at least MCIC with care, should be evaluated for the appropriateness of a change in management approach, and/or referral, and/or discharge.

Effective care management, which equates to ***treatment success***, is typically calculated as ≥50% relative change (e.g., 40/80 → 20/80 LEFS score = a 50% relative change). Patients who do not achieve treatment success may not be suitable candidates for periodic chronic care management (supportive care). More likely, these patients may benefit from referral to an alternative management approach.

The emerging evidence for common musculoskeletal conditions involving the lower extremities parallels that of spine-related disorders. A patient's likely responsiveness to treatment can generally be identified early during care management e.g., within the first two weeks. For those patients exhibiting a positive response to treatment, recovery patterns for a range of common musculoskeletal disorders show that clinically meaningful change is usually detectable within the first two weeks of the index visit. After four to six weeks of care management many patients with common musculoskeletal disorders exhibit ≥50% of improvement in pain and/or function. Further clinically meaningful improvement, attributable to skilled rehabilitative interventions, usually does not take place after an episode of care extends beyond 12 weeks.

Practical Application

Consider a patient that has recently sprained their ankle playing football. The patient has activity limitations as observed by a LEFS score of 30/80 (LEFS range 0–80, 80 = *full function*). Knowing that this patient's condition is acute, and that the patient would be expected to experience rapid improvement, the health care provider can set a one-week, short-term goal to increase the LEFS score greater that the MCID. In this scenario, the health care provider may set the one-week goal to increase the LEFS greater than the MCIC of 9 points. At one-week of care, the LEFS is re-administered with the patient's LEFS score going from 30 to 45 (taking into account the LEFS error of 5 points at any given time). The LEFS increased by 15 points; this 15-point change is greater than the error in the LEFS and is considered clinical meaningful change, because the MCIC is 9 points. It is evident that the patient is improving with care, but still has some loss of functional activity, as their LEFS score of 45/80 (56%) still indicates a level of functional deficit. The health care provider can review the individual items on the LEFS and then assess the areas of greatest functional deficit to set new goals.

Please consult with your designated Optum support clinician for additional information regarding the LEFS. Additional information and a downloadable copy of the instrument may be accessed on the Optum provider portal.

1. Go to www.myoptumhealthphysicalhealth.com
2. Enter your Optum six-digit provider ID & password
3. Scroll over the drop-down menu "Clinical Resources"
4. Click "Clinical Forms"

Section

7

Disability of the Arm, Shoulder, and Hand Scale [Back to Table of Contents]

Overview

The Disability of the Arm, Shoulder, and Hand scale (DASH) is a 30-item self-report questionnaire that measures physical function, symptom, and social/role function items. The DASH was jointly developed by the Institute for Work & Health and the American Academy of Orthopaedic Surgeons (AAOS). The project was supported by the American Association for Hand Surgery, the American Orthopaedic Society for Sports Medicine, the American Shoulder & Elbow Surgeons, the American Society for Surgery of the Hand, the Arthroscopy Association of North America and the American Society of Plastic and Reconstructive Surgeons.

The DASH was designed to measure physical disability and symptoms in a heterogeneous population. This includes males and females; people who place low, moderate or high demands on their upper limbs during their daily lives; and people with a variety of upper-limb disorders.

The tool has been found to be a reliable instrument that can be used to assess any or all joints in the upper extremity.

Administration

The DASH is first administered as part of your clinic's intake information for an episode of care (baseline). The average completion time is five minutes. The DASH may be repeated periodically during care or just prior to patient discharge.

Similar to the LEFS, if a patient cannot complete the DASH themselves, you may read each statement to them and have them verbally state their agreement. Read each statement exactly as it appears on the survey. Do not add, remove or interpret words. Provide the member with the list of possible responses after each question. Allow the member time to respond; don't rephrase or interpret the question for a quicker response.

Scoring

The DASH Outcome Measure is scored in two components: the disability/symptom section (30 items, scored 1-5) and the optional high performance Sport/Music or Work section (four items, scored 1-5). However, currently Optum recommends only submitting the score for the disability/symptom section (30 items).

The following simple steps are used to score the DASH:

1: Patients are asked to answer all sections and respond based on their ability to perform activities over the past week; only one answer per question.

2: At least 27 of the 30 items **must** be completed for scoring. That is, if more than three items are left blank by the patient, you will not be able to calculate a DASH disability/symptom score.

3: Utilizing the formula below, the assigned values completed by the patient are summed and divided by the number of questions answered, producing a score out of five. This value is transformed to a score out of 100 by subtracting one and multiplying by 25.

$$\text{DASH} = \left\{ \frac{(\text{sum of } n \text{ responses})}{n} - 1 \right\} \times 25 \qquad n = \text{total number of questions answered}$$

4: The calculated percent score should then be transferred to the appropriate box on the online PSF. In the example below, this would be the score of 35.83. The index score from the initial evaluation is the baseline for subsequent re-assessments of the patient's condition. The re-assessment or final evaluation index score is compared with the initial score and previous re-assessment scores to document change in the patient's functional status.

$$\text{DASH} = \{ (73 / 30) - 1 \} \times 25 = 35.83\%$$

Interpretation

The maximum possible score is 100%, indicating very low function. The minimum possible score is 24%, indicating very high function. So, the higher the score the greater the patient disability.

- The minimal detectable change (MDC) is 13 scale points. Current literature holds 13 points to be the minimal change in score to be statistically significant at the 95% confidence interval.
- The minimal clinically important difference (MCID) is 15 scale points. This represents the change in score required to be considered clinically significant.

You may visit the DASH Website at www.dash.iwh.on.ca for additional resources.

Assessing Treatment Response

Similar to the ODI, NDI and LEFS, the DASH can provide valid and reliable information about clinical improvement or the lack thereof during an episode of care. The information gained from the DASH affords the health care provider with objective (quantified) measures of treatment response. The DASH supplies the health care provider with a basis for making informed judgments about meaningful clinical improvement, treatment success and appropriate care management, including setting treatment goals.

The minimal clinically important change (MCIC) is the smallest change in the DASH that a patient usually considers to be worthwhile, and can be used as a measure of responsiveness. The MCIC for the DASH can be assessed by an absolute change of 15 scale points. Health care providers can be confident that a change of 15 scale points or more is not only a true change, but a clinically meaningful functional change in the patients' status. Patients, who are not achieving at least MCIC with care, should be evaluated for the appropriateness of a change in management approach, and/or referral, and/or discharge.

Effective care management, which equates to ***treatment success***, is typically calculated as ≥50% relative change (e.g., 60% → 30% DASH score = a 50% relative change). Patients who do not achieve treatment success may not be suitable candidates for periodic chronic care management (supportive care). More likely, these patients may benefit from referral to an alternative management approach.

The emerging evidence for common musculoskeletal conditions involving the upper extremities parallels that of spine-related disorders. The likelihood of a patient's responsiveness to treatment can generally be identified early during care management e.g., within the first two weeks. For those patients exhibiting a positive response to treatment, recovery patterns for a range of common musculoskeletal disorders show that clinically meaningful change is usually detectable within the first two weeks of the index visit. After four to six weeks of care management, many patients with common musculoskeletal disorders exhibit ≥50% improvement in pain and/or function. Further clinically meaningful improvement, attributable to skilled rehabilitative interventions, usually does not take place after an episode of care extends beyond 12 weeks.

Additional details on recovery patterns and treatment response, and how they may assist in the timely identification of progress towards goals, assessment of treatment effect, and identification of end-points in care due to maximum therapeutic benefit, may be reviewed by visiting www.myoptumhealthphysicalhealth.com Website and reading clinical policy 84: Determination of Maximum Therapeutic Benefit (MTB).

Practical Application

Consider a patient that has recently injured their elbow, and presents with activity limitations as observed by an initial DASH score of 40/100 (DASH range 0–100, 0 = *no disability*). Knowing that this patient's condition is acute, and that the patient would be expected to experience rapid improvement, the health care provider can set a one-week, short-term goal to increase the DASH score greater that the MCID. In this scenario, the health care provider may set the one-week goal to increase the DASH greater than the MCIC of 15 points. At one-week of care, the DASH is re-administered with the patient's DASH score going from 40 to 10. The LEFS decreased by 30 points, and is considered clinical meaningful change, because the MCIC is 15 points. The patient reports that they can fully participate in work and leisure activities without any discomfort. It is evident that the patient improved with care with no functional limitations, even though their second DASH score was not 0%. This shows the importance of

not trying to treat to a 0 score, but rely on goal setting and functional change to determine treatment response, and timing of patient discharge.

Please consult with your designated Optum support clinician for additional information regarding the DASH. Additional information as well as a downloadable copy of the instrument may be accessed on the Optum provider portal.

1. Go to www.myoptumhealthphysicalhealth.com
2. Enter your Optum six-digit provider ID & password
3. Scroll over the drop-down menu "Clinical Resources"
4. Click "Clinical Forms"

Section

8

Global Perceived Effect Scale [Back to Table of Contents]

Overview

Whether a patient's condition has improved or deteriorated with care is core to clinical practice, and the information gained from measuring this change is used in making decisions regarding prognosis, treatment, and ongoing management. The need to be able to measure and assess the clinical relevance of the measured change from the patient's perspective is important.

While measurement of physical functioning usually takes place using condition-specific questionnaires e.g., ODI or NDI, perceptions of change scales or global ratings of change scales are used to measure the domain of patient satisfaction with the *outcome* of care. The global perceived effect (GPE) scale is a commonly used anchor-based approach, in both research and clinical practice for measuring a patient's own impressions of change in their condition. Choosing an anchor that corresponds to a significant event improves the ability of a patient to recall health status at that time which optimizes the reliability of the score. In the question utilized by Optum, this event is the commencement of treatment at the current facility.

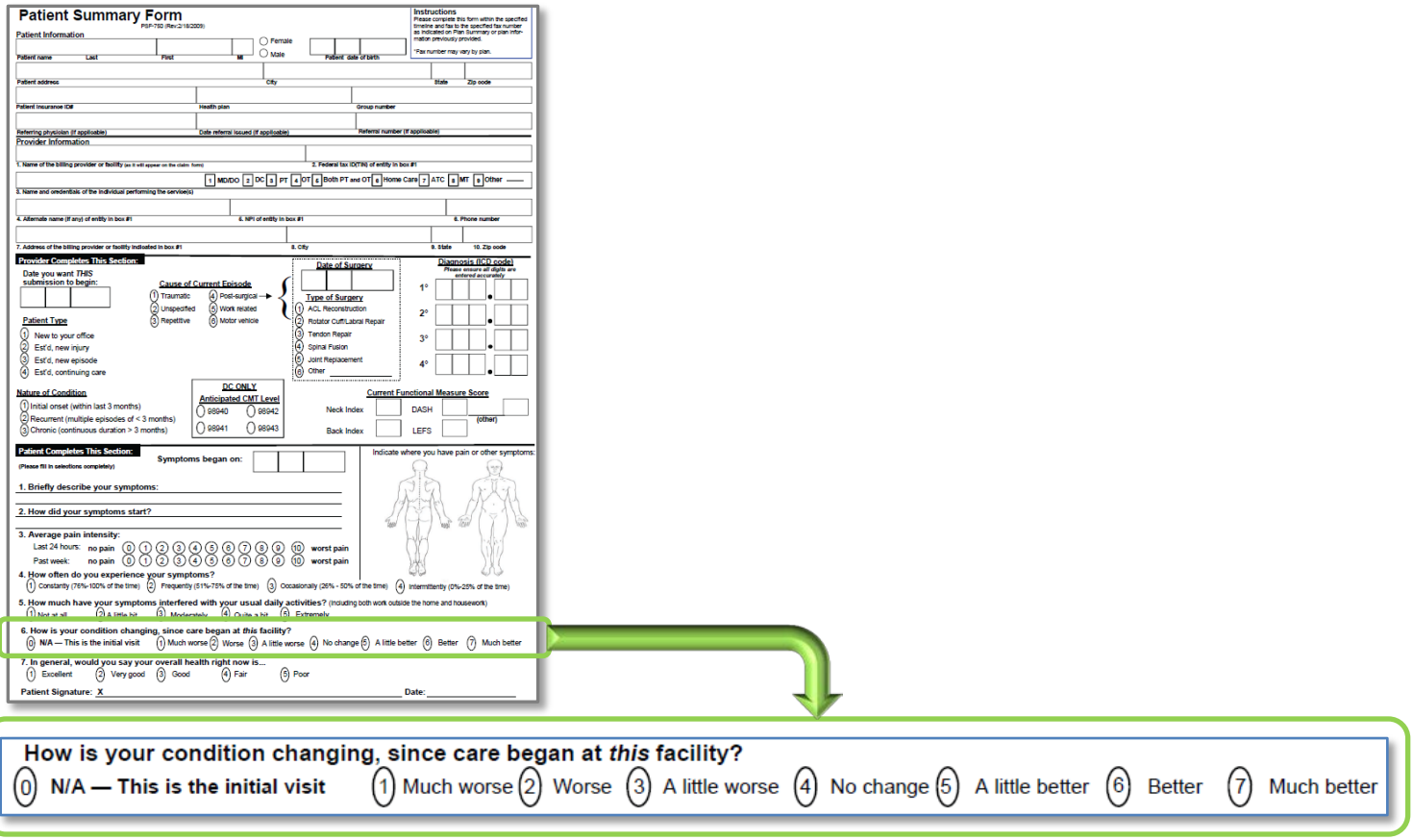
These 'global impressions of change' scales constitute an external criterion or gold standard of clinically important change. The determinations of meaningful important change values are calculated by using statistical methodologies in combination with descriptive criteria.

It is important to realize that use of the GPE scale does not eliminate the need to collect other outcome information, such as functional limitations using the ODI or NDI. Rather the GPE scale may access important and relevant information additional to standardized pain and disability indexes.

There are variations in the design of GPE scales, such as the type of question asked, how many points are on the scale, and the labels assigned to the scale points. The optimal number of response categories has been investigated. Scales of Seven to 10 points appear to provide the best balance of reliability, discriminatory power, utility and patient preferences. Optum utilizes a design with a seven-point, likert scale that asks the patient to assess how their condition has changed, since beginninge at this facility. The scale provides a method of obtaining information in a quick and efficient manner.

Administration

The GPE scale is part of the current Optum intake Patient Summary Form (PSF) that is completed by the patient, and submitted electronically to Optum by the health care provider, making the GPE scale easy to administer. The GPE scale is taken alongside a functional outcome index (e.g. ODI and NDI) to see if the functional outcome scores actually represent a perceived change. The average completion time for the patient is less than 10 seconds. Periodic assessments using the same measurement tool, alongside the functional outcome tool should take place during the course of care. Below is a view of PSF that patient completes, and an enlarged view of the GPE scale.



The GPE scale is also administered as part of the CAHPS survey instrument.

Scoring

The GPE index used by Optum asks the patient to assess how their condition has changed, since beginning care at this facility. The scale, being a single question, provides a method of obtaining information in a quick and efficient manner. The patient selects one point on the scale, and the results are easy to interpret.

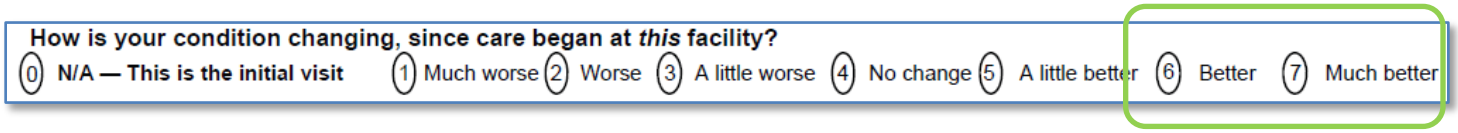
Interpretation

The "global" aspect of the GPE scale is important and distinguishes itself from functional outcome measures (e.g., ODI and NDI), that may focus on one specific dimension of the patient's health status such as disability. Instead, the GPE scale allows the patients themselves to decide what they consider important.

Global rating scales are used as external criteria that aid in the interpretation of validated core outcome measurements (e.g., ODI and NDI). These scales make intuitive sense in that they ask individual patients to provide measurable data concerning their subjective judgments about the meaning of change. For the most part, global rating scales have not been tested for reliability and validity. Accordingly, they are typically used to inform the interpretation of standardized outcome measures i.e., pain and physical functioning. Global ratings that convey responses of "much improved" and "very much improved" are broadly interpreted as clinically meaningful.

Minimal clinically important change (MCIC) is the smallest change in the OA (outcome assessment) score that the patient perceives as beneficial. Another analogous term, Minimal Clinically Important Difference (MCID) is defined as the smallest change that is important to patients. The MCIC and MCID differ in context. MCIC is a measure of meaningful change at the individual patient level. MCID refers to meaningful change within a group i.e., between patients.

Scores of *6 or 7* on the 7-point scale equates to clinically meaningful improvement.



Practical Application

The *Integration of the Global Perceived Effect Scale with Core Outcome Measurements* provides guidance in the interpretation of standard outcome measures (pain and physical function) in the context of a global measurement of satisfaction with treatment outcome. Four possible scenarios are described:

Scenario A: Core Outcome Measures (e.g. ODI, NDI) and Global Perceived Effect Scale AGREE

Clinical Decision-Making	Score Details	Clinical Considerations
Straightforward: Patient Improved or Not improved	All outcomes favor the same direction i.e., improved or not improved.	Patient perception is aligned with valid and reliable outcome assessment tools (OA). Care management should be in accord with the likelihood of MCIC with ongoing care.

Scenario B: Core Outcome Measures AGREE and Global Perceived Effect Scale DISAGREE

Clinical Decision-Making	Score Details	Clinical Considerations
Straightforward: Patient Improved	Core outcome measures are consistent for clinically meaningful improvement, but GPE score is < 5.	Patient satisfaction with outcome is at variance with standard OA. Final status may be influenced by patient discussion.

Scenario C: Core Outcome Measures AGREE and Global Perceived Effect Scale DISAGREE

Clinical Decision-Making	Score Details	Clinical Considerations
Complex: Improved → Not improved	Core outcome measures are consistent for NO clinically meaningful improvement and GPE score is > 6.	• Lack of improvement as reported in standardized OA conflicts with the patient self-report. • Patient discussion is indicated to ascertain the most likely 'change-status' of the patient.

Scenario D: Core Outcome Measures DISAGREE

Clinical Decision-Making	Score Details	Clinical Considerations
High Complexity: Improved → Not improved	Outcome measures for pain and disability are at variance. The GPE scale is in agreement with one of the standard outcome assessments.	The GPE scale can be helpful with informing judgment. Other factors to consider include: • the relative values placed upon types of outcomes i.e., pain reduction for acute vs. change in Activities of daily living (ADL) for chronic • magnitude of clinical change in standard OA e.g., large change in pain level vs. modest change in pain • magnitude of change in GPE scale • probability of further MCIC

Section

9

Patient Summary Form – Data Entry System

[Back to Table of Contents]

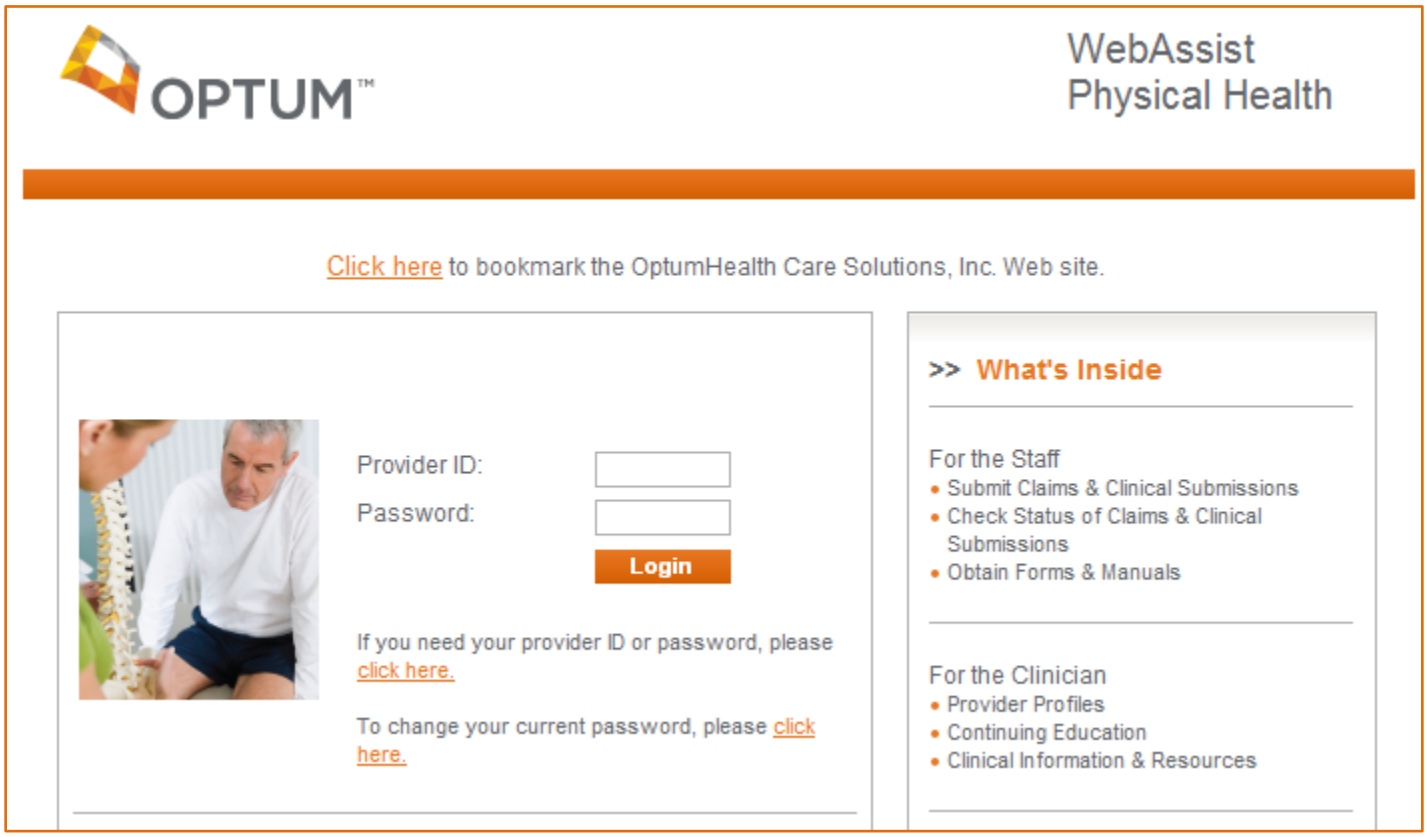
Overview

As part of the Optum network, participating health care providers are already familiar with submitting the PSF to Optum. However, a brief review is presented in this section for entering initial outcome measure scores. The data entry steps are intended to be straightforward and easily completed by the treating health care provider. This section includes detailed guidance for each data entry step in order to better assure an understanding of the terms and descriptors.

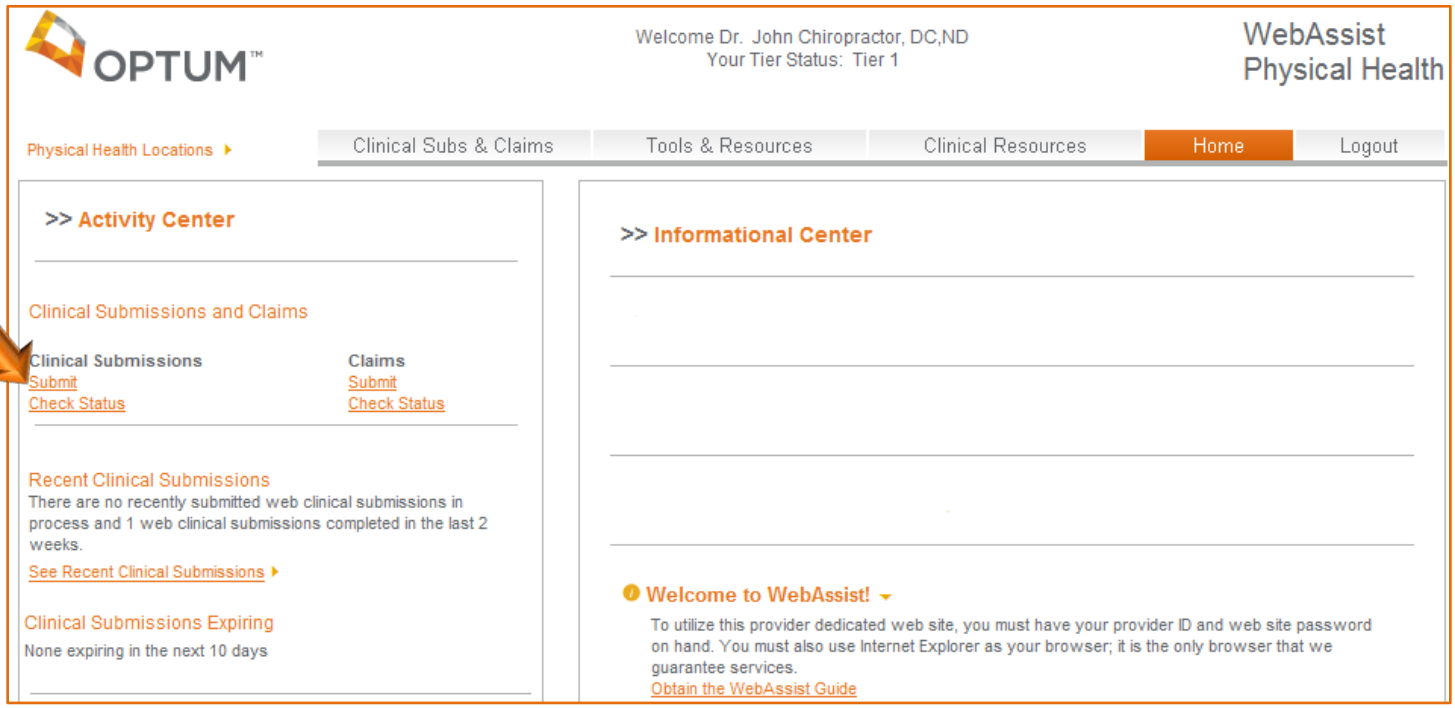
Detailed Guidance

As always, your assigned support clinician can further assist should you have any questions regarding the data entry system.

1. **Logging into the Optum Provider Portal System**
    1. Login to the Optum Provider Site: http://www.myoptumhealthphysicalhealth.com/
    2. Enter your Optum six-digit Provider ID and Password.
    3. Click “Log In" to continue.

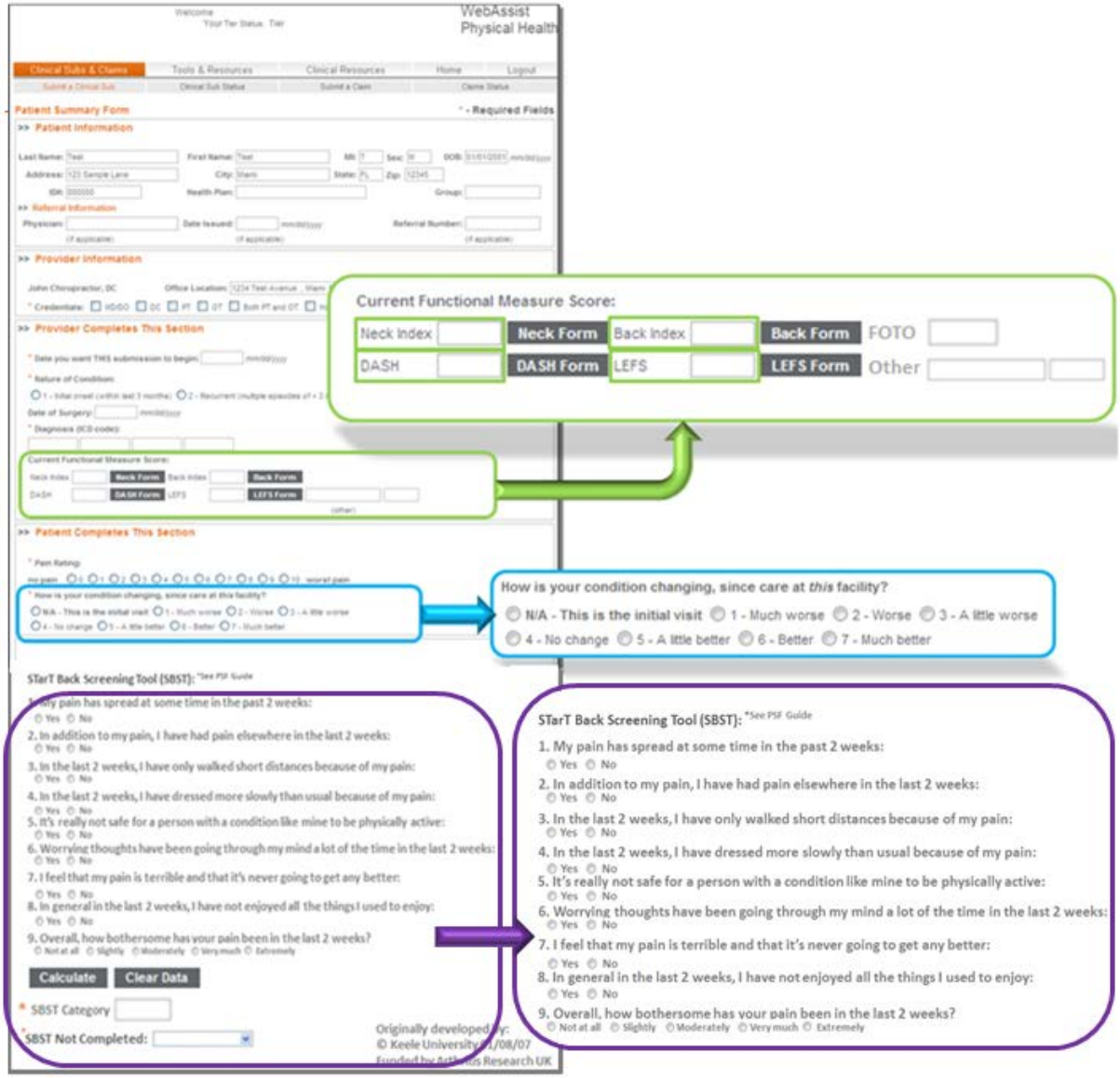


- You should now see the Welcome Page. Click on "Submit" under "Clinical Submissions" to create and submit a PSF.

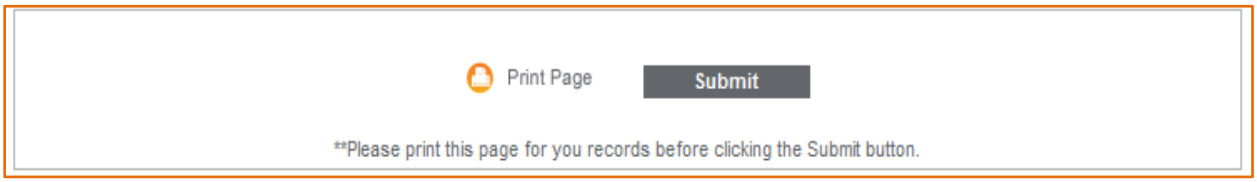


2. Entering Outcomes, Global Perceived Effect (GPE) and STarT Back (SBST) Scores

- You should now see the Patient Information Section come up. After completing the Patient Information Section, the Provider Section with the Outcome Measure, GPE and SBST scoring boxes will appear. Below is an enlarged view of these specific score areas, with the Outcome Scores highlighted in green, the GPE scores highlighted in blue and the SBST highlighted in purple.
  - Enter the outcome scores in the appropriate box directly, or utilize the scoring algorithm to assist in scoring the functional outcome tool (gray box).
  - Enter the GPE score in the appropriate box directly.
  - Enter the SBST scores for each question directly. Then click the gray "Calculate" button, the SBST will be automatically scored and the category (low, medium or high) will be recorded. The SBST may not be reported for some patients. For these situations, please record the reason in the drop down list of the "SBST Not Completed" portion of the PSF. **Note: In order to submit the PSF, either the SBST must be calculated or the reason for not administering the SBST must be recorded.**



- Once you have completed all sections, print a copy for your records and then press the "Submit" button.



- You can process another PSF, go to the homepage for additional resources, or close out of the Website.

Section

10

Patient Status Report – Data Entry System

[Back to Table of Contents]

Overview

The Patient Status Report (PSR) captures reportable data that allow for useful conclusions about patient outcomes (benefits/undesirable events), and the efficacy of care. The PSR serves as the mechanism for the provider to report recognized clinical quality measures at the individual patient level, and for Optum to report back to the provider at a population level.

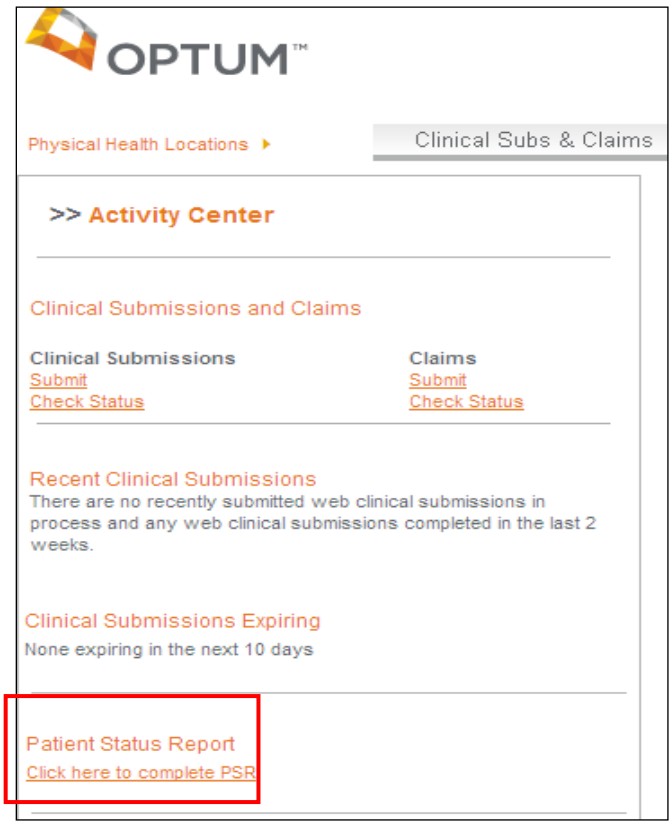
The PSR is electronically completed by the health care provider at the end of an episode of care. An episode of care is complete when any of the following occur:

- When patient is discharged by the provider; or
- When patient self-discharges; or
- When the timeframe of clinically appropriate/medically necessary care has been reached (note: The end date will appear on the PSF response letter from Optum).

Submitting the PSR - Provider Reported Data

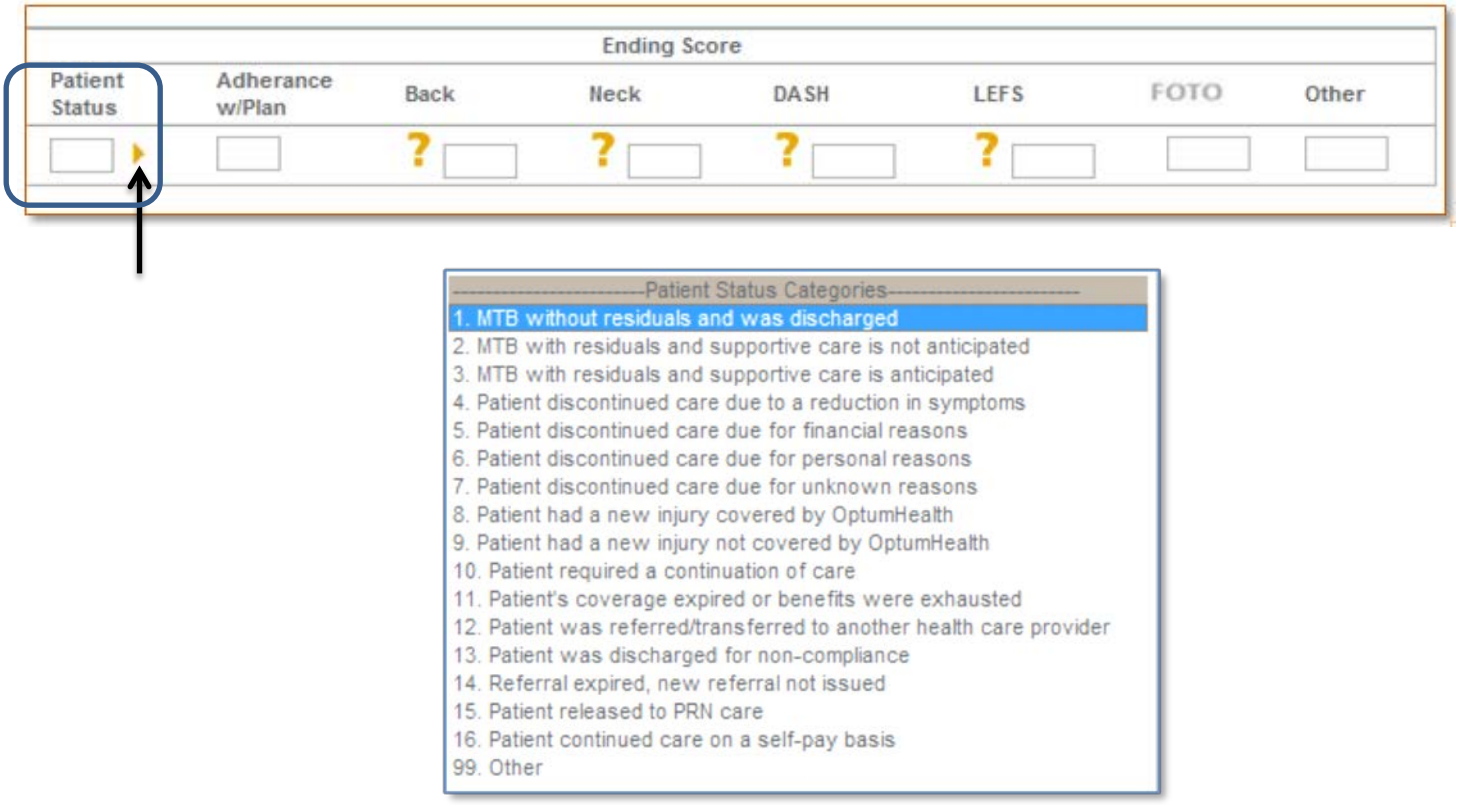
The PSR includes the following information to be reported by the treating provider:

1. At the end of each month access and complete the PSR
   - http://www.myoptumhealthphysicalhealth.com
     - Enter your user name (six-digit Optum provider ID)
     - Enter your password (unique password supplied by Optum)
     - In the "Activity Center" section under "Patient Status Report" click "Click here to complete PSR"

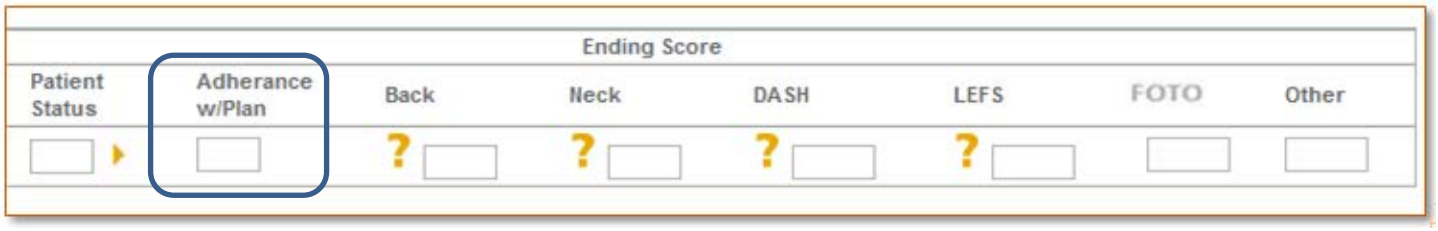


2. Select the month that you desire to complete. Patient information (name, PSF number, treatment end date and any initial outcome scores) will be pre-populated for you 30 days prior to the treatment plan ending. The month shown is the month that the treatment plan was anticipated to end.

3. Patient Status
   - Within each month, the patients are listed alphabetically by last name; find the patient that you are looking for and then select the Patient Status Category from the drop-down box.



4. Adherence to Treatment Plan
   - Rate the patient's adherence to your treatment plan from:
     - 0= Non-compliant to 10= Perfectly compliant.



5. Enter the final Functional Measure scores (Back, Neck, DASH, LEFS or FOTO). If a follow-up STarT tool was scored add the score (1, 2 or 3) in the "other" box.

6. Move to the next patient and repeat steps three to five.

7. When you are done entering for this session, click the SUBMIT FOR REVIEW button at the top of the page.

Patient Reported Data

As the patient nears completion of their treatment plan, remind them to complete the CAHPS (Consumer Assessment of Healthcare Providers and Systems) survey, if they have not done so already. This survey reports on quality measures associated with their health care experience during this episode of care. The survey focuses on composite measures of timeliness, communication skills, staff helpfulness, and an overall provider rating. An additional measure – global perceived effect – of the patient's rating of improvement (outcome) during the episode of care has been added to the survey.

Section

11

References [Back to Table of Contents]

Beaton DE. Understanding the relevance of measured change through studies of responsiveness. *Spine* 2000; 25:3192-3199

Beaton DE, Davis AM, Hudak P, McConnell S. The DASH (Disabilities of the Arm, Shoulder, and Hand) outcome measure: What do we know about it now? British Journal of Hand Therapy 2001; 6(4):109-118.

Binkley JA, Stratford PW, Lott SA, Riddle DL. The Lower Extremity Functional Scale (LEFS): Scale Development, Measurement Properties, and Clinical Application. Physical Therapy (1999) 79, 371-383.

Borman P, et al. The efficacy of intermittent cervical traction in patients with chronic pain. *Clinical Rheumatology* 2008; 27:1249-1253]

Bove G, Niels Nilsson. Spinal Manipulation in the Treatment of Episodic Tension-Type Headache. *JAMA* 1998; 280(18):1576-1579

Bronfort G, et al. A Randomized Clinical Trial of Exercise and Spinal Manipulation for Patients with Chronic Neck Pain. *Spine* 2001; 26(7):788-799

Coleman S, et al. Short and medium-term effects of an education self-management program for individuals with osteoarthritis of the knee, designed and delivered by health professionals: a quality assurance study. *BMC Musculoskeletal Disorders* 2008; 9:117. doi:10.1186/1471-2474-9-117

Copay AG, et al. Understanding the minimum clinically important difference: a review of concepts and methods. *The Spine Journal* 2007; doi:10.1016/j.spine.2007.01.008

Currier LL, et al. Development of a clinical prediction rule to identify patients with knee pain and clinical evidence of knee osteoarthritis who demonstrate a favorable short-term response to hip mobilization. *Physical Therapy* 2007; 87:1106-1119

Deyle GD, et al. Physical therapy treatment effectiveness for osteoarthritis of the knee: a randomized comparison of supervised clinical exercise and manual therapy procedures versus a home exercise program. *Physical Therapy* 2005; 85:1301-1317

DiFabio RP, Boissonnault W. Physical therapy and health-related outcomes for patients with common orthopaedic diagnoses. *Journal of Orthopaedic & Sports Physical Therapy* 1998; 27:219-230

Dworkin RH, et al. Interpreting the clinical importance of treatment outcomes in chronic pain clinical trials: IMMPACT recommendations. *Clinical Journal of Pain* 2008; 9:105-121

Evans R, et al. Two-Year Follow-up of a Randomized Clinical Trial of Spinal Manipulation and Two Types of Exercise for Patients With Chronic Neck Pain. *Spine* 2002; 27(21):2383-2389

Evans R, et al. A Pilot Study for a Randomized Clinical Trial Assessing Chiropractic Care, Medical Care and Self-Care Education for Acute and Subacute Neck Pain Patients. *JMPT* 2003; 26(7):403-411

Fairbank J, Couper J, Davies J, et al. The Oswestry low back pain questionnaire. Physiotherapy 1980; 66:271-3.

Feys HM, et al. Effect of a therapeutic intervention for the hemiplegic upper limb in the acute phase after stroke. *Stroke* 1998; 29:785-792

Fritz JM, Hebert J, Koppenhaver S, Parent E. Beyond minimally important change: defining a successful outcome of physical therapy for patients with low back pain. *Spine* 2009; 34: 2803–2809.

Haas M, et al. Dose Response for Chiropractic Care of Chronic Cervicogenic Headache and Associated Neck Pain: A Randomized Pilot Study. *JMPT* 2004; 27(9):547-553

Hurst H, Bolton J. Assessing the Clinical Significance of Change Scores Recorded on Subjective Outcome Measures. J Manipulative Physio Ther 2004; 27(1):26-35

Hurwitz EL, et al. A Randomized Trial of Chiropractic Manipulation and Mobilization for Patients With Neck Pain: Clinical Outcomes From the UCLA Neck-Pain Study. *Am J Public Health* 2002; 92:1634-1641

Iverson CA, et al. Lumbopelvic manipulation for the treatment of patients with patellofemoral pain syndrome: development of a clinical prediction rule. *Journal of Orthopaedic & Sports Physical Therapy* 2008; 38:297-312

Jubb RW, et al. A blinded randomised trial of acupuncture (manual and electroacupuncture) compared with a non-penetrating sham for the symptoms of osteoarthritis of the knee. *Acupuncture in Medicine* 2008; 26:69-78

Kamper, SJ, et al. Global Rating of Change Scales: A Review of Strengths and Weaknesses and Considerations for Design. J Man Manip Ther. 2009; 17(3): 163–170.

Kennedy CA, Beaton DE, Solway S, McConnell S, Bombardier C. *The DASH and Quick*DASH *Outcome Measure User's Manual*, Third Edition. Toronto, Ontario: Institute for Work & Health, 2011.

Kennedy DM, et al. Assessing recovery and establishing prognosis following total knee arthroplasty. *Physical Therapy* 2008; 88:22-32

Krischak GD, et al. Physiotherapy after volar plating of wrist fractures is effective using a home exercise program. *Archives of Physical Medicine and Rehabilitation* 2009; 90:537-544

Lesher JD, et al. Development of a clinical prediction rule for classifying patients with patellofemoral pain syndrome who respond to patellar taping. *Journal of Orthopaedic & Sports Physical Therapy* 2006; 36:854-866

Liebenson C. Rehabilitation of the Spine: A Practitioner's Manual 2nd ed. Baltimore, MD; Lippincott Williams & Wilkins 2007:146-182

Moraska A, Chandler C. Changes in clinical parameters in patients with tension-type headache following massage therapy: a pilot study. *Journal of Manual & Manipulative Therapy* 2008; 16:106-112

Ostelo RWJG, et al. Interpreting change scores for pain and functional status in low back pain – towards an international consensus regarding minimal important change. *Spine* 2008; 33:90-94

Ostelo RWJG, Henrica CW. Clinically important outcomes in low back pain. *Best Practice & Research Clinical Rheumatology* 2005; 19:593-607

Partridge C, et al. Is dosage of physiotherapy a critical factor in deciding patterns of recovery from stroke: a pragmatic randomized controlled trial. *Physiotherapy Research International* 2000; 5:230-240

Pajareya K, et al. Effectiveness of physical therapy for patients with adhesive capsulitis: a randomized controlled trial. *Journal of the Medical Association of Thailand* 2004; 87:473-80

Preston CC, Colman AM. Optimal number of response categories in rating scales: reliability, validity, discriminating power, and response preferences. *Acta Psychologica* 2000; 104:1-15

Senbursa G, et al. Comparison of conservative treatment with and without manual physical therapy for patients with shoulder impingement syndrome: a prospective, randomized clinical trial. *Knee Surgery Sports Traumatology and Arthroscopy* 2007; doi 10.1007/s00167-007-0288-x

Stratford PW, et al. Sensitivity of Change of the Roland-Morris Back Pain Questionnaire: Part 1. Phys Ther 1998; 78:1186-1196

Thiel HW, Bolton JE. Predictors of immediate and global responses to chiropractic manipulation of the cervical spine. *Journal of Manipulative and Physiological Therapeutics* 2008; 31:172-183

Tuchin PJ, et al. A Randomized Controlled Trial of Chiropractic Spinal Manipulative Therapy for Migraine. *JMPT* 2000; 23(2):91-95

van der Roer N, et al. Minimal Clinically Important Change for Pain Intensity, Functional Status, And General Health Status in patients With Nonspecific Low Back Pain. Spine 2006; 31(5):578-582

van Rijn RM, et al. What is the clinical course of acute ankle sprains? A systematic literature review. *American Journal of Medicine* 2008; 121:324-331

Van den Dolder PA, Roberts DL. Six sessions of manual therapy increase knee flexion and improve activity in people with anterior knee pain: a randomised controlled trial. *Australian Journal of Physiotherapy* 2006; 52:261-264

Vernon H, Mior S. The Neck Disability Index: A study of reliability and validity. JMPT 1991; 14(7):409-15.

Vernon H. The Neck Disability Index (NDI) An informal "blurb" from the author. Retrieved February 28, 2014 from http://www.chiro.org/LINKS/OUTCOME/Painter_1.shtml.

Walther M, et al. The subacromial impingement syndrome of the shoulder treated by conventional physiotherapy, self-training, and a shoulder brace: results of a prospective, randomized study. *Journal of Shoulder and Elbow Surgery* 2004; 13:417-423

Version #: 2
Version Date: 3.7.17
Previous Version Date: 6.12.14
By: V. Feldman