

## **Quick Reference Guide to a Variety of Functional Assessment Tests**

Medigraph system has 70+ FATS available- please explore the options that may be best suited for your patient. Here is a list of a variety of some available FATS and a brief description that clinicians may consider using throughout the course of care:

**Minimal detectable change:** The MDC is considered the minimal amount of change that is not likely to be due to chance variation in measurement. By using the MDC, clinicians are able to identify reliable changes in what is being assessed by the test.

**Physical Mobility Scale-(PMS)-** Evaluates the functional mobility of aged adults used for residents of long term care setting. Measure of functional mobility for the following items: supine to side lying, supine to sit, sitting balance, sit to stand, stand to sit, standing balance, transfers, ambulation and mobility. Rated on a 0-5 scale maximal score is 45 points. Minimal detectable change 4pts.

### **ADLS**

**Elderly Mobility Scale:** To measure the function of frail elderly adults. Equipment: measuring taping, stopwatch, access to a bed and chair, usual walking aid, form to record scores. Physical space needed: Space for bed, chair, wall, space for 6m walk. Minimal detectable change- 2 pts.

**PPT- Physical Performance test:** Assesses ADL and IADL ability, balance, gait safety, patient may use assistive device. For use in community dwelling elderly population for screening for recurrent falls. Predictive if a caregiver will be needed and most appropriate living placement. Minimal detectable change- 2pts

Max score for 9 item with stairs included = 36 for independence with function

Max score for 7 item (no stairs) = 28

- 36 to 21 = Independent functioning (declining ability as score declines)
- 20 to 16 = Declining independence and safety
- 15 to 3 = Increasing dependence to dependent
- < 17 unlikely unable to function without help
- < 9.5 avg score for total dependence

**Functional Status Index:** Community Dwelling Elderly, assesses degree of difficulty, assistance, and pain for the following 5 functional tasks: Gross mobility, personal care, hand activities, Chores, role activities

**Barthel:** Assessment for 10 ADL activities: feeding, transfers, toileting, bathing, ambulation, stairs, dressing, bowel and bladder management. Minimal detectable change- 3pts.

Max score 100 for independence with ADLs and functional activity

- 100 = Independent
- 99 to 80 = Mildly dependent
- 79 to 60 = Moderately dependent
- 59 to 40 = Marked dependence
- 39 to 20 = Severe dependence
- 19 to 0 = Total dependence

**KATZ Index:** testing of 6 specific tasks- dressing, bathing, toileting, transfer, continence, feeding on independence/ dependence levels

**Upper Extremity Function Scale:** self-assessment on the degree of difficulty for sleeping, writing, opening jars, picking up small items, driving, opening a door, carrying a jug of milk, washing dishes

**KELS- Kohlman Evaluation of Living Skills-** Very comprehensive assessment to evaluate an elderly patient ability for basic living skills- typically takes approx. 45 min to administer- helps to determine the to help a person live as independently as possible yet be safe, and appropriate for patients with cognitive impairment.

### **Balance and Balance / Gait**

**BERG-** Measure of static and dynamic balance- testing for probability of falls. Client may not use assistive device- assesses for need for device. However, note that if a device is used- this only nulls the use of the test to score for fall risk; the BERG is still an effective tool to identify goals to address for safety with function. Assesses 14 items and provide 98 treatment strategies for each item- basis for treatment or as a starting point for more creative treatment strategies and therapeutic activities. A change of 4 points is needed to be 95% confident that true change has occurred if a patient scores within 45–56 initially, 5 points if they score within 35–44, 7 points if they score within 25–34 and, finally, 5 points if their initial score is within 0–24 on the Berg Balance Scale.

Max Score: 56 = safe and independent, negligible fall risk

- > 45 = Less likely to fall, safe amb w/o a device
- 35 to 44 = Increasing fall risk, safe amb with device
- < 34 = The lower the # the greater the fall risk, may be able to amb with a device and assistance due to safety concerns

*General guidelines for determining safety with an assistive device from the Berg Scores:*

(56 to 45 = may not require a device; 45 to 32 = range for cane; 32 to 26 = range for walker)

**Tinetti (POMA):** (Other tests have a much greater, research-based validity predicting fall risk. Tinetti has a ceiling effect. DO NOT only use Tinetti for FAT evidence of fall risk or progress. If choosing to use the Tinetti test- must have an additional test included. Minimal Detectable change: 4pts.

Max Score: 28 = negligible fall risk

- >25 = low fall risk
- 24 to 19 = moderate fall risk
- 18 to 0 = high fall risk

**DGI- Dynamic Gait Index:** Assesses gait dysfunction and probability of falls in older adults by use of 8 different tasks: walking on level surfaces, changes in gait speed, turning head, stepping over and around obstacles, pivot turns and climbing stairs. If the patient uses a walker the score cannot be higher than a 16/24. However, if the pt NEEDS a walker they have a fall risk. The DGI can be used to address issues with negotiating obstacles, turning around, looking both directions when walking, walking at different speeds with the walker to increase safety, balance and ability with those functions even if they will remain on the walker. Minimal detectable change- 3pts.

Max score 24

<19 = fall risk

**BESTest**- Targets 6 balance control systems so specific rehabilitation approaches can be designed for different balance deficits. can be used in varied age and severity of ambulator patients with neurological conditions (Parkinson's, Stroke, Cerebellar Ataxia, Neuropathies, Head injury, Multiple Sclerosis, Cerebral palsy, etc.), Vestibular disorders, Cognitive Deficits and Elderly. 20-30 minutes to administer

**FICSIT** (Frailty and Injuries Cooperative Studies of Intervention Techniques)- 3 balance scale- Assessment of ability to maintain the following stance positions in seconds: parallel stance, semi-tandem, and tandem stance.

**FRT** (Functional Reach Test)- measure of dynamic standing balance, measurement can be measured against normative data and help determine risk for falls.

**FIST (Function in Sitting Test)**- Assessment of Sitting balance to determine safe DC. 14 specific tasks in sitting. 0-56 point scale- If a patient scores <42; the pt cannot be DC to home without assistance or help. Minimal detectable change- 6pts.

**Brunel Balance Assessment (BBA)** – Recommended by the neurology section of the APTA-Designed specifically for people with a wide range of abilities and been tested specifically for use post-stroke. Suitable for use to assess the effects of individual rehab interventions to measure change over a short term. Allows the clinician to have their hands free to assist the patient as necessary- can be used bedside. There are 3 sections: sitting, standing and stepping. Minimal detectable change: 1 point on a 12 point scale.

**30 Second Sit to Stand Test:** Assessment of lower extremity strength in older adults. Measurement is total number of stands performed in 30 seconds. Normative values available for age range and gender. CDC's STEADI tool as a screen for fall risk.

**Modified 30 sec Sit to Stand:** The modified 30-second sit-to-stand test (m30STS) overcomes the floor effect of other sit-to-stand tests observed in physically challenged older adults. The modification was standardized to allow hand support during the rise to and descent from standing but required participants to let go of the armrests with each stand. The m30STS is a reliable, feasible tool for use in a general geriatric population with a lower level of function. The m30STS demonstrated concurrent validity with the Berg Balance Scale and modified Barthel Index. The minimal detectable change (MDC90) was calculated to be 0.70, meaning that an increase of 1 additional repetition in the m30STS is a change beyond error.

## **Gait**

**TUG- (Timed up and Go)** – total time to complete sit to stand from a chair, walk 3 meters, turn, return to chair, and sit down. Population specific risk for falls data available. Community dwelling elderly cut off score >13.5 seconds indicates fall risk. Minimal detectable change 4 seconds.

**Six minute or Any Distance/Time Walk Test** - Objective submaximal exercise test for functional mobility and endurance- commonly used for cardiac and pulmonary conditions. Record vitals, RPE (Rate of Perceived Exertion- Borg Scale) at rest – monitor time and distance and RPE during timed walk and check vitals upon completion and after 5 minute rest period

**Walking Speed Test**- Chosen as the standardized assessment to measure locomotion for the motor function domain for the NIH toolbox. Has been called the “sixth vital sign”- “almost the perfect measure.” Correlates with functional ability, balance, and confidence, and has the potential to predict future health status and functional decline. Compare comfortable and maximal gait speed over a 25 foot distance (providing several meters to accelerate and decelerate) for 2 trials using a digital stopwatch. Minimal detectable change- 0.1 meters/sec. Walking speed can assess dependence level, likeliness of hospitalization, fall risk, and discharge location: SNF, household, and safety in community. This test has strong psychometric properties and evidence that supports its use to offer insight into the patient’s functional capacity and safety.

**Power-Mobility Indoor Driving Assessment Manual (PIDA)**- a valid and reliable assessment designed to assess the indoor mobility of persons who use power chairs or scooters and who live in institutions. The instrument was developed to be used clinically, to guide intervention plans. It was designed with two purposes in mind; to describe and evaluate.

## **Neuro**

**Parkinson Activity Scale**- 5 point Scale assessing 2 specific items of chair transfers, 2 items for gait, and 6 specific items of bed mobility

**MAS (Motor Assessment Scale)**- Objective measurement of 8 components of motor function of individuals with neurological disorders. 0-54 point scale specific for stroke or other neurological impairment- assessment for ability to move with low tone or in a synergistic pattern and finally move out of that pattern into normal movement. Test includes assessment of bed mobility, sitting balance, walking, UE function, hand movements and tone.

## **Pain**

**Several self-reported scales specific to pain region:** Back, Neck, Shoulder, Arm, Elbow, Hand, Wrist, Hip, Knee, Ankle

**Dallas Pain Questionnaire** – 16 specific items to identify how pain has affected life on a 0-100% scale

## **Posture**

**Body Mechanics Evaluation Checklist**- Yes/No Assessment of posture while performing 4 specific tasks: lift/lower object, pull and transfer object

**Reedco Posture Score Sheet**- Head to toe assessment of posture with clinician interpretation for positioning: Poor/Fair/Good 0-10 score

## **Self Assessment**

**ABC (Activities Balance Confidence Scale)** – detect loss of balance confidence in high function in senior adults

**FIS (Fatigue Impact Scale)** – Self-reported 5-point scale on the impact of fatigue on 27 specific items

**Sickness Impact Profile-** measures the impact of the condition/sickness on an individual's everyday life- covering a broad range of items placing emphasis on current function. 0-68 point scoring appropriate for any diagnosis

**Parkinson's Quality of Life Questionnaire-** 5-point scale asking degree of difficulty on 37 specific items

**Geriatric Depression Scale-** not diagnosis-based self or clinician administered assess depression in the elderly population consisting of 30 items- interpretation results – normal/mild depression/severe depression

**FACS (Functional Abilities Confidence Scale)-** measure of the self-efficacy or confidence a patient exhibits in capability for performing specific actions or meeting specific situational demands. Self efficacy has been shown to be a better predictor of treatment adherence and outcome than actual physical abilities- this may aid clinicians to aid improving self-efficacy therefore physical progress. 15 questions on a 0-100% scale.

### **Cognitive Assessments:**

**ACL (Allen Cognitive Level)-** Assessment of a person's cognitive function based upon their functional ability. The tools help you identify the Allen Cognitive Level of a client with a cognitive disability such as Alzheimer's disease or dementia. Evaluates the ability of someone to make decisions, stay on task, initiate and complete ADLs, safely perform basic skills, and whether they can learn new skills. The assessments assist in recommendations for placement. The 3 tools are the Placemat, the ACL Allen Leather Lacing and the RTI – Routine Task Inventory.

**BCAT (Brief Cognitive Assessment Tool)-** Can be administered in 10-15 minutes, is sensitive to the full spectrum of cognitive functioning (normal, MCI, dementia). Can help predict discharge dispositions, identify those most likely to be readmitted to hospitals shortly after discharge, facilitate level of care determinations, aid in fall prevention programs, and help with non-pharmacological behavior management.

**GDS (Global Deterioration Scale) FAST –** Developed by Dr. Reisberg as a quick tool to assess cognitive decline. There are 7 stages of cognitive function: Stages 1 to 3 are pre-dementia levels; Stages 4 to 7 are the dementia stages. Beginning in Stage 5 an individual can no longer survive without assistance.

**Mini- Mental (MMSE)-** 30-point test used to measure cognitive impairment. Assessment of cognitive functional for elderly- tests for orientation, attention, memory, language and visio-spacial skills.

**Saint Louis University Mental Status Examination (SLUMS) -** method of screening for Alzheimer's disease and other kinds of dementia. The SLUMS consists of 11 items, and measures aspects of cognition that include orientation, short-term memory, calculations, the naming of animals, the clock drawing test, and recognition of geometric figures.<sup>2</sup> It takes approximately seven minutes to administer. Scores range from 0 to 30.

**Montreal Cognitive Assessment (MoCA) –** A brief 30-question test that takes around 10 to 12 minutes to complete and helps assess people for dementia. Tests for orientation, short term memory, language, abstraction, naming, attention, clock drawing.

### **Swallow**

**MASA (Mann Assessment of Swallowing Ability)**- 26 items assessment of SLP to assess swallow integrity, dysphagia and aspiration

**National Outcomes Measurement System (NOMS)**- ASHA's Functional Communication Measures- Designed for registered NOMS ASHA Certified Members. A series of seven-point rating scales, ranging from least functional (Level 1) to most functional (Level 7). They have been developed by ASHA to describe the different aspects of a patient's functional communication and swallowing abilities over the course of speech-language pathology intervention. 15 FCMs: Adult Alaryngeal Communication / Attention / Augmentative-Alternative Communication / Fluency / Memory / Motor Speech / Pragmatics / Problem Solving / Reading / Spoken Language Comprehension / Spoken Language Expression / Swallowing / Voice / Voice Following Tracheostomy / Writing.

In addition to the Medigraph system, another great online resource is the Shirley Ryan Agility Lab Rehabilitation Measures Website:

<https://www.sralab.org/rehabilitation-measures>