

Performance-Based Outcome Measures

Below is a quick glance clinician reference for performance-based outcome measures that have been successfully utilized within telehealth settings.

Measures are organized based on ease of translation to the telehealth setting.



Green light items can be performed without modifications.



Yellow light items may require small modifications to perform successfully. Suggestions for these modifications based on group consensus from members of the Academy of Neurologic Physical Therapy Telehealth Task Force are listed.



Detour labeled measures require more significant modifications and creative adaptive strategies to implement. These measures have been performed effectively but require careful and creative approaches to ensure repeatability and success.

These recommendations are meant to serve as a guide of what is possible and to facilitate creative problem solving. These recommendations are based on group consensus from the Academy of Neurologic Physical Telehealth Task Force. **Use your clinical judgment and assessment of every patient's unique needs, resources available, and your own skill set to determine which measures are appropriate to safely implement.** Additionally, reference the [Core Outcome Measure CPG](#) and the [Diagnosis Specific Outcome Measures: EDGE Task Force](#) documents when making your clinical decisions

Green Light Measures



No Modifications Are Required- You can perform and score these measures as you would in the clinic! Ensure that you are utilizing the environment and/or care partner assistance to maximize safety.

Focus Area	Outcome Measures
Aerobic Capacity	<ul style="list-style-type: none"> • 2 Minute Step Test
Balance - Static & Dynamic	<ul style="list-style-type: none"> • Fuduka Stepping Test • Functional Reach • Modified Functional Reach • Romberg • Sharpened Romberg • Single Leg Stance • 360 Degree Turn Test
Gait	<ul style="list-style-type: none"> • Gait Speed (<i>choose the appropriate household distance</i>) • Observational Gait Analysis • Timed Up and Go (TUG) • TUG Dual Task (<i>cog/manual</i>)
Muscle Performance - Length	<ul style="list-style-type: none"> • Active Range of Motion • Back Scratch Test • Chair Sit and Reach • Postural Alignment Assessment
Muscle Performance - Strength	<ul style="list-style-type: none"> • 5x sit<->stand • 60 Second Chair Stand • 30 Second Chair Stand
Mixed	<ul style="list-style-type: none"> • Short Physical Performance Battery

Yellow Light Measures



These measures require small modifications to successfully perform. Suggestions are provided in the table below to facilitate your creative mind to problem solve what may be appropriate for your patient. These suggestions are based on clinician experiences from members of the Academy of Neurologic Physical Telehealth Task Force. Remember to document the modifications you chose to implement in order to allow for repeated measure reliability and validity.

Focus Area	Outcome Measure	Potential Modifications for Performance in Telehealth Environment
Aerobic Capacity	Minute Walk Test	Modify the distance walked to perform within the home. Choose an outdoor location to perform the walk so long as it can be measured and repeated.
Balance and Gait	Berg Balance Scale	Utilize available chair surfaces (armrest/no armrest). Additionally, consider the use of environmental support to quantify as “assistance to obtain positions” on certain exam items or include participation of a care partner if safe and available.
	Dynamic Gait Index	Find the longest hallway distance available (might be short of 20ft, if so document). If stairs are unavailable, score the section based on a subjective report.
	Four Square Step Test	Utilize at home materials to create a grid. This can include dog leashes, resistance bands, belts, canes or walking sticks.
	Function In Sitting Test	Perform the test on a bed. You will need a care partner to score nudging exam items.
	Functional Gait Assessment	Find the longest hallway distance available (might be short of 20ft, if so document). If stairs are unavailable, score the section based on a subjective report.
	High-level Mobility Assessment Tool (hiMAT)	Find the longest hallway distance available or consider utilizing outdoor space to perform. If stairs are unavailable, do not score items 10-11.
	Modified Clinical Test of Sensory Interaction in Balance (mCSTIB)	If the individual does not have an AirEx pad, consider using chair cushions, pillows, couch cushions, etc...
	Timed 25 feet walk	To perform, the measurement of 25ft must be exact (utilize tape measure). It can be performed inside or outside the home.
	Tinetti (POMA)	Care partner participation is required to score the nudging exam item.
Muscle Performance	Arm Curl Test	Utilize weights or resistance bands that match length per pound per manufacturer’s guidelines
	Postural Assessment Scale for Stroke	Perform bed mobility items on a bed. A care partner will be required for participation if physical assistance is needed for any tasks to adequately score all items.
Mobility	Wheelchair Skills Test	Access to a variety of environments is encouraged for scoring. However, there is an option to not score certain items and specify the reason.

Detour Measures



These are measures that can still be performed but may require more extensive and creative adaptations. Comparison to established normative data may not be accurate or appropriate. Some suggestions are provided in the table below to facilitate your creative mind to problem solve what may be appropriate for your patient. These suggestions are based on clinician experiences from members of the ANPT TH Taskforce. Please remember to document the modifications you chose to implement to allow for repeated measure reliability and validity.

Focus Area	Outcome Measure	Potential Modifications for Performance in Telehealth Environment
Aerobic Capacity	Six Minute Walk Test	If the individual experiences significant difficulty with turning, and the home environment does not have an open space of adequate length, consider the following: <ul style="list-style-type: none"> Walk around the home or in the backyard (if there is access to GPS device that can measure the distance) Walk on a track or park trail
Balance	Mini Balance Evaluation Systems Test (miniBEST)	The following adaptations can be considered for test items: <ul style="list-style-type: none"> Compensatory stepping correction- Perform these tasks with a care partner assisting who is supported by a wall/corner for stability Stance, Foam surface- Can be performed standing on a sofa or chair cushion/pillow Incline Eyes Closed- An outdoor ramp, slant board, balance board angled posteriorly, etc can be used to recreate the environment (10 degree slope)
Motor Control	9 Hole Peg Test	Consider utilizing board game pieces such as Battleship, Night Bright, or the Wooden Peg Board game
Movement	Timed Functional Task Assessments*	Despite not being validated in literature, measuring the time it takes a patient to perform a designated functional task (related to his/her goals and impairments) can be a measure of improvement that is salient and repeatable. Examples can include activities such as: <ul style="list-style-type: none"> Stacking dishes in an overhead cabinet Moving from supine to sitting Climbing flights of stairs Folding a preset number of towels
Muscle Performance	%1 Rep Max	In the absence of access to weights, there are some modifications to consider: <ul style="list-style-type: none"> Maximal timed isometric holds (glute bridge hold, holding a bag of groceries) Lowest chair stand height-measuring support surfaces to determine lowest chair height the participant can stand from Household items as weights (ie: resistance bands and with weight equivalents documented or measuring the heaviest jug an individual can hold with an involved upper extremity etc...)

*Timed Functional Task Assessments are not specifically validated in the literature and are not standardized. These tasks, if selected, would be unique to a given individual and his/her goals, resources, and circumstances. Specificity in the documentation would be required for enhanced interrater reliability.