**Outcome Measures for Pediatric Cerebellar Ataxia**

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| Name | Purpose | Populations Designed for | Time to administer | Statistical significance | Cost | Link |
| Scale for Assessment and Rating of Ataxia  (SARA)1,2,3,4 | Evaluates truncal and extremity ataxia, gait ataxia and speech disturbances1 Includes 8 components : Gait, Stance, Sitting, Speech disturbance, Finger chase, Nose-finger test, Fast alternating hand movements, Heel-shin slide. | Fredericks ataxia, spinocerebellar ataxia (SCA)3,4 | Approximately 18 minutes2 | Interrater reliability of SARA total score:ICC =0.97  tems related  Items finger chase, nose-finger test, speech, and oculomotor  function ICC range 0.70 - 0.79.  Internal consistency: Cronbachs Alpha .94  Test-retest ICC = 0.903 | Free | <http://www.ataxia-study-group.net/html/about/ataxiascales/sara/SARA.pdf>5 |
| International Cooperative Ataxic Rating Scale (ICARS) | Assessment of cerebellar symptoms at the impairment level. The scale consists of four subscales (100 points total) :  Posture and gait disturbances (items 1–7, score 0 –34),  Kinetic functions (items 8 –14, score 0 –52),  Speech disorders (items 15 and 16, score 0 – 8),  Oculomotor disorders (items 17–19, score 0 – 6). 6 | Fredericks ataxia, spinocerebellar ataxia (SCA), progressive cerebellar ataxias6,7 | 10-15 minutes7 | Interrater reliability:ICC = 0.95  Interrater reliability of the  posture and gait disturbances 0.96;kinetic functions 0.88; oculomotor disorders 0.87;  speech disorder subscale 0.76.  Internal consistency Cronbachs alpha of .95. | Free | <http://checkyone.bplaced.net/dokus/ICARS.pdf> 8 |
| Berg Balance Test | 14-item objective measure designed to assess static balance and fall risk in adult populations. Assesses non-vestibular balance and functional mobility.6 | Elderly populations | 15-20 minutes6 | Test-retest: ICC=.91  Intrarater reliability: ICC=.97  Specificity: 96%  Sensitivity: 53% | Cost of equipment | <http://www.fallpreventiontaskforce.org/pdf/BergBalanceScale.pdf> 6 |
| Fitness Gram: Sit and Reach | Lower back and hamstring flexibility8 | Adolescents 6-17 years of age.7 | <3 minutes | Test-retest: ICC 0.87-0.99.  No significant differences in sex.  Cannot control for Limb length descrepancies.7 | Cost of equipment (box) | <http://www.fitnessgram.net/protocols/reach.pdf> 8 |
| Functional Reach Test | Functional static and dynamic balance1 Assesses a patient’s stability by measuring the maximum distance an individual can reach forward while standing in a fixed potision.6 | Community-dwelling older adults. | <5 minutes | MCID & Content validity not established,  <18.5 indicates falls risk  interrater reliability: ICC.986 | Free | <http://www.rehabmeasures.org/PDF%20Library/Functional%20Reach%20Test.pdf> |
| Standard Walking Obstacle Course | Assess performance of multiple domains in functional environment. Alter dimensions that influence physical performances (distance), affects of ambient conditions (lighting), physical load ( items carried), terrain (obstacles), and ability to make postural transitions. | Children with and without disabilities | Time not established | High interrater reliabilities for time: ICC= 0.99  # of steps ICC = 0.94 –0.99  High intrarater reliabilities ICC: 0.83–0.97  # of steps: ICC 0.84 –  0.96.  Significant correlation between TUG and SWOC for time (r =0.72–0.90) and # of steps (r = 0.63–0.92). | Cost of obstacle equipment |  |
| Timed Up and Go (TUG)6 | Assess mobility, balance, walking ability, and fall risk in older adults.6 | Community-dwelling older adults\*, healthy children ages 3-9, children with cerebral palsy  \*Statistics based on community dwelling adults | <3 minutes | Test-retest ICC: .97  Criterion validity (TUG & Berg): r= -.81  (TUG & gait speed) =-.61  Poor floor effects (29.3%)  MCID and internal consistency not established.6 | Free | <http://www.rehabmeasures.org/PDF%20Library/Timed%20Up%20and%20Go%20Test%20Instructions.pdf> 6 |
| School Function Assessment13 | Measures ability of a student to perform functional tasks required to participate in the academic and social aspects of elementary school setting. | Individual ratings for each scale were written to apply to students with disabilities across all elementary school grades (K-6) | 5-10 minutes | Established to be valid for students with disabilities in elementary school. | $222.50  Includes costs of users manual, 25 user sheets, and 3 8-page rating sheets. | <http://www.pearsonassessments.com/HAIWEB/Cultures/en-us/Productdetail.htm?Pid=076-1615-709&Mode=summary> .14 |
| Timed Up and Down Stairs (TUDS)15 | Assess functional mobility and dynamic balance. Also suggested to represent lower extremity strength, LE ROM, coordination, and anticipatory and reactive postural control | Children with and without cerebral palsy, 8-15 years old. | <3 minutes | Excellent intrarater, interrater, and test–retest reliability  [ICC = 0.97, 0.98, 0.94]  Moderate to high concurrent validity (Spearman r =  0.78, -0.57, and -0.77, with the TUG, Forward Reach Test, and Timed on One Leg Stance, respectively)  Responsiveness not yet determined. | Free | 1. Student starts at bottom of flight of steps (12-14)  2. Student instructed to “Quickly , but safely, go up the stairs, turn around on the top step/landing, and come all the way down until both feet land on the bottom step.” Student is then given the cues. “ready” and ”go”  3.Time is measured from when evaluator says “go” and until the second foot returns to the bottom landing.  4. Student may use any method to ascend stps (step-to or step-over-step, with or without handrails, as long as student is facing forward. |
| Pediatric Balance Scale16,17 | Balance measurement for school-aged children with mild to moderate motor impairments. Modified from the BBS with reduction in time parameters in Berg components 2 ,3, and 7. | Children aged 5-15 with mild to moderate motor impairments.. | <15 minutes | Good test-restest reliability and inter-rater reliability | Free | <http://www.district287.org/clientuploads/SpecialEd/Forms/PhysicalTherapy/PediatricBalanceScale.pdf> 17 |

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