Modified Friedreich Ataxia Rating Scale (mFARS) – Data Collection Worksheet

| Subject ID: | Test Date: | | | | | |
|---|-------------------------|----------|---|--------|----------------------------------|--|
| Time test started: | Before 12pm | | 12pm - 4pm | | After 4pm | |
| How was the assessment | completed? | | In person | | Virtual (Audio & Video) | |
| A. BULBAR | | | | | | |
| Ask the patient to "cough as | hard as you can, | three i | times". Accept the s | strong | est attempt. | |
| A3. Cough score: | 0.0 = Normal | | | | | |
| | 0.5 | | | | | |
| | 1.0 = Depressed | | | | | |
| · | 1.5 | | | | | |
| | 2.0 = Totally or nea | arly ab | sent | | | |
| Ask the patient to read or rep B "The traffic is heavy today." | | s. A "7 | The President lives in | n the | White House." | |
| A4. Speech score: | 0.0 = Normal | | | | | |
| | 0.5 | | | | | |
| | | oet wo | ords understandable | | | |
| | 1.5 – Willa (all of 11) | iost wc | orus unuerstanuable | | | |
| | 2.0 = Moderate (m | ost wo | ords not understandabl | le) | | |
| | 2.5 | | | , | | |
| | | r almo | st no useful speech) | | | |
| Sub-Total BULBAR: [C | alculated - Score | | | | | |
| B. UPPER LIMB COORDIN | | | , 6 1 | | | |
| B1. Finger-to-Finger Test | | | | | | |
| B1a. Right score: | 0.0 = Normal(0 - 0.0) | 0.5 cm |) | | | |
| | 0.5 | | , | | | |
| | 1.0 = Mild oscillation | ons of | finger (0.5- 2 cm) | | | |
| | 1.5 | | | | | |
| B1b. Left score: | 2.0 = Moderate os | cillatio | ns of finger (2-6 cm) | | | |
| | 2.5 | | | | | |
| | | | of finger (greater than able to perform task | 6.0 cr | n) and/or elbows require contact | |
| B2. Nose-Finger Test | With body or Surface | Je, une | able to periorifi task | | | |
| B2a. Right score: | 0 = None | | | | | |
| | 1 = Mild (less that | n 2 cm | . amplitude) | | | |
| | ` | | amplitude or persisting | throu | ah movement) | |
| B2b. Left score: | | | n 6 cm. and persisting | | · | |
| | ,,, | | ted to perform task | • | , | |
| | | | | | | |
| B3. Dysmetria Test | | | | | | |
| B3a. Right score: | 0 = None (no mis | ses) | | | | |
| | 1 = Mild (1 – 2 mi | sses) | | | | |
| | 2 = Moderate (mi | sses 3 | -5 times) | | | |
| B3b. Left score: | _ 3 = Severe (misse | es 6-8 | times) | | | |
| | 4 = Too poorly co | ordina | ted to perform task | | | |
| | | | • | | | |

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| B4. Rapid Alternating Moveme | ants of Hands | | | | |
|--|--|---|--|--|--|
| B4a. Right score: | | 0.0 = Normal | | | |
| | | 0.5 | | | |
| | | 1.0 = Mild (slightly irregular or slowed) wrist and elbow remain | | | |
| time in seconds: | | in relatively fixed position away from torso | | | |
| B4b. Left score: | | 1.5 | | | |
| | | 2.0 = Moderate (irregular and slowed) or participant compensates by bracing elbow on their trunk or there is noted elbow excursion during maneuver | | | |
| time in seconds: | | 2.5 | | | |
| | | 3.0 = Too poorly coordinated to perform task. | | | |
| B5. Finger Taps (index finger tip-to-thumb crease) | | | | | |
| B5a. Right | | _ 0 = Normal. | | | |
| | | 1 = Mild (misses 1-3 times) | | | |
| time in seco | nds: | 2 = Moderate (misses 4-9 times) | | | |
| B5b. Left | | 3 = Severe (misses 10-15 times) | | | |
| | | 4 = Cannot perform the task and/or unable to maintain start position | | | |
| time in seco | nds: | position | | | |
| | | culated – | | | |
| | - | | | | |
| | Scoi | re=B1a+B1b+B2a+B2b+B3a+B3b+B4a+B4b+B5a+B5b, | | | |
| Sub-Total Upper Limb Coordin | nation: Ran | re=B1a+B1b+B2a+B2b+B3a+B3b+B4a+B4b+B5a+B5b, ge 0-36] | | | |
| C. LOWER LIMB COORDINAT | nation: Ran | · · · · · · · · · · · · · · · · · · · | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide | nation: Rang ION | ge 0-36] | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 0 = | nation: Rang ION Normal (stay on sh | ge 0-36] nin). | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 0 = 1 = | nation: Rangion ION Normal (stay on shild (abnormally s | nin). low, tremulous but contact maintained) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 0 = 1 = 2 = | Normal (stay on sh Mild (abnormally s Moderate (goes of | ge 0-36] nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 1 = 2 = C1b. Left score: 3 = | Normal (stay on sh Mild (abnormally s Moderate (goes of Severe (goes off s | nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 1 = 2 = C1b. Left score: 3 = | Normal (stay on sh Mild (abnormally s Moderate (goes of Severe (goes off s | ge 0-36] nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 1 = 2 = C1b. Left score: 3 = 4 = | Normal (stay on sh Mild (abnormally s Moderate (goes of Severe (goes off s | nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 1 = 2 = C1b. Left score: 3 = 4 = | Normal (stay on sh Mild (abnormally s Moderate (goes of Severe (goes off s | nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) nated to perform task. | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide 0 = C1a. Right score: 1 = 2 = C1b. Left score: 3 = C2. Heel-to-Shin Tap 0 = C2a. Right score: 0 = | Normal (stay on sh Mild (abnormally s Moderate (goes of Severe (goes off s Too poorly coordin | nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) nated to perform task. target) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 0 = | Normal (stay on she Mild (abnormally shoderate (goes off she Too poorly coording) Normal (stays on the Normal (st | nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) nated to perform task. target) 2 or less times) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide C1a. Right score: 0 = | Normal (stay on she Mild (abnormally she Moderate (goes off she Too poorly coording) Normal (stays on the Mild (misses shint) Moderate (misses shint) | nin). low, tremulous but contact maintained) if shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) sated to perform task. target) 2 or less times) is shin 3-5 times) | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide 0 = C1a. Right score: 1 = 2 = C1b. Left score: 3 = C2. Heel-to-Shin Tap 0 = C2a. Right score: 1 = 2 = 2 = C2b. Left score: 3 = 4 = 4 = | Normal (stay on she Mild (abnormally she Moderate (goes off she Too poorly coording) Normal (stays on the Mild (misses shine) Moderate (misses shine) Severe (misses shine) | nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) rated to perform task. target) 2 or less times) s shin 3-5 times) hin greater than 5 times) nated to perform task or cannot assume start position due to | | | |
| C. LOWER LIMB COORDINAT C1. Heel Along Shin Slide 0 = C1a. Right score: 1 = 2 = C1b. Left score: 3 = C2. Heel-to-Shin Tap 0 = C2a. Right score: 1 = 2 = 2 = C2b. Left score: 3 = 4 = 4 = | Normal (stay on she Mild (abnormally she Moderate (goes off she Too poorly coording) Normal (stays on the Mild (misses shine) Mild (misses shine) Moderate (misses shine) | nin). low, tremulous but contact maintained) f shin a total of 3 or fewer times during 3 cycles) hin 4 or more times during 3 cycles) rated to perform task. target) 2 or less times) s shin 3-5 times) hin greater than 5 times) nated to perform task or cannot assume start position due to | | | |

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| E. UPRIGHT STABILITY | | | | | |
|--|--|---|--|------------------|---|
| Ea. Is the subject barefoo | | | Barefoot (preferred) | | Footwear |
| Eb. Indicate if AFOs [plas | - | | Yes | | No |
| Ec. Test performed on ca | | | Yes | | No |
| E1. Sitting Posture score | | | 16 1 11 11 | | |
| | 2 = Moderate oscillat stability | tions | ad/trunk without touching of head/trunk; needs con- head/trunk; needs contact | tact w | vith chair back or side for |
| | | | maximal support of one t | o two | people, or cannot |
| E2a. Stance feet apart, ey | | | | | |
| If the participant cannot perform walker) then a score of 4 is given of 4 applied for all trials of all tes E2a1. Trial one score: | o for all 3 trials of this test, of sts (2b, 3a, 3b, and 5). Tand 0 = 1 minute or longe | and n dem er | one of the other stance test stance should still be atte | s are o | attempted with max score |
| | | _ | reater than 45 seconds | | |
| E2a2. Trial two score: | 2 = Less than 45 sec | conds | s, greater than 30 seconds | 6 | |
| | 3 = Less than 30 sec | conds | s, greater than 15 seconds | 6 | |
| E2a3. Trial three score: | 4 = Less than 15 sec assume start position | | needs hands held by assis | stant/ | device or cannot |
| | | | | | |
| E2a. Average | | +E2a | a2+E2a3/3, Range 0-4] | | |
| E2b. Stance feet apart, ey | es closed | | a2+E2a3/3, Range 0-4] | | |
| | | | a2+E2a3/3, Range 0-4] | | |
| E2b. Stance feet apart, ey | ves closed 0 = 1 minute or longe | er | n2+E2a3/3, Range 0-4] reater than 45 seconds | | |
| E2b. Stance feet apart, ey | ves closed 0 = 1 minute or longe 1 = Less than 1 minu | er ute, g | | | |
| E2b. Stance feet apart, ey E2b1. Trial one score: | ves closed 0 = 1 minute or longe 1 = Less than 1 minu 2 = Less than 45 sec | er ute, g | reater than 45 seconds | 6 | |
| E2b. Stance feet apart, ey E2b1. Trial one score: | ves closed 0 = 1 minute or longe 1 = Less than 1 minute 2 = Less than 45 sectors 3 = Less than 30 sectors | er ute, g conds | reater than 45 seconds s, greater than 30 seconds | 6 | device |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: | ves closed 0 = 1 minute or longe 1 = Less than 1 minute 2 = Less than 45 sectors 3 = Less than 30 sectors 4 = Less than 15 sectors | er ute, g conds conds | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds needs hands held by assis | 6 | device |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: E2b. Average: | ves closed 0 = 1 minute or longe 1 = Less than 1 minute 2 = Less than 45 section 3 = Less than 30 section 4 = Less than 15 section [Calculated E2b1+E | er ute, g conds conds | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds | 6 | device |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: | 7 ces closed 0 = 1 minute or longer 1 = Less than 1 minute 2 = Less than 45 sector 3 = Less than 30 sector 4 = Less than 15 sector [Calculated E2b1+E7, eyes open The the relevant position for | er ute, g conds conds c. or r | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds needs hands held by assis +E2b3/3, Range 0-4] n (feet together eyes open | s stant/ | out assistance (holding |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: E2b. Average: E3a. Stance feet together If the participant cannot assur examiner or table or walker) to | 7 ces closed 0 = 1 minute or longer 1 = Less than 1 minute 2 = Less than 45 sector 3 = Less than 30 sector 4 = Less than 15 sector [Calculated E2b1+E7, eyes open The the relevant position for | er ute, g conds conds c. or r | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds needs hands held by assis +E2b3/3, Range 0-4] n (feet together eyes open | s stant/ | out assistance (holding |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: E2b. Average: E3a. Stance feet together If the participant cannot assur examiner or table or walker) to be attempted. | 1 = Less than 1 minute or longer of the less than 1 minute or longer or | er ute, g conds conds c. or r E2b2 for 3a for a | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds needs hands held by assis +E2b3/3, Range 0-4] s (feet together eyes open ll 3 trials of this test and 3 | s stant/ | out assistance (holding |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: E2b. Average: E3a. Stance feet together If the participant cannot assur examiner or table or walker) to be attempted. | 0 = 1 minute or longed 1 = Less than 1 minute 2 = Less than 45 sectors 3 = Less than 30 sectors 4 = Less than 15 sectors [Calculated E2b1+Ex, eyes open methe relevant position for them a score of 4 is given to 1 = Less than 1 minute 1 = Less than 1 minute | er ute, g conds conds c. or r E2b2 for 3a for a | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds needs hands held by assis +E2b3/3, Range 0-4] s (feet together eyes open ll 3 trials of this test and 3 | s stant/ | out assistance (holding |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: E2b. Average: E3a. Stance feet together If the participant cannot assur examiner or table or walker) to be attempted. E3a1. Trial one score: | 1 = Less than 1 minute or longer 2 = Less than 45 section 3 = Less than 30 section 4 = Less than 15 section 15 section 15 section 16 section 17 section 18 section 19 | er ute, g conds conds conds conds for a for a | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds needs hands held by assis +E2b3/3, Range 0-4] a (feet together eyes open Il 3 trials of this test and 3 ater than 45 seconds | s stant/ | out assistance (holding |
| E2b. Stance feet apart, ey E2b1. Trial one score: E2b2 Trial two score: E2b3. Trial three score: E2b. Average: E3a. Stance feet together If the participant cannot assur examiner or table or walker) to be attempted. E3a1. Trial one score: | 1 = Less than 1 minute or longer 2 = Less than 45 sections and the relevant position from the relevant position from a score of 4 is given 1 = Less than 1 minute or longer 1 = Less than 1 minute or longer 1 = Less than 1 minute or less than | er ute, g conds conds conds conds conds ands, g ends, g | reater than 45 seconds s, greater than 30 seconds s, greater than 15 seconds needs hands held by assis +E2b3/3, Range 0-4] a (feet together eyes open Il 3 trials of this test and 3 atter than 45 seconds greater than 30 seconds | stant/) with | nout assistance (holding andem stance should still |

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| E3b. Stance feet togethe | |
|---|--|
| E3b1. Trial one score: | _ 0 = 1 minute or longer |
| | 1 = Less than 1 minute, greater than 45 seconds |
| E3b2. Trial two score: | 2 = Less than 45 seconds, greater than 30 seconds |
| | 3 = Less than 30 seconds, greater than 15 seconds |
| E3b3. Trial three score: | 4 = Less than 15 sec. or needs hands held by assistant/device |
| | |
| E3b. Average: | Calculated E3b1+E3b2+E3b3/3, Range 0-4] |
| | · · · · · · · · · · · · · · · · · · · |
| Which foot was in front of E4. Tandem Stance | during the tandem stance? Right Left |
| E41. Trial one score: | 0 = 1 minute or longer |
| | 1 = Less than 1 minute, greater than 45 seconds |
| E42. Trial one score: | 2 = Less than 45 seconds, greater than 30 seconds |
| L42. ITIAI ONE SCORE. | 3 = Less than 30 seconds, greater than 15 seconds |
| E42 Trial one seems | → |
| E43. Trial one score: | 4 = Less than 15 sec. or needs hands held by assistant/device |
| | |
| E4. Average | [Calculated E41+E42+E43/3, Range 0-4] |
| E5. Stance on Dominant E51. Trial one score: | 0 = 1 minute or longer |
| EST. That one score. | ¬ |
| | 1 = Less than 1 minute, greater than 45 seconds |
| E52. Trial two score: | 2 = Less than 45 seconds, greater than 30 seconds |
| | 3 = Less than 30 seconds, greater than 15 seconds |
| E53. Trial three score: | 4 = Less than 15 sec. or needs hands held by assistant/device |
| E5. Average | [Calculated E51+E52+E53/3, Range 0-4] |
| 6 Tandem Walk | [Outoutated Lot · Loz · Looro, Italigo o] |
| 6. Tandem walk score: | 0 = Normal (able to tandem walk 8 or greater sequential steps) |
| | 1 = Able to tandem walk greater than 4 sequential steps, but less than 8 |
| | 2 = Can tandem walk, but fewer than 4 steps before losing balance. |
| | 3 = Too poorly coordinated to attempt task. |
| 7 Gait | o 100 poorly coordinated to ditempt task. |
| 7. Gait score: | 0 = Normal |
| | 1 = Mild ataxia/veering/difficulty in turning; no cane/other support needed to be safe |
| | 2 = Walks with definite ataxia; may need intermittent support/examiner needs to walk with participant for safety |
| | 3 = Moderate ataxia / veering / difficulty turning; walking requires cane/holding onto |
| | examiner with one hand for safety |
| | 4 = Severe ataxia/veering; walker or both hands of examiner needed |
| | 5 = Cannot walk even with assistance (wheelchair bound) |
| Sub-Total Upright Stabili | [Calculated – Score= E1+E2a+E2b+E3a+E3b+E4+E5+E6+E7, ty: Range 0-36] |
| | [Calculated – Score = Sub-totals A. Bulbar + B. Upper limb + C. |
| Total mFARS score: | Lower limb + E. Upright stability, Range 0-931 |