

CORE DOMAINS

1. C Communication

Engage the child or young person in conversation. Score from the best spontaneous speech up to the end of the assessment; encourage speech as appropriate; if child is unwilling return to the task later, e.g. at the end of the assessment, or mark item(s) as “Not Assessed” (NA).

C.a. Max Phonation Time

secs

- 0= < 1/4 lower limit of normal (LLN)
- 1= >1/4 LLN, <2/3 LLN
- 2= >2/3 LLN, < LLN
- 3= ≥ LLN
- NA

C.e. Vocal Pitch

- 0= Significantly impaired
- 1= Mildly impaired
- 2= Normal
- NA

C.b. Loudness in conversation

- 0= Significantly impaired
- 1= Mildly impaired
- 2= Normal
- NA

C.f. Phonation breaks in conversation

- 0= Significantly impaired
- 1= Mildly impaired
- 2= Normal
- NA

C.c. Articulation

- 0= Significantly impaired
- 1= Mildly impaired
- 3= Normal
- NA

C.g. Response time

- 0= Significantly impaired
- 1= Mildly impaired
- 2= Normal
- NA

C.d. Prosody

- 0= Significantly impaired
- 1= Mildly impaired
- 2= Normal
- NA

C.h. Rate

- 0= Significantly impaired
- 1= Mildly impaired
- 2= Normal
- NA

C.i. Speech Intelligibility

- 0= Speech is an inadequate means of communication (even with known context)
- 2= Only words, short or rote phrases (adequate when predictable or in known context)
- 4= Meaning understood, some phrases missed (adequate when predictable or in known context)
- 6= Meaning understood, some phrases missed (adequate when unpredictable even when context is not known)
- 8= Normal (adequate for age even when unpredictable and context is not known)
- NA

Speech by Observation /26

If part of the assessment is not possible (“NA”), adjust the score up as if it was out of 26; if no speech is demonstrated, but the patient appears to be selectively mute (from the parent / caregiver history) score as “NA”. The reported speech can be scored by the A-T Functional Scale.

C.j. Best handwriting / drawing

Ask a pre-school child to copy developmentally appropriate shapes you have just drawn, in the box below, e.g. dots and lines under 3 years, circle age 3, perpendicular cross age 4, perpendicular rectangle age 4.5, diagonal cross age 5, triangle age 5.5 etc.

Ask young primary school child or older child or adult to write their name and a simple phrase.

Sample of short phrase for size and position (school age and older; 3-10 words in line)

- 0= None
 - 1= Single character
 - 2= More than half words with character variation (size or position)
 - 3= Less than half words with character variation (size or position)
 - 4= All words with consistent character size and variation
- NA
or

Sample of name (younger primary school age)

- 0= None
 - 1= Scribble
 - 2= Some legible but less than half the letters
 - 3= More than half the letters legible
 - 4= All letters legible
- NA
or

Copy of primary shapes (pre-school or younger than school age)

- 0= None
- 1= severely impaired, very slow
- 3= mildly impaired and or slow
- 4= normal for age

Primary shapes

NA

Raw C /30

Total C /15

2. E Eye movements *video if possible*

E.a. Conjugate gaze

- 0= Persistent dysconjugate in primary position: eso exo
- 1= Transient dysconjugate (i.e. tropia): eso exo
- 2= Conjugate
- NA

E.b. Horizontal nystagmus in primary gaze

- 0= Sustained
- 1= Unsustained
- 2= Absent
- NA

E.c. Nystagmus on lateral gaze

- 0= Sustained
- 1= Unsustained
- 2= Absent
- NA

E.d. Convergence / Accommodation *(if dysconjugate examine with each eye covered in turn)*

- 0= Absent
- 1= Impaired but either transient or limited
- 2= Normal
- NA

E.e. Off-foveal gaze tendency *(vertical or horizontal)*

- 0= Frequent and persistent
- 1= Present only with certain activities
- 2= Not present (normal)
- NA

E.f. Pursuit *(away from primary gaze)*

- 0= No pursuit velocity movement generated
- 1= Fragmentary
- 2= Normal
- NA

E.g. Saccade amplitude *(head fixed, horizontal gaze-shift of 30 degrees)*

- 0= No saccades
- 1= Multiple small hypometric or staircase saccades
- 2= Perseveration of hypometric saccades with repeated gaze shifts to defined target
- 3= Normal amplitude with experience to defined target
- NA

E.h. Saccade latency

- 0= All or most delayed
- 1= Less than 50% delayed
- 2= Normal latency
- NA

E.i. Oculo-Motor Apraxia (large amplitude lateral gaze-shifts)

- 0= Present on all gaze shifts
- 1= Present on most (> 50%) gaze shifts
- 2= Occasionally present
- 3= Not present
- NA

E.j. Up Gaze restriction

- 0= No vertical gaze
- 1= Limited vertical gaze
- 2= Normal vertical gaze
- NA

E.k. Up gaze persistence or vertical nystagmus

- 0= Persistent
- 1= Present under certain conditions
- 2= Not present (normal)
- NA

E.l. VOR gain

- 0= Abnormal
- 1= Normal
- NA

E.m. VOR cancellation

- 0= Absent
- 1= Diminished
- 2= Normal
- NA

E.n. Post-rotatory nystagmus (after slow rotation, 6 full rotation, 6 sec/rotation)

- 0= Persists more than 10 secs
- 1= Present, but persists no more than 10 secs
- 2= Not present
- NA

E.o. Periodic Alternating Nystagmus (after slow rotation, 6 full rotation, 6 sec/rotation)(score only if nystagmus present in primary gaze)

- 0= Present
- 1= Not present
- NA

Raw E /30

Total E /15

Running total C E / 30

3. A Ataxia

A.a. Finger to nose (target horizontal distal phalanx; 10 if possible, right to right, then left to left)

A.a.R A.a.L

Right Left

- | | | |
|----|----|--|
| 0= | 0= | On target or mid phalanx 2/10 (or 25%) times or less, or mean 5 sec or longer for each |
| 1= | 1= | On target or mid phalanx 3/10 (25%) or more, and less than 5 sec mean |
| 2= | 2= | On target or mid phalanx 8/10 (75%) or more |
| 3= | 3= | On target 8/10 (75%) or more |
| 4= | 4= | On target 10/10 (100%) but with some in-coordination |
| 5= | 5= | Normal, no in-coordination |
| NA | NA | |

A.b. Sitting (observe 30 sec, on firm examination couch, or the edge of seat, arms crossed with hands on contra-lateral shoulders, feet un-supported)

- 0= Requires total support
- 1= Requires only flat posterior support
- 2= Sits with self support of arms in lap or laterally
- 3= No support but sways markedly (raises body part for balance)
- 4= No support but sways slightly /occasionally
- 5= Normal /age appropriate / no sway
- NA

A.c. Standing (30 sec, once feeling confident. Score "NA" if foot deformity prevents passive ranging to a stable weight bearing position. Can use braces and shoes if required to keep feet plantigrade)

- 0= unable to stand without vertical support
- 1= consistently leans into or away from supporting hand (i.e., supporting against fall in only one direction); can stand leaning against a wall, 30 seconds (≥ 75% of trials)
- 2= consistently able to stand upright with one hand held securely at chest level, elbow partially flexed, but without consistently leaning into on or away from support (hence must guard against potential falls in either lateral, forward/backward, or twisting directions), 30 seconds (≥ 75% of trials)
- 3= stands independently without support but requires corrective steps, 30 seconds (≥ 75% of trials)
- 4= feet separated no more than shoulder width, no corrective steps, 30 seconds (≥ 75% of trials)
- 5= feet together, minor excessive corrective movement but no corrective steps, 30 seconds (≥ 75% of trials)
- 6= feet together, no corrective movements, 30 seconds
- NA

A.d. Walking (10 meters)

- 0= Requires vertical support
- 1= Massive lateral support (above elbow or waist held)
- 2= Some lateral support (below elbow or hand held, elbow relaxed)
- 3= Only touch support needed
- 4= No support, wide base or takes corrective stagger steps
- 5= No support, normal speed with mild path deviations or corrective steps
- 6= Normal path width without corrective steps
- NA

Total A / 27

Running total C E A / 57

4. M Movement disorder

Bradykinesia

M.a. Hand Tapping (score best side after demo)
 (taps hand on paper on table or wheelchair tray at elbow height as fast as possible, with wrist held down, for 10 secs, ensure optimal support)

Number of taps in 10 secs

- 0= < 5 taps
- 1= 5 < 10 taps
- 2= 10 < 20 taps
- 3= 20 < 30 tap
- 4= 30 < 40 taps
- 5= 40 and more
- NA

M.b. Body hypokinesia

- 0= Slowness and poverty of movements
- 1= Normal

Bradykinesia / 6

Hyperkinetic movements (tics, chorea, myoclonus, ballismus, arrhythmic adventitious movements)

M.c. Distal / hand adventitious movements – not rhythmic / tremor (limbs) (score worse side)

- 0= Present at rest
- 1= Present with both social / cognitive *and* motor activation
- 2= Present with either social / cognitive *or* motor activation
- 3 = Not present
- NA

M.d. Retro-Colic Spasms / Jerks

- 0= Present with all postures at rest
- 1= Present sitting posture with hand support
- 2= Present with both social /cognitive and motor **and** posture activation / removal of head rest
- 3= Present with either social /cognitive or motor or posture activation / removal of head rest
- 4= Not present
- NA

M.e. Other proximal adventitious movements – not rhythmic / tremor (face, head, trunk)

- 0= Present at rest
- 1= Present with both social / cognitive *and* motor activation
- 2= Present with either social / cognitive *or* motor activation
- 3= Not present
- NA

M.f. Tremor / rhythmic movements (while sitting with usual support)

- 0= Present at rest / without activation
- 1= Present with both social /cognitive *and* motor activation
- 2= Present with either social /cognitive *or* motor activation
- 3= Not present
- NA

M.g. Tremor / rhythmic movements (while sitting with respect to support)

- 0= Present with full support
- 1= Present with removal of head rest / support
- 2= Present with removal of trunk support
- 3= Not present
- NA

Hyperkinesia /16

Dystonia / posture distortions / slow movements

M.h. Facial expression / timing and duration of large expressions

- 0=Limited or absent emotion expression (mask-like or expressionless face)
- 1=Hypomimeia / abnormal persistence (dystonic facial expression / smile too sustained / mouth open)
- 2=Normal
- NA

M.i. Tongue lateral movements (on command with mouth open)

- 0= No lateral movements (moves only with mandible)
 - 1= Lateral movements depend on some mandible movement
 - 2= Lateral movements independent of mandible but impaired
 - 3= Normal lateral movements
- NA

M.j. Limb posturing / dystonia (score worse side)

- 0= Present at rest / without activation
 - 1= Present with both social /cognitive *and* motor activation
 - 2= Present with either social /cognitive *or* motor activation
 - 3= Not present
- NA

M.k. Head / trunk posturing / dystonia

- 0= Present at rest / without activation
 - 1= Present with both social /cognitive *and* motor activation
 - 2= Present with either social /cognitive *or* motor activation
 - 3= Not present
- NA

Dystonia /11

Total M / 33

Running total C E A M / 90

5. P Power (document any muscle weakness in box, score weakest side)

P.a. Ankle Dorsiflexion	0=	Severe weakness (MRC 0, 1, or 2)	MRC #: _____
	1=	Mild weakness (MRC 3, or 4)	
	2=	Normal for age (MRC 5)	
	NA		
P.b. Knee extension	0=	Severe weakness (MRC 0, 1, or 2)	MRC #: _____
	1=	Mild weakness (MRC 3, or 4)	
	2=	Normal for age (MRC 5)	
	NA		
P.c. Hip flexion	0=	Severe weakness (MRC 0, 1, or 2)	MRC #: _____
	1=	Mild weakness (MRC 3, or 4)	
	2=	Normal for age (MRC 5)	
	NA		
P.d. Arm abduction	0=	Severe weakness (MRC 0, 1, or 2)	MRC #: _____
	1=	Mild weakness (MRC 3, or 4)	
	2=	Normal for age (MRC 5)	
	NA		
P.e. Elbow flexion	0=	Severe weakness (MRC 0, 1, or 2)	MRC #: _____
	1=	Mild weakness (MRC 3, or 4)	
	2=	Normal for age (MRC 5)	
	NA		

Document muscle weakness:

P.f. Hand muscles	0=	Claw hand (extension of all 4 MCP joints at rest)	
	1=	Thenar / hypothenar wasting	
	2=	Normal	
	NA		

P.g. Document foot deformity:

P.h. Document spinal deformity:

Raw P /12

Total P /4

Running total C E A M P / 94

6. N Neuropathy (tendon reflexes present on either side)

N.a. Ankle tendon reflexes

- 0= Absent
- 1= Present
- NA

N.b. Knee tendon reflexes

- 0= Absent
- 1= Present
- NA

N.c. Biceps tendon reflexes

- 0= Absent
- 1= Present
- NA

N.d. Proprioception in toes (if unable to answer position questions in proximal joints, attempt vibration sense with 128 Hz tuning fork or score as null "NA")

- 0= Absent movement sensibility
- 1= Movement sensibility intact, position errors >25%
- 2= Rare position errors
- 3= No position errors / normal for age
- NA

OR

N.dv. Vibration sense at ankles (only if proprioception not reliable)

- 0= Absent vibration sense
- 1= Some vibration sense intact, errors >25%
- 2= Rare errors
- 3= Normal for age
- NA

N.e. Plantar responses

	Right	Left
normal	<input type="checkbox"/>	<input type="checkbox"/>
equivocal	<input type="checkbox"/>	<input type="checkbox"/>
absent	<input type="checkbox"/>	<input type="checkbox"/>
striatal	<input type="checkbox"/>	<input type="checkbox"/>
Babinski	<input type="checkbox"/>	<input type="checkbox"/>

N.f. Tone description

Normal symmetrical Abnormal

Document abnormal tone:

Total N / 6

Total Pure Neuro
(CEAMPN) / 100

LEARNING ABILITY / MENTAL STATE SUPPLEMENTAL DOMAINS

9. LA Learning Ability / Cognitive (score by Self Report or Carer Report, and confirm if possible by observation, 3 points)

- 0= Profound or severe cognitive impairment likely **Observed**
- 1= Moderate cognitive impairment likely
- 2= Mild global cognitive impairment likely
- 3= Normal or superior cognition, or just specific learning difficulties
- NA

Total LA / 3

10. MS Mental State (score by clinical impression, 8 points)

a. Appearance

- 0= Impaired
- 1= Normal
- NA

b. Mood

- 0= Severe abnormality; severely manic or depressed
- 1= Moderately depressed, or flat affect, or moderately manic or hypomanic
- 2= No abnormality detected, a range of emotions was expressed
- NA

c. Thoughts or speech content

- 0= Inaccessible, apparently psychotic or deluded
- 1= Suspicion of abnormality only
- 2= Normal

d. Abnormal experiences / hallucinations

- 0= Present
- 1= Not present / no evidence present
- 2= Normal
- NA

e. Rapport

- 0= Very poor
- 1= Normal

List any drugs being taken for mood or mental disorder(s):

MS Total / 8