

FIGURE CAPTIONS

Figure 1. Change in functional status during admission across timepoints for all 39 children. Each line represents an individual child.

Figure 2. Contingency tables showing frequency of children in each discharge group by presence or absence of change in raw WeeFIM Total scores by Month 1 (n = 38) or Month 2 (n = 39).

Figure 3. Change in functional status for the subgroup of 16 children with three-month follow-up data. Each line represents an individual child.

Supplemental Digital Content 1. Table that presents demographic and rehabilitation data on children with follow-up WeeFIM DFQ scores above 30. doc

Supplemental Digital Content 2. Table that presents demographic and rehabilitation data on children with follow-up WeeFIM DFQ scores below 30. doc

SDC 1. Demographic and rehabilitation data on children with follow-up WeeFIM DFQ scores above 30

Age, Sex	Premorbid concerns	Injury Type	GCS	TFC	Imaging Modality/ Deepest Lesion	TTA	LOS	Rehab events	Admission	Month 1	Month 2	Discharge	Follow-Up	Disposition
1 15 F	Learning disability	f	7	16	MRI corpus callosum	16	57	Autonomic storming.	14 MCS. RLA 3.	15 CS. RLA 4-5. Functional verbal communication.	44 CS. RLA 5. Cognitive impairments. Ambulates with moderate assistance.	75 CS. RLA 7. Independent with motor skills. Cognitive impairments. Emerged from PTA.	100 CS. Higher-level cognitive impairments.	I
2 13 F	Mood disorder	b	4	21	CT left parietal	19	46	None.	14 MCS. RLA 3.	31 CS. RLA 4. Functional verbal communication. Ambulates with moderate assistance.	54 CS. RLA 5. Cognitive impairments. Ambulates independently.	72 CS. RLA 5-6. Cognitive impairments.	98 CS. Emerged from PTA. Higher-level cognitive impairments. Low mood.	II
3 8 M	None	e	5	41	MRI thalami	30	68	Transfer due to possible encephalitis.	14 MCS. RLA 2-3.	16 MCS. RLA 4-5. Purposeful movement in UE only.	31 CS. RLA 6. Functional verbal communication. Cognitive impairments.	54 CS. RLA 7. Emerged from PTA. Ambulates with AFOs. Cognitive impairments.	97 CS. Higher-level cognitive impairments.	II
4 13 M	None	d	7	5	CT subdural and intra-ventricular hemorrhage	5	49	None.	14 CS. RLA 4. Sits with minimal assistance.	21 CS. RLA 4. Non-weight bearing in LE. Functional UE but dependent due to agitation.	26 CS. RLA 6. Functional verbal communication. Emerged from PTA.	69 CS. RLA 7. Higher-level cognitive impairments. Emotional concerns. Ambulates with device due to orthopedic needs.	90 CS. Isolated cognitive impairments. Emotional concerns.	I
5 3 M	None	b	3	10	MRI none	8	34	None.	18 CS. RLA 5.	47 CS. RLA 5. Functional verbal communication. Resolution of PTA.	n/a	63 CS. RLA 6. Cognitive impairments. Mild ataxic gait. Fine motor difficulties.	80 CS. Cognitive impairments. Behavioral concerns. Functional motor skills.	II
6 6 F	None	b	3	25	CT bifrontal	26	45	Transfer for orthopedic surgery.	15 MCS. RLA 3.	35 CS. RLA 4. Functional verbal communication.	48 CS. RLA 5-6. Severe language and cognitive impairments.	56 CS. RLA 6. Emerged from PTA.	77 CS. Higher-level cognitive impairments.	II
7 9 M	ADHD	b	5	50	MRI brainstem	22	95	Transfer for dural tear repair.	14 MCS. RLA 2.	14 MCS. RLA 3.	15 MCS. RLA 3-4. Improved head and trunk control. Emerging verbal communication.	43 CS. RLA 6-7. Emerged from PTA. Aphasia. Left hemiparesis. Bilateral hearing loss. Ambulates with walker.	72 CS. Improved speech. Cognitive impairments. Ambulates with cane.	II
8 18 M	ADHD	a	3	25	MRI brainstem	23	116	None.	14 MCS. RLA 3.	17 MCS. RLA 5. Dense right hemiparesis.	20 CS. RLA 5-6. Functional nonverbal communication.	60 CS. RLA 7-8. Right hemiparesis and ataxia. Emerged from PTA. Cognitive impairments. Depression.	67 CS. Right hemiparesis. Ataxia. Dysarthria. Cognitive impairments. Depression.	II

Abbreviations: GCS = Glasgow Coma Scale, TFC = time to follow commands; TTA = time to admission; LOS = length of stay; DFQ = WeeFIM Total; MCS = minimally conscious state; CS = full consciousness; RLA = Rancho Los Amigos Scale score (original version, scores range 1-8); PTA = posttraumatic amnesia; PEG = percutaneous gastrostomy tube; UE = upper extremity; LE = upper extremity; AT = assistive technology
 Notes: Injury Type a = Restrained driver in MVC; b = Restrained passenger in MVC; c = Unrestrained passenger in MVC; d = Pedestrian struck by vehicle; e = Helmeted biker struck by vehicle; f = Dragged by animal.
 Disposition I = Outpatient therapies; II = Day rehabilitation program

SDC 2. Demographic and rehabilitation data on children with follow-up WeeFIM DFQ scores below 30

	Age, Sex	Premorbid concerns	Injury Type	GCS	TFC	Imaging Modality/ Deepest Lesion	TTA	LOS	Rehab events	Admission	Month 1	Month 2	Discharge	Follow-Up	Disposition
9	7 M	Attention, behavioral concerns	d	4	92	MRI brainstem	32	59	Autonomic storming.	15 VS. RLA 2-3.	15 MCS. RLA 2-3.	15 MCS. RLA 2-3.	15 MCS. RLA 3. Minimal spontaneous movement of RUE. Severe motor impairments. PEG dependent.	29 MCS. Increased responsiveness. No purposeful movement of extremities. PEG dependent.	I
10	16 F	None	a	3	35	MRI brainstem	32	99	Intrathecal baclofen pump placed. Transfer for orthopedic surgery.	14 MCS. RLA 3.	14 MCS. RLA 3.	14 MCS. RLA 4.	16 MCS. RLA 3-5. No functional communication. Minimal purposeful movement in UE. Continued reliance on tracheostomy and PEG.	25 CS. Functional communication using AT device. In PTA. Severe motor impairments. Continued reliance on tracheostomy and PEG.	I
11	14 F	ADHD	c	3	44	MRI brainstem	38	198	Intrathecal baclofen pump placed. PEG revision.	14 MCS. RLA 2-3.	14 MCS. RLA 2-3.	16 MCS. RLA 2-3.	25 CS. RLA 5. Functional communication with AT device. Resolved PTA with cognitive impairments. Severe motor impairments. Reliance on tracheostomy and PEG.	22 CS. Improved use of AT device. Severe motor impairments. Reliance on tracheostomy and PEG.	I
12	12 M	None	b	5	31	MRI brainstem	35	131	Transfer for cranioplasty, orthopedic surgery. Recurrent urinary tract infections.	14 MCS. RLA 2-3.	14 MCS. RLA 3.	14 MCS. RLA 3.	17 MCS. RLA 3. Limited ability to point with LUE. No functional movement in other extremities. Continued reliance on tracheostomy and PEG. CPAP at night for central apnea.	21 CS. Nonverbal. Functional communication using AT device. In PTA. Severe cognitive, motor impairments. Functional use of UE.	II
13	8 F	None	d	4	70	MRI brainstem	19	63	None.	14 MCS. RLA 2-3.	14 MCS. RLA 3.	14 MCS. RLA 3.	17 MCS. RLA 3. Minimal spontaneous movements of extremities. NG tube dependent.	21 CS. Functional nonverbal communication. In PTA. Non-ambulatory. Left hemiparesis. Left-sided hearing loss. NG tube dependent.	I
14	17 M	None	a	5	21	MRI brainstem	19	254	Multiple transfers due to medical instability, cranioplasty.	14 MCS. RLA 3.	14 MCS. RLA 3.	14 MCS. RLA 3.	23 MCS. RLA 3-4. Minimal purposeful movement in UE. Continued reliance on PEG.	15 MCS. Severe cognitive and motor impairment. Continued reliance on PEG. Increased seizures.	I
15	13 F	Learning disability	d	5	129	MRI right thalamus	31	91	Multiple transfers due to medical instability.	14 VS. RLA 2-3.	14 VS. RLA 2-3.	14 MCS. RLA 2-3.	15 MCS. RLA 3. No spontaneous movement. Continued reliance on tracheostomy and PEG.	15 MCS. Minimal purposeful movement of head and hands. Continued reliance on tracheostomy and PEG.	I
16	8 M	ADHD, behavioral concerns	e	3	91	MRI brainstem	35	147	Multiple transfers due to medical instability.	14 VS. RLA 2.	14 VS. RLA 2.	14 MCS. RLA 3.	14 MCS. RLA 3. Increased eye opening. Minimal spontaneous movement. Continued reliance on tracheostomy and PEG.	14 MCS. No visual tracking. Minimal spontaneous movement. Continued reliance on tracheostomy and PEG.	I

Abbreviations: GCS = Glasgow Coma Scale, TFC = time to follow commands; TTA = time to admission; LOS = length of stay; DFQ = WeeFIM Total; VS = vegetative state; MCS = minimally conscious state; CS = full consciousness; RLA = Rancho Los Amigos Scale score (original version, scores range 1-8); PTA = posttraumatic amnesia; PEG = percutaneous gastrostomy tube; UE = upper extremity; LE = upper extremity; AT = assistive technology. Notes: Injury Type a = Restrained driver in MVC; b = Restrained passenger in MVC; c = Unrestrained passenger in MVC; d = Pedestrian struck by vehicle; e = Biker struck by vehicle; f = Dragged by animal. Disposition I = Outpatient therapies; II = Day rehabilitation program.