

Patient Name/Age/Gender: Deb, a 46 y.o. female

Reason for referral: evaluate and treat

Medical Diagnosis/ Health Condition: Multiple Sclerosis

Subjective Examination/ Patient Interview:

Current History: Deb is a 46 y.o. female with a 19 year history of MS. Deb's disease was originally classified as relapsing-remitting, but has transitioned into secondary progressive. Deb was referred to OP PT due to increasing difficulties walking. She has sustained several falls in the home environment and has limited community ambulation ability.

Past Medical History: Crohn's disease.

Current Level of Function:

Mobility: Patient is able to ambulate with contact guard on level indoor surfaces. At home, walks independently, using RW or furniture for support. Requires assist in the community. Limited endurance.

24 hour Symptom Behavior: Fatigue progresses throughout the day.

Patient Goals: Be able to walk safely without falling.

Review of Medical Record

General Health:

Malaise: No

Chills/ Sweats/ Fever: No

Unexplained Weight Loss/ Gain: No

Cardiovascular/ Hematological

Fatigue/ Weakness: Yes

Leg cramping: No

Dizziness/ lightheadedness: No.

Pulmonary:

Coughing: No

Musculoskeletal

Weakness: Yes

Joint integrity: No

Neurological

Paresthesia/ Numbness: Occasional tingling reported in LEs. Otherwise WNL for light touch and proprioception.

Deb Case Continued:

Integumentary

Skin changes: No

Gastrointestinal

Bowel or bladder: Occasional urinary urgency.

Nausea: No

Metabolic

Diabetes: No

Environmental Factors: Patient lives in a first floor apartment with her husband. The apartment has 1 step to enter with L railing (when ascending).

Participation (Job, Family, Community): Patient is a former teacher's aide. Now on disability due to MS. Limited community involvement. Very supportive husband; they have two grown children who live out of state.

Personal Factors (Medications, Nutrition, Physical Activity/ Exercise Routine, Sleep):

Language: English speaking.

Medications: Occasional steroids used for Crohn's disease (not taking any currently). Patient does report improved MS symptoms when taking steroids. Avonex 30 mcg injected one time/week. Ampyra 10 mg bid.

Nutrition: No restrictions.

Exercise/Activity: Patient does not engage in formal exercise. Reports limited activity due to mobility difficulties and fatigue.

Sleep: No reports of difficulties.

Insurance: Medicaid.

The patient is does not smoke. Alcohol use: 1 drink (wine or beer) on occasion.

Objective Examination - Tests and Measures

Body Structure and Function Impairments

Cardiovascular/ Hematological

Auscultation: Normal.

Vital signs: resting HR 78 bpm, BP 126/84 mmHg (in sitting), RR 13 bpm

Musculoskeletal

ROM: WFL PROM.

Strength/ MMT: Strength generally 4/5 in UEs. LEs as follows:

Deb Case Continued:

	LEFT	RIGHT
Iliopsoas	4	4
Gluteus maximus	3+	3+
Gluteus medius	3+	3+
Quadriceps	4	4
Hamstrings	3+	3+
Tibialis anterior	4	4
Gastrocnemius*	WFL	WFL
Peroneals	3+	3+

*Unable to test gastrocnemius in standard position due to imbalance; tested in sitting

Neurological:

Arousal, Attention, & Cognition: Alert and oriented x3. Reports some short-term memory loss (frequently looks to husband when answering questions).

Perception: No apparent impairments.

Motor Function: Impaired R UE/LE.

Reflex Integrity: Increased tone and DTRs in R UE/LE.

Sensation: Intact light touch and proprioception.

Integumentary:

Anthropometric Characteristics: WNL.

Skin Condition: Normal.

Activity Limitations:

Mobility: Sit to/from stand with supervision to contact guard. Contact guard for 100' ambulation on level indoor surfaces without device; with RW, able to ambulate with close supervision. Requires railing and contact guard to ambulate up/down 4 stairs. Moderate to severe ataxia noted with wide BOS, uneven steps, frequent stopping to re-gain balance.

RIVERMEAD MOBILITY INDEX

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PATIENT'S NAME: Deb

HOSPITAL NUMBER:

Score 0 = No 1 = Yes

DATE

Admission

1. Do you turn over from your back to your side without help?
2. From lying in bed, are you able to get up to sit on the edge of the bed on your own?
3. Could you sit on the edge of the bed without holding on for 10 seconds?
4. Can you (using hands and an aid if necessary) stand up from a chair in less than 15 seconds, and stand there for 15 seconds,
5. Observe patient standing for 10 seconds without any aid.
6. Are you able to move from bed to chair and back without any help?
7. Can you walk 10 metres with an aid if necessary but with no standby help?
8. Can you manage a flight of steps alone, without help?
9. Do you walk around outside alone, on pavements?
10. Can you walk 10 metres inside with no caliper, splint or aid and no standby help?
11. If you drop something on the floor, can you manage to walk 5 metres to pick it up and walk back?
12. Can you walk over uneven ground (grass, gravel, dirt, snow or ice) without help?
13. Can you get in and out of a shower or bath unsupervised, and wash yourself?
14. Are you able to climb up and down four steps with no rail but using an aid if necessary?
15. Could you run 10 metres in 4 seconds without limping?
 (A fast walk is acceptable.)

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Scale for the assessment and rating of ataxia (SARA)

<p>1) Gait</p> <p>Proband is asked (1) to walk at a safe distance parallel to a wall including a half-turn (turn around to face the opposite direction of gait) and (2) to walk in tandem (heels to toes) without support.</p> <ul style="list-style-type: none"> 0 Normal, no difficulties in walking, turning and walking tandem (up to one misstep allowed) 1 Slight difficulties, only visible when walking 10 consecutive steps in tandem 2 Clearly abnormal, tandem walking >10 steps not possible 3 Considerable staggering, difficulties in half-turn, but without support 4 Marked staggering, intermittent support of the wall required 5 Severe staggering, permanent support of one stick or light support by one arm required 6 Walking > 10 m only with strong support (two special sticks or stroller or accompanying person) 7 Walking < 10 m only with strong support (two special sticks or stroller or accompanying person) 8 Unable to walk, even supported 	<p>2) Stance</p> <p>Proband is asked to stand (1) in natural position, (2) with feet together in parallel (big toes touching each other) and (3) in tandem (both feet on one line, no space between heel and toe). Proband does not wear shoes, eyes are open. For each condition, three trials are allowed. Best trial is rated.</p> <ul style="list-style-type: none"> 0 Normal, able to stand in tandem for > 10 s 1 Able to stand with feet together without sway, but not in tandem for > 10s 2 Able to stand with feet together for > 10 s, but only with sway 3 Able to stand for > 10 s without support in natural position, but not with feet together 4 Able to stand for >10 s in natural position only with intermittent support 5 Able to stand >10 s in natural position only with constant support of one arm 6 Unable to stand for >10 s even with constant support of one arm 				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Score</td> <td style="text-align: center;">5</td> </tr> </table>	Score	5	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Score</td> <td style="text-align: center;">3</td> </tr> </table>	Score	3
Score	5				
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<p>3) Sitting</p> <p>Proband is asked to sit on an examination bed without support of feet, eyes open and arms outstretched to the front.</p> <ul style="list-style-type: none"> 0 Normal, no difficulties sitting >10 sec 1 Slight difficulties, intermittent sway 2 Constant sway, but able to sit > 10 s without support 3 Able to sit for > 10 s only with intermittent support 4 Unable to sit for >10 s without continuous support 	<p>4) Speech disturbance</p> <p>Speech is assessed during normal conversation.</p> <ul style="list-style-type: none"> 0 Normal 1 Suggestion of speech disturbance 2 Impaired speech, but easy to understand 3 Occasional words difficult to understand 4 Many words difficult to understand 5 Only single words understandable 6 Speech unintelligible / anarthria 				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Score</td> <td style="text-align: center;">0</td> </tr> </table>	Score	0	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Score</td> <td style="text-align: center;">1</td> </tr> </table>	Score	1
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<p>5) Finger chase</p> <p>Rated separately for each side Proband sits comfortably. If necessary, support of feet and trunk is allowed. Examiner sits in front of proband and performs 5 consecutive sudden and fast pointing movements in unpredictable directions in a frontal plane, at about 50 % of proband’s reach. Movements have an amplitude of 30 cm and a frequency of 1 movement every 2 s. Proband is asked to follow the movements with his index finger, as fast and precisely as possible. Average performance of last 3 movements is rated.</p> <p>0 No dysmetria 1 Dysmetria, under/ overshooting target <5 cm 2 Dysmetria, under/ overshooting target < 15 cm 3 Dysmetria, under/ overshooting target > 15 cm 4 Unable to perform 5 pointing movements</p>			<p>6) Nose-finger test</p> <p>Rated separately for each side Proband sits comfortably. If necessary, support of feet and trunk is allowed. Proband is asked to point repeatedly with his index finger from his nose to examiner’s finger which is in front of the proband at about 90 % of proband’s reach. Movements are performed at moderate speed. Average performance of movements is rated according to the amplitude of the kinetic tremor.</p> <p>0 No tremor 1 Tremor with an amplitude < 2 cm 2 Tremor with an amplitude < 5 cm 3 Tremor with an amplitude > 5 cm 4 Unable to perform 5 pointing movements</p>		
Score	Right	Left	Score	Right	Left
mean of both sides (R+L)/2		1	mean of both sides (R+L)/2		1
<p>7) Fast alternating hand movements</p> <p>Rated separately for each side Proband sits comfortably. If necessary, support of feet and trunk is allowed. Proband is asked to perform 10 cycles of repetitive alternation of pro- and supinations of the hand on his/her thigh as fast and as precise as possible. Movement is demonstrated by examiner at a speed of approx. 10 cycles within 7 s. Exact times for movement execution have to be taken.</p> <p>0 Normal, no irregularities (performs <10s) 1 Slightly irregular (performs <10s) 2 Clearly irregular, single movements difficult to distinguish or relevant interruptions, but performs <10s 3 Very irregular, single movements difficult to distinguish or relevant interruptions, performs >10s 4 Unable to complete 10 cycles</p>			<p>8) Heel-shin slide</p> <p>Rated separately for each side Proband lies on examination bed, without sight of his legs. Proband is asked to lift one leg, point with the heel to the opposite knee, slide down along the shin to the ankle, and lay the leg back on the examination bed. The task is performed 3 times. Slide-down movements should be performed within 1 s. If proband slides down without contact to shin in all three trials, rate 4.</p> <p>0 Normal 1 Slightly abnormal, contact to shin maintained 2 Clearly abnormal, goes off shin up to 3 times during 3 cycles 3 Severely abnormal, goes off shin 4 or more times during 3 cycles 4 Unable to perform the task</p>		
Score	Right	Left	Score	Right	Left
mean of both sides (R+L)/2		2	mean of both sides (R+L) / 2		2

Name: Deb

Date: Admission

Hospital: Out-patient Rehab Facility

Multiple Sclerosis Impact Scale (MSIS-29)

- The following questions ask for your views about the impact of MS on your day-to-day life **during the past two weeks**
- For each statement, please **circle** the **one** number that **best** describes your situation
- Please answer **all** questions

In the <u>past two weeks</u>, how much has your MS limited your ability to...		Not at all	A little	Moderately	Quite a bit	Extremely
1.	Do physically demanding tasks?	1	2	3	4	5
2.	Grip things tightly (e.g. turning on taps)?	1	2	3	4	5
3.	Carry things?	1	2	3	4	5

In the <u>past two weeks</u>, how much have you been bothered by...		Not at all	A little	Moderately	Quite a bit	Extremely
4.	Problems with your balance?	1	2	3	4	5
5.	Difficulties moving about indoors?	1	2	3	4	5
6.	Being clumsy?	1	2	3	4	5
7.	Stiffness?	1	2	3	4	5
8.	Heavy arms and/or legs?	1	2	3	4	5
9.	Tremor of your arms or legs?	1	2	3	4	5
10.	Spasms in your limbs?	1	2	3	4	5
11.	Your body not doing what you want it to do?	1	2	3	4	5
12.	Having to depend on others to do things for you?	1	2	3	4	5

Please check that you have answered all the questions before going on to the next page

In the <u>past two weeks</u>, how much have you been bothered by...		Not at all	A little	Moderately	Quite a bit	Extremely
13.	Limitations in your social and leisure activities at home?	1	2	3	4	5
14.	Being stuck at home more than you would like to be?	1	2	3	4	5
15.	Difficulties using your hands in everyday tasks?	1	2	3	4	5
16.	Having to cut down the amount of time you spent on work or other daily activities?	1	2	3	4	5
17.	Problems using transport (e.g. car, bus, train, taxi, etc.)?	1	2	3	4	5
18.	Taking longer to do things?	1	2	3	4	5
19.	Difficulty doing things spontaneously (e.g. going out on the spur of the moment)?	1	2	3	4	5
20.	Needing to go to the toilet urgently?	1	2	3	4	5
21.	Feeling unwell?	1	2	3	4	5
22.	Problems sleeping?	1	2	3	4	5
23.	Feeling mentally fatigued?	1	2	3	4	5
24.	Worries related to your MS?	1	2	3	4	5
25.	Feeling anxious or tense?	1	2	3	4	5
26.	Feeling irritable, impatient, or short tempered?	1	2	3	4	5
27.	Problems concentrating?	1	2	3	4	5
28.	Lack of confidence?	1	2	3	4	5
29.	Feeling depressed?	1	2	3	4	5
Please check that you have circled ONE number for EACH question						
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Name: Deb Date: Admission

Hospital: Out-patient Rehab Facility

Fatigue Severity Scale

Scoring: Ordinal scale from 1 to 7 where 1 represents strongly disagree and 7 represents strongly agree.

__6__1. My motivation is lower when I am fatigued.

__7__2. Exercise brings on my fatigue.

__7__3. I am easily fatigued.

__7__4. Fatigue interferes with my physical functioning.

__7__5. Fatigue causes frequent problems for me.

__7__6. My fatigue prevents sustained physical functioning.

__7__7. Fatigue interferes with carrying out certain duties and responsibilities.

__7__8. Fatigue is among my three most disabling symptoms.

__6__9. Fatigue interferes with my work, family, or social life.