CARE FOR ELDERS

Chronic Neurological Disorders

• Facilitator’s Guide •

August, 2003
Acknowledgments:
Funding for the Care for Elders modules was made possible by the Special Population Funds, through the UBC Faculty of Medicine.

For information on other modules please contact:

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Chronic Neurological Disorders: (August 2003)
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Instructions to Facilitator:

1. Learners are given Part 1 – Case Study and Pre-reading on CND prior to the session.

2. Instructions to facilitator are denoted by “facilitator notes”.

3. Guiding questions for facilitators, to address the learning issues for Part 1– Case Study are presented as prompting cues

4. Appropriate answers are in *italized* text.
Chronic Neurological Disorders
Goals and Learning Objectives

At the end of the Chronic Neurological Disorders module, you will be able to:

1. Develop an interprofessional shared care plan for Mr. McDermid, including goals/desired outcomes, recommended interventions, and also, an evaluation. Including:
   1. biological issues, psychosocial issues, physical function issues,
   2. discussion of the impact of two intervention strategies in each of the biological, psychosocial, and physical function domains,
   3. identification of elements of the interdisciplinary plan that are unique to a specific discipline and those that overlap between or amongst disciplines.
   4. Recognize and articulate four factors associated with caregiver burden,
   5. discuss how you would assist the client/family to deal with changes resulting from a chronic neurological disorder,
   6. generate appropriate referrals to team members and make use of information supplied by other team members, and
   7. decide how to involve the client/family in the care plan and respect client/family choices and solutions.
The Magician and the Orchid Grower

Part I.

Duff McDermid is a 76 year old, congenial, retired university English professor who now spends his time as Maestro Whimsey, the magician. He performs regularly at seniors' homes and community events, and is active in the local branch of the Brotherhood of Magicians. His wife, Harriet, 74 years, is an avid orchid grower and bridge player. Duff was diagnosed with Parkinson’s disease three years ago. He had been managing well on SinemetCR, with tremor in the left hand and a slight shuffle to his gait. Duff and Harriet arrive in your Community Health Clinic today for a meeting with the clinic team because they are “not managing”. They just had their annual review at the Provincial Parkinson’s Clinic. The neurologist who reviewed Duff prescribed a significant dose reduction in his leva-dopa (Sinemet) due to signs of drug toxicity.

Harriet states that Duff is just sitting in his chair all day. She notices the chair is getting damp and smells. He has had a fall trying to get to the bathroom. She thinks he has lost weight and chokes on his food occasionally. Duff appears cheerful and unconcerned. He asks if he can show the team one of his old, favourite card tricks. On prompting by Harriet, he states that the only problem he is having is that he gets “stuck sometimes and can’t seem to get started moving”, when he gets up to cross a room.

Questions:

1. What are the common signs, symptoms, management of Parkinson’s Disease
   - Refer to pre-reading section on PD; that this is a chronic progressive disease; review the common signs and symptoms given in the pre-reading.

2. What are the issues?

   **Facilitator Cue:** Identify issues that community-dwelling seniors face when one partner becomes disabled
   - role reversals, loss of independence, caregiver burden, social isolation, financial stress

   **Facilitator Cue:** Discuss the impact of PD on nutrition and oromotor function
   - swallowing, choking difficulties, drooling, poor breath control and quiet speech, inadequate caloric intake

   **Facilitator Cue:** Describe the possible biological/physiological and psychosocial issues as they relate to this case

3. What further information do we need?

4. What is drug toxicity in PD? What are “on” and “off” times in Parkinson’s pharmacology management?
• Side effects of PD medications are dyskinesias (abnormal movements), hallucinations, confusion, increased rigidity. Often PD medications (Sinemet slow-release, or SinemetCR) lose their effectiveness over time, and patients experience dose deterioration effects as symptoms increase before the next dose. This leads to on/off times in performance. It is important to assess someone during the peak “on” time. The neurologist and pharmacist handle fluctuations in medication effectiveness by increasing/decreasing the dose of the SinemetCR. If the dose is decreased, often an agonist is prescribed to increase the efficiency and uptake of the decreased medication. Often the patient is taught to increase/decrease the dose by ½ tab according to symptoms.

6. How can we determine what Mr and Mrs. McDermid’s goals are?

7. What should our initial plan be?

Facilitator Cue: Demonstrate a client-centred, and inter-disciplinary team approach

Facilitator Cue: What are the different areas for assessment and how would you design an assessment?

• Areas to assess: motor, cognitive, psychiatric, functional (ADL), medical systems, psychosocial

Facilitator Cue: Components of a Global Assessment – different team members contribute sections

i. Physical Function Assessment – includes range of motion (ROM), strength, contractures, posture, functional balance such as measured on the Berg balance scale and Functional Reach Test; dynamic gait, such as measured on the Timed Up and Go (TUG), obstacle courses, or Dynamic Gait Index test. Team member is usually a PT.

ii. Activities of Daily Living and Usual Occupational/Leisure/Recreational Pursuits – history of daily routine, activities carried out in a usual day, home set up, equipment in home, degree of difficulty performing usual activities; patient’s perception of importance of daily activities. Usually done using the Occupational Performance Measure, by an OT. Would be attempted by an RN or PT in the absence of OT.

iii. Oromotor Function – type of diet, nutrition, swallowing ability, motor control of tongue and muscles of mastication, breath control, sound control, posture. Usually done by a SLP, but in the absence of this person would be done by an OT or RN or PT.

iv. Medical Systems Assessment – cardiopulmonary vitals, urinary tract, bowels, skin condition, hygiene, as well as neurological assessment of cognition, neurological performance (grading of Parkinson’s using the Hoehn and Yahr Scale of Disability for Parkinson’s described in pre-reading); assessment of medications and their effects. Usually done by MD and RN together.
Facilitator’s Notes: This information sheet for Part I is given to learners as they ask for information, upon completing the task of building a global assessment.

Additional Information for Learners for Part I: The following information was gathered by appropriate members of the team through individual team member assessments.

Social History
They own their own home, a two storey house with stairs to enter the home front and back. They have two adult daughters, one with a baby and a three year old who lives in a town four hours drive away. The other daughter, Kate, is a lawyer, single and lives in a city in another province. Duff and Harriet have been married for fifty years, are both retired professors, both active in their community and church. They have a cleaning lady once a week. He is the driver. She has never had a driver’s licence. They manage all their own affairs, and are comfortably secure with their combined pensions. She has had back problems for years and “puts her back out” about once a year with gardening or spring-cleaning.

Client/Spouse Identified Goals
Harriet and Duff state that they hope to stay together and that Duff will improve to a level of function that allows them to continue in their own home. Harriet appears to be more concerned than Duff and expresses more concern over how they are going to manage.

Past Medical History
- Mild prostate enlargement; normal PSA, some urgency
- Mild Hypertension, controlled
- Basal cell skin cancer removed from face, 1985
- Hip fracture secondary to motor vehicle accident 1996, well healed, no evidence of osteoporosis
- Cataract Surgery 1998

Systemic Inquiry – responses by Duff required prompting from Harriet
- Fell 2 weeks ago in the bathroom, may have been in a rush
- Urinary urgency, and occasional incontinence, does not seem related to diuretic medication at bedtime
- Prone to constipation
- Occasional cough/gag after swallowing
- Has developed confusion and some night-time hallucinations, secondary to drug side effect, and dose of SinemetCR had been reduced. Was experiencing longer “off” to “on” times and the drug did not seem to be as effective.
**Medications**
- Dyazide one tab/day for BP
- Sennosides 12 mg day (herbal laxative)
- Oxazepam 30mg at bedtime (sleep)
- SinemetCR 200/50 – Following neurologist visit yesterday, this was just reduced to 1tab 8a.m., one half tab noon, one tab 4pm and one half tab 8pm. This is a reduction from 200/50 1tab QID and is expected to relieve him of drug side effects of confusion and hallucinations. To increase the effectiveness of this lowered dose, his neurologist prescribed an agonist (Ropinirole), to be taken with the Sinemet.

**Lab Results**
Normal blood chemistry and urinalysis

**On Examination**
- General – Cheerful affect, but appropriate, thin, smells of urine, drooling, soft voice, normal BP 140/85 lying with no change on sitting or standing, CV exam normal, chest clear, abdomen benign, hard stool in rectum, bruising on shins and upper arms
- Neuro - The neurologist from the PD clinic sent a report outlining the dose change, and indicated his PD was Stage III Hoehn and Yahr scale ie. mild confusion with some word finding and short-term memory loss. Long-term memory good. Able to describe magic tricks in detail. MMSE 24/30. Clock number test showed poor spacing of numbers and some micrographia. Tremor, rapid oscillating, left arm moderate and right arm mild. Bradykinesia evident.
- Functional – needs minimal assist to rise from chair, Timed Up and Go Test (TUG), distance 3m, equals 30sec. Narrow based shuffling gait, forward lean of body, decreased stride length, lands foot flat. Three freezing episodes in a 10m walk.
- Posture – fixed trunk kyphosis, 45 degree forward trunk lean, neck flexed, hips flexed, knees flexed, weight forward on toes.
- ROM – 20 degree hip flexion tightness (stretchy end feel); shoulder flexion limited to 100 degrees, 10 degree knee flexion tightness.
- Balance – unable to resist sternal nudge, falls backward and is unable to make appropriate equilibrium responses. Forward reach test = 20cm. Loses balance on turning to look behind. Berg Balance score = 42/54
- Strength – 4/5 Manual Muscle Testing (MMT) for quads, dorsi flexors, hip extensors and shoulder flexion.
- Difficulty with obstacle course in turns, stepping around obstacles freezes on encountering obstacles.
- ADL – requires one stand by assist to transfer in/out of tub; toileting independently but can “freeze” on initiating any transfers. Dresses self. Dependent on Harriet for laundry, cleaning, food preparation. Handles communications (oral, written, phone, messages) independently. Eats independently; able to make snack and tea for self safely in the kitchen; slides kettle on counter instead of lifting.
- Oromotor/Speech – poor breath control with hypophonia; improves with cueing to correct posture and relax shoulders/neck. Swallows well on command and with textured foods. Chokes 3x on liquids but coughs well.
Questions: Part I continued

8. Describe any further issues in physical function, physiological-biological, and psychosocial domains that are revealed.
   - **Psychosocial** – no family supports nearby; appears that financial resources are in place; she is at risk for social isolation if he is not driving; she has the potential for back injury
   - **Physiological-Biological** – at risk for choking, retention of secretions could lead to respiratory infection; urinary dysfunction could lead to urinary infections; needs assessment of bowel/bladder routine
   - **Physical function** – falls risk; gait dysfunction needs strategy; needs equipment in home, may need bathing help; developing contractures and weakness;

9. Describe the significance of the mobility tests:
   i. **Forward Reach** – about 50% of normal, indicates limited postural sway and decreased balance
   ii. **TUG** – 10 seconds or less are normal; 11-20 sec = independently mobile with gait aid; 20-29 sec = grey zone, needs further assessment, variable mobility and gait aids; 30+ = requires assistance for ambulation
   iii. **Berg Balance Scale** – a score of less than 45 is a predictor of falls; a score of 45+ is safe to be independent with no gait aid; 35-45 = safe with a gait aid; <35 means requires assistance or supervision plus a gait aid.
   iv. **Strength tests** at 4 out of 5 are good and indicate adequate strength for transfers and gait. His problems are more of technique and strategy.

10. Review the problem list
    i. **Physical function**- transfers, gait, balance, developing contractures, ADL
    ii. **Falls**
    iii. **Oromotor** – speech, swallow
    iv. **Nutrition** – diet – weight loss
    v. **Bowel** – Bladder function, constipation, urinary incontinence
    vi. Parkinson’s management – medication
    vii. **Medication side effects** – oxazepam
    viii. **Decreased Cognition**
    ix. **Caregiver Stress**
    x. **Housing**
    xi. **Social Isolation**

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Part II.

Duff returns for the second appointment, one week later, accompanied by a neighbour, who drove him. Harriet is at home resting with back spasms brought on by trying to lift Duff off the toilet. He had “frozen” in trying to rise after toileting. The neighbour indicates that Harriet is looking down and has shared with her that she’s feeling sad over the loss of her “old Duff”. She says she’s tired of being a full time nursemaid. The neighbour reports that the neurologist took away Duff’s driver’s licence. The church has offered volunteer drivers for medical appointments. Harriet called the team nurse this morning, prior to the appointment to report that the choking is still a concern. She said he had been warm and was shivering. Today he seems to have a wet sounding productive cough. His temperature is normal.

Questions:
1. Discuss any new biological, psychosocial and/or physical function implications of the case.

   Learning issues for Part II:
   - Aspiration pneumonia
   - Burden of care
   - Loss of driver’s licence
   - Loss of family support
   - Environmental issues

2. Build a shared care plan involving the client and family.

3. Use Worden’s framework, or an alternative, to describe how you would assist Harriet to deal with the loss she is feeling.

Please do not turn the page until instructed by the facilitator
Additional Information for Learners: to be given on completion of the above.

1. Medical Information: chest x-ray reveals small right upper lobe infiltrate, sputum is positive for staphylococcus, started on appropriate antibiotic for 10 days. SaO2 is 98%. Urine test is negative. Family doctor discontinued the Oxazepam (possibly iatrogenic).

2. Neuropsychology testing reveals word finding problems, short-term memory problems, slowed processing, poor auditory retention, signs of cognitive dysfunction. Confusion and hallucinations are no longer present and appear to have been a transitory issue of the drug toxicity. Learned behaviours and skills are in place, i.e, he can still perform magic tricks, but would have difficulty learning new ones.

3. Social – Harriet is getting depressed and her family physician has started her on an antidepressant.

4. Functional – the OT did a home visit and reports that the hallways and doors are too narrow for a wheelchair; no adaptive equipment in the home. The bathroom is cramped. There are handrails on one side of the five steps to enter the front of the home and the eight steps at the back. The home is old and will not be easy to adapt.

5. The social worker interviewed Harriet and Duff together at a separate visit. Harriet indicated that she fears the home will be too much for them to manage and she thinks they should downsize. The social worker reports that they are a committed couple, supportive of each other. Duff expresses concern over all the work Harriet is doing. They both indicate hopefulness that assistance and interventions by the team will allow them to manage together.

Questions Part II: continued

4. Generate referrals to appropriate team members.

5. Modify and adapt the care plan to reflect the new information.

i. Physical function – PT: exercises for stretching tight flexors, strengthening especially axial and extensor muscles; Parkinson-specific gait strategies such as humming, counting, visualizing stepping over cracks, in order to counter freezing; balance exercises; Parkinson’s exercise group in the community with travel via church member. Introduce use of a 4-wheeled walker for outdoors.

ii. ADL- Occupational activities – OT: adapt environment with equipment such as bath, toilet, bed rails, bars. Install a rail down the hallway; borrow equipment from the Parkinson’s Society or Red Cross to trial; investigate ways to enjoy magic or other leisure activities.
iii. Oromotor – SLP in conjunction with Dietician: diet changes in consistency of food, liquids to decrease secretions and choking; strategies for swallowing to decrease choking; exercises for breath control and oromotor coordination

iv. Medicine/Nursing – order home care aid to assist with bathing; instigate a bladder and bowel control program with meds and diet and routine; monitor medicine effects; monitor vitals

v. Psycho-Social – SW: use Worden’s framework to allow Harriet to work through losses; explore alternative supports for Harriet and Duff; investigate environment/housing options, respite, and adult day care.

6. Why did you pick the specific referrals? What are the unique and the shared roles of team members?

7. Discuss the factors associated with Harriet’s caregiver burden.

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Part III.

It is now three months later and Duff and Harriet return for follow-up. Duff is back on SinemetCR 200/50mg one tab QID. He is alert and has been practising his old magic tricks. Harriet has been attending a support group for spouses at the Parkinson’s Society. Duff is attending a Parkinson’s exercise class twice a week. The care plan is reviewed and all the elements appear to be working effectively. Duff’s hygiene and bladder care have improved. A bowel plan is in place and he is not constipated. His strategies for mobility are working for him, using the counting or visual cues when “stuck” and use of a 4-wheeled walker outdoors. He has not had any falls. His swallowing is better with his oro-motor regime and he is not choking. Vital signs and medical check up are normal. The bath equipment, raised toilet seat, wall bars and bed rail are making transfers much easier.

In a wonderful turn of events, Duff was given a provincial award for his work on promoting the joys of magic from the North American Brotherhood of Magicians. The award carried a substantial monetary prize. Harriet sold the home and they moved in to a stylish seniors’ residence. Their new apartment in the home is completely wheelchair accessible and has rails in the bathroom and hallways. Harriet joins the bridge league in the residence, and starts an orchid growing club. She particularly enjoys the evening meals in the dining room, where dressing up is expected. The daily residence shuttle van takes them to any appointments or outings they chose.

Duff on the other hand is showing increased confusion and memory problems with the change in routine and surroundings. He joins the seated aerobic exercise class three times a week and finds the routine helpful. He has started entertaining at dinner with the odd card trick. Routine follow-up is planned by the clinic team.

Questions:

1. Discuss the implications of relocation for this case.

2. What new information concerning the roles of the team members did you learn?

3. Were the roles of team members appreciated? Respected? How?

Please review the objectives and complete the evaluation form.
# Care for Elders Module – Facilitator’s Evaluation

**Module Title:**

**Date:**

**Location:**

Please rate the following statements (✓):

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<th>Strongly Disagree</th>
<th>Somewhat disagree</th>
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<td>1.</td>
<td>The organization, room, and timing of the session was adequate</td>
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<td>2.</td>
<td>The pre-reading package was well organized and easy to read</td>
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<td>3.</td>
<td>The session helped me understand interdisciplinary roles, responsibilities and team functioning</td>
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<td>The directing questions in the facilitator's guide were helpful to me</td>
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<td>The answers in the facilitator's guide were helpful to me</td>
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<td>6.</td>
<td>I was required to speak and direct the group excessively</td>
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<td>The case complexity or difficulty was appropriate for my group</td>
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<td>8.</td>
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1. Please name at least three ways in which this session, case and/or facilitator's guide could be improved.

1. ______________________________________________________________________________________________

2. ______________________________________________________________________________________________

3. ______________________________________________________________________________________________

Please return evaluation forms to: Division of Community Geriatrics, Department of Family Practice, UBC
c/o GPOT-CP5D, 855 West 12th Ave., Vancouver, B.C. V5Z 1M9

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