Diagnosing and managing dementia patients

Practice patterns of family physicians

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ABSTRACT

OBJECTIVE To examine the practice patterns of family physicians in diagnosing and managing patients with dementia.

DESIGN In-depth structured interviews.

SETTING Metropolitan Toronto family practices.

PARTICIPANTS Twenty family physicians who referred patients to a specialized community psychiatry service for the elderly in the previous year.

METHOD Two vignettes focusing on diagnosis and management issues were developed for the study. Physicians were asked how they would handle the clinical problems presented in the vignettes. Their responses were compared to standardized diagnostic and management protocols.

MAIN FINDINGS Participants were more comfortable with diagnosing dementia than with ongoing management issues, and most physicians were not using standardized cognitive screening protocols. Physicians were more oriented to immediate medical and psychiatric problems than to long-term psychosocial issues.

CONCLUSIONS More attention should be paid to the ongoing educational needs of family physicians with respect to this patient population.

RÉSUMÉ

OBJECTIF Examiner les modalités de pratique des médecins de famille concernant le diagnostic et la prise en charge des patients atteints de démence.

CONCEPTION Entrevues structurées et détaillées.

CONTEXTE Pratiques familiales de la région métropolitaine de Toronto.

PARTICIPANTS Vingt médecins de famille qui avaient référé des patients vers un service de gérontopsychiatrie communautaire au cours de l'année précédente.

MÉTHODE Pour réaliser cette étude, nous avons développé deux vignettes cliniques portant sur les aspects du diagnostic et de la prise en charge. On demandait aux médecins de décrire leur prise en charge des problèmes cliniques présentés dans les vignettes. On a ensuite comparé leurs réponses aux protocoles diagnostiques et thérapeutiques standards.

PRINCIPAUX RÉSULTATS Les participants se sont sentis plus à l'aise avec le diagnostic de démence qu'avec les aspects de la prise en charge et du suivi. La plupart des médecins n'ont pas fait appel aux protocoles standards utilisés pour le dépistage des troubles cognitifs. Ils se sont davantage orientés vers les problèmes médicaux et psychiatriques immédiats que vers la problématique psychosociale à long terme.

CONCLUSIONS On devrait se montrer plus attentifs aux besoins de formation médicale continue des médecins de famille dans le domaine des troubles qui affectent cette population de patients.

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As the population ages, most physicians will see more patients with dementia. Family physicians might be in the best position to diagnose and manage these patients in the community.[1] Little is known about the type of care these patients currently receive, but some think it might be suboptimal.[2] Family physicians have identified "confusion in the elderly" as a particularly challenging clinical problem because of difficulties making accurate diagnoses and accessing services.[3] Some reports[4,5] claim that physicians are just as likely to underdiagnose as to overdiagnose the syndrome in their patients. Others claim that casefinding is improving.[6]

Guidelines have been developed to help direct physicians in diagnosing dementia. The Canadian Consensus Conference on the Assessment of Dementia (CCCAD) developed guidelines for primary care use in Canada. These guidelines were drafted in 1989 and circulated as an insert in the *Canadian Medical Association Journal*.[7]

The guidelines recommend a careful history and physical examination as the initial steps in a diagnostic workup for dementia. Screening tests, such as the Mini-Mental State Examination,[8] were suggested to document the degree of cognitive impairment. A limited number of laboratory tests were recommended. In general, it is not clear how practice guidelines such as these actually aid physicians or change their practice patterns.[9] To date, little is known about dissemination of the CCCAD recommendations, their effect on primary care, or their acceptability to clinicians in Canada or elsewhere.

Geriatric specialists have made recommendations about the care dementia patients require beyond diagnosis.[10] These include monitoring patients' health and activities of daily living (ADLs), attention to caregivers' physical and emotional health, consideration of legal issues, and referral to specialized community services. Little is known about whether primary care physicians or others actually provide these services to patients.

Two North American studies[11,12] have documented via questionnaire how physicians diagnose or manage dementia patients. Physicians most often use history and physical examination and rarely use standardized mental status examinations to assess cognitive functioning. Both studies highlighted the fact that fewer than 50% of physicians sampled carried out standardized cognitive assessment and that physicians need ongoing education in diagnosing dementia. Of note is the fact that many of the physicians in these studies were internists, neurologists, and psychiatrists, and not necessarily family physicians.

We undertook a study using a qualitative approach to determine how community-based family physicians in Toronto diagnose and manage dementia. Unlike the two previous studies,[11,12] we focused on family physicians rather than specialists and used personal interviews rather than questionnaires.

Sample

The study sample was restricted to family physicians and general practitioners within the catchment area of the Community Psychiatric Services for the Elderly (CPSE) in Toronto. The CPSE is a multidisciplinary outreach team located at Sunnybrook Health Science Centre, a tertiary care hospital.[13] The team assesses 200 to 250 patients a year, primarily in their place of residence upon referral from physicians, patients, family, or community agencies. Of the patients referred, 60% are diagnosed with dementia.

A mailing list of every physician whose patient(s) had been assessed by the CPSE in the previous year was obtained. Of the 59 physicians, the 12 who were not in the catchment area or who were not family or general practitioners were excluded. The remaining 47 physicians were invited by letter to participate in a research project; 20 physicians accepted the invitation.

Vignettes and standardized questions

Two vignettes, based on the authors' clinical experience and reflecting common problems in diagnosis and ongoing management of dementia, were developed for the study. The first featured a patient in the early stage of dementia and highlighted diagnostic issues; the second featured a patient with a known history of dementia and focused on management issues. The vignettes and interview format were pretested on three hospital-based family physicians with experience in primary care research.

Vignette 1. Mr Chow is a 75-year-old retired businessman who is currently living with his son. He was brought to your office by his son for a checkup. Mr Chow was complaining of tenderness over both shoulders, and a bruise was observed on his

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forearm. His son tells you that Mr Chow has been quite annoying lately. For instance, he constantly misses important appointments despite the fact that he repeatedly calls to check appointment times. When reminded about the missed appointments, he becomes very angry. Moreover, this formerly cheerful and outgoing person is now withdrawn. He has also gotten lost on several occasions and has accused others of stealing from him.

Vignette 2. Mr Laroche is a 70-year-old retired chef with a known history of dementia (Alzheimer type) for the last 3 years. He came to your office with a history of weight loss. In the office, he appeared somewhat disheveled. His wife states that for the last year, he has been getting up in the middle of the night and pacing around in the kitchen. He has also been quite hostile and verbally abusive when she tries to cook dinner in the kitchen. As a result, they are constantly arguing with one another.

The patient's wife brought him to your office before his next scheduled appointment (carrying a bag of groceries and two bottles of wine). She complained of her own fatigue and depression, which she attributed to lack of sleep, and requested a refill on her tranquilizer.

Both Mr and Mrs Laroche are your patients.

A copy of the vignettes was mailed to study participants, who were then interviewed in person. Interviews were audiotaped. Participants were asked two questions with regard to each vignette: "In this situation, what would you consider part of a treatment plan, including assessment, diagnostic procedures, and ongoing management?" and "What would be your short- and long-term concerns?" We used open-ended rather than forced-choice questions in order to elicit information about what family physicians would actually do when assessing and treating patients with dementia.

Study participants were also asked standardized questions about their usual workup for dementia, their knowledge of the CCCAD guidelines, their desire for further information on this topic, and their most recent case of dementia. In addition, respondents provided demographic information about themselves and stated what proportion of their patients were older than 65.

After the interviews, audiotaped responses were recorded on a coding sheet developed by the authors before the interviews and based on the recommendations of Winograd and Jarvik.[10] The coding sheet consisted of a comprehensive list of assessment and diagnostic procedures, community services, and medical specialists physicians might use in diagnosing and managing patients with dementia (**Table 1**).

Seven randomly selected taped interviews were reviewed; for vignette 1, there was 70% agreement in coding among raters; for vignette 2, there was 65% agreement. No changes were made to the initial coding based on this reliability check. To date, results from this study have not been communicated to participants, but initiatives are being planned to address the issues raised.

MAIN FINDINGS

Table 2 shows demographic characteristics of the sample. In describing their approach to diagnosing the patient presented in the first vignette, participants gave a range of responses with emphasis on history and physical examination (**Table 3**).

In outlining their approach to ongoing management of the case, 10 of 20 respondents indicated they

Table 1. Category headings from the comprehensive checklist

ASSESSMENT AND DIAGNOSTIC PROCEDURES
Interview of patient
Interview of family
Psychiatric examination
Cognitive screening examination
General physical examination
Laboratory tests (including computed tomography scan)
Neuropsychologic assessment
Other
REFERRALS
Neuropsychologic testing
Geriatric psychiatry consultation
Geriatric medicine consultation
Neurology consultation
TREATMENT AND MANAGEMENT (SHORT- AND LONG-TERM CONCERNS)
Monitor and assess
• Physical symptoms
• Psychiatric symptoms
• Medications
• Social supports
• Activities of daily living
• Safety
• Competence
Caregiver assessment and counseling (6 options)
Community services (11 options)
Referral to specialists (10 options)

Table 2. Demographic characteristics of study participants (n = 20)

SEX OF PHYSICIAN	
• Male	13
• Female	7
AGE OF PHYSICIAN (YEARS)	
• 20 to 29	1
• 30 to 39	4
• 40 to 49	7
• 50 to 59	4
• 60 to 69	3
• Older than 70	1
PERCENTAGE OF PATIENTS IN PRACTICE OLDER THAN 65	
• Less than 25%	4
• 25% to 50%	13
• More than 50%	3

would consider coexisting medical illnesses and a review of medications. Many also identified immediately presenting psychiatric problems as a concern; depression (nine respondents), wandering (12), and paranoid thoughts (seven) were frequently mentioned by respondents. While six respondents indicated they would refer to psychiatrists for management, only two indicated they would refer to geriatricians or neurologists.

While home safety was mentioned by 17 respondents, attention was variable to ADLs such as bathing (nine respondents), housekeeping (six), feeding (one), and ambulation (one). Half the physicians indicated they would review contact with informal social supports, such as family and friends. Few physicians mentioned medicolegal issues, such as driving (four), power of attorney (one), and competence with personal care (none). Referral to community services elicited various responses; seven indicated that they would refer to visiting nurses, five to social workers. Other community services mentioned were day programs (seven), respite services (three), and the local Alzheimer Society (one).

We present data from vignette 1 only, because data from vignette 2 were similar and did not provide additional information. Respondents did not focus on long-term management issues in discussing the second vignette.

Responses to the standardized questions revealed that four respondents were aware of the CCCAD statement, and seven wanted a standardized protocol for diagnosing and managing dementia. Six respondents reported they wanted more information about community resources. When questioned about their standard workup for dementia and their most recent case, respondents replied that specific details of their approach to diagnosis and management had already been mentioned in discussing the two vignettes.

Discussion

The findings in this study support those of Rubin et al[11] and Somerfield et al.[12] Physicians in this study mentioned using history and physical examination to diagnose dementia more frequently than physicians in the two previous studies did. Cognitive screening questions were used by 60% of physicians in this study, but these were rarely in a standardized format, such as the Folstein Mini-Mental State Examination (recommended by the CCCAD). Laboratory tests most frequently used (complete blood count and thyroid function tests) were those identified by Rubin et al[11] and the CCCAD. Although many respondents (75%) said they would consider a computed tomography scan, family physicians in Toronto often have difficulty arranging this test for their patients. In fact, their use of CT scans is probably in accordance with CCCAD guidelines and is limited to cases where findings from history or physical examination warrant further investigation.

Referral of patients to specialists was mentioned by fewer than a third of physicians, a finding similar to Rubin et al.[11] This is consistent with practice in the metropolitan Toronto area where family physicians are the primary care providers.

Physicians frequently mentioned management of immediately presenting medical and psychiatric problems, which might relate to the kind of vignettes used. Home safety was mentioned by 85% of respondents, probably because of the vignette used. However, long-term psychosocial concerns, such as caregiver stress and ADLs, were identified less frequently. These responses raise concerns about physicians' awareness of these issues and their ability to monitor such problems adequately without additional support.

Physicians in this study also did not routinely refer patients to community services. This might be a reflection of dissatisfaction with the services, patients' reluctance to use them, or lack of knowledge about them. Clearly, a third of respondents thought they needed more information about such services. Only one in 20 mentioned referral to the local Alzheimer Society, which has many services for

families. Few knew about the CCCAD, but only one third wanted a standardized protocol.

Limitations

Generalizing these findings might pose problems because of the nature and size of the sample. All physicians in this study were working in a middle-class urban area with access to many community agencies that offer services to dementia patients. Participants in this study also had easy access to medical specialists, including the psychiatry service conducting the survey, and by volunteering to participate in this study, might have demonstrated their openness to such interventions.

Some problems were encountered with the qualitative method used in the study also. It was difficult for respondents to specify diagnostic procedures as distinct from ongoing management. This was related to their clinical experience where diagnosis and ongoing management often occur simultaneously for dementia patients. However, the use of vignettes allowed us to better understand physicians' actual approach to these clinical problems. It proved superior to asking physicians to recollect their most recent case of dementia, as respondents had a great deal of difficulty describing what approach they had used.

Conclusion

Several conclusions can be drawn from this pilot study. Physicians in this study had relatively well-developed ideas about assessing patients for dementia but did not know how to assess their patients' cognitive functioning adequately. They also did not have well-developed schema in their minds for managing the important long-term psychosocial problems of dementia patients. This study supports claims that dissemination of guidelines is not an effective way of changing physicians' practice.[14]

Based on these findings, several issues must be addressed if care of community-based dementia patients in Toronto is to be optimized. More attention must be given to personalized and innovative education programs to ensure that all primary care physicians understand the need for standardized cognitive testing. Family physicians could be encouraged to focus on ongoing management issues by working with community-based professionals who have expertise in assessing and managing the psychosocial aspects of dementia.

This study is an attempt to better understand how dementia patients are managed in one health care system. Comparative studies in other jurisdictions are needed to offer alternative models and to help formulate ideas about the best way physicians can treat such patients.

Table 3. Strategies used to diagnose dementia (based on vignette 1)

STRATEGY	NUMBER OF PHYSICIANS USING THIS STRATEGY
History	
• Interview of patient	17
• Interview of family	16
Physical examination	19
Laboratory tests	
• Complete blood count	16
• Thyroid function	16
• B_{12} level	12
• Blood urea nitrogen level	12
• Electrolyte level	11
• Liver function	11
• Creatinine level	10
• Folate level	4
Diagnostic imaging and other procedures	
• Computed tomography scan	15
• Chest x-ray	4
• Electrocardiogram	3
• Electroencephalogram	2
• Other neuroimaging techniques	2
Cognitive screening questions	12
Referrals	
• Geriatric psychiatry	5
• Neurology	5
• Geriatric medicine	2
• Neuropsychology	0

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RESEARCH

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