

# The Canadian

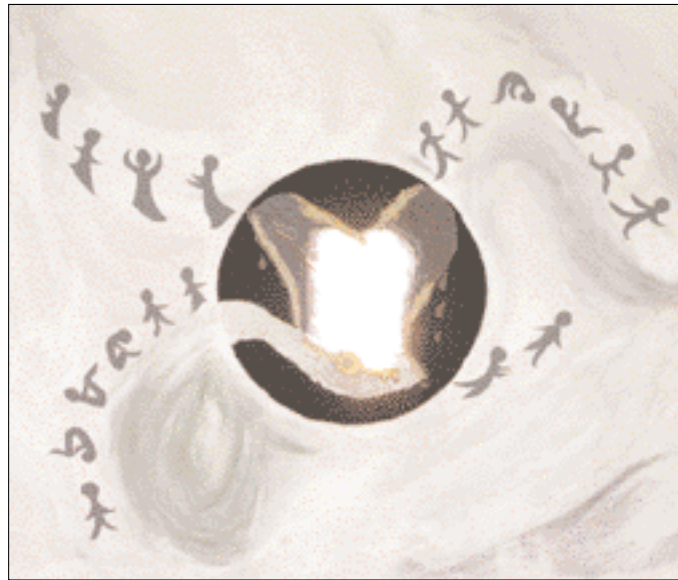
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# Alzheimer

## Disease Review

Volume 3, Number 3 February 2000

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## Donepezil Joins Provincial Drug Plans

by Peter N. McCracken, MD, FRCPC

Canada's medical community has been encouraged by recent decisions by provincial governments to include donepezil in provincial drug plans. It marks a major step in the ongoing battle with Alzheimer's disease, the progressive neurodegenerative condition that is the focus of this journal.

Over the past ten years, there has been a steady advancement in our ability to test the safety and efficiency of drugs that can improve symptoms or slow down cognitive decline in Alzheimer's disease (AD).

Canada's medical community has been encouraged by recent decisions by provincial governments to include donepezil in provincial drug plans. With the recent announcement in Alberta to do so, there are now three provinces including Ontario (the first) and Manitoba. It marks a major step in the ongoing battle with AD, the progressive neurodegenerative condition that is the focus of this journal.

*The aspects of cognition most likely to respond include alertness, attention or activation as well as speech and language difficulties and independent function.*

When donepezil was launched over two years ago, there was widespread anticipation among patients, caregivers and physicians. Undoubtedly, expectations were unrealistic in some circles and some disappointments were experienced. However, the initial signals were indeed posi-

tive. Now, the cumulative evidence points to a figure of roughly 80% of recipients deriving benefit. In about 30%, a more immediate noticeable effect is witnessed by caregivers, often within four to six weeks of initiating treatment. The aspects of cognition most likely to respond include alertness, attention or activation as well as speech and language difficulties and independent function. Further scrutiny of this effect is obviously required. The remainder of patients who are benefiting from treatment are those who deteriorate more slowly after starting the medication. Nonetheless, the compound is not a panacea because approximately 20% of AD sufferers either experience adverse effects or fail to show treatment benefit. Donepezil's main advantage remains its ease of administration (lack of a titration schedule) and high tolerability.

Donepezil has demonstrated other treatment effects that were not originally anticipated. The work of Cummings et al has shown a positive effect on certain behavioural features, particularly visual hallucinations, apathy, and motor rummaging in nursing home patients. The results of a completed Canadian study on patients with more advanced AD are eagerly awaited and expected shortly. Ongoing Phase III studies are

evaluating the effect of the drug on vascular dementia and many therapies for vascular dementia are under investigation. In the past, it is likely that clinical therapeutic studies of AD included patients with a cerebrovascular disease contribution to their dementia, since some of these patients' vascular risk factors were so-called "silent" asymptomatic lacunes or ischemic lesions. Because the final common pathway of brain cortical pathology in AD and vascular dementia is similar in some respects, cholinergic compounds could be of value in improving cognition in both disorders, possibly by stimulating the remaining and/or partially lesioned neurons. The aspiration is that the deep white matter changes of vascular dementia that result in abulia blunted affect, low motivation and lack of spontaneity could be responsive to acetylcholinesterase inhibitors such as donepezil. A huge North American study by the Alzheimer's Disease Cooperative Group and the University of California at San Diego to evaluate the effect of placebo, vitamin E and donepezil on progression of MCI to diagnosable dementia of the Alzheimer's type is also well underway. Who could have predicted these diverse applications?

Meanwhile, physicians should resist the temptation to prescribe donepezil for vascular dementia or for mild cognitive impairment until the evidence is established. Nonsteroidal anti-inflammatory drugs at present should not be used for the treatment of AD. Trials are ongoing to evaluate the safety and efficiency of COX 2

inhibitors. Other studies should reveal the value of donepezil/estrogen combinations in postmenopausal women with AD.

In the future, other cholinesterase inhibitors will afford choices to the prescriber.

***Other provincial governments are strongly urged to follow suit and join the brigade. This disease is too prevalent and too devastating to restrict access to treatment to those who can afford it.***

Flickering hopes prevail for the return of glial cell modulators as a stabilization therapy. Phase II trials with neurotrophin analogues offer future hopes. Specialists and family physicians take heart in the knowledge that significant therapeutic progress has evolved. Other provincial governments are strongly urged to follow suit and join the brigade. This disease is too prevalent and too devastating to restrict access to treatment to those who can afford it.



Peter N. McCracken

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### On the Cover

*While They Wander* by Robyn Harrison.

This painting is about people with Alzheimer's disease and their caregivers. The dark circle in the centre of the picture symbolizes emotions experienced by caregivers as they struggle to cope with loss and change: emotions that may be dark and at times angry, frustrated, sad and confused. The news clippings reflect both the promise of a solution and the fear of false hope. It is easy to feel trapped in a circle of rising and falling hope. The mirror in the centre is about empty reflections. People with Alzheimer's disease may not look ill, and so we constantly see the physical reflection of the person they once were.

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## PSYCHIATRY:

### International Meetings

#### 13th Annual Meeting

**American Association for Geriatric Psychiatry**

New Horizons for Geriatric Psychiatry: Images of Aging

March 12–15, 2000. Miami Beach, Florida, USA

### Satellite Symposia

- **A Geriatric Care Physician's Town Meeting on Alzheimer's Disease**  
March 10, 2000
- **Elderly Women Psychiatric Patients, A Review of Gender Specific Issues in Geriatric Psychiatry**  
Sunday March 12, 2000. 6:00 to 9:00 p.m.
- **Advances in the Management of Older Insomnia Patients**  
Tuesday March 14, 2000. 6:30 to 9:30 p.m.

**Sixth International Stockholm/Springfield Symposium on Advances in Alzheimer's Therapy**

April 5–8, 2000. Stockholm, Sweden

**World Alzheimer's Congress 2000**

July 9–15, 2000. Washington, D.C., USA

## NEUROLOGY:

### Provincial Meeting

**Association des Neurologues du Québec**

September 14–17, 2000. Chateau Mont-Tremblant, Quebec, Canada

### National Meeting

**Canadian Congress of Neurological Sciences**

June 13–17, 2000. Ottawa, Ontario, Canada

### International Meetings

**American Academy of Neurology**

**52nd Annual Meeting**

April 29–May 5, 2000. San Diego, California USA

### Satellite Symposia

- **Dementia Therapy**  
May 3, 2000. 8:00 p.m. to 10:00 p.m.

- **Controversies in Alzheimer's Disease**

Saturday, April 29, 2000. 7:00 p.m. to 9:00 p.m.

**Sixth International Stockholm/Springfield Symposium on Advances in Alzheimer's Therapy**  
April 5–8, 2000

**Stockholm, Sweden World Alzheimer's Congress 2000**

July 9–15, 2000. Washington D.C., USA

## GERIATRICS:

### National Meeting

**Canadian Association of Gerontology**

October 26–29, 2000. Edmonton, Alberta, Canada

### International Meetings

**13th Annual Meeting—American Association for Geriatric Psychiatry**

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**American Geriatrics Society**

May 17–21, 2000. Nashville, Tennessee, USA

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Washington, D.C., USA

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# Mixed Alzheimer's Disease and Vascular Dementia

The diagnosis of mixed Alzheimer's disease and vascular dementia is likely more common than has been appreciated to date. The diagnosis is generally made on the basis of clinical findings and a radiograph, but can also be made on the basis of clinical findings alone.

by *Kenneth Rockwood, MD, FRCPC*



Dr. Rockwood is a professor at Dalhousie University and a geriatrician at Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia.

**T**he diagnosis of mixed Alzheimer's disease (AD) and vascular dementia is likely more common than has been appreciated to date. The diagnosis is generally made on the basis of a radiograph, but can also be made on the basis of clinical findings. Treatment includes the judicious management of vascular risk factors and therapy specifically aimed at AD.

## **Changing Views on Mixed AD and Vascular Dementia**

"Everything old is new again" is an epigram that applies as much to medicine as it does to other human endeavours. One of the recent findings that is potentially the most far-reaching, and one with immediate practical importance, is the rediscovery of the link between vascular risk factors and dementia. This link is not limited to the so-called "multi-infarct dementia," but encompasses all causes of the dementia syndrome, including AD.

This rediscovery tells us much about the recent conceptualization of

dementia. Even as late as the 1970s, people held somewhat contradictory beliefs about late-life dementia. On the one hand, dementia, in the guise of senility (a synonym for aging), was seen as an inevitable part of normal aging. On the other hand, dementia was believed to be caused by hardening of the arteries. Even though arteriosclerosis was recognized as a disease, the two were somehow lumped together into a problem that would happen to everyone who lived long enough. In the enthusiasm to make it clear that AD was a real illness, and one deserving a systematic approach to diagnosis, the baby—vascular risk factors—was thrown out with the bathwater—senility.

Several lines of evidence now point to a link between vascular risk factors and AD. As reviewed elsewhere,<sup>1,2</sup> epidemiologic studies have shown that hypertension is a risk factor for all causes of late-life cognitive impairment, including AD. Among people with AD, cognitive impairment is worse when cerebral athero-

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sclerosis is present.<sup>3</sup> Other cardiovascular risk factors, including high cholesterol, diabetes mellitus and atrial fibrillation, have also been shown to increase the risk of AD.<sup>1,2</sup>

Interestingly, the association between vascular risk factors and AD largely faded from academic consciousness despite several neuropathologic and neuroradiologic studies that suggested otherwise.<sup>1</sup> In case series of patients with AD, presumptive evidence of cerebral ischemia was usually found in about 20% to 30% of patients, although one study (of white matter changes detected by magnetic resonance imaging) put the estimate closer to two-thirds.

***Several lines of evidence now point to a link between vascular risk factors and AD. As reviewed elsewhere,<sup>1,2</sup> epidemiologic studies have shown that hypertension is a risk factor for all causes of late-life cognitive impairment, including AD.***

Against this background, it is perhaps not surprising that many clinical dementia scientists believe that the current estimates of mixed AD and vascular dementia, often given as 5% to 15% of dementia cases,<sup>1</sup> should be revised upward. Indeed, it may even be the most common form of dementia: two recent large American neuropathologic studies found pure vascular dementia (*i.e.*, vascular dementia without any evidence of AD) to be very uncommon—in the range of about 1%.<sup>1</sup> It is important to note that these are early data and that this experience is not universal; one British study<sup>4</sup> found an estimate in accord with the usual estimate of 10% to 20% of all dementia cases. Although more work needs to be done, it is

clear that patients with cardiovascular disease remain at risk for cognitive impairment from both vascular and non-vascular causes. Although other types of dementia (*e.g.*, dementia with Lewy bodies, frontotemporal dementia) can be seen in the presence of cerebral ischemia, we will restrict our use of the term “mixed dementia” to AD and vascular dementia.

**Contemporary  
Diagnosis of Mixed Dementia**

The study of the diagnosis of mixed dementia is a central part of the research of the Consortium to Investigate Vascular Impairment of Cognition (CIVIC). Preliminary data on mixed dementia from CIVIC, a

multicentre, Canadian clinic-based study, will be published.<sup>5</sup> These data show that there are two ways the diagnosis of mixed dementia is generally made. Most commonly, patients with clinically typical mild to moderate AD have white matter changes or other ischemic lesions such as cortical and subcortical strokes, including so-called lacunar infarcts on computed tomography (CT) scanning. Patients will have clinical features of both AD and vascular dementia less frequently (Table 1). For example, a patient with insidious onset and gradual progression of cognitive impairment early in the course of dementia may have a history of interval stroke with a precipitous decline followed by gradual progression. A clinical

diagnosis of mixed dementia could be made with reasonable confidence in such an instance. In the CIVIC study, a diagnosis of mixed dementia was not made by the coincidence of typical AD and vascular risk factors without other evidence of ischemia, given that vascular risk factors are now understood to be risks for AD (Table 2).

The CIVIC experience means that, for individual physicians, the proportion of patients diagnosed with mixed dementia will depend on access to neuroimaging. Physicians who strictly follow the recommendations of the Canadian Consensus Conference on Dementia for referral for neuroimaging are likely to diagnose mixed dementia less often than those who have adopted more liberal criteria. The same holds true for those who adopt more liberal criteria for referral; the CIVIC data suggest that dementia specialists order CT scans for the great majority of patients seen in consultation.

Focal findings on a neurological examination can be used to make a clinical diagnosis of mixed AD and vascular dementia. More often, though, the diagnosis is based on a history of focal symptoms (including transient ischemic attacks and strokes), sudden onset and sudden worsening of otherwise typical AD (Table 1).

**Contemporary  
Treatment of Mixed Dementia**

The contemporary treatment of mixed dementia has two components: treatment of the vascular risk factors and treatment of the cognitive impairment.

Treatment of the vascular risk factors begins with the treatment of high blood pressure. Although there has been some concern that treatment for

**Table 1****HINTS POINTING TO MIXED DEMENTIA IN A PATIENT WITH OTHERWISE TYPICAL AD****From the history**

Consider:

- sudden onset
- delirium precipitating or unmasking AD
- prolonged plateau
- subclinical decline / slowly progressive AD variant
- episodes of stepwise progression
- interval medical illnesses
- focal motor or sensory symptoms
- other space-occupying lesions

**On examination**

Consider:

- unilateral rigidity
- early onset of parkinsonism
- other focal / lateralizing features
- other space-occupying lesions or spinal nerve root entrapment

**Table 2****FEATURES IN OTHERWISE TYPICAL AD THAT WOULD NOT ON THEIR OWN BE SUPPORTIVE OF A DIAGNOSIS OF MIXED DEMENTIA****Feature**

Consider:

- vascular risk factors  
(known also as risks for AD, not just VD)
- episodes of confusion  
(fluctuation can be part of the AD spectrum; delirium is common in AD)
- isolated focal signs  
(unilateral signs in isolation can arise outside the cranium; suspected brain lesions require confirmation by neuroimaging)

hypertension can cause cognitive impairment, the most recent data do not support this. In the SYST-EUR study of the treatment of systolic hypertension in elderly people,<sup>6</sup> the incidence of dementia in the treatment group was half of the placebo control group. In the treatment group, those with systolic hypertension (defined as a systolic pressure between 160 mm Hg and 219 mm Hg and diastolic pressure below 95 mm Hg) were assigned to first-time treatment with nitredipine, a calcium-channel blocker. If necessary, this could be combined or substituted

with enalapril, an angiotensin-converting enzyme inhibitor. The diuretic hydrochlorothiazide was prescribed as a third choice. Of the patients with complete cognitive data, 21 of 1,180 in the placebo group were

follow-up ( $p = 0.05$ ). These treatment data are compelling but have yet to be replicated. Earlier studies of systolic hypertension treatment tended not to measure cognition precisely enough for an effect to be demonstrated.

***The contemporary treatment of mixed dementia has two components: treatment of the vascular risk factors and treatment of the cognitive impairment.***

diagnosed with dementia, compared with 11 of 1,238 in the treatment group, after a median two years

Two recent population-based studies have shown conflicting results. Guo et al<sup>7</sup> studied patients in



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Sweden aged 75 years and older, and demonstrated the protective effect of diuretics on cognition impairment in hypertensive patients. In contrast, in the Canadian Study of Health and Aging, Maxwell and colleagues<sup>8</sup> showed an increased risk of cognitive impairment in elderly people who were treated with calcium-channel blockers. Taking all the data

attack, stroke and dementia. The benefit for elderly hypertensive patients with multisystem disorders or mild cognitive impairment is uncertain, and cognitive function in such patients should be monitored carefully. Aggressive lowering of systolic blood pressure in such patients is generally unwise. Although other vascular risk factors

may reflect the fact that stroke and vascular dementia are induced by different mechanisms.

More specific treatment of mixed dementia focuses on treatment of the AD component. Although separate mixed dementia studies have yet to be conducted, most of the AD studies to date have included patients with so-called incidental subcortical or lacunar infarcts or minor degrees of white matter changes. Given these data and the lack of treatment alternatives, I usually opt for a trial of donepezil, the only approved treatment for AD in Canada.

***The benefit for elderly hypertensive patients with multisystem disorders or mild cognitive impairment is uncertain, and cognitive function in such patients should be monitored carefully.***

into account, it appears that elderly patients with systolic hypertension, good cognitive function and otherwise stable health (*i.e.*, those most like the SYST-EUR patients) can tolerate antihypertensive treatment. In such patients, benefit is likely to include a reduced risk of heart

appear to be important and their control is linked to a decreased incidence of stroke, such control has yet to be shown to decrease the incidence of dementia. This may be because larger studies with better characterization of cognitive endpoints need to be conducted or it

**Conclusion**

The syndrome of mixed dementia has much to teach us, both about mechanisms of disease and fads of diagnosis. Perhaps our experience over the next few years will be as revealing as those gone by.

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# Delirium in Alzheimer's Disease

Dementia and advanced age are risk factors for delirium. The differentiation of delirium from dementia is not difficult for the experienced physician, but combinations of the two in one patient can pose a perplexing challenge for the healthcare team.

by Peter N. McCracken, MD, FRCPC



Dr. McCracken, Geriatric Medicine Staff, Glenrose Rehabilitation Hospital. Part Director, Division of Geriatric Medicine and Professor of Medicine, University of Alberta, Edmonton, Alberta.

It is well recognized that delirium is the most common cognitive problem in hospitalized elderly patients. Given the prevalence of dementia in the older age groups, it is hardly surprising that the two disorders are frequently associated with each other. Dementia and advanced age are risk factors for delirium. The differentiation of delirium from dementia is not difficult for the experienced physician, but combinations of the two in one patient can pose a perplexing challenge for the healthcare team.<sup>1</sup>

Delirium is defined as the rapid onset of a clouded state of consciousness (usually lowered), marked by problems in retaining attention, fragmentation of the thinking process, and sensory misperceptions (illusions or hallucination). Table 1. A wide variety of clinical events can lead to presentations in the elderly (Table 2), but sepsis and adverse drug reactions are likely the most common.

## Diagnosis

Changes in consciousness and reduced attention are particularly

useful in detecting delirium, with and without an underlying dementia. Useful bedside approaches include the Confusion Assessment Method, the vigilance A test, or asking the patient to perform a task that requires focused attention such as counting backwards. The most common error in general or specialized medical practice is to misinterpret delirium in an Alzheimer patient as a progression of the underlying dementia. This is particularly likely when the treating physician has not seen the patient for months. Careful history-taking in this scenario will reveal an abrupt nature of the cognitive step-down.

Even without underlying Alzheimer's disease (AD), delirium is common in seniors. Between 10 and 30% of hospitalized seniors have a delirious state during their stay.<sup>3,4</sup> On surgical units, the figures range from 10–15% for general surgery and up to 40–60% for orthopedic wards.<sup>5</sup> Despite perceived improvement in recent years, prospective studies reveal a

Table 1

**DIAGNOSTIC CRITERIA OF DELIRIUM<sup>2</sup>**

- disturbances of consciousness with a change in cognition that is not accounted for by a dementia
- develops over hours to days
- fluctuates during the course of the day
- impaired ability to focus, sustain or shift attention
- impaired cognition (*i.e.*, memory, orientation, language) or perceptual disturbance (*i.e.*, misinterpretation, illusions, hallucinations)
- associated with sleep-wake cycle, psychomotor, emotional or electroencephalogram (EEG) disturbance
- evidence that the disturbance is caused by a general medication condition, substance intoxication or withdrawal, or multiple etiologies

failure of clinicians to recognize delirium. One trial on an orthopedic floor showed that delirium was poorly recognized by nurses and physicians (39% of nurses, 22% of physicians identified it). Unfortunately, the incidence of episodes of delirium in patients with AD is largely unknown.

***Delirium in the demented patient can be difficult to determine. Its onset may well appear to be more insidious and can take several days to develop. The most common early change affects psychomotor behaviour resulting in protracted drowsiness, anxiety, more difficulty with thinking clearly, insomnia, disturbing dreams and psychotic features.***

Delirium in frail seniors is rarely recognized and can be frustrating to attending staff neurologists and geriatricians, psychiatrists as well as family physicians. There are numerous barriers to the recognition of delirium. The change in patient composure is misread by hospital staff. Other reasons include its fluctuating nature with lucid intervals, atypical presentation (hypoactive delirium) and the lack

of general appreciation of this potential medical emergency.

Not only is delirium common, it is deadly. Delirium has a significant mortality rate estimated to be between 20% and 40%, and studies have shown it to be twice that of comparable non-delirious patients.<sup>6</sup>

Apart from high mortality, significant morbidity is also associated with delirium including falls, aspiration, pressure sores, urinary incontinence, dehydration, heart failure, and persistence of confusion.<sup>7</sup> In demented patients, delirium may take several weeks to clear, even after the cause has been identified and treated. Unfortunately, it is never resolved in a surprising percentage of demented individuals.

Table 2

**PRECIPITATING FACTORS<sup>2</sup>**

- Infectious
  - urine, chest
- Metabolic
  - CBC, Na, Ca, glucose
- Cardiopulmonary
  - hypoxemia, CHF, PE, MI
- Neurologic
  - CVA, subdural hematoma
- Retention
  - urine, stool
- Environmental
  - catheters, restraints, noise, light, strangers, psychotropics, opioids
- Meds
  - Rx or OTC, intoxication, withdrawal

When evaluating such patients, there is no substitute for gathering relevant and reliable information from spouses, other family members, or staff from the residence where the patient was living. This is particularly important in demented patients because an abrupt worsening of their chronic confusional state can almost always be uncovered if the pursuit of the information is thorough enough. Through these interview steps, a careful review of nursing notes, and objective bedside testing of the patient, a diagnosis of delirium can be made, even in a demented patient. DSM IV criteria (Table 1) should be used as a guideline.

**Clinical Features**

Delirium in the demented patient can be difficult to determine. Its onset may well appear to be more insidious and can take several days to develop. The most common early change affects psychomotor behaviour resulting in protracted drowsiness, anxiety, more difficulty with thinking clearly, insomnia, disturbing

Table 3

**MEDICATIONS; THE USUAL SUSPECTS<sup>3</sup>**

- Narcotics
- Anticholinergics
- Benzodiazepines
- Psychotropics
- Anti-Parkinsonians
- Common drugs but less likely: H<sub>2</sub> antagonists, Beta Blockers, NSAIDs

dreams and psychotic features. Sometimes the attending physician is alerted to this by an abrupt change in the extent of such psychotic features. Delusions, commonly influenced by surrounding environmental stimuli, may surface. Hallucinations and sensory illusions, usual visual and of very rich intensity, are particularly common. Even with dementia, delirious seniors will fluctuate and often appear to be most lucid in the morning, and at their worst at night. The sleep/wake cycle becomes completely disorganized. Those patients with hypoactive delirium often go unnoticed and may not be correctly identified for hours or even days after its onset.

Longer lengths of stay in hospitals, reduced functional outcomes, and increased discharge to long-term care facilities are common consequences of delirium.

In patients with AD and other dementias, recovery from delirium is not predictable. Levkoff's classic study revealed that only 4% of all patients recover to their pre-morbid state six months after the onset of delirium.<sup>8</sup>

The causes of delirium are listed in Table 2. Common medical entities such as infections of the lungs and urinary tract, cardiopulmonary conditions resulting in hypoxemia, neuro-

logical conditions, and metabolic changes in cognitive drugs are frequently identified. Often, more than one possible cause is found. However, experienced clinicians have gone through painstaking searches for a cognitive etiology and have been unable to identify any discreet cause. A rectal exam, bladder scan or straight catheter drainage (to evaluate post-

could be responsible for this downturn (Table 3). Appropriate treatment is focused on the causes listed above. Investigative steps include blood work to obtain the hematology and biochemical status of the patient; cultures of blood, urine, and sputum; EKGs; oxygen saturation and chest and abdominal x-rays.

***Delirious AD patients with severe agitation will usually require neuroleptic medication to reduce the threat of injuring themselves or others. Careful consideration of the patient's pre-morbid status should precede decision-making on which agents to use.***

void residual urine) can sometimes identify urinary or fecal retention as the culprit. On occasion, more aggressive steps such as lumbar puncture or tissue biopsy must be employed.

### **Management**

Management of the delirious AD patient is broken down into three categories: specific, supportive, and sedative.

### **Specific**

The specific approach is to identify, treat, and eliminate the underlying cause. This includes identifying and reducing all medications that

### **Supportive**

The supportive management of delirium tends to be non-pharmacologic. It involves creating the optimum environment to facilitate recovery. The right aids, both hearing and visual devices, should be made available. Other steps should include proper sources of light, clocks, and windows to promote recognition of familiar patterns. If possible, attempts to reduce hospital noise should be implemented. Restraints should be removed whenever possible. A security guard might be necessary to protect patients from self harm. Family and

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other familiar people should be encouraged to stay at the patient's bedside. Avoiding indwelling catheters is also important.

### Sedative

The sedative approach is reserved for patients with hyperkinetic or agitated delirium. When such patients are post-operative, they will require some analgesia even if narcotics have been identified as a precipitant to the delirious episode. The most prudent approach is to employ acetaminophen 650 mg orally with low dose morphine 2.5–5.0 mg IM or s/c for breakthrough pain.

Delirious AD patients with severe agitation will usually require neuroleptic medication to reduce the threat of injuring themselves or others. Intravenous (IV) lines delivering medications must be maintained. Careful considera-

tion of the patient's pre-morbid status should precede decision-making on which agents to use. Even though high-potency neuroleptics have marked extrapyramidal adverse effects, most physicians still favor these drugs for delirium because they are relatively non-sedating, do not have marked cardiorespiratory side effects, can be given IV, and there is familiarity with their use. Low-potency agents such as thioridazine and chlorpromazine have high anticholinergic properties, hardly of benefit for those with underlying AD and should be avoided in this setting. When sedation is necessary, intermediate potency neuroleptics such as loxapine and perphenazine are extremely useful. Experience is increasing in the medical community with the use of antipsychotics such as risperidone and olanzapine.<sup>9</sup>

The approach in the coming years should focus mainly on the prevention of delirium and the identification of predisposing and precipitating risk factors for its development.<sup>10</sup> It should also be noted that donepezil improves symptoms of delirium in some demented patients and has implications for future research.<sup>11</sup> In Canada, quetiapine has been approved for the treatment of schizophrenia but not agitated delirium. It is important to discontinue the neuroleptic as soon as the delirium resolves. It is important to note that seniors should not be returned to the community on such a compound when they no longer require it.

### Acknowledgements

I wish to recognize the very useful input and contributions of Dr. David Hogan from the University of Calgary, Division of Geriatric Medicine. I am also grateful to Mrs. Loreen McConaghie for her clerical assistance.

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# Individualized Care for Alzheimer Residents: An Essential Component of a Milieu de Vie

by Judith Cohen, BScN, MN



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“**M**ilieu de vie,” a relatively new concept, is gaining recognition in the field of gerontology. Milieu de vie is defined as the physical and human characteristics of a space that have a lasting influence on living beings.<sup>1</sup> It is also referred to as the heart, entourage, ambiance, climate or atmosphere of a living space. Savoie and Laframboise<sup>2</sup> claim that the objectives of all interventions in a milieu de vie aim to maintain autonomy, social engagement, self esteem, individuality and to value the integrity of residents and their families. A milieu de vie provides a means of conceptualizing and delivering care that addresses the needs, tastes, habits and values of residents and their families. Savoie and Laframboise demonstrated that a milieu de vie concept can attenuate the negative effects of institutionalization and of dementia on the autonomy and cognitive functioning of the resident. It can also improve the quality of life of residents and their families.<sup>2</sup>

Individualized care means that the person takes priority over the task. In a literature review, Happ

and colleagues<sup>3</sup> highlighted the conceptual definition and practical descriptions of individualized care for frail elders in long-term care institutions and reported research benefits. They presented four critical attributes of individualized care: knowing the person (life story, patterns of response); relationship (staff continuity, reciprocity); choice (decision making, risk taking); and participation in and direction of care (daily planning).

These principles apply even to the most severely impaired. For example, staff observation and knowledge of the cognitively impaired resident can reveal much about what is pleasing and comfortable to that person.

## A Conceptual Model

At Ste-Anne’s Hospital in Ste-Anne-de-Bellevue, Quebec, four specialized teams were created on our prosthetic units for residents with late-stage Alzheimer’s disease (AD). Each team was given the mandate to explore and develop objectives and implement programs in the areas of family support, social recreational activities, envi-

Figure 1

## Milieu de vie\*



\* Living Space

ronment (physical and psychosocial) and individual approach.

The result was the emergence of a milieu de vie that can be schematically represented (Figure 1) and described as follows: the milieu de vie in our hospital ensures the resident a safe, stable, familiar environment with physical features that are designed to compensate for losses and maximize functional autonomy. The environment promotes socialization, enhances communication and encourages meaningful caring relationships.<sup>4</sup>

Our milieu de vie offers residents structured activity programs

designed to encourage the full use of their residual capacities, provide leisure activities and enhance quality of life.<sup>5</sup>

We welcome families and encourage their involvement and participation in care planning. A structured support program is offered to families during their prolonged grieving process.<sup>6</sup>

Within our milieu de vie, we acknowledge that each resident has his or her own life story. We accommodate each person's daily patterns and respond to changes in mood by providing individualized care.

### **The Individual Approach Team**

When our milieu de vie was being developed, the individual approach team would meet monthly to assess the way care was being individualized on the units. A personal profile of each resident is obtained, which includes biographical data, particular tastes (likes and dislikes), habits (daily routines), functional abilities, dysfunctional behaviours, styles of communication, care required and the way the caregiver provided it. This personal profile is then incorporated into the resident's care plan. An attempt is made to

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reproduce the resident's former environment to help him or her integrate into a new milieu de vie. Personal approaches that promote this transition include providing familiar objects from home (e.g., bed cover, photographs, crucifix); offering choices of significant activities appropriate to the resident's abilities and interests; adhering to personal routines and daily schedules that match the residents' rhythms and habits; observing and recording the performance of all activities of daily living and adjusting nursing care to compensate for deficits and encourage full use of

communication appropriate to each residents' level of oral and written comprehension and expression.

The team's goal is to maintain each resident's autonomy, dignity and quality of life. The specific objective is to respect personal rhythms, abilities and rights. To accomplish this, the team ensures that care plans are re-evaluated every three months and revised as needed. Modifications to plans are communicated at each shift change to ensure continuity of care. All attempts are made to ensure a stable and familiar staff and the individual approach team therefore works close-

the most frequent problems encountered with these residents (e.g., resistance to care and problems with bathing, dressing and feeding). All agree that individualized care is central to a successful milieu de vie.

Our milieu de vie reflects the general trends described in the literature and has proven to be beneficial to residents, families and staff. Because it is an evolving concept, the milieu de vie is subject to continual changes; staff must be flexible, adaptable and have an in-depth understanding of AD and related disorders. The success of a milieu de vie depends on the quality of the staff, both in terms of their personal attributes as well as their level of knowledge. A milieu de vie is also affected by administrative decisions that determine staff/resident ratios, number of beds, physical changes to the environment, admission criteria and, most important, ongoing staff educational programs.

Although there is room for improvement, we have come a long way. We are proud of our milieu de vie and highly recommend the concept to other facilities that care for residents with AD.

***The team's goal is to maintain each resident's autonomy, dignity and quality of life. The specific objective is to respect personal rhythms, abilities and rights.***

residual capacities; finding the appropriate individual approaches to solve behaviour problems and documenting this in residents' care plans (this often involves multidisciplinary consultation); and providing social interaction and commu-

ly with the other three teams.

The team members plan to act as consultants throughout the hospital to help other caregivers individualize care for residents with dementia. They plan to develop training sessions on intervention strategies for

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## Helping Families Cope

*“People have not kept up their friendship since my mother started to get Alzheimer’s disease. Nobody goes to visit her and I find that kind of sad. They’ve totally withdrawn. I guess it’s because of ignorance of the disease or fear. Perhaps they don’t know what to do or say.”*

—caregiver

According to recommendations from the Canadian Consensus Conference on Dementia,<sup>1</sup> the primary care physician should acknowledge the important role played by caregivers in dementia care, assess the caregiver’s social support system and help caregivers rally support for themselves from appropriate family members and friends, and educate patients and families about the disease and how to cope with its manifestations.

In an effort to provide Canadians with practical information so they can help those with Alzheimer’s disease (AD) and their caregivers, the Alzheimer Society has launched the brochure *Ways to Help: Assisting Families Living with Alzheimer Disease* as part of its January awareness campaign.

Extended family, friends and neighbours can be more prepared to help if they have a better understanding of the situation.

### Alzheimer caregivers

- often feel alone and isolated from friends
- may need assistance, but are often reluctant to ask
- are often unable to do errands or complete household tasks
- experience stress that sometimes affects their health
- need regular breaks from caregiving
- may need someone to listen

### People with Alzheimer’s disease

- need to feel valued as a person
- face an uncertain future
- may worry about becoming a burden to their families
- need companionship
- strive to maintain an active and independent life

AD will affect the roles and responsibilities of family members. Spouses and children—often including school age youngsters—can find themselves providing care and support to someone with the disease. Caregiving can make recreation, chores and even employment difficult or impossible to maintain.

Caring for someone with AD can be challenging and eventually will require around the clock care. For family caregivers, this commitment can last many years. Friends and neighbours are important sources of support for the family. The brochure, *Ways to Help*, identifies ways to assist whether one is close by or far away.

The Alzheimer Society also helps caregivers by providing services such as support groups, counselling, information resources and the Alzheimer Wandering Registry. The Society also funds research into improved methods of caregiving and service delivery, as well as research into the cause and cure of AD. These Alzheimer Society resources and services are made possible by donations from Canadians.

*“Having someone hug you or hold your hand must be so comforting to a person who can’t express his or her feelings. Just the fact that people, other than family, care; this must still get through somehow.”*

— caregiver

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## Ways to Help: Assisting Families Living with Alzheimer Disease

### 1. Keep in touch

Maintain contact with family caregivers—a card, a call or a visit means a great deal. Caregivers as well as the person with the disease will benefit from your visits or calls. Continue to send cards or letters, even if you don't get a reply. It's a simple, yet important way to show you care.

### 2. Do little things—they mean a lot

When cooking, make extra portions and drop off a meal (in a freezable container). If you're on your way out to do an errand, check with the caregiver to see if they need anything. Surprise the caregiver with a special treat, such as a rented movie, a library book, or a gift certificate for a massage or dinner out.

### 3. Give the caregiver a break

Everyone needs a little time on their own. Offer to stay with the person with AD so the caregiver can run errands, attend a support group meeting, do a favourite activity or attend a religious service. Even if the caregiver does not leave the house, this will provide some personal time. Chances are, the person with AD will also enjoy your company.

### 4. Help with a specific task

Many caregivers find it hard to ask for something specific. Ask the family to make a "to do" list of hard-to-get-done chores, such as laundry, yard work or shopping. Decide what you can do, then dedicate some time on a regular basis to do the task.

### 5. Become informed

Learn about AD and how it impacts on the family. Most people with the disease wander at some point, and can become lost in their own neighbourhood. Be aware of someone who may seem lost and confused, and find out what you can do to help. One valuable resource is the Alzheimer Wandering Registry designed to help those with the disease by registering them with the local police agencies. Contact your local Alzheimer Society or call 1-800-616-8816 for information about the Registry.

### 6. Provide a change of scenery

Plan an activity that gets the whole family out of the house. Make a reservation at a restaurant. Be sure to

include the person with AD, if the caregiver feels it is appropriate. You may wish to ask for a table with some privacy or in a quiet area. Or, invite the family to your house or to a nearby park for a picnic or a walk.

### 7. Learn to listen

Sometimes caregivers just need to talk with someone. Ask family members how they are doing and encourage them to share. Be available when the caregiver is free to talk without interruptions. Try not to question or judge, but rather support and accept. You don't need to provide all the answers—just be a compassionate listener.

### 8. Take care of the caregiver

Caregivers need to eat well, exercise and get enough rest so they can remain healthy. Encourage caregivers to take care of themselves. Pass along useful information and offer to attend a support group meeting with them. Information is available from your local Alzheimer Society.

### 9. Remember all family members

The person with AD will appreciate your visits, even if unable to show it. Hold a hand, give a hug, talk with the person the way you'd want to be talked to. Spouses, adult children and even young children are all affected in different ways by AD. Be attentive to their needs too.

### 10. Get involved

There are many things you can do to help fight AD. Consider making a contribution to the Alzheimer Society to support research. Volunteer at your local Society or organize a Coffee Break™, the Society's nation-wide fundraiser, at your workplace or your home to raise funds for the Alzheimer Society. By choosing to do any of these, you are providing help for today and hope for tomorrow.

Adapted with permission from the Alzheimer's Association, U.S.

*For more information on Alzheimer's disease or ways to help, contact your local Alzheimer Society or call the Alzheimer Society of Canada at 1-800-616-8816 or check their Web site: [www.alzheimer.ca](http://www.alzheimer.ca).*