A NATIONAL EPIDEMIC

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Introduction

In this course, we will examine the causes of confusion, especially confusion in the elderly, how to accurately assess confusion and what to document, and interventions to be included in the total plan of care, including how to communicate with the confused patient. These principles will be illustrated and reinforced through presentation of a case study. We will also examine what we, as health care professionals, can learn from our confused patients. By the end of this course, you will have a clearer understanding of the term “confusion” as well as how to intervene with elderly patients who exhibit confusion.

Confused About Confusion?

What is confusion? How does it manifest in elderly patients? Medical dictionaries define confusion as a state of disturbed consciousness, with disruption of thought and decision making capacity. The terminology often is vague, and accurate diagnosis and consistent treatment may be difficult as a result. In any setting, it is important to perform a careful and thorough assessment before deciding that a patient is indeed confused. Most authors agree that confusion can be divided into two categories: acute confusion (also called delirium) and chronic confusion (also called dementia.) Some differentiations may be made between the clinical features of acute and chronic confusion with regard to onset, course, progression, duration, awareness, and alertness.

There is general agreement that acute confusion, or delirium is temporary, and may be recognizable by a myriad of inappropriate behaviors. The behaviors associated with delirium may include inattentiveness, sleep disturbances, disjointed speech, hallucinations, and other apparent changes in central nervous system functioning.

Chronic confusion, an aspect of dementia, is progressive and variable in nature and may commonly involve problems with memory recall, problem-solving, language and attention. In addition, there can be challenges with comprehension, reasoning, judgment, abstract thinking, communication, emotional expression, and the performance of routine tasks. Changes in behavior and personality are common as well. Multiple diseases can cause the dementia syndrome (hereafter, dementia). Early stages of dementia may resemble delirium, and any degree of confusion should be considered to be acute and temporary until shown to be otherwise.

Acute confusion often has an abrupt onset, over hours or days and is associated with an identifiable risk factor or cause. The course is short with diurnal, or daily, fluctuations in the symptoms; confusion may appear worse at night, in the dark, and on awakening. The associated cognitive and behavioral deficits show no clear pattern of progression, despite their variability throughout the day. Duration may range from hours to less than one month. Awareness of the environment may be reduced, and level of alertness may fluctuate from lethargic to highly guarded.

Chronic confusion associated with dementia, in contrast, is a long-term, progressive, and possibly degenerative process and occurs over months or years. It has a slower, more generally insidious onset, again depending on the cause. The course is long with no marked diurnal effects, and symptoms are progressive but relatively stable over time. The progression is slow but fairly even, and the duration is months to years, with no expectation of recovery of function. With chronic confusion, the patient is likely to exhibit adequate awareness of surroundings and a generally normal level of alertness.

To complicate matters even further, an acute state may develop in a patient already suffering from chronic dementia, as a result of factors such as hospitalization, development of an acute illness, or a medication change. Detection of delirium superimposed upon dementia can be particularly challenging for health care professionals. Delirium with dementia can be associated with new onset incontinence, depression, and weight loss; patients with both diagnoses are much more likely to be re-admitted to the hospital within thirty days than patients with delirium alone are. The causes of the “new” delirium must be identified and addressed regardless of the baseline cognitive status of the patient. Even after appropriate treatment, however, the patient may not return entirely to their baseline level of function.

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Confused About Confusion? Page 3
Epidemiology

A prime example of delirium is a critical care patient that is marked by sudden onset of severe confusion with an abrupt and drastic decline in cognitive functioning. Delirium occurs in 6-30% of the general hospitalized population; as many as 52% of postsurgical patients; and 16% of all elderly. The prevalence of acute confusion among elders in long-term care has been estimated to be as high as 40%; only a quarter of these residents were recognized as being confused by staff. This is contrasted with much higher numbers of those who suffer with dementia.

The aging of the U.S. population has been accompanied by a dramatic increase in the prevalence of dementia. Dementia causes a high burden of suffering for patients, their families, and society. For patients, it leads to increased dependency and complicates other comorbid conditions. For families, it leads to anxiety, depression, and increased time spent caring for a loved one. The annual societal cost of dementia is approximately $100 billion, from healthcare and related costs as well as lost wages for patients and family caregivers.

From up to 10% of people older than 65, and nearly half over 85 have dementia. Confusion can mask significant medical diagnoses, and almost always complicates the patient’s course of treatment and recovery.

Alzheimer’s disease (AD) and cerebrovascular ischemia (vascular dementia), which occurs with stroke, are the two most common causes of dementia; some cases involve both of these etiologies. Alzheimer’s disease (AD) accounts for 65% of dementia cases. According to the Alzheimer’s Association 2012 disease statistics Quick Facts:

- More than 15 million Americans provide unpaid care valued at $210 billion for persons with Alzheimer’s and other dementias.
- Payments for care are estimated to be $200 billion in the United States in 2012.
- An estimated 800,000 individuals with Alzheimer’s (or one in seven) live alone. People with Alzheimer’s and other dementias who live alone are exposed to higher risks—including inadequate self-care, malnutrition, untreated medical conditions, falls, wandering from home unattended and accidental deaths—compared to those who do not live alone. Of those who have Alzheimer’s and live alone, up to half of them do not have an identifiable caregiver.

Assessment

Assessment of the confused elderly patient encompases many elements. It begins, as does all assessment, with the establishment of a baseline. With a confused patient, it is imperative to talk to the family or other caregiver to determine when the confused behavior began. Some research asserts that the onset of the confusion is more valid than the assessment of orientation when trying to determine whether the condition is acute or chronic. Therefore, if a reliable historian is not available, you may not be able to correctly differentiate between acute and chronic confusion during the first assessment session, and must rely on comparison of the present assessment with future assessments to determine if the confusion is acute or chronic. Medication histories, laboratory tests, and the results of the physical assessment should be combined to make a final determination of the confused state.

Criteria from the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV-tr) is an excellent source in the early identification and diagnosis of patients with symptoms of delirium. It will also give indications of how to treat underlying causes and help with describing the changing overall picture of cognitive behavior.

Even with the additional information, however, accurate assessment may be difficult due to the combinations of factors that may cause delirium, especially in interaction with normal age-related changes in cognition.

According to the American College of Critical Care Medicine (ACCCM), all elderly hospitalized patients should be screened for delirium using a formal assessment tool. One tool available is the Confusion Assessment Method (CAM). This can be accessed online at www.medicine.uiowa.edu/igec/tools/cognitive/CAM.pdf. This tool was designed to assess for the presence of DELIRIUM and was created specifically for clinicians without psychiatric training to use with older patients. It was designed for use in various clinical settings, such as in making observations during routine clinical care. The CAM is a simple assessment that can be completed in less than five minutes.

Since just about everyone awaking from anesthesia is somewhat confused, assessment of the elderly patient who has had surgery becomes more demanding.

Postoperative confusion can have many causes, but in the elderly there are several things to consider when doing an assessment. Mental status at time of admission, gender, age, amount of postoperative mobility, urinary system health, and access to a clock or television are some factors to consider when assessing an elderly postoperative patient. Repeated, accurate assessments can assist you in determining if, and what type of, confusion is present. The presence of risk factors in the patient’s history should also be investigated.

Another useful tool when assessing pain with confused patients is the PAINAD scale. See Appendix A for details.

Risk Factors

Risk factors associated with confusion in the elderly include normal, age-related changes as well as physical conditions and emotional and social disruptions in lifestyle. Age is the best studied and the strongest risk factor for dementia. Age-related changes include the diminished ability of the brain to adapt to both internal and external changes. For instance, as aging occurs, recent memory may become less reliable than long-term memory. Think of the difficulty all of us can encounter in remembering to take medication four times a day. Have you ever been given a prescription for an antibiotic, for example, ordered to take it four times a day for ten days, and had to make a checklist after the third or fourth day so that you would remember to take it?
Physical conditions that are risk factors for the development of acute confusion, or delirium, include:

- nutrition, including fluid and electrolyte imbalances
- medication reactions or interactions
- altered metabolic function, including diabetes mellitus, hypoglycemia or hyperglycemia, and thyroid, parathyroid and pituitary disturbances
- cardiovascular alterations such as decreased cardiac output, cardiac disorders, and vascular disorders
- infections
- urinary alterations
- abnormalities in temperature regulation such as hypothermia, hyperthermia.

Increased interest is being paid to nutritional factors in the development of both acute and chronic confusion. Vitamin B-12 deficiency has long been suspected as a cause for confusion in the elderly, and has been studied for its relationship to the development of Alzheimer’s disease. B-12 supplementation may improve aspects of cognitive function, but rarely has been noted to reverse dementia. Thiamine deficiency has been noted in significant numbers of Alzheimer’s patients and may affect their cognitive function. Screening for thiamine levels should probably be considered in more cases of confusion, given the propensity for thiamine to be depleted by use of diuretics. Research has also been conducted on the use of plasma chain-breaking antioxidants (which include alpha- and beta-carotene as well as Vitamins A, C and E) to improve cognitive function in Alzheimer’s disease. Use of Vitamin C and E supplements has been suggested to protect against vascular dementia and to improve cognitive function in general in later life. The beneficial effects may indicate that increased free-radical activity has a common role in the cognitive impairment seen in various dementia conditions, and may suggest an avenue for more aggressive treatment.

The elderly are more likely than younger patients to exhibit cognitive impairment from taking medications; resulting from age-and disease-associated changes in brain neurochemistry, as well as changes in the body’s overall ability to process various drugs. Delirium is the most commonly seen cognitive disturbance related to drug toxicity, but dementia has also been reported. Central nervous system toxicity may be dose dependent, resulting from interference with neurotransmitter function.

Almost any drug can cause delirium, especially in a vulnerable patient. Anticholinergic medications are important causes of both acute and chronic confused states, but multiple anticholinergic drugs are still commonly prescribed, especially to nursing home residents. Studies have indicated that the total anticholinergic burden may determine the development of confusion rather than any single medication. In evaluating a patient’s medication history, keep in mind that anticholinergic effects have been identified in many drugs other than those classically thought of as having significant anticholinergic effects.

**Causes**

What causes confusion, especially confusion in the elderly? Many authors agree that confusion is the most common complication of hospitalization of the elderly. There is also evidence that elderly patients are sometimes confused following surgical procedures, with anesthesia thought to be a primary causative factor.

The risk factors that can predispose the elderly to confusion can also be considered causes. Age-related changes, physical conditions, and emotional and social disruptions in lifestyle may be implicated. Many of the changes in mental status may be related to the side effects and interactions of the numerous drugs usually prescribed for people in this age group. When hospitalized, the elderly are confronted with the additional stressors of changes in health status as well as separation from family, familiar environment, and familiar routines.

Causes of confusion may be organized into three categories: systemic, mechanical, and psychosocial/environmental. The first category, systemic, includes factors that interrupt normal brain functioning through the alteration of metabolic processes in the brain. This category would include blood sugar abnormalities as well as hormone changes. The second category, mechanical, refers to a blockage or other physical restriction of normal brain functioning, such as those associated with stroke or traumatic injury. Finally, psychosocial/environmental factors are non-biological in origin and tend to diminish personal meaning. Loss of loved ones and changes in residential setting and circumstances fall into this third category.

Psychoactive drugs are important causes of delirium. Acute confusion was a major complication of treatment with the tricyclic antidepressants, but is less often seen with the newer selective serotonin reuptake inhibitors (SSRIs) and atypical agents. Narcotic agents can cause delirium in postoperative patients, and the neuroleptics and long-acting benzodiazepines are known to cause or increase delirium and dementia.

Drug induced confusion with non-psychotropic drugs is most often idiosyncratic in nature, and as a result the diagnosis is easy to miss. Cardiac medications such as digoxin and betablockers, corticosteroids, histamine H2 receptor antagonists, nonsteroidal anti-inflammatory drugs (NSAIDS), and antibiotics can all cause or exacerbate confusion.

Among other specific causes of confusion that are often seen in long-term care facilities are dehydration and urinary tract infection, and should be suspected in any resident showing an abrupt change in mental status. In the hospital setting, thyroid dysfunction, vitamin B-12 and other vitamin deficiency, and normal pressure hydrocephalus are among the differential diagnoses to be considered.

Emotional and social disruptions in lifestyle include confinement to a restricted, unfamiliar area; absence of needed prosthetics (hearing aid, glasses, dentures) or items that complete body image (purse, cane, makeup); loss of stable environment and contact with family; enforced bed rest; disrupted patterns of daily living, especially sleep; loss of control over body processes; relocation; and recent loss of significant person or possessions.

**Symptoms**

It is difficult to list symptoms for confusion, either acute or chronic, since that list becomes a “laundry” list containing just about every vague symptom known to the medical profession. However, consideration of the most common and well-known symptoms gives a convenient starting point from which to perform the assessment.

Sometimes the confused person can’t function intellectually or deal with the
environment in the usual way. They may be disoriented to time, place, and/or person, or develop inaccurate perceptions, such as thinking a television image is a person. They may have delusions, use poor judgment, or forget, especially if they are hospitalized. Social interactions may become a problem; when they can’t communicate meaningfully and have difficulty maintaining their attention, they may become angry, belligerent, withdrawn, uncooperative, or restless. Health care professionals as well as family may find it impossible to reason with the confused patient. Behavioral changes, which may be out of character, may occur. The patient may become overactive and display agitation, excitement, and/or irritability. Conversely, they may become hypoactive and display lethargy, somnolence, apathy, and/or reduced activity. Additionally, a confused patient may periodically exhibit both behaviors.

Contact with another human being may be all that is needed to bring them back to the present. Confusion is increased if the healthcare professional communicates alarm by tone of voice and actions. A relaxed approach to this kind of situation is difficult, yet may be the only one that is workable. Speak in a soft, low voice, telling the patient who is there, and make simple, reassuring statements. Holding the patient’s hand to further the feeling of safety and permit some organization of thoughts is appropriate if you are comfortable with this intervention. It is important that the actions of the staff reflect true feelings so that the patient is reassured and not even more confused.

Behavioral Disturbances

Confusion can also cause some bizarre behaviors on the part of the elderly patient. As the disease progresses, there will be noticeable profound changes in the patient’s ability to manage activities. Normal speech may be replaced with disruptive vocalizations, such as repetitive words, sounds phrases. Crying out, and banging on the side rails, are seen. He may be emotionally labile, shifting rapidly from anger to laughter to tears. His judgment and impulse control are impaired. For instance, he may give away money or possessions or behave inappropriately in public.

“Sundowning” Phenomenon

“The worst time of day for my father was between four and five in the afternoon. My mother would always pace back and forth by the kitchen or living room door and say, ‘When are we going? When are we going? When are we going to go?’ So every evening around 5:15 my Dad would help my mother and off they’d go for a drive. Mom was usually quiet in the car.”

A phenomenon associated with confusion that may be observed in patients with dementia is “sundowning” or “sundown syndrome,” a constellation of behaviors associated with increased agitation and confusion that occurs in the late afternoon. Specific etiologic hypotheses that relate to sundowning behaviors include disruptions in regulation of melatonin, disturbances in Rapid Eye Movement (REM) sleep, episodes of sleep apnea, and a deterioration of an area in the hypothalamus. Three of the most obvious and correctable physical catalysts that can trigger sundowning behaviors, but often the three most overlooked, are hunger, thirst and the need to urinate or defecate. Careful monitoring of habit patterns in the late afternoon when sundowning occurs and the effects of any interventions used, such as decreased restlessness and agitation following toileting or a high-carbohydrate snack, can give clues about what might contribute to sundowning behavior.

Decreased visual acuity related to waning natural light may lead to misperceptions of the environment, and reduced levels of structured activities associated with mealtime and staff shift changes have also been implicated. As the sun goes down outside, lighting changes may occur inside, especially in large rooms with many windows like dining areas. Inside lighting should be adequate, but not glaring. Management can include the identification and treatment of any physiologic factors, low doses of specific psychotropic medications, and non-pharmacological interventions, such as restriction of daytime sleep, exposure to bright lights during the day, and moderate but consistent activity schedules.

Cognitive Changes

“One of the first symptoms we noticed early in the progression of my wife’s dis- ease was word substitution. This continued for a long time. She’d say something like ‘I need to go out and get the bird’ when she meant she had to go out and get the mail.”

“Once in a while a word comes out I can understand, like ‘Christmas,’ or a phrase like ‘It’s cold in here.’ But most of the time my husband just babbles. I love to hear his voice. I dread the day when the babbling stops. Can you understand that?”

Memory is not lost all at once through dementia but progressively over time. The Alzheimer’s Association describes the progression through seven defined stages, from mild to severe, over an average span of 4-8 years. To learn more about the stages visit: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp

Memory prompts can take many forms and can be used in home, hospital, adult home and nursing home settings. Some memory prompts will be helpful in the early stages of the disease when the ability to read and comprehend instructions is still reasonably intact; other suggestions may help jog the memory when verbal communication is no longer possible.

When the patient does not fully comprehend what is happening, facial expression, touch, and tone of voice can create a more comfortable atmosphere. Frequently, all that the confused elderly patient needs is extra time and patience or, truly, some “tender loving care.”

Cognitive Changes & Communication

The way health professionals communicate can set the tone for the patient’s experience in general, and influence the outcome of medical interventions. Age-related hearing and sight deficits may contribute to misconceptions, confusion, and a sense of isolation in patients with dementia. Help prevent these things by making sure controls are set properly, eyeglasses and hearing aids are clean and adjusted correctly. Use basic therapeutic communication strategies. Should we then be surprised at the fear and helplessness an elderly person may feel when admitted to the hospital? In today’s world of medicine, even the hospital room can be scary to the uninformed at any age or mental status.

Of course, there are always those elderly patients that break all the rules when it
comes to knowledge of medical facts and facilities. In fact, there are many elderly adults (in their 80s and 90s) that can run circles around the most energetic healthcare professional! The point is to assess the patient’s level of knowledge and then communicate on their level. This can alleviate much of the confusion they feel in relation to their surroundings. See Figure 1

Age and Cultural Considerations

Another situation that may appear as confusion is that words and actions have different meanings to people of different ages and cultures. The professional must determine what the patient means, and what the patient understands. A client 40, 50, or 60 years older than the healthcare professional is probably viewing the world from an entirely different perspective. A 90-year-old man who remembers when medicine was primitive and a physician was called only as a last resort when someone was dying, may view the efforts of modern scientific medicine with suspicion and may not follow the necessary medical regimen. The patient may appear confused but in actuality is only acting on his earlier belief that medicine and physicians are really unable to help. He may not be able to accept the opinions of a young physician who has long hair or a beard or who is of a different race. Some older patients react negatively to a nurse who is a man, because they have always perceived nursing as a profession for women. In all these instances, no matter what the health care provider feels or thinks, professionalism in all these instances, no matter what the health care provider feels or thinks, professionalism in

Specific Interventions

Interventions should focus on priority patient care issues. Safety, privacy, reduction of stimuli, frequent monitoring of confusion status, and reality orientation are important areas when planning the care of the confused patient.

Safety is one of the most important foundations of good patient care. How to keep a confused patient safe may be the biggest job, especially if the confusion leads to significant agitation. There have been three traditional ways to maintain safety: drug therapy, restraints, and use of a sitter or family member to stay with the patient at all times.

Medications

Certain medications can reduce cognitive symptoms, although dementia cannot be cured. If used in early stages of dementia, an acetylcholinesterase or cholinesterase inhibitor may slow cognitive decline.

The FDA has approved two types of medication for the treatment of cognitive loss through dementia: cholinesterase inhibitors (Aricept, Exelon, Razadyne, Cognex) and memantine (Namenda). The earliest drug, Cognex, is rarely used since there is significant risk for liver damage associated with this drug.

FDA approved memantine (Namenda) is used to treat moderate to severe Alzheimer’s dementia. This drug regulates the activity of glutamate, an essential chemical messenger in the brain that is associated with memory and learning. It is the only current drug available for late stage Alzheimer’s disease. It is hopeful that this drug will slow deterioration and improve cognitive skills. To learn more about this and other meds that have recently been released by the FDA or to check on dosage changes visit www.DrugGuide.com.

Haloperidol is another option. The recommended adult dose of (Haldol) 2 to 5mg IM is likely to be poorly tolerated in the elderly confused patient. An alternate approach would be 0.5 mg of Haldol combined with a like amount of benzodiazepine; higher doses only result in increased adverse extrapyramidal effects. These include muscles spasms of the face, neck or back; dyskinesia (twitching or blinking, lip smacking, sucking or chewing) or akinesia (lack of movement).

Seroquel (quetiapine) bears mention as a possible med for dementia-related psychosis since it’s used frequently in clinical practice. Studies reveal data supporting use of Seroquel, an atypical antipsychotic, it’s use in treatment of agitation in elderly patients with dementia. Patients, including those with Alzheimer’s disease, experienced improvement in symptoms of agitation. Additionally, patients treated with SEROQUEL had no cerebrovascular adverse events (CVAEs), which have been associated with the use of some other atypical antipsychotics in this patient population.

Behavioral disturbances, including agitation, have been reported in up to 90% of patients with dementia, which can result in patients becoming distressed and aggressive, putting an immense strain on caregivers and affecting their ability to care for the individuals.

Closely monitor the patient for signs of toxicity. Older adults metabolize antipsychotics more slowly and metabolites can accumulate and cause lethargy.

Communication Strategies

• Speak using simple, concrete nouns and positive messages. “Your shirt is on the chair” instead of “Here it is” or “Stay sitting in the chair” is clearer than “Don’t get up.”
• Watch what you do. Patients with dementia have an uncanny ability to pick up on body language and mood.
  Use your body and voice to send calming messages. Slow down to prevent agitation.
• Look for hidden emotions masked in the patient’s words. If they say, “ When is Mommy going to be here?” they may mean, “I want to go home, I am scared of this strange place.”
• Don’t argue, scold or quiz your patient. Use distraction to prevent a situation from escalating into agitation, or drop the topic of discussion if she appears upset and try again in 15 to 30 minutes.
• Don’t use ambiguous words or slang such as “Jump into bed”, say directly “Lie down on the bed.”
Benzodiazepines alone are also effective in controlling acute agitation and are better tolerated than the typical antipsychotics. IM lorazepam (Ativan) acts as quickly and as effectively as IM haloperidol in most instances, and oral lorazepam acts much more quickly than oral haloperidol. Recent studies have shown that lorazepam with risperidone (Risperdal) is generally equivalent to lorazepam with IM haloperidol in controlling acute agitation; given the greater tolerability of risperidone, this combination may eventually become the treatment of choice. Several medications in addition to the ones listed above have been used for longer-term treatment of agitation in the chronically confused patient. Propranolol (Inderal) has been used to control impulsivity and agitation, but use must be monitored carefully for potentially dangerous effects on cardiovascular function. Both carbamazepine (Tegretol) and divalproex (Depakote) have been used effectively, with divalproex often chosen due to its relatively benign side-effect profile. Both should be used as second-line agents in patients with inadequate response to antipsychotic agents.

### Nonpharmacologic Interventions

Since dementia-related agitation and aggression can occur from many causes, it is important to identify any contributing factors that can be modified without the use of medication. Nonpharmacologic interventions are based on the principle that a clinical care system serving patients with dementia must address issues in the physical environment and the care system (and its policies) that may contribute to the emergence of symptoms of agitation and aggression. Research has shown that verbal/vocal behaviors may be associated with pain, loneliness, or depression. Agitation may be associated with boredom and the need for activity and stimulation. Aggressive behaviors may be associated with avoiding discomfort, the communication of needs, or a demand for personal space. All treatment approaches should start with rigorous attempts to identify any reversible causes of these behaviors and eliminate or mitigate these factors. Typical precipitants of agitation and aggression include pain, medical illness, boredom, loneliness, depression, and social and environmental stressors. Identified causes should be addressed through individualized and/or systemic efforts to mitigate the triggers of agitation and/or aggression. Other individualized nonpharmacologic interventions for the person with dementia include tools to improve or stabilize cognitive function, behavior modification, self-affirming exercises such as reminiscence therapy, and structured socialization such as pet therapy and visualizing family videotapes.

### To Restrain or Not To Restrain — That Is the Question?

Restraints have become a controversial intervention with much research devoted to the topic. Most long-term care facilities are trying to get away from restraints. Alternatives might include: moving the patient closer to the nurses station, using a low or floor bed; calming and reorienting the patient to the environment. For a wheelchair bound patient at risk for falls, a tray table is a much better option than a Posey vest.

If restraints are chosen as an intervention, patients should be observed for restlessness, since agitation has been noted to increase when the elderly patient is restrained. Use of restraints requires a physician’s order, and documentation requirements are significant. Careful and frequent monitoring of the patient is imperative.

In recent years, there has been a movement on the part of both long-term care facilities and acute hospitals to limit as much as possible the use of both chemical (medication) and physical restraints, or to eliminate their use entirely. It is certainly true that delirious and demented persons are unable to think clearly and, as a result, exhibit unsafe behaviors. For many problematic behaviors, however, alternative approaches to the routine use of restraints using diversionary techniques have proven effective when individualized to the patient.

### Diversionary Tactics

Diversionary tactics that will comfort the patient with dementia can be used as an alternative to restraints and can be used with all types of hospitalized patients.

### Music Therapy

Can music help us heal? There is the old saying, “Music soothes the savage beast.” It seems to calm and trigger positive emotions. The great classical composer, Beethoven once said, “I leave my music to heal the world.” Music has the power to heal wounded minds and spirits. One of the first recorded uses of music as an instrument of healing is found in the Old Testament of the Bible. King Saul called upon David, the shepherd boy to play his music to soothe Saul’s spiritual and emotional distress. Saul was so pleased with the ‘music therapy’ that he requested that David stay in his service (1 Samuel 16:14-23).

The belief in the healing power of music has continued throughout history. In the 1920’s, Mussak started piping music into elevators to calm people’s fears of using this new invention. During WWII, music performers entertained wounded soldiers. Why? It was discovered that music not only entertained, but also improved morale, decreased depression and kept the injured grounded in reality.

**Reminiscence** — Talk to your patients about happy events in their life and recall past experiences. Have family members get involved by bringing in old pictures of familiar faces and events.

**Visual Aids** — Provide books and magazines with colorful, landscape pictures with few words; pictures of babies and animals or family photo albums can help calm them.

**Repetitive Hand Activities** — Have them do things to keep their minds and hands busy. Consider the value of a “rummage box” (similar to a rummage drawer but portable) filled with soft things like washcloths and towels, balls of yarn, and stuffed animals. Many residents in LTC facilities and home situations will be content to simply take things out of boxes and replace them; towels and washcloths may be folded and refolded and yarn wound and unwound. Rummage boxes can be used in lounge areas and in the person’s own room.

**Games** — Large checkers, simple games and large print playing cards are great. They provide an outlet for energy and promote interaction with other residents.

Using simple techniques can reduce restraint use and agitation in confused patients.
Reduce Agitation — The agitation often seen in this group of patients more often than not, is a response of fear of the unknown or an expression of physical or emotional pain and discomfort. Basic care requires that the patient is kept warm, dry, and comfortable, and some creativity may be required to assess the source of discomfort. If the patient is able to verbalize his needs, listen and validate, then correct the problem as soon as possible. For many patients the source of agitation may be the presence of a tube somewhere on or in his body; and removal of the offending device may not be an acceptable option. If the patient pulls at an IV, the arm and site can be wrapped with an elastic compression bandage, and consider use of a capped IV line. One of the most aggravating devices seems to be the urinary catheter; for everyone’s sake, they should be removed as soon as possible. In the meantime, the tubing may be hidden by placing the tube between the legs and the bag at the foot of the bed. Leg bags can also be used if appropriate.

Tolerance of a nasal tube can be improved by keeping the oxygen humidified and the patient’s nares lubricated. Consider a nasal tube stabilizer or taping the cannulae to the patient’s cheeks. For an abdominal tube, one can use a tube stabilizer, an abdominal binder, or both.

Alternative Medicine

Some of the more popular alternatives for Alzheimer’s disease and other forms of dementia are:

- Vitamin E. Some studies have shown that vitamin E can slow the progression of Alzheimer’s disease, while other studies have shown no benefit. Doctors warn against taking large doses of vitamin E, especially if you’re taking blood thinners, because of an increased risk of bleeding.
- Omega-3 fatty acids. Omega-3s are a type of polyunsaturated fatty acid (PUFA) found in fish and nuts. Research has linked certain types of omega-3s to a reduced risk of heart disease, stroke, dementia and cognitive decline. The Food and Drug Administration (FDA) permits supplements and foods to display labels with “a qualified health claim” for two omega-3s called docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA). The FDA recommends taking no more than a combined total of 3 grams of DHA or EPA a day, with no more than 2 grams from supplements. Theories about why omega-3s might influence dementia risk include their benefit to the heart and blood vessels, anti-inflammatory effects, and support and protection of nerve cell membranes. Preliminary evidence also shows that omega-3s may help reduce symptoms of depression. It’s thought this is because it’s an essential nutrient for brain function.
- Ginkgo. Some people believe that extracts from the leaves of the Ginkgo biloba tree have antioxidant and anti-inflammatory properties that may help slow the progression of memory problems associated with dementia.

Safety Issues

Potential for injury from a fall is another major safety concern for the confused patient. Many falls occur when the patient tries to get to the bathroom, so a regular toileting schedule can help (e.g., every two hours; or in the morning, after meals, and at bedtime.) A physical therapy consult can be obtained to address strength and balance issues, and the need for assistive devices. The patient may be positioned where staff can observe him easily, or family members can be asked to sit with him. Whatever approach is used should be frequently evaluated for effectiveness and/or adverse reactions.

Privacy is another essential aspect of interventions. All have heard, at one time or another, jokes regarding hospital gowns. However funny they may be, they are an invasion of privacy even if the patients don’t intend for them to be. Try to maintain the patient’s privacy as much as possible and avoid embarrassment. Think again about the age range of most of your elderly patients. Not all will be embarrassed easily, but we should treat everyone as if they would be.

Reduction of stimuli may be a more difficult intervention to ensure. Although a LTC facility does not have the traffic flow of a hospital, it is still noisier than living with only one or two other people. If equipment is added to the scenario, noise is also added. The number of visitors permitted at a time should be determined based on the reaction of the patient, unless your facility has strict rules regarding visitors. It may also be necessary to monitor the reaction of the patient to a specific visitor. If a person seems to upset or agitate the confused patient, there is a chance the confusion may worsen when that person is present.

Frequent monitoring of the confusion status will add to the assessment that was begun at admission. This may be the only way to determine if the confusion is acute or chronic. Family members can be very helpful in this area especially if they are with the patient the majority of the time. This also offers time to assess for alterations in the patient’s condition including nutritional status, adverse drug reactions, sudden acute confusion, or other physical or mental parameters.

Perhaps the most frequently taught intervention is orientation, sometimes termed reality orientation. Over the years there have been changes in the furnishing of hospital and nursing home rooms with orientation in mind. The large wall clocks and calendars in the intensive care units are one example of the attention orientation has been given. Orientation techniques have also undergone some changes over the years.

The professional should remember, however, that many elderly patients have difficulty remembering details such as the specific date and the specific time. Time and date orientation is better evaluated on the time of day (daytime or nighttime) and the month or season of the year. Almost all patients should be able to tell you their name, although you may need to separate the truly confused from those who think the question is silly and will give you some ridiculous answer.

Most patients should also be able to tell you where they are, perhaps not precisely, but enough to say either hospital or nursing home (or similar response).

If the patient offers incorrect information, the professional must use good judgment in determining how much correction to give. Some confused patients will react with agitation to attempts to correct their misperceptions, causing disruptions in relationships and difficulty with care. A good rule of thumb is to push the issue of reorientation only if doing so is critical to the health and well being of the patient.

Another way to implement orientation is
to introduce yourself when you enter the room, and include orientation information in the course of conversation with the patient. You can then use the evaluation tool of asking the patient what your name is to assess his present level of orientation and memory.

Other interventions that are useful when caring for a confused patient are:
1. Doing one thing at a time; have the patient complete the task at hand before performing another. For example, complete brushing the teeth before beginning to comb the hair.
2. Keep all instructions simple, check for comprehension, and allow time for repetition.
3. Tell the patient everything that will happen before it happens, even if he does not seem alert enough to understand.
4. Avoid startling the confused patient. For example, speak gently and pleasantly as you approach the bedside. If possible, be sure the patient can see you, and establish eye contact.
5. Pay attention to complaints of hunger and thirst even if the patient has just eaten. Offer a drink of juice or milk and a cracker if possible. To tell the patient “you can’t be hungry” or “you just finished lunch” is to imply that he does not know what he is talking about. The same thing applies if the patient complains of being tired or in pain.
6. Distract the patient who is showing signs of agitation. For example, say, “I like that new plant. Do you have plants at home?” or, “Do you like music?”
7. Stop what you are doing whenever the patient is resisting all your efforts to provide care. Anything else is futile. Maybe it’s time for more “TLC”. If the patient speaks in a loud voice, wait for an opportunity to speak and then do so in a soft voice. Help identify and correct causes of confusion and act to protect the patient from injury and other problems. When the patient is confused, the dilemma is not necessarily the confusion, but the agitation and lack of cooperation that go with it.

Thorough basic care helps alleviate agitation by eliminating a number of potential causes of increased confusion. For example, deep breathing and moving the extremities increase circulation and blood supply to the brain.

### Addressing Spiritual Issues

People with dementia can experience spiritual distress; caregivers can, too. Having spiritual needs met is a universal need and can be even more acute for a person faced with years of care giving responsibilities. Spiritual needs that often rise to the surface in a caregiver’s life include:

- the need to make sense of life in general and of their loved one’s suffering in particular
- the need for love and relationship for themselves
- the need for a sense of safety and security in an unsafe and insecure situation
- the need for hope in the present and the future
- the need to be free from guilt, resentments, depression, fears and anxiety

The focus in health care for the cognitively impaired home bound or institutionalized elderly has clearly been on safety issues, concerns with nutrition, hydration and elimination, and medication management to try to control behavior. Interpersonal aspects of caring for people with dementia have been more recently addressed, though to a lesser degree, with an emphasis on validation therapy and a focus on types of psychosocial approaches that will ameliorate rather than aggravate symptoms.

While these are vitally important issues, one significant area of interpersonal relationships that has been virtually ignored in the literature has been the aspect of a demented person’s spirituality or relationship with God. This may be related to a lack of theoretical framework to understand what might be happening to a markedly confused person with respect to the self in relation to God, and consequent difficulty assessing spiritual concerns and/or making spiritual diagnoses.

The classification of spiritual distress from the National Group for the Classification of Nursing Diagnosis relates spiritual distress to two phenomena. One is the conflict between religious or spiritual beliefs and prescribed health regimen, an admittedly difficult if not impossible area to directly assess with someone with advanced dementia if no background information is available. The other is the inability to practice spiritual rituals. Knowing what spiritual or religious rituals are or have been important to a person in the past can be extremely helpful when assessing present spiritual concerns.

One fairly common example is the wandering resident who may be following a long established habit pattern of going to church or daily Mass. Health care professionals who are sensitive to spiritual needs and previous habit patterns soon learn that a helpful intervention in this incidence was to walk with them down the hall to the elevator, take them down to the first floor lounge and inform the activities director they were resting there.

Assessing and diagnosing spiritual needs of people with dementia require a different approach and different assessment tools than those traditionally used with people who are able to carry on a conversation about spiritual or religious concerns and verbally respond to assessment questions a nurse might ask. The most important step in the assessment process is observation and an interdisciplinary approach to assessment that will include the person’s friends, family and/or spiritual support system.

The following categories of assessment can serve as a guide for making observations: affect and attitude, behaviors, conversational clues, denomination/affiliation, environmental clues, family, friends and community of faith.

#### Affect and Attitude

What does the person look like? Do they seem angry, depressed, anxious or agitated? Behaviors that may be commonly associated or attributed to dementia can, in actuality, be expressions of spiritual distress or concern.

#### Behaviors

What is the person doing? What kinds of behaviors are they manifesting that may be indicators of spiritual concern, spiritual need or habit patterns?

#### Conversational Clues

In the natural course of a conversation a cognitively intact person may speak about God, their faith, church, suffering, prayer or other issues associated with spirituality. They may do this directly in a one-on-one interaction, or conversational clues of this nature may be picked up if the person is...
overheard talking to roommates, friends or relatives.

Residents with dementia, particularly in more advanced stages, may no longer be able to express themselves in meaningful and complete sentences, but “religious words” may often be used. They may mention God or Jesus or prayer. They also may mention heaven or hell and may curse.

Denominational Affiliation

Specific denominational affiliation is useful knowledge that can aid in designing specific interventions. This information should be readily available on a resident’s chart, but this is rarely the case other than the broad categories of Protestant, Catholic, Jewish and other. It is important to know the specific affiliation and, more specifically, the particular church, synagogue or parish. Family can be a helpful source of information.

Environmental Clues

What did the resident bring with him to the nursing care facility? Does the resident have a Bible, a rosary or other religious medals, a prayer book or other devotional books? Are there pictures on the wall with religious significance? What kinds of cards does the resident receive? Does mail include Sunday bulletins?

Family, Friends and Faith Community

Family and friends are vital sources of information about the spiritual concerns and practices of people with dementia. Who visits? How often? What do they talk about? Family members can also be questioned about the spiritual needs, concerns and habit patterns of their loved one or may offer information spontaneously. Do representatives from the resident’s faith community visit? Does their spiritual leader or advisor ever come?

Ministering to the spirit is part of caring for the whole person; meeting spiritual needs and alleviating spiritual distress should be an integral part of the care planning for the person with dementia.

Evaluation Documentation

A section on interventions would be incomplete without touching briefly on the importance of documentation. Especially with a confused patient, complete, accurate documentation is essential. Recent research on documentation of confusion in an acute care setting has found documentation of confusion in 78% of the nurses’ notes, but in only 42% of the care plans. Further, “none of the interventions used with confused patients was related to recent documentation in the nurses’ notes or nursing care plans”. Don’t let inconsistency in your documentation make your plan for the care of the confused patient useless.

Discharge Planning

With an acute episode of confusion, a discharge plan must include the cause of the confusion and ways to avoid it in the future. This may include patient education and/or home health care follow-up. If the patient is diagnosed with chronic confusion, the caregiver must be taught how to care for the patient. If going home, a home health care follow-up is the best way to ascertain if the discharge instructions are being followed. Sometimes the environment must be modified so that the caregiver can follow the discharge instructions.

Outcome and Prognosis

How do you know if the nursing interventions you offered were successful? With acute confusion the prognosis is usually positive and the confusion is generally reversible. If the precipitating factors have been dealt with, the delirium should have resolved, and the patient resumed functioning at close to baseline level. However, the caregiver must realize that acute episodes of confusion are not normal and any additional episodes should be reported to the physician.

The prognosis for chronic confusion, however, is poor since dementia is often progressive and generally irreversible. Interventions are geared toward keeping the patient at as functional a level as possible. In some cases, evaluation of outcome is done from the perspective of comfort measures. When a patient is in the late stages of dementia, we can only take their cues from outward appearances. If the patient does not display facial grimaces, does not cry out in pain, and does not display integumentary compromises such as swelling and skin breakdown, the professional can presume comfort.

As we come to the end of the course, review the main points. When looking for a definition for confusion, remember that the definition(s) you find may be vague and inconsistent. Acute confusion has an abrupt onset and is characterized by inappropriate behaviors. Chronic confusion is a long-term, progressive, and degenerative process. Presentation of both may be similar, so acute confusion should be assumed until proven otherwise. Remember that confusion is a symptom and not a disease process, and requires comprehensive evaluation to determine the underlying cause.

The assessment of confusion is usually an ongoing process that may take several sessions with the patient. Assessment may be more difficult if the patient has acute confusion since there are usually more periods of lucidity than with the chronically confused patient. Use every tool available including family members, medical history, medication history, as well as the patient. Look for risk factors that may have contributed to the confusion, and then search for symptoms that will validate that assessment.

Planning of interventions is important, but must be a flexible area. Due to the changes in the acutely confused patient, interventions that worked yesterday may not work today. The same is true for the chronically confused patient, but for different reasons. If the chronically confused patient has progressed to another level of confusion, interventions must be adjusted to handle those changes.

Communication is vital and the professional must use all their skills, both verbal and non-verbal. While communication with any confused patient can be very time-consuming and frustrating, it is one of the best ways to evaluate the level of confusion.

Specific interventions should be tailored to the needs of the patient. Safety, privacy, reduction of stimuli, frequent monitoring of confusion status, and reality orientation are important areas and should be reevaluated as the need arises.

So much more could be said about the area of documentation. It is the only way to effectively communicate among all the health professionals caring for the confused patient. Everyone using the same approach can provide not only better evaluation of the patient’s confusion, but may make the duration of acute confusion shorter by cutting down on the patient’s frustration.
Discharge planning begins the moment the patient is admitted. If the patient is chronically confused and will be discharged to a LTC facility, discharge planning should center around the best and easiest transition to that facility. If the patient is to be discharged to home, discharge planning should center on making sure the caregiver is properly prepared if the patient is still confused upon discharge.

As was said earlier, prognosis is usually good with acute confusion and the confusion is generally reversible. The prognosis for chronic confusion, however, is poor since the condition is progressive and generally irreversible.

Supporting the Family/Caregiver

“Sometimes you feel like you are the only person in the world with a family situation like yours. And then you go to a support group meeting and you realize there are other people very much like you. I’m semi-retired and have a part-time job teaching two afternoons a week. I hired home health aides from a private home-care agency when I finally realized I had to have someone with her when I was at work. My major support came from these aides.”

“I joined a small group to strengthen my own faith, and found it was like going to a well once a week and getting replenished. I love that metaphor of getting fresh water for my soul, refreshing myself as I learn about God with others.”

Personal, educational and spiritual support for both family and health-related caregivers is available from many sources. Receiving help from outside sources can strengthen caregivers for their responsibilities and ease what may seem to be an unbearable burden. There are, in fact, many ways to lighten the load.

Practical Tips

Family members are often embarrassed and distressed by confusion in their elderly relative, especially if that person was not previously confused. The family may need some type of comfort, a touch or word of support, so that they can interact with their loved one in a satisfactory way. They need to know their mother or father is experiencing a state that is common and sometimes predictable in the elderly hospitalized patient. Methods of communicating that have worked with the patient, such as explaining and reassuring, will be beneficial to the family.

Refer the family to support groups and other resources. They need information to care for their loved one as well as compassionate emotional support. Support groups can help people realize they are not alone; others are having or have had very similar experiences. They can contribute to emotional and spiritual well-being of caregivers and give help in very practical, material ways as caregivers share with each other tips for managing behaviors and personal strategies for coping.

Suggest they meet with a lawyer as early in the diagnosis as possible. There will be issues of power of attorney for financial and legal decisions, durable power of attorney for healthcare issues, advanced directives and a living trust.

Each person with Alzheimer’s disease or dementia experiences symptoms and progression differently. Consequently, care techniques also should vary. The following tips may work for the family as they adapt to their specific situation. Explain the following.

In the early stages dementia or confusion, your loved one may be able to perform the tasks that allow a person to live and function independently. Inevitably, though, as the disease progresses and cognition declines, these responsibilities increasingly will fall to you. Frustration, agitation and even aggression are common reactions when tasks that once came easily become difficult. As you help your loved one with eating, bathing, grooming, dressing and going to the bathroom, find ways to make his or her limitations less frightening and frustrating for both of you.

Involving your loved one in tasks as much as possible. Some people can still choose an outfit if they’re given only two choices, rather than a closet full of clothes.

Reassess the level of assistance that’s required daily. For example, can your husband shave by himself if you set out his supplies? Or can he shave by himself if you turn on an electric razor and put it in his hand? Or does he need you to provide assistance with the entire task?

Strive for balance between periods of rest and activity. Minimize activity later in the day when your loved one is more likely to be tired.

Make Your Home Safe

You may not always awaken when your loved one does, so be sure to make your home as safe as possible.

- Remove throw rugs, extension cords and any clutter that can cause your loved one to trip and fall. Avoid rearranging the furniture.
- Install locks on cabinets that contain medicine, alcohol, guns, toxic substances, dangerous utensils and tools. Install handrails to prevent falls.
- Have a first-aid kit, a fire extinguisher and working smoke alarms in the home. If your loved one is a smoker, don’t allow him or her to smoke alone, and control the matches or lighters yourself.
- To reduce the risk of wandering, put a slide bolt high on every door that leads to the outside or to a stairwell, or use a deadbolt that requires a key. Never leave your loved one alone when you use these measures. If your relative can no longer drive, control access to car keys and keep the car out of sight.
- Post door signs that say “Stop,” “Do Not Enter” or “Closed.”
- Make sure your loved one has a medical identification bracelet in case he or she manages to leave the house.

Adjust Your Expectations

It’s important to have realistic expectations of your loved one’s abilities and behavior. Consider these tips to help you modify your expectations:

- Allow more time to accomplish everyday care giving tasks. Simplify the tasks and provide instructions one step at a time.
- Try not to worry about the way things should be done. If no danger results from your loved one’s actions, refrain from correcting them.
- Try to stay flexible. If your loved one refuses to do something, back off and try again later using a different approach. Most tasks don’t need to be done immediately. You are more adaptable than the individual with dementia.
Limit Distractions

- Along with a sense of routine, a serene environment can reduce some behavior problems. Noise, large groups of people, changes in surroundings or pressure to perform a task can cause anxiety and further compromise your loved one’s ability to think clearly.
- Shut off the television and limit background noise to soft music without commercials.
- Encourage visitors to call before they come, and limit the number of people at gatherings. You may want to encourage short visits so that your loved one doesn’t feel overwhelmed.
- If your loved one attends a large gathering, reserve a quiet room for him or her to relax in. Keep track of the stimulation from music, television, conversation and meal preparation. If it’s getting too noisy, tone things down or encourage your loved one to rest in the quiet room.

Don’t forget to be good to yourself. Take time out to relax and get help from others. Just like popcorn, when the pressure keeps building we all tend to POP. Work, children and the newly added stress of taking care of a “parent” can be overwhelming. Take at least 15 minutes a day and if possible one day/evening every few weeks or month to do what you like to do.

Wrapping It All Up

Virtually all patients with dementia will develop changes in behavior and personality as the disease progresses. The nature and frequency of symptoms vary over the course of the illness, and psychotic features tend to present later, particularly when the patient becomes more dependent. The axioms “first do no harm” and “start low, go slow” form the cornerstone of care and treatment for patients with dementia.

A Case History

Now let’s consider the case of Mr. Jones, whose story includes many of the elements we have discussed regarding confusion in the elderly. Think of the principles presented as we go along, and we’ll pause from time to time to review.

Mr. Jones was born in 1913. He was a retired railroad worker who had lived alone since his wife’s sudden death from a pulmonary embolus fourteen years earlier. He lived in a tri-level retirement community (with apartments, assisted living, and nursing home facilities) in his own one-bedroom apartment. His three children were scattered across the United States, but his surviving brother lived within an hour’s drive. His children kept in touch by letters and occasional visits. Regular phone calls had gradually ceased over the last six months as Mr. Jones became unable to hear. Mr. Jones was also visited by friends from the community.

Mr. Jones’ health was excellent; his only medical problem was glaucoma, which was diagnosed in the 1950s. He used eye drops to control the pressure and had laser surgery at least once. He also took a digitalis preparation due to age related changes in his cardiovascular system, but had no diagnosed heart condition. At the time of his wife’s death, Mr. Jones had become severely depressed. He was hospitalized and received a series of electroconvulsive therapy (ECT). There had been no apparent recurrence of the depression.

What risk factors for the development of confusion can we identify from Mr. Jones’ history? At age 85, normal age-related changes should be present. Based on the information available, there is no clear indication of specific physical conditions that would contribute to his confusion. Since he was living alone, however, he may not have been eating adequately or complying with his medications and physician’s recommendations. Mr. Jones’ history suggested that he had in the past reacted to stress with depression, but there were no new significant stressors noted, and no apparent recurrence of the depression. He had little direct contact with family, and there had been a decline in regular telephone contact due to his hearing problems. He did appear to have a network of friends as well as facility staff to provide emotional support.

In July, his son received a call from a family friend who had recently visited Mr. Jones. She said she found him somewhat confused and wanted his family to know. The letters Mr. Jones had written in the last months had shown a minimal amount of confusion, but nothing that would signal a problem.

A call to the facility social worker confirmed that he was confused but able to carry on a normal conversation. She also reported that a long-time friend of his was staying with him. His son made arrangements to visit his father the next week.

Upon arrival he found him in his apartment with the friend. He had visibly aged since the son’s last visit and was a little confused, but still recognized his family. Consultation with facility staff indicated the confusion had a sudden onset. The nurse had seen him weekly for blood pressure checks, with the exception of the last several weeks, and had not really noticed a difference in him.

How sudden was the onset of Mr. Jones’ confusion? Casual contact with medical personnel such as the nurse who did blood pressure checks, with conversation limited to social pleasantries, may not reveal deterioration in cognitive abilities. Mr. Jones’ family and friends had sporadic contact with him and did not have the opportunity to observe his day-to-day level of function. In Mr. Jones’ case, there was no one who could give an accurate picture of the onset or progression of his confusion. However, it would be entirely appropriate for medical personnel to assume that the confusion was acute and temporary in nature in the absence of evidence to the contrary, and to evaluate him aggressively.

As the visit progressed, it became evident that Mr. Jones was periodically very confused. Upon recommendation of the facility, arrangements were made for an aide to visit daily to make sure he got a bath, dressed, and ate breakfast. Mr. Jones appeared to understand the arrangements and be in agreement. The day after the son arrived home, the facility called to say that the sitter had found Mr. Jones on the floor where he had apparently fallen. He was not injured, but had been moved to the assisted living area of the facility.

After extensive family consultations, it was decided to put Mr. Jones in the hospital and do some diagnostic tests to try to determine if the sudden onset of confusion had a medical basis. By this time, his room was noted to smell of urine and his clothing and bedding had been soiled.

The presence of urine and soiled linens may indicate deterioration in Mr. Jones’ level of function. If immediate causes such as a urinary tract infection are ruled out, it could be a sign of progressive dementia. Events such as a fall or a move to
a new environment often precipitate such a progression.

The nurse that admitted Mr. Jones was a young, fairly new graduate. She asked all the right questions, but his response was to chuckle at most or just not answer. It was difficult to determine what he understood and what he thought was silly. To assist in the confusion assessment, the nurse tried to explain to him why he was being asked these questions. He then answered some of them accurately, but to others he just chuckled. She was never sure just what he understood.

Despite the nurse’s best efforts, she was unable to determine Mr. Jones’ level of confusion. This underscores the need to assess for changes over time with repeated evaluations, and the importance of the observations of family and friends when they are available.

The diagnostic tests showed nothing and the decision was made by both family and physician to do nothing more and see what developed over time. He was kept in the assisted living facility with the aide coming every morning. His apartment was held until such time as the final decision was made to keep him in the assisted living area.

Ongoing assessments in every area were done: by the nurse at the home health agency, the physician, the nurses in the assisted living area, a physical therapist, and an occupational therapist. Finally a psychological evaluation was ordered. The physician wanted to make sure that every area was covered since the confusion seemed to have an abrupt onset.

Physical therapy was begun three times a week in an attempt to conserve the muscle mass and mobility he still had. Occupational therapy was begun, but discontinued due to his ability to do some of his care, even though it took him a long time. All the other assessments showed nothing else except a progressive confusion.

Even though there were no clear risk factors related to physical condition, the assessments would look for such things as evidence of nutritional problems, metabolic abnormalities, thyroid imbalance, cardiovascular disease, changes in the structure or function of the brain, and infections. At this point, Mr. Jones had been presented with psychosocial and environmental disruptions due to hospitalization and return to the assisted living center (and the need to conform his daily schedule to those of the institutions), decreased mobility and control of bodily functions, and loss of relationships with familiar staff and neighbors due to his move. Again, sometimes the best assessment is to watch for changes over time.

Over the next year, Mr. Jones’ confusion progressed to a clear dementia. He had periods of relative lucidity, but even during those times he tended to get things confused. He continued to get physical therapy until his balance became so bad that he had difficulty standing. When he tried to rise from the wheelchair, he kept his body in a “V” shape and almost toppled over on his head. When he tried to sit in the wheelchair, he bent over and then just “plopped” into the chair. At that time, the physical therapist recommended doing only exercises that he could do in his bed, mostly those that would keep his muscles from atrophy. It was soon after that when physical therapy, now mostly range of motion, was turned over to the workers on his unit. He was also moved to the dementia wing of the LTC facility since his condition required more individual attention. The long time friend who had stayed with Mr. Jones earlier continued to visit him on a regular basis. She insisted, against all other evidence, that he was getting better and was always lucid when she visited. She wanted to take him out on rides and out to dinner. Based on the recommendations of the nurses and the physical therapist, along with their own concerns about his balance and her ability to handle him by herself, the family denied her request.

That summer, Mr. Jones’ children gave him a birthday party. He smiled and seemed to enjoy the cake and ice cream that were fed to him. How much he understood no one knew. He didn’t verbally communicate except with an occasional “no”. Also during this visit, the children met with Mr. Jones’ physician to discuss care and prognosis. The medical prognosis was poor. The diagnosis was dementia that, at this point according to the physician, was consistent with the presentation of Alzheimer’s disease. Since there was no cure, and since Mr. Jones had made a living will that was explicit in his wishes, the decision was made to honor his request to have unnecessary medications be given or procedures done to prolong his life.
References and Suggested Readings

Bradas CM, Mion LC. Hospitalized patients with dementia: the dilemma of managing agitation. Geriatr Nurs, Nov-Dec 2011, 32(6) p455-8


Ho SY, Lai HL, Jeng SY, et al. The effects of researcher-composed music at mealtime on agitation in nursing home residents with dementia. Arch Psychiatr Nurs, Dec 2011, 25(6) pe49-55


## Pain Assessment in Advanced Dementia (PAINAD) Scale

<table>
<thead>
<tr>
<th>Items*</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative vocalization</td>
<td>None</td>
<td>Occasional moan or groan. Low-level speech with a negative or disapproving quality.</td>
<td>Repeated troubled calling out. Loud moaning or groaning. Crying.</td>
<td></td>
</tr>
<tr>
<td>Consolability</td>
<td>No need to console</td>
<td>Distracted or reassured by voice or touch.</td>
<td>Unable to console, distract or reassure.</td>
<td></td>
</tr>
</tbody>
</table>

*Five-item observational tool (see the description of each item below).

**Total scores range from 0 to 10 (based on a scale of 0 to 2 for five items), with a higher score indicating more severe pain (0 = “no pain” to 10 = “severe pain”).**

### Breathing

1. Normal breathing is characterized by effortless, quiet, rhythmic (smooth) respirations.
2. Occasional labored breathing is characterized by episodic bursts of harsh, difficult or wearing respirations.
3. Short period of hyperventilation is characterized by intervals of rapid, deep breaths lasting a short period of time.
4. Noisy labored breathing is characterized by negative sounding respirations on inspiration or expiration. They may be loud, gurgling, or whooeing. They appear straneous or wearing.
5. Long period of hyperventilation is characterized by an excessive rate and depth of respirations lasting a considerable time.
6. Cheyne-Stokes respirations are characterized by rhythmic waxing and waning of breathing from very deep to shallow respirations with periods of apnea (cessation of breathing).

### Negative Vocalization

1. None is characterized by speech or vocalization that has a neutral or pleasant quality.
2. Occasional moan or groan is characterized by mournful or murmuring sounds, wails or laments. Groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.
3. Low level speech with a negative or disapproving quality is characterized by muttering, mumbling, whining, grumbling, or a low volume with a complaining, sarcastic or caustic tone.
4. Repeated troubled calling out is characterized by phrases or words being used over and over in a tone that suggests anxiety, uneasiness, or distress.
5. Loud moaning or groaning is characterized by mournful or murmuring sounds, wails or laments much louder than usual volume. Loud groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.
6. Crying is characterized by an utterance of emotion accompanied by tears. There may be sobbing or quiet weeping.

### Facial expression

1. Smiling is characterized by upturned corners of the mouth, brightening of the eyes and a look of pleasure or contentment. Inexpressive refers to a neutral, at ease, relaxed, or blank look.
2. Sad is characterized by an unhappy, lonesome, sorrowful, or dejected look. There may be tears in the eyes.
3. Frightened is characterized by a look of fear, alarm or heightened anxiety. Eyes appear wide open.
Appendix A continue

4. Frown is characterized by a downward turn of the corners of the mouth. Increased facial wrinkling in the forehead and around the mouth may appear.
5. Facial grimacing is characterized by a distorted, distressed look. The brow is more wrinkled as is the area around the mouth. Eyes may be squeezed shut.

Body Language
1. Relaxed is characterized by a calm, restful, mellow appearance. The person seems to be taking it easy.
2. Tense is characterized by a strained, apprehensive or worried appearance. The jaw may be clenched (exclude any contractures).
3. Distressed pacing is characterized by activity that seems unsettled. There may be a fearful, worried, or disturbed element present. The rate may be faster or slower.
4. Fidgeting is characterized by restless movement. Squirming about or wiggling in the chair may occur. The person might be hitching a chair across the room. Repetitive touching, tugging, or rubbing body parts can also be observed.
5. Rigid is characterized by stiffening of the body. The arms &/or legs are tight and inflexible. The trunk may appear straight and unyielding (exclude any contractures).
6. Fists clenched is characterized by tightly closed hands. They may be opened and closed repeatedly or held tightly shut.
7. Knees pulled up is characterized by flexing the legs and drawing the knees up toward the chest. An overall troubled appearance (exclude any contractures).
8. Pulling or pushing away is characterized by resistiveness upon approach or to care. The person is trying to escape by yanking or wrenching him/herself free or shoving you away.
9. Striking out is characterized by hitting, kicking, grabbing, punching, biting, or other form of personal assault.

Consolability
1. No need to console is characterized by a sense of well being. The person appears content.
2. Distracted or reassured by voice or touch is characterized by a disruption in the behavior when the person is spoken to or touched. The behavior stops during the period of interaction with no indication that the person is at all distressed.
3. Unable to console, distract or reassure is characterized by the inability to soothe the person or stop a behavior with words or actions. No amount of comforting, verbal or physical, will alleviate the behavior.


Think Pink to Prevent Dementia
Not for breast cancer awareness. Instead, thinking pink could literally save your brain. Scientists have documented that daily supplements of the natural pigment astaxanthin reduces the build up of compounds called phospholipid hydroperoxides (PLOOH) which are know to accumulate abnormally in the red blood cells of people with dementia.
Astaxathin is a phytochemical known as carotenoid, a colorful, fat soluble pigment. Found in microalgae and fish that eat them—salmon, trout, crayfish, and other crustaceans. It’s what gives salmon their pink color.

Results from a new Japanese study, published in the British Journal of Nutrition, showed that PLOOH levels in erythrocytes plummeted in those taking the astaxanthin supplements—falling 40% and 50% in the 6mg and 12mg groups, respectively, compared with NO change in the placebo group.
“The present randomized, double-blind, placebo-controlled human trial warrants the testing in other models of dementia with a realistic prospect of its use as a human therapy.”

Previous research has shown that astaxanthin reduces oxidative damage causes by LDL, so it may reduce the formation of plaques in arteries.
For More Information: www.naturalnews.com

Other supplements for Brain Nutrition and Function
coconut oil-fuel source for brain energy
curcumin (turmeric)-brain and neuron health; promotes growth of new nerve fibers that bypass plaque blockages
DHA/EPA Omega 3 fatty acids-supports healthy brain function.
The Healthy Brain Initiative: A National Public Health Road Map to Maintaining Cognitive Health

• Alzheimer’s disease is now the 6th leading cause of death among American adults aged 18 and older, and the 5th leading cause of death for those aged 65 and older.

• Current estimates for the prevalence of Alzheimer’s disease range from 2.6 million to 5.2 million Americans, and the risk of developing the disease increases with age.

• If present trend continues, by 2050, as many as 16 million people may be living in the United States with Alzheimer’s disease.

• For people with Alzheimer’s disease and other dementias, aggregate payments for healthcare, long-term care, and hospice are projected to increase from $183 billion in 2011, to $1.1 trillion in 2050 (in 2011 dollars).

The growing burden on individuals, families and communities has moved Alzheimer’s disease, once considered a rare disorder, to a recognized major public health problem that severely impacts older adults and their families.

This is a call to action and a guide to assist in implementing a coordinated approach to moving cognitive health into public health practice. The road map was written to bring together multiple partners, agencies, and organizations. It was developed in a year-long process following a research meeting about “The Healthy Brain and Our Aging Population: Translating Science into Public Health Practice,” by the CDC. The priority actions are grounded in the current state of the science, emphasize primary prevention, and are focused on community and population health. The priority actions were developed and reviewed by more than 150 experts across various disciplines and organizations.

The CDC Healthy Brain Initiative Progress 2006-2011 report documents CDC’s accomplishments during the past five years focusing on priorities relevant to CDC’s public health mission in four areas: conducting surveillance, supporting policy change, advancing communication, and guiding applied prevention research. To view the entire report go to http://www.cdc.gov/aging/pdf/HBIBook_508.pdf.

Another study on preventing dementia was released by the NIH’s Alzheimer’s Prevention Panel report, “Preventing Alzheimer’s Disease and Cognitive Decline.” The panel is part of the U.S. National Institutes of Health (NIH).

The report is full of good analytical advice identifying those things that help to lower a person’s risk. To access the full report go to: http://consensus.nih.gov/2010/alzstatement.htm

Another great resource from the National Institute on Aging, is a booklet packed with information about whether and how Alzheimer’s disease can be prevented. For a family member, or the person who is facing the eventual loss of his own mind, there is almost always that small voice inside wondering, “Could we have done something to prevent this?” The free booklet can be downloaded from the internet in a PDF format, and print copies can be ordered from the internet.

Research

Thirty years ago, we knew very little about Alzheimer’s disease. Since then, scientists have made important advances. Research supported by NIA and other organizations has expanded knowledge of brain function in healthy older people, identified ways we might lessen normal age-related declines in mental function, and deepened our understanding of the disease.

Many scientists and physicians are now working together to untangle the genetic, biological, and environmental factors that, over many years, ultimately result in Alzheimer’s. This effort is bringing us closer to better managing and someday preventing this devastating disease.

In addition, scientists are making great strides in identifying potential new interventions to diagnose, slow, prevent, treat, and someday cure Alzheimer’s disease. Currently, more than 90 drugs are in clinical trials for Alzheimer’s, and more are in the pipeline awaiting Food and Drug Administration (FDA) approval to enter human testing.

Find a Trial or Study

To find out more about Alzheimer’s clinical trials, talk to your health care provider or contact NIA’s ADEAR Center at 1-800-438-4380. Or, visit the ADEAR Center clinical trials database. You also can sign up for email alerts that let you know when new clinical trials are added to the database. More information about clinical trials is available at www.ClinicalTrials.gov.

There is a variety of information on the National Institute on Aging website at http://www.nia.nih.gov/alzheimers/topics/research
Confused About Confusion?