Home health clinicians are adept at performing comprehensive histories and physical examinations. The very nature of home care requires that clinicians assess the whole person. In fact, the Outcomes Assessment Information Data Set (OASIS) demands a detailed evaluation of past and current medical status. As more people are living into their eighties and beyond, home health clinicians are finding themselves assessing patients who present with signs and symptoms that may be specific to very old persons. This article discusses age-related changes in the very old patient and attempts to help clinicians differentiate abnormal findings and make critical decisions regarding whether intervention is needed. This article assumes that the reader is well versed in basic health assessment and focuses on specifics related to the assessment of the very old patient living at home.

The most significant increase in population in recent years is among patients aged 85 years and older (Craig et al., 2001), and the increased likelihood of pathology and functional dependency associated with advanced age makes this group worthy of specific attention (Gray & Newbury, 2004). A recent study concluded that comprehensive assessments of older adults result in a significant amount of otherwise unidentified conditions that require further investigation and possible treatment (Laukkanen et al., 2003).

According to the Centers for Disease Control and Prevention (n.d.), inadequate attention is given to details of aging in the older age groups. This absence of detailed data at extreme ranges of old age limits the attention that can be devoted to the many factors that may influence healthcare and health status in those years. Indeed, the medical and nursing literature are sparse with regard to health assessments of very old patients. Because these frail older adults are choosing to remain in...
their homes for as long as possible, it is necessary that home health professionals understand how to assess very old persons (Craig et al., 2001). The home environment is integral to an accurate assessment of the abilities and level of independence of the very old adult living at home because functional capability and social interaction are optimally assessed there (Gray & Newbury, 2004).

This article addresses the health history and physical assessment of the very old adult using a cephalocaudal approach. It is assumed that the clinician is knowledgeable regarding standard history taking and physical examination skills. This article highlights important elements that are worthy of special attention when working with very old persons in the home setting. Many assessment tools are available for specific areas of health assessment that may be used to augment the comprehensive health assessment. The clinician is encouraged to explore these tools within their agency or in the professional literature.

**Background**

Adults aged 90 years and older typically do not practice many standard health maintenance behaviors, such as monitoring cholesterol in the diet, mammograms, and exercise routines (Resnick, 2000). According to the Centers for Disease Control and Prevention, heart disease causes 41% of all deaths in persons aged 85 years and older, with malignant neoplasms being the second and cerebrovascular disease being the third most likely causes of death in this population. The death rates for persons aged 85 years and older are very similar when comparing malignant neoplasm and cardiovascular disease, however. For White women in this age group, the likelihood of death from cardiovascular disease is higher than that from neoplasms. The death rate from Alzheimer’s disease also is highest in White women aged 85 years or older.

**Purposes of Assessment**

When assessing the very old adult, it is vital that the home health clinician view subjective and objective findings within the context of functional ability. It is important that the clinician distinguish normal changes associated with aging from abnormal findings. Changes in health status, whether expected as a part of the aging process or abnormal, must be evaluated for their impact on the ability of the older adult to remain in the home setting and function independently. Because of advanced age, many patients may not be good candi-
dates for undergoing procedures that might correct abnormalities. The effect of the health problem on quality of life and the ability to function in a way that is optimal and acceptable to the patient are decisive factors. The purpose of a comprehensive health assessment of the older adult is twofold: to identify health problems that might have been overlooked, such as incontinence, and to assess the risk of preventable health problems, such as falls (Gray & Newbury, 2004).

Continuously assessing the environment for threats to safety is a necessary component of home health assessment of the very old adult. Sensory impairment and changes in the ability to move, ambulate, and react quickly make the potential risks for injury a constant concern. Therefore, what the assessment findings mean with regard to what the patient can do safely within the home environment is key and may be more relevant to health status in this age group than isolated abnormal findings.

Health History
Two key questions to be asked in the review of systems of the very old patient are “What could you do before that you cannot do now?” and “Are you able to perform [name a specific] task (specific activity of daily living [ADL] or instrumental activity of daily living [IADL])?” The reader may recall that the review of systems (ROS) is a subjective recall by the patient of health problems and issues that have occurred or currently exist within each body system. ADL consists of basic living skills, such as feeding oneself, bathing, grooming, dressing, toileting, ambulating, and hygiene. IADL includes higher level activities, such as shopping, using the telephone, doing laundry, and preparing meals.

As the clinician gathers specific details throughout the ROS, such as hospitalizations, surgeries, chronic illnesses, and whether there have been complications or sequelae to these events, it is important to the ultimate plan of care that the clinician ask the patient whether these health issues continue to impact the ability to perform ADL or IADL. For example, was the patient able to prepare her own meals last year before her osteoarthritis limited the ability to use her hands? If so, how has she compensated for this, if at all? Does she receive meal service delivery, go to a communal dining hall, or only eat frozen meals that she can heat in the microwave? This information, perhaps more than the details of the illness itself, enables the clinician to assist the very old patient to achieve his or her maximal quality of life. Health history specific to each system is addressed in the appropriate section.

Skin
In addition to wrinkling, dryness, decreased turgor, delayed healing, and other relatively benign integumentary changes that normally occur with aging, it is necessary for the clinician to recognize skin conditions associated with aging that may require early detection and treatment. Dehydration is not uncommon in the elderly and is often heralded by confusion and malaise. Therefore, evaluation of hydration status should go beyond merely assessing elastic recoil of the skin. In addition to the predisposition to pressure ulcers caused by atrophic skin, very old patients are susceptible to skin tears, finger and toenail fungal infections, cellulitis, and skin cancer. Pressure ulcers are staged according to the depth and characteristics of the wound and should be prevented with adequate skin care, nutrition and hydration, and mobility. Skin tears frequently result from the use of tape on very old skin. Cellulitis is an infection and can be identified by purulent weeping drainage from the skin. It is usually associated with venous insufficiency. The clinician should become familiar with precancerous and cancerous skin lesions because he or she may be the first to identify them, and early intervention can prevent disability and death. Table 1 lists the precancerous and cancerous lesions common in very old persons.

Senses
Eyes
The ability to see clearly decreases with age, just as the incidence of eye-related diseases and blindness increases with age and chronic disease. Visual acuity (while wearing a visual correction device) equal to or worse than 20/40 constitutes visual impairment. A score of 20/200 using the Snellen chart from a distance of 20 feet constitutes severe impairment or legal blindness. Diabetic retinopathy, cataracts, macular degeneration, and glaucoma are most responsible for visual changes in the older adult (Warnat & Tabloski, 2006).

A positive history of falls and injuries should alert the clinician to the likelihood of a noncorrected visual impairment. A recent or sudden change in vision should constitute an urgent situation that requires immediate attention by an ophthalmologist or neurologist. Cerebrovascular abnormalities, such as a stroke, may be the cause of a
sudden loss or change in vision, as could a sudden onset of acute glaucoma or temporal arteritis, conditions that need emergency attention. Other indicators that an examination by an ophthalmologist is necessary include excessive discharge or tearing from the eye, red eye, headache, a new onset of flashing lights, haziness or spots, trauma to the eye, or the sensation of having something in the eye. Loss of central or peripheral vision also should be thoroughly investigated (Warnat & Tabloski, 2006).

The ability to see things that are close diminishes significantly after age 70 years. This presbyopia begins at approximately age 40. At that age the ability to accommodate or focus also decreases and continues to decline until age 60. The older adult needs more light, more time to adapt to darkness, and more time to recover from glare than do younger persons. Very old adults may have entropion or ectropion of the eyelids related to wrinkling of the skin. The former condition causes the eyelid to turn into the eye, whereas the latter condition causes the eyelid to turn outward. Either of these cases can impede vision or cause alterations in lubrication of the eye. Examine the patient’s eyes, if possible, with an ophthalmoscope. Look for the red reflex that signals adequate function of the optic nerve and an absence of a cataract. Look at the blood vessels within the eye for arteriovenous nicking that can indicate longstanding hypertension. Examine the patient’s clothing for stains and the female patient’s face for cosmetics mistakes that may indicate an inability to see well enough to apply it properly.

Strongly encourage older adult patients to visit the ophthalmologist annually or more frequently as recommended by the physician. The ophthalmologist, a medical physician who has had a residency and who is board certified in ophthalmology, is the preferred provider for the very old adult, because the optometrist does not have as comprehensive a background regarding the impact of chronic disease and aging on vision.

**Ears**

Perhaps the most significant factor in the assessment of hearing in very old patients is the risk for social isolation. History taking should include the notation of a change in participation in activities previously enjoyed by the patient or verbalizations of embarrassment when meeting new people or in a crowded environment. There may be a tendency to avoid television programs, radio, music, or the telephone. Be sure to ask about medications that might be ototoxic or a recent upper respiratory or ear infection.

Presbycusis or sensorineural hearing loss caused by exposure to noise and systemic disease is more common as one ages and is typified by a

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**Table 1. Precancerous and Cancerous Lesions**

<table>
<thead>
<tr>
<th>Lesion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acitinic keratosis</td>
<td>• Precancerous&lt;br&gt;• Light-skinned persons&lt;br&gt;• More common in males&lt;br&gt;• Rough with scaly papule or plaque or as a cutaneous horn&lt;br&gt;• Hands, nose, tips of ears, bald head, nose</td>
</tr>
<tr>
<td>Basal cell carcinoma</td>
<td>• Most common form of nonmelanoma cancer in Whites&lt;br&gt;• Fleshy papules&lt;br&gt;• Head, ears, nose, neck</td>
</tr>
<tr>
<td>Squamous cell carcinoma</td>
<td>• Most common skin cancer in dark-skinned persons; second most common cancer in Whites&lt;br&gt;• Flesh-colored or red, scaly, papules, plaques, or nodules</td>
</tr>
<tr>
<td>Melanoma</td>
<td>• May develop from a mole or be a new lesion&lt;br&gt;• Color changes to mole or may be black, brown, or multicolored&lt;br&gt;• Irregular borders&lt;br&gt;• Larger than 6 mm in diameter</td>
</tr>
</tbody>
</table>

loss of the ability to hear high-frequency sounds. Conductive hearing loss is associated with otosclerosis, tumors, infections, and cerumen that is drier and increased in older adults. Separate or combined, these forms of hearing loss can significantly impact quality of life for very old persons. The Weber and Rinne tuning fork hearing tests are especially helpful in detecting and differentiating sensorineural and conductive hearing losses. The Weber test lateralizes to the affected ear in a conductive hearing loss and to the unaffected ear in sensorineural hearing loss. The Rinne test indicates that bone conduction is greater than air conduction in a conductive hearing loss. Tinnitus, or ringing in the ears, is more common with advanced age and may or may not be accompanied by hearing loss. Tinnitus may be caused by disorders specific to loss of hearing, neurological disease, hypertension, medications, hyperthyroidism, and anemia, so patients should receive a thorough examination by an otolaryngologist (Warnat & Tabloski, 2006).

### Taste and Smell

Diminished sensations of taste and smell are associated with normal aging. The very old patient should be asked about diet, recent weight loss, and decreased ability to fight infection. Medications and poor oral hygiene and dentition can alter taste sensation, as can chronic or systemic disease. The ability to taste salty, sweet, and protein-containing foods diminishes significantly with age. Xerostomia, or dry mouth, in the older adult is most often caused by medications. Consequences of xerostomia contribute to poor nutrition: halitosis, insomnia, altered taste sensation, and difficulty speaking and swallowing (Warnat & Tabloski, 2006). Decreases in cells of sensation and neurotransmission cause age-related changes in the sense of smell. Changes in the brain and the upper airway associated with aging also may contribute to hyposmia, or decreased olfactory function. Alterations in cranial nerve I (the olfactory nerve), sinus and upper respiratory infections, and neurodegenerative diseases, a history of smoking, and current or past treatment with chemotherapy or radiation can damage the sense of smell (Warnat & Tabloski, 2006).

Examine the head and neck and assess cranial nerve function and the mucus membranes of the

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**Table 2. Comparison of Younger and Older Persons With Regard to Thyroid Disease Presentation**

<table>
<thead>
<tr>
<th>Aspect of Disease/Symptom</th>
<th>Younger Population</th>
<th>Very Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of thyroid cancer</td>
<td>Same incidence</td>
<td>Poorer prognosis</td>
</tr>
<tr>
<td>Anorexia</td>
<td>Comparatively unlikely</td>
<td>Very likely</td>
</tr>
<tr>
<td>Heat intolerance (hyperthyroidism)</td>
<td>Common</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Cold intolerance (hypothyroidism)</td>
<td>Common</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Weight loss (hyperthyroidism)</td>
<td>May not be associated with poor appetite</td>
<td>Poor appetite and weight loss are more common</td>
</tr>
<tr>
<td>Weight gain (hypothyroidism)</td>
<td>Common</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Cognitive change (hyperthyroidism)</td>
<td>Hyperkinetic</td>
<td>Apathetic thyrotoxicosis: not hyperkinetic or animated</td>
</tr>
<tr>
<td>Goiter</td>
<td>Common</td>
<td>Uncommon unless nodules; thyroid nonpalpable</td>
</tr>
<tr>
<td>Atrial fibrillation</td>
<td>Uncommon</td>
<td>Common</td>
</tr>
<tr>
<td>Muscle cramps and paresthesia (hypothyroidism)</td>
<td>May occur</td>
<td>Rare</td>
</tr>
</tbody>
</table>

mouth and nose to rule out dehydration, infection, injury, obstruction, or ulceration. Pale, boggy nasal mucosa may indicate allergies; reddened mucosa may indicate infection. Test cranial nerve I function by first evaluating the patency of each nostril. Ask the patient to close his or her eyes, occlude one nostril, and identify a scent held close to the nostril. Perform this test with the other nostril. If the patient cannot identify the scent and the nares are patent, recommend evaluation by the otolaryngologist.

**Touch**

No definitive research seems to indicate that loss of the ability to perceive touch is a normal part of aging. Instead, the perception of being touched may become more important as one ages to prevent social isolation and depression. It is important to evaluate whether the sensation of touch is intact for these reasons and to prevent injury to the very old person. Changes in the ability to perceive or distinguish heat from cold, sharp from dull, or painful touch from light touch may potentiate the risk of burns or other injuries.

**Neck**

It is important to examine the thyroid, which is often overlooked in a standard nursing examination. The very old patient is likely to have thyroid nodules, and when a goiter is present it is typically associated with nodules. Subclinical hyperthyroidism and hypothyroidism, clinical and subclinical, also tend to be more likely in older adults. Thyroid function does not change with normal aging, however. History is key to evaluating whether the very old person may have a thyroid disorder, and because the thyroid is less likely to be palpable in this patient (unless nodules are present), asking the right questions and being alert to the answers is crucial. Table 2 includes a comparison of thyroid symptoms and examination findings between elders and younger patients (Cooper, 2006).

**Oral Health**

Interestingly, there is a variety of literature with regard to the oral health and dental care of the very old patient (Andersson, 2004; Nicol, 2005). In fact, information regarding oral health of the very old patient dominates the literature available on the assessment of this population. Craig et al. (2001) stated that the stereotype of the toothless older person or person with dentures is out-of-date. People are more likely to care for their teeth and seek professional examinations because of increased awareness regarding oral health. Although natural teeth may be retained longer than in previous years, they are more likely to be neglected as one continues to age. Tooth loss and subsequent periodontal disease increase in prevalence as people age (Craig et al., 2001). The increased prevalence of chronic disease related to longer life also has negatively impacted oral health. Studies have found that frail older adults who live at home have similar functional limitations to older adults living in nursing homes with regard to oral hygiene and the need for professional dental care (Craig et al., 2001).

The clinician should use a penlight and inspect the mucosa, teeth, and gums. Look for redness, ulcerations, and bleeding, missing, or damaged teeth. If there are dentures, are they in good repair? Does the breath smell clean? The patient should be able to move the tongue all around in the mouth, stick it out, and stick it in the cheek against resistance. The midline rise of the uvula when the patient says “ah” also indicates good cranial nerve function and is a clue to the ability to swallow effectively and avoid aspiration.

**Neurological System and Cognitive Status**

In addition to the sensory component of the neurological assessment, the aging process alters cognitive and psychosocial functioning, proprioception, balance, and reflexes. Processing of data, reflexes, and the ability to perform tasks may slow down with age; however, intellect should not change with normal aging. Slow reaction time, decreased vibratory sensation, and mild ataxia should not be confused with disease. A benign essential tremor should not be confused with Parkinson’s disease. A medical disorder must be ruled out before one can assume that these changes are associated only with aging, however (Bickley, 2005). The key to a thorough neurological assessment of the very old adult is to distinguish a medical or mental disorder from normal age-related changes. It is well known that the incidence of cerebral vascular accidents, Alzheimer’s disease and other dementias, delirium, and depression increases with age. Depression, although common in elders, should not be attributed to aging, however. A thorough assessment as to the cause of the depression is warranted to resolve the problem.

A good rule of thumb when assessing the neurologic status of the very old patient is to assume...
that any acute symptom or condition requires a thorough medical evaluation immediately. For example, an abrupt change in level of consciousness or the ability to sleep may indicate delirium, which may be reversible if the cause is found quickly. The patient also may have hallucinations, which are uncommon in depression and dementia until the latter stages. Dementia is a chronic change in brain capacity that does not affect the level of consciousness. Depression, in contrast, may cause confusion or delirium but is a reversible cause of both. The patient may suffer from an acute confused state that is characterized by impaired concentration, difficulty thinking, and disorientation to time and sometimes to place. Someone with this acute disorder is rarely disoriented to self, which is also a late sign in dementia (Dains et al., 2003).

Neurological and cognitive history should include history of chronic or systemic diseases, which can predispose to confusion, such as anemia, organ failure, and cardiovascular disease. Medications and alcohol are notorious for altering mental status and coordination. Polypharmacy predisposes the very old patient to adverse medication interactions (Dains et al., 2003). A change in environment, cardiac disease, and fluid and electrolyte imbalances also may cause confusion. Key questions can be helpful in determining mental status. Table 3 lists some questions that can be used in a home health mental status assessment. A thorough neurological examination should be performed upon admission of the patient to home care and periodically thereafter during the stay on service because neurological changes can occur rapidly and surreptitiously in the very old adult.

Table 3. Mental Status Examination

<table>
<thead>
<tr>
<th>Subject</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>Determine orientation to person, place, time, and situation.</td>
</tr>
<tr>
<td>Judgment</td>
<td>Ask patient: “What would you do if you saw a fire in the trash can?” or “What would you do if you heard a small child crying out on the doorstep?”</td>
</tr>
<tr>
<td>Abstract thought</td>
<td>Ask the patient: “Can you tell me the difference between an apple or an orange?” or “Describe snow.”</td>
</tr>
<tr>
<td>Calculation</td>
<td>Ask the patient to tell you how much change would be given from a dollar if the cost of something were 40 cents.</td>
</tr>
<tr>
<td>Intellect</td>
<td>Does the patient’s thought process appear to be clear and logical?</td>
</tr>
</tbody>
</table>

Cardiac and Respiratory Systems
As noted earlier, heart disease is responsible for the greatest number of deaths in very old persons. Notably, a negative family history and healthful lifestyle choices can predispose the very old person to better cardiac function than a middle-aged person who smokes and has a family history that is positive for cardiac disease. As the cardiac system ages, the body attempts to compensate for what it can no longer do as effectively as before, which often leads to poorly perfused kidneys, fluid and electrolyte imbalances, hypertension, or orthostatic hypotension (Chase, 2006).

Changes associated with aging include hypertrophy of the myocardium with subsequent changes in left ventricular function, sclerosis and stenosis of the valves, decreased pacemaker cells, fibrosis of the atrioventricular node, and minor electrocardiogram changes. The body compensates well for these changes in most cases. It is important when assessing the older adult to recognize that they often do not present with the same symptoms as younger patients, however. The older adult is much less likely to have the classic symptoms of myocardial infarction and is more likely to experience heartburn, fatigue, and gastrointestinal symptoms. Changes in mental status and the tendency to fall may signal a cardiac problem.

The likelihood of diastolic heart failure increases with age, particularly in women. Patients may demonstrate or report fatigue, nocturia, paroxysmal nocturnal dyspnea, nocturnal cough, abdominal swelling, weight gain, and bilateral lower extremity edema. The liver may be enlarged, and respiratory crackles and S3 and S4 heart sounds may be present. Medical diagnostic tests are required to differentiate these symptoms from systolic heart failure. Arteriosclerosis and atherosclerosis can lead to hypertension, especially isolated systolic hypertension. Atrial fibrillation or
the experience of palpitations or skipped beats should be thoroughly assessed by the cardiologist because it may signal disease or myocardial infarction (Chase, 2006). Illness and stress can provoke cardiac changes that should be treated immediately.

The patient should be asked about intermittent claudication or breaks in the integrity of the skin on the lower extremities, which suggest vascular disease. The occurrence of paroxysmal nocturnal dyspnea, nocturia, chest pain, syncope, or palpitations may indicate congestive heart failure, dysrhythmias, or coronary artery disease. The number of pillows needed to sleep comfortably can indicate pulmonary difficulty, and fatigue is an often missed but clinically significant symptom of cardiac or pulmonary disease. The assessment of medications can assist in identifying illnesses the patient has forgotten about, such as hypertension or congestive heart failure, and aid in determining the cause of cardiac or pulmonary symptoms. Physical examination should include heart sounds, the presence of dyspnea on exertion or with speech, pallor and overall skin color, capillary refill, cough, adventitious respiratory sounds, and edema. Check for clubbing of finger- or toenails and the adequacy of peripheral pulses. An S4 heart sound may be normal in the older adult or it may signal heart disease. An aortic systolic murmur is common in older adults, especially in persons older than age 85. There is increased likelihood of systolic murmur associated with mitral valve regurgitation as one ages. The physician should explore these murmurs. A systolic bruit may be heard in the carotid arteries, which suggests a possible arterial obstruction (Bickley, 2005).

Decreased thoracic compliance and stiffening lung tissue affect lung volume and the ability to fight off infections, particularly pneumonia. Although asthma, lung cancer, tuberculosis, and chronic obstructive pulmonary disease may increase in incidence with age, the increase is typically associated with a history of smoking, exposure to triggers in the environment, or an aging immune system. The likelihood of pneumonia and respiratory infections increases in the very old patient. Lower respiratory infections, in particular, require early identification and aggressive treatment and follow-up. It is important to remember that elders do not typically exhibit fever but may become fatigued, confused, and anorexic when ill. A thorough and properly performed respiratory assessment should be done on every visit to the very old patient, and any new adventitious sounds should be reported to the physician. Cyanosis of the skin, diminished breath sounds or crackles, dull notes on percussion, and positive egophony or bronchophony may indicate a serious lower respiratory infection (Chase, 2006).

Abdomen
Polypharmacy and the medications used by the elderly generally can injure the gastrointestinal and genitourINARY tracts. A multitude of changes also occur in the gastrointestinal and genitourinary systems as one ages.

Gastrointestinal System
In addition to the changes already discussed involving sensation and oral health, motility of the esophagus and intestines decreases. Weakening of the esophageal sphincter predisposes to gastroesophageal reflux disease and dysphagia. The likelihood of gastrointestinal bleeding from the use of nonsteroidal anti-inflammatories and acquiring an ulcer from Helicobacter pylori increases because the mucosal lining of the gastrointestinal tract has decreased resistance. Very old adults may not have pain associated with an ulcer; if it does occur, it may be vague and diffuse. Blood loss and anemia may be the only clues to a peptic ulcer in an elder. Dyspepsia is another symptom, but it may be attributed to normal aging (Tabloski, 2006).

The size of the pancreas and liver decreases, whereas the incidence of bile stones, fibrosis of the liver, and pernicious anemia from insufficient intrinsic factors increases. The likelihood of gallstones increases, and the patient may complain of right upper quadrant pain, flatus, abdominal distention, nausea, and vomiting. Diverticulitis presents in a similar fashion but with left lower quadrant pain. Acute pancreatitis is also characterized by these symptoms, but pain tends to be epigastric. The very old patient may or may not have fever with any of these diseases.

Constipation, the subsequent and chronic use of laxatives, and fecal incontinence are likely to occur in the older adult. Constipation is related to decreased gastric motility and a low-fiber diet accompanied by inadequate fluid intake. Fecal incontinence may occur as a result of depression, cognitive impairment, neurological deficit, immobility, and incompetent internal and/or external anal sphincters. Causes also may include medications that cause diarrhea, functional inability to
reach the toilet, or infection (Tabloski, 2006). It is important to ask the patient not only when the last bowel movement occurred but also what that bowel movement was like. The patient may have an impaction if he or she has been passing small, hard stools or if there is leakage of diarrhea from the rectum without a recent normal bowel movement. Assess the abdomen thoroughly for bowel sounds and for stool in the intestine that can be palpated through the abdominal wall. A positive Murphy’s sign may indicate cholecystitis. Rebound tenderness may indicate peritonitis. Diminished bowel sounds may indicate impaction or obstruction, which requires immediate intervention. Also assess for abdominal bruits, which are turbulent sounds on auscultation that can signal an aneurysm. A digital rectal exam with a lubricated gloved finger can detect a mass of stool in the rectum, external or internal hemorrhoids, or rectal fissures, which can cause pain and bleeding with defeation.

Genitourinary System
The kidney atrophies and scleroses with age, and blood flow to the kidney decreases. The kidney of a 90-year-old person is approximately 30% smaller in size and weight, with approximately 30% fewer glomeruli than the kidney of a 30-year-old person. Consequently, the glomerular filtration rate is significantly decreased (Zurakowski, 2006). Changes in the kidney become particularly significant in the very old adult, with excretion of glucose, potassium, and acid significantly decreased. Serum creatinine and blood urea nitrogen increase but may do so without damage to the system. The older adult is more likely to urinate at night than the younger adult because more urine is created during nighttime hours than during the day. The alteration in the excretion of fluids, the decreased sensation of thirst, medications, toxins, and changes in the urine predispose to dehydration, drug toxicity, and fluid overload. The very old adult also may have comorbidities, such as hypertension and diabetes mellitus that complicate renal function. Thus, the very old adult is susceptible to acute and chronic renal failure.

Urinary tract infection (UTI) is common in older adults because of changes in the urinary tract associated with aging. These patients are unlikely to report the typical symptoms of a UTI that a younger person experiences, however, such as frequency, urgency, pain, and fever. Fever or pain may be replaced with confusion or a feeling of malaise. The older adult is often accustomed to experiencing urgency and frequency, but if the urgency to urinate has increased or the patient is voiding much more frequently than is normal for him or her, then a UTI should be considered. Urinary incontinence and urinary retention are not considered normal regardless of age. A voiding diary and a description of the characteristics of the urinary pattern are useful tools for distinguishing the type of urinary incontinence or the cause of retention experienced by the patient.

Benign prostatic hypertrophy affects 90% of men over the age of 80 (National Institute of Diabetes and Digestive and Kidney Diseases, 2001). A man will describe difficulty starting a urine stream, dribbling urine, and a sensation of incomplete emptying or retention. Urgency (including urge incontinence) and frequency (including nocturia) also may be experienced, especially as the prostate increases in size. A digital rectal exam can detect an enlarged prostate. The clinician should have a doctor’s order to perform this pro-

<table>
<thead>
<tr>
<th>Type of Incontinence</th>
<th>Symptoms</th>
</tr>
</thead>
</table>
| Urge                 | • Strong urge to void  
|                      | • Approximately 90% of cases have no known cause |
| Stress               | • Leakage of fluid when person coughs, laughs, sneezes, rises to a standing position |
| Mixed                | • Both urge and stress incontinence |
| Overflow             | • Dribbling urine  
|                      | • Often accompanied by retention |
| Functional           | • Inability to reach toilet in time to void in toilet |
| Reflex               | • No urge to void or awareness of the need to void |

Table 4. Types of Incontinence and Symptoms

procedure, however. Table 4 includes a list of the common types of incontinence and their symptomatology.

It is appropriate to mention atrophic vaginitis and erectile dysfunction in this discussion of the assessment of the very old patient, because home care patients may participate in sexual activity. Both of these conditions become more common with age. The clinician should ask about sexual intimacy and sexual function during the health history of the genitourinary system or once the patient seems to be comfortable with the history-taking process and is more likely to reveal this information. It is not unlikely for the patient to raise the issue early in the visit, however, because it is a concern of people of all ages and is not necessarily addressed as often as it should be with the older adult.

Functional Ability
Interestingly, older women are more likely than men to report limitations in function. One study found that the differences between genders with regard to physical functioning widened as age increased (Murtagh & Hubert, 2004). Women were more likely to report the use of assistance from another person or from an assistive device. The investigators found that disorders of musculoskeletal, neurodegenerative, or psychological origin were more common in women, as was medication use. These factors validated reports of limitations among women, including overall disability and limitations with ADL and IADL. Health problems that are more highly associated with women, such as osteoporosis, fractures, and chronic back pain, were more closely correlated with disability in the study than was osteoarthritis, despite the higher prevalence of osteoarthritis and joint pain in women (Murtagh & Hubert, 2004).

Several functional assessment tools can be used with the very old adult. However, perhaps the best way to assess the ability to perform ADL in the home setting is to ask, “Do you...?” instead of “Can you...?” (Jagger et al., 2001). Asking whether the patient actually performs the activity and, if possible, watching the patient perform the activity are more reliable indicators of independent function than asking if the patient can perform the activity. A study conducted by Jagger et al. found that bathing was the first ADL that posed problems for older adults. Mobility, toileting, dressing, transfer from bed, transfer from chair, and feeding followed, respectively. This study differentiated ability from disability by determining whether the patient was independent of aids and help but still had difficulty, however. Another definition of disability has been used in some studies with different outcomes: difficulty in performing ADL but with the use of aids or adaptive devices. The definition of disability is important when assessing the very old person because the result goes directly to the questions of quality of life and the patient’s ability to remain within the home setting. If the person is able to perform ADL with the use of an assistive device or adaptation, he or she may be independent enough to remain in the home.

Conclusions and Recommendations
It is important to recognize that very old persons are a growing population and the years of 85 and older are associated with health issues that may go unrecognized if the home health clinician does not perform a thorough health history and physical examination specific to the very old patient. The home environment must be included in the assessment of the very old patient because functional capacity and independence directly impact the ability to stay within the home and the need for additional services (Gray & Newbury, 2004).

Once the history and physical are complete, it is necessary that the data be used in an interdisciplinary way to improve patient outcomes, especially with regard to psychosocial and functional impairments (Blakeman, et al., 2001). The home health agency may want to design a health assessment form and care plan that are specific to the very old home health patient. Home health clinicians may require a refresher mini course in physical examination because it is possible that many clinicians had a health assessment class many years ago and have only honed the skills for physical examination that they use most often, such as cardiac and respiratory assessment. Accurate data can only emerge from an accurate history and physical examination. Because these data impact not only the patient’s outcomes but also agency outcomes and reimbursement, it behooves the agency to evaluate assessment skills on a regular basis.

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REFERENCES

Erratum
In the article by Melinda Huffman in the April 2007 issue of *Home Healthcare Nurse* (pp. 271-274), the alignment of Figure 1 was incorrect. The correct figure appears below and in the online version of the article. HHN regrets the error.

<table>
<thead>
<tr>
<th>Patient Response</th>
<th>Traditional vs Health Coaching</th>
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<tr>
<td>“There’s no way I can give myself a shot.”</td>
<td>No problem, we’ll take care of this for you.</td>
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<tr>
<td>“I just can’t dress this wound 2 times a day.”</td>
<td>It’s tough at first, but you’ll do just fine in time.</td>
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