32 Assessing Frail Elderly Clients

Challenges and Approaches

Common physical findings in elderly clients have been identified throughout the preceding body system chapters. It is not, however, the physiologic changes of aging alone that warrant a special approach to assessment of the elderly client. Many older adults are healthy, active, and independent despite these normal physical changes in their bodies. It is, rather, the tendency that advancing age has to place a person at greater risk for chronic illness and disability that has led to using the term ***frail elderly.*** The term describes the vulnerability of the "old-old" (generally mid-eighties, nineties, and centenarians) to be in poorer health, to have more chronic disabilities, and to function less independently. Nearly 20% of those 64 to 74 years old have limitations on activity because of chronic conditions. Disability takes a much heavier toll on the very old, with nearly 75% of those over age 80 reporting at least one disability. Over one-half have one or more severe disabilities and 35% report needing assistance as a result of disability (Administration on Aging, 2003). Loss of physiological reserve is the main reason that older persons are more likely to be sick and disabled. The average 85-year-old is living with almost 50% less cellular function in organ systems throughout his body. On a daily basis, he may have no ill effects from this loss of reserve. However, if this 85-year-old is living with a chronic problem such as diabetes and then becomes suddenly sick with what is usually a very treatable problem in a younger person (such as a bladder infection), this loss of reserve can have dramatic consequences.

Assessment Modifications for the Frail Elderly

When the physiology of advanced age is combined with comorbidity, assessment is complicated. In fact, the signs and symptoms of illness often present differently in the oldest-old. Adverse events (AE) or adverse drug effects (ADE) in this population often include falls, confusion, incontinence, generalized weakness, and lethargy. These complications are also referred to as geriatric syndromes and are more common signs and symptoms of illness in the very old than are the more common manifestations of illness in younger adults such as fever, pain, and abnormal lab values. The population at greatest risk for developing atypical presentation is the very elderly who also have cognitive or functional impairment, have multiple co-morbidities, and are being treated with multiple medications (Micelli, 2007).

Knowing the older person's usual daily pattern and functional level is the best baseline against which to compare assessment data. For example, new onset incontinence for the 92-year-old resident of an assisted living facility who still drives her own car should not be viewed as a normal consequence of aging. The incontinence could be the result of an infection or worsening heart failure. A more subtle presentation of these same problems could be signaled by complete incontinence in a 92-year-old man with severe cognitive impairment who until very recently had only occasional incontinence. Clearly, the key to recognizing pathology and illness in the very old is in knowing the person's baseline functional status and recognizing a deviation from it.

COLLECTING SUBJECTIVE DATA: THE NURSING HEALTH HISTORY

Adapting Interview Techniques

In today's youth-oriented culture, it is not uncommon to think of physical frailty as a serious problem. If older people experience some degree of declining health, fear of increasing dependency may be paramount in their minds. Many elderly clients approach clinicians with hesitation because they have known friends and family members who have become sicker or died as a result of intervention. They may also be reluctant to admit health problems because they fear being admitted to a hospital or nursing home. It is essential that the nurse adapt routine interviewing techniques from the perspective that, regardless of the extent of disability and illness being experienced by the older adult, there is always something positive that the older person is doing. Otherwise, the client couldn't have lived to advanced age! For example, it is important to look for good nutritional habits as well as to identify which foods are to be avoided or to focus on everyday activities that keep an older person ambulatory just as it is important to identify risk factors for falls. The nurse needs to acknowledge the older client's accomplishments that have made life meaningful.

Determining Functional Status

Functional assessment is an evaluation of the person's ability to carry out the basic self-care activities of daily living (ADLs) such as bathing, eating, grooming, and toileting. There are many tools available for measuring ability to perform ADLs. One commonly used tool is the Katz Activities of Daily Living (Assessment Tool 32-1), which includes those activities necessary for well-being as an individual in a society. These activities, known as Instrumental Activities of Daily Living (Assessment Tool 32-2), focus primarily on household chores (such as cooking, cleaning, laundry), mobility-related activities (such as shopping and transportation), and cognitive abilities (such as money management, using the telephone, and making decisions affecting basic safety and social needs). Functional ability is determined by the dynamic interplay of the frail elder's physiologic status, emotional and cognitive statuses, and the physical, interpersonal, and social environments. A major purpose of assessing the frail elderly person is to correctly identify and describe the client's ability to perform activities of daily living.

Atypical Presentations of Acute Illness

Symptoms of disease and disability in the very old frequently manifest as incontinence, falls, weakness and lethargy, confusion, changes in sleep or level of alertness, and loss of appetite or weight loss. Not only do these syndromes describe the common and most recognizable ways in which disease often presents itself in the frail elderly, they also describe the consequences of physiologic stress. For example, incontinence and confusion are often signs of infection in the frail elderly person. The incontinence and confusion can easily lead to a fall when the older person attempts to walk to the bathroom, but on the way experiences lightheadedness caused by dehydration and postural hypotension. The fall may result in a hip fracture and immobility, which may lead to a pressure ulcer, urinary tract infection, and delirium. This type of cascade of unfortunate events often leads a frail but independent elder living at home to dependence and disability.

Risk screening tools, such as SPICES (see Display 32-1), may be used to monitor the population of high-risk frail aged for some of the more common nonspecific indicators of disease. Because the oldest-old have the highest prevalence of

ASSESSMENT TOOL 32-1 Katz Activities of Daily Living

Activities Points (1 or 0)	Independence: (1 Point) NO supervision, direction or personal assistance	Dependence: (0 Points) WITH supervision, direction, personal assistance or total care
Bathing Points: _____	(1 POINT) Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area or disabled extremity.	(0 POINTS) Needs help with bathing more than one part of the body getting in or out of the tub or shower. Requires total bathing.
Dressing Points: _____	(1 POINT) Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	(0 POINTS) Needs help with dressing self or needs to be completely dressed.
Toileting Points: _____	(1 POINT) Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	(0 POINTS) Needs help transferring to the toilet, cleaning self or uses bedpan or commode.
Transferring Points: _____	(1 POINT) Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable.	(0 POINTS) Needs help in moving from bed to chair or requires a complete transfer.
Continence Points: _____	(1 POINT) Exercises complete self control over urination and defecation.	(0 POINTS) Is partially or totally incontinent of bowel or bladder.
Feeding Points: _____	(1 POINT) Gets food from plate into mouth without help. Preparation of food may be done by another person.	(0 POINTS) Needs partial or total help with feeding or requires parenteral feeding.
Total Points = _____	*6 = High (patient independent)*	*0 = Low (patient very dependent)*

Adapted with permission from Gerontological Society of America. Katz, S., Down, T. D., Cash, H. R., & Grotz, R. C. (1970). Progress in the development of the index of ADL. *Gerontologist, 10,* 20–30.

ASSESSMENT TOOL 32-2 Lawton Scale for Instrumental Activities of Daily Living (IADL)

Instructions: Start by asking the patient to describe her/his functioning in each category; then complement the description with specific questions as needed.

Ability to Telephone
1. Operates telephone on own initiative: looks up and dials numbers, etc.
2. Answers telephone and dials a few well-known numbers.
3. Answers telephone but does not dial.
4. Does not use telephone at all.

Shopping
1. Takes care of all shopping needs independently.
2. Shops independently for small purchases.
3. Needs to be accompanied on any shopping trip.
4. Completely unable to shop.

Food Preparation
1. Plans, prepares, and serves adequate meals independently.
2. Prepares adequate meals if supplied with ingredients.
3. Heats and serves prepared meals, or prepares meals but does not maintain adequate diet.
4. Needs to have meals prepared and served.

Housekeeping
1. Maintains house alone or with occasional assistance (e.g., heavy work done by domestic help).
2. Performs light daily tasks such as dishwashing and bedmaking.
3. Performs light daily tasks but cannot maintain acceptable level of cleanliness.
4. Needs help with all home maintenance tasks.
5. Does not participate in any housekeeping tasks.

Laundry
1. Does personal laundry completely.
2. Launders small items; rinses socks, stockings, and so on.
3. All laundry must be done by others.

Mode of Transportation
1. Travels independently on public transportation, or drives own car.
2. Arranges own travel via taxi, but does not otherwise use public transportation.
3. Travels on public transportation when assisted or accompanied by another.
4. Travel is limited to taxi, automobile, or ambulette, with assistance.
5. Does not travel at all.

Responsibility for Own Medication
1. Is responsible for taking medication in correct dosages at correct time.
2. Takes responsibility if medication is prepared in advance, in separated dosages.
3. Is not capable of dispensing own medication.

Ability to Handle Finances
1. Manages financial matters independently (budgets, writes checks, pays rent and bills, goes to bank); collects and keeps track of income.
2. Manages day-to-day purchases but needs help with banking, major purchases, controlled spending, and so on.
3. Incapable of handling money.

Scoring: Circle one number for each domain. Total the numbers circled. Total score can range from 8–28. The lower the score, the more independence. Scores are only good for individual patients. Useful to see score comparison over time.

M. P. Lawton. (1971). Functional assessment of elderly people. *Journal of the American Geriatrics Society,* 9(6), 465–481. Reprinted by permission of Blackwell Science, Inc.

DISPLAY 32-1 Common Problems in the Elderly Warranting Further Investigation as Identified by the Acronym "SPICES"

- **S**kin impairment
- **P**oor nutrition
- **I**ncontinence
- **C**ognitive impairment
- **E**vidence of falls or functional decline
- **S**leep disturbances (Francis, Fletcher & Simon, 1998)

chronic illness and comorbidity, one disease may mask the symptoms of another. For example, the fatigue and dyspnea of severe congestive heart failure may mask the anemia caused by a duodenal ulcer. A severe illness is more likely to affect multiple organ systems as the body's reserves and ability to respond to physiologic stress are impaired. For instance, pneumonia will typically precipitate congestive heart failure.

To complicate the assessment process even more, medications often result in significant adverse effects rather than improving the symptoms in the frail elderly. Often a drug is used to treat the adverse drug effect and the problems spiral into a nearly indecipherable multiplicity of symptoms. The adapted Beers' Criteria (HCFA Guidelines for Potentially Inappropriate Medication in the Elderly) identifies medications noted by experts to have potential risks that outweigh potential benefits of the drug for persons older than 65 years of age, regardless of their level of frailty (Molony, 2002).

Thus, collection of subjective data from the frail elderly must take into consideration the more common ways in which diseases and disorders present in elderly people (Amella, 2004). Information regarding falls, weakness, incontinence, confusion, sleep difficulties, and loss of appetite is essential. Finally, the client's family social and economic resources and/or environment must be assessed to determine any relationship to the client's symptoms. For example, isolation, physical barriers, or neglect may precipitate physiologic and functional decline.

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BIOGRAPHIC DATA

Cultural norms were not always as informal as they are today. Many of the elderly grew up when older people were not addressed by their first names except by those very close to them. One should always begin the interview by addressing an older person as "Mr.," "Mrs.," or "Ms.," or with an appropriate title such as "Reverend" or "Doctor." In general, younger people today are more likely to feel comfortable sharing personal information with regard to finances, personal likes and dislikes, and feelings than are older adults. Many older people are also aware of their vulnerability with regard to scams and fraud. Thus, they are reluctant (for good reasons) to give out personal information. An important maxim of geriatric care is: "Collect no more information than is essential for optimal care." If the individual is cognitively impaired, a trusted caregiver may need to be involved in the history. Being sensitive to the older person's need to be respected and acknowledged is essential.

HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS

Question	Rationale
Mental Status Have you noticed any changes in your ability to concentrate or think clearly enough to keep up with your daily activities? If so, about when did this begin and describe what you have noticed?	A common symptom of acute illness in the frail elderly is a sudden deterioration of cognition. The aging brain is more easily affected by pathology because it is especially vulnerable to deficits in oxygenation and nutrition. Changes in cognition that have occurred suddenly and recently (e.g. past few days or within past week or two) must ALWAYS be assumed to be the result of a disease or illness and must be thoroughly assessed and appropriately referred for treatment.
➤ ***Clinical Tip*** • *If the older person is too lethargic, agitated, or medically unstable to respond, family or professional caregivers should be queried with regard to how current cognition and behavior compares with the client's prior level of function. If the client appears to be excessively distracted during the interview or has revealed multiple inconsistencies or the inability to describe daily activities or to answer specific questions, it is generally advisable to speak with a family member/caregiver when the client is not present about noted changes in cognition or behavior.*	Although intellectual capacity does not diminish with advancing age, the brain as it ages does become more susceptible to injury. When such a change in cognition develops over a short period of time and is characterized by a change in level of alertness, ranging from extreme lethargy to agitation, it is called delirium. (See Display 32-2.) Delirious people may continuously shift attention from one stimulus to another. Their speech is often difficult to understand because they shift abruptly and inappropriately from one thought to another. It is usually difficult to hold a conversation with a delirious person. Disorientation is more often to time and place rather than to self and delusions and hallucinations may occur.
The Saint Louis University Mental Status (SLUMS) and the Confusion Assessment Method (CAM) are valid Mental Status Examination Tools (Assessment Tool 6-1) for identifying those at risk for developing an acute change in mental status or monitoring progress of mental status.	A common symptom of acute illness in the frail elderly is a sudden deterioration of cognition. The aging brain is more easily affected by pathology because it is especially vulnerable to deficits in oxygenation and nutrition. If assaults to the brain are not reversed quickly enough, irreversible brain tissue damage can ensue. Thus, what was incorrectly diagnosed initially as dementia can actually become that with lack of proper assessment and treatment. Changes in cognition that have occurred suddenly and recently (e.g. past few days or within past week or two) must ALWAYS be

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HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	Rationale
	assumed to be the result of a disease or illness and must be thoroughly assessed and appropriately referred for treatment.
Do you believe that you have more problems with memory than most? Do you believe that life is empty? Have you recently had to drop many of your activities and interests?	Depression is not more common in old age. However, symptoms of depression in the elderly more commonly manifest as changes in cognition (memory deficits, paranoia, and agitation) and physical symptoms (muscle aches, joint pains, gastrointestinal disturbances, headache, and weight loss) than they do in younger adults. Depression in the elderly has even been called "pseudodementia." It can also be a symptom of certain physical disorders, especially endocrine disorders such as hypothyroidism, pancreatic and adrenal disorders, and cancers of all types. Certain antihypertensives, antianxiety drugs, and hormones may also precipitate depressive symptoms.
Open-ended questions usually yield the most beneficial information when screening for depression in the elderly. However, when time is limited or whenever warning signs are noted, a screening instrument such as the short version of the Geriatric Depression Scale (Yesavage & Brink, 1983) should be used for further validation. (See Self Assessment 32-1.)	When more than five questions are answered as indicated on the tool, a high probability of depressive symptoms exists. The purpose of a screening tool is not to confirm a diagnosis but rather to point out the need for a more in-depth assessment or referral.
Are you concerned about changes in your memory? Are you bothered by anger or inability to control your frustrations with day-by-day living?	By age 85, nearly half the population will be exhibiting signs of the most common type of dementia, Alzheimer's disease (AD). Dementia is a broad diagnostic category that includes multiple physical disorders characterized by alterations in memory, abstract thinking, judgment, and perception. Unlike delirium, dementias are characterized by gradual decline in cognitive function to the extent that daily functions are affected (ADLs or IADLs) usually over months or years. Although memory impairment is generally characterized as the key diagnostic criteria for AD, the earliest signs may more often be behavioral and characterized by irritability, aggression or angry outbursts, suspiciousness, or even withdrawal.

continued

COLDSPA Example Adapted to Frail Elderly

Use the **COLDSPA** mnemonic as a guideline to collect needed information for each symptom the client shares. In addition, the following questions help elicit important information.

Mnemonic	*Question*
Character	Describe the sign or symptom. How does it feel, look, sound, smell, and so forth?
Onset	When did it begin? Did the onset occur shortly after taking a new medication? Is the onset associated with a certain activity or time of day?
Location	Where is it? Does it radiate?
Duration	How long does it last? Does it recur?
Severity	How bad is it? Does it affect functional ability to perform ADLs or instrumental activities of daily life (IADLS)?
Pattern	What makes it better? What makes it worse? Does the pattern fit disease geriatric syndrome?
Associated factors/How it **A**ffects the client	What other symptoms occur with it? What other data would be useful in solving the answer to the presenting problem?

HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	Rationale
Falls	
Do you ever need to grab onto something because you feel like you're going to stumble or fall? Have you ever used anything to steady yourself when you're walking?	Risk factor assessment for falls is important because the fall can be a symptom of another problem needing attention. A fall can be the symptom of a treatable medical condition, the result of an adverse response to a medication, or a problem associated with chronic illness and frailty. The nurse must be sensitive to an older person's fears and anxieties. Loved ones are also concerned with the safety threat imposed by falls and the possible guilt associated with not being available at the time that a fall occurs. Although the fear of falling is a realistic and common fear, the need to stay active both before and after a fall is even greater. Falling is not a normal part of aging. Limitations in activity are not the appropriate response to a positive fall assessment. The risk of falling can be minimized by a comprehensive assessment followed by appropriate medical, exercise, and adaptive environmental interventions.
Have you had any recent falls? What were you doing? Where did it occur? What other kinds of feelings or symptoms did you have when you fell (i.e. headache, confusion)? Do you ever feel lightheaded or dizzy when you get up from a chair or a bed?	The history should determine the circumstances surrounding any previous falls of the past 3 months to determine if a pattern exists. The pattern and circumstances surrounding the fall can provide valuable clues with regard to the physical, medication, or environmental basis for the fall. For example, falls occurring with standing up and associated with dizziness may point to orthostatic hypotension and an adverse reaction to medication. If the client reports tripping or slipping in the absence of stiffness

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DISPLAY 32-2 Causes of Delirium and Dementia

Various disease states, some diagnosed and some undetected, may contribute to delirium or dementia or both in frail elderly clients.

Disorders Contributing to Delirium

- Brain tumors
- Dehydration
- Toxic drug levels or interactions
- Infections
- Electrolyte imbalances
- Liver or kidney disease
- Hypoxia secondary to respiratory or circulatory disorders
- Hyperthermia or hypothermia
- Metabolic disorders (especially thyroid and blood glucose abnormalities)
- Nutritional deficiencies (especially folate, vitamin B_{12}, and iron deficiencies)

Disorders Contributing to Dementia

Infections

- Creutzfeldt-Jakob disease
- Human immunodeficiency virus (HIV)
- Syphilis

Degenerative Neurologic Disorders

- Alzheimer's disease
- Pick's disease
- Huntington's disease
- Parkinson's disease

Vascular Disorders

- Ministrokes
- Cardiovascular accidents (CVA)

Structural and Traumatic Disorders

- Normal pressure hydrocephalus
- Subdural hematoma
- Head injury
- Tumors

Adapted from Johnson, B. P. 2005. The elderly. In N. C. Frisch & L. E. Frisch (Eds). *Psychiatric mental health nursing.* Albany, NY: Delmar Publishers.

HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	Rationale
	or weakness and any symptoms, an environmental basis such as shoes or floors with a slick surface or loose carpeting or rugs may be suspected.
Do you have any difficulty when getting up out of bed or from sitting in a chair? Does stiffness and soreness inhibit your ability to move about? Do you ever feel like your legs are going to "give way" or that they are weak? If so, describe. What is your usual daily pattern of activity? Exercise routine?	Clients may benefit from exercises to improve flexibility, fitness, and endurance and to delay functional decline. Exercises can benefit even those who have led sedentary lifestyles or who already have some functional deficits.
Do you have any discomfort in your legs with activity? Would you describe the discomfort as pain, cramping, aching, fatigue, or weakness in the calf? Do your hips, thighs, and/or buttocks hurt with ambulation? If so, how far can you walk before the pain occurs? Does the pain go away with rest?	These symptoms are commonly associated with intermittent claudication, a circulatory disorder affecting the peripheral blood vessels of the leg. Symptoms are usually bilateral and progressive.

continued

SELF ASSESSMENT 32-1 Assessing Geriatric Depression

Choose the best answer for how you felt over the past week

1. Are you basically satisfied with your life?	yes/no
2. Have you dropped many of your activities and interests?	yes/no
3. Do you feel that your life is empty?	yes/no
4. Do you often get bored?	yes/no
5. Are you hopeful about the future?	yes/no
6. Are you bothered by thoughts you can't get out of your head?	yes/no
7. Are you in good spirits most of the time?	yes/no
8. Are you afraid that something bad is going to happen to you?	yes/no
9. Do you feel happy most of the time?	yes/no
10. Do you often feel helpless?	yes/no
11. Do you often get restless and fidgety?	yes/no
12. Do you prefer to stay at home, rather than going out and doing new things?	yes/no
13. Do you frequently worry about the future?	yes/no
14. Do you feel you have more problems with memory than most?	yes/no
15. Do you think it is wonderful to be alive now?	yes/no
16. Do you often feel downhearted and blue?	yes/no
17. Do you feel pretty worthless the way you are now?	yes/no
18. Do you worry a lot about the past?	yes/no
19. Do you find life very exciting?	yes/no
20. Is it hard for you to get started on new projects?	yes/no
21. Do you feel full of energy?	yes/no
22. Do you feel that your situation is hopeless?	yes/no
23. Do you think that most people are better off than you are?	yes/no
24. Do you frequently get upset over little things?	yes/no
25. Do you frequently feel like crying?	yes/no
26. Do you have trouble concentrating?	yes/no
27. Do you enjoy getting up in the morning?	yes/no
28. Do you prefer to avoid social gatherings?	yes/no
29. Is it easy for you to make decisions?	yes/no
30. Is your mind as clear as it used to be?	yes/no

For scoring, reverse the answers for Nos. 1, 5, 7, 9, 15, 19, 21, 27, 29, and 30, then count the total number of "yes" answers.

Scoring: 0–10 = within normal range; 11 or higher = possible indication of depression.

Brink, T. A., et al. (1982). Screening tests for geriatric depression. *Clinical Gerontologist,* 1, 37–44.

HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	Rationale
Weakness: Fatigue and Dyspnea How has your energy level changed in the last few days or weeks? How does it affect your daily activities such as cooking, household chores, or activities outside the home (e.g. shopping, social, church)? When is your energy at its lowest level? When does it seem to be at its best?	Self-reported fatigue and weakness, as well as a decline in physical activity and appetite, are common elements of frailty syndrome. The progression of the weakness and how it relates to ADLs and IADLs provides clues as to possible etiologies. For example, a sudden and severe fatigue that affects self-care activities such as bathing and dressing may be more likely to have an acute cause such as infection, myocardial infarction, or a dysrhythmia such as atrial fibrillation. Diminishing energy over months or weeks is more likely to indicate a more insidious pathology such as a slow gastrointestinal bleed, arthritis and pain, or even depression.
➤ ***Clinical Tip*** • *When an older person complains of weakness and fatigue, anemia must always be ruled out. Anemia is always a symptom of an underlying pathology. A few common causes in the elderly are gastrointestinal bleeding and nutritional deficiencies (especially B_{12}, folate, and iron). Anticoagulants and NSAIDS increase the risk of GI bleeding.*	
Weakness: Nutrition and Hydration Do you ever experience shortness of breath? If so, is it related to activity? (Specific questions about endurance, stair climbing, or activities of daily living are necessary for quantifying the extent of the problem.) Does it occur at rest or when lying down? How many pillows do you use? Any pain with breathing?	Dyspnea is a frequently reported symptom associated with common illnesses among elderly clients, including COPD, asthma, lung cancer, and heart failure. Older adults with chronic respiratory or cardiac problems who experience some constant degree of dyspnea are unlikely to seek care or note dyspnea unless there is a change in functional capabilities.
Do you seem to be breathing faster? Sweating? Do you experience anorexia (loss of appetite) or fatigue?	In the frail elder, an increase in respirations, sweating, or overall malaise may be the only indication of a respiratory problem (Kennedy-Malone et al., 2000).
Do you have a recurrent cough? Does it ever have blood in it? Do you use tobacco or have you in the past?	A recurrent cough, fatigue, weight loss, shortness of breath, and productive cough (sometimes blood-tinged) are hallmarks of lung cancer (second most common type of cancer in men over age 75, with incidence rising in women).
Have you experienced any change in your appetite in the past 6 months? If yes, when did you first notice a decline in appetite? Did you have any other health problem at about this same time? Did you start taking any new medication at this time?	A loss of appetite is a nearly universal cofactor of both physical and mental diseases in the elderly.
Can you describe what you eat in an average day? (Compile a 24-hour food and fluid diary noting food preferences and cravings, vitamin and food supplement intake, and dietary restrictions (e.g., salt). On a day when your appetite is less, how would your eating habits change? A screening tool (Self Assessment 32-2) may be helpful in identifying those at risk for being malnourished.	A sudden loss of appetite is most often a symptom of disease or an adverse medication effect. Because the aged body is housing a "smaller engine," the minimum caloric intake does decrease in old age. Even healthy older adults consume only an estimated 1,200 to 1,600 calories per day. This has led to the general consensus that older adults need nutrient-dense foods to ingest enough essential nutrients. A 3-day food diary, with 1 day being a weekend day, is the most reliable method of obtaining a diet history.
Do you limit the kind or amount of food you eat because of problems with your teeth or dentures (e.g., biting apples or chewing meat)? An oral health assessment tool (Assessment Tool 32-3) may help to detect problems.	Oral health is a vital component of good nutrition, socialization, and a positive self-concept. Untreated oral health problems are a common cause of discomfort that may interfere with chewing and digestion.
Do you ever feel like you're choking when you drink water or feel like food is catching in your throat?	Dysphagia is a frequent problem associated with neurological conditions as well as when food is not sufficiently chewed or

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HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	Rationale
	there is insufficient saliva to mix with food. Dysphagia increases risk of choking, aspiration, dehydration, and malnutrition. Signs and symptoms of dysphagia range from weak or hoarse voice, pocketing of food, coughing after food or fluids to drooling.
How much fluid do you think you drink each day?	Fluid intake of fewer than 1,500 mL daily (excluding caffeine-containing beverages) is a possible indicator of dehydration. Fluid requirements for older persons without cardiac or renal disease are approximately 30 ml/kg of body weight per day. Loss of appetite almost always coexists with inadequate hydration. Decreased thirst sensation is common with aging. And decreased mobility makes it less possible for the frail elderly person to respond to an already diminished sense of thirst. Drug use may contribute to dehydration as well. For example, diuretics are widely used in treating cardiovascular and renal disease as are fluid restrictions.
Have you experienced weight loss or changes in your health along with your cough?	Weight loss, night sweats, or changes in respiratory status, such as coughing, may be signs of tuberculosis (TB). Debilitated elderly people are at increased risk of TB. In addition, glucocorticosteroid therapy and nutritional deficiencies depress the immune system, thereby exacerbating the chances of reactivating a dormant TB infection.

continued

SELF ASSESSMENT 32-2 NSI Checklist to Determine Your Nutritional Health

The older adult fills out the following questions, which have associated points.

	Yes
I have an illness or condition that made me change the kind or amount of food I eat.	2
I eat fewer than two meals/day.	3
I eat few fruits or vegetables, or milk products.	2
I have three or more drinks of beer, liquor, or wine almost everyday.	2
I have tooth or mouth problems that make it hard for me to eat.	2
I don't always have enough money to buy the food I need.	4
I eat alone most of the time.	1
I take three or more different prescribed or OTC drugs a day.	1
Without wanting to, I have lost or gained 10 pounds in the last 6 months.	2
I am not always physically able to shop, cook, or feed myself.	2
Total Nutritional Score	_____

Scoring:

0–2 indicates good nutrition
3–5 indicates moderate risk
6 or more indicates high nutritional risk

White, J. V., Ham, R. J., Lipschitz, D. A., Dwyer, J. T., & Wellman, N. S. (1991). Consensus of the Nutrition Screening Initiative: Risk factors and indicators of poor nutritional status in older Americans. *Journal of the American Dietetic Society,* 91, 783–787 (used with permission).

HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	Rationale
Have you received the pneumococcal vaccine within the past 6 years? Do you get annual flu vaccines?	Pneumonia is the most common cause of infection-related deaths in the elderly. The pneumovax is recommended once a lifetime for those over age 65 and every 6 years for high-risk patients. Debilitated and institutionalized elders are particularly at risk for serious influenza-related illness.
Urinary Incontinence Explain to the client that many illnesses and medications can cause problems with urine control. This is not normal just because one is getting older, but it is a common problem. Do you ever have any urine leakage or problems controlling your urine flow?	(Between 8 and 38% of older adults living at home are incontinent (Anger, Saigal, & Litwin, 2006). The incidence of UI is higher for elderly who are institutionalized and cognitively impaired. Incidence of new-onset incontinence among hospitalized elderly has been reported at 35% to 45% (Kresevic, 1997; Palmer, Baumgarten, Langenber, & Carson, 2002). Loss of

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ASSESSMENT TOOL 32-3 The Geriatric Oral Health Assessment Index

Indicate, in the past three months, how often you feel the way described in each of the following statements. Circle one answer for each.

	1	2	3	4	5
1. How often did you limit the kind or amounts of food you eat because of problems with your teeth or dentures?	Always	Often	Sometimes	Seldom	Never
2. How often did you have trouble biting or chewing any kinds of food such as firm meat or apples?	Always	Often	Sometimes	Seldom	Never
3. How often were you able to swallow comfortably?*	Always	Often	Sometimes	Seldom	Never
4. How often have your teeth or dentures prevented you from speaking the way you wanted?	Always	Often	Sometimes	Seldom	Never
5. How often were you able to eat anything without feeling discomfort?*	Always	Often	Sometimes	Seldom	Never
6. How often did you limit contacts with people because of the condition of your teeth or dentures?	Always	Often	Sometimes	Seldom	Never
7. How often were you pleased or happy with the looks of your teeth and gums or dentures?*	Always	Often	Sometimes	Seldom	Never
8. How often did you use medication to relieve pain or discomfort from around your mouth?	Always	Often	Sometimes	Seldom	Never
9. How often were you worried or concerned about the problems with your teeth, gums or dentures?	Always	Often	Sometimes	Seldom	Never
10. How often did you feel nervous or self-conscious because of problems with your teeth, gums or dentures?	Always	Often	Sometimes	Seldom	Never
11. How often did you feel uncomfortable eating in front of people because of problems with your teeth or dentures?	Always	Often	Sometimes	Seldom	Never
12. How often were your teeth or gums sensitive to hot, cold or sweets?	Always	Often	Sometimes	Seldom	Never

Total Score: _____

*Items 3, 5, 7 are reverse scored with a "1" for never and a "5" for always. All other items are a "1" for always.

Source: Hartford Institute for Geriatric Nursing, Division of Nursing, New York University (used with permission).

HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	Rationale
	bladder function or control can be an embarrassing and demeaning problem. Unfortunately, many older adults believe that problems with bladder control are a normal and expected part of aging. Yet this is not an expected part of aging. Incontinence is often associated with chronic conditions such as stroke, multiple sclerosis, prostatitis, and urinary tract infection. It may also be the result of a fecal impaction, constipation, an adverse drug effect, or urinary tract infection (UTI).
(Male) Do you have difficulty starting a stream of urine? Frequency? Nighttime frequency? Dribbling? If yes, do you ever take any cold or sinus medications or medication to help you sleep?	Benign prostatic hypertrophy occurs in 80% of men over age 70 from exposure to androgen hormones. It may result in urinary frequency, difficulty starting a stream of urine, nocturia, and urinary retention with overflow incontinence and an increased risk of urinary tract infections. Over-the-counter drugs with anticholinergic side effects (e.g. cold/sinus preparations and sleep medications) may contribute to urinary retention or add to obstructive symptoms.
How long has the leakage (or use client's descriptive words) been going on? Has it ever suddenly gotten worse?	Any new onset of incontinence or exacerbation may indicate an infection. In the hospitalized elder, UTI ranks high as a suspected cause for any new onset of incontinence. UTI is the most common hospital-acquired bacterial infection. UTI must also be a concern for elders at home or in long-term care because it is the most frequent source of bacteremia for these people. A UTI is particularly perplexing in elderly clients because it presents in such an atypical way (i.e., without fever, or elevation in white blood cell counts, or dysuria, or urinary frequency). Even more common symptoms of a UTI in the frail elderly person may be confusion, lethargy, anorexia, and nocturia.
What activities are associated with your loss of urine control?	The client's activities during an episode of incontinence may help to determine the type of incontinence and, therefore, its treatment. See Display 32-3 for a description of the kinds of urinary incontinence.
Bowel Elimination Do you have any problems with bowel elimination?	As people age, GI motility decreases because of a loss of muscle tone and atrophy. Dehydration, immobility, and poor intake exacerbate the likelihood of constipation. Adequate fluid intake, dietary fiber, and moderate exercise are key factors in maintaining efficient elimination.
Have you had a change in bowel habits recently? Have you ever had blood in your stools? Have you had your stools tested for blood? What medications do you take?	The guaiac stool test to detect occult blood is a common test administered to detect abnormalities of the GI tract. Clients with a past history of polyps, adenomas, and inflammatory bowel disease are at increased risk for colorectal cancer in old age. Warning signs include rectal bleeding, unexplained weight loss, and a change in bowel habits. NSAIDs, such as aspirin and naproxen, corticosteroids, and anticoagulants such as warfarin may promote GI bleeding.
Pain Assessment Do you have pain, discomfort, aching, or soreness? If so, is the discomfort worse with activity? Relieved by rest? Do you have problems with grasping, reaching, or activities that use your hands, arms, back, or legs?	Functional limitations and pain are common consequences of inflammatory joint disease in the frail elderly person The combination of pain and functional impairment may predispose the client to social isolation and depression.

continued

HISTORY OF PRESENT HEALTH CONCERN/CURRENT HEALTH STATUS *Continued*

Question	*Rationale*
Pain scales used with adults are also usually valid in evaluating pain in an elderly client except in the more severe stages of dementia. For those with moderate levels of dementia but who are still able to verbalize, short and frequent questioning about pain using words such as "hurting," "soreness," "aching," or "uncomfortable" may be useful. For nonverbal demented individuals, behaviors such as grimacing, striking out, and moaning should be routinely evaluated to identify pain as well as to evaluate the degree to which the pain is being relieved (Display 32-4). Many of the behaviors commonly labeled as "aggressive" or "combative" are the result of untreated pain (Douzijian, Wilson, Shultz, Berger, Tapnio, & Blanton, 2002).	As many as 50% of community dwelling older people suffer from persistent pain and up to 80% of nursing home residents have substantiated pain that is undertreated (Flaherty, 2007). Pain can lead quickly to a downward cascade of anxiety, depression, isolation, and functional decline. Acute pain frequently manifests as confusion.

DISPLAY 32-3 Understanding Urinary Incontinence: Assessment and Intervention

Types of Incontinence

The signs and symptoms associated with the involuntary loss of urine have been clustered into three categories: urge, stress, and overflow incontinence. Any one or a combination of all three types may be present in an individual. Voiding diaries are useful for determining the type of incontinence that is occurring based on the amount, timing, and associated symptoms of incontinent episodes.

Voiding Diary

Time	Drinks		Voiding	
	Kind	How much	How many times	How much
6–7 AM	coffee	2 cups	I	medium
7–8 AM	orange juice	1 glass	II	lots
8–9 AM	—	—	I —	little
9–10 AM	—	—	—	—
10–11 AM	water	1 glass	I	medium

Time	Leaks/Accidents	Strength of urge	Activity at the time of leak
6–7 AM		strong	no leak
7–8 AM		strong	
8–9 AM	I		frying eggs
9–10 AM			
10–11 AM			

Urge Incontinence

Urge incontinence is the involuntary loss of urine associated with an abrupt and strong desire to void. It is frequently caused by a neurologic disorder such as a cerebrovascular accident (CVA) or multiple sclerosis (MS), which impairs the ability of the bladder or urinary sphincter to contract and relax.

Stress Incontinence

Stress incontinence is the involuntary loss of urine during coughing, sneezing, laughing, or other physical activities that increase abdominal pressure. In women, stress incontinence may result from weakened and relaxed muscles from the combined effects of aging superimposed on the effects of childbirth.

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DISPLAY 32-3 Understanding Urinary Incontinence: Assessment and Intervention *Continued*

Note: Atrophic vaginitis from estrogen deficiency usually results in symptoms of urge incontinence as well as stress incontinence (mixed incontinence).

Overflow Incontinence

Overflow incontinence is the involuntary loss of urine associated with overdistention of the bladder. Prostatic hypertrophy is a common cause in men, and diabetic neuropathy is a common cause in both sexes.

Functional Incontinence

Functional incontinence is the inability to get to the bathroom in time or to understand the cues to void due to problems with mobility or cognition.

Steps of Assessment

The nursing assessment varies somewhat depending on the client's general health status and whether the problem is an acute or chronic one. In general, however, a comprehensive nursing assessment can be described as a five-step process that includes screening for an infection with a urinalysis, obtaining a voiding diary, evaluating functional status, compiling a health history, and performing a physical examination. Key features within the five steps follow:

- Record all incontinent and continent episodes for 3 days in a voiding diary.
- Review medication for any newly prescribed drugs that may be triggering incontinence. Follow up with physician regarding need to discontinue therapy or change medication.
- Rule out constipation or fecal impaction as a source of urinary incontinence. If client has had no bowel movement within last 3 days or is oozing stool continuously, check for impaction by digital examination or abdominal palpation. Problem should be treated if identified.
- Assess functional status along with signs and symptoms as they relate to incontinence. Contributors to incontinence may include immobility, insufficient fluid intake, and confusion. Accompanying signs and symptoms include polyuria, nocturia, dysuria, hesitancy, poor or interrupted urine stream, straining, suprapubic or perineal pain, urgency and characteristics of incontinent episodes (precipitated by walking, coughing, getting in and out of bed and so forth).
- Consult physician regarding physical examination and need to measure postvoid residual volume by straight catheterization (particularly if client dribbles, reports urgency, has difficulty starting stream). Components of the physical examination include direct observation of urine loss using a cough stress test; abdominal, rectal, genital and pelvic examination; and identification of neurologic abnormalities. Abdominal and vaginal examinations are performed to detect prolapse or a palpable bladder after micturition.

Interventions

The physician is responsible for identifying and treating the conditions causing reversible or chronic incontinence. A physical therapist may play a role in identifying specific activities that are associated with incontinent episodes. Either a nurse or physical therapist may be involved in teaching Kegel exercises to help relieve stress incontinence. When functional incontinence and urgency have been identified, the expertise of an occupational therapist in appropriate dressing and undressing and for choosing incontinence aids may be beneficial.

DISPLAY 32-4 Indicators of Pain in the Cognitively Impaired

- Medical diagnoses known to commonly cause pain such as arthritis, osteoporosis, fractures, cancer, and history of back pain
- Pain history and use of analgesics
- Family or professional caregiver reports of possible pain
- Behavioral patterns of aggressiveness or resisting care
- Rubbing on specific areas of body
- Vocalizations, such as moaning (yelling, or increases in the loudness of existing vocalizations)

COLLECTING OBJECTIVE DATA: PHYSICAL EXAMINATION

There is often a fine line between deterioration of function from aging and deterioration from disease. For this reason, it is crucial to integrate the subjective, functional, and physical assessments. The significance of a physical finding is often determined by the effect it has on the person's level of comfort and ability to function. A medical pathology should be suspected whenever any physical or functional change has occurred suddenly (days to weeks).

An efficient and effective way to determine the significance of physical findings in an older person is to collect subjective data while you are conducting a physical examination. Because medication is often a primary method of treating disease in this country and polypharmacy is such a common occurrence in the elderly, sudden changes or abnormalities noted in the physical examination must always be analyzed for the possibility of being the result of an adverse drug effect. Because many diseases have a "silent" presentation in the elderly, an in-depth, comprehensive physical examination is especially important to detect and treat disease in a timely way.

Preparing the Client

The nurse needs to examine one's own attitudes or stereotypical assumptions of the elderly client. It is essential that the nurse also be sensitive to the client's need for privacy as well as his or her wishes for a caregiver to remain in the room during all or parts of the assessment.

The examination of a frail elderly adult usually takes longer than that of a younger adult because of the chronic conditions, disabilities, and ensuing discomfort that many frail elderly people experience. It is best to limit the length of the examination. This may mean that a complete assessment may require several sessions over a period of time. The client may feel less hurried if paperwork, such as a health questionnaire, can be completed at home either by the client alone or with the help of a caregiver. Some modifications and techniques appropriate for an examination of the frail elderly person include:

- Keep the temperature of the examination room warmer than may be comfortable for younger adults.
- Eliminate background noise as much as possible.
- When interacting with an elderly client, remember that it may be more acceptable to be more formal than informal. For example, address the client by first name only if the client specifically requests that you do so.
- Keep your voice volume down even if you anticipate the client has difficulty hearing. Speaking clearly and at a moderate pace is more beneficial in cases of hearing loss. Remember to face the client when speaking with him or her.
- Do not assume that the client cannot answer questions if he or she has a cognitive impairment. However, if the impairment has significantly impaired function or verbal expression, give only one-step directions and avoid questions that require two responses. The cognitively impaired elderly person with few remaining verbal abilities may have no or only minimal loss of the ability to comprehend nonverbal cues.
- If you need to question caregivers or collateral sources to validate or clarify information, avoid consulting them in the presence of the client.
- Elderly people with physical disabilities may need assistance with dressing and with parts repositioning during the examination. Allow additional time in deference to the client's need for independence as well as your need to know how much the client can do independently.

Equipment

In addition to the equipment needed for performing a complete adult physical examination, the following items will be needed for assessing the functional capacity of the frail elderly adult:

- Newspaper or book and lamp light for vision testing
- Lemon slice or mint for sense of smell test
- Pudding or food of pudding consistency and spoon for swallowing examination (A teacup with water to swallow may also be used.)
- Food and fluid diary sheets or forms
- Two or three pillows for client comfort and positioning
- Straight-backed chair for "Get Up and Go" test

(text continues on page 788)

PHYSICAL ASSESSMENT

Assessment Procedure	Normal Findings or Variations	Abnormal Findings
Measure and record the client's height and weight, noting weight changes and problems with swallowing or chewing. Review laboratory test values (complete blood count, and vitamin B_{12}, cholesterol, albumin, and prealbumin levels). ➤ ***Clinical Tip*** • *Suspect drug toxicity in clients taking medications such as digoxin, theophylline, quinidine, or antibiotics if client reports nausea or diarrhea.*	Antral cells and intestinal villi atrophy, and gastric production of hydrochloric acid decreases with age. Chronic diseases such as cancer and arthritis are associated with increases in inflammatory chemicals that can cause anorexia and fatigue. A certain degree of anorexia also always accompanies pain—especially chronic pain. (See Chapter 8 for a discussion of pain assessment.) Toxic levels of drugs must always be suspected when appetite loss is sudden and severe. The ability to smell and taste decreases with age which can also diminish appetite. Medications can also decrease sense of smell and taste in older people.	Indicators of malnutrition include: Client weighs less than 80% ideal body weight. Client has had 10% loss in body weight over past 6 months or 5% loss in body weight over past month. Hemoglobin level is lower than 12 g/dL. Hematocrit is lower than 35. Vitamin B_{12} level is lower than 100 µg/ml. Indicators of poor nutritional status include: Serum cholesterol level lower than 160 mg/dL Serum albumin level lower than 3.5 g/dL Serum prealbumin levels (used to monitor improvement of nutritional status) that do not increase 1 mg/dL/day

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings or Variations	Abnormal Findings
Because muscle mass decreases and fatty tissues increase, the elderly client is at increased risk for dehydration. Evaluate hydration status as you would nutritional status. Begin with accurate serial measurements of weight, careful review of laboratory test findings (serial serum sodium level, hematocrit, osmolality, BUN level, and urine-specific gravity), and a 2- to 3-day diary of fluid intake and output.	Normal findings include stable weight and stable mental status. ➤ ***Clinical Tip*** *• Increases over time in laboratory values are usually indicators of deteriorating hydration (even though values may be within normal limits).*	Sudden weight loss; fever; dry, warm skin; furrowed, swollen, and red tongue; decreased urine output; lethargy and weakness are all signs of dehydration. An acute change in mental status (particularly confusion), tachycardia, and hypotension may indicate severe dehydration, which may be precipitated by certain medications such as diuretics, laxatives, tricyclic antidepressants, or lithium.

Assessment Procedure	Normal Findings	Abnormal Findings
Skin and Hair		
Inspection and Palpation **Inspect and palpate skin lesions.** Wear gloves when palpating lesions. Note whether lesions are flat or raised, palpable or nonpalpable. Also note color, size, and exudates, if any. Despite decrease in total number of melanocytes, hyperpigmentation occurs in sun-exposed skin (neck, face, & arms). Although dermatologic lesions are common, many are benign. The combination of environmental exposure and diminished immunity increases risk of skin cancer and cutaneous infections such as ringworm, Candidal infections of mouth, vagina, and nail beds. This risk is increased by predisposing conditions such as Diabetes mellitus, malnutrition, steroid, or antibiotic use.	Normal findings include the following: Lentigenes: Hyperpigmentation in sun-exposed areas appear as brown, pigmented, round or rectangular patches (Fig. 32-1). Often called liver spots. Venous lakes: Reddish vascular lesions on ears or other facial areas resulting from dilation of small, red blood vessels. Skin tags: Acrochordons, flesh-colored pedunculated lesions. Seborrheic keratoses: Tan, brown, or reddish, flat lesions commonly found on fair-skinned persons in sun-exposed areas. Cherry angiomas: Small, round, red spots. Senile purpura: Vivid purple patches (lesion should not blanch to touch).	Abnormal findings include: Irregularly shaped lesion or scaly, elevated lesion (squamous cell carcinoma) Actinic keratoses, round or irregularly shaped tan, scaly lesions that may bleed or be inflamed (premalignancy). Waxy or raised lesion, especially on sun-exposed (basal cell carcinoma) Herpes zoster vesicles (shingles) draining clear fluid or pustules atop an erythematous base following a clear linear pattern and accompanied by pain. More than half of elderly with shingles will have neuralgia that persists after resolution of the skin lesions. Pinpoint-sized, red-purple, nonblanchable petecchia (common sign of platelet deficiency) Large bruises may result from anticoagulant therapy, a fall, renal or liver failure, or elder abuse.
Note color, texture, integrity, and moisture of skin and sensitivity to heat or cold. **Elastic collagen is gradually replaced with more fibrous tissue and loss of subcutaneous tissue. Decreased vascularity and diminished neurological response to temperature changes and atrophy of eccrine sweat glands**	Somewhat transparent, pale, skin with an overall decrease in body hair on lower extremities. Dry skin is common. Skin may wrinkle and tent when pinched. *Note:* Pinching skin is not an accurate test of turgor in the elderly.	Torn skin (possibly the result of abrasive tape used to hold bandages or tubes in place) Extremely thin, fragile skin (friable skin) with excessive purpura (possibly from corticosteroid use) Dry, warm skin, furrowed tongue, and sunken eyes from dehydration (especially when the client has decreased

continued

Assessment Procedure	Normal Findings	Abnormal Findings
increases risk of hyperthermia and hypothermia. ➤ ***Clinical Tip*** *• Room humidifiers, avoidance of harsh deodorants or soaps, and use of lanolin-containing products after bathing (while skin is still moist) may help to relieve effects of dry skin.*		urinary output, increased serum sodium, BUN and creatinine levels, increased osmolality, and hematocrit values, tachycardia; and mental confusion). Sudden heat or cold intolerance could be signs of thyroid dysfunction.
Inspect and palpate hair and scalp.	Loss of pigmentation causes graying of scalp, axillary, and pubic hair. Mild hair growth on upper lip of women may appear as result of decreased estrogen to testosterone ratio. Toenails usually thicken while fingernails often become thinner. Both usually become yellowish and dull.	Patchy or asymmetric hair loss is abnormal.
Head and Neck		
Inspection **Inspect head and neck for symmetry and movement. Observe facial expression (Fig. 32-2).**	Atrophy of face and neck muscles Reduced range of motion of head and neck Shortening of neck due to vertebral degeneration and development of "buffalo hump" at top of cervical vertebrae	Abnormalities include: Asymmetry of mouth or eyes possibly from Bell's palsy or CVA Marked limitation of movement or crepitation in back of neck from cervical arthritis Involuntary facial or head movements from an extrapyramidal disorder such as Parkinson's disease or some medications Reported episodic, unilateral, shock-like or burning pain of the face or continuous pain, which may be postherpetic or caused by a dental caries or abscess. ***Note:*** In cognitively impaired elders, sleep disturbances or agitation may be the only sign of neuropathic pain.

Figure 32-1 Solar lentigines are very common on aging skin.

Figure 32-2 Observe facial expression.

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings	Abnormal Findings
Mouth and Throat		
Inspection **Inspect the gums and buccal mucosa for color and consistency.**	Slight decrease in saliva production	Saliva-depressing medications include antihistamines, antipsychotics, antihypertensives, and any drug with anticholinergic side effects may promote dental caries and increase risk of pneumonia.
If the client is wearing dentures, inspect them for fit. Then ask the client to remove them for the rest of the oral examination.	Resorption of gum ridge commonly results in poorly fitting dentures. Tooth surfaces may be worn from prolonged use.	Loose-fitting dentures or inability to close mouth completely may also be the result of a significant weight gain or loss. Foul-smelling breath may indicate periodontal disease. Whitish or yellow-tinged patches in mouth or throat may be candidiasis from use of steroid inhalers or antibiotics.
Examine the tongue. Observe symmetry and size.	Tongue pink and moist	A swollen, red, and painful tongue may indicate vitamin B or riboflavin deficiency.
Observe the client swallowing food or fluids (Fig. 32-3). ➤ ***Clinical Tip*** • *Help the client who reports dysphagia to lean slightly forward with the chin tucked in toward the neck when swallowing and offer food of pudding consistency to minimize the risk of aspiration.*	Mild decrease in swallowing ability	Coughing, drooling, pocketing, or spitting out food after intake are all possible signs of dysphagia. A drooping mouth, chronic congestion, or a weak or hoarse voice (especially after eating or drinking) also suggests dysphagia. Observed swallowing difficulties in which case a nutritional assessment should be completed and the client referred for a barium swallow examination.
Depress the posterior third of the tongue, and note gag reflex.	Gag reflex may be slightly sluggish.	Absence of a gag reflex may be the result of a neurologic disorder and indicates the need to be alert for signs of aspiration pneumonia.

Figure 32-3 Assessing for swallowing problems (© B. Proud).

continued

Assessment Procedure	Normal Findings	Abnormal Findings
Nose and Sinuses		
Inspection **Inspect the nose for color and consistency.**	Nose and nasal passages are not inflamed, and skin and mucous membranes are intact. Nose may seem more prominent on face because of loss of subcutaneous fat. Nasal hairs are coarser.	Edema, redness, swelling, or clear drainage, which may indicate allergies or rhinitis. ➤ ***Clinical Tip*** • *Relocation into a newly constructed residential or long-term care facility should be investigated further as a possible cause of allergic or non-allergic rhinitis. New carpet, cabinetry of fiberboard, and paint fumes can elicit a nonallergic vasomotor response as well as an allergic one.*
Evaluate the sense of smell. Have the client close the eyes and smell a common substance, such as mint, lemon, or soap (Fig. 32-4). ➤ ***Clinical Tip*** • *Alert clients with diminished smell to the importance of smoke alarms and routine inspections of stoves and furnaces.*	Slightly diminished sense of smell and ability to detect odors	Client cannot identify strong odor. This may cause a decrease in appetite and may be a safety concern.
Test nasal patency by asking the client to breathe while blocking one nostril at a time (Fig. 32-5).	Breathes with reasonable ease	Client reports feeling of inadequate breath intake, which may result from nasal polyps, a deviated septum, or allergic or infectious rhinitis or sinusitis.
Palpation Palpate the frontal and maxillary sinuses for consistency and to elicit possible pain. ➤ ***Clinical Tip*** • *Elderly clients with nasogastric feeding tubes are at increased risk for sinusitis related to the obstruction.*	No lesions or pain	Client reports pain and dryness; inflammation is evident. ➤ ***Clinical Tip*** • *Elderly clients may self-treat sinus pain and/or nasal congestion with decongestants and antihistamines, which may further dry the nasal passages and prevent normal sinus drainage. These drugs*

Figure 32-4 Assessing sense of smell (© B. Proud).

Figure 32-5 Testing nasal patency (© B. Proud).

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings	Abnormal Findings
		may also aggravate hypertension (in clients taking antihypertensive drugs) and exacerbate cardiac dysrhythmias. In clients taking antibiotics for sinusitis, watch for adverse effects on renal function. Because antibiotics also may kill normal bacteria, watch for signs of candidal or Clostridium difficile *infection in the GI tract, mouth, or vagina.*
Eyes and Vision		
Inspection		
Inspect eyes, eyelids, eyelashes, and conjunctiva. Also observe eye and conjunctiva for dryness, redness, tearing, or increased sensitivity to light and wind.	Skin around the eyes becomes thin, and wrinkles appear normally with age. Stretched skin in eyelid may produce feeling of heaviness and a tired feeling. In lower eyelid, "bags" form. Excessive stretching of lower eyelid may cause it to droop downward, which keeps it from shutting completely and can cause dryness, redness, or sensitivity to light and wind. Eyes are described as irritated or having a "scratchy sensation."	A turning in of the lower eyelid (entropion) is more common and causes the eyelashes to touch the conjunctiva and cornea. Severe entropion may result in an ulcerous corneal infection. Abnormalities in blinking may result from Parkinson's disease; dull or blank staring may be a sign of hypothyroidism.
Inspect the cornea and lens. Also ask the client when he or she last had an eye and vision examination. ➤ ***Clinical Tip*** • *To detect glaucoma, tonometry should be performed every 1 to 2 years on everyone older than 35. Elevated intraocular pressure indicates the need for referral to an ophthalmologist and confirmation with applanation tonometry.*	An arcus senilis, a cloudy or grayish ring around the iris, and decreased pigment in iris are age-related changes. The lens loses elasticity, which results in decreased ability to change shape (presbyopia). A loss of transparency in the crystalline lens of the eyes is a natural part of aging process. Exposure to sunlight, smoking, and inherited tendencies increases risk.	Cataracts most commonly affect people after age 55 and result in a yellowish or brownish discoloration of the lens. Common symptoms include painless blurring of vision, glare and halos around lights, poor night vision, colors that look dull or brownish. Location and extent of cloudiness determine degree to which a person's vision is affected. A thickening of the bulbar conjunctiva that grows over the cornea (called pterygium) may interfere with vision.
Inspect the pupils. With a penlight or similar device, test pupillary reaction to light (Fig. 32-6).	Overall decrease in size of pupil and ability to dilate in dark and constrict in light may occur with advanced age; this results in poorer night vision and decreased tolerance to glare.	An irregularly shaped pupil may indicate removal of a cataract. Asymmetric response may be due to a neurologic condition.
Test vision. Ask the client to read from a newspaper or magazine. Use only room lighting for the initial reading. Use task lighting for a second reading (Fig. 32-7). Ask about changes in vision, trouble with night vision, or differences in vision with left vs. right eye.	Impaired near vision is indicative of presbyopia (farsightedness), a common finding in older adults. Also common are slight decreases in peripheral vision and difficulty in differentiating blues from greens.	A significant decrease in central vision, to the extent needed for activities of daily living, may signal a cataract in one or both eyes. ***Macular degeneration*** (thin membrane in the center of the retina) is suspected if the client has difficulty in seeing with

continued

Assessment Procedure	Normal Findings	Abnormal Findings
	➤ ***Clinical Tip*** • *Older adults generally require two to three times more diffuse and task lighting.*	one eye (Abnormal Findings 32.1). The disorder almost always becomes bilateral. Related abnormal findings include blurry words in the center of the page or door frames that don't appear straight. This condition should be referred and evaluated.
Also ask client about small specks or "clouds" that move across the field of vision.	With aging, tiny clumps of gel may develop within the eye. These are referred to as "floaters." They should occur occasionally and not increase significantly in frequency.	A noticeable loss of vision—including cloudiness, distortion of familiar objects, and occasionally blind spots or floaters—is a common symptom of diabetic retinopathy. New floaters, an increase in frequency of floaters associated with flashes of light may be a sign of retinal detachment. This requires immediate referral to prevent blindness (Abnormal Findings 32-1).
Ears and Hearing		
Inspection		
Inspect the external ear. Observe shape, color, and hair growth. Also look for lesions or drainage.	Hairs may become coarser and thicker in the external ear, especially in men. Earlobes may elongate and penna increases in length and width.	Inflammation, drainage, or swelling may be from infection.
Perform an otoscopic examination to determine quantity, color, and consistency of cerumen.	Cerumen production decreases leading to dryness and tendency toward accumulation.	Hard, dark brown cerumen signals impaction of the auditory canal, which commonly causes a conductive hearing loss. A darkened hole in the tympanic membrane or patches indicates perforation or scarring of the tympanic membrane.
Perform the *voice–whisper test,* a functional examination to detect obvious (conversational) hearing loss. Instruct the client to put a hand over one ear and to repeat the sentence you say. Stand approximately 2 feet away from the	The inability to hear high-frequency sounds (presbycusis) or to discriminate a variety of simultaneous sounds and soft consonant sounds or background noises is due to degeneration of hair cells of inner ear.	Inability to hear the whispered sentence indicates a hearing deficiency and the need to refer the client to an audiologist for testing.

Figure 32-6 Testing pupillary reaction (© B. Proud).

Figure 32-7 Reading with room lighting (© B. Proud).

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings	Abnormal Findings
client and whisper a sentence (Fig. 32-8).	➤ ***Clinical Tip*** *• Assess hearing acuity before as well as after the otoscopic examination, if cerumen is removed during the examination. If you are facing the client, hold your hand close to your mouth so the client cannot read your lips.*	➤ ***Clinical Tip*** *• Raising one's voice to someone with presbycusis usually only makes it more difficult for them to hear. Speaking more slowly will usually lower the frequency and be more therapeutic.*
Thorax and Lungs		
Inspection **Inspect shape of thorax. Note respiratory rate, rhythm, and quality of breathing.**	Decreased elasticity of alveoli causes lungs to recoil less during expiration and loss of resilience that holds thorax in a contracted position, loss of skeletal muscle strength in thorax and abdomen, decreased vital capacity, increased residual volume, and slight barrel chest. Increased reliance on diaphragmatic breathing and increased work of breathing.	Respiratory rate exceeding 25 breaths/min may signal a pulmonary infection along with increased sputum production, confusion, loss of appetite, and hypotension (McGann, 2000). Respiratory rate of less than 16 breaths/min may be a sign of neurologic impairment, which may lead to aspiration pneumonia. Significant loss of aerobic capacity and dyspnea with exertion is usually due to disease, exposure over a lifetime to pollutants, smoke, or severe or prolonged lack of exercise.
Percussion **Percuss lung tones as you would in a younger adult.**	Resonant, except in the presence of structural changes such as kyphosis or a slight barrel chest, when hyperresonance may occur.	Consolidation of infection will cause dullness to percussion; alveolar retention of air, as occurs in emphysema, results in hyperresonance. ***Note:*** Supine positioning, shallow breathing, and poor dental hygiene increase the risk of pulmonary infection. Pneumonia is the most common cause of infection-related deaths in the elderly and is called the "silent killer." It seldom presents as the classic triad of cough, fever, and pleuritic pain. Instead, subtle changes such as an increase in respiratory rate and sputum production, confusion, loss of appetite, and hypotension are more likely to be the presenting symptoms (Fitzpatrick, Fulmer, Wallace, & Flaherty, 2000).

Figure 32-8 Assessing hearing with the voice-whisper test (© B. Proud).

continued

Assessment Procedure	Normal Findings	Abnormal Findings
Auscultation **Auscultate lung sounds as you would in a younger adult.**	Vesicular sounds should be heard over all areas of air exchange. However, because lung expansion may be diminished, it may be necessary to emphasize taking deep breaths with the mouth open during the exam. This may be very difficult for those with dementia.	Breath sounds may be distant over areas affected by kyphosis or the barrel chest of aging. Rales and rhonchi are heard only with diseases, such as pulmonary edema, pneumonia, or restrictive disorders. Diminished breath sounds, wheezes, crackles, rhonchi that do not clear with cough, and egophony are common signs of consolidation caused by pneumonia.
Heart and Blood Vessels		
Blood Pressure **Take blood pressure to detect actual or potential orthostatic hypotension and, therefore, the risk for falling.** Measure pressure with the client in lying, sitting, and standing positions. Also measure pulse rate. Have the client lie down for 5 minutes; take the pulse and blood pressure; at 1 minute, take blood pressure and pulse after client is sitting and again at 1 minute after client stands (Fig. 32-9). If dizziness occurs, instruct client to sit a few minutes before attempting to stand up from a supine or reclining position.	An elderly person's baroreceptor response to positional changes is slightly less efficient. A slight decrease in blood pressure may occur. Blood pressure increases as elasticity decreases in arteries with proportionately greater increase in systolic pressure, resulting in a widening of pulse pressure. ➤ ***Clinical Tip*** • *Any client with blood pressure exceeding 160/90 mm Hg should be referred to the health care provider for follow-up.*	A greater than 10 mm Hg drop in systolic or diastolic pressure and an increase in heart rate of 20 beats or more per minute indicate orthostatic hypotension. A serious consequence is the potential for lightheadedness and dizziness, which may precipitate hip fracture or head trauma from a fall. ➤ ***Clinical Tip*** • *Some sources of orthostatic hypotension include medications, such as antihypertensives, diuretics, and drugs with anticholinergic side effects (anxiolytics, antipsychotics, hypnotics, tricyclic antidepressants, and antihistamines).* A sudden and increasingly widened pulse pressure, especially in combination with other neurologic abnormalities and a change in mental status, is a classic sign of increased intracranial

Figure 32-9 Assessing blood pressure (© B. Proud).

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings	Abnormal Findings
		pressure (which in elderly clients may be due to a hemorrhagic stroke or hematoma).
Exercise Tolerance **Measure activity tolerance.** Evaluate, either by reviewing results of stress testing or by observing the client's ability to move from a sitting to a standing position (Fig. 32-10) or to flex and extend fingers rapidly. ➤ ***Clinical Tip*** • *Poor lower body strength, especially in the ankles, may impair the ability of the frail elderly person to rise from a chair to a standing position. Poor upper body strength, especially in the shoulders, may impede the ability to push up from a bed or chair or to extend and flex fingers.*	The maximal heart rate with exercise is less than in a younger person. The heart rate will also take longer to return to its pre-exercise rate. Rise in pulse rate should be no greater than 10 to 20 beats/min. The pulse rate should return to the baseline rate within 2 minutes.	A rise in pulse rate greater than 20 beats/min and a rate that does not return to baseline within 2 minutes is an indicator of exercise intolerance. Cardiac dysrhythmias as determined by stress testing are also indicative of exercise intolerance.
Pulses **Determine adequacy of blood flow by palpating the arterial pulses in all locations (carotid, brachial, radial, femoral, popliteal, posterior tibial, and dorsalis pedis) for strength and quality (Fig. 32-11).** ➤ ***Clinical Tip*** • *Palpate carotid arteries gently and one side at a time to avoid stimulating vagal receptors in the neck, dislodging existing plaque, or causing syncope or a stroke.*	Proximal pulses may be easier to palpate due to loss of supporting surrounding tissue. However, distal lower extremity pulses may be more difficult to feel or even nonpalpable. The dorsalis pedis pulse is absent in approximately 20% of older persons (Mezey, Rauckorst & Stokes, 1993, p. 90).	Insufficient or absent pulses are a likely indication of arterial insufficiency. Partially obstructed blood flow increases the risk of ulcers and infection; completely obstructed blood flow is a medical emergency requiring immediate intervention to prevent gangrene and possible amputation.
Arteries and Veins **Auscultate the carotid, abdominal, and femoral arteries (Fig. 32-12).**	No unusual sounds should be heard.	A bruit is abnormal, and the client needs a prompt referral for further care

Figure 32-10 Assessing heart rate after the client rises from a sitting position provides clues to his or her tolerance of physical exertion (© B. Proud).

Figure 32-11 Palpating the carotid artery to assess blood flow (© B. Proud).

continued

Assessment Procedure	Normal Findings	Abnormal Findings
Evaluate arterial and venous sufficiency of extremities. Elevate the legs above the level of the heart and observe color, temperature, size of the legs, and skin integrity.	Hair loss with advanced age (cannot be used singly as an indicator of arterial insufficiency).	because of the high risk of CVA from a carotid embolism or an abdominal or femoral aneurysm. Leg pain associated with walking, burning or cramping, duskiness or mottling when the leg is in a dependent position; paleness with elevation; cool, thin, shiny skin; thickened, brittle nails; and diminished pulses are signs of arterial insufficiency.
Inspect and palpate veins while client is standing.	Prominent, bulging veins are common. Varicosities are considered a problem only if ulcerations, signs of thrombophlebitis, or cords, are present. Cords are nontender; palpable veins having a rubber tubing consistency.	Unilateral warmth, tenderness, and swelling may be indications of thrombophlebitis.
Heart		
Inspect and palpate the precordium.	The precordium is still, not visible, and without thrills, heaves, palpable pulsations (noted exception may be the apex of the heart if close to the surface).	Heaves are felt with an enlarged right or left ventricular aneurysm. Thrills indicate aortic, mitral, or pulmonic stenosis and regurgitation that may originate from rheumatic fever. Pulsations suggest an aortic or ventricular aneurysm, right ventricular enlargement, or mitral regurgitation.
Auscultate heart sounds. **The accumulation of lipofuscin, amyloid, collagen, and fats in the pacemaker cells of the heart and loss of pacemaker cells in the sinus node predispose the older adult to dysrhythmias, even in the absence of heart disease.**	A soft systolic murmur heard best at the base of the heart may result from calcification, stiffening, and dilation of the aortic and mitral valve.	Abnormal heart sounds are generally considered to be disease-related only if there is additional evidence of compromised cardiovascular function. However, any previously undetected extra heart sound warrants further investigation. S_3 and S_4 sounds may reflect the cardiac and fluid overloads of heart failure, aortic stenosis, cardiomyopathy, or myocardial infarction. ➤ ***Clinical Tip*** • *Falls, dyspnea, fatigue, and palpitations are common symptoms of dysrhythmias in the elderly.*

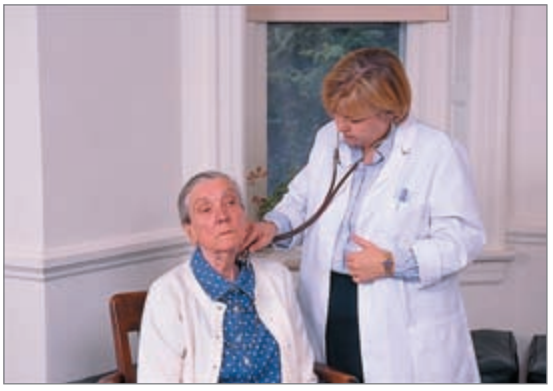

Figure 32-12 Use the bell of the stethoscope to listen for bruits (© B. Proud).

continued

PHYSICAL ASSESSMENT *Continued*

Breasts

Assessment Procedure	Normal Findings	Abnormal Findings
Inspection and Palpation **Inspect and palpate breast and axillae.** When viewing axillae and contour of breasts, assist a client with arthritis to raise the arms over the head. Do this gently and without force and only if it is not painful for the client. If the breasts are pendulous, assist the client to lean slightly so the breasts hang away from the chest wall, enabling you to best observe symmetry and form. ➤ ***Clinical Tip*** • *A greater percentage of elderly women have had radical mastectomies. If so, inquiring about pain and swelling from lymphedema is important.*	The breasts of elderly women are often described as pendulous due to the atrophy of breast tissue and supporting tissues and the forward thrust of the client brought about by kyphosis. Decreases in fat composition and increase in fibrotic tissue may make the terminal ducts feel more fibrotic and palpable as linear, spoke-like strands. Nipples may retract due to loss in musculature. Unlike nipple retraction due to a mass, nipples retracted because of aging can be everted with gentle pressure (Mezey et al., 1993).	Pain upon palpation may indicate an infectious process or cancer. Or breast tenderness, pain, or swelling may be side effects of hormone replacement therapy and an indication that a lower dosage is needed. Male breast enlargement (gynecomastia) may result from a decrease in testosterone.
Inspect skin under breasts.	Skin intact without lesions or rashes	Macerated skin under the breasts may result from perspiration or fungal infection (usually seen in an immunocompromised client).

Abdomen

Motility **Assess GI motility and auscultate bowel sounds. Review fiber intake and laxative use.**	5 to 30 sounds/min are heard. A decrease in gastric emptying time occurs with aging and may cause early satiety. Intestinal motility is generally reduced from a general loss of muscle tone. Risk of constipation is increased by diminished physical activity, fluid intake, fiber in diet, and by certain medications such as iron or narcotics.	Absence of bowel sounds and vomiting of undigested food is abnormal. Decreased motility is exacerbated by common pathologies such as Parkinson's, stroke, and diabetes mellitus. Results in propensity for chronic constipation and diverticula. ➤ ***Clinical Tip*** • *If diverticula become infected, emergency treatment may be required to prevent perforation and sepsis.* Hiatal hernia that manifests by postprandial chest fullness, heartburn, or nausea.
Determine absorption or retention problems in elderly clients receiving enteral feedings. ***Note:*** An abdominal radiograph, flat-plate, should be taken to check for correct placement of newly inserted nasogastric tubes.	Less than 100 mL residual is a normal finding for intermittent feedings.	More than 100 mL residual measured before a scheduled feeding is a sign of insufficient absorption and excessive retention. Abdominal distention, diarrhea, fluid overload, aspiration pneumonia, or fluid/electrolyte imbalances may indicate excessive retention although mental status changes may be the first or only sign.

continued

Assessment Procedure	Normal Findings	Abnormal Findings
Inspect and percuss abdomen in same manner as for younger adults. ➤ ***Clinical Tip*** *• The loss of abdominal musculature that occurs with aging may make it easier to palpate abdominal organs.* Atrophy of intestinal villi is a common aging change.	Liver, pancreas, and kidneys normally decrease in size, but the decrease is not generally appreciable upon physical examination.	Anorexia, abdominal pain and distention, impaired protein digestion, and vitamin B_{12} malabsorption suggest inflammatory gastritis or a peptic ulcer. Abdominal distention, cramping, diarrhea, and increased flatus are signs of lactose intolerance, which may occur for the first time in old age. Bruits over aorta suggest an aneurysm. If present, do not palpate because this could rupture the aneurysm. Guarding upon palpation, rebound tenderness, or a friction rub (sounds like pieces of sandpaper rubbing together) often suggests peritonitis, which could be secondary to ruptured diverticuli, tumor, or infarct.
Palpate the bladder. (Ask client to empty bladder before the examination.) If the bladder is palpable, percuss from symphysis pubis to umbilicus. If the client is incontinent, postvoid residual content may also need to be measured.	Empty bladder is not palpable or percussable.	Full bladder sounds dull. More than 100 mL drained from bladder is considered abnormal for a postvoid residual. A distended bladder with an associated small-volume urine loss may indicate overflow incontinence. (See Display 32-3.)
Genitalia		
Female		
Inspect external genitalia. Assist the client into the lithotomy position. Inspect the urethral meatus and vaginal opening. ➤ ***Clinical Tip*** *• Arthritis may make the lithotomy position particularly uncomfortable for the elderly woman, necessitating changes. If the client has breathing difficulties, elevating the head to a semi-Fowler's position may help.*	Many atrophic changes begin in women at menopause. Pubic hair is usually sparse, and labia are flattened. Clitoris is decreased in size. The size of ovaries, uterus, and cervix also decreases.	White, glistening particles attached to pubic hair may be a sign of lice. Redness or swelling from the urethral meatus indicates a possible urinary tract infection.
Ask the client to cough while in the lithotomy position. ➤ ***Clinical Tip*** *• Incontinence is not a normal part of aging. If embarrassment or acceptance is preventing the client from acknowledging the problem, the genital examination may be a more acceptable time to introduce the topic.*	No leakage of urine occurs.	Leakage of urine that occurs with coughing is a sign of stress incontinence and may be due to lax pelvic muscles from childbirth, surgery, obesity, cystocele, rectocele, or a prolapsed uterus. ***Note:*** In noncommunicative patients, an excoriated perineum may be the result of incontinence, which warrants further investigation.

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings	Abnormal Findings
Test for prolapse. Ask the client to bear down while you observe the vaginal opening.	No prolapse is evident.	A protrusion into the vaginal opening may be a cystocele, rectocele, or uterine prolapse, which is a common sequelae of relaxed pelvic musculature in older women.
Perform a pelvic examination. Put on disposable gloves and use a small speculum if the vaginal opening has narrowed with age. Use lubrication on speculum and hand because natural lubrication is decreased.	Vagina narrows and shortens. A loss of elastic tissue and vascularity in vagina results in a thin, pale epithelium. Atrophic changes are intensified by infrequent intercourse. Loss of elasticity and reduced vaginal lubrication from diminishing levels of estrogen can cause dyspareunia (painful intercourse). Sexual desire, pleasure are not necessarily diminished by these structural changes, nor do women lose capacity for orgasm with age. Because the ovaries, uterus, and cervix shrink with age, the ovaries may not be palpable.	Malignancy, vulvar dystrophies, urinary tract infections, and other infections, such as ***Candida albicans,*** bacterial vaginosis, gonorrhea, or ***Chlamydia,*** can mimic atrophic vaginitis (Kennedy-Malone et al., 2000).
Test pelvic muscle tone. Ask the woman to squeeze muscles while the examiner's finger is in the vagina. Assess perineal strength by turning fingers posterior to the perineum while the woman squeezes muscles in the vaginal area.	The vaginal wall should constrict around the examiner's finger, and the perineum should feel smooth.	If the client has a cystocele, the examiner's finger in the vagina will feel pressure from the anterior surface of the vagina. In clients with uterine prolapse, protrusion of the cervix is felt down through the vagina. A bulging of the posterior vaginal wall and part of the rectum may be felt with a rectocele.
Male		
Inspect the male genital area with the client in standing position if possible.	The decline in testosterone brings about atrophic changes. Pubic hair is thinner. Scrotal skin is slightly darker than surrounding skin and is smooth and flaccid in the older man. Penis and testicular size decreases, scrotum hangs lower.	Scrotal edema may be present with portal vein obstruction or heart failure. Lesions on the penis may be a sign of infection. Associated symptoms frequently include discharge, scrotal pain, and difficulty with urination.
Observe and palpate for inguinal swelling or bulges suggestive of hernia in the same manner as for a younger male.	No swelling or bulges are present.	Masses or bulges are abnormal, and pain may be a sign of testicular torsion. A mass may be due to a hydrocele, spermatocele, or cancer.
Auscultate the scrotum if a mass is detected; otherwise, palpate the right and left testicle using the thumb and first two fingers.	No detectable sounds or masses are present.	Bowel sounds heard over the scrotum may suggest an indirect inguinal hernia. Masses are abnormal, and the client should be referred to a specialist for follow-up examination.

continued

Assessment Procedure	Normal Findings	Abnormal Findings
Anus, Rectum, and Prostate		
Inspection and Palpation **Inspect the anus and rectum.**	The anus is darker than the surrounding skin. Bluish, grapelike lumps at the anus are indicators of hemorrhoids.	Lesions, swelling, inflammation, and bleeding are abnormalities. If hemorrhoids account for discomfort, the degree to which bleeding, swelling, or inflammation interferes with bowel activity generally determines if treatment is warranted.
Put on gloves to palpate the anus and rectum. Also palpate the prostate in the male client. ➤ ***Clinical Tip*** *• The left side-lying position with knees tucked up toward the chest is the preferred one for comfort. Pillows may be needed for positioning and client comfort.*	The prostate is normally soft or rubbery-firm and smooth, and the median sulcus is palpable. Some degree of enlargement (BPH) almost always occurs by age 85 as does a decrease in amount and viscosity of seminal fluid. Sperm count may decrease by as much as 50%. Orgasm may be briefer and time to obtain an erection may increase. These changes alone, however, do not usually result in any loss of libido or satisfaction.	Palpation of internal masses could indicate polyps, internal hemorrhoids, rectal prolapse, cancer, or fecal impaction. Obliteration of the median sulcus is felt with prostatic hyperplasia. A hard, asymmetrically enlarged, and nodular prostate is suggestive of malignancy (Mezey et al., 1993). A tender and softer prostate is more common with prostatitis. Fever and painful urination are common with acute prostatitis. Obstructive symptoms are seen with both malignancy and infection of prostate.
Musculoskeletal System		
Inspection and Palpation **Observe the client's posture and balance when standing, especially the first 3 to 5 seconds.** ➤ ***Clinical Tip*** *• The ability to reach for everyday items without losing balance can be assessed by asking the client to remove an object from a shelf that is high enough to require stretching or standing on the toes and to bend down to pick up a small object, such as a pen, from the floor.*	Client stands reasonably straight with feet positioned fairly widely apart to form a firm base of support. This stance compensates for diminished sense of proprioception in lower extremities. Body usually bends forward as well.	A "humpback" curvature of the spine, called kyphosis, usually results from osteoporosis. The combination of osteoporosis, calcification of tendons and joints, and muscle atrophy makes it difficult for the frail elderly person to extend the hips and knees fully when walking. This impairs the ability to maintain balance early enough to prevent a fall. Client cannot maintain balance without holding onto something or someone. Postural instability increases the risk of falling and immobility from the fear of falling.
Observe the client's gait by performing the timed "Get Up and Go" test (Fig. 32-13): 1. Have the client rise from a straight-backed armchair, stand momentarily, and walk about 3 m toward a wall. 2. Ask the client to turn without touching the wall and walk back to the chair; then turn around and sit down.	Widening of pelvis and narrowing of shoulders. Client walks steadily without swaying, stumbling, or hesitating during the walk. The client does not appear to be at risk of falling. Elderly clients without impairments in gait or balance can complete the test within 10 seconds.	Shuffling gait, characterized by smaller steps and minimal lifting of the feet, increases the risk of tripping when walking on uneven or unsteady surfaces. Abnormal findings from the timed "Get Up and Go" test include hesitancy, staggering, stumbling, and abnormal movements of the trunk and arms.

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings	Abnormal Findings
3. Using a watch or clock with a second hand, time how long it takes the client to complete the test. 4. Score performance on a 1–5 scale: 1 = normal; 2 = very slightly abnormal; 3 = mildly abnormal; 4 = moderately abnormal; 5 = severely abnormal.		People who take more than 30 seconds to complete the test tend to be dependent in some activities of daily living such as bathing, getting in and out of bed, or climbing stairs.
Inspect the general contour of limbs, trunk, and joints. Palpate wrist and hand joints.	Enlargement of the distal, interphalangeal joints of the fingers, called Heberden's nodes, are indicators of degenerative joint disease (DJD), a common age-related condition involving joints in the hips, knees, and spine as well as the fingers (Fig. 32-14).	With accumulated damage and loss of cartilage, bony overgrowths protrude from the bone into the joint capsule, causing deformities, limited mobility, and pain. Hand deformities such as ulnar deviation, swan-neck deformity, and boutonniere deformity are of concern because of the limitations they impose on activities of daily living and related pain.

Figure 32-13 "Get up and go test" (© B. Proud).

continued

Assessment Procedure	Normal Findings	Abnormal Findings
Test range of motion. Ask client to touch each finger with the thumb of the same hand, to turn wrists up toward the ceiling and down toward the floor, to push each finger against yours while you apply resistance, and to make a fist and release it (Fig. 32-15).	There is full ROM of each joint and equal bilateral resistance	Limitations in ROM or strength may be due to degenerative disk disease (DJD), rheumatoid arthritis, or a neurologic disorder, which, if unilateral, suggests CVA. Signs of pain such as grimacing, pulling back, or verbal messages are indicators of the need to do a pain assessment. Grating, popping, crepitus, and palpation of fluid are also abnormalities. Crepitus and joint pain that is worse with activity and relieved by rest in the absence of systemic symptoms is often associated with DJD.

Figure 32-14 Degenerative joint disease.

Figure 32-15 Testing range of motion (© B. Proud).

continued

PHYSICAL ASSESSMENT *Continued*

Assessment Procedure	Normal Findings	Abnormal Findings
Similarly assess ROM and strength of shoulders (left) and elbows (right) (Fig. 32-16).	There is full ROM of each joint and equal strength.	Tenderness, stiffness, and pain in the shoulders and elbows (and hips), which is aggravated by movement, are common signs associated with polymyalgia rheumatica (PMR).
Assess hip joint for strength and ROM in the same manner as for a younger adult.	Intact flexion, extension, and internal and external rotation	Hip pain that is worse with weight bearing and relieved with rest may indicate DJD. There is usually also an associated crepitation and decrease in ROM. Complaints of hip or thigh pain, external rotation and adduction of the affected leg, and an inability to bear weight are the most common signs of a hip fracture. Much less common signs may be mild discomfort and minimal shortening of the leg (Burke & Walsh, 1997).

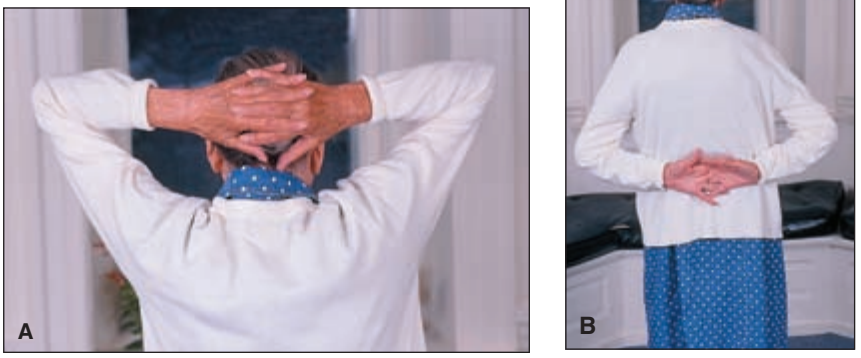

Figure 32-16 Testing range of motion. (© B. Proud.)

ASSESSMENT TOOL 32-4 Short Blessed Test

Patient: _____ **DATE:** _____

Age: _____

Short Blessed Test (SBT)[1]

"Now I would like to ask you some questions to check your memory and concentration. Some of them may be easy and some of them may be hard."

	Correct (0)	Incorrect (1)
1. What year is it now?_____		
2. What month is it now?_____		

Please repeat this name and address after me:

John Brown, 42 Market Street, Chicago
John Brown, 42 Market Street, Chicago
John Brown, 42 Market Street, Chicago

(underline words repeated correctly in each trial)
Trials to learning_____(can't do in 3 trials = C)

Good, now remember that name and address for a few minutes.

[1] Katzman R., Brown T., Fuld P., Peck A., Schechter R., Schimmel, H. Validation of a short orientation-memory concentration test of cognitive impairment. Am J Psyhciatry 140:734–739, 1983.

continued on page 787

ASSESSMENT TOOL 32-4 **Short Blessed Test *Continued***

3. Without looking at your watch or clock, tell me about what time it is.
   (If response is vague, prompt for specific response) Correct (0) Incorrect (1)
   (within 1 hour) _____
   Actual time: _____

4. Count aloud backwards from 20 to 1 0 1 2 Errors
   (Mark correctly sequenced numerals)
   If subject starts counting forward or forgets the task, repeat instructions and score one error
   20 19 18 17 16 15 14 13 12 11
   1 09 8 7 6 5 4 3 2 1

5. Say the months of the year in reverse order.
   If the tester needs to prompt with the last name of the month of the year, one error should be scored
   (Mark correctly sequenced months)
   D N O S A JL JN MY AP MR F J 0 1 2 Errors

6. Repeat the name and address I asked you to remember.
   (The thoroughfare term (Street) is not required)
   (John Brown, 42 Market Street, Chicago) 0 1 2 3 4 5 Errors
   _____, _____, ___, _____, _____

Check correct items **USE ATTACHED SCORING GRID & NORMS**

Short Blessed Test (SBT) Administration and Scoring Guidelines[2]

A spontaneous self-correction is allowed for all responses without counting as an error.

1. What is the year?
   Acceptable Response: The exact year must be given. An incomplete but correct numerical response is acceptable (e.g., 01 for 2001).

2. What is the month?
   Acceptable Response: The exact month must be given. A correct numerical answer is acceptable (e.g., 12 for December).

3. The clinician should state: "I will give you a name and address to remember for a few minutes. Listen to me say the entire name and address and then repeat it after me."

   It is important for the clinician to carefully read the phrase and give emphasis to each item of the phrase. There should be a one second delay between individual items.

   The trial phrase should be re-administered until the subject is able to repeat the entire phrase without assistance or until a maximum of three attempts. If the subject is unable to learn the phrase after three attempts, a "C" should be recorded. This indicates the subject could not learn the phrase in three tries.

   Whether or not the trial phrase is learned, the clinician should instruct "Good, now remember that name and address for a few minutes."

4. Without looking at your watch or clock, tell me about what time it is?
   This is scored as correct if the time given is within plus or minus one hour. If the subject's response is vague (e.g., "almost 1 o'clock), they should be prompted to give a more specific response.

5. Counting. The instructions should be read as written. If the subject skips a number after 20, an error should be recorded. If the subject starts counting forward during the task or forgets the task, the instructions should be repeated and one error should be recorded. The maximum number of errors is two.

[2] These guidelines and scoring rules are based on the administration experience of faculty and staff of the Memory and Aging Project, Alzheimer's Disease Research Center, Washington University School of Medicine, St. Louis (John C. Morris, MD, Director & PI; morrisj@abraxas.wustl.edu). For more information about the ADRC, please visit our website: http://alzheimer.wustl.edu or call 314-286-2881.

ASSESSMENT TOOL 32-4 Short Blessed Test *Continued*

6. Months. The instructions should be read as written. To get the subject started, the examiner may state "Start with the last month of the year. The last month of the year is_____." If the subject cannot recall the last month of the year, the examiner may prompt this test with "December"; however, one error should be recorded. If the subject skips a month, an error should be recorded. If the subject starts saying the months forward upon initiation of the task, the instructions should be repeated and no error recorded. If the subject starts saying the months forward during the task or forgets the task, the instructions should be repeated and one error recorded. The maximum number of errors is two.
7. Repeat. The subject should state each item verbatim. The address number must be exact (i.e. "4200" would be considered an error for "42"). For the name of the street (i.e. Market Street), the thoroughfare term is not required to be given (ie. Leaving off "drive" or "street") or to be correct (ie. Substituting "boulevard" or lane") for the item to be scored correct.
8. The final score is a weighted sum of individual error scores. Use the table on the next page to calculate each weighted score and sum for the total.

Final SBT Score & Interpretation

Item #	Errors (0–5)	Weighting Factor	Final Item Score
1		× 4	
2		× 3	
3		× 3	
4		× 2	
5		× 2	
6		× 2	
			Sum Total = _____ *(Range 0–28)*

Interpretation

A screening test in itself is insufficient to diagnose a dementing disorder. The SBT is, however, quite sensitive to early cognitive changes associated with Alzheimer's disease. Scores in the impaired range (see below) indicate a need for further assessment. Scores in the "normal" range suggest that a dementing disorder is unlikely, but a very early disease process cannot be ruled out. More advanced assessment may be warranted in cases where other objective evidence of impairment exists.

- In the original validation sample for the SBT (Katzman et al., 1983), 90% of normal scores 6 points or less. Scores of 7 or higher would indicate a need for further evaluation to rule out a dementing disorder, such as Alzheimer's disease.
- Based on clinical research findings from the Memory and Aging Project[3], the following cut points may also be considered:
  - 0–4 Normal Cognition
  - 5–9 Questionable Impairment (evaluate for early dementing disorder)
  - 10 or more Impairment Consistent with Dementia (evaluate for dementing disorder)

[3] Morris J. C., Heyman A., Mohs R. C., Hughes J. P., van Belle G., Fillenbaum G., Mellits E. D., Clark C. (1989). The Consortium to Establish a Registry for Alzheimer's Disease (CERAD). Part I. Clinical and neuropsychological assessment of Alzheimer's disease. *Neurology,* 39(9): 1159–65.

Assessment Procedure	Normal Findings	Abnormal Findings
Inspect and palpate knees, ankles, and feet. Also assess comfort level particularly with movement (flexion, extension, rotation).	The common problems associated with the aged foot, such as soreness and aching, are most frequently due to improperly fitting footwear.	A great toe overriding or underlying the second toe may be halluces valgus (bunion). Other abnormal findings may be enlargement of the medial portion of the first metatarsal head and inflammation of the bursae over the medial aspect of the joint. Bunions are associated with pain and difficulty walking.
Inspect client's muscle bulk and tone.	Atrophy of the hand muscles may occur with normal aging.	Muscle atrophy can result from rheumatoid arthritis, muscle disuse, malnutrition, motor neuron disease, or diseases of the peripheral nervous system. Increased resistance to passive range of motion is a classic sign of Parkinson's disease especially in clients with bradykinesia. Decreased resistance may also suggest peripheral nervous system disease, cerebellar disease, or acute spinal cord injury.
Neurologic System		
Observe for tremors and involuntary movements.	Resting tremors increase in the aged. In the absence of an identifiable disease process, they are not considered pathologic.	The tremors of Parkinson's may occur when the client is at rest. They usually diminish with voluntary movement. They usually begin in the hand and may affect only one side of the body (especially early in the disease). The tremors are accompanied by muscle rigidity.
Sensory System		
Test sensation to pain, temperature, touch position and vibration as you would for a younger adult.	Touch and vibratory sensations may diminish normally with aging.	Unilateral sensory loss suggests a lesion in the spinal cord or higher pathways; a symmetric sensory loss suggests a neuropathy that may be associated with a condition such as diabetes.
Assess positional sense by using the Romberg test as presented in Chapter 27. The exceptions to the test are clients who must use assistive devices such as a walker.	There is minimal swaying without loss of balance.	Significant swaying with appearance of a potential fall.

Abnormal Findings 32-1  **Age-Related Abnormalities of the Eye**

Common age-related abnormalities of the eye include glaucoma, macular degeneration, retinal detachment, and diabetic retinopathy.

Glaucoma

The client with glaucoma is usually symptom free. In elderly people, diabetes and atherosclerosis are conditions that increase the risk of glaucoma. The disorder is caused by increased pressure that can destroy the optic nerve and cause blindness if not treated properly. An acute form of glaucoma can occur at any age and is a true medical emergency because blindness can result in a day or two without treatment. Rainbow-like halos or circles around lights, severe pain in the eyes or forehead, nausea, and blurred vision may occur with the acute form of glaucoma.

Macular Degeneration

Macular degeneration, a gradual loss of central vision, is caused by aging and thinning of the micro-thin membrane in the center of the retina called the macula. Additional risk factors include sunlight exposure, family history, and white race. Most cases begin to develop after age 50, but damage may be occurring for months to years before symptoms occur. Peripheral vision is not affected, and the condition may occur initially in only one eye. Only about 10% of all age-related macular degeneration leaks occur in the small blood vessels in the retinal pigment epithelium. This type accounts for the most serious loss of vision.

Retina Detachment

Retinal detachment occurs at a greater frequency with aging as the vitreous pulls away from its attachment to the retina at the back of the eye, causing the retina to tear in one or more places. A retinal detachment is always a serious problem. Blindness will result if the detachment is not treated.

Diabetic Retinopathy

Many older adults have diabetes, which can lead to cataracts, glaucoma, and diabetic retinopathy. Of those with diabetes mellitus, about 90% will develop diabetic retinopathy to some degree. The more serious of the two forms of the disease, proliferative diabetic retinopathy, occurs most often among those who have had diabetes for more than 25 years. People with the advanced form of the disease usually experience a noticeable loss of vision, including cloudiness, distortion of familiar objects, and, occasionally, blind spots or floaters. If not treated, diabetic retinopathy will lead to connective scar tissue, which over time can shrink, pulling on the retina and resulting in a retinal detachment. In the early stages of the milder form of the disease, background diabetic retinopathy, the person may be unaware of problems because the loss of sight is usually gradual and mainly affects peripheral vision.

VALIDATING AND DOCUMENTING FINDINGS

The prevalence of chronic conditions in the frail elderly redefines the meaning of normalcy. The ability of the elderly person to function in everyday activities, albeit with environmental and pharmacologic interventions, is a more meaningful measure of normalcy than are physical findings alone. Thus the objective and subjective data must reflect a functional and physical assessment.

Sample of Subjective Data

Health complaints or abnormalities are as likely to be the result of an adverse reaction to drug therapy as they are to a disease process. Compiling a profile of prescription and over-the-counter medications is an essential component of any assessment of the frail elderly person—whether it is being performed to treat a specific health complaint or for compiling baseline data of the client's health status.

Client is an 86-year-old female who moved to a residential care facility 2 years ago because of difficulty climbing stairs and maintaining her home of 43 years. Eats two meals a day in dining room and has had gradually improving appetite since moving into the care facility where meals are provided. Reports occasional episodes (about once every 2 to 3 weeks) of some difficulty swallowing, especially food that is dry or meat that is tough. Takes Metamucil to keep bowel movements regular and soft. Current prescription medications are Sinemet 1 tid and sodium Diuril 500 mg qd.

Has regular dental examinations and sucks on hard candy to alleviate dry mouth. Until last 5 to 10 years was 5 foot 5 inches and weighed approximately 130 lb. Denies any recent falls, syncopal episodes, or dyspnea with daily activities. However, client reports that she tries to sit for 5 to 10 minutes before standing to avoid becoming lightheaded. Client has yearly mammograms and Pap smears done. She is a breast cancer survivor and stopped taking supplemental estrogen when diagnosed and treated 20 years ago. She reports no bleeding or change in moles or skin lesions. Client receives B_{12} injections once a month and reports that she always has more energy for 2 to 3 weeks after that. Client reports that she has had to get new eyeglasses twice in the last 4 years and that she sees occasional halos around lights. She can still read the newspaper if she shines a bright light directly on it, and she enjoys quilting. Client states that she is contented with her life and keeps in touch with family and friends with frequent phone calls and occasional visits. She also has made several new friends since moving into the care facility.

Sample of Objective Data

Client is 5 foot 3 inches, 122 lb; no orthostatic BP (lying = 150/85, HR = 88; sitting = 148/84, HR = 90; standing = 148/84, HR = 90); RR = 22. Client is independent in transfers and uses a walker for ambulating. She has a pill-rolling tremor at rest. She completes the "Get Up and Go" test with no noted abnormalities. Physical examination reveals a soft systolic murmur, absent pedal pulses, and soft and nondistended abdomen. She has no pedal edema; toenails are thick and yellowish; no ulcerations or discoloration of skin on lower extremities. No abdominal or carotid bruits noted on auscultation; lungs are clear to auscultation. The client's tongue is pink and moist. Her skin is thin and transparent. Numerous moles and brown, pigmented flat lesions (lentigenes) are noted on her hands, lower arms, and neck. Her fingernails are yellowish and brittle. A yellowish discoloration is noted for the lens of both eyes. Slight accumulation of dry earwax in outer ear; tympanic membrane is pink and intact. Mini Mental Status exam is normal. Client has no noted difficulties in conversation with memory, judgment, comprehension, or word recall.

Analysis of Data

DIAGNOSTIC REASONING: POSSIBLE CONCLUSIONS

After collecting subjective and objective data pertaining to the frail elderly assessment, identify abnormal findings and client strengths. Then cluster the data to reveal any significant patterns or abnormalities. These data may then be used to make clinical judgments about the status of the client's health.

Selected Nursing Diagnoses

Following is a listing of selected nursing diagnoses (wellness, risk, or actual) that you may identify when analyzing the cue clusters.

Wellness Diagnoses

- Readiness for Enhanced Effective Caregiving

Risk Diagnoses

- Risk for Caregiver Role Strain, related to complexity of illness and lack of resources
- Risk for Ineffective Family Coping related to emotional conflicts secondary to chronic illness of parent
- Risk for Social Isolation related to inability to communicate effectively, decreased mobility, effects of chronic illness, or pain
- Risk for Imbalanced Nutrition, Less Than Body Requirements related to dysphagia, or decreased desire to eat secondary to altered level of consciousness
- Risk for Constipation related to decreased physical mobility, decreased intestinal motility, lower fluid intake, reduced fiber and bulk in diet, and effects of medications
- Risks for Impaired Skin Integrity related to loss of subcutaneous tissue, immobility, malnutrition
- Risk for Ineffective Thermoregulation related to loss of subcutaneous tissue, atrophy of eccrine sweat glands, decreased functioning of sebaceous glands
- Risk for Disturbed Sensory Perception: Visual—related to dry eyes, loss of lens transparency, slow pupil constriction; Auditory—related to presbycusis
- Risk for Impaired Gas Exchange related to diminished recoil of lungs, less elastic alveoli, and loss of skeletal muscle strength
- Risk for Loneliness related to changing role and decreasing functional status

Actual Diagnoses

- Caregiver Role Strain related to severity of illness, complexity of caregiving tasks
- Diversional Activity Deficit related to impaired mobility or impaired thought processes
- Fatigue related to compromised circulatory or respiratory system and/or effects of medications
- Grieving related to debilitating effects of chronic illness
- Hopelessness related to deteriorating physical condition
- Chronic Sorrow of parent, caregiver, or individual client related to chronic physical or mental disability of client
- Ineffective Therapeutic Regimen Management related to lack of community resources
- Impaired Physical Mobility related to pain, age, pathologic changes in joints, or neuromuscular impairment
- Powerlessness related to unpredictability of complex disease processes and complex treatments
- Ineffective Protection related to decreased immunity
- Activity Intolerance related to weakness, fatigue, or pain related to joint and muscle deterioration and subsequent disuse of joints
- Ineffective Role Performance related to chronic illness
- Functional Urinary Incontinence related to immobility or dementia
- Wandering related to cognitive impairment, disorientation, and sedation
- Bathing/Hygiene Self-Care Deficit related to impaired physical or cognitive functioning
- Dressing/Grooming Self-Care Deficit related to impaired physical or cognitive functioning
- Acute Confusion related to adverse effects of medication, infection, or dehydration

Selected Collaborative Problems

Often, abnormalities identified in the nursing assessment (including functional) will require a collaborative approach. Since the geriatric syndromes are usually caused by acute pathology, they almost always require referral and/or nurse-physician collaboration. After grouping the data, certain collaborative problems may become apparent. Remember that collaborative problems differ from nursing diagnoses in that nursing interventions cannot prevent them. However, these physiologic complications of medical conditions can be detected and monitored by the nurse. In addition, the nurse can use physician- and nurse-prescribed interventions to minimize the complications of the problems. In such situations, the nurse may also have to refer the client for further treatment of the

problem. Following is a list of collaborative problems that may be identified when assessing the frail elderly client. These problems are worded as Risk for Complications (or RC), followed by the problem. It is important to remember, however, that any complication in the very old is likely to manifest as any one of the geriatric syndromes (GS).

Geriatric Syndromes: FALLS

- RC: Cardiac—syncope, orthostasis, dysrhythmias
- RC: Musculoskeletal—loss of strength, osteoporosis, osteoarthritis
- RC: Neurologic—dizziness, poor balance and gait, intracranial hemorrhage
- RC: Sensory—loss of vision
- RC: Infection

Geriatric Syndromes: Urinary Incontinence

- RC: Urinary obstruction—prostatic hypertrophy
- RC: Infection
- RC: Constipation, fecal impaction
- RC: Adverse medication effect

Geriatric Syndromes: Acute Mental Status Decline

- RC: Infection—pneumonia, urinary tract, sepsis
- RC: Adverse medication effect
- RC: Dehydration
- RC: Cardiovascular—heart failure, cerebrovascular accident (CVA)
- RC: Metabolic—hypothyroidism/hyperthyroidism, hypoglycemia
- RC: Depression

Geriatric Syndromes: Weakness, Fatigue, Anorexia, and Dyspnea

- RC: Cancer
- RC: Pain
- RC: Dysphagia
- RC: Adverse medication effect
- RC: Renal failure
- RC: Infection

CASE STUDY

You are doing the home health intake assessment on Mrs. Doris Miller, an 82-year-old Caucasian widow who has come to live with her daughter, Delores Ralston. Mrs. Miller fell in her own home three weeks ago and was hospitalized for repair and pinning of a fractured right femur.

Mrs. Miller is sitting in a chair and appears to be thin, pale, and distracted as you enter the room and introduce yourself. Mrs. Miller answers some of your questions appropriately, but frequently apologizes for her appearance and defers to her daughter to answer any questions with regard to her recent fall and hospitalization. She says in a very weak, raspy voice, "I don't know how I ended up here. I don't know what I'd do without Delores but if I could just walk and didn't hurt so bad everything would be O.K . . . I've always been able to take care of things. This just all seems like such of a fuss over nothing. She reaches up to wipe her eyes with a tissue that she is holding in her right hand with noticeably contracted fingers with swan-neck deformities and enlarged distal, interphalangeal joints.

Delores reports that Mrs. Miller can put just enough weight on her right leg to use a walker, but needs assistance with bathing, cooking, and dressing. She says that her mother is not eating very well and seems to be getting choked easily, especially when she is drinking, and that she complains frequently of a "dry mouth." Bedpads are used to manage a small amount of incontinence during the night. Delores is setting the alarm for 3:00 AM to assist her mother onto a bedside commode. Mrs. Miller has a history of Parkinson's, osteoarthritis, osteoporosis, and mitral valve disease. She has fallen numerous times, but this was the first time that she broke any bones with the fall. Her current medications are Sinemet 25/250 mg every day; warfarin 5 mg every day; MS Contin 15 mg every 12 hours; MS 10 mg oral solution (10 mg per 2.5 ml) every 8 hours prn breakthrough pain; levothyroxin 0.05 mg every a.m.; Miralax every other day as needed for constipation.

Your physical exam reveals a resting tremor of the hands, and several large bruises on her right shoulder, upper arm, and hip. She has slight ectropion and reddened eyes. You note crepitus and a grating, popping sound bilaterally when you assist her to raise her arms as well as increased resistance and rigidity. Mrs. Miller's blood pressure is 85/45 on the right and 108/64 on the left. Her heart rate is 92 and irregularly irregular. Lung sounds are clear but only heard in the upper lobes. Her height is reported at 5′0″ and her weight prior to the fall and hospitalization was 89 lbs. Although her skin is pale, thin, and dry in most areas, it appears intact and well cared for. Incision line on right leg is dry, slightly red, but without swelling or drainage. However, some redness is noted on the elbows and sacrum, and the antecubital spaces are moist with some beginning maceration. Mrs. Miller has 1+ pitting pedal edema bilaterally.

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