Chapter 5
Medical Issues and Terminology in Long Term Care

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Introduction

Long term care has evolved into a “catch all” phrase that is confusing to the lay as well as the professional community. The boundaries among primary, acute, and long term care have blurred. Instead of concentrating on acute care in hospitals, our health care system’s focus has switched to managing chronic conditions in a variety of settings from home to rehabilitation hospitals. The long term care goal switches from curing illness to helping individuals function as well as possible while maintaining dignity and independence. Individuals that require long term care have a compromised ability to live on their own due to their condition. Long term care encompasses help with activities of daily living (ADLS) such as bathing, dressing, eating, and toileting. Services also include instrumental activities of daily living (IADLs) such as shopping, managing medication, meal preparation, household chores, money management, and transportation. The services provided are primarily low tech services that are designed to rehabilitate or compensate for loss of physical and/or mental functioning. The IRS utilizes these same terms to outline long term medical care deductions for the chronically ill. They define qualified long term care services as when a person is unable to perform at least two activities of daily living without substantial assistance or they need substantial supervision to be protected from threats due to severe cognitive impairment (4).

There are many common terms for long term care facilities that are confusing and require some clarification. Nursing homes have been called rest homes, homes for caring for the aged, nursing facilities, nursing homes, skilled nursing facility (SNF), nursing units (SNU), respite homes, and many more. The focus in this chapter is on nursing homes or Nursing Facilities as referred to by Medicare and Medicaid (5). Nursing facilities that participate in Medicare and Medicaid programs are subject to federal requirements regarding staffing and quality of care for residents. Medicare long term care services are covered by Part A, “Skilled Nursing Facility” (SNF) services which are associated with post-operative or post-hospitalization including rehabilitation therapies. Medicaid “Nursing Facility” (NF) services are provided to state residents who meet the Medicaid eligibility requirements. Most nursing homes provide services to both Medicare and Medicaid clients as well as clients paying privately for services. There are over 16,000 nursing facilities in the United States.

Need for Long Term Care – Statistics and Aging

Long term care needs emerge from chronic medical and psychiatric conditions that occur from birth to death. They may result from chronic conditions such as diabetes, rheumatoid arthritis, heart disease and chronic mental illness, that mature with time causing increasing functional limitations that eventually require more complex assistance. Accident victims also develop long term care needs such as injury that results in traumatic brain injury or paralysis. Long term care is not merely an extension of acute care but involves chronic, extended care that requires assistance with basic human needs such as housing and care. People who require long term care also require acute care for periods of
exacerbations and other illnesses. There are some statistics that exemplify the needs of long term care in the elderly population.

- The total elderly population of 65 and older is 13% of the total population
- Life expectancy at 65
  - Men have a 17.1 year life expectancy
  - Women have a 20 year life expectancy
- After age 65, almost one half of all Americans will spend some time in a nursing home.
- The demand for long term care increases dramatically with age, underscoring the need to pay special attention to those over 85
- Leading cause of death in age 65 and older
  - Heart disease
  - Cancer
  - Stroke
- Nursing home usage has been decreasing in the past decade most likely due to alternative care arrangements such as assisted living and supportive care
- Nursing home residents have needs for care with the majority needing assistance in more than four activities of daily living (ADLS)
- The nursing home will remain a necessary option for elders with severe disabilities, insufficient support systems, and inadequate living arrangements.
- (6)
- (2)

It is essential that we keep in mind the health of our elderly population, the diseases that commonly afflict them, and the aging process itself. Each 85 year old person is unique and has a lifetime to develop their personal health history. Individuals that are admitted to nursing facilities commonly have multiple diagnoses that require care and attention. People are living longer, but they also are ill longer and require the use of medical care to meet their evolving needs. In the industry this is referred to as “quantity versus quality” and end of life issues become more and more complex. It is important to have a basic understanding of the diseases and conditions that affect the elderly to properly serve their health, social, mental, and legal needs. Regardless of how long one lives, time takes a toll on the organs and systems of the body.
Diseases of the Elderly a Review of Systems

Cardiovascular

Over time, the heart muscle becomes a less efficient pump, working harder to pump the same amount of blood. Fatty deposits (arthrosclerosis) cause narrowing and decreased elasticity of the arteries, which affects the health of the entire cardiovascular system. Increasing age is the most significant risk factor for cardiovascular disease in the United States. A myocardial infarction (MI) is a loss of arterial blood flow to the heart resulting in damage to the un-oxygenated area. This is the most common heart ailment and is commonly referred to as a heart attack. Of the 1.1 million recognized heart attacks, over 62% occur in those over 65 and fatality rates increase markedly with age. Diabetes, obesity, smoking and physical inactivity are all risk factors for compromising cardiac health. Approximately 15 to 20% of the victims die before they reach the hospital. The treatment for the first heart attack requires emergency medical care for survival and is most precarious in the first few hours and days. Specialized monitoring equipment and rapid response by the medical and surgical teams may be required to improve survival rates. Acute phase treatments include administration of medications to dissolve the clots, coronary bypass surgery to bypass the blockage, pain and anxiety control medications, and intensive monitoring. Long term management is targeted at improving the electrical functioning of the heart, improving the pumping action of the heart, blood thinners to reduce the resistance in the vascular system, and of course, a reduction in risk factors such as smoking and obesity.

Congestive heart failure (enlarged heart) is a loss of elasticity of the heart muscle and increased pressure resistance throughout the body. The muscle becomes less elastic, enlarges to attempt to improve performance, and can become sluggish and ineffective. High blood pressure and arthrosclerosis are common causes of this condition. In severe cases the circulation becomes impaired in the extremities and edema (swelling with water retention) is a common result. This condition is treated with medications that assist the heart in slowing down and beating more effectively as diuretics (water pills) reduce the edema. Over time the medications can become less effective and the edema moves up to the lungs causing respiratory difficulty and may eventually lead to death.

Hypertension (high blood pressure) is an increased pressure in the vascular system. Over one half of Americans age 60 and over have high blood pressure. The heart has to work much harder to oxygenate all parts of the body. Elevated blood pressure that is untreated can lead to cardiovascular events such as stroke and MI. Hypertension is treated with limiting sodium intake, hypertensive medications, and diuretics to eliminate excess edema. Blood thinners are also utilized to ease the transport of blood throughout the body. A person with hypertension needs periodic monitoring of the blood pressure. The staff needs to be alert for signs of elevated pressure including headaches, visual problems, and vomiting. However, elevated blood pressure does not always come with physical complaints and is commonly referred to as the “silent killer.”

Cerebral Vascular Accident (CVA) is more commonly called a stroke. It is the third leading cause of death and the leading cause of disability in the United States. It results from an interrupted blood flow to the brain due to a clogged or blocked arterial flow. It can also result from a hemorrhage into the
brain tissue causing lack of blood perfusion by compression of the tissue. If the tissue is without oxygen for an extended period of time tissue necrosis (tissue death) occurs resulting in altered functioning. The severity is dependent upon the location and scope of the necrosis. The goal of treatment is to minimize damage and to increase perfusion. The underlying cause of a CVAs is atherosclerosis. Strokes are very similar to heart attacks and all of the same risk factors apply. The damage is caused by a lack of blood flow to a vital organ. Medications that reduce the buildup of plaque, thin the blood and reduce the blood pressure are the most common treatments. Regeneration of neural tissue is limited and slow. This is why a stroke is the leading cause of disability.

**Peripheral Vascular Disease (PAD) is also called peripheral artery disease and** is caused by atherosclerosis and prevalence rapidly increases with age with greater than 20% being over 70. The disease is caused by a lack of perfusion (blood flow) to the extremities. This lack of oxygenation, especially if prolonged, results in damage to the limbs. Symptoms include pain in the affected limb, commonly called “charley horses”, and discoloration. Severe cases can result in loss of limb. PAD is indicative of poor cardiovascular health and a full cardiac work up needs to be done to address the other areas of the body that are most likely affected. More than one half of the patients with PAD will die of coronary artery disease and an additional 20% from strokes. Treatment includes methods that improve circulation such as physical activity and whirlpool treatments. Blood thinners help with circulation to all parts of the body. A close eye is kept on these clients for other life threatening illnesses that may affect them.

**Dehydration** is not actually a disease but is a common admitting diagnosis for the elderly. The body is comprised mostly of water and a deficit in this area can lead to serious fluid and electrolyte imbalances. Dehydration is an inadequate amount of circulating fluids that has many causes. The adult requires 1.5 to 2 liters minimum per day and the need increases with illness, fever, and increased activity. Medications can alter absorption and excretion rates that do not match the body’s true needs. The body requires the electrolytes to be in proper balance or the kidneys, heart, lungs, and brain can be affected. For instance, decreased blood levels of potassium lead to electrolyte imbalances in the heart and can trigger failure of the pacemaker and cause asystole (stopped heart). The occurrence of an acute febrile illness or a heat wave can quickly result in life threatening dehydration. When an elderly person falls in his or her home and is not found for prolonged periods of time (hours to days), dehydration is a very common diagnosis and reason for admitting to a hospital. The client presents as confused, hypotensive (low blood pressure) and febrile. The client is generally treated with intravenous fluid, comprised of salt and water, and is rehydrated quickly. The client may recover rapidly as the life sustaining fluid is added to their cardiovascular system. If they are not treated in time a cardiac event is the most likely cause of death due to the electrolyte imbalances. Although this is actually not an illness, it is a common occurrence in the elderly with severe consequences if left untreated.

**Gastrointestinal (GI)** complaints are common in the elderly and range from mild to life threatening episodes such as a **GI bleed**. A GI bleed can be a life-threatening emergency and requires acute care. Comorbid illnesses and polypharmacy may also contribute to and modify the outcomes of GI events. There is an increased incidence of **peptic ulcer** due to the use of nonsteroidal anti-inflammatory (NSAID) drugs that are caustic to the lining of the stomach with prolonged use. Clients with arthritis are at high
risk for this secondary condition caused by these medications. Gastroesophageal reflux (acid moving back up the esophagus) occurs in at least 40% of the geriatric population. Dysphagia (difficulty swallowing) is usually secondary to a stroke, brain injury, or cancer. The inability to swallow correctly can lead to food entering the trachea causing a condition called aspiration pneumonia. Dysphagia, in its extreme, results in the need for bypassing the esophagus for nutrition, which is done with a feeding tube. Constipation is experienced by over 45% of the elderly due to the decreased motility of the bowel and decreased physical activity. Laxatives are the treatment of choice, but attention must also be given to diet and exercise. Diverticular disease is found in 80% of those over 80. It is an out pouching of the mucosa in the intestine. Most clients are asymptomatic but some have difficulty digesting food that can be caught in the pouches, such as popcorn. In severe cases, abscesses and cancer can arise in the pouches and may require diagnostic testing and surgical intervention. Most GI conditions are treated with symptom management and diet alterations. Severe cases may require acute care and more aggressive therapy. Although it is a major complaint in the elderly population it does not rank high in morbidity and the general course of action is symptom management.

Cancers in the elderly may demonstrate a distinct natural history that differs from the younger population. Most cancers that occur in the elderly are less aggressive than in earlier stages of life. However, the ability of the body to handle toxicities of the treatments is severely compromised by the decreased renal, liver, and cardiovascular functions that are a normal part of aging. Cancer is a serious illness at any age and can affect any organ. The treatments are surgery, chemotherapy, radiation therapy, hormonal therapy, or genetic therapy (immune therapy) in a variety of combinations. The treatment choice is dependent upon several factors including the cancer itself (type and stage), the health of the host and ability to handle the therapy, and personal choice in relation to quality of life. Lung cancer is the leading cause of death among men and women with the majority of cancers being in the over 65 age range. Sixty-six percent of the pancreatic cancers develop in the over 65 population. The incidence of ovarian cancers increases with age, peaking in the 80s. Cancers of the blood are called Leukemia and are common in the elderly population. Colorectal cancers are really two types of cancer. Cancers can develop in the rectum and the treatment is much more localized. Cancers in the actual colon are in close proximity to the liver and more systemic approaches are necessary. Prostate cancer is common in the elderly with 80% of males who are 80 showing signs of it upon autopsy. This is one cancer that has an effective screening test called the prostate specific antigen (PSA) which is a simple blood test. Treatment is based on the aggressiveness of the disease and its hormone receptivity. Early detection has become possible with the development of the screening test and has increased quality of life and survival.

Renal functioning decreases with age as the glomerular filtration rate (GFR) normally falls progressively with aging and the aged kidney has less functional reserve. Glomerular disease usually presents with progressive renal failure. The symptoms include hypertension, blood in the urine, and edema of the extremities. The basic blood tests that review fluid and electrolytes are good indicators for kidney health. Kidney failure is generally accompanied by comorbidities of diabetes or heart disease and the client is generally quite compromised. Managing all of the disease states, such as water retention, hypertension, and cardiac pump failure is essential. It must be noted that many of the medications are
cleared through the kidneys and altered functioning requires medication adjustment. Many of the chemo therapies and antibiotic therapies can be toxic to the kidneys especially in the elderly population. Kidney functioning is managed by decreasing stressors on the kidney with decreased sodium intake and medication management that increases perfusion. Kidney dialysis is the extreme and has a time limited value as the kidney disease progresses. Generally, dialysis is not done more than three times a week and if more is required end of life issues should be addressed.

**Hepatic Functioning (liver functioning)** decreases with age as part of the normal aging process. Geriatricians are quite aware of this factor because it is significant when it comes to prescribing medications to the elderly as all medications are cleared in the liver. Generally drug doses are decreased by 30% to manage the delayed clearing in the body. The liver has a unique ability to regenerate when it is damaged and is one of our most resilient organs. Liver enzymes can be evaluated with simple blood tests. Temporary elevated liver enzymes are symptomatic of trauma to the body and are particularly valuable indicators when evaluating myocardial infarctions (heart attacks). Actual damage to the liver is more difficult to determine and frequently requires a liver biopsy to determine the health of the tissue. Liver function tests are quite resilient until the end stage disease exists. End stage liver disease is exemplified by lethargy, edema in the abdomen, and elevated blood pressure. Death occurs due to uncleared toxins in the body or heart failure from pressure backing up in the liver causing undue stress to the heart.

**Osteoporosis** is prevalent in 70% of the women over 80 years old. Men also have it but at a lower incidence (30%). The bones become more porous over time and become quite fragile. The risk of a simple fall can result in a major fracture and poor healing. Prevention in the earlier years will help decrease calcium depletion and lessen the severity and delay time of onset. Calcium, Vitamin D and strength bearing exercise are the best preventative measures. There are no clinical manifestations until there is a fracture. Alcohol, tobacco, and inactivity are preventable risk factors. The treatment is vitamin D supplementation, bisphosphonates, and estrogen replacement therapy. Prevention of falls becomes of primary concern in the nursing home setting. Clients that have comorbidities such as gait disorders, equilibrium disorders, impaired or missing limbs, post stroke victims, or brain injury clients should have special attention to fall prevention protocols. Clients attempting to find their way to the bathroom have always been the number one cause of falls in a nursing home. Bed alarms to alert staff when they are attempting to get up, scheduled bathroom times, and placing at risk clients close to the nurse’s station are great fall protective strategies.

**Endocrine disorders** include both hyper and hypo thyroidism which both affect the energy, appetite and general feelings of well being. Both are assessed through blood studies and managed with medications. Diseases of the adrenal cortex can lead to serious conditions of diabetes, high potassium, and other electrolyte imbalances that affect general health and cardiac function. The most common and problematic illness is diabetes, which affects all systems of the body over time including eye sight, kidney function, peripheral perfusion, and cardiac health. **Diabetes** is now categorized as Type I and Type II. Type I presents early in one’s life and is insulin dependent. With Type II diabetes, the individual still produces some insulin and carbohydrate control and medications that improve insulin production can manage the symptoms. Over time the diet and oral medications can fail and Type II can require
insulin management. The circulating high blood sugars cause damage to all tissues over a long duration. Diabetes is a major risk factor for stroke, heart disease, hypertension, and amputation. The best prevention of these complications comes from good management of the disease and minimal fluctuations in blood sugars outside the normal reference range.

**Respiratory Diseases** include lifelong ailments such as asthma, as well as illnesses acquired later in life such as chronic obstructive lung disease (COPD). COPD is a common ailment and is a limitation in the airflow in and out of the lungs. This leads to poor oxygenation, lack of energy, decreased appetite, and frequent lung infections. The goal of treatment is symptom management and prevention of disease advancement. Risk factors such as smoking should be eliminated. Over time the disease is chronic and progressive, leading to increasing fatigue until the person is unable to care for themselves. In later stages oxygen is necessary and the need escalates until death. There are frequent episodes of infection and compromised lung function that need acute care management with antibiotics and intensive oxygenation. Over time the lung function decreases to the point that life is not sustained.

**Special Conditions that Are Problematic in the Nursing Home Setting**

**Pressure Ulcers (decubitus ulcers, bed sores)** are considered a serious condition in the nursing home setting. They are caused by pressure applied to susceptible tissue over a period of time. They can develop in an incredibly short duration and are one of the most difficult conditions to treat in the modern day world. Prevention and good nursing care is the best way to avoid them. A serious pressure sore can develop in as little as eight hours and take two years to cure. Pressure sores usually develop over boney areas such as the hips, coccyx, and heels of the feet. The comorbid factors that put a person into the high risk category include diabetes, poor tissue perfusion, immobility, and malnutrition. The sores are classified from I to IV with one being redness and mild abrasion and stage four showing deep and severe tissue damage. Nursing practices for the immobilized patient include turning every two hours, alternating pressure mattresses, daily skin inspection for high risk clients, keeping clients clean and dry --- basically good nursing care. Pressure ulcer incidence is considered a measurement of quality of care. Aggressive management when one is developed is also an indicator of quality of care. Many nursing homes are cited by public health surveys in relation to pressure ulcers. Most have developed wound care protocols and even wound care teams to address this issue. If treatment is not managed or the client is so compromised they cannot heal then secondary infections can develop that can ultimately lead to death. In long term care settings, development of a pressure ulcer was associated with a 92% mortality rate within three months.

**Cognitive issues** are prevalent in the long term care setting. It is one of the main reasons that clients cannot be maintained in the home setting. The prevalence of dementia approximately doubles every five years after the age of 60. Approximately 65% of dementias are Alzheimer’s type with the remaining being vascular and Parkinsonian. **Alzheimer’s disease** is manifested by memory impairment and difficulty learning and recalling information. When it is severe enough to interfere with social functioning the long term care setting may be sought. Clients consistently lack insight into their level of
deficit. Social functioning can be retained for long periods and they can appear quite normal until they ask repeatedly for the same information in a very short span of time. The disease is progressive and over time they forget how to meet their basic ADLS. In very late stages they forget how to swallow and ultimately go into organ shutdown which results in death. Psychotic symptoms of delusions, hallucinations and paranoia are common in 50% of the population and can be a clinical challenge in the long term care setting. Vascular dementia (VaD) is characterized by cerebral vascular disease. The course is generally of more sudden onset after a stroke. They tend to have better recall and benefit from memory prompts. The disease follows the course of their vascular disease and can remain stable for long periods of time. Parkinson disease, also called Lewy body disease, is insidious and progressive in nature. It follows the pattern of Alzheimer’s disease and can be accompanied by hallucinations. Treatment for all of these types of dementias focuses on increasing tissue perfusion and prevention of further vascular events. The nursing focus is on creating a calm and stabilizing environment with maximum structure. Memory prompting, visual cues and repetitive learning techniques will help the client cope and adjust to the setting. Prevention of wandering and keeping them safe from harm due to their lack of reasoning are essential. Door alarms and wander guards are used to track clients and prevent them from exiting the safety of the facility without accompaniment.

The use of restraints is controversial. The Nursing Home reform act provides that all residents have the right to be free from restraints used as a form of punishment or for the convenience of the nursing staff. Restraints may be used only to ensure the physical safety of the resident or other residents and, except in an emergency, only when a doctor writes an order that details the duration and circumstances under which restraints can be used. Furthermore, residents must be released from restraints and exercised every two hours. There are two types of restraints: physical and chemical. Physical restraints are defined as any manual method or physical or mechanical device, material or equipment attached or adjacent to the resident's body that the individual cannot remove easily and which restricts freedom of movement or normal access to one's body. It may come in many forms and include:

- Hand mitts
- Restrictive chairs, like Gerichairs with lap trays and small wheels that limit mobility
- Vests that tie nursing home residents to their chairs or beds
- Wrist restraints
- Ankle restraints
- Bedrails when used to keep a resident from getting out of bed when desired
- Bed sheets tucked so tightly that a resident can’t move
- The placement of a wheelchair-bound resident next to a wall that prevents the resident from getting up

Restraints are considered a form of medical treatment. As such, they can only be used under the direction of a physician. In ordering the use of restraints, the physician must specify the medical necessity for using the device, the circumstances under which it can be used, and the length of time over which it can be used. Because of the potential dangers involved, restraint use must be monitored,
and its effectiveness must be continuously evaluated. An effort must always be made to use the least restrictive available method of restraint, and to restore each individual to his or her maximum possible level of independence.

Physical restraints have been used to remind individuals not to get up without assistance. However, there are often newer and safer techniques available. Restraints are sometimes useful as a temporary measure in providing needed medical treatment - such as intravenous medications, specialized feedings or wound care - during the assessment period, or when other less restrictive measures have failed to provide adequate safety. Applying physical restraints routinely or for prolonged periods should be avoided whenever possible. Restraint use often leads down a slippery slope of increased dependence and disability.

Restraints are one of the leading causes of injury in a nursing home setting. Clients trying to extract themselves from physical restraints frequently find themselves more entangled. Falls, choking, compressing, and pressure sores are only some of the issues.

Medications can be utilized to control or alter behavior and are considered chemical restraints when used in this manner. They can be used to control such things as pacing, restlessness, and uncooperative behavior. The concept of chemical restraint hinges on whether an agent is given as a part of the treatment of the patient's condition or simply to control the patient's behavior. If prescribed simply as a reaction to the patient's behavior, it is a restraint. The Center for Medicare and Medicaid Services define what is considered an unnecessary drug:

- In excessive dose
- For excessive duration
- Without adequate monitoring or without adequate indication for its use
- In the presence of adverse consequences, which indicate the dose should be reduced or discontinued (i.e.: excessive drowsiness)
- Without specific target symptoms

Today the use of restraints is being replaced with proactive, thoughtful care focused on the client’s dignity, functional status, and their cognitive level of functioning. Here are some of the alternatives to restraints:

- Personal strengthening and rehabilitation program;
- Use of "personal assistance" devices such as hearing aids, visual aids and mobility devices;
- Use of positioning devices such as body and seat cushions, and padded furniture;
- Efforts to design a safer physical environment, including the removal of obstacles that impede movement, placement of objects and furniture in familiar places, lower beds and adequate lighting;
- Regular attention to toileting and other physical and personal needs, including thirst, hunger, the need for socialization, and the need for activities adapted to current abilities and past interests;
- Design of the physical environment to allow for close observation by staff;
• Efforts to increase staff awareness of residents' individual needs - possibly including assignment of staff to specific residents, in an effort to improve function and decrease difficult behaviors that might otherwise require the use of restraints;
• Design of resident living environments that are relaxing and comfortable, minimize noise, offer soothing music and appropriate lighting, and include massage, art or movement activities;
• Use of bed and chair alarms to alert staff when a resident needs assistance;
• Use of door alarms for residents who may wander away.

Summary

The medical issues that face the elderly are evolving throughout their lifetime. The normal process of aging causes a systematic wear and tear on the body that is predictable in general principles. Accomplishing the ADLS and IADLS are key determinants as to when an individual will need a long term care facility. When the challenges of life exceed their abilities to live independently, care is needed. Each individual is unique when one combines the aging process with his or her disease history. The clients in facilities are more ill and have three or more ADLS with which they need assistance. As treatments for diseases improve, people are living longer but they are also accumulating more comorbidities and thus require more focused care. The role of the nursing home will always be an integral part of society in order to meet the needs of the aging population.
Works Cited


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Restraints


