UNIT 6   ELDERLY CARE

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6.0  INTRODUCTION

Owing to the increase in life expectancy and decline in birth rate, worldwide the elderly population is rapidly growing. It is the expected result of the modern science. By 2050 the elderly population is likely to grow to almost 2 billion. Majority are living in developing countries. Elderly population is the fastest growing population in India. It was 6.7% in 1991 and is likely to be 10% in 2021. Between 2001 and 2051, the number of old-old (age 70 years and older) is projected to increase 5-fold, and that of the oldest-old (age 80 years and older) is expected to increase 4-fold. The average remaining length of life is around 18 years (16.7 years for men, 18.9 years for women) at age 60 years and <12 years (10.9 years for men and 12.4 years for women) at age 70 years.

The old-age dependency ratio has increased over the past 2 decades, which increases the burden on the working population. Traditionally, older adults are taken care of by their families. However, because of the changing gender roles, employment of women, erosion of traditional family values, and an increasing trend for nuclear families, a care giving crisis is predicted. The number of older adults living alone is increasing. With decreased family support and informal caregivers, more of the older adults in India care for themselves. There are basically two broad categories of elderly: those between 60 and 75 years (young old) and those over 75 years (old-old). The first category of people is comparatively physically active and mentally alert. They can be economically productive if given the opportunity to work. The second category is physically frail with different type of impairments like vision, hearing, locomotion etc. These people need special care.
Caring for older adults requires a multidisciplinary approach including the doctors, occupational therapists, pharmacists, nurses, and other health professionals. They need to become familiarise with the changes that occur in the aging process. This can enable them to provide better care to the elderly. The community health nurses have an important role to play in all the preventive, promotive, and rehabilitative aspects of health care of the elderly.

### 6.1 OBJECTIVES

At the completion of this unit, you should be able to:

- describe the demographic characteristics of the elderly;
- enumerate the age-related changes in elderly people;
- discuss the physiologic, psychosocial, and cognitive changes influencing the health of older adults;
- recognise the common health disorders among elderly;
- summarise the goals of care for the older adult; and
- discuss the nursing interventions for certain common problems of elderly.

### 6.2 AGE RELATED CHANGES IN VARIOUS BODY SYSTEMS

Ageing is a progressive and universal phenomenon encompassing gradual loss of cells resulting in decline in organ functional abilities. Consequently, even the baseline functions of the body also gets wasted. Age-related changes affect the function of every system of body, even in the healthiest older people. Heart output declines. Calcium migrates from bones and teeth into blood vessels. Cataracts may dim vision. Hearing fades. Lung, liver, and kidney functions slow. Wear and tear on joints makes pain an unwelcome companion. So, the normal age-related changes may be accompanied by chronic health problems such as diabetes or heart disease. Management of many such chronic conditions may include one or more medications prescribed for regular use. Although medications may relieve symptoms, improve the quality of life, and in some cases increase the lifespan, they are not without risk. For example, research has shown that taking four or more prescription drugs is an independent risk factor for a fall injury, which can put an independent older adult into the ranks of the frail elderly.

Ageing is not a disease in itself, but the aged do become vulnerable to diseases. These alterations make the human being vulnerable to various diseases with declining immune responses, poor regenerating capacities thereby increasing exponentially the morbidity and ultimate mortality amongst them. The incidence, prevalence and thereby the total burden of chronic diseases increases with age which translates into an increased risk of disability and decreased ability to recover from ailments once they occur. The major chronic diseases which contribute globally to the death of those > 70 years of age include cardiovascular diseases, cancer, chronic respiratory diseases and diabetes mellitus.

Let us now discuss the changes in various systems of the body as given below:

#### 6.2.1 Cardiovascular System

There is a progressive loss of myocardial muscle cells along with an increase in cell volume and depletion of fat cells and fibrous tissues. Thus heart gets flabbier but
weaker. The heart valves start becoming thickened, loose elasticity and calcification may set in. The common cardiovascular problems include hypertension, Ischemic heart disease, heart failure, peripheral vascular diseases (PVD), heart blocks, atrial fibrillation and other arrhythmias, pulmonary and cerebral thromboembolism, and aortic stenosis.

6.2.2 Respiratory System

In the large airways and bronchi the number of glandular epithelial cells decline leading to reduced production of protective mucous and thereby increased risk of infection. In small airways and air spaces, loss of supportive elastin and collagen leads to dilatation of alveolar ducts and air spaces. Though alveoli increase in size, there is a decrease in their numbers, therefore there is a reduced alveolar surface with less effective gas exchange. Age related muscle changes lead to poor strength of respiratory muscles. The thoracic cage becomes stiff and rigid due to ossification of costal cartilages and kyphosis of spine and further hampers ventilation. Respiratory responses to both hypoxia and hypercarbia are blunted in old age. The central control of breathing is impaired. Decreased cough reflex and ciliary action promotes bacterial colonisation. All these changes are worsened by smoking or air pollution.

The common respiratory problems include pneumonia, tuberculosis, bronchial asthma, chronic obstructive pulmonary disease (COPD), and lung cancer.

6.2.3 Gastrointestinal System

With age, oral mucosal membrane stops functioning. Teeth are lost due to periodontal diseases and resorption of mandible. The muscles of mastication become weak. The number of taste buds decreases. Salivary secretions are reduced. Swallowing mechanism is affected by weakened oropharyngeal muscles and disturbed coordination between oropharyngeal muscles and upper esophageal sphincter. As a result elderly people are susceptible to dysphagia and aspiration. Gastric emptying of liquids is delayed. Gastric acid secretion may increase or decrease depending upon infection with Helicobacter Pylori or use of drugs. Absorption of multiple nutrients in small intestine is reduced leading to malabsorption, but steatorrhoea is unusual as pancreatic functions remains normal. Though the large intestine function remains normal, decreased tone of abdominal muscles may affect peristalsis and evacuation may not be complete. Liver volume, blood flow and perfusion decline with age. As a result, the ability to metabolise and detoxify toxins, hormones and drug is significantly impaired.

The common disorders of GI tract include hiatus hernia, Non steroidal anti inflammatory drugs (NSAIDs) gastropathy, peptic ulcer, cancer of GIT, constipation etc.

6.2.4 Endocrine System

Endocrine functions start declining from the time of puberty. Hypothalamic responsiveness to changes in the internal milieu and the hypothalamic–pituitary regulation of releasing hormones and stimulating hormones decline with age. The size of the thyroid gland increases but mostly because of the deposition of connective tissues. Secretion and metabolism of both thyroid hormones is reduced. Basal circadian and maximum levels of glucocorticoids and circulating levels of mineral ocorticoids are maintained within the normal range.

Aging is associated with glucose intolerance. The factors that lead to the derangement of carbohydrate metabolism are:

- Decreased glucose induced insulin secretions.
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- Impaired uptake of glucose by the skeletal muscles and adipose tissues.
- Influence of increased body fat, physical inactivity, lack of fibers in the diet, impaired renal functions, increased sympathetic nervous system activity and effect of drugs.
- Common endocrine problems include diabetes mellitus, hypothyroidism, and hyperthyroidism.

### 6.2.5 Musculoskeletal System

Loss of muscle strength is the commonest musculoskeletal problem of old age. There are several contributory factors which vary from person to person in their contributions and include:

- Loss of motor cells and their replacements by connective tissue and fat.
- Failure to achieve maximal activation of muscles due to loss of motivation, reflex inhibition and variable extent of arthritis.
- Less body movements.
- Deficiency of various hormones like growth hormones, androgens and estrogen.

Bone is a dynamic tissue with ongoing remodelling throughout the life. With ageing the surfaces of bone cartilages tend to breakdown which reduces the tensile strength, fatigue resistance and strength of joints. Periarticular soft tissues such as inter vertebral discs, ligaments, tendons and capsules of joints change with age resulting in thickening, distortion and fibrous of joint capsules. Tendons and ligaments also lose tensile strength.

Common musculoskeletal problems include osteoarthritis, rheumatoid arthritis, osteoporosis, fractures.

### 6.2.6 Genitourinary and Reproductive System

Menopause takes place between the early 40s and 50s after which the ovaries reduce their production of female sex hormones. Several physical and emotion changes occur which have short term and long term implications. In the early 60s the long-term implications of menopause namely structural changes in sex hormones, urinary tract and skin and an increased risk of IHD, osteoporosis and certain types of cancer would be more evident. Except for these effects of estrogen loss after menopause, there is very little change in a woman’s sexual abilities.

Older men do not experience hormonal changes to the extent that women do, although testosterone decreases after sexual maturity. The main effect of testosterone deficiency is on penile erection, premature ejaculation and loss of libido. Sperm production generally does not end until the mid 70s. Most men over 65 years of age have at least some enlargement of the prostate. The kidney size and the number of nephrons decline with age. The number of nephrons per kidney decreases by 30–50% between ages 25 and 85 years. The micro-architecture of the nephron is distorted, as a result of which the remaining filtering units also function less well. The blood circulation declines as a result of sclerosis of renal vasculature. The Glomerular Filtration Rate (GFR) declines nearly 50% by 90 yrs of age. Inspite of all these changes the kidneys maintain the volume and composition of the extracellular compartment within normal limits in old age. However, in the face of physiological or pathological stress, the compromised renal function becomes apparent. The kidney becomes less responsive to sodium loss. The antidiuretic hormone (ADH), which acts to alter the permeability of certain kidney cells for the conservation of water, is less effective with the loss of
sodium and water. The GFR is usually highest during day time with the largest volume of urine excretion. In older people, this pattern is altered and kidneys continue to be quite active during the night. The bladder capacity decreases from 500 ml – 600 ml to about 250 ml. Not only is the capacity lowered, but there is also more residual urine remaining after voiding.

**Note:** The small capacity of bladder, coupled with higher night time glomerular filtration results in older persons getting up several times during the night to urinate.

Older women usually have less muscle power in the abdominal and perineal muscles which make bladder control more difficult. In men, enlargement of the prostate can block the flow of urine through the urethra causing hesitancy and difficulty initiating the stream and finally leading to retention of urine or retention with overflow.

The net results of the changes in the kidney and urinary tract are:

- Higher risk of infection
- Risk of life threatening hyponatermia
- Necessity of adjustment of drug dose in old age
- Nocturia and urinary incontinence.

UTI and urinary incontinence in both elderly males and females, and benign prostate hypertrophy, and malignancy of prostate in males are quite common.

### 6.2.7 Sense Organs

With age the efficiency of functioning of all five sense organs (vision, hearing, taste, smell, and touch) diminishes. These changes affect the general well-being and daily functioning of the individual.

- **Vision** changes generally begin in middle age. Presbyopia usually occurs at around 40 years of age. The people need glasses or contact lenses to read. Older adults also may experience increased sensitivity to glare, dry eyes, impaired night vision, and reduced colour discrimination. Adequate vision is necessary for the safety of the individuals. Visual problems can lead to a loss of ability to perform ADL and IADLs (e.g., self-care, driving, shopping etc.). The person becomes socially isolated which may leads to depression, and a decreased quality of life. Visual impairment also increases the risk of falls, which in turn may cause fractures requiring hospitalization and rehabilitation.

- **Hearing** changes related to aging also can have a major impact on independence, safety, and quality of life of the people. More than one third of people over 65 and half of those over 85 suffer some hearing loss. Hearing impairment can also limit social interaction and can lead to depression amongst the elderly.

  Because of the atrophy of taste buds, taste sensation decreases. Smell is reduced with age due to few nerve cells in the nasal lining and fewer cells in the olfactory bulb of the brain. Some medications can also alter both taste and smell. These changes related to aging can reduce the pleasure of eating.

- **Tactile sensation** is reduced in the elderly people. There is an increased threshold to touch and pressure. Their ability to sense pressure and pain is reduced and they have greater difficulty in differentiating temperature. Because of these sensory changes their environment may be unsafe. The decreased ability of the elderly to sense pressure could lead to skin breakdown.
6.3 GOALS OF CARE OF ELDERLY PEOPLE

Elderly patients have age specific, complex and multifaceted needs. They are affected in unique ways by the combined effects of the ageing process, the disease process and the environment, which challenge their sense of self and influence their perception of quality of life. The elderly patients need nursing care which should be provided by a nurse who is knowledgeable, skilled, vigilant, sensitive, proactive, respectful and is positively motivated about caring for the older persons. The various goals of care of elderly people are as follows:

6.3.1 Maintaining Self-Care
This goal is one of the primary objectives for keeping an older adult independent, healthy, and able to manage any chronic conditions in their home environment. Once self-care becomes difficult, additional challenges may arise, such as recognising the need for help, finding resources, dependence on a caregiver, and a loss of independence.

6.3.2 Preventing Complications of Ageing or of Existing Chronic Conditions
The goal for managing chronic conditions is to regularly assess a patient’s current status for any changes or complications that might require new interventions or changes in treatment. To address this goal, communication with the healthcare team is important, as well as educating the patient and family to verify understanding and importance of management goals.

6.3.3 Delaying Decline
Older adults should be carefully monitored for any decline. Goals may include addressing strength and physical abilities as well as promoting and reinforcing healthy behaviours and appropriate self-care strategies.
• **Achieving the highest possible quality of life.** Each individual will have personal goals that are important to their quality of life. These may be based on the values and beliefs of each person. Care providers should address each individual’s goals on a personal basis. A discussion about quality of life is important to address with the patient each time there is a change in health status.

### 6.4 DOMAINS OF CARE OF ELDERLY

The various aspects of care of elderly are discussed under two main headings, i.e.

- Promoting healthy aging amongst the elderly.
- General care of the elderly.

#### 6.4.1 Promoting Healthy Aging amongst the Elderly

It is very important for the elderly to adapt certain healthy habits in order to decrease the prevalence of various age related problems. Though it is very difficult to change the habits in the old age, however, there is no harm in making an attempt.

**Maintain daily routine:** Maintaining daily routine of activities is a basic step in remaining healthy. They should be asked to fix a time for each activity during the day e.g. eating, napping during day, going for sleep at night and getting up in the morning, exercises, walk, entertainment, religious activities etc. In old age it becomes very difficult for the body to adjust if the routine is disturbed. Sleep requirement decreases with age. Older adults tend to sleep more lightly and for shorter time spans, but they generally need about the same amount of sleep as they needed as a young adult (7 to 8 hours a night). Many experience insomnia. Excessive napping during day time should be avoided in order to have a good sleep at night. Reduce distractions and noise as much as possible. Provide a night light, as older people usually have difficulty accommodating to changes between dark and light.

**Physical activity:** The elderly should be promoted for the physical activities as per their capabilities. Thirty minutes walk in the morning as well as in the evening is the best physical exercise. They should be accompanied by someone while going out. Straining and exhaustion due to physical activity should be avoided. Certain light yogic exercises should also be promoted.

**Personal hygiene:** Elderly people should be encouraged to carry out their own personal hygiene routines as much as possible. This promotes independence and a sense of purpose in life. Even managing the smallest task is better than nothing at all.

The safety issues in the bathroom should not be overlooked. Make sure there are no throw rugs that could create a risk of fall. The grab bars should be installed (Fig. 6.1). A bath chair may be used to sit in the bathroom (Fig. 6.2). The floor should not be slippery. The water temperature should be comfortable. The towel and clothes to wear should be ready. Adaptive equipment such as holding showers can make bathing safer, because sometimes it may be difficult for the elderly to hold a mug full of water.

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**Fig. 6.1:** Grab bars in side bathroom  
**Fig. 6.2:** Bath chair
The dental hygiene should also not be overlooked. Other than brushing the teeth in the morning and night after having meal, they should be encouraged to rinse their mouth properly after eating anything. Dentures should be cleaned using warm water and a non-abrasive cleanser.

**Social activity:** Loneliness leading to depression is quite common in old age. Encourage the elderly to remain socially active by involving themselves in certain activities/joining certain NGOs, spending time with friends etc. This will help utilising their lifelong experiences and maintain their physical and mental health.

**Regular health checkups:** The elderly should be encouraged for regular health checkups. They should undergo all the investigations at least once in a year. Any health problem can be managed properly if it is detected at its early stage.

**Avoiding polymedication:** Poly medication again is quite common in old age. They should be instructed to avoid self medication. There should be judicious use of medicines. Only the required medicines in appropriate doses after consulting the experts should be taken.

### 6.4.2 General Care of the Elderly

Let us discuss the assessment of functional status of the elderly and interventions for certain common problems of elderly as given below:

Assessment of functional status and activities of daily living will help in identifying the deficits amongst elderly. It will facilitate in planning various interventions for them. Many elderly people have difficulties caring for themselves, managing their living environment, and moving about. This impacts their functional performance. The two commonly used tools to assess their functional performance are Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) scales. (Table 6.1)

<table>
<thead>
<tr>
<th>Activities of Daily Living (ADLs)</th>
<th>Instrumental Activities of Daily Living (IADLs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathing</td>
<td>Driving or managing other transportation</td>
</tr>
<tr>
<td>Dressing</td>
<td>Shopping</td>
</tr>
<tr>
<td>Eating</td>
<td>Cooking</td>
</tr>
<tr>
<td>Transferring from bed to chair</td>
<td>Using the telephone</td>
</tr>
<tr>
<td>Continence</td>
<td>Managing finances</td>
</tr>
<tr>
<td>Toileting</td>
<td>Taking medications</td>
</tr>
<tr>
<td></td>
<td>House cleaning</td>
</tr>
<tr>
<td></td>
<td>Laundry</td>
</tr>
</tbody>
</table>

i) **Bowel problems:** Constipation is one of the most frequent problems of the older people. It becomes a source of frustration if they do not pass stool in the morning. More than 25% elderly experience constipation due to decreased abdominal muscle tone, inactivity, immobility, inadequate fluid and dietary, some disease conditions, side effects of medications, dependence on laxatives or enemas, and various environmental conditions.

Certain general measures to avoid constipation are:

- Encourage them to take high fibre diet.
- Promote regular exercise.
• Prolonged use of laxative should be avoided.
• Increase the fluid intake, giving considerations to cardiac status.
• Use suppositories (glycerine or Dulcolax).
• Add stool softeners if required.
• Assist the individual in sitting on a commode or toilet. Commode with the side arms may be helpful (Fig. 6.3). Provide privacy but do not leave the elderly unattended.
• After defecation, inspect the condition of the skin around the anus and determine the consistency, quantity and form of stool.
• Apply anal lubricant.

ii) **Urinary problems**: The patient may have one or multiple urinary problems leading to disturbed urinary pattern, i.e., either incontinence (involuntary urine loss) or retention of urine. Urinary incontinence (UI) is one of the most common and an important problem both in male and female elderly. It is the most under diagnosed and underreported problem because of stigma attached to it. The various types of UI are stress, urge, mixed, and functional.

a) **Stress urinary incontinence**: It is the leakage of urine associated with increased abdominal pressure from laughing, sneezing, coughing, climbing stairs, standing or lifting heavy objects. The patient should be taught Kegal’s (pelvic-floor exercises) and to use the incontinent aids such as absorbent pads or briefs to prevent soiling of clothes.

b) **Urinary incontinence**: It is the involuntary leakage accompanied by or immediately preceded by urgency. It is generally caused by uninhibited bladder contractions (over activity) that lead to leakage of urine. In men, this condition often is accompanied by urethral obstruction from benign prostatic hyperplasia (BPH).

c) **Mixed urinary incontinence**: It is a combination of stress and urge incontinence. It is marked by involuntary leakage associated with urgency and also with exertion, effort, sneezing, or coughing.

d) **Functional urinary incontinence**: It is the inability to hold urine due to reasons other than neuro-urologic and lower urinary tract dysfunction (e.g., delirium, psychiatric disorders, urinary infection, impaired mobility). It occurs when the patient has either physical or psychological factors that impair the ability to go to the toilet (e.g., a patient who is wheelchair-bound or has dementia).

• Establish toilet schedule: Every 2 hours, before and after activity, before and after meals, before and after sleep or rest periods.
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- Provide easy access to toilet.
- Provide patient with the clothes which are easy to wear.
- Ensure adequate fluid intake.
- Encourage patient to avoid bladder irritants such as caffeinated beverages, alcohol, and artificial sweeteners.
- Inspect genito-perineal area daily.
- Educate the patient and the caregivers regarding UI that it is not inevitable or shameful. Patient education should be individualised, involving caregivers and others. Education promotes early and more effective management. It may reduce physical, psychological and social limitations, thus improving quality of life.

iii) Provide adequate safety to the elderly

Elders are at risk for falls. Falls present a serious threat to these patients. Age related changes, various health problems, weak or immobile state, sensory deficits, delirium, dementia, confusion, improperly fitted or used mobility aids, unsafe use of medications, unsafe environment, altered mood or cognitive function can reduce the capacity of the elderly to protect them from injury. All these factors increase their vulnerability to safety hazards.

Prevention is important because older adults require more time to recover from injuries and suffer more complications. The following interventions may help:

- Assess risk of injury to patient (falls risk, activities of daily living and impaired activities of daily living function, mental status, gait, medication use, nutritional status, environment, knowledge of injury prevention practices.)
- Orient patients to new environments.
- Encourage patients to wear prescribed eyeglasses, hearing aids, and prosthetic devices.
- Ensure patients’ use of canes, walkers, and wheelchairs properly and only when prescribed.
- Advice patients to change positions slowly, holding on to a stable object as they do.
- Keep floors free from litter and clutter.
- Provide adequate lighting with accessible light switches. Use a night light.
- Store cleaning solutions and other poisonous substance in a safe area.
- Encourage patients’ use of hand rails and grab bars.
- There should be proper flooring inside the home and the immediate outside environment.
- Assist patients as needed with transfers.
- Clear pathways of furniture and other objects.
- Evaluate appropriateness of footwear to ensure that it is comfortable, non-skid and sturdy.
iv) **Administration and cautious use of medications:**

Administration of medication through various routes viz oral, IM and IV carries a greatest risk especially for the elderly patients. Almost all aspects of pharmacokinetics are altered in geriatric patients. There is decreased gastric acid content leading to slowed absorption. The gastric emptying and motility is also decreased. Blood flow to the GI tract slows, increasing the time it takes to absorb nutrients and drugs from the intestines. Decreased cardiac output and liver perfusion greatly decrease drug metabolism, leading to a prolongation of drug action duration. Drugs can also accumulate and reach toxic levels more quickly than in a younger person, further emphasizing the importance of increasing dose intervals. The kidneys, which are responsible for most drug excretion, experience decreased function as people age.

Various medicines improve the health and well-being of the older people by alleviating the symptoms of discomfort, treating chronic illness and curing infectious processes. Usually the elderly are prescribed more than one drug at a given time. So, there could be problems because of medication interactions and more chances of non-compliance. Poly pharmacy should be avoided as far as possible. Periodical assessment and review of drugs is required. Table 6.2 depicts the use and misuse of drugs among the older individuals.

**Table 6.2: Prevention of Drug use and misuse among Older Individuals**

<table>
<thead>
<tr>
<th>Assessment Area</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is drug therapy necessary?</td>
<td>Sleep-inducing medications may be replaced by non-pharmacological means. Avoid treatment of symptoms without a diagnosis because an additional symptom is sometimes a medication side-effect.</td>
</tr>
<tr>
<td>Is the dosage appropriate?</td>
<td>Older individuals require low dosages than younger ones. Start with low dosage and go slow increasing the dose gradually. Monitor the person for the desired therapeutic response or toxicity.</td>
</tr>
<tr>
<td>What effect will the drug have?</td>
<td>The desired therapeutic response should be identified before the treatment.</td>
</tr>
<tr>
<td>What undesirable effects may occur?</td>
<td>Identify all possible side-effects and monitor for occurrence after any change in the medication regimen.</td>
</tr>
<tr>
<td>Is the drug form optimal?</td>
<td>In case of dysphagia, liquid preparations may be tried. Slow-release medications may lead to gastric upset. Consider all forms (e.g. liquid, oral, intra muscular, intravenously, suppository etc.)</td>
</tr>
<tr>
<td>Is the drug packaging and labelling appropriate?</td>
<td>Make certain that the lids of bottles are removable without causing additional joint stress or making it impossible to comply with the regimen. Labels should be printed large enough and should be color coded to promote visual recognition of the medication bottle.</td>
</tr>
</tbody>
</table>
## Assessment Area | Precautions
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Is it possible to guarantee that the medication will be taken appropriately? | The chances of compliance with the medication regimen are increased, if: Three or fewer medications are prescribed. Instructions are in writing. Labels are legible. Old drugs are discarded. The schedule is simple.

When should medications be discontinued? | Many drugs are not needed for lifetime, although medications such as digoxin are commonly prescribed without a time limit. Periodic evaluation of all the drugs should be conducted. Drugs such as steroids, anti-parkinsonian agents and anti-convulsants must be withdrawn carefully and under observation.

### Prevention of bedsore
Bedsores develop when soft tissues (skin and underlying tissues) are compressed between bony prominences and contact surfaces (bed/chair). Elders are at increased risk for skin breakdown. The various reasons may be:

- Decreased sensory perception and therefore lack of awareness of early indications of skin damage.
- Collection of moisture due to faecal or urinary incontinence or other causes.
- Dryness of the skin creating fragile skin surfaces.
- Limitation of activity including the ability to reposition oneself.
- Lack of mobility.
- Inadequate nutrition.
- Friction and shear during movement and positioning.

The following measures should be taken to prevent the development of bedsore:

- Turn and reposition the patient at 1–2 hour intervals. (The time interval can be increased according to patients’ comfort).
- Encourage the patient to move in bed as far as possible and as far it is allowed.
- A written turning and positioning schedule should be followed so that change of caregivers doesn’t affect the schedule.
- Inspect the skin thoroughly at each position change for evidence of early skin breakdown.
- Avoid the use of extremely hot water for bathing.
- Use a mild soap and clean the skin gently. Apply as little force as possible.
- Don’t massage the reddened bony areas. It will further damage the underlying tissues.
- Apply emollients as needed to prevent dryness.
- Make use of alternating air mattresses.

### Meeting the nutritional needs of the elderly
Generally the nutrition for the elderly of around 70 years does not vary much. It remains the same as that of other middle aged individuals. However, the nutritional needs of the
elderly above 75 years of age are very different. Because of lower basal metabolic rate and less physical activity, the total calorie intake is reduced. The loss of natural teeth and the ill-fitting teeth may lead to insufficient nutrition. S/he may not be able to eat all the foods because of impaired digestion and absorption capacity. Their food preferences are also changed. Many prefer more of sweet foods. For many ‘old-old’ individuals the dietary habits become just like the children.

Following certain interventions may help in meeting the nutritional needs of the elderly individuals.

- Offer small and frequent meals. Three small meals are better than one large meal.
- The meals should be eaten at fixed and scheduled time.
- In case of impaired intake of food, try to identify the cause. If it is the side effect of some medicines, try to have some alternate drug.
- Nutritional quality of all food items should be evaluated. First part of the meal should contain the highest nutritional values. The number of calories should be considered. These should not be too much or too less. The diet should be balanced in terms of all food nutrients i.e. protein, fat, carbohydrates, vitamins, minerals and fibres.
- Change the food consistency as per the choice and need of the elderly. For example, in case of missing teeth or badly fitting dentures, properly cooked and mashed vegetables or dal etc. can be given.
- Special needs of the person should be considered e.g. restricting a particular type of food as per the disease condition.
- Do not force-feed them. Do not get angry if sometimes they do not feel like eating anything.
- Fried, very spicy food, red meat, animal fat etc. should be avoided.
- Familiar and favourite foods should be prepared for them.
- Encourage adequate amount of fluids.
- For those who can sit, should be encouraged eating meals at the dining table with other family members.
- Serve meals in a leisurely measure in a relaxed environment. No hurry should be there.
- Offer nutritional supplements. Support and encourage the individual during meal time.
- Meals should be attractively prepared. If possible, it should be served in a place other than the sick room.
- Light exercise or walking before meals (if possible) should be encouraged.
- Procedures, treatments and other stressors if any should be avoided during meal time.
- Reline dentures to improve chewing and facial appearance.
- Encourage adequate dental oral hygiene.
Check Your Progress 2

1) List general measures to avoid constipation among elderly.

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2) Explain the nutritional needs of the elderly individuals.

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vii) Communicating with elderly

Clear communication between nurses and the elderly is very important. It has been recognised as one of the most important aspects of nursing elderly people. Communication can be either verbal or non-verbal. Sound communication with patients, families, and other staff members is very essential in today’s fast-paced and information driven society. It is an important aspect of the quality of care. Ineffective communication in nursing can lead to patients’ incompliance, disturbance in socialisation and some patients’ needs may be left unmet thereby creating and increasing stress on caregivers’. Please refer Theory Course 1, Block 5, Unit 1 on BCC for details on communication process.

The following are certain interventions that should be taken into considerations while caring for the elderly patient.

- Carefully assess and validate the need for modified communication techniques.
- Seek and use resource persons as needed to communicate effectively with the patient who has dementia.
- Communicate respectfully and in a manner that preserves dignity.
- Ask the patient how he or she prefers to be addressed.
- Avoid terms such as honey, sweetie, and dear.
- Speak slowly and at an adequate volume as needed to ensure effective communication.
- Face the patient, speak slowly and distinctly.
- Always initiate conversation by using the name of patient
- Use closed-ended questions requiring only a yes or no response.
- Communicate one thought at a time.
- Make sure that the environment is quiet with no noise that may distract the patient.
- Use suitable facial expressions such as smiling while talking about cheerful occasions.
- Provide adequate time for decision-making and problem-solving.
- Avoid forcing the patient to reply.
- Assess barriers (drug interactions, dementia, delirium, disease states, depression) that impact patients’ understanding of information, following directions and making needs known.
• Demonstrate familiarity with adaptive devices (hearing aid, listenator) and assure the use of needed and applicable communication aids, including glasses or magnifiers.

• Direct instructions/information to family/care partner as well as patient.

• Communicate respectfully and preserve patient dignity when performing physical care as well as when communicating.

viii) **Patient and Family Teaching**

Elders are often discharged from health care facilities with complex care and treatment plans. Assure that the patient and appropriate others such as family members and other caregivers are fully informed about care needs and procedures. They should be aware of the disease the elderly patient is suffering from. Place particular emphasis upon the knowledge and skill needed to manage the medication regime. Misuse of drugs is the fifth leading cause of death among elderly persons.

### 6.5 LET US SUM UP

With the advancements in scientific technology, the elderly population is on rise. Consequently there is rise in the number of patients approaching various health care facilities. Their problems, needs and care are different than the people with other age group. In this unit we have read in details about various changes in body due to aging and preventive measures to be used for taking care in different situation. The nurses need to understand the aging process to provide quality care to the elderly. They play a significant role in helping aged persons experience health, fulfillment and sense of well-being.

### 6.6 MODEL ANSWERS

**Check Your Progress 1**

1) Common cardiovascular problems of elderly are hypertension, Ischemic heart disease, heart failure, peripheral vascular diseases (PVD), heart blocks, atrial fibrillation and other arrhythmias, pulmonary and cerebral thromboembolism, and aortic stenosis.

2) Common respiratory problems of elderly include pneumonia, tuberculosis, bronchial asthma, chronic obstructive pulmonary disease (COPD), and lung cancer.

3) Common disorders of GI tract among elderly include hiatus hernia, Non-steroidal anti inflammatory drugs (NSAIDs) gastropathy, peptic ulcer, cancer of GIT, constipation etc.

4) Common musculoskeletal problems of elderly include osteoarthritis, rheumatoid arthritis, osteoporosis, fractures.

5) The changes in the kidney and urinary tract of male and female elderly.
   - Higher risk of infection
   - Risk of life threatening hyponatermia
   - Necessity of adjustment of drug dose in old age
   - Nocturia and urinary incontinence.

UTI and urinary incontinence in both elderly males and females, and benign prostate hypertrophy, and malignancy of prostate in males are quite common.
Check Your Progress 2

1) General measures to avoid constipation among elderly are:
   - Encourage them to take high fibre diet.
   - Promote regular exercise.
   - Prolonged use of laxative should be avoided.
   - Increase the fluid intake, giving considerations to cardiac status.
   - Use suppositories (glycerine or Dulcolax).
   - Add stool softeners if required.
   - Assist the individual in sitting on a commode or toilet. Commode with the side arms may be helpful. Provide privacy but do not leave the elderly unattended.
   - After defecation, inspect the condition of the skin around the anus and determine the consistency, quantity and form of stool.
   - Apply anal lubricant.

2) Measures to help in meeting the nutritional needs of the elderly individuals are as follows:
   - Small and frequent meals. Three small meals are better than one large meal.
   - Nutritional quality of all food items should be evaluated. First part of the meal should contain the highest nutritional values. The number of calories should not be too much or too less. The diet should be balanced in terms of all food nutrients i.e. protein, fat, carbohydrates, vitamins, minerals and fibres.
   - Change the food consistency as per the choice and need of the elderly. For example, in case of missing teeth or badly fitting dentures, properly cooked and mashed vegetables or dal etc. can be given.
   - Special needs of the person should be considered e.g. restricting a particular type of food as per the disease condition.
   - Do not force-feed them. Do not get angry if sometimes they do not feel like eating anything.
   - Fried, very spicy food, red meat, animal fat etc. should be avoided.
   - Encourage adequate amount of fluids.
   - Light exercise or walking before meals (if possible) should be encouraged.
   - Encourage adequate dental oral hygiene.

6.7 REFERENCES


